

2011 Pacific Northwest Loads and Resources Study

Technical Appendix, Volume 1: Energy Analysis

May 2011



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2011 PACIFIC NORTHWEST LOADS AND RESOURCES STUDY

The White Book

TECHNICAL APPENDIX

VOLUME 1

ENERGY ANALYSIS

**BONNEVILLE POWER ADMINISTRATION
May 2011**

Cover Picture:

Source: BPA Photo archive

Pictured is of The Dalles Dam. The Dalles Dam is a hydroelectric dam on the Columbia River, at river mile 191.5. It is located in The Dalles, Oregon and bridges the Columbia River between Oregon and Washington. It is owned and operated by the U.S. Corps of Engineers.

The Dalles Dam was authorized in 1950, dam construction was completed in 1957, with the completion of generating units 1 through 14 in 1960 and units 15 through 22 completed in 1973. The nameplate generating capability is 2052 megawatts.

ACKNOWLEDGMENTS

Preparation of the annual Pacific Northwest loads and resources study is a complex, multidisciplinary effort. BPA wishes to acknowledge the team—BPA staff and others—whose diligence and dedication result in a reliable, high quality document.

Bonneville Power Administration

Generation Asset Management:

Resources and Loads Analysis Group
Regional Coordination Group
Operational Planning Group

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Western Customer Services Group
Eastern Customer Services Group

Bulk Marketing and Transmission Services:

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Loads and Resources Information System

**2011 Pacific Northwest Loads and Resources
For Operating Years 2012 Through 2021
Technical Appendix, Volume 1
Energy Analysis**

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Section 1
Annual Federal Table
Loads & Resources
Average Energy in Megawatts

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Loads & Resources Federal Table
Annual OY 2012 – 2021
Average Energy in Megawatts

Power Services

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Loads and Resources Information System

**Loads and Resources - Federal System
PNW Loads and Resource Study
2012 - 2021 Operating Years
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	2012 Avg.	2013 Avg.	2014 Avg.	2015 Avg.	2016 Avg.	2017 Avg.	2018 Avg.	2019 Avg.	2020 Avg.	2021 Avg.
<u>Non-Utility Obligations</u>										
1 Fed. Agencies 2002 PSC	17	0	0	0	0	0	0	0	0	0
2 USBR Obligation	173	174	174	174	173	174	174	174	173	174
3 DSI Obligation	340	340	340	340	340	340	57	0	0	0
4 Fed. Agencies 2012 PSC	100	119	125	136	143	161	174	176	177	178
5 Total Firm Non-Utility Obligations	630	633	639	650	657	675	404	350	350	352
<u>Transfers Out</u>										
6 NGP 2002 PSC	490	0	0	0	0	0	0	0	0	0
7 GPU 2002 PSC	341	0	0	0	0	0	0	0	0	0
8 NGP 2002 Slice PSC	91	0	0	0	0	0	0	0	0	0
9 GPU 2002 Slice PSC	151	0	0	0	0	0	0	0	0	0
10 IOU 2002 PSC	0	0	0	0	0	0	0	0	0	0
11 NGP 2012 PSC	2769	3356	3428	3462	3485	3522	3552	3598	3611	3642
12 GPU 2012 PSC	1304	1571	1565	1597	1586	1622	1623	1663	1645	1673
13 NGP 2012 Slice PSC	321	373	379	373	378	369	379	372	382	374
14 GPU 2012 Slice PSC	1309	1520	1547	1522	1542	1507	1547	1516	1557	1526
15 IOU 2012 PSC	0	0	0	0	0	0	0	0	0	0
16 Exports	842	692	608	572	593	579	543	493	475	470
17 Regional Transfers (Out)	520	291	285	285	286	259	211	211	170	170
18 Federal Diversity	0	0	0	0	0	0	0	0	0	0
19 Total Transfers Out	8137	7803	7812	7812	7871	7857	7855	7852	7840	7855
20 Total Firm Obligations	8767	8436	8452	8462	8527	8532	8260	8202	8190	8207
<u>Hydro Resources</u>										
21 Regulated Hydro	6518	6554	6540	6546	6545	6546	6545	6546	6545	6546
22 Independent Hydro	367	368	368	368	367	368	368	368	367	368
23 Hydro Maintenance	0	0	0	0	0	0	0	0	0	0
24 Total Hydro Resources	6885	6922	6908	6914	6912	6914	6913	6914	6912	6914
<u>Other Resources</u>										
25 Small Thermal & Misc.	0	0	0	0	0	0	0	0	0	0
26 Combustion Turbines	0	0	0	0	0	0	0	0	0	0
27 Renewables	67	67	67	67	67	67	67	67	67	67
28 Cogeneration	19	19	19	19	13	0	0	0	0	0
29 Imports	241	241	241	241	237	221	192	161	161	161
30 Regional Transfers (In)	340	282	226	141	141	114	67	52	0	0
31 Non-Fed CER (Canada)	141	138	137	136	135	134	133	131	130	128
32 Transmission Loss Returns	31	36	37	36	37	36	37	36	37	36
33 Large Thermal	1030	878	1030	878	1030	878	1030	878	1030	878
34 Non-Utility Generation	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
35 Augmentation Purchases	0	0	0	0	0	0	0	0	0	0
36 Augmentation Resources	0	0	0	0	0	0	0	0	0	0
37 Total Other Resources	1872	1664	1760	1521	1663	1453	1529	1328	1428	1273
38 Total Resources	8757	8586	8667	8435	8576	8367	8442	8242	8340	8187
<u>Reserves & Losses</u>										
39 Contingency Reserves (Non-Spinning)	0	0	0	0	0	0	0	0	0	0
40 Contingency Reserves (Spinning)	0	0	0	0	0	0	0	0	0	0
41 Generation Imbalance Reserves	0	0	0	0	0	0	0	0	0	0
42 Load Following Reserves	0	0	0	0	0	0	0	0	0	0
43 Federal Transmission Losses	-247	-242	-244	-238	-242	-236	-238	-232	-235	-231
44 Total Reserves & Losses	-247	-242	-244	-238	-242	-236	-238	-232	-235	-231

Continued

Loads and Resources - Federal System
PNW Loads and Resource Study
2012 - 2021 Operating Years
1937 Water Year
[76] 2011 White Book (Final)

5/27/2011

Energy (aMW)	2012 Avg.	2013 Avg.	2014 Avg.	2015 Avg.	2016 Avg.	2017 Avg.	2018 Avg.	2019 Avg.	2020 Avg.	2021 Avg.
<i>45 Total Net Resources</i>	8510	8344	8423	8197	8334	8131	8204	8010	8105	7956
<i>46 Total Firm Surplus/Deficit</i>	-257	-92	-29	-266	-194	-401	-56	-192	-85	-250

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Section 2
Annual Regional Table
Loads & Resources
Average Energy in Megawatts

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Loads & Resources Regional Table
Annual OY 2012 – 2021
Average Energy in Megawatts

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Loads and Resources Information System

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Loads and Resources - Pacific Northwest Region
PNW Loads and Resource Study
2012 - 2021 Operating Years
1937 Water Year
[76] 2011 White Book (Final)

5/27/2011

Energy (aMW)	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
	Avg.	Avg.	Avg.	Avg.	Avg.	Avg.	Avg.	Avg.	Avg.	Avg.
<u>Firm Regional Loads</u>										
1 Regional Firm Loads	20853	21304	21814	22277	22643	22968	23273	23579	23864	24166
2 Exports	1636	1478	1391	1286	1246	1226	1174	1138	1130	1060
3 Federal Diversity	0	0	0	0	0	0	0	0	0	0
4 Total Firm Regional Loads	22489	22781	23205	23564	23889	24194	24446	24717	24994	25227
<u>Non-Firm Regional Loads</u>										
5 Regional Non-Firm Loads	11	11	11	11	11	11	11	11	11	11
6 Total Non-Firm Regional Loads	11	11	11	11	11	11	11	11	11	11
7 Total Loads	22500	22792	23215	23574	23900	24205	24457	24727	25005	25238
<u>Hydro Resources</u>										
8 Regulated Hydro	10815	10929	10916	10922	10920	10922	10921	10922	10920	10922
9 Independent Hydro	1031	1032	1043	1063	1063	1063	1063	1063	1063	1063
10 Regional Hydro Maintenance	-12	-12	-12	-12	-12	-12	-12	-12	-12	-12
11 Total Hydro Resources	11834	11949	11946	11973	11971	11973	11972	11973	11971	11973
<u>Other Resources</u>										
12 Small Thermal & Misc.	0	0	0	0	0	0	0	0	0	0
13 Combustion Turbines	3237	3472	3465	3471	3470	3470	3470	3467	3462	3469
14 Renewables	1617	1621	1653	1654	1653	1656	1656	1656	1654	1656
15 Cogeneration	2603	2612	2619	2627	2618	2620	2626	2628	2636	2623
16 Imports	1110	1057	975	980	958	948	924	899	905	910
17 Large Thermal	6231	6000	6135	6034	6138	5966	6225	6018	6131	5407
18 Non-Utility Generation	596	601	602	603	603	603	603	602	602	603
19 Resource Acquisition	0	0	0	0	0	0	0	0	0	0
20 Total Other Resources	15394	15364	15450	15370	15439	15263	15505	15270	15389	14668
21 Total Resources	27228	27313	27396	27343	27410	27236	27478	27243	27360	26641
<u>Reserves & Losses</u>										
22 Contingency Reserves (Non-Spinning)	0	0	0	0	0	0	0	0	0	0
23 Contingency Reserves (Spinning)	0	0	0	0	0	0	0	0	0	0
24 Generation Imbalance Reserves	0	0	0	0	0	0	0	0	0	0
25 Load Following Reserves	0	0	0	0	0	0	0	0	0	0
26 Regional Transmission Losses	-768	-770	-773	-771	-773	-768	-775	-768	-772	-751
27 Total Reserves & Losses	-768	-770	-773	-771	-773	-768	-775	-768	-772	-751
28 Total Net Resources	26460	26542	26623	26571	26637	26468	26703	26475	26589	25890
<u>Surplus/Deficits</u>										
29 Firm Surplus/Deficit	3972	3761	3419	3008	2748	2274	2257	1758	1594	663
30 Total Surplus/Deficit	3961	3751	3408	2997	2737	2263	2246	1747	1583	652

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Section 3
Annual OY 2012 – 2021
Average Energy in Megawatts ¹

	<u>Table Number</u>
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¹ Tables A-11 through A-14 are obsolete and no longer available.

² Capacity Reserves are not applicable to energy.

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Table A-1
Total Retail Loads
Annual OY 2012 – 2021
Average Energy in Megawatts

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**Table A-1: Pacific Northwest Total Retail Loads
PNW Loads and Resource Study
2012 - 2021 Operating Years
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	2012 Avg.	2013 Avg.	2014 Avg.	2015 Avg.	2016 Avg.	2017 Avg.	2018 Avg.	2019 Avg.	2020 Avg.	2021 Avg.
Firm Loads										
-Federal Entities-										
1 Federal Entities	126	129	135	146	153	171	184	186	187	188
2 Total Federal Entities	126	129	135	146	153	171	184	186	187	188
-U.S. Bureau of Reclamation-										
3 U.S. Bureau of Reclamation	173	174	174	174	173	174	174	174	173	174
4 Total U.S. Bureau of Reclamation	173	174	174	174	173	174	174	174	173	174
-Direct Service Industry-										
5 Direct Service Industry	440	437	437	473	517	524	524	524	524	524
6 Total Direct Service Industry	440	437	437	473	517	524	524	524	524	524
-Generating Public Entities-										
7 Generating Public Entities	5096	5127	5165	5212	5253	5305	5356	5412	5466	5530
8 Total Generating Public Entities	5096	5127	5165	5212	5253	5305	5356	5412	5466	5530
-Non-Generating Public Entities-										
9 Non-Generating Public Entities	3796	3872	3925	3974	4011	4062	4120	4187	4233	4286
10 Total Non-Generating Public Entities	3796	3872	3925	3974	4011	4062	4120	4187	4233	4286
-Investor-Owned Entities-										
11 Investor-Owned Entities	10839	11180	11592	11911	12146	12340	12523	12703	12886	13069
12 Total Investor-Owned Entities	10839	11180	11592	11911	12146	12340	12523	12703	12886	13069
-Other Firm Loads-										
13 Other PNW Entities	383	384	386	388	390	391	392	393	394	396
14 Total Other Firm Loads	383	384	386	388	390	391	392	393	394	396
-Total Regional Firm Loads-										
15 Federal Entities	299	302	309	320	326	345	358	360	360	362
16 Direct Service Industry	440	437	437	473	517	524	524	524	524	524
17 Public Entities	8892	9000	9091	9186	9264	9368	9476	9599	9699	9816
18 Investor-Owned Entities	10839	11180	11592	11911	12146	12340	12523	12703	12886	13069
19 Other Entities	383	384	386	388	390	391	392	393	394	396
20 Total Regional Firm Loads	20853	21304	21814	22277	22643	22968	23273	23579	23864	24166
Non-Firm Loads										
-Investor-Owned Entities-										
21 Investor-Owned Entities	11	11	11	11	11	11	11	11	11	11
22 Total Investor-Owned Entities	11	11	11	11	11	11	11	11	11	11
-Total Regional Non-Firm Loads-										
23 Federal Entities	0	0	0	0	0	0	0	0	0	0
24 Direct Service Industry	0	0	0	0	0	0	0	0	0	0
25 Public Entities	0	0	0	0	0	0	0	0	0	0
26 Investor-Owned Entities	11	11	11	11	11	11	11	11	11	11
27 Total Regional Non-Firm Loads	11	11	11	11	11	11	11	11	11	11
-Total Regional Loads-										
28 Federal Entities	299	302	309	320	326	345	358	360	360	362
29 Direct Service Industry	440	437	437	473	517	524	524	524	524	524
30 Public Entities	8892	9000	9091	9186	9264	9368	9476	9599	9699	9816
31 Investor-Owned Entities	10850	11191	11602	11921	12156	12351	12534	12713	12897	13080
32 Other Entities	383	384	386	388	390	391	392	393	394	396
33 Total Regional Loads	20864	21314	21825	22288	22654	22978	23283	23589	23875	24177

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Table A-2
Exports
Annual OY 2012 – 2021
Average Energy in Megawatts

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Loads and Resources Information System

**Table A-2: Regional Exports
PNW Loads and Resource Study
2012 - 2021 Operating Years
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	2012 Avg.	2013 Avg.	2014 Avg.	2015 Avg.	2016 Avg.	2017 Avg.	2018 Avg.	2019 Avg.	2020 Avg.	2021 Avg.
-Exports East of Continental Divide-										
1 AVWP To PPLM PwrS	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
2 BPA To Other Entities	136	58	5.2	5.2	4.7	0	0	0	0	0
3 Total Exports To ECD	143	64	12	12	11	6.8	6.8	6.8	6.8	6.8
-Exports to Pacific Southwest-										
4 AVWP To SMUD PwrS	75	75	75	31	0	0	0	0	0	0
5 BPA To Other Entities	106	57	26	26	26	26	26	12	0	0
6 BPA To PASA C/N/X	1.1	1.1	1.1	0.7	0	0	0	0	0	0
7 BPA To PASA S/N/X	0.4	0.4	0.4	0	0	0	0	0	0	0
8 BPA To RVSD C/N/X	4.9	4.9	4.9	4.9	4.0	0	0	0	0	0
9 BPA To RVSD S/Pwr/X	4.3	4.3	4.3	4.3	0	0	0	0	0	0
10 BURB To BURB PwrS	2.7	2.7	2.7	2.7	2.7	2.7	2.6	2.7	2.7	2.7
11 GLEN To GLEN PwrS	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
12 GLEN To GLEN PwrS	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
13 GLEN To GLEN PwrS	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
14 GLEN To GLEN PwrS	1.5	1.6	1.6	1.6	1.5	1.6	1.6	1.6	1.5	1.6
15 LDWP To LDWP PwrS	17	17	17	17	17	17	17	17	17	17
16 LDWP To LDWP PwrS	21	21	21	21	21	21	21	21	21	21
17 LDWP To LDWP PwrS	52	52	52	52	52	52	52	52	52	52
18 LDWP To LDWP PwrS	15	15	15	15	15	15	15	15	15	15
19 LDWP To LDWP PwrS	14	14	14	14	14	14	14	14	14	14
20 MACQ To BURB PwrS	4.2	4.3	4.3	4.3	4.2	4.3	4.3	4.3	4.2	4.3
21 MID To MID PwrS	26	26	26	26	26	26	26	26	26	26
22 Other Entities To Other Entities	36	36	36	36	36	36	36	36	36	36
23 Other Entities To Other Entities	76	76	76	76	76	76	76	76	76	76
24 PG&E To PG&E PwrS	27	27	27	27	27	27	27	30	31	31
25 PG&E To PG&E PwrS	26	26	26	26	26	26	26	26	26	26
26 PG&E To PG&E PwrS	24	24	24	24	24	24	24	24	24	24
27 PG&E To PG&E PwrS	0	0	0	0	0	0	0	12	21	21
28 PGE To GLEN PwrS	10	3	0	0	0	0	0	0	0	0
29 PGE To GLEN S/Pwr/X	1.8	0	0	0	0	0	0	0	0	0
30 PPL To REDD PwrS	11	11	11	11	6.0	0	0	0	0	0
31 PPL To SMUD PwrS	48	48	48	23	0	0	0	0	0	0
32 PSE To PG&E S/Pwr/X	47	47	47	47	47	47	47	47	47	47
33 SCL To NCPA S/Pwr/X	10	10	10	10	10	10	10	10	10	10
34 SDGE To SDGE PwrS	72	72	72	72	72	72	72	72	72	33
35 SMUD To SMUD PwrS	18	18	18	18	18	18	0	0	0	0
36 SMUD To SMUD PwrS	44	44	44	44	44	44	44	44	44	44
37 TID To TID PwrS	49	49	49	49	49	49	49	49	49	22
38 TID To TID PwrS	46	46	46	46	46	46	46	46	46	46
39 BPA NW-SW Intertie Losses	3.5	2	1.1	1.1	0.9	0.8	0.8	0.4	0	0
40 Total Exports To PSW	907	849	813	744	678	668	650	651	648	584
-Exports to Inland Southwest-										
41 BPA To SPP PwrS	60	60	60	60	60	60	31	0	0	0
42 Total Exports To ISW	60	60	60	60	60	60	31	0	0	0
-Exports to Canada-										
43 BPA To BCHP CanEnt	526	504	506	470	497	492	486	480	475	470
44 Total Exports To Canada	526	504	506	470	497	492	486	480	475	470
-Exports to Other Entities-										
45 Total Exports To Other Entities	0	0	0	0	0	0	0	0	0	0
-Total Exports-										
46 Federal Entities	842	692	608	572	593	579	543	493	475	470
47 Public Entities	404	404	404	404	404	404	387	386	386	360
48 Investor-Owned Entities	386	377	374	305	245	239	239	254	265	226
49 Other Entities	4.2	4.3	4.3	4.3	4.2	4.3	4.3	4.3	4.2	4.3

Continued

Table A-2: Regional Exports
PNW Loads and Resource Study
2012 - 2021 Operating Years
[76] 2011 White Book (Final)

5/27/2011

Energy (aMW)	2012 Avg.	2013 Avg.	2014 Avg.	2015 Avg.	2016 Avg.	2017 Avg.	2018 Avg.	2019 Avg.	2020 Avg.	2021 Avg.
50 Total Exports.	1636	1478	1391	1286	1246	1226	1174	1138	1130	1060

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Table A-3
Regulated Hydro Projects
Annual OY 2012 – 2021
Average Energy in Megawatts

Power Services

Reports Powered by:



Loads and Resources Information System

**Table A-3: Regional Regulated Hydro Projects
PNW Loads and Resource Study
2012 - 2021 Operating Years
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	2012 Avg.	2013 Avg.	2014 Avg.	2015 Avg.	2016 Avg.	2017 Avg.	2018 Avg.	2019 Avg.	2020 Avg.	2021 Avg.
-Regulated Hydro Projects-										
1 Albeni Falls	26	26	26	26	26	26	26	26	26	26
2 Alder	19	21	21	21	21	21	21	21	21	21
3 Bonneville	414	415	415	415	415	415	415	415	415	415
4 Boundary	330	332	332	332	332	332	332	332	332	332
5 Box Canyon	41	42	42	42	41	42	42	42	41	42
6 Brownlee	239	239	239	239	239	239	239	239	239	239
7 Cabinet Gorge	83	83	83	83	83	83	83	83	83	83
8 Chelan	33	33	33	33	33	33	33	33	33	33
9 Chief Joseph	1102	1109	1109	1109	1109	1109	1109	1109	1109	1109
10 Cushman 1	8.7	10	10	10	10	10	10	10	10	10
11 Cushman 2	14	18	18	18	18	18	18	18	18	18
12 Diablo	84	84	84	84	84	84	84	84	84	84
13 Dworshak	148	148	148	148	148	148	148	148	148	148
14 Faraday	20	20	20	20	20	20	20	20	20	20
15 Gorge	97	97	97	97	97	97	97	97	97	97
16 Grand Coulee	1914	1931	1931	1931	1930	1931	1931	1931	1930	1931
17 Hells Canyon	190	190	190	190	190	190	190	190	190	190
18 Hungry Horse	82	82	82	82	82	82	82	82	82	82
19 Ice Harbor	169	170	170	170	169	170	170	170	169	170
20 John Day	811	815	815	815	815	815	815	815	815	815
21 Kerr	98	99	99	99	99	99	99	99	99	99
22 La Grande	32	34	34	34	35	34	34	34	35	34
23 Libby	177	177	177	177	177	177	177	177	177	177
24 Little Falls	17	18	18	18	18	18	18	18	18	18
25 Little Goose	193	194	194	194	194	194	194	194	194	194
26 Long Lake	40	42	42	42	42	42	42	42	42	42
27 Lower Baker	35	35	35	35	35	35	35	35	35	35
28 Lower Granite	191	192	192	192	192	192	192	192	192	192
29 Lower Monumental	191	192	192	192	191	192	192	192	191	192
30 Mayfield	66	70	70	70	70	70	70	70	70	70
31 McNary	494	494	480	486	486	487	486	487	486	487
32 Merwin	43	51	51	51	51	51	51	51	51	51
33 Monroe Street	9.2	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5
34 Mossyrock	89	97	97	97	97	97	97	97	97	97
35 Nine Mile	11	11	11	11	11	11	11	11	11	11
36 North Fork	23	23	23	23	23	23	23	23	23	23
37 Noxon	123	124	124	124	124	124	124	124	124	124
38 Oak Grove	24	22	22	22	22	22	22	22	22	22
39 Oxbow	96	96	96	96	96	96	96	96	96	96
40 Pelton	39	39	39	39	39	39	39	39	39	39
41 Pelton Rereg. Dam	9.0	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9
42 Post Falls	6.2	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
43 Priest Rapids	397	400	400	400	400	400	400	400	400	400
44 River Mill	11	11	11	11	11	11	11	11	11	11
45 Rock Island PH#1	168	169	169	169	169	169	169	169	169	169
46 Rock Island PH#2	140	141	141	141	141	141	141	141	141	141
47 Rocky Reach	553	557	557	557	557	557	557	557	557	557
48 Ross	75	74	74	74	74	74	74	74	74	74
49 Round Butte	96	96	96	96	96	96	96	96	96	96
50 Swift 1	48	61	61	61	61	61	61	61	61	61
51 Swift 2	17	22	22	22	22	22	22	22	22	22
52 The Dalles	607	610	610	610	611	610	610	610	611	610
53 Thompson Falls	47	48	48	48	48	48	48	48	48	48
54 Upper Baker	35	35	35	35	35	35	35	35	35	35
55 Upper Falls	7.0	7	7	7	7	7	7	7	7	7
56 Wanapum	380	384	384	384	384	384	384	384	384	384
57 Wells	357	359	359	359	359	359	359	359	359	359
58 Yale	48	57	57	57	57	57	57	57	57	57
Total Regulated Hydro w/Enc.	10815	10929	10916	10922	10920	10922	10921	10922	10920	10922

**Table A-3: Regional Regulated Hydro Projects
PNW Loads and Resource Study
2012 - 2021 Operating Years
1937 Water Year
[76] 2011 White Book (Final)**

Continued

5/27/2011

Energy (aMW)	2012 Avg.	2013 Avg.	2014 Avg.	2015 Avg.	2016 Avg.	2017 Avg.	2018 Avg.	2019 Avg.	2020 Avg.	2021 Avg.
-Idle Capacity-										
59 Operational Peaking Adj.	0	0	0	0	0	0	0	0	0	0
Total Regulated Hydro w/Enc.	0	0	0	0	0	0	0	0	0	0
-Hydro Maintenance-										
60 AVWP Hydro Maintenance	-1.4	-1.4	-1.4	-1.4	-1.4	-1.4	-1.4	-1.4	-1.4	-1.4
61 CHPD Hydro Maintenance	0	0	0	0	0	0	0	0	0	0
62 CLKM Hydro Maintenance	0	0	0	0	0	0	0	0	0	0
63 COPD Hydro Maintenance	0	0	0	0	0	0	0	0	0	0
64 DOPD Hydro Maintenance	0	0	0	0	0	0	0	0	0	0
65 EWEB Hydro Maintenance	-1.6	-1.6	-1.6	-1.6	-1.6	-1.6	-1.6	-1.6	-1.6	-1.6
66 Federal Hydro Maintenance	0	0	0	0	0	0	0	0	0	0
67 GCPD Hydro Maintenance	0	0	0	0	0	0	0	0	0	0
68 IPC Hydro Maintenance	0	0	0	0	0	0	0	0	0	0
69 PGE Hydro Maintenance	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
70 PPL Hydro Maintenance	-2.7	-2.7	-2.7	-2.7	-2.7	-2.7	-2.7	-2.7	-2.7	-2.7
71 PSE Hydro Maintenance	-3.4	-3.4	-3.4	-3.4	-3.4	-3.4	-3.4	-3.4	-3.4	-3.4
72 SCL Hydro Maintenance	-1.2	-1.2	-1.2	-1.2	-1.2	-1.2	-1.2	-1.2	-1.2	-1.2
73 SHPD Hydro Maintenance	0	0	0	0	0	0	0	0	0	0
74 TPU Hydro Maintenance	0	0	0	0	0	0	0	0	0	0
Total Regulated Hydro w/Enc.	-12	-12	-12	-12	-12	-12	-12	-12	-12	-12
-Total Regulated Hydro W/Enc.-										
75 Federal System	6518	6554	6540	6546	6545	6546	6545	6546	6545	6546
76 Public Entities	1939	2015	2016	2016	2016	2016	2016	2209	2229	2228
77 Investor-Owned Entities	1998	1920	1920	1920	1919	1920	1920	1727	1706	1707
78 Other Entities	348	428	428	428	429	428	428	428	429	428
79 Total Regulated Hydro w/Enc.	10803	10917	10903	10910	10908	10910	10909	10910	10908	10910

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Table A-4
Independent Hydro Projects
Annual OY 2012 – 2021
Average Energy in Megawatts

Power Services

Reports Powered by:



Loads and Resources Information System

**Table A-4: Regional Independent Hydro Projects
PNW Loads and Resource Study
2012 - 2021 Operating Years
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	2012 Avg.	2013 Avg.	2014 Avg.	2015 Avg.	2016 Avg.	2017 Avg.	2018 Avg.	2019 Avg.	2020 Avg.	2021 Avg.
-Independent Hydro Projects-										
1 American Falls	24	24	24	24	24	24	24	24	24	24
2 Anderson Ranch	16	16	16	16	16	16	16	16	16	16
3 Arrowrock Hydro	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8
4 Ashton	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
5 Bend Power Dam	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
6 Big Cliff	10	10	10	10	10	10	10	10	10	10
7 Big Fork	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
8 Black Canyon	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6
9 Bliss	45	45	45	45	45	45	45	45	45	45
10 Boise River Diversion	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
11 Calispell Creek	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
12 Carmen-Smith	16	16	16	16	16	16	16	16	16	16
13 Cascade	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8
14 Cedar Falls & Newhalem	10	10	10	10	10	10	10	10	10	10
15 Chandler	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6
16 CJ Strike	53	53	53	53	53	53	53	53	53	53
17 Clear Lake	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
18 Cougar	17	17	17	17	17	17	17	17	17	17
19 Cowlitz Falls	26	26	26	26	26	26	26	26	26	26
20 Detroit	42	42	42	42	42	42	42	42	42	42
21 Dexter	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2
22 Eagle Point	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
23 East Side (Klamath)	0	0	0	0	0	0	0	0	0	0
24 Felt	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
25 Foster	13	13	13	13	13	13	13	13	13	13
26 Gem State Hydro	14	14	14	14	14	14	14	14	14	14
27 Grace	23	23	23	23	23	23	23	23	23	23
28 Green Peter	28	28	28	28	28	28	28	28	28	28
29 Green Springs - USBR	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8
30 Hellroaring (Big) Creek	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
31 Hills Creek	18	18	18	18	18	18	18	18	18	18
32 Hood Street	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
33 Idaho Falls - City Plant	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
34 Idaho Falls - Lower Plant	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
35 Idaho Falls - Upper Plant	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
36 Island Park	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
37 Jackson	43	43	43	43	43	43	43	43	43	43
38 John C Boyle	35	35	35	35	35	35	35	35	35	35
39 Lake Creek	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
40 Last Chance	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
41 Leaburg	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4
42 Lookout Point	36	36	36	36	36	36	36	36	36	36
43 Lost Creek	29	29	29	29	29	29	29	29	29	29
44 Lower Malad	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6
45 Lower Salmon	28	28	28	28	28	28	28	28	28	28
46 McNary Fishway	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8
47 Mill Creek (WA)	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
48 Milner	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
49 Minidoka	15	15	15	15	15	15	15	15	15	15
50 Moyie Springs	2	2	2	2	2	2	2	2	2	2
51 North Umpqua	92	92	92	92	92	92	92	92	92	92
52 Oneida	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3
53 Packwood	12	12	12	12	12	12	12	12	12	12
54 Palisades	65	65	65	65	65	65	65	65	65	65
55 Paris	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
56 Powerdale	0	0	0	0	0	0	0	0	0	0
57 Reeder Gulch	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
58 Rogue	36	36	36	36	36	36	36	36	36	36
59 Roza	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9
60 Shoshone Falls	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7
61 Smith Creek	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5

**Table A-4: Regional Independent Hydro Projects
PNW Loads and Resource Study
2012 - 2021 Operating Years
1937 Water Year
[76] 2011 White Book (Final)**

Continued

5/27/2011

Energy (aMW)	2012 Avg.	2013 Avg.	2014 Avg.	2015 Avg.	2016 Avg.	2017 Avg.	2018 Avg.	2019 Avg.	2020 Avg.	2021 Avg.
62 Snoq. Electron & Nooksack	14	14	25	46	46	46	46	46	46	46
63 Soda Creek	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
64 Soda Point Project	3.0	3	3	3	3.0	3	3	3	3.0	3
65 South Fork Tolt	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1
66 Stone Creek	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
67 Strawberry Creek	1	1	1	1	1	1	1	1	1	1
68 Swan Falls	18	18	18	18	18	18	18	18	18	18
69 Swift Creek Hydro	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
70 The Dalles Fishway	4.4	4.5	4.5	4.5	4.4	4.5	4.5	4.5	4.4	4.5
71 Thousand Springs	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3
72 Trail Bridge	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
73 TW Sullivan	14	14	14	14	14	14	14	14	14	14
74 Twin Falls	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8
75 Upper Malad	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9
76 Upper Salmon 1 & 2	19	19	19	19	19	19	19	19	19	19
77 Upper Salmon 3 & 4	16	16	16	16	16	16	16	16	16	16
78 Wallowa Falls	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
79 WALTERVILLE	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7
80 West Side (Klamath)	0	0	0	0	0	0	0	0	0	0
81 WYNOCHEE	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
82 YELM	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4
Total Independent Hydro w/Enc.	1031	1032	1043	1063	1063	1063	1063	1063	1063	1063
-Total Independent Hydro W/Enc.-										
83 Federal System	368	368	368	368	368	368	368	368	368	368
84 Public Entities	163	164	164	164	163	164	164	164	163	164
85 Investor-Owned Entities	500	500	511	532	532	532	532	532	532	532
86 Other Entities	0	0	0	0	0	0	0	0	0	0
87 Total Independent Hydro w/Enc.	1031	1032	1043	1063	1063	1063	1063	1063	1063	1063

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Table A-5
Imports
Annual OY 2012 – 2021
Average Energy in Megawatts

Power Services

Reports Powered by:



Loads and Resources Information System

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**Table A-5: Regional Imports
PNW Loads and Resource Study
2012 - 2021 Operating Years
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	2012 Avg.	2013 Avg.	2014 Avg.	2015 Avg.	2016 Avg.	2017 Avg.	2018 Avg.	2019 Avg.	2020 Avg.	2021 Avg.
<i>-Imports From East of Continental Divide-</i>										
1 ECDMktr To Other Entities	132	133	135	136	138	139	140	142	143	144
2 Other Entities To IPC	7.9	4.1	0	0	0	0	0	0	0	0
3 PPL To BPA PwrS	11	160	160	160	160	160	160	160	160	160
4 Total Imports From ECD	151	297	294	296	298	299	300	301	303	304
<i>-Imports From Pacific Southwest-</i>										
5 BARC To PSE PwrS	25	25	25	25	0	0	0	0	0	0
6 GLEN To PGE S/Pwr/X	3.6	0	0	0	0	0	0	0	0	0
7 NCPA To SCL S/Pwr/X	13	12	12	12	13	12	12	12	13	12
8 PASA To BPA XchgNrg	0.3	1.9	1.9	1.9	0	0	0	0	0	0
9 PASA To BPA S/N/X	0.1	0.4	0.4	0.4	0	0	0	0	0	0
10 PASA To BPA PkRepl	0.7	1.1	1.1	0.7	0	0	0	0	0	0
11 PG&E To PSE S/Pwr/X	47	47	47	47	47	47	47	47	47	47
12 RVSD To BPA XchgNrg	7.3	7.3	7.3	7.3	7.3	0	0	0	0	0
13 RVSD To BPA S/Pwr/X	4.3	4.3	4.3	4.3	4.3	0	0	0	0	0
14 RVSD To BPA PkRepl	1.8	4.9	4.9	4.9	4.0	0	0	0	0	0
15 SEMP To PSE PwrS	63	50	0	0	0	0	0	0	0	0
16 SUISSE To PSE PwrS	50	33	0	0	0	0	0	0	0	0
17 Total Imports From PSW	215	187	104	104	75	60	60	60	60	60
<i>-Imports From Inland Southwest-</i>										
18 SPP To BPA PwrS	12	60	60	60	60	60	31	0	0	0
19 UPL To UPL PwrS	470	474	478	482	486	490	494	499	503	507
20 Total Imports From ISW	482	534	538	542	546	550	525	499	503	507
<i>-Imports From Canada-</i>										
21 BCHP To BPA PwrS	0.2	1	1	1	1	1	1	1	1	1
22 BCHP To SCL PwrS	36	36	36	36	36	36	36	36	36	36
23 Other Entities To PSE	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
24 PWRX To PSE PwrS	21	0	0	0	0	0	0	0	0	0
25 Total Imports From Canada	59	39	39	39	39	39	39	39	39	39
<i>-Imports From Other Entities-</i>										
26 Total Imports From Other Entities	0	0	0	0	0	0	0	0	0	0
<i>-Total Imports-</i>										
27 Federal System	241	241	241	241	237	221	192	161	161	161
28 Public Entities	48	48	48	48	48	48	48	48	48	48
29 Investor-Owned Entities	689	635	552	556	535	539	544	548	552	557
30 Other Entities	132	133	135	136	138	139	140	142	143	144
31 Total Imports.	1110	1057	975	980	958	948	924	899	905	910

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Table A-6
Small Thermal & Miscellaneous
Annual OY 2012 – 2021
Average Energy in Megawatts

Power Services

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Loads and Resources Information System

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**Table A-6: Regional Small Thermal and Miscellaneous
PNW Loads and Resource Study
2012 - 2021 Operating Years
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	2012 Avg.	2013 Avg.	2014 Avg.	2015 Avg.	2016 Avg.	2017 Avg.	2018 Avg.	2019 Avg.	2020 Avg.	2021 Avg.
-Federal System-										
1 Bangor Base #1 Diesel Generators	0	0	0	0	0	0	0	0	0	0
2 Bangor Base #2 Diesel Generators	0	0	0	0	0	0	0	0	0	0
3 Puget Sound Shipyards Diesel Generators	0	0	0	0	0	0	0	0	0	0
4 Total Federal System	0	0	0	0	0	0	0	0	0	0
-Public Entities-										
5 Total Public Entities	0	0	0	0	0	0	0	0	0	0
-Investor-Owned Entities-										
6 Crystal Mountain	0	0	0	0	0	0	0	0	0	0
7 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0
-Other Entities-										
8 Total Other Entities	0	0	0	0	0	0	0	0	0	0
-Small Thermal and Miscellaneous-										
9 Federal System	0	0	0	0	0	0	0	0	0	0
10 Public Entities	0	0	0	0	0	0	0	0	0	0
11 Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0
12 Other Entities	0	0	0	0	0	0	0	0	0	0
13 Total Small Thermal & Misc.	0	0	0	0	0	0	0	0	0	0

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Table A-7
Combustion Turbines
Annual OY 2012 – 2021
Average Energy in Megawatts

Power Services

Reports Powered by:



Loads and Resources Information System

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**Table A-7: Regional Combustion Turbines
PNW Loads and Resource Study
2012 - 2021 Operating Years
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	2012 Avg.	2013 Avg.	2014 Avg.	2015 Avg.	2016 Avg.	2017 Avg.	2018 Avg.	2019 Avg.	2020 Avg.	2021 Avg.
-Federal System-										
1 Total Federal System	0	0	0	0	0	0	0	0	0	0
-Public Entities-										
2 Boundary CT	0	0	0	0	0	0	0	0	0	0
3 Finley CT	0	0	0	0	0	0	0	0	0	0
4 Frederickson CT	122	122	122	122	122	122	122	122	122	122
5 Olympic View Generating Station	0	0	0	0	0	0	0	0	0	0
6 Pasco Harbor Generating Station	2	2	2	2	2	2	2	2	2	2
7 River Road	204	205	205	205	205	205	205	205	205	205
8 Wauna Peaking Project (Loki)	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
9 Total Public Entities	331	332	332	332	332	332	332	332	332	332
-Investor-Owned Entities-										
10 Basin Creek Project	4	4	4	4	4	4	4	4	4	4
11 Beaver	0	0	0	0	0	0	0	0	0	0
12 Beaver 8	16	16	16	16	16	16	16	16	16	16
13 Bennett Mountain	38	38	38	38	37	38	38	38	38	38
14 Boulder Park	23	24	24	24	24	24	24	24	24	24
15 Chehalis Generation Facility CCCT	375	375	375	375	375	375	375	375	375	375
16 Danskin 1	21	21	21	21	21	21	21	21	21	21
17 Danskin 2	39	39	39	40	39	39	39	39	40	40
18 Encogen	163	163	163	163	163	163	163	163	163	163
19 Frederickson 1&2	0	0	0	0	0	0	0	0	0	0
20 Frederickson CT	122	122	122	122	122	122	122	122	122	122
21 Fredonia 1&2	0	0	0	0	0	0	0	0	0	0
22 Fredonia 3&4	0	0	0	0	0	0	0	0	0	0
23 Goldendale Energy Center	245	245	245	245	245	245	245	245	245	245
24 Kettle Falls (CT)	9.4	9.4	9.6	9.4	9.6	9.6	9.6	9.6	9.6	9.6
25 Lancaster Power Project (Rathdrum)	257	259	252	257	257	257	257	253	248	255
26 Langley Gulch CT	21	251	251	251	251	251	251	251	251	251
27 Mill Creek Gas Turbine (MT)	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
28 Mint Farm Energy Center	249	249	249	249	249	249	249	249	249	249
29 Northeastern 1 & 2	11	11	11	11	11	11	11	11	11	11
30 Port Westward CCCT	337	337	337	337	337	337	337	337	337	337
31 Rathdrum - Boekel Rd. #1	73	75	73	75	73	75	73	75	72	75
32 Rathdrum - Boekel Rd. #2	75	73	75	73	75	73	75	73	75	73
33 Whitehorn 2 & 3	0	0	0	0	0	0	0	0	0	0
34 Total Investor-Owned Entities	2085	2318	2312	2317	2316	2317	2317	2313	2308	2316
-Other Entities-										
35 Big Hanaford CCCT	223	223	223	223	223	223	223	223	223	223
36 Chehalis Generation Facility CCCT	0	0	0	0	0	0	0	0	0	0
37 Frederickson CT	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
38 Klamath Peaking Unit	14	14	14	14	14	14	14	14	14	14
39 Lancaster Power Project (Rathdrum)	0	0	0	0	0	0	0	0	0	0
40 Longview Fibre CT	0	0	0	0	0	0	0	0	0	0
41 Mint Farm Energy Center	0	0	0	0	0	0	0	0	0	0
42 Satsop	584	584	584	584	584	584	584	584	584	584
43 Total Other Entities	822	822	822	822	822	822	822	822	822	822
-Combustion Turbines-										
44 Federal System	0	0	0	0	0	0	0	0	0	0
45 Public Entities	331	332	332	332	332	332	332	332	332	332
46 Investor-Owned Entities	2085	2318	2312	2317	2316	2317	2317	2313	2308	2316
47 Other Entities	822	822	822	822	822	822	822	822	822	822
48 Total Combustion Turbines	3237	3472	3465	3471	3470	3470	3470	3467	3462	3469

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Table A-8
Renewable Resources
Annual OY 2012 – 2021
Average Energy in Megawatts

Power Services

Reports Powered by:



Loads and Resources Information System

**Table A-8: Regional Renewable Resources
PNW Loads and Resource Study
2012 - 2021 Operating Years
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	2012 Avg.	2013 Avg.	2014 Avg.	2015 Avg.	2016 Avg.	2017 Avg.	2018 Avg.	2019 Avg.	2020 Avg.	2021 Avg.
-Federal System-										
1 Condon Wind Project	10	10	10	10	10	10	10	10	10	10
2 Foote Creek 1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
3 Foote Creek 2	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
4 Foote Creek 4	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
5 Klondike I	7.6	7.7	7.7	7.7	7.6	7.7	7.7	7.7	7.6	7.7
6 Klondike III	16	16	16	16	16	16	16	16	16	16
7 Stateline Wind Project	22	22	22	22	22	22	22	22	22	22
8 Total Federal System	67	67	67	67	67	67	67	67	67	67
-Public Entities-										
9 Big Horn	61	61	61	61	61	61	61	61	61	61
10 Big Horn II	15	15	15	15	15	15	15	15	15	15
11 Coffin Butte	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
12 Coffin Butte II	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
13 Columbia Ridge Landfill	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
14 Eurus Combine Hills II	18	18	18	18	18	18	18	18	18	18
15 Flathead County Landfill	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
16 Foote Creek 1	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
17 Grayland Wind (Coastal)	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
18 Harvest Wind	29	29	29	29	29	29	29	29	29	29
19 Hay Canyon Wind	24	24	24	24	24	24	24	24	24	24
20 Klondike III	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
21 Linden Wind Project	15	16	16	16	15	16	16	16	15	16
22 Nine Canyon Wind Project	27	27	27	27	27	27	27	27	27	27
23 Pebble Springs Wind Project	24	24	24	24	24	24	24	24	24	24
24 River Bend Landfill	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
25 Roosevelt Landfill (H.W. Hill)	8	8	8	8	8	8	8	8	8	8
26 Short Mountain	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
27 Star Point (100%)	26	26	26	26	26	26	26	26	26	26
28 Stateline Wind Project	43	43	43	43	43	43	43	43	43	43
29 Wheatfield Wind	22	22	22	22	22	22	22	22	22	22
30 White Creek	65	65	65	65	65	65	65	65	65	65
31 Willow Creek Wind	21	21	21	21	21	21	21	21	21	21
32 Windy Flats I	56	57	57	57	57	57	57	57	56	57
33 Windy Flats II	17	17	17	17	17	17	17	17	17	17
34 Windy Point - Tuolumne Wind	42	42	42	42	42	42	42	42	42	42
35 Total Public Entities	544	545	545	545	544	544	545	545	544	545
-Investor-Owned Entities-										
36 (Goshen North) Ridgeline	36	36	36	36	36	36	36	36	36	36
37 Bennett Creek Wind	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7
38 Biglow Canyon Phase I	39	39	39	39	39	39	39	39	39	39
39 Biglow Canyon Phase II	43	43	43	43	43	43	43	43	43	43
40 Biglow Canyon Phase III	50	50	50	51	50	50	51	50	50	51
41 Burley Butte Wind	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
42 Camp Reed	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
43 Cassia Farms Wind	3	3	3	3	3	3	3	3	3	3
44 Cassia Gulch Wind	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4
45 Elkhorn Valley Wind Farm	29	29	29	29	29	29	29	29	29	29
46 Eurus Combine Hills	12	12	12	12	12	12	12	12	12	12
47 Foote Creek 1	5.8	5.7	5.7	5.7	5.8	5.7	5.7	5.7	5.8	5.7
48 Fossil Gulch Wind Project	3	3	3	3	3	3	3	3	3	3
49 Golden Valley Wind	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
50 Goodnoe Hills	26	26	26	26	26	26	26	26	26	26
51 Hopkins Ridge I	44	44	44	44	44	44	44	44	44	44
52 Hopkins Ridge II	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
53 Horseshoe Bend Wind Park	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
54 Hot Springs Wind	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7
55 Kettle Falls (biomass)	44	43	45	43	43	45	45	45	45	45
56 Klondike II	24	24	24	24	24	24	24	24	24	24
57 Klondike III	47	47	47	47	47	47	47	47	47	47

**Table A-8: Regional Renewable Resources
PNW Loads and Resource Study
2012 - 2021 Operating Years
[76] 2011 White Book (Final)**

Continued

5/27/2011

Energy (aMW)	2012 Avg.	2013 Avg.	2014 Avg.	2015 Avg.	2016 Avg.	2017 Avg.	2018 Avg.	2019 Avg.	2020 Avg.	2021 Avg.
58 Klondike IIIa	21	21	21	21	21	21	21	21	21	21
59 Leaning Juniper	31	31	31	31	31	31	31	31	31	31
60 Lower Snake River Wind	101	101	101	101	101	101	101	101	101	101
61 Marengo I Wind Project	41	41	41	41	41	41	41	41	41	41
62 Marengo II Wind Project	21	21	21	21	21	21	21	21	21	21
63 Milner Dam	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
64 Oregon Trail	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
65 Oregon Wind Farm I (Echo I)	13	13	13	13	13	13	13	13	13	13
66 Oregon Wind Farm II (Echo II)	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8
67 PaTu Wind	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
68 Paynes Ferry	6	6	6	6	6	6	6	6	6	6
69 Pilgrim Stage Station	3	3	3	3	3	3	3	3	3	3
70 Rattlesnake Road Wind Farm	24	24	24	24	24	24	24	24	24	24
71 Rock River I Wind	17	17	17	17	17	17	17	17	17	17
72 Salmon Falls	6	6	6	6	6	6	6	6	6	6
73 Stateline Wind Project	5.4	0	0	0	0	0	0	0	0	0
74 Thousand Spring	3	3	3	3	3	3	3	3	3	3
75 Threemile Canyon Wind	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
76 Tuana Gulch	3	3	3	3	3	3	3	3	3	3
77 Tuana Springs Wind	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
78 Vansycle Wind	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3
79 Vantage Wind	26	26	26	26	26	26	26	26	26	26
80 Wild Horse I	66	66	66	66	66	66	66	66	66	66
81 Wild Horse II	13	13	13	13	13	13	13	13	13	13
82 Wolverine Creek	19	19	19	19	19	19	19	19	19	19
83 Yahoo Creek	6	6	6	6	6	6	6	6	6	6
84 Total Investor-Owned Entities	902	897	898	896	895	898	898	898	897	898
-Other Entities-										
85 Juniper Canyon I	46	46	46	46	46	46	46	46	46	46
86 Kittitas Valley Wind	29	29	29	29	29	29	29	29	29	29
87 Klondike III	0	0	0	0	0	0	0	0	0	0
88 Klondike IIIa	0	0	0	0	0	0	0	0	0	0
89 Leaning Juniper 2a	25	28	28	28	28	28	28	28	28	28
90 Stateline Wind Project	3.1	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5
91 White Creek	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
92 Willow Creek Wind	0	0	0	0	0	0	0	0	0	0
93 Leaning Juniper 2b	0	0	30	34	34	34	34	34	34	34
94 Total Other Entities	104	112	143	146	146	146	146	146	146	146
-Renewable Resources-										
95 Federal System	67	67	67	67	67	67	67	67	67	67
96 Public Entities	544	545	545	545	544	544	545	545	544	545
97 Investor-Owned Entities	902	897	898	896	895	898	898	898	897	898
98 Other Entities	104	112	143	146	146	146	146	146	146	146
99 Total Renewable Resources	1617	1621	1653	1654	1653	1656	1656	1656	1654	1656

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Table A-9
Cogeneration
Annual OY 2012 – 2021
Average Energy in Megawatts

Power Services

Reports Powered by:



Loads and Resources Information System

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**Table A-9: Regional Cogeneration
PNW Loads and Resource Study
2012 - 2021 Operating Years
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	2012 Avg.	2013 Avg.	2014 Avg.	2015 Avg.	2016 Avg.	2017 Avg.	2018 Avg.	2019 Avg.	2020 Avg.	2021 Avg.
-Federal System-										
1 Georgia-Pacific Paper (Wauna)	19	19	19	19	13	0	0	0	0	0
2 Total Federal System	19	19	19	19	13	0	0	0	0	0
-Public Entities-										
3 Georgia Pacific Toledo	16	16	16	16	16	16	16	16	16	16
4 Georgia-Pacific Paper (Wauna)	0	0	0	0	6.1	19	19	19	19	19
5 Grays Harbor Paper (Grays Harbor Paper)	15	15	15	15	15	15	15	15	15	15
6 Hampton Lumber Mill (Darrington)	3.5	3.5	3.5	3.5	3.5	1.5	0	0	0	0
7 IP Energy Center (formerly WEYCO)	22	22	22	14	0	0	0	0	0	0
8 Klamath Cogeneration Project	0	0	0	0	0	0	0	0	0	0
9 Longview Fibre Cogen 1-7	5	0	0	0	0	0	0	0	0	0
10 Seneca Sawmill Cogen	17	17	17	17	17	17	17	17	17	17
11 Sierra Pacific Burlington	26	26	26	26	26	26	26	26	26	26
12 Simpson Tacoma CoGen	44	44	44	44	44	44	44	44	44	44
13 Total Public Entities	148	143	143	136	128	139	138	138	138	138
-Investor-Owned Entities-										
14 Coyote Springs #1	209	209	209	209	209	209	209	209	209	209
15 Coyote Springs #2	245	262	267	267	267	270	271	262	267	248
16 Georgia-Pacific Paper (Camas)	9.7	10	9.7	10	9.2	10	9.7	10	9.7	10
17 Hermiston Cogeneration	407	399	401	408	399	401	408	399	401	408
18 Sumas Energy	126	126	126	126	126	126	126	126	126	126
19 Tenaska Gas Cogen	224	223	223	223	224	223	223	223	224	223
20 Thompson River Co-Gen	0	0	0	0	0	0	0	0	0	0
21 Total Investor-Owned Entities	1221	1229	1236	1243	1234	1239	1246	1229	1236	1224
-Other Entities-										
22 Coyote Springs #2	0	0	0	0	0	0	0	0	0	0
23 Georgia-Pacific Paper (Wauna)	0	0	0	0	0	0	0	0	0	0
24 Hermiston Power Project	567	567	567	567	567	567	567	567	567	567
25 IP Energy Center (formerly WEYCO)	0	0	0	7.4	22	22	22	22	22	22
26 Klamath Cogeneration Project	435	435	435	435	435	435	435	455	455	455
27 Lakeview Biomass	18	18	18	18	18	18	18	18	18	18
28 Longview Fibre Cogen 1-7	29	35	35	35	35	35	35	35	35	35
29 SDS Lumber	0.2	0	0	0	0	0	0	0	0	0
30 Sierra Pacific Aberdeen (Sierra Pacific)	14	14	14	14	14	14	14	14	14	14
31 Simpson Tacoma CoGen	0	0	0	0	0	0	0	0	0	0
32 SP Newsprint Cogen	104	104	104	104	104	104	104	104	104	104
33 Wah Chang (Albany, OR)	12	12	12	12	12	12	12	12	12	12
34 Weyerhaeuser Longview (Weyerhaeuser)	35	35	35	35	35	35	35	35	35	35
35 Total Other Entities	1215	1221	1221	1228	1242	1242	1242	1262	1262	1262
-Cogeneration-										
36 Federal System	19	19	19	19	13	0	0	0	0	0
37 Public Entities	148	143	143	136	128	139	138	138	138	138
38 Investor-Owned Entities	1221	1229	1236	1243	1234	1239	1246	1229	1236	1224
39 Other Entities	1215	1221	1221	1228	1242	1242	1242	1262	1262	1262
40 Total Cogeneration	2603	2612	2619	2627	2618	2620	2626	2628	2636	2623

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Table A-10
Large Thermal
Annual OY 2012 – 2021
Average Energy in Megawatts

Power Services

Reports Powered by:



Loads and Resources Information System

**Table A-10: Regional Large Thermal
PNW Loads and Resource Study
2012 - 2021 Operating Years
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	2012 Avg.	2013 Avg.	2014 Avg.	2015 Avg.	2016 Avg.	2017 Avg.	2018 Avg.	2019 Avg.	2020 Avg.	2021 Avg.
-Boardman: Coal-										
1 Idaho Power Company	49	49	49	49	49	49	49	49	49	22
2 Portland General Electric	319	318	318	318	319	318	318	318	319	146
3 San Diego Gas & Electric	72	72	72	72	72	72	72	72	72	33
4 Turlock Irrigation District	49	49	49	49	49	49	49	49	49	22
5 Boardman: Regional Total	489	488	488	488	489	488	488	488	489	224
-Centralia #1: Coal-										
6 TransAlta Energy Marketing	577	626	577	626	554	626	577	626	577	209
7 Centralia #1: Regional Total	577	626	577	626	554	626	577	626	577	209
-Centralia #2: Coal-										
8 TransAlta Energy Marketing	626	577	626	577	626	554	626	577	626	577
9 Centralia #2: Regional Total	626	577	626	577	626	554	626	577	626	577
-Colstrip #1: Coal-										
10 Northwestern Energy LLC (MPC)	0	0	0	0	0	0	0	0	0	0
11 Puget Sound Energy	125	137	128	125	137	128	125	137	128	125
12 Colstrip #1: Regional Total	125	137	128	125	137	128	125	137	128	125
-Colstrip #2: Coal-										
13 Northwestern Energy LLC (MPC)	0	0	0	0	0	0	0	0	0	0
14 Puget Sound Energy	131	137	117	131	137	117	131	137	117	131
15 Colstrip #2: Regional Total	131	137	117	131	137	117	131	137	117	131
-Colstrip #3: Coal-										
16 Avista Corp (WWP Division)	103	103	90	103	103	90	103	103	90	103
17 Northwestern Energy LLC (MPC)	0	0	0	0	0	0	0	0	0	0
18 Pacific Power	69	69	60	69	69	60	69	69	60	69
19 Portland General Electric	137	137	120	137	137	120	137	137	120	137
20 Puget Sound Energy	172	172	150	172	172	150	172	172	150	172
21 Colstrip #3: Regional Total	481	481	421	481	481	421	481	481	421	481
-Colstrip #4: Coal-										
22 Avista Corp (WWP Division)	102	89	102	102	89	102	102	89	102	102
23 Northwestern Energy LLC (MPC)	204	178	204	204	178	204	204	178	204	204
24 Pacific Power	68	59	68	68	59	68	68	59	68	68
25 Portland General Electric	136	119	136	136	119	136	136	119	136	136
26 Puget Sound Energy	170	149	170	170	149	170	170	149	170	170
27 Colstrip #4: Regional Total	679	594	679	679	595	679	679	594	679	679
-Columbia Generating Station: Uranium-										
28 BPA - Power Business	1030	878	1030	878	1030	878	1030	878	1030	878
29 Columbia Generating Station: Regional Total	1030	878	1030	878	1030	878	1030	878	1030	878
-Jim Bridger #1: Coal-										
30 Idaho Power Company	158	160	142	161	153	161	150	160	142	161
31 Pacific Power	317	319	284	322	305	322	301	319	285	322
32 Jim Bridger #1: Regional Total	475	479	427	483	458	483	451	479	427	483
-Jim Bridger #2: Coal-										
33 Idaho Power Company	164	155	164	159	164	152	164	159	164	159
34 Pacific Power	328	309	328	317	328	303	328	317	328	317
35 Jim Bridger #2: Regional Total	493	464	493	476	493	455	493	476	493	476
-Jim Bridger #3: Coal-										
36 Idaho Power Company	159	151	159	135	159	150	159	159	159	159

**Table A-10: Regional Large Thermal
PNW Loads and Resource Study
2012 - 2021 Operating Years
[76] 2011 White Book (Final)**

Continued

5/27/2011

Energy (aMW)	2012 Avg.	2013 Avg.	2014 Avg.	2015 Avg.	2016 Avg.	2017 Avg.	2018 Avg.	2019 Avg.	2020 Avg.	2021 Avg.
37 Pacific Power	318	302	318	269	318	300	318	318	318	318
38 Jim Bridger #3: Regional Total	477	453	477	404	477	450	477	477	477	477
<i>-Jim Bridger #4: Coal-</i>										
39 Idaho Power Company	141	154	149	154	145	154	147	147	147	147
40 Pacific Power	282	307	298	307	291	307	295	295	295	295
41 Jim Bridger #4: Regional Total	424	461	447	461	436	461	442	442	442	442
<i>-Valmy #1: Coal-</i>										
42 Idaho Power Company	110	110	110	110	110	110	110	110	110	110
43 Valmy #1: Regional Total	110	110	110	110	110	110	110	110	110	110
<i>-Valmy #2: Coal-</i>										
44 Idaho Power Company	116	116	116	116	116	116	116	116	116	116
45 Valmy #2: Regional Total	116	116	116	116	116	116	116	116	116	116
<i>-Total Large Thermal-</i>										
46 Federal System	1030	878	1030	878	1030	878	1030	878	1030	878
47 Public Entities	49	49	49	49	49	49	49	49	49	22
48 Investor-Owned Entities	3949	3871	3853	3905	3878	3859	3944	3889	3849	3721
49 Other Entities	1203	1203	1203	1203	1181	1181	1203	1203	1203	786
50 Non-NW Entities	0	0	0	0	0	0	0	0	0	0
51 Total Large Thermal	6231	6000	6135	6034	6138	5966	6225	6018	6131	5407

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Table A-15
Canadian Entitlement Return for Canada
Annual OY 2012 – 2021
Average Energy in Megawatts

Power Services

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Loads and Resources Information System

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**Table A-15: Canadian Entitlement Return For Canada
PNW Loads and Resource Study
2012 - 2021 Operating Years
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	2012 Avg.	2013 Avg.	2014 Avg.	2015 Avg.	2016 Avg.	2017 Avg.	2018 Avg.	2019 Avg.	2020 Avg.	2021 Avg.
-BPA Canada-										
1 BPA: Regional Totals	0	0	0	0	0	0	0	0	0	0
-Priest Rapids CER for Canada-										
2 GCPD to BPA	30	29	29	29	29	29	28	28	28	27
3 Priest Rapids: Regional Totals	30	29	29	29	29	29	28	28	28	27
-Wanapum CER for Canada-										
4 GCPD to BPA	29	29	28	28	28	28	27	27	27	26
5 Wanapum: Regional Totals	29	29	28	28	28	28	27	27	27	26
-Rock Island P.H. #1 CER for Canada-										
6 CHPD to BPA	11	11	11	11	11	11	11	11	10	10
7 Rock Island P.H. #1: Regional Totals	11	11	11	11	11	11	11	11	10	10
-Rock Island P.H. #2 CER for Canada-										
8 CHPD to BPA	7.2	7.1	7	7	7.0	6.9	6.8	6.8	6.7	6.6
9 Rock Island P.H. #2: Regional Totals	7.2	7.1	7	7	7.0	6.9	6.8	6.8	6.7	6.6
-Rocky Reach CER for Canada-										
10 CHPD to BPA	39	38	37	37	37	37	36	36	35	35
11 Rocky Reach: Regional Totals	39	38	37	37	37	37	36	36	35	35
-Wells CER for Canada-										
12 DOPD to BPA	25	24	24	24	24	23	23	23	23	22
13 Wells: Regional Totals	25	24	24	24	24	23	23	23	23	22
-Total CER For Canada-										
14 Federal System	0	0	0	0	0	0	0	0	0	0
15 Public Entities	141	138	137	136	135	134	133	131	130	128
16 Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0
17 Other Entities	0	0	0	0	0	0	0	0	0	0
18 Non-NW Entities	0	0	0	0	0	0	0	0	0	0
19 Total CER For Canada	141	138	137	136	135	134	133	131	130	128

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Table A-16
Intra-Regional Transfers
Annual OY 2012 – 2021
Average Energy in Megawatts

Power Services

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Loads and Resources Information System

**Table A-16: Regional Intra-Regional Transfers
PNW Loads and Resource Study
2012 - 2021 Operating Years
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	2012 Avg.	2013 Avg.	2014 Avg.	2015 Avg.	2016 Avg.	2017 Avg.	2018 Avg.	2019 Avg.	2020 Avg.	2021 Avg.
-Intra-Regional Transfers-										
1 AVWP To BPA WP3Set	42	42	42	42	42	42	0	0	0	0
2 AVWP To PGE CapS	45	45	45	45	45	19	0	0	0	0
3 BPA To AVWP WP3Set	42	42	42	42	42	42	0	0	0	0
4 BPA To CCPD SFIBlk	0	0	0	0	0	0	0	0	0	0
5 BPA To COPD PwrS	21	21	21	21	21	3.8	0	0	0	0
6 BPA To EMPD PwrS	4.9	4.8	4.8	4.8	4.8	0.9	0	0	0	0
7 BPA To Other Entities	213	0	0	0	0	0	0	0	0	0
8 BPA To PPL PwrS	160	160	160	160	160	160	160	160	160	160
9 BPA To PPL S/Pwr/X	5.7	5.7	0	0	0	0	0	0	0	0
10 BPA To PPL S/N/X	0	0	0	0	0	0	0	0	0	0
11 BPA To PPL CapS	16	0	0	0	0	0	0	0	0	0
12 BPA To PSE WP3Set	42	42	42	42	42	42	42	42	0	0
13 BPA To PSE PwrS	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
14 BPA To SHPD PwrS	6.5	6.5	6.5	6.5	6.4	1.2	0	0	0	0
15 BPA To TBL PwrS	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1
16 CCPD To Other Entities	0	0	0	0	0	0	0	0	0	0
17 CIDF To UPL PwrS	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
18 COPD To BPA PwrS	21	21	21	21	21	3.4	0	0	0	0
19 DOPD To Other Entities	0	0	0	0	0	0	0	0	0	0
20 EMPD To BPA PwrS	4.8	4.8	4.8	4.8	4.8	0.8	0	0	0	0
21 EWEB To PGE CapS	3	3	2.5	0	0	0	0	0	0	0
22 GCPD To AVWP PwrS	3.2	0	0	0	0	0	0	0	0	0
23 GCPD To EWEB PwrS	0.9	0	0	0	0	0	0	0	0	0
24 GCPD To FGRV PwrS	0.3	0	0	0	0	0	0	0	0	0
25 GCPD To FREC PwrS	0.2	0	0	0	0	0	0	0	0	0
26 GCPD To KITT PwrS	0.1	0	0	0	0	0	0	0	0	0
27 GCPD To KOOT PwrS	0.2	0	0	0	0	0	0	0	0	0
28 GCPD To LVE PwrS	0.2	0	0	0	0	0	0	0	0	0
29 GCPD To LVE PwrS	0	0	0	0	0	0	0	0	0	0
30 GCPD To MCMN PwrS	0.3	0	0	0	0	0	0	0	0	0
31 GCPD To MTFR PwrS	0.3	0	0	0	0	0	0	0	0	0
32 GCPD To PGE PwrS	7.3	0	0	0	0	0	0	0	0	0
33 GCPD To PPL PwrS	7.3	0	0	0	0	0	0	0	0	0
34 GCPD To PPL PwrS	10.0	10	10.0	10	10.0	10	10.0	10	10.0	10
35 GCPD To PSE PwrS	4.2	0	0	0	0	0	0	0	0	0
36 GCPD To TPU PwrS	1.8	0	0	0	0	0	0	0	0	0
37 GHPD To GHP PwrS	15	15	15	15	15	15	15	15	15	15
38 NWCP To PSE PwrS	3.7	1.4	0	0	0	0	0	0	0	0
39 NWE To MVP PwrS	9.6	9.7	9.7	9.7	9.6	9.7	9.7	9.7	9.6	9.7
40 Other Entities To BPA	194	161	105	26	26	26	26	11	0	0
41 Other Entities To COPD	25	25	25	25	25	25	25	25	25	25
42 Other Entities To DOPD	16	18	20	22	25	9.0	0	0	0	0
43 Other Entities To PGE	96	92	92	92	92	15	0	0	0	0
44 PGE To AVWP PkRepl	45	45	45	45	45	19	0	0	0	0
45 PGE To PPL Cove Repl	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
46 PPL To BPA S/Pwr/X	14	5.7	5.7	0	0	0	0	0	0	0
47 PPL To BPA S/N/X	0	0	0	0	0	0	0	0	0	0
48 PPL To BPA PkRepl	16	0	0	0	0	0	0	0	0	0
49 PSE To AVWP PwrS	0.2	0	0	0	0	0	0	0	0	0
50 PSE To BPA WP3Set	42	42	42	42	42	42	42	42	0	0
51 SCL To POPD PwrS	42	42	42	42	42	42	42	42	42	42
52 SHPD To BPA PwrS	6.5	6.5	6.5	6.5	6.5	1	0	0	0	0
53 SPN To PGE PwrS	104	104	104	104	104	104	104	104	104	104
54 TAUC To AVWP PwrS	180	181	180	181	177	188	188	79	0	0
55 Total Intra-Regional Transfers	1486	1170	1107	1023	1023	834	678	554	382	382
-Total Contracts Out-										
56 Federal System	520	291	285	285	286	259	211	211	170	170
57 Public Entities	140	109	107	105	105	78	72	72	72	72
58 Investor-Owned Entities	526	501	501	481	478	360	266	142	11	11
59 Other Entities	300	268	214	151	154	138	129	129	129	129

**Table A-16: Regional Intra-Regional Transfers
PNW Loads and Resource Study
2012 - 2021 Operating Years
[76] 2011 White Book (Final)**

Continued

5/27/2011

Energy (aMW)	2012 Avg.	2013 Avg.	2014 Avg.	2015 Avg.	2016 Avg.	2017 Avg.	2018 Avg.	2019 Avg.	2020 Avg.	2021 Avg.
60 Total Contracts Out	1486	1170	1107	1023	1023	834	678	554	382	382
-Total Contracts In-										
61 Federal System	358	301	245	160	160	133	86	71	19	19
62 Public Entities	121	118	120	122	125	82	67	67	67	67
63 Investor-Owned Entities	787	736	728	726	723	605	511	401	281	281
64 Other Entities	205	0	0	0	0	0	0	0	0	0
65 Total Contracts In	1471	1155	1093	1008	1008	820	664	540	367	367

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Table A-17
Capacity Reserves
Annual OY 2012 – 2021
Average Energy in Megawatts

Power Services

Capacity Reserves are not applicable to energy.

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Table A-17: Regional Capacity Reserves
 PNW Loads and Resource Study
 2012 - 2021 Operating Years
 1937 Water Year
 [76] 2011 White Book (Final)

5/27/2011

Energy (aMW)	2012 Avg.	2013 Avg.	2014 Avg.	2015 Avg.	2016 Avg.	2017 Avg.	2018 Avg.	2019 Avg.	2020 Avg.	2021 Avg.
Spinning Reserves										
-Federal Entities-										
10 Federal Agencies	0	0	0	0	0	0	0	0	0	0
11 Total Federal Entities	0	0	0	0	0	0	0	0	0	0
-Generating Public Entities-										
21 Generating Publics	0	0	0	0	0	0	0	0	0	0
22 Total Generating Public Entities	0	0	0	0	0	0	0	0	0	0
-Non-Generating Public Entities-										
32 Non-Generating Publics	0	0	0	0	0	0	0	0	0	0
33 Total Non-Generating Public Entities	0	0	0	0	0	0	0	0	0	0
-Investor-Owned Entities-										
43 Investor-Owned Utilities	0	0	0	0	0	0	0	0	0	0
44 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0
-Other Entities-										
54 Other Entities	0	0	0	0	0	0	0	0	0	0
55 Total Other Entities	0	0	0	0	0	0	0	0	0	0
Non-Spinning Reserves										
-Federal Entities-										
65 Federal Agencies	0	0	0	0	0	0	0	0	0	0
66 Total Federal Entities	0	0	0	0	0	0	0	0	0	0
-Generating Public Entities-										
76 Generating Publics	0	0	0	0	0	0	0	0	0	0
77 Total Generating Public Entities	0	0	0	0	0	0	0	0	0	0
-Non-Generating Public Entities-										
87 Non-Generating Publics	0	0	0	0	0	0	0	0	0	0
88 Total Non-Generating Public Entities	0	0	0	0	0	0	0	0	0	0
-Investor-Owned Entities-										
98 Investor-Owned Utilities	0	0	0	0	0	0	0	0	0	0
99 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0
-Other Entities-										
109 Other Entities	0	0	0	0	0	0	0	0	0	0
110 Total Other Entities	0	0	0	0	0	0	0	0	0	0
Load Following Reserves										
-Federal Entities-										
120 Federal Agencies	0	0	0	0	0	0	0	0	0	0
121 Total Federal Entities	0	0	0	0	0	0	0	0	0	0
-Generating Public Entities-										
131 Generating Publics	0	0	0	0	0	0	0	0	0	0
132 Total Generating Public Entities	0	0	0	0	0	0	0	0	0	0
-Non-Generating Public Entities-										
142 Non-Generating Publics	0	0	0	0	0	0	0	0	0	0
143 Total Non-Generating Public Entities	0	0	0	0	0	0	0	0	0	0

Table A-17: Regional Capacity Reserves
 PNW Loads and Resource Study
 2012 - 2021 Operating Years
 1937 Water Year
 [76] 2011 White Book (Final)

Continued

5/27/2011

Energy (aMW)	2012 Avg.	2013 Avg.	2014 Avg.	2015 Avg.	2016 Avg.	2017 Avg.	2018 Avg.	2019 Avg.	2020 Avg.	2021 Avg.
-Investor-Owned Entities-										
153 Investor-Owned Utility	0	0	0	0	0	0	0	0	0	0
154 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0
-Other Entities-										
164 Other Entities	0	0	0	0	0	0	0	0	0	0
165 Total Other Entities	0	0	0	0	0	0	0	0	0	0
Generation Imbalance Reserves										
-Federal Entities-										
175 Federal Agencies	0	0	0	0	0	0	0	0	0	0
176 Total Federal Entities	0	0	0	0	0	0	0	0	0	0
-Generating Public Entities-										
186 Generating Publics	0	0	0	0	0	0	0	0	0	0
187 Total Generating Public Entities	0	0	0	0	0	0	0	0	0	0
-Non-Generating Public Entities-										
197 Non-Generating Publics	0	0	0	0	0	0	0	0	0	0
198 Total Non-Generating Public Entities	0	0	0	0	0	0	0	0	0	0
-Investor-Owned Entities-										
208 Investor-Owned Utilities	0	0	0	0	0	0	0	0	0	0
209 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0
-Other Entities-										
219 Other Entities	0	0	0	0	0	0	0	0	0	0
220 Total Other Entities	0	0	0	0	0	0	0	0	0	0
-Total Capacity Reserves-										
221 Total Spinning Reserves	0	0	0	0	0	0	0	0	0	0
222 Total Non-Spinning Reserves	0	0	0	0	0	0	0	0	0	0
223 Total Load Following Reserves	0	0	0	0	0	0	0	0	0	0
224 Total Generation Imbalance Reserves	0	0	0	0	0	0	0	0	0	0
225 Total Capacity Reserves	0	0	0	0	0	0	0	0	0	0

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Table A-18
Wells & Chelan Allocation
Annual OY 2012 – 2021
Capacity in Megawatts

Power Services

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**Table A-18: Wells and Chelan Allocation
PNW Loads and Resource Study
2012 - 2021 Operating Years
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	2012 Avg.	2013 Avg.	2014 Avg.	2015 Avg.	2016 Avg.	2017 Avg.	2018 Avg.	2019 Avg.	2020 Avg.	2021 Avg.
-Credit for Wells-										
1 Credit for Wells	25	24	24	24	24	23	23	23	23	22
2 Credit for Wells	-25	-24	-24	-24	-24	-23	-23	-23	-23	-22
3 Credit for Wells	402	404	404	404	404	404	404	404	404	404
4 Credit for Wells Before Enc	402	404	404	404	404	404	404	404	404	404
-Debit for Wells-										
5 AVWP Share	11	11	11	11	11	11	11	1	0	0
6 COLV Share	15	15	15	15	15	15	15	18	19	19
7 DOPD Share	120	120	120	120	120	120	120	297	315	315
8 OKPD Share	25	26	26	26	26	26	26	25	25	25
9 PGE Share	64	65	65	65	65	65	65	6.1	0	0
10 PPL Share	22	22	22	22	22	22	22	2.1	0	0
11 PSE Share	99	100	100	100	100	100	100	9.4	0	0
12 Debit for Wells After Enc	357	359	359	359	359	359	359	359	359	359
-Chelan-										
13 Chelan	30	30	30	30	30	30	30	30	30	30
14 Chelan Before Enc	30	30	30	30	30	30	30	30	30	30
-Chelan-										
15 CHPD Share	33	33	33	33	33	33	33	33	33	33
16 Chelan After Enc	33	33	33	33	33	33	33	33	33	33

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Table A-19
Rocky Reach & Rock Island Allocation
Annual OY 2012 – 2021
Average Energy in Megawatts

Power Services

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**Table A-19: Rocky Reach and Rock Island Allocation
PNW Loads and Resource Study
2012 - 2021 Operating Years
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	2012 Avg.	2013 Avg.	2014 Avg.	2015 Avg.	2016 Avg.	2017 Avg.	2018 Avg.	2019 Avg.	2020 Avg.	2021 Avg.
-Credit for Rocky Reach-										
1 Credit for Rocky Reach	39	38	37	37	37	37	36	36	35	35
2 Credit for Rocky Reach	-39	-38	-37	-37	-37	-37	-36	-36	-35	-35
3 Credit for Rocky Reach	536	539	539	539	539	539	539	539	539	539
4 Credit for Rocky Reach Before Enc 536	536	539	539	539	539	539	539	539	539	539
-Debit for Rocky Reach-										
5 APGI Share	136	135	135	135	135	135	135	135	136	136
6 AVWP Share	3.3	0	0	0	0	0	0	0	0	0
7 CHPD Share	225	263	263	263	263	263	263	262	262	262
8 DOPD Share	25	29	29	29	29	29	29	29	29	29
9 PGE Share	14	0	0	0	0	0	0	0	0	0
10 PPL Share	6	0	0	0	0	0	0	0	0	0
11 PSE Share	144	130	130	130	130	130	130	130	130	130
12 Debit for Rocky Reach After Enc 553	553	557	557	557	557	557	557	557	557	557
-Credit for Rock Island #1-										
13 Credit for Rock Island #1	11	11	11	11	11	11	11	11	10	10
14 Credit for Rock Island #1	-11	-11	-11	-11	-11	-11	-11	-11	-10	-10
15 Credit for Rock Island #1	132	133	133	133	133	133	133	133	133	133
16 Credit for Rock Island #1 Before Enc 162	162	133	133	133	133	133	133	133	133	133
-Debit for Rock Island #1-										
17 APGI Share	3.8	41	41	41	41	41	41	41	41	41
18 CHPD Share	90	88	88	88	88	88	88	88	88	88
19 PSE Share	75	39	39	39	39	40	40	40	40	40
20 Debit for Rock Island #1 After Enc 168	168	169	169	169	169	169	169	169	169	169
-Credit for Rock Island #2-										
21 Credit for Rock Island #2	7.2	7.1	7	7	7.0	6.9	6.8	6.8	6.7	6.6
22 Credit for Rock Island #2	-7.2	-7.1	-7	-7	-7.0	-6.9	-6.8	-6.8	-6.7	-6.6
23 Credit for Rock Island #2	110	111	111	111	111	111	111	111	111	111
24 Credit for Rock Island #2 Before Enc 140	140	111	111	111	111	111	111	111	111	111
-Debit for Rock Island #2-										
25 APGI Share	3.2	35	35	35	35	35	35	35	35	35
26 CHPD Share	73	73	73	73	73	72	72	72	72	72
27 PSE Share	63	33	33	33	33	33	33	33	34	34
28 Debit for Rock Island #2 After Enc 140	140	141	141	141	141	141	141	141	141	141

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Table A-20
Wanapum & Priest Rapids Allocation
Annual OY 2012 – 2021
Average Energy in Megawatts

Power Services

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Loads and Resources Information System

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**Table A-20: Wanapum and Priest Rapids Allocation
PNW Loads and Resource Study
2012 - 2021 Operating Years
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	2012 Avg.	2013 Avg.	2014 Avg.	2015 Avg.	2016 Avg.	2017 Avg.	2018 Avg.	2019 Avg.	2020 Avg.	2021 Avg.
-Credit for Wanapum-										
1 Credit for Wanapum	29	29	28	28	28	28	27	27	27	26
2 Credit for Wanapum	-29	-29	-28	-28	-28	-28	-27	-27	-27	-26
3 Credit for Wanapum	451	455	455	455	455	455	455	455	455	455
4 Credit for Wanapum Before Enc	451	455	455	455	455	455	455	455	455	455
-Debit for Wanapum-										
5 AVWP Share	14	13	13	13	13	13	14	14	14	14
6 COPD Share	2.5	0.8	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
7 EWEB Share	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
8 FGRV Share	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
9 GCPD Share	248	253	253	253	253	253	253	253	253	253
10 KITT Share	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
11 MCMN Share	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
12 MTFR Share	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
13 PGE Share	31	31	31	31	31	31	31	31	31	31
14 PNWMktr Share	68	72	72	72	72	72	72	72	72	72
15 PPL Share	6.2	4	3.9	3.9	4.0	4.0	4.0	4.0	4.0	4.0
16 PSE Share	2.6	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
17 SCL Share	2.4	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
18 TPU Share	1.1	1	1	1	1	1	1	1	1	1
19 Debit for Wanapum After Enc	380	384	384	384	384	384	384	384	384	384
-Credit for Priest Rapids-										
20 Credit for Priest Rapids	30	29	29	29	29	29	28	28	28	27
21 Credit for Priest Rapids	-30	-29	-29	-29	-29	-29	-28	-28	-28	-27
22 Credit for Priest Rapids	413	416	416	416	416	416	416	416	416	416
23 Credit for Priest Rapids Before Enc	413	416	416	416	416	416	416	416	416	416
-Debit for Priest Rapids-										
24 AVWP Share	14	14	14	14	14	14	14	14	14	14
25 COPD Share	2.7	0.8	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
26 EWEB Share	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
27 FGRV Share	1.5	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
28 GCPD Share	258	263	264	264	264	264	263	263	263	263
29 KITT Share	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
30 MCMN Share	1.5	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
31 MTFR Share	1.5	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
32 PGE Share	32	32	32	32	32	32	32	32	32	32
33 PNWMktr Share	71	75	75	75	75	75	75	75	75	75
34 PPL Share	6.6	4.2	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
35 PSE Share	2.7	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
36 SCL Share	2.6	1	1	1	1	1	1	1	1	1
37 TPU Share	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
38 Debit for Priest Rapids After Enc	397	400	400	400	400	400	400	400	400	400

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Table A-21
Swift #1 and Swift #2 Allocation
Annual OY 2012 – 2021
Average Energy in Megawatts

Power Services

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Loads and Resources Information System

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**Table A-21: Swift #1 and Swift #2 Allocation
PNW Loads and Resource Study
2012 - 2021 Operating Years
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	2012 Avg.	2013 Avg.	2014 Avg.	2015 Avg.	2016 Avg.	2017 Avg.	2018 Avg.	2019 Avg.	2020 Avg.	2021 Avg.
-Swift 1-										
1 Swift 1	48	61	61	61	61	61	61	61	61	61
2 Swift 1 Before Enc	48	61	61	61	61	61	61	61	61	61
-Swift 1-										
3 COPD Share	12	16	16	16	16	16	16	16	16	16
4 PPL Share	36	45	45	45	45	45	45	45	45	45
5 Swift 1 After Enc	48	61	61	61	61	61	61	61	61	61
-Swift 2-										
6 Swift 2	17	22	22	22	22	22	22	22	22	22
7 Swift 2 Before Enc	17	22	22	22	22	22	22	22	22	22
-Swift 2-										
8 COPD Share	4.5	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
9 PPL Share	13	16	16	16	16	16	16	16	16	16
10 Swift 2 After Enc	17	22	22	22	22	22	22	22	22	22

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Table A-22
BPA Power Sale Contracts
Annual OY 2012 – 2021
Average Energy in Megawatts

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**Table A-22: BPA Power Sale Contracts
PNW Loads and Resource Study
2012 - 2021 Operating Years
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	2012 Avg.	2013 Avg.	2014 Avg.	2015 Avg.	2016 Avg.	2017 Avg.	2018 Avg.	2019 Avg.	2020 Avg.	2021 Avg.
-Federal Entities-										
1 BPA To Federal Entities	116	119	125	136	143	161	174	176	177	178
2 Total Federal Entities	116	119	125	136	143	161	174	176	177	178
-U.S. Bureau of Reclamation-										
3 BPA To U.S. Bureau of Reclamation	173	174	174	174	173	174	174	174	173	174
4 Total U.S. Bureau of Reclamation	173	174	174	174	173	174	174	174	173	174
-Direct Service Industry-										
5 BPA To Direct Service Industry	340	340	340	340	340	340	57	0	0	0
6 Total Direct Service Industry	340	340	340	340	340	340	57	0	0	0
-Generating Public Entities-										
7 BPA To Generating Public Entities	1645	1571	1565	1597	1586	1622	1623	1663	1645	1673
8 Total Generating Public Entities	1645	1571	1565	1597	1586	1622	1623	1663	1645	1673
-Generating Public Entities (Slice)-										
9 BPA To Generating Public Entities (Slice)	3160	1520	1547	1522	1542	1507	1547	1516	1557	1526
10 Total Generating Public Entities (Slice)	3160	1520	1547	1522	1542	1507	1547	1516	1557	1526
-Non-Generating Public Entities-										
11 BPA To Non-Generating Public Entities	3258	3356	3428	3462	3485	3522	3552	3598	3611	3642
12 Total Non-Generating Public Entities	3258	3356	3428	3462	3485	3522	3552	3598	3611	3642
-Non-Generating Public Entities (Slice)-										
13 BPA To Non-Generating Public Entities (Slice)	412	373	379	373	378	369	379	372	382	374
14 Total Non-Generating Public Entities (Slice)	412	373	379	373	378	369	379	372	382	374
-Investor-Owned Entities-										
15 BPA To Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0
16 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0
-Other Entities-										
17 BPA To Other PNW Entities	0	0	0	0	0	0	0	0	0	0
18 Total Other Entities	0	0	0	0	0	0	0	0	0	0
-Power Sales Contracts-										
19 Federal Entities	116	119	125	136	143	161	174	176	177	178
20 U.S. Bureau of Reclamation	173	174	174	174	173	174	174	174	173	174
21 Direct Service Industry	340	340	340	340	340	340	57	0	0	0
22 Generating Public Entities	3106	3092	3112	3119	3129	3129	3170	3178	3202	3199
23 Non-Generating Public Entities	3670	3728	3807	3835	3863	3891	3931	3970	3993	4016
24 Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0
25 Other Entities	0	0	0	0	0	0	0	0	0	0
26 Total Power Sales Contracts	7406	7453	7558	7605	7649	7695	7505	7498	7545	7567

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Table A-23
Non-Utility Generating Resources by Owner
Annual OY 2012 – 2021
Average Energy in Megawatts

Power Services

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Loads and Resources Information System

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**Table A-23: Regional NUG Resources By Owner
PNW Loads and Resource Study
2012 - 2021 Operating Years
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	2012 Avg.	2013 Avg.	2014 Avg.	2015 Avg.	2016 Avg.	2017 Avg.	2018 Avg.	2019 Avg.	2020 Avg.	2021 Avg.
-Federal Entities-										
1 Federal Entities	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
2 Total Federal Entities	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
-Generating Public Entities-										
3 Generating Public Entities	115	117	118	118	118	118	118	118	118	118
4 Total Generating Public Entities	115	117	118	118	118	118	118	118	118	118
-Non-Generating Public Entities-										
5 Non-Generating Public Entities	11	17	17	17	17	17	17	17	17	17
6 Total Non-Generating Public Entities	11	17	17	17	17	17	17	17	17	17
-Investor-Owned Entities-										
7 Investor-Owned Entities	462	460	459	451	451	451	451	449	450	451
8 Total Investor-owned Entities	462	460	459	451	451	451	451	449	450	451
-Other Entities-										
9 Other Entities	4.2	4.3	5.1	14	14	14	14	14	14	14
10 Total Other Entities	4.2	4.3	5.1	14	14	14	14	14	14	14
-Total Non-Utility Generating Resources-										
11 Federal Entities	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
12 Public Entities	126	134	135	135	135	135	135	135	135	135
13 Investor-Owned Entities	462	460	459	451	451	451	451	449	450	451
14 Other Entities	4.2	4.3	5.1	14	14	14	14	14	14	14
15 Total Non-Utility Generation	596	601	602	603	603	603	603	602	602	603

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Table A-24
Non-Utility Generating Resources by Project
and Project Type
Annual OY 2012 – 2021
Average Energy in Megawatts

Power Services

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Loads and Resources Information System

**Table A-24: Regional NUG Resources By Project And Project Type
PNW Loads and Resource Study
2012 - 2021 Operating Years
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	2012 Avg.	2013 Avg.	2014 Avg.	2015 Avg.	2016 Avg.	2017 Avg.	2018 Avg.	2019 Avg.	2020 Avg.	2021 Avg.
-NUG: Hydro-										
1 Albany	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
2 Barber Dam	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
3 Barney Creek	0	0	0	0	0	0	0	0	0	0
4 Beaverton	0	0	0	0	0	0	0	0	0	0
5 Bell Mountain	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
6 Big Sheep Creek	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
7 Bingham Engineering	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
8 Birch Creek (Clark County)	0	0	0	0	0	0	0	0	0	0
9 Birch Creek (Gooding County)	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
10 Black Canyon #3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
11 Black Creek	2.8	2.8	3.0	3.1	2.9	3.0	3.0	3.0	3.0	3.0
12 Blind Canyon Hydro	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
13 Boulder Creek	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
14 Box Canyon	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
15 Boyd James	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
16 Briggs Creek	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
17 Broadwater Dam	2.0	2	2	2	2	2	2	2	2	2
18 Buffalo Hydro	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
19 Burr & Bouchard	0	0	0	0	0	0	0	0	0	0
20 Bypass	3.8	3.8	3.8	3.8	3.8	3.8	3.8	4.3	3.2	3.8
21 Canyon Springs	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
22 Carlton	0	0	0	0	0	0	0	0	0	0
23 Cascade Creek	0	0	0	0	0	0	0	0	0	0
24 CDM-Felt Hydroelectric Plant	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
25 Cedar Draw	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
26 Central OR Irrigation District (Siphon)	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
27 Clear Springs Trout	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
28 Cornelius	0	0	0	0	0	0	0	0	0	0
29 Cowiche	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
30 Crystal Springs	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
31 Curry Cattle Co.	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
32 Curtiss Livestock	0	0	0	0	0	0	0	0	0	0
33 D. Wiggins	0	0	0	0	0	0	0	0	0	0
34 Dairy Creek	0	0	0	0	0	0	0	0	0	0
35 Deep Creek	0	0	0	0	0	0	0	0	0	0
36 Derr Creek	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
37 Dietrich Drop	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
38 Don Steffen	0	0	0	0	0	0	0	0	0	0
39 Donald Jenni	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
40 Dworshak/Clearwater Small Hydro Power	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
41 Eagle Creek	0	0	0	0	0	0	0	0	0	0
42 Elk Creek	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
43 Eltopia Br Canal 4.6	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
44 Elwha Hydro	0	0	0	0	0	0	0	0	0	0
45 Estacada	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
46 Fall Creek (OR) (Frontier Technology)	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	2.0	1.9
47 Falls Creek (WA)	0	0	0	0	0	0	0	0	0	0
48 Falls River	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9
49 Farmers Irrig.	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
50 Faulkner Ranch	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
51 Fisheries Development Co	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
52 Galesville Dam	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
53 Geobon 2	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
54 Georgetown Power	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
55 Glines Canyon Hydro	0	0	0	0	0	0	0	0	0	0
56 Hailey Csp	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
57 Hazelton A	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
58 Hazelton B	3	3	3	3	3	3	3	3	3	3
59 Horseshoe Bend Hydro	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6
60 Hutchinson Creek	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
61 Ingram Warm Springs	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
62 Jim Ford Creek	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5

Table A-24: Regional NUG Resources By Project And Project Type
PNW Loads and Resource Study
2012 - 2021 Operating Years
[76] 2011 White Book (Final)

Continued

5/27/2011

Energy (aMW)	2012 Avg.	2013 Avg.	2014 Avg.	2015 Avg.	2016 Avg.	2017 Avg.	2018 Avg.	2019 Avg.	2020 Avg.	2021 Avg.
63 Jim Knight	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
64 John Day Creek	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
65 Joseph Hydro	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
66 Juniper Ridge Hydro	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
67 Kasel & Witherspoon	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
68 Kevin Duncan	0	0	0	0	0	0	0	0	0	0
69 Koma Kulshan	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4
70 Koyle	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
71 L. Fery	0	0	0	0	0	0	0	0	0	0
72 Lacombe Irrig.	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
73 Lake Oswego	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
74 Lateral #10	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
75 Lee Tavenner	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
76 Lemoyne	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
77 Little Mac	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
78 Little Wood River Res.	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
79 Littlewood/Arkoosh	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
80 Low Line Canal Drop	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
81 Low Line Midway	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
82 Lower Low Line #2	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
83 Lucky Peak	24	24	24	24	24	24	24	24	24	24
84 Magic Reservoir	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
85 Main Canal Headworks	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8
86 Malad River	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
87 Marco Ranches	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
88 Marsh Valley	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
89 Meyers Falls	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
90 Middle Fork Irrig.	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
91 Mile 28	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
92 Mill Creek (OR) - City of Cove	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
93 Minikahda	0	0	0	0	0	0	0	0	0	0
94 Mink Creek	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
95 Mitchell Butte	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
96 Mora Canal Drop	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
97 Mountain Energy	0	0	0	0	0	0	0	0	0	0
98 Mt. Tabor	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
99 Mud Creek/S&S	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
100 Mud Creek/White	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
101 Nichols Gap	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
102 Nicholson Sunnybar	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
103 North Fork Sprague	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
104 O.J. Power	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
105 Odell Creek	0	0	0	0	0	0	0	0	0	0
106 Opal Springs	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
107 Orchard Avenue	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
108 Owyhee Dam	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
109 PEC Headworks	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
110 Phillips Ranch	0	0	0	0	0	0	0	0	0	0
111 Phillipsburg	0	0	0	0	0	0	0	0	0	0
112 Pickering Micro Hydro	0	0	0	0	0	0	0	0	0	0
113 Pigeon Cove	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
114 Pine Creek	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
115 Portland	0	0	0	0	0	0	0	0	0	0
116 Portland Hydro Project	12	12	12	12	12	12	12	12	12	12
117 Portneuf River	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.2
118 Potholes E Canal 66.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
119 Preston City	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
120 Pristine Springs	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
121 Pristine Springs #3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
122 Quincy Chute	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
123 Reynolds Irrigation	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
124 Rim View	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
125 Rock Creek #1	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
126 Rock Creek #2	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6

Table A-24: Regional NUG Resources By Project And Project Type
PNW Loads and Resource Study
2012 - 2021 Operating Years
[76] 2011 White Book (Final)

Continued

5/27/2011

Energy (aMW)	2012 Avg.	2013 Avg.	2014 Avg.	2015 Avg.	2016 Avg.	2017 Avg.	2018 Avg.	2019 Avg.	2020 Avg.	2021 Avg.
127 Rocky Brook	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
128 Russel D. Smith	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
129 Sagebrush	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
130 Sahko	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
131 Salem	0	0	0	0	0	0	0	0	0	0
132 Schaffner	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
133 Sheep Creek	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
134 Shingle Creek	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
135 Shoshone	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
136 Shoshone II	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
137 Snake River Pottery	0	0	0	0	0	0	0	0	0	0
138 Snedigar Ranch	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
139 Solar Research	0	0	0	0	0	0	0	0	0	0
140 South Dry Creek	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
141 Spokane Upriver	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7
142 Stauffer Dry Creek	0.8	0.9	0.9	0.9	0.8	0.9	0.9	0.9	0.8	0.9
143 Strawberry Creek	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
144 Summer Falls	37	37	37	37	37	37	37	37	37	37
145 Sunshine Power #2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
146 Sygitowicz Creek Small Hydro	0.4	0.4	0.3	0	0	0	0	0	0	0
147 TGS/Briggs	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
148 Thomas Burnside	0	0	0	0	0	0	0	0	0	0
149 Thompson Mill (Boston Power)	0	0	0	0	0	0	0	0	0	0
150 Tiber Dam Liberty Montana	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
151 Tieton (Yakima)	4.2	4.3	4.3	4.3	4.2	4.3	4.3	4.3	4.2	4.3
152 Trout Co.	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
153 Tunnel #1	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
154 Twin Falls	9.6	9.6	9.6	9.6	9.6	9.6	9.6	7.7	9.6	9.6
155 Walla Walla	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
156 Water Street / Santiam	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
157 Weeks Falls	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
158 White Water Ranch	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
159 Wilson Lake Hydro	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
160 Wisconsin Creek	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
161 Woods Creek	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
162 Total NUG: Hydro	241	242	242	242	241	242	242	240	241	242
-NUG: Small Thermal & Misc.-										
163 Covanta Marion Solid Waste	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7
164 Methane Energy Agricultural D. (Holey)	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
165 Montana One (Colstrip Energy Limited)	11	11	11	11	11	11	11	11	11	11
166 Pocatello Waste	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
167 Spokane MSW	15	15	15	15	15	15	15	15	15	15
168 Treasure Valley	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
169 West Boise Waste	0	0	0	0	0	0	0	0	0	0
170 Total NUG: Small Thermal & Misc.	37	38	37	37	37	37	37	37	37	37
-NUG: Co-Generation-										
171 Billings Generation	16	17	16	16	16	16	16	16	16	16
172 Biomass One	15	15	15	15	15	15	15	15	15	15
173 Boise Cascade Medford	0	0	0	0	0	0	0	0	0	0
174 Champion	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3	3
175 Cogen Co	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
176 DR Johnson - Co-Gen II	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7
177 Everett Cogen Project (Kimberly Clark)	34	34	34	34	34	34	34	34	34	34
178 Evergreen Biopower Cogen (Freres)	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
179 Glenns Ferry Cogen Facility (Magic West)	9.5	9.5	10	10	10	10	10	10	10	10
180 March Point #1	76	76	76	76	76	76	76	76	76	76
181 March Point #2	45	48	48	48	48	48	48	48	48	48
182 Potlatch Contract Renewal	47	47	47	47	47	47	47	47	47	47
183 Rough & Ready Lumber	1	1	1	1	1	1	1	1	1	1
184 Rupert Cogen Facility (Magic Valley)	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4
185 Simplot Pocatello	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2

**Table A-24: Regional NUG Resources By Project And Project Type
PNW Loads and Resource Study
2012 - 2021 Operating Years
[76] 2011 White Book (Final)**

Continued

5/27/2011

Energy (aMW)	2012 Avg.	2013 Avg.	2014 Avg.	2015 Avg.	2016 Avg.	2017 Avg.	2018 Avg.	2019 Avg.	2020 Avg.	2021 Avg.
186 Stimson Lumber (formerly Haley West)	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
187 Tamarack	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
188 TASC0 Nampa ID	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
189 TASC0 Twin Falls ID	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
190 Vaagen Bros.	0	0	0	0	0	0	0	0	0	0
191 Warm Springs	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
192 West Point	0	1.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
193 Total NUG: Co-Generation	291	296	296	297	298	297	297	298	297	297
-NUG: Renewables-										
194 Ashland Solar Project	0	0	0	0	0	0	0	0	0	0
195 Bellevue Solar (Amity, OR)	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
196 Bettencourt B6 anaerobic digester	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
197 Bettencourt Dairy (Cargill)	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
198 Big Sky Dairy	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
199 Chinook Wind	0	0	0	0	0	0	0	0	0	0
200 DeRuyter & Son's Dairy	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
201 Dry Creek Landfill (NUG Renewable)	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
202 Emmett Biomass Project	0	0	0	0	0	0	0	0	0	0
203 Farm Power Lynden	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
204 Farm Power Rexville	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
205 Finley Buttes BioEnergy	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
206 Fourmile Hill Geothermal	0	0	0	0	0	0	0	0	0	0
207 Healow #2	0	0	0	0	0	0	0	0	0	0
208 Hidden Hollow Landfill	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
209 Josef Staufer	0	0	0	0	0	0	0	0	0	0
210 Lewandowski Farms	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
211 Livingston	0	0	0	0	0	0	0	0	0	0
212 Pine Products Corp	0	0	0	0	0	0	0	0	0	0
213 Portland Waste Water	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
214 Puyallup Energy Recovery (PERC)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
215 Qualco Dairy Digester	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
216 Raft River Geothermal Phase 1	10	10	10	10	10	10	10	10	10	10
217 VanderHaak Dairy	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
218 White Bluffs Solar	0	0	0	0	0	0	0	0	0	0
219 Wild Horse Solar	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
220 Windmill	0	0	0	0	0	0	0	0	0	0
221 Yamhill Solar (Amity, OR)	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
222 Total NUG: Renewables	26	26	26	26	26	26	26	26	26	26
-Total Non-Utility Generating Resources-										
223 Federal Entities	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
224 Public Entities	126	134	135	135	135	135	135	135	135	135
225 Investor-Owned Entities	462	460	459	451	451	451	451	449	450	451
226 Other Entities	4.2	4.3	5.1	14	14	14	14	14	14	14
227 Total Non-Utility Generation	596	601	602	603	603	603	603	602	602	603

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Table A-26
Dedicated Resources
Annual OY 2012 – 2021
Average Energy in Megawatts

Power Services

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**Table A-26: Dedicated Resources
PNW Loads and Resource Study
2012 - 2021 Operating Years
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	2012 Avg.	2013 Avg.	2014 Avg.	2015 Avg.	2016 Avg.	2017 Avg.	2018 Avg.	2019 Avg.	2020 Avg.	2021 Avg.
-Generating Public Entities-										
1 Generating Public Entities	2290	2377	2381	2383	2384	2374	2372	2551	2570	2571
2 Total Generating Public Entities	2290	2377	2381	2383	2384	2374	2372	2551	2570	2571
-Non-Generating Public Entities-										
3 Small & Non Generating Public Entities	113	114	114	114	117	124	124	127	127	127
4 Total Non-Generating Public Entities	113	114	114	114	117	124	124	127	127	127
-Investor-Owned Entities-										
5 Investor-Owned Entities	7084	6984	6952	6968	6994	6962	7015	6743	6581	6644
6 Total Investor-owned Entities	7084	6984	6952	6968	6994	6962	7015	6743	6581	6644
-Total Dedicated Resources-										
7 Generating Public Entities	2290	2377	2381	2383	2384	2374	2372	2551	2570	2571
8 Small & Non Generating Entities	113	114	114	114	117	124	124	127	127	127
9 Investor-Owned Entities	7084	6984	6952	6968	6994	6962	7015	6743	6581	6644
10 Regional Total Dedicated Resources	9487	9476	9447	9466	9496	9461	9511	9421	9279	9342

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Table A-27
Other Dedicated Resources
Annual OY 2012 – 2021
Average Energy in Megawatts

Power Services

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**Table A-27: Other Dedicated Resources
PNW Loads and Resource Study
2012 - 2021 Operating Years
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	2012 Avg.	2013 Avg.	2014 Avg.	2015 Avg.	2016 Avg.	2017 Avg.	2018 Avg.	2019 Avg.	2020 Avg.	2021 Avg.
-Generating Public Entities-										
1 Generating Public Entities	1151	664	665	658	642	640	661	661	660	661
2 Total Generating Public Entities	1151	664	665	658	642	640	661	661	660	661
-Non-Generating Public Entities-										
3 Small & Non Generating Public Entities	690	113	115	117	119	119	119	119	119	119
4 Total Non-Generating Public Entities	690	113	115	117	119	119	119	119	119	119
-Investor-Owned Entities-										
5 Investor-Owned Entities	5549	5663	5602	5694	5617	5660	5720	5630	5661	5511
6 Total Investor-owned Entities	5549	5663	5602	5694	5617	5660	5720	5630	5661	5511
-Total Dedicated Resources-										
7 Generating Public Entities	1151	664	665	658	642	640	661	661	660	661
8 Non Generating Entities	690	113	115	117	119	119	119	119	119	119
9 Investor-Owned Entities	5549	5663	5602	5694	5617	5660	5720	5630	5661	5511
10 Regional Total Dedicated Resources	6390	6441	6382	6469	6378	6418	6500	6409	6440	6290

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Section 4
Monthly Federal Tables
Loads & Resources
Average Energy in Megawatts

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Loads & Resources Federal Tables
Monthly OY 2012 – 2021
Average Energy in Megawatts

Power Services

Reports Powered by:



Loads and Resources Information System

Loads and Resources - Federal System
PNW Loads and Resource Study
2011 - 2012 Operating Year
1937 Water Year
[76] 2011 White Book (Final)

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
Non-Utility Obligations															
1 Fed. Agencies 2002 PSC	107	108	94	0	0	0	0	0	0	0	0	0	0	0	17
2 USBR Obligation	310	308	293	96	17	18	2.5	7.1	57	228	218	322	314	416	173
3 DSI Obligation	340	340	340	340	340	340	340	340	340	340	340	340	340	340	340
4 Fed. Agencies 2012 PSC	0	0	0	100	124	149	144	131	129	108	109	97	101	111	100
5 Total Firm Non-Utility Obligations	758	756	727	536	482	508	487	479	526	676	667	759	756	868	630
Transfers Out															
6 NGP 2002 PSC	3061	3064	2809	0	0	0	0	0	0	0	0	0	0	0	490
7 GPU 2002 PSC	1991	1992	2103	0	0	0	0	0	0	0	0	0	0	0	341
8 NGP 2002 Slice PSC	637	534	503	0	0	0	0	0	0	0	0	0	0	0	91
9 GPU 2002 Slice PSC	1060	890	838	0	0	0	0	0	0	0	0	0	0	0	151
10 IOU 2002 PSC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 NGP 2012 PSC	0	0	0	2916	3335	3854	3783	3488	3176	3057	3081	3023	3163	3415	2769
12 GPU 2012 PSC	0	0	0	1413	1792	1981	2005	1806	1736	1407	1409	1196	1063	1253	1304
13 NGP 2012 Slice PSC	0	0	0	327	414	400	401	356	336	273	268	486	435	423	321
14 GPU 2012 Slice PSC	0	0	0	1333	1687	1630	1637	1453	1372	1114	1095	1983	1773	1726	1309
15 IOU 2012 PSC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16 Exports	934	933	915	812	800	796	795	794	799	840	845	872	877	865	842
17 Regional Transfers (Out)	647	635	310	311	578	649	639	623	519	784	744	511	548	151	520
18 Federal Diversity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19 Total Transfers Out	8330	8048	7479	7113	8607	9310	9260	8521	7938	7476	7441	8072	7859	7833	8137
20 Total Firm Obligations	9087	8804	8206	7649	9088	9817	9748	9000	8464	8152	8109	8831	8615	8701	8767
Hydro Resources															
21 Regulated Hydro	6941	5727	5393	5409	7211	7054	7086	6240	5692	4529	4422	8385	7364	7513	6518
22 Independent Hydro	390	366	313	311	284	198	176	162	251	377	414	705	759	472	367
23 Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 Total Hydro Resources	7331	6094	5706	5721	7495	7252	7262	6402	5942	4906	4836	9090	8123	7985	6885
Other Resources															
25 Small Thermal & Misc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 Combustion Turbines	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27 Renewables	68	64	57	59	66	59	65	56	83	80	72	73	80	65	67
28 Cogeneration	12	12	14	18	20	23	24	23	23	22	22	19	14	18	19
29 Imports	171	156	154	206	284	355	356	334	321	322	265	130	134	165	241
30 Regional Transfers (In)	854	836	424	241	401	336	342	335	371	385	383	92	217	89	340
31 Non-Fed CER (Canada)	142	142	142	142	142	142	142	142	142	139	139	139	139	139	141
32 Transmission Loss Returns	0	0	0	32	40	39	39	34	32	26	26	47	42	41	31
33 Large Thermal	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030
34 Non-Utility Generation	2.6	2.6	2.6	2.7	2.8	3.2	3.2	3	3.1	3.1	3.1	2.8	2.7	2.6	2.9
35 Augmentation Purchases	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36 Augmentation Resources	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
37 Total Other Resources	2280	2244	1825	1731	1986	1987	2002	1958	2006	2007	1940	1532	1659	1549	1872
38 Total Resources	9611	8337	7532	7452	9481	9240	9264	8360	7948	6913	6776	10622	9782	9534	8757
Reserves & Losses															
39 Contingency Reserves (Non-Spinning)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40 Contingency Reserves (Spinning)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
41 Generation Imbalance Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42 Load Following Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43 Federal Transmission Losses	-271	-235	-212	-210	-267	-261	-261	-236	-224	-195	-191	-300	-276	-269	-247
44 Total Reserves & Losses	-271	-235	-212	-210	-267	-261	-261	-236	-224	-195	-191	-300	-276	-269	-247

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Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
<i>45 Total Net Resources</i>	9340	8102	7319	7241	9214	8979	9002	8125	7724	6718	6585	10323	9506	9266	8510
<i>46 Total Firm Surplus/Deficit</i>	252	-702	-887	-407	126	-838	-745	-875	-740	-1434	-1523	1492	891	565	-257

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Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
Non-Utility Obligations															
1 Fed. Agencies 2002 PSC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2 USBR Obligation	310	308	293	96	17	18	2.5	7.1	57	223	223	322	314	416	174
3 DSI Obligation	340	340	340	340	340	340	340	340	340	340	340	340	340	340	340
4 Fed. Agencies 2012 PSC	107	107	94	103	129	156	146	136	130	109	109	98	102	112	119
5 Total Firm Non-Utility Obligations	757	755	727	540	487	514	489	484	527	673	673	760	757	869	633
Transfers Out															
6 NGP 2002 PSC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7 GPU 2002 PSC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 NGP 2002 Slice PSC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9 GPU 2002 Slice PSC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10 IOU 2002 PSC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 NGP 2012 PSC	3306	3309	3019	2974	3393	3918	3842	3633	3244	3125	3125	3084	3224	3513	3356
12 GPU 2012 PSC	1273	1273	1407	1454	1847	2042	2068	1929	1790	1448	1448	1232	1095	1290	1571
13 NGP 2012 Slice PSC	404	351	328	328	415	401	402	357	337	274	269	451	381	419	373
14 GPU 2012 Slice PSC	1646	1432	1337	1337	1691	1634	1641	1457	1376	1119	1098	1840	1555	1709	1520
15 IOU 2012 PSC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16 Exports	845	844	830	792	779	775	572	571	575	617	621	648	653	642	692
17 Regional Transfers (Out)	124	109	97	180	448	518	519	494	388	367	340	101	143	151	291
18 Federal Diversity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19 Total Transfers Out	7597	7318	7018	7064	8573	9288	9043	8440	7710	6951	6901	7356	7051	7724	7803
20 Total Firm Obligations	8355	8073	7745	7604	9059	9802	9532	8924	8237	7623	7574	8116	7808	8593	8436
Hydro Resources															
21 Regulated Hydro	7054	6060	5618	5409	7211	7054	7086	6240	5692	4529	4422	8383	7338	7513	6554
22 Independent Hydro	390	366	313	311	284	198	176	162	251	377	414	705	759	472	368
23 Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 Total Hydro Resources	7443	6427	5932	5721	7495	7252	7262	6402	5942	4906	4836	9088	8096	7985	6922
Other Resources															
25 Small Thermal & Misc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 Combustion Turbines	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27 Renewables	68	64	57	59	66	59	65	56	83	80	72	73	81	65	67
28 Cogeneration	12	12	14	18	20	23	24	23	23	22	22	19	14	18	19
29 Imports	171	156	153	207	284	356	355	334	323	320	266	130	134	166	241
30 Regional Transfers (In)	105	88	210	236	402	371	378	370	405	422	418	128	258	124	282
31 Non-Fed CER (Canada)	139	139	139	139	139	139	139	139	139	137	137	137	137	137	138
32 Transmission Loss Returns	39	34	32	32	40	39	39	35	33	27	26	44	37	40	36
33 Large Thermal	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	332	0	930	878
34 Non-Utility Generation	2.6	2.6	2.6	2.7	2.8	3.2	3.2	3.1	3.1	3.1	3.1	2.8	2.7	2.6	2.9
35 Augmentation Purchases	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36 Augmentation Resources	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
37 Total Other Resources	1567	1526	1639	1723	1984	2020	2033	1990	2038	2040	1973	865	663	1483	1664
38 Total Resources	9010	7953	7570	7444	9479	9272	9295	8392	7980	6946	6810	9953	8760	9468	8586
Reserves & Losses															
39 Contingency Reserves (Non-Spinning)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40 Contingency Reserves (Spinning)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
41 Generation Imbalance Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42 Load Following Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43 Federal Transmission Losses	-254	-224	-213	-210	-267	-261	-262	-237	-225	-196	-192	-281	-247	-267	-242
44 Total Reserves & Losses	-254	-224	-213	-210	-267	-261	-262	-237	-225	-196	-192	-281	-247	-267	-242

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Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
<i>45 Total Net Resources</i>	8756	7729	7357	7234	9211	9011	9033	8156	7755	6750	6618	9672	8513	9201	8344
<i>46 Total Firm Surplus/Deficit</i>	402	-345	-388	-370	152	-791	-499	-768	-482	-873	-956	1556	704	608	-92

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Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
Non-Utility Obligations															
1 Fed. Agencies 2002 PSC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2 USBR Obligation	310	308	293	96	17	18	2.5	7.1	57	223	223	322	314	416	174
3 DSI Obligation	340	340	340	340	340	340	340	340	340	340	340	340	340	340	340
4 Fed. Agencies 2012 PSC	108	108	95	105	130	157	159	148	141	118	118	107	111	122	125
5 Total Firm Non-Utility Obligations	758	756	728	541	488	516	502	496	538	682	682	769	766	878	639
Transfers Out															
6 NGP 2002 PSC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7 GPU 2002 PSC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 NGP 2002 Slice PSC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9 GPU 2002 Slice PSC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10 IOU 2002 PSC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 NGP 2012 PSC	3401	3404	3108	3039	3468	4008	3925	3713	3313	3189	3189	3142	3285	3545	3428
12 GPU 2012 PSC	1310	1310	1448	1438	1830	2023	2049	1911	1773	1433	1433	1220	1085	1277	1565
13 NGP 2012 Slice PSC	403	351	328	327	413	399	401	356	336	274	268	482	434	422	379
14 GPU 2012 Slice PSC	1646	1432	1337	1333	1687	1630	1636	1453	1372	1116	1095	1966	1769	1720	1547
15 IOU 2012 PSC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16 Exports	643	641	630	591	578	574	573	572	576	618	622	649	654	643	608
17 Regional Transfers (Out)	124	109	97	180	448	518	519	494	388	367	340	101	108	117	285
18 Federal Diversity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19 Total Transfers Out	7527	7247	6947	6909	8423	9152	9103	8498	7758	6997	6947	7560	7335	7724	7812
20 Total Firm Obligations	8285	8004	7675	7450	8912	9668	9605	8994	8297	7679	7629	8329	8101	8602	8452
Hydro Resources															
21 Regulated Hydro	7054	6060	5618	5409	7211	7054	7086	6240	5692	4529	4422	8305	7312	7452	6540
22 Independent Hydro	390	366	313	311	284	198	176	162	251	377	414	705	759	472	368
23 Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 Total Hydro Resources	7443	6427	5932	5721	7495	7252	7262	6402	5942	4906	4836	9010	8071	7924	6908
Other Resources															
25 Small Thermal & Misc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 Combustion Turbines	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27 Renewables	68	64	57	59	66	59	65	56	83	80	72	73	81	65	67
28 Cogeneration	12	12	14	18	20	23	24	23	23	22	22	19	14	18	19
29 Imports	170	156	154	207	284	357	355	334	322	319	266	130	134	166	241
30 Regional Transfers (In)	141	124	246	178	316	286	292	284	319	335	331	70	200	66	226
31 Non-Fed CER (Canada)	137	137	137	137	137	137	137	137	137	136	136	136	136	136	137
32 Transmission Loss Returns	39	34	32	32	40	39	39	34	33	27	26	47	42	41	37
33 Large Thermal	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030
34 Non-Utility Generation	2.6	2.6	2.6	2.7	2.8	3.2	3.2	3.1	3.1	3.1	3.1	2.8	2.7	2.6	2.9
35 Augmentation Purchases	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36 Augmentation Resources	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
37 Total Other Resources	1601	1560	1673	1664	1896	1933	1946	1902	1950	1952	1885	1507	1640	1524	1760
38 Total Resources	9044	7987	7605	7384	9391	9185	9208	8304	7892	6858	6722	10517	9711	9448	8667
Reserves & Losses															
39 Contingency Reserves (Non-Spinning)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40 Contingency Reserves (Spinning)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
41 Generation Imbalance Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42 Load Following Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43 Federal Transmission Losses	-255	-225	-214	-208	-265	-259	-260	-234	-223	-193	-190	-297	-274	-266	-244
44 Total Reserves & Losses	-255	-225	-214	-208	-265	-259	-260	-234	-223	-193	-190	-297	-274	-266	-244

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Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
<i>45 Total Net Resources</i>	8789	7761	7391	7176	9126	8926	8948	8070	7670	6665	6532	10220	9437	9182	8423
<i>46 Total Firm Surplus/Deficit</i>	503	-242	-285	-274	214	-741	-657	-924	-627	-1014	-1097	1892	1336	579	-29

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Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
Non-Utility Obligations															
1 Fed. Agencies 2002 PSC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2 USBR Obligation	303	314	293	96	17	18	2.5	7.1	57	223	223	322	314	416	174
3 DSI Obligation	340	340	340	340	340	340	340	340	340	340	340	340	340	340	340
4 Fed. Agencies 2012 PSC	118	117	103	113	142	172	172	160	152	128	128	116	120	131	136
5 Total Firm Non-Utility Obligations	761	771	736	550	500	531	516	508	550	691	691	778	775	888	650
Transfers Out															
6 NGP 2002 PSC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7 GPU 2002 PSC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 NGP 2002 Slice PSC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9 GPU 2002 Slice PSC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10 IOU 2002 PSC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 NGP 2012 PSC	3445	3421	3140	3070	3500	4045	3962	3749	3345	3222	3222	3178	3324	3588	3462
12 GPU 2012 PSC	1298	1296	1434	1475	1877	2075	2102	1960	1819	1470	1470	1254	1115	1311	1597
13 NGP 2012 Slice PSC	405	352	328	327	414	401	403	358	338	275	270	459	380	413	373
14 GPU 2012 Slice PSC	1650	1435	1336	1336	1690	1637	1644	1460	1380	1124	1102	1874	1551	1685	1522
15 IOU 2012 PSC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16 Exports	608	605	595	555	542	538	537	536	540	582	587	611	616	603	572
17 Regional Transfers (Out)	124	109	97	180	448	518	519	494	388	367	340	101	108	117	285
18 Federal Diversity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19 Total Transfers Out	7529	7218	6929	6943	8471	9214	9166	8557	7810	7041	6991	7477	7095	7717	7812
20 Total Firm Obligations	8290	7989	7665	7493	8971	9745	9682	9065	8359	7732	7683	8255	7871	8604	8462
Hydro Resources															
21 Regulated Hydro	7054	6060	5618	5409	7211	7054	7086	6240	5692	4529	4422	8361	7266	7513	6546
22 Independent Hydro	390	366	313	311	284	198	176	162	251	377	414	705	759	472	368
23 Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 Total Hydro Resources	7443	6427	5932	5721	7495	7252	7262	6402	5942	4906	4836	9066	8025	7985	6914
Other Resources															
25 Small Thermal & Misc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 Combustion Turbines	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27 Renewables	68	64	57	59	66	59	65	56	83	80	72	73	80	65	67
28 Cogeneration	12	12	14	18	20	23	24	23	23	22	22	19	14	18	19
29 Imports	169	156	154	207	285	355	355	334	323	319	266	130	134	161	241
30 Regional Transfers (In)	83	67	161	156	162	147	154	142	180	192	187	70	196	66	141
31 Non-Fed CER (Canada)	136	136	136	136	136	136	136	136	136	136	136	136	136	136	136
32 Transmission Loss Returns	39	34	32	32	40	39	39	35	33	27	26	44	37	40	36
33 Large Thermal	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	498	0	764	878
34 Non-Utility Generation	2.6	2.6	2.6	2.7	2.8	3.2	3.2	3.1	3.1	3.1	3.1	2.8	2.7	2.6	2.9
35 Augmentation Purchases	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36 Augmentation Resources	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
37 Total Other Resources	1541	1502	1587	1641	1742	1792	1806	1759	1811	1808	1742	973	599	1253	1521
38 Total Resources	8984	7929	7519	7362	9237	9044	9068	8161	7753	6715	6578	10039	8624	9238	8435
Reserves & Losses															
39 Contingency Reserves (Non-Spinning)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40 Contingency Reserves (Spinning)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
41 Generation Imbalance Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42 Load Following Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43 Federal Transmission Losses	-253	-224	-212	-208	-260	-255	-256	-230	-219	-189	-186	-283	-243	-261	-238
44 Total Reserves & Losses	-253	-224	-212	-208	-260	-255	-256	-230	-219	-189	-186	-283	-243	-261	-238

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Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
<i>45 Total Net Resources</i>	8731	7705	7307	7154	8976	8789	8812	7931	7534	6525	6393	9756	8381	8977	8197
<i>46 Total Firm Surplus/Deficit</i>	441	-284	-358	-339	5.4	-956	-870	-1134	-825	-1207	-1290	1501	510	373	-266

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Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
Non-Utility Obligations															
1 Fed. Agencies 2002 PSC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2 USBR Obligation	303	314	293	96	17	18	2.5	7.1	57	223	223	322	314	416	173
3 DSI Obligation	340	340	340	340	340	340	340	340	340	340	340	340	340	340	340
4 Fed. Agencies 2012 PSC	127	126	111	123	155	188	179	162	158	132	132	120	125	136	143
5 Total Firm Non-Utility Obligations	771	781	745	559	513	547	522	510	555	696	696	782	780	892	657
Transfers Out															
6 NGP 2002 PSC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7 GPU 2002 PSC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 NGP 2002 Slice PSC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9 GPU 2002 Slice PSC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10 IOU 2002 PSC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 NGP 2012 PSC	3484	3459	3173	3095	3530	4077	3993	3685	3370	3248	3248	3205	3352	3616	3485
12 GPU 2012 PSC	1332	1331	1471	1461	1859	2055	2082	1875	1801	1456	1456	1245	1106	1299	1586
13 NGP 2012 Slice PSC	403	350	326	325	411	398	400	355	335	272	267	484	430	423	378
14 GPU 2012 Slice PSC	1645	1429	1329	1324	1677	1624	1631	1448	1368	1109	1088	1975	1756	1726	1542
15 IOU 2012 PSC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16 Exports	629	629	618	582	570	566	564	563	568	610	614	612	617	612	593
17 Regional Transfers (Out)	124	109	97	180	448	518	518	493	388	367	340	101	108	118	286
18 Federal Diversity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19 Total Transfers Out	7617	7307	7013	6966	8495	9238	9189	8420	7830	7061	7011	7622	7369	7795	7871
20 Total Firm Obligations	8388	8088	7758	7526	9007	9785	9711	8930	8385	7756	7707	8404	8149	8687	8527
Hydro Resources															
21 Regulated Hydro	7054	6060	5618	5409	7211	7054	7086	6240	5692	4529	4422	8365	7256	7513	6545
22 Independent Hydro	390	366	313	311	284	198	176	162	251	377	414	705	759	472	367
23 Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 Total Hydro Resources	7443	6427	5932	5721	7495	7252	7262	6402	5942	4906	4836	9070	8015	7985	6912
Other Resources															
25 Small Thermal & Misc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 Combustion Turbines	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27 Renewables	68	64	57	59	66	59	65	56	83	80	72	73	80	65	67
28 Cogeneration	12	12	14	18	20	23	24	23	23	0	0	0	0	0	13
29 Imports	165	151	146	202	281	351	352	330	319	319	265	130	134	150	237
30 Regional Transfers (In)	83	67	161	157	162	147	160	142	175	192	188	70	196	67	141
31 Non-Fed CER (Canada)	136	136	136	136	136	136	136	136	136	135	135	135	135	135	135
32 Transmission Loss Returns	39	34	32	32	40	39	39	35	33	26	26	47	42	41	37
33 Large Thermal	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030
34 Non-Utility Generation	2.6	2.6	2.6	2.7	2.8	3.2	3.2	3	3.1	3.1	3.1	2.8	2.7	2.6	2.9
35 Augmentation Purchases	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36 Augmentation Resources	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
37 Total Other Resources	1536	1497	1579	1636	1737	1787	1808	1754	1801	1785	1719	1488	1619	1490	1663
38 Total Resources	8979	7924	7511	7357	9232	9040	9070	8156	7744	6692	6556	10557	9634	9475	8576
Reserves & Losses															
39 Contingency Reserves (Non-Spinning)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40 Contingency Reserves (Spinning)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
41 Generation Imbalance Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42 Load Following Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43 Federal Transmission Losses	-253	-223	-212	-207	-260	-255	-256	-230	-218	-189	-185	-298	-272	-267	-242
44 Total Reserves & Losses	-253	-223	-212	-207	-260	-255	-256	-230	-218	-189	-185	-298	-272	-267	-242

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Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
<i>45 Total Net Resources</i>	8726	7700	7299	7149	8972	8785	8814	7926	7525	6503	6371	10259	9363	9208	8334
<i>46 Total Firm Surplus/Deficit</i>	338	-387	-459	-376	-35	-1000	-896	-1004	-859	-1254	-1336	1856	1214	521	-194

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Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
Non-Utility Obligations															
1 Fed. Agencies 2002 PSC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2 USBR Obligation	310	308	293	96	17	18	2.5	7.1	57	218	228	322	314	416	174
3 DSI Obligation	340	340	340	340	340	340	340	340	340	340	340	340	340	340	340
4 Fed. Agencies 2012 PSC	131	131	115	127	161	196	212	197	186	156	155	142	147	160	161
5 Total Firm Non-Utility Obligations	781	780	749	564	519	554	555	545	583	715	724	804	802	916	675
Transfers Out															
6 NGP 2002 PSC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7 GPU 2002 PSC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 NGP 2002 Slice PSC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9 GPU 2002 Slice PSC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10 IOU 2002 PSC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 NGP 2012 PSC	3498	3500	3200	3125	3558	4109	4025	3811	3398	3289	3263	3234	3384	3652	3522
12 GPU 2012 PSC	1319	1319	1456	1497	1904	2104	2133	1988	1845	1492	1491	1276	1134	1332	1622
13 NGP 2012 Slice PSC	401	349	324	324	409	396	398	353	333	271	267	449	382	415	369
14 GPU 2012 Slice PSC	1637	1425	1324	1323	1669	1617	1623	1440	1360	1107	1088	1832	1557	1693	1507
15 IOU 2012 PSC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16 Exports	608	607	597	560	556	551	551	550	555	598	602	601	606	607	579
17 Regional Transfers (Out)	124	109	97	160	420	491	491	470	354	323	296	63	67	83	259
18 Federal Diversity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19 Total Transfers Out	7587	7309	6997	6990	8517	9269	9220	8612	7846	7081	7007	7455	7130	7781	7857
20 Total Firm Obligations	8369	8089	7746	7553	9036	9823	9775	9157	8429	7795	7731	8259	7932	8697	8532
Hydro Resources															
21 Regulated Hydro	7054	6060	5618	5409	7211	7054	7086	6240	5692	4529	4422	8303	7328	7513	6546
22 Independent Hydro	390	366	313	311	284	198	176	162	251	377	414	705	759	472	368
23 Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 Total Hydro Resources	7443	6427	5932	5721	7495	7252	7262	6402	5942	4906	4836	9008	8087	7985	6914
Other Resources															
25 Small Thermal & Misc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 Combustion Turbines	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27 Renewables	68	64	57	59	66	59	65	56	83	80	72	73	80	65	67
28 Cogeneration	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29 Imports	155	141	135	191	252	323	323	302	292	292	263	130	134	150	221
30 Regional Transfers (In)	83	66	160	135	127	120	130	120	136	145	155	33	153	34	114
31 Non-Fed CER (Canada)	135	135	135	135	135	135	135	135	135	133	133	133	133	133	134
32 Transmission Loss Returns	39	34	32	32	40	39	39	34	32	26	26	44	37	40	36
33 Large Thermal	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	399	0	864	878
34 Non-Utility Generation	2.6	2.6	2.6	2.7	2.8	3.2	3.2	3.1	3.1	3.1	3.1	2.8	2.7	2.6	2.9
35 Augmentation Purchases	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36 Augmentation Resources	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
37 Total Other Resources	1513	1472	1552	1585	1652	1708	1725	1680	1711	1709	1683	814	539	1289	1453
38 Total Resources	8956	7899	7483	7305	9147	8961	8987	8082	7653	6615	6519	9821	8627	9275	8367
Reserves & Losses															
39 Contingency Reserves (Non-Spinning)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40 Contingency Reserves (Spinning)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
41 Generation Imbalance Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42 Load Following Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43 Federal Transmission Losses	-253	-223	-211	-206	-258	-253	-253	-228	-216	-187	-184	-277	-243	-262	-236
44 Total Reserves & Losses	-253	-223	-211	-206	-258	-253	-253	-228	-216	-187	-184	-277	-243	-262	-236

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Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
<i>45 Total Net Resources</i>	8703	7676	7272	7099	8889	8708	8734	7854	7437	6429	6335	9544	8383	9013	8131
<i>46 Total Firm Surplus/Deficit</i>	335	-413	-474	-454	-146	-1115	-1041	-1303	-992	-1367	-1395	1285	451	316	-401

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Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
Non-Utility Obligations															
1 Fed. Agencies 2002 PSC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2 USBR Obligation	310	308	293	96	17	18	2.5	7.1	57	228	218	322	314	416	174
3 DSI Obligation	340	340	340	0	0	0	0	0	0	0	0	0	0	0	57
4 Fed. Agencies 2012 PSC	155	155	136	150	192	235	216	200	189	158	159	144	150	162	174
5 Total Firm Non-Utility Obligations	805	803	770	246	209	253	218	207	246	385	377	466	464	578	404
Transfers Out															
6 NGP 2002 PSC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7 GPU 2002 PSC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 NGP 2002 Slice PSC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9 GPU 2002 Slice PSC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10 IOU 2002 PSC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 NGP 2012 PSC	3532	3534	3229	3137	3571	4123	4059	3846	3431	3296	3322	3269	3425	3695	3552
12 GPU 2012 PSC	1352	1352	1492	1473	1874	2070	2128	1987	1845	1497	1498	1286	1147	1341	1623
13 NGP 2012 Slice PSC	402	349	325	324	414	401	403	358	336	273	270	484	431	423	379
14 GPU 2012 Slice PSC	1638	1426	1325	1322	1690	1637	1643	1461	1370	1115	1101	1975	1757	1726	1547
15 IOU 2012 PSC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16 Exports	602	601	591	554	550	545	545	539	504	517	521	521	525	526	543
17 Regional Transfers (Out)	88	74	68	154	319	390	390	369	305	274	246	63	67	83	211
18 Federal Diversity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19 Total Transfers Out	7614	7336	7029	6964	8418	9168	9168	8560	7791	6972	6958	7599	7351	7794	7855
20 Total Firm Obligations	8418	8139	7799	7210	8627	9420	9386	8767	8037	7358	7335	8064	7815	8372	8260
Hydro Resources															
21 Regulated Hydro	7054	6060	5618	5409	7211	7054	7086	6240	5692	4529	4422	8365	7256	7513	6545
22 Independent Hydro	390	366	313	311	284	198	176	162	251	377	414	705	759	472	368
23 Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 Total Hydro Resources	7443	6427	5932	5721	7495	7252	7262	6402	5942	4906	4836	9070	8015	7985	6913
Other Resources															
25 Small Thermal & Misc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 Combustion Turbines	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27 Renewables	68	64	57	59	66	59	65	56	83	80	72	73	80	65	67
28 Cogeneration	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29 Imports	155	141	135	191	252	323	323	297	247	217	188	55	59	75	192
30 Regional Transfers (In)	45	32	80	78	72	68	70	64	82	95	89	33	98	34	67
31 Non-Fed CER (Canada)	133	133	133	133	133	133	133	133	133	132	132	132	132	132	133
32 Transmission Loss Returns	39	34	32	32	40	39	39	35	33	27	26	47	42	41	37
33 Large Thermal	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030
34 Non-Utility Generation	2.6	2.6	2.6	2.7	2.8	3.2	3.2	3.1	3.1	3.1	3.1	2.8	2.7	2.6	2.9
35 Augmentation Purchases	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36 Augmentation Resources	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
37 Total Other Resources	1473	1436	1470	1526	1596	1656	1664	1618	1610	1583	1540	1372	1443	1380	1529
38 Total Resources	8916	7863	7402	7246	9091	8908	8926	8020	7552	6489	6376	10442	9458	9365	8442
Reserves & Losses															
39 Contingency Reserves (Non-Spinning)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40 Contingency Reserves (Spinning)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
41 Generation Imbalance Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42 Load Following Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43 Federal Transmission Losses	-251	-222	-209	-204	-256	-251	-252	-226	-213	-183	-180	-294	-267	-264	-238
44 Total Reserves & Losses	-251	-222	-209	-204	-256	-251	-252	-226	-213	-183	-180	-294	-267	-264	-238

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Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
<i>45 Total Net Resources</i>	8665	7641	7193	7042	8835	8657	8674	7794	7339	6306	6197	10147	9191	9101	8204
<i>46 Total Firm Surplus/Deficit</i>	246	-498	-606	-168	208	-763	-712	-973	-697	-1051	-1138	2083	1376	729	-56

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Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
Non-Utility Obligations															
1 Fed. Agencies 2002 PSC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2 USBR Obligation	310	308	293	96	17	18	2.5	7.1	57	223	223	322	314	416	174
3 DSI Obligation	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Fed. Agencies 2012 PSC	157	157	139	153	195	238	218	202	191	159	159	145	151	164	176
5 Total Firm Non-Utility Obligations	467	465	431	249	212	256	220	209	247	382	382	467	465	580	350
Transfers Out															
6 NGP 2002 PSC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7 GPU 2002 PSC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 NGP 2002 Slice PSC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9 GPU 2002 Slice PSC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10 IOU 2002 PSC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 NGP 2012 PSC	3576	3578	3275	3191	3629	4187	4106	3891	3471	3347	3347	3306	3465	3738	3598
12 GPU 2012 PSC	1361	1361	1499	1537	1946	2146	2174	2030	1886	1532	1532	1316	1174	1372	1663
13 NGP 2012 Slice PSC	401	349	325	324	414	402	403	358	336	274	270	445	382	418	372
14 GPU 2012 Slice PSC	1637	1425	1324	1323	1691	1638	1645	1462	1371	1117	1101	1817	1558	1706	1516
15 IOU 2012 PSC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16 Exports	522	520	510	504	500	495	494	489	480	480	480	480	480	480	493
17 Regional Transfers (Out)	88	74	68	154	319	390	390	369	305	274	246	63	67	83	211
18 Federal Diversity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19 Total Transfers Out	7585	7308	7001	7033	8498	9257	9212	8599	7849	7024	6975	7428	7126	7798	7852
20 Total Firm Obligations	8051	7773	7432	7281	8710	9514	9432	8808	8096	7406	7358	7895	7591	8377	8202
Hydro Resources															
21 Regulated Hydro	7054	6060	5618	5409	7211	7054	7086	6240	5692	4529	4422	8303	7328	7513	6546
22 Independent Hydro	390	366	313	311	284	198	176	162	251	377	414	705	759	472	368
23 Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 Total Hydro Resources	7443	6427	5932	5721	7495	7252	7262	6402	5942	4906	4836	9008	8087	7985	6914
Other Resources															
25 Small Thermal & Misc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 Combustion Turbines	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27 Renewables	68	64	57	59	66	59	65	56	83	80	72	73	81	65	67
28 Cogeneration	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29 Imports	80	66	60	146	207	278	278	257	247	217	188	55	59	75	161
30 Regional Transfers (In)	45	32	82	75	71	68	70	55	57	55	55	0	57	0	52
31 Non-Fed CER (Canada)	132	132	132	132	132	132	132	132	132	130	130	130	130	130	131
32 Transmission Loss Returns	39	34	32	32	40	39	39	35	33	27	26	43	37	41	36
33 Large Thermal	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	332	0	930	878
34 Non-Utility Generation	2.6	2.6	2.6	2.7	2.8	3.2	3.2	3.1	3.1	3.1	3.1	2.8	2.7	2.6	2.9
35 Augmentation Purchases	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36 Augmentation Resources	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
37 Total Other Resources	1397	1360	1396	1476	1549	1609	1618	1568	1584	1541	1504	636	367	1243	1328
38 Total Resources	8840	7786	7328	7197	9044	8862	8879	7970	7526	6447	6341	9644	8454	9229	8242
Reserves & Losses															
39 Contingency Reserves (Non-Spinning)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40 Contingency Reserves (Spinning)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
41 Generation Imbalance Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42 Load Following Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43 Federal Transmission Losses	-249	-220	-207	-203	-255	-250	-250	-225	-212	-182	-179	-272	-238	-260	-232
44 Total Reserves & Losses	-249	-220	-207	-203	-255	-250	-250	-225	-212	-182	-179	-272	-238	-260	-232

Loads and Resources - Federal System
PNW Loads and Resource Study
2018 - 2019 Operating Year
1937 Water Year
[76] 2011 White Book (Final)

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
<i>45 Total Net Resources</i>	8591	7567	7121	6994	8789	8612	8629	7745	7314	6266	6162	9372	8216	8968	8010
<i>46 Total Firm Surplus/Deficit</i>	539	-206	-311	-287	79	-902	-803	-1062	-782	-1141	-1196	1476	624	591	-192

**Loads and Resources - Federal System
PNW Loads and Resource Study
2019 - 2020 Operating Year
1937 Water Year
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5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
Non-Utility Obligations															
1 Fed. Agencies 2002 PSC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2 USBR Obligation	310	308	294	96	17	18	2.6	7.1	57	223	223	322	314	416	173
3 DSI Obligation	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Fed. Agencies 2012 PSC	158	158	140	154	196	240	219	197	192	160	160	146	152	165	177
5 Total Firm Non-Utility Obligations	469	467	433	250	214	259	221	205	248	383	383	468	466	580	350
Transfers Out															
6 NGP 2002 PSC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7 GPU 2002 PSC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 NGP 2002 Slice PSC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9 GPU 2002 Slice PSC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10 IOU 2002 PSC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 NGP 2012 PSC	3616	3618	3312	3208	3647	4205	4124	3813	3485	3360	3360	3320	3481	3753	3611
12 GPU 2012 PSC	1392	1392	1533	1517	1920	2117	2145	1935	1861	1512	1512	1300	1160	1355	1645
13 NGP 2012 Slice PSC	401	349	325	324	420	407	409	364	339	277	273	485	431	424	382
14 GPU 2012 Slice PSC	1638	1426	1325	1324	1713	1661	1667	1485	1382	1128	1112	1977	1759	1728	1557
15 IOU 2012 PSC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16 Exports	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475
17 Regional Transfers (Out)	88	74	68	154	217	289	288	267	255	225	196	63	67	83	170
18 Federal Diversity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19 Total Transfers Out	7610	7334	7037	7003	8393	9154	9108	8339	7797	6977	6928	7619	7372	7817	7840
20 Total Firm Obligations	8079	7801	7471	7253	8607	9413	9329	8543	8045	7360	7311	8087	7839	8398	8190
Hydro Resources															
21 Regulated Hydro	7054	6060	5618	5409	7211	7054	7086	6240	5692	4529	4422	8365	7256	7513	6545
22 Independent Hydro	390	366	313	311	284	198	176	162	251	377	414	705	759	472	367
23 Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 Total Hydro Resources	7443	6427	5932	5721	7495	7252	7262	6402	5942	4906	4836	9070	8015	7985	6912
Other Resources															
25 Small Thermal & Misc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 Combustion Turbines	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27 Renewables	68	64	57	59	66	59	65	56	83	80	72	73	80	65	67
28 Cogeneration	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29 Imports	80	66	60	146	207	278	278	257	247	217	188	55	59	75	161
30 Regional Transfers (In)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31 Non-Fed CER (Canada)	130	130	130	130	130	130	130	130	130	129	129	129	129	129	130
32 Transmission Loss Returns	39	34	32	32	41	40	40	35	33	27	27	47	42	41	37
33 Large Thermal	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030
34 Non-Utility Generation	2.6	2.6	2.6	2.7	2.8	3.2	3.2	3	3.1	3.1	3.1	2.8	2.7	2.6	2.9
35 Augmentation Purchases	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36 Augmentation Resources	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
37 Total Other Resources	1350	1327	1312	1400	1477	1541	1547	1512	1526	1485	1448	1336	1342	1342	1428
38 Total Resources	8793	7753	7244	7121	8972	8793	8808	7914	7468	6391	6285	10406	9357	9327	8340
Reserves & Losses															
39 Contingency Reserves (Non-Spinning)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40 Contingency Reserves (Spinning)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
41 Generation Imbalance Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42 Load Following Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43 Federal Transmission Losses	-248	-219	-204	-201	-253	-248	-248	-223	-211	-180	-177	-293	-264	-263	-235
44 Total Reserves & Losses	-248	-219	-204	-201	-253	-248	-248	-223	-211	-180	-177	-293	-264	-263	-235

Loads and Resources - Federal System
PNW Loads and Resource Study
2019 - 2020 Operating Year
1937 Water Year
[76] 2011 White Book (Final)

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
<i>45 Total Net Resources</i>	8545	7535	7040	6920	8719	8545	8560	7691	7258	6211	6107	10113	9094	9064	8105
<i>46 Total Firm Surplus/Deficit</i>	466	-267	-431	-333	112	-868	-769	-853	-788	-1149	-1203	2026	1255	667	-85

**Loads and Resources - Federal System
PNW Loads and Resource Study
2020 - 2021 Operating Year
1937 Water Year
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5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
Non-Utility Obligations															
1 Fed. Agencies 2002 PSC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2 USBR Obligation	303	314	293	96	17	18	2.5	7.1	57	223	223	322	314	416	174
3 DSI Obligation	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Fed. Agencies 2012 PSC	160	159	140	155	197	242	220	204	193	161	161	147	153	166	178
5 Total Firm Non-Utility Obligations	463	473	433	251	215	260	223	211	250	384	384	469	467	582	352
Transfers Out															
6 NGP 2002 PSC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7 GPU 2002 PSC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 NGP 2002 Slice PSC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9 GPU 2002 Slice PSC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10 IOU 2002 PSC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 NGP 2012 PSC	3644	3618	3324	3233	3674	4235	4152	3937	3509	3383	3383	3345	3508	3782	3642
12 GPU 2012 PSC	1375	1374	1513	1546	1955	2155	2184	2039	1895	1541	1541	1325	1182	1381	1673
13 NGP 2012 Slice PSC	402	349	325	325	420	407	409	364	339	277	273	453	382	412	374
14 GPU 2012 Slice PSC	1640	1425	1326	1325	1714	1662	1668	1485	1383	1129	1113	1847	1559	1680	1526
15 IOU 2012 PSC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16 Exports	470	470	470	470	470	470	470	470	470	470	470	470	470	470	470
17 Regional Transfers (Out)	88	74	68	154	217	289	288	267	255	225	196	63	67	83	170
18 Federal Diversity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19 Total Transfers Out	7619	7310	7026	7052	8450	9218	9171	8563	7850	7025	6976	7501	7169	7808	7855
20 Total Firm Obligations	8082	7783	7459	7303	8665	9478	9393	8774	8100	7409	7360	7970	7636	8389	8207
Hydro Resources															
21 Regulated Hydro	7054	6060	5618	5409	7211	7054	7086	6240	5692	4529	4422	8303	7328	7513	6546
22 Independent Hydro	390	366	313	311	284	198	176	162	251	377	414	705	759	472	368
23 Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 Total Hydro Resources	7443	6427	5932	5721	7495	7252	7262	6402	5942	4906	4836	9008	8087	7985	6914
Other Resources															
25 Small Thermal & Misc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 Combustion Turbines	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27 Renewables	68	64	57	59	66	59	65	56	83	80	72	73	80	65	67
28 Cogeneration	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29 Imports	80	66	60	146	207	278	278	257	247	217	188	55	59	75	161
30 Regional Transfers (In)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31 Non-Fed CER (Canada)	129	129	129	129	129	129	129	129	129	127	127	127	127	127	128
32 Transmission Loss Returns	39	34	32	32	41	40	40	35	33	27	27	44	37	40	36
33 Large Thermal	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	465	0	797	878
34 Non-Utility Generation	2.6	2.6	2.6	2.7	2.8	3.2	3.2	3.1	3.1	3.1	3.1	2.8	2.7	2.6	2.9
35 Augmentation Purchases	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36 Augmentation Resources	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
37 Total Other Resources	1348	1325	1311	1399	1476	1539	1545	1510	1524	1484	1447	767	306	1107	1273
38 Total Resources	8792	7752	7242	7119	8971	8791	8807	7912	7467	6390	6283	9775	8393	9092	8187
Reserves & Losses															
39 Contingency Reserves (Non-Spinning)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40 Contingency Reserves (Spinning)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
41 Generation Imbalance Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42 Load Following Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43 Federal Transmission Losses	-248	-219	-204	-201	-253	-248	-248	-223	-211	-180	-177	-276	-237	-256	-231
44 Total Reserves & Losses	-248	-219	-204	-201	-253	-248	-248	-223	-211	-180	-177	-276	-237	-256	-231

Continued

Loads and Resources - Federal System
PNW Loads and Resource Study
2020 - 2021 Operating Year
1937 Water Year
[76] 2011 White Book (Final)

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
<i>45 Total Net Resources</i>	8544	7533	7038	6918	8718	8543	8558	7689	7256	6210	6106	9499	8157	8836	7956
<i>46 Total Firm Surplus/Deficit</i>	461	-250	-421	-384	53	-934	-835	-1085	-844	-1199	-1254	1529	521	446	-250

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Section 5
Monthly Federal 70-Water Year
Surplus/Deficit
Average Energy in Megawatts

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70-Water Year Surplus/Deficit
Federal Tables
Monthly OY 2012 – 2021
Average Energy in Megawatts

Power Services

Reports Powered by:



Loads and Resources Information System

**Table A-30: Federal Surplus/Deficit - By Water Year
PNW Loads and Resource Study
2011 - 2012 Operating Year
[76] 2011 White Book (Final)**

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
<i>1993 Federal Surplus/Deficit</i>	-945	-1150	-1128	-655	-227	-725	-882	-1604	-511	202	65	3441	1987	820	-27
<i>1994 Federal Surplus/Deficit</i>	381	-449	-1159	-642	151	-690	-958	-297	-417	-868	788	1832	1636	-69	-59
<i>1995 Federal Surplus/Deficit</i>	-733	-1210	-1010	-835	-516	-1172	-741	1128	1876	2589	1223	2934	3301	1872	641
<i>1996 Federal Surplus/Deficit</i>	306	-636	-453	89	2447	4549	4726	5131	4454	3653	4810	4236	4206	3738	3092
<i>1997 Federal Surplus/Deficit</i>	2244	-54	-353	-49	261	806	4852	4984	4969	3828	4546	3952	4091	3673	2697
<i>1998 Federal Surplus/Deficit</i>	2075	486	893	2003	1327	603	922	1261	1253	1148	2221	4616	4301	1609	1811
-Ranked Averages-															
Top Ten Percent	1667	278	-222	334	1379	2552	4142	4350	4186	3929	3949	4016	3709	2951	2686
Middle Eighty Percent	821	-302	-281	-83	178	125	1216	1224	1391	2040	2270	3441	3173	1630	1199
Bottom Ten Percent	92	-946	-747	-452	-102	-1011	-931	-800	-699	-1002	-684	1497	827	255	-285

**Table A-30: Federal Surplus/Deficit - By Water Year
PNW Loads and Resource Study
2012 - 2013 Operating Year
[76] 2011 White Book (Final)**

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
<i>1993 Federal Surplus/Deficit</i>	-643	-1121	-510	-618	-201	-678	-636	-1497	-253	763	633	3503	1798	859	141
<i>1994 Federal Surplus/Deficit</i>	57	-480	-76	-604	178	-643	-712	-190	-158	-307	1355	1897	1445	-25	116
<i>1995 Federal Surplus/Deficit</i>	-39	-741	-2.1	-797	-490	-1125	-495	1228	2134	3149	1790	2989	3134	1885	870
<i>1996 Federal Surplus/Deficit</i>	299	-130	493	126	2462	4541	4924	5175	4687	4142	5288	4225	3569	3639	3208
<i>1997 Federal Surplus/Deficit</i>	2206	827	-240	-12	287	853	5039	5028	5177	4312	5001	3889	3679	3620	2778
<i>1998 Federal Surplus/Deficit</i>	2132	1246	1172	2024	1354	650	1169	1537	1341	1709	2789	4642	3653	1652	1928
-Ranked Averages-															
Top Ten Percent	1796	883	203	371	1400	2582	4351	4423	4417	4421	4446	3974	3227	2901	2792
Middle Eighty Percent	868	169	188	-47	204	171	1469	1328	1623	2588	2824	3453	2772	1631	1332
Bottom Ten Percent	232	-487	-82	-414	-75	-964	-684	-693	-441	-441	-117	1556	629	299	-104

Table A-30: Federal Surplus/Deficit - By Water Year
PNW Loads and Resource Study
2013 - 2014 Operating Year
[76] 2011 White Book (Final)

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
<i>1993 Federal Surplus/Deficit</i>	-541	-1018	-406	-522	-139	-628	-794	-1653	-398	623	493	3685	2392	814	187
<i>1994 Federal Surplus/Deficit</i>	159	-377	27	-508	240	-593	-870	-346	-303	-447	1217	2218	2070	-29	180
<i>1995 Federal Surplus/Deficit</i>	63	-639	101	-701	-428	-1075	-653	1326	1727	3012	1652	3190	3785	1821	918
<i>1996 Federal Surplus/Deficit</i>	401	-27	597	223	2518	4522	4721	4934	4502	4030	5069	4335	4291	3413	3221
<i>1997 Federal Surplus/Deficit</i>	2290	929	-137	84	350	897	4824	4867	4865	4205	4776	3878	4246	3361	2764
<i>1998 Federal Surplus/Deficit</i>	2216	1348	1267	2115	1417	701	1012	1383	1198	1571	2651	4858	4342	1668	1988
-Ranked Averages-															
Top Ten Percent	1887	985	307	468	1460	2609	4169	4237	4208	4268	4250	3986	3837	2719	2798
Middle Eighty Percent	965	269	288	49	266	221	1314	1168	1471	2444	2669	3581	3373	1557	1370
Bottom Ten Percent	334	-386	21	-318	-13	-914	-842	-849	-586	-581	-257	1868	1259	293	-41

**Table A-30: Federal Surplus/Deficit - By Water Year
PNW Loads and Resource Study
2014 - 2015 Operating Year
[76] 2011 White Book (Final)**

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
<i>1993 Federal Surplus/Deficit</i>	-605	-1061	-479	-587	-348	-843	-1006	-1863	-596	431	300	3370	1523	625	-45
<i>1994 Federal Surplus/Deficit</i>	96	-419	-45	-574	31	-808	-1083	-555	-501	-640	1024	1819	1214	-261	-62
<i>1995 Federal Surplus/Deficit</i>	-0.4	-680	29	-767	-637	-1290	-865	1343	1272	2817	1456	2877	2739	1650	668
<i>1996 Federal Surplus/Deficit</i>	339	-69	525	157	2293	4280	4455	4645	4306	3670	4758	4145	3076	3366	2957
<i>1997 Federal Surplus/Deficit</i>	2211	889	-210	19	141	675	4576	4591	4662	3854	4464	3720	2926	3328	2500
<i>1998 Federal Surplus/Deficit</i>	2137	1308	1196	2034	1208	486	792	1158	1000	1377	2457	4588	3115	1418	1721
-Ranked Averages-															
Top Ten Percent	1812	942	234	403	1244	2383	3974	4022	3860	3946	3969	3804	2654	2642	2538
Middle Eighty Percent	894	226	216	-17	57	4.3	1093	957	1260	2213	2460	3328	2282	1392	1121
Bottom Ten Percent	271	-426	-51	-384	-222	-1129	-1055	-1059	-784	-774	-450	1490	405	63	-281

**Table A-30: Federal Surplus/Deficit - By Water Year
PNW Loads and Resource Study
2015 - 2016 Operating Year
[76] 2011 White Book (Final)**

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
<i>1993 Federal Surplus/Deficit</i>	-707	-1164	-580	-624	-389	-887	-1033	-1734	-630	386	256	3731	2207	774	23
<i>1994 Federal Surplus/Deficit</i>	-7.0	-522	-147	-611	-9.4	-851	-1110	-424	-535	-686	980	2183	1933	-114	13
<i>1995 Federal Surplus/Deficit</i>	-103	-784	-73	-805	-678	-1335	-892	1477	1240	2776	1414	3256	3450	1790	747
<i>1996 Federal Surplus/Deficit</i>	236	-172	423	121	2256	4242	4435	4778	4278	3628	4717	4500	3779	3435	3032
<i>1997 Federal Surplus/Deficit</i>	2126	785	-311	-18	100	633	4624	4605	4635	3798	4418	4102	3627	3367	2572
<i>1998 Federal Surplus/Deficit</i>	2052	1204	1080	2000	1169	444	768	1291	967	1334	2417	4944	3834	1567	1797
-Ranked Averages-															
Top Ten Percent	1723	841	133	366	1205	2343	3964	4140	3832	3899	3924	4198	3365	2730	2618
Middle Eighty Percent	797	124	114	-54	16	-38	1082	1087	1211	2173	2421	3700	2998	1518	1197
Bottom Ten Percent	168	-529	-152	-421	-263	-1173	-1082	-929	-818	-820	-495	1849	1118	211	-208

**Table A-30: Federal Surplus/Deficit - By Water Year
PNW Loads and Resource Study
2016 - 2017 Operating Year
[76] 2011 White Book (Final)**

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
<i>1993 Federal Surplus/Deficit</i>	-712	-1191	-595	-702	-500	-1001	-1178	-2033	-762	273	197	3104	1520	572	-180
<i>1994 Federal Surplus/Deficit</i>	-11	-548	-161	-689	-120	-966	-1254	-723	-667	-799	921	1596	1188	-319	-196
<i>1995 Federal Surplus/Deficit</i>	-107	-810	-87	-882	-789	-1449	-1037	1178	1108	2663	1354	2653	2892	1626	553
<i>1996 Federal Surplus/Deficit</i>	232	-197	410	43	2129	4066	4229	4412	4102	3550	4640	3729	3258	3240	2801
<i>1997 Federal Surplus/Deficit</i>	2107	761	-325	-95	-11	518	4412	4245	4447	3714	4339	3284	3134	3213	2346
<i>1998 Federal Surplus/Deficit</i>	2033	1181	1060	1906	1052	330	623	993	835	1221	2357	4314	3327	1363	1601
-Ranked Averages-															
Top Ten Percent	1651	728	158	339	1138	2509	3922	3789	3399	3513	4095	3359	2829	2326	2388
Middle Eighty Percent	793	105	93	-139	-102	-190	913	784	1109	2097	2328	3005	2411	1367	992
Bottom Ten Percent	165	-555	-166	-498	-374	-1288	-1227	-1228	-951	-933	-554	1271	382	5.9	-414

**Table A-30: Federal Surplus/Deficit - By Water Year
PNW Loads and Resource Study
2017 - 2018 Operating Year
[76] 2011 White Book (Final)**

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
<i>1993 Federal Surplus/Deficit</i>	-800	-1276	-728	-417	-146	-649	-849	-1703	-468	589	454	3959	2370	982	164
<i>1994 Federal Surplus/Deficit</i>	-99	-633	-294	-403	234	-614	-925	-393	-373	-484	1179	2410	2096	93	150
<i>1995 Federal Surplus/Deficit</i>	-195	-895	-219	-597	-435	-1098	-708	1509	1403	2981	1614	3484	3614	1998	881
<i>1996 Federal Surplus/Deficit</i>	144	-283	277	329	2500	4482	4623	4812	4443	3832	4918	4729	3943	3644	3164
<i>1997 Federal Surplus/Deficit</i>	2001	676	-458	190	344	871	4811	4639	4800	4003	4618	4330	3791	3576	2702
<i>1998 Federal Surplus/Deficit</i>	1927	1095	911	2209	1413	682	953	1324	1130	1538	2616	5172	3998	1775	1932
-Ranked Averages-															
Top Ten Percent	1601	727	-13	575	1449	2582	4151	4174	3996	4104	4124	4426	3529	2939	2749
Middle Eighty Percent	687	6.8	-38	154	259	199	1268	1119	1374	2377	2620	3928	3161	1726	1332
Bottom Ten Percent	76	-640	-299	-213	-20	-936	-898	-898	-656	-618	-297	2076	1280	418	-70

**Table A-30: Federal Surplus/Deficit - By Water Year
PNW Loads and Resource Study
2018 - 2019 Operating Year
[76] 2011 White Book (Final)**

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
<i>1993 Federal Surplus/Deficit</i>	-508	-984	-433	-536	-274	-788	-940	-1793	-553	500	397	3296	1694	848	29
<i>1994 Federal Surplus/Deficit</i>	194	-341	1.7	-522	105	-753	-1016	-483	-458	-573	1122	1787	1362	-44	14
<i>1995 Federal Surplus/Deficit</i>	97	-603	76	-716	-564	-1237	-798	1420	1318	2891	1555	2845	3067	1902	762
<i>1996 Federal Surplus/Deficit</i>	437	9.7	573	210	2356	4281	4470	4655	4314	3779	4843	3922	3433	3517	3012
<i>1997 Federal Surplus/Deficit</i>	2313	969	-163	71	215	732	4654	4488	4660	3943	4541	3476	3309	3490	2557
<i>1998 Federal Surplus/Deficit</i>	2239	1389	1223	2074	1278	543	862	1234	1046	1449	2559	4507	3501	1638	1812
-Ranked Averages-															
Top Ten Percent	1857	935	320	506	1364	2724	4163	4032	3611	3742	4297	3551	3004	2602	2599
Middle Eighty Percent	998	312	256	28	124	23	1152	1025	1320	2325	2529	3197	2586	1642	1202
Bottom Ten Percent	369	-348	-3.8	-332	-148	-1075	-988	-987	-741	-707	-354	1462	555	281	-205

**Table A-30: Federal Surplus/Deficit - By Water Year
PNW Loads and Resource Study
2019 - 2020 Operating Year
[76] 2011 White Book (Final)**

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
<i>1993 Federal Surplus/Deficit</i>	-581	-1045	-553	-581	-241	-754	-906	-1583	-558	491	389	3902	2249	920	132
<i>1994 Federal Surplus/Deficit</i>	121	-402	-118	-568	138	-719	-983	-273	-463	-581	1114	2353	1975	32	122
<i>1995 Federal Surplus/Deficit</i>	24	-664	-44	-762	-531	-1202	-765	1629	1313	2883	1548	3427	3493	1936	856
<i>1996 Federal Surplus/Deficit</i>	364	-51	453	164	2405	4378	4565	4932	4353	3735	4853	4672	3822	3582	3142
<i>1997 Federal Surplus/Deficit</i>	2222	908	-283	26	248	766	4754	4759	4710	3905	4553	4274	3670	3514	2680
<i>1998 Federal Surplus/Deficit</i>	2147	1328	1087	2044	1317	577	896	1444	1040	1440	2551	5115	3877	1714	1903
-Ranked Averages-															
Top Ten Percent	1822	959	162	410	1353	2477	4094	4294	3906	4007	4059	4369	3408	2877	2726
Middle Eighty Percent	907	238	138	-10	164	95	1211	1239	1284	2279	2555	3871	3040	1664	1305
Bottom Ten Percent	296	-409	-124	-378	-115	-1041	-955	-778	-747	-715	-362	2019	1159	356	-99

Table A-30: Federal Surplus/Deficit - By Water Year
PNW Loads and Resource Study
2020 - 2021 Operating Year
[76] 2011 White Book (Final)

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
<i>1993 Federal Surplus/Deficit</i>	-586	-1028	-542	-632	-301	-821	-972	-1815	-614	441	339	3348	1590	703	-29
<i>1994 Federal Surplus/Deficit</i>	116	-385	-108	-619	79	-785	-1048	-505	-519	-631	1064	1840	1258	-189	-44
<i>1995 Federal Surplus/Deficit</i>	20	-647	-34	-813	-591	-1269	-830	1397	1256	2832	1497	2897	2963	1757	704
<i>1996 Federal Surplus/Deficit</i>	359	-34	463	113	2329	4249	4438	4633	4252	3720	4785	3975	3329	3372	2954
<i>1997 Federal Surplus/Deficit</i>	2235	925	-272	-25	188	700	4622	4466	4598	3884	4483	3529	3206	3345	2499
<i>1998 Federal Surplus/Deficit</i>	2161	1345	1113	1977	1251	511	830	1211	984	1390	2501	4560	3398	1493	1754
-Ranked Averages-															
Top Ten Percent	1779	892	211	409	1338	2692	4131	4009	3549	3683	4239	3604	2900	2458	2541
Middle Eighty Percent	920	268	146	-69	97	-9.2	1120	1003	1258	2266	2471	3249	2482	1498	1144
Bottom Ten Percent	291	-392	-113	-429	-175	-1108	-1021	-1010	-803	-766	-412	1515	452	136	-263

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Section 6
Monthly Regional Tables
Loads & Resources
Average Energy in Megawatts

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Loads & Resources Regional Tables
Monthly OY 2012 – 2021
Average Energy in Megawatts

Power Services

Reports Powered by:



Loads and Resources Information System

Loads and Resources - Pacific Northwest Region
PNW Loads and Resource Study
2011 - 2012 Operating Year
1937 Water Year
[76] 2011 White Book (Final)

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
<u>Firm Regional Loads</u>															
1 Regional Firm Loads	20843	20852	19510	18871	21083	23253	23309	22092	20454	19464	19599	19037	20469	21771	20853
2 Exports	2055	1984	1842	1521	1491	1426	1448	1373	1602	1668	1726	1524	1817	1861	1636
3 Federal Diversity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Total Firm Regional Loads	22898	22836	21352	20392	22574	24679	24757	23465	22056	21131	21325	20562	22286	23633	22489
<u>Non-Firm Regional Loads</u>															
5 Regional Non-Firm Loads	0	0	14	0	0	0	3.5	24	54	34	34	0	0	0	11
6 Total Non-Firm Regional Loads	0	0	14	0	0	0	3.5	24	54	34	34	0	0	0	11
7 Total Loads	22898	22836	21366	20392	22574	24679	24761	23489	22111	21165	21359	20562	22286	23633	22500
<u>Hydro Resources</u>															
8 Regulated Hydro	11530	9342	8437	8830	11064	11597	11775	10612	9156	8954	7885	13715	13392	12307	10815
9 Independent Hydro	962	941	818	884	822	848	735	766	936	1209	1250	1558	1638	1180	1031
10 Regional Hydro Maintenance	-30	-25	-8.6	-9	-3.8	0	0	0	-5.2	-7.4	-7.6	-20	-14	-49	-12
11 Total Hydro Resources	12462	10258	9246	9705	11882	12445	12509	11379	10087	10155	9127	15253	15015	13438	11834
<u>Other Resources</u>															
12 Small Thermal & Misc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13 Combustion Turbines	3419	3419	3254	3293	3355	3629	3599	3362	3330	3133	3133	1682	3150	3647	3237
14 Renewables	1965	1780	1446	1380	1391	1141	1292	992	1809	2107	2179	1957	2194	1767	1617
15 Cogeneration	2726	2725	2734	2777	2768	2789	2816	2780	2073	2781	2783	1799	2485	2734	2603
16 Imports	985	971	867	917	1287	1544	1462	1430	1109	964	908	811	904	1082	1110
17 Large Thermal	6400	6400	6400	6400	6400	6400	6400	6400	6333	6416	6237	4806	6126	6400	6231
18 Non-Utility Generation	669	668	608	529	486	478	462	469	485	627	630	770	796	765	596
19 Resource Acquisition	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20 Total Other Resources	16165	15964	15311	15297	15688	15983	16032	15433	15139	16029	15870	11825	15655	16395	15394
21 Total Resources	28627	26222	24557	25002	27569	28428	28541	26812	25226	26184	24997	27077	30670	29833	27228
<u>Reserves & Losses</u>															
22 Contingency Reserves (Non-Spinning)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23 Contingency Reserves (Spinning)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 Generation Imbalance Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 Load Following Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 Regional Transmission Losses	-807	-739	-693	-705	-777	-802	-805	-756	-711	-738	-705	-764	-865	-841	-768
27 Total Reserves & Losses	-807	-739	-693	-705	-777	-802	-805	-756	-711	-738	-705	-764	-865	-841	-768
28 Total Net Resources	27820	25483	23865	24297	26792	27626	27736	26056	24515	25446	24293	26314	29805	28992	26460
<u>Surplus/Deficits</u>															
29 Firm Surplus/Deficit	4922	2647	2513	3905	4218	2947	2979	2591	2459	4315	2968	5752	7519	5359	3972
30 Total Surplus/Deficit	4922	2647	2499	3905	4218	2947	2976	2567	2404	4281	2934	5752	7519	5359	3961

Loads and Resources - Pacific Northwest Region
PNW Loads and Resource Study
2012 - 2013 Operating Year
1937 Water Year
[76] 2011 White Book (Final)

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
<u>Firm Regional Loads</u>															
1 Regional Firm Loads	21263	21272	19879	19218	21478	23694	23784	22711	20907	19972	19972	19479	20973	22320	21304
2 Exports	1955	1884	1746	1488	1457	1393	1217	1134	1367	1437	1494	1301	1594	1628	1478
3 Federal Diversity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Total Firm Regional Loads	23219	23155	21626	20706	22934	25087	25001	23845	22274	21409	21467	20780	22567	23948	22781
<u>Non-Firm Regional Loads</u>															
5 Regional Non-Firm Loads	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0	11
6 Total Non-Firm Regional Loads	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0	11
7 Total Loads	23219	23155	21640	20706	22934	25087	25004	23868	22328	21443	21501	20780	22567	23948	22792
<u>Hydro Resources</u>															
8 Regulated Hydro	11598	9768	9588	8830	11064	11597	11775	10612	9156	8954	7885	13713	13365	12307	10929
9 Independent Hydro	962	941	818	884	822	848	735	768	936	1209	1250	1558	1638	1180	1032
10 Regional Hydro Maintenance	-30	-25	-8.6	-9	-3.8	0	0	0	-5.2	-7.4	-7.6	-20	-14	-49	-12
11 Total Hydro Resources	12530	10685	10397	9705	11882	12445	12509	11380	10087	10155	9127	15250	14988	13438	11949
<u>Other Resources</u>															
12 Small Thermal & Misc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13 Combustion Turbines	3689	3689	3505	3544	3606	3871	3859	3613	3581	3384	3384	2008	3359	3656	3472
14 Renewables	2001	1811	1449	1376	1391	1145	1294	992	1808	2109	2179	1946	2204	1755	1621
15 Cogeneration	2730	2729	2701	2748	2806	2824	2785	2815	2162	2378	2334	2010	2704	2732	2612
16 Imports	991	976	871	923	1281	1460	1372	1334	1115	891	838	741	835	920	1057
17 Large Thermal	6400	6400	6400	6400	6400	6400	6400	6400	6236	5355	5462	3892	5386	6300	6000
18 Non-Utility Generation	673	672	612	533	489	483	468	474	491	634	635	774	809	771	601
19 Resource Acquisition	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20 Total Other Resources	16484	16277	15539	15525	15975	16184	16179	15628	15394	14751	14832	11371	15297	16135	15364
21 Total Resources	29014	26962	25937	25230	27856	28629	28688	27008	25481	24906	23959	26621	30285	29572	27313
<u>Reserves & Losses</u>															
22 Contingency Reserves (Non-Spinning)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23 Contingency Reserves (Spinning)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 Generation Imbalance Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 Load Following Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 Regional Transmission Losses	-818	-760	-731	-711	-786	-807	-809	-762	-719	-702	-676	-751	-854	-834	-770
27 Total Reserves & Losses	-818	-760	-731	-711	-786	-807	-809	-762	-719	-702	-676	-751	-854	-834	-770
28 Total Net Resources	28196	26202	25205	24518	27071	27821	27879	26247	24762	24204	23283	25871	29431	28738	26542
<u>Surplus/Deficits</u>															
29 Firm Surplus/Deficit	4978	3046	3579	3812	4136	2734	2878	2401	2489	2794	1817	5090	6864	4790	3761
30 Total Surplus/Deficit	4978	3046	3565	3812	4136	2734	2875	2378	2434	2761	1783	5090	6864	4790	3751

Loads and Resources - Pacific Northwest Region
PNW Loads and Resource Study
2013 - 2014 Operating Year
1937 Water Year
[76] 2011 White Book (Final)

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
<u>Firm Regional Loads</u>															
1 Regional Firm Loads	21791	21800	20345	19674	21969	24277	24388	23266	21423	20411	20411	19920	21502	22841	21814
2 Exports	1736	1664	1528	1287	1255	1192	1218	1135	1368	1438	1495	1301	1596	1629	1391
3 Federal Diversity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Total Firm Regional Loads	23527	23464	21872	20961	23224	25469	25606	24401	22791	21849	21907	21221	23098	24470	23205
<u>Non-Firm Regional Loads</u>															
5 Regional Non-Firm Loads	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0	11
6 Total Non-Firm Regional Loads	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0	11
7 Total Loads	23527	23464	21886	20961	23224	25469	25609	24424	22845	21883	21940	21221	23098	24470	23215
<u>Hydro Resources</u>															
8 Regulated Hydro	11598	9768	9588	8830	11064	11597	11775	10612	9156	8954	7885	13635	13340	12246	10916
9 Independent Hydro	962	941	818	884	822	848	735	768	936	1209	1250	1605	1685	1217	1043
10 Regional Hydro Maintenance	-30	-25	-8.6	-9	-3.8	0	0	0	-5.2	-7.4	-7.6	-20	-14	-49	-12
11 Total Hydro Resources	12530	10685	10397	9705	11882	12445	12509	11380	10087	10155	9127	15219	15010	13413	11946
<u>Other Resources</u>															
12 Small Thermal & Misc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13 Combustion Turbines	3689	3689	3505	3544	3606	3871	3859	3613	3581	3384	3384	2047	3237	3656	3465
14 Renewables	2001	1811	1481	1403	1413	1164	1320	1013	1845	2153	2226	1990	2277	1799	1653
15 Cogeneration	2731	2730	2739	2742	2769	2825	2787	2816	2045	2751	2334	2063	2702	2700	2619
16 Imports	823	808	752	804	1161	1340	1252	1214	995	896	842	746	841	927	975
17 Large Thermal	6400	6400	6400	6400	6400	6400	6400	6400	6133	5774	5442	4495	6205	6400	6135
18 Non-Utility Generation	676	675	614	536	493	486	469	474	492	634	635	774	801	770	602
19 Resource Acquisition	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20 Total Other Resources	16320	16113	15492	15429	15843	16087	16088	15531	15091	15592	14863	12116	16064	16252	15450
21 Total Resources	28849	26798	25889	25134	27725	28532	28598	26911	25179	25747	23990	27335	31074	29665	27396
<u>Reserves & Losses</u>															
22 Contingency Reserves (Non-Spinning)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23 Contingency Reserves (Spinning)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 Generation Imbalance Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 Load Following Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 Regional Transmission Losses	-814	-756	-730	-709	-782	-805	-806	-759	-710	-726	-677	-771	-876	-837	-773
27 Total Reserves & Losses	-814	-756	-730	-709	-782	-805	-806	-759	-710	-726	-677	-771	-876	-837	-773
28 Total Net Resources	28036	26042	25159	24425	26943	27728	27791	26152	24469	25021	23314	26564	30198	28829	26623
<u>Surplus/Deficits</u>															
29 Firm Surplus/Deficit	4508	2578	3287	3464	3719	2259	2185	1751	1678	3172	1407	5343	7100	4359	3419
30 Total Surplus/Deficit	4508	2578	3272	3464	3719	2259	2182	1728	1624	3138	1373	5343	7100	4359	3408

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Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
<u>Firm Regional Loads</u>															
1 Regional Firm Loads	22372	22251	20809	20143	22437	24790	24906	23752	21837	20801	20801	20317	21951	23318	22277
2 Exports	1700	1631	1494	1251	1219	1156	1033	957	1183	1287	1343	1189	1482	1471	1286
3 Federal Diversity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Total Firm Regional Loads	24072	23882	22303	21394	23655	25945	25939	24709	23020	22088	22144	21505	23433	24789	23564
<u>Non-Firm Regional Loads</u>															
5 Regional Non-Firm Loads	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0	11
6 Total Non-Firm Regional Loads	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0	11
7 Total Loads	24072	23882	22317	21394	23655	25945	25943	24732	23074	22122	22178	21505	23433	24789	23574
<u>Hydro Resources</u>															
8 Regulated Hydro	11598	9768	9588	8830	11064	11597	11775	10612	9156	8954	7885	13691	13294	12307	10922
9 Independent Hydro	989	967	842	903	835	886	753	794	977	1251	1297	1605	1685	1217	1063
10 Regional Hydro Maintenance	-30	-25	-8.6	-9	-3.8	0	0	0	-5.2	-7.4	-7.6	-20	-14	-49	-12
11 Total Hydro Resources	12557	10711	10421	9724	11894	12483	12528	11407	10128	10198	9174	15275	14964	13474	11973
<u>Other Resources</u>															
12 Small Thermal & Misc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13 Combustion Turbines	3680	3680	3505	3544	3606	3880	3859	3613	3581	3384	3384	1946	3410	3656	3471
14 Renewables	2045	1868	1478	1403	1415	1160	1320	1013	1845	2153	2226	1996	2242	1799	1654
15 Cogeneration	2731	2730	2739	2742	2807	2825	2785	2816	2043	2745	2334	2083	2705	2733	2627
16 Imports	828	813	758	809	1168	1345	1257	1220	1000	901	847	752	847	930	980
17 Large Thermal	6400	6400	6400	6400	6400	6400	6400	6400	6097	6098	6098	4326	4976	6134	6034
18 Non-Utility Generation	675	674	615	537	493	486	470	475	493	635	636	776	803	771	603
19 Resource Acquisition	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20 Total Other Resources	16359	16167	15495	15435	15889	16097	16092	15537	15060	15915	15525	11879	14982	16023	15370
21 Total Resources	28916	26877	25916	25159	27784	28581	28620	26944	25188	26113	24699	27154	29946	29497	27343
<u>Reserves & Losses</u>															
22 Contingency Reserves (Non-Spinning)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23 Contingency Reserves (Spinning)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 Generation Imbalance Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 Load Following Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 Regional Transmission Losses	-815	-758	-731	-709	-783	-806	-807	-760	-710	-736	-696	-766	-844	-832	-771
27 Total Reserves & Losses	-815	-758	-731	-709	-783	-806	-807	-760	-710	-736	-696	-766	-844	-832	-771
28 Total Net Resources	28100	26119	25185	24449	27000	27775	27813	26184	24478	25377	24002	26388	29102	28665	26571
<u>Surplus/Deficits</u>															
29 Firm Surplus/Deficit	4028	2237	2882	3055	3345	1829	1874	1475	1458	3289	1858	4883	5669	3876	3008
30 Total Surplus/Deficit	4028	2237	2868	3055	3345	1829	1870	1452	1404	3255	1824	4883	5669	3876	2997

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Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
<u>Firm Regional Loads</u>															
1 Regional Firm Loads	22817	22694	21210	20496	22806	25189	25304	23938	22196	21132	21132	20647	22321	23705	22643
2 Exports	1572	1505	1398	1160	1131	1034	1059	985	1211	1314	1370	1173	1464	1457	1246
3 Federal Diversity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Total Firm Regional Loads	24390	24199	22608	21656	23937	26222	26363	24922	23407	22446	22502	21819	23785	25162	23889
<u>Non-Firm Regional Loads</u>															
5 Regional Non-Firm Loads	0	0	14	0	0	0	3.5	24	54	34	34	0	0	0	11
6 Total Non-Firm Regional Loads	0	0	14	0	0	0	3.5	24	54	34	34	0	0	0	11
7 Total Loads	24390	24199	22622	21656	23937	26222	26366	24946	23461	22479	22536	21819	23785	25162	23900
<u>Hydro Resources</u>															
8 Regulated Hydro	11598	9768	9588	8830	11064	11597	11775	10612	9156	8954	7885	13695	13284	12307	10920
9 Independent Hydro	989	967	842	903	835	886	753	793	977	1251	1297	1605	1685	1217	1063
10 Regional Hydro Maintenance	-30	-25	-8.6	-9	-3.8	0	0	0	-5.2	-7.4	-7.6	-20	-14	-49	-12
11 Total Hydro Resources	12557	10711	10421	9724	11894	12483	12528	11405	10128	10198	9174	15279	14954	13474	11971
<u>Other Resources</u>															
12 Small Thermal & Misc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13 Combustion Turbines	3680	3680	3505	3544	3606	3880	3850	3613	3581	3384	3384	1946	3412	3647	3470
14 Renewables	2045	1868	1478	1403	1415	1160	1317	1013	1846	2153	2226	1989	2242	1810	1653
15 Cogeneration	2730	2729	2701	2748	2806	2824	2785	2815	2162	2378	2334	2065	2702	2732	2618
16 Imports	829	815	755	809	1094	1271	1185	1151	1002	905	851	757	854	926	958
17 Large Thermal	6400	6400	6400	6400	6400	6400	6400	6400	6273	4971	4418	5063	6416	6400	6138
18 Non-Utility Generation	675	675	615	535	492	487	470	476	493	636	637	776	803	771	603
19 Resource Acquisition	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20 Total Other Resources	16359	16167	15454	15440	15814	16023	16008	15468	15358	14427	13851	12597	16428	16286	15439
21 Total Resources	28916	26878	25875	25164	27708	28506	28535	26874	25486	24624	23024	27876	31382	29761	27410
<u>Reserves & Losses</u>															
22 Contingency Reserves (Non-Spinning)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23 Contingency Reserves (Spinning)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 Generation Imbalance Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 Load Following Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 Regional Transmission Losses	-815	-758	-730	-710	-781	-804	-805	-758	-719	-694	-649	-786	-885	-839	-773
27 Total Reserves & Losses	-815	-758	-730	-710	-781	-804	-805	-758	-719	-694	-649	-786	-885	-839	-773
28 Total Net Resources	28101	26120	25145	24455	26927	27703	27730	26116	24767	23930	22375	27090	30497	28922	26637
<u>Surplus/Deficits</u>															
29 Firm Surplus/Deficit	3711	1921	2537	2799	2989	1480	1367	1193	1360	1484	-127	5271	6712	3759	2748
30 Total Surplus/Deficit	3711	1921	2523	2799	2989	1480	1364	1170	1306	1450	-161	5271	6712	3759	2737

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Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
<u>Firm Regional Loads</u>															
1 Regional Firm Loads	23133	23142	21536	20766	23084	25501	25648	24430	22491	21486	21339	20929	22652	24063	22968
2 Exports	1523	1452	1354	1118	1117	1019	1045	971	1198	1301	1356	1162	1453	1451	1226
3 Federal Diversity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Total Firm Regional Loads	24656	24594	22890	21884	24201	26520	26694	25401	23689	22788	22695	22090	24105	25514	24194
<u>Non-Firm Regional Loads</u>															
5 Regional Non-Firm Loads	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0	11
6 Total Non-Firm Regional Loads	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0	11
7 Total Loads	24656	24594	22904	21884	24201	26520	26697	25424	23744	22822	22729	22090	24105	25514	24205
<u>Hydro Resources</u>															
8 Regulated Hydro	11598	9768	9588	8830	11064	11597	11775	10612	9156	8954	7885	13633	13356	12307	10922
9 Independent Hydro	989	967	842	903	835	886	753	794	977	1251	1297	1605	1685	1217	1063
10 Regional Hydro Maintenance	-30	-25	-8.6	-9	-3.8	0	0	0	-5.2	-7.4	-7.6	-20	-14	-49	-12
11 Total Hydro Resources	12557	10711	10421	9724	11894	12483	12528	11407	10128	10198	9174	15217	15026	13474	11973
<u>Other Resources</u>															
12 Small Thermal & Misc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13 Combustion Turbines	3689	3689	3505	3544	3606	3880	3850	3613	3581	3384	3384	1946	3415	3645	3470
14 Renewables	2045	1848	1478	1406	1413	1160	1317	1013	1846	2153	2220	1979	2278	1810	1656
15 Cogeneration	2731	2730	2739	2742	2769	2825	2784	2812	2042	2747	2331	2171	2615	2696	2620
16 Imports	825	811	749	804	1071	1250	1162	1124	980	883	853	763	860	934	948
17 Large Thermal	6400	6400	6400	6400	6400	6400	6400	6400	5955	5309	4997	4288	5175	6234	5966
18 Non-Utility Generation	676	675	615	535	492	486	470	475	493	636	637	776	803	771	603
19 Resource Acquisition	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20 Total Other Resources	16366	16153	15486	15432	15752	16002	15984	15438	14897	15112	14422	11924	15147	16090	15263
21 Total Resources	28923	26864	25907	25156	27646	28485	28511	26845	25025	25310	23595	27141	30173	29564	27236
<u>Reserves & Losses</u>															
22 Contingency Reserves (Non-Spinning)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23 Contingency Reserves (Spinning)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 Generation Imbalance Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 Load Following Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 Regional Transmission Losses	-816	-758	-731	-709	-780	-803	-804	-757	-706	-714	-665	-765	-851	-834	-768
27 Total Reserves & Losses	-816	-758	-731	-709	-780	-803	-804	-757	-706	-714	-665	-765	-851	-834	-768
28 Total Net Resources	28107	26106	25177	24446	26867	27682	27707	26088	24320	24596	22930	26375	29322	28731	26468
<u>Surplus/Deficits</u>															
29 Firm Surplus/Deficit	3451	1512	2287	2563	2666	1162	1014	687	630	1808	235	4285	5217	3216	2274
30 Total Surplus/Deficit	3451	1512	2272	2563	2666	1162	1010	664	576	1774	201	4285	5217	3216	2263

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Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
<u>Firm Regional Loads</u>															
1 Regional Firm Loads	23482	23491	21837	21038	23378	25825	25965	24734	22772	21609	21758	21205	22974	24411	23273
2 Exports	1499	1427	1330	1094	1092	998	1024	945	1129	1201	1259	1062	1354	1352	1174
3 Federal Diversity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Total Firm Regional Loads	24981	24919	23167	22131	24470	26823	26990	25679	23901	22810	23018	22267	24327	25763	24446
<u>Non-Firm Regional Loads</u>															
5 Regional Non-Firm Loads	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0	11
6 Total Non-Firm Regional Loads	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0	11
7 Total Loads	24981	24919	23181	22131	24470	26823	26993	25702	23955	22844	23052	22267	24327	25763	24457
<u>Hydro Resources</u>															
8 Regulated Hydro	11598	9768	9588	8830	11064	11597	11775	10612	9156	8954	7885	13695	13284	12307	10921
9 Independent Hydro	989	967	842	903	835	886	753	794	977	1251	1297	1605	1685	1217	1063
10 Regional Hydro Maintenance	-30	-25	-8.6	-9	-3.8	0	0	0	-5.2	-7.4	-7.6	-20	-14	-49	-12
11 Total Hydro Resources	12557	10711	10421	9724	11894	12483	12528	11407	10128	10198	9174	15279	14954	13474	11972
<u>Other Resources</u>															
12 Small Thermal & Misc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13 Combustion Turbines	3689	3689	3505	3544	3606	3871	3859	3613	3581	3384	3384	2049	3311	3644	3470
14 Renewables	2045	1848	1478	1406	1413	1164	1320	1013	1846	2151	2226	1996	2261	1810	1656
15 Cogeneration	2727	2726	2735	2738	2804	2822	2782	2813	2040	2741	2331	2116	2701	2729	2626
16 Imports	831	816	754	809	1076	1255	1167	1124	940	812	784	693	792	866	924
17 Large Thermal	6400	6400	6400	6400	6400	6400	6400	6400	6333	6284	5978	4854	6207	6400	6225
18 Non-Utility Generation	676	675	615	535	492	486	470	475	493	636	637	776	803	771	603
19 Resource Acquisition	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20 Total Other Resources	16368	16155	15487	15433	15791	15999	15998	15439	15234	16008	15339	12483	16075	16220	15505
21 Total Resources	28925	26865	25908	25157	27686	28482	28526	26845	25361	26205	24512	27763	31029	29694	27478
<u>Reserves & Losses</u>															
22 Contingency Reserves (Non-Spinning)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23 Contingency Reserves (Spinning)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 Generation Imbalance Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 Load Following Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 Regional Transmission Losses	-816	-758	-731	-709	-781	-803	-804	-757	-715	-739	-691	-783	-875	-837	-775
27 Total Reserves & Losses	-816	-758	-731	-709	-781	-803	-804	-757	-715	-739	-691	-783	-875	-837	-775
28 Total Net Resources	28109	26108	25178	24448	26905	27679	27721	26088	24646	25466	23821	26980	30154	28857	26703
<u>Surplus/Deficits</u>															
29 Firm Surplus/Deficit	3128	1189	2011	2317	2435	856	732	409	745	2656	803	4713	5827	3094	2257
30 Total Surplus/Deficit	3128	1189	1997	2317	2435	856	728	386	691	2622	770	4713	5827	3094	2246

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Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
<u>Firm Regional Loads</u>															
1 Regional Firm Loads	23832	23842	22142	21321	23677	26150	26278	25038	23056	21955	21955	21474	23294	24754	23579
2 Exports	1419	1347	1250	1042	1042	947	974	903	1131	1200	1254	1055	1353	1339	1138
3 Federal Diversity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Total Firm Regional Loads	25251	25188	23392	22364	24719	27098	27252	25941	24187	23155	23209	22529	24648	26093	24717
<u>Non-Firm Regional Loads</u>															
5 Regional Non-Firm Loads	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0	11
6 Total Non-Firm Regional Loads	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0	11
7 Total Loads	25251	25188	23407	22364	24719	27098	27256	25964	24242	23188	23242	22529	24648	26093	24727
<u>Hydro Resources</u>															
8 Regulated Hydro	11598	9768	9588	8830	11064	11597	11775	10612	9156	8954	7885	13633	13356	12307	10922
9 Independent Hydro	989	967	842	903	835	886	753	794	977	1251	1297	1605	1685	1217	1063
10 Regional Hydro Maintenance	-30	-25	-8.6	-9	-3.8	0	0	0	-5.2	-7.4	-7.6	-20	-14	-49	-12
11 Total Hydro Resources	12557	10711	10421	9724	11894	12483	12528	11407	10128	10198	9174	15217	15026	13474	11973
<u>Other Resources</u>															
12 Small Thermal & Misc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13 Combustion Turbines	3689	3689	3505	3544	3606	3871	3859	3613	3581	3384	3384	1973	3334	3656	3467
14 Renewables	2045	1848	1481	1403	1413	1164	1320	1013	1845	2153	2226	1995	2272	1799	1656
15 Cogeneration	2726	2725	2698	2744	2803	2821	2781	2812	2159	2374	2331	2234	2700	2728	2628
16 Imports	761	747	684	769	1036	1216	1127	1090	945	817	788	698	798	873	899
17 Large Thermal	6400	6400	6400	6400	6400	6400	6400	6400	6139	5605	5255	4179	5386	6300	6018
18 Non-Utility Generation	676	675	615	535	492	486	473	479	496	629	634	774	786	769	602
19 Resource Acquisition	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20 Total Other Resources	16298	16085	15383	15396	15751	15959	15961	15406	15165	14961	14618	11852	15277	16125	15270
21 Total Resources	28855	26796	25805	25121	27645	28442	28488	26813	25293	25159	23791	27069	30303	29600	27243
<u>Reserves & Losses</u>															
22 Contingency Reserves (Non-Spinning)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23 Contingency Reserves (Spinning)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 Generation Imbalance Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 Load Following Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 Regional Transmission Losses	-814	-756	-728	-708	-780	-802	-803	-756	-713	-709	-671	-763	-855	-835	-768
27 Total Reserves & Losses	-814	-756	-728	-708	-780	-802	-803	-756	-713	-709	-671	-763	-855	-835	-768
28 Total Net Resources	28041	26040	25077	24412	26865	27640	27685	26057	24580	24449	23120	26306	29449	28765	26475
<u>Surplus/Deficits</u>															
29 Firm Surplus/Deficit	2790	852	1685	2048	2146	542	433	115	392	1295	-88	3777	4801	2672	1758
30 Total Surplus/Deficit	2790	852	1670	2048	2146	542	429	92	338	1261	-122	3777	4801	2672	1747

Loads and Resources - Pacific Northwest Region
PNW Loads and Resource Study
2019 - 2020 Operating Year
1937 Water Year
[76] 2011 White Book (Final)

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
<u>Firm Regional Loads</u>															
1 Regional Firm Loads	24168	24177	22432	21588	23958	26459	26585	25152	23334	22221	22221	21741	23610	25092	23864
2 Exports	1418	1334	1240	1034	1034	939	971	889	1126	1194	1248	1050	1347	1334	1130
3 Federal Diversity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Total Firm Regional Loads	25585	25511	23672	22622	24992	27398	27556	26041	24460	23415	23469	22791	24957	26426	24994
<u>Non-Firm Regional Loads</u>															
5 Regional Non-Firm Loads	0	0	14	0	0	0	3.5	24	54	34	34	0	0	0	11
6 Total Non-Firm Regional Loads	0	0	14	0	0	0	3.5	24	54	34	34	0	0	0	11
7 Total Loads	25585	25511	23687	22622	24992	27398	27560	26065	24514	23449	23503	22791	24957	26426	25005
<u>Hydro Resources</u>															
8 Regulated Hydro	11598	9768	9588	8830	11064	11597	11775	10612	9156	8954	7885	13695	13284	12307	10920
9 Independent Hydro	989	967	842	903	835	886	753	793	977	1251	1297	1605	1685	1217	1063
10 Regional Hydro Maintenance	-30	-25	-8.6	-9	-3.8	0	0	0	-5.2	-7.4	-7.6	-20	-14	-49	-12
11 Total Hydro Resources	12557	10711	10421	9724	11894	12483	12528	11405	10128	10198	9174	15279	14954	13474	11971
<u>Other Resources</u>															
12 Small Thermal & Misc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13 Combustion Turbines	3689	3689	3505	3544	3606	3871	3859	3613	3581	3380	3380	1932	3311	3656	3462
14 Renewables	2045	1848	1481	1403	1413	1164	1320	1013	1845	2153	2226	1999	2262	1799	1654
15 Cogeneration	2727	2726	2735	2738	2766	2822	2784	2812	2042	2747	2331	2287	2698	2696	2636
16 Imports	767	753	690	774	1041	1222	1133	1100	950	821	792	703	804	880	905
17 Large Thermal	6400	6400	6400	6400	6400	6400	6400	6400	6301	5642	5113	4495	6205	6400	6131
18 Non-Utility Generation	676	673	610	533	491	486	472	476	493	635	636	776	802	770	602
19 Resource Acquisition	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20 Total Other Resources	16304	16090	15422	15393	15718	15965	15968	15415	15212	15378	14478	12192	16084	16202	15389
21 Total Resources	28861	26800	25843	25117	27612	28448	28496	26820	25340	25576	23651	27472	31038	29676	27360
<u>Reserves & Losses</u>															
22 Contingency Reserves (Non-Spinning)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23 Contingency Reserves (Spinning)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 Generation Imbalance Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 Load Following Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 Regional Transmission Losses	-814	-756	-729	-708	-779	-802	-804	-756	-715	-721	-667	-775	-875	-837	-772
27 Total Reserves & Losses	-814	-756	-729	-708	-779	-802	-804	-756	-715	-721	-667	-775	-875	-837	-772
28 Total Net Resources	28047	26045	25114	24409	26833	27646	27692	26063	24625	24855	22984	26697	30162	28840	26589
<u>Surplus/Deficits</u>															
29 Firm Surplus/Deficit	2462	534	1442	1786	1841	248	136	22	166	1439	-485	3906	5205	2414	1594
30 Total Surplus/Deficit	2462	534	1428	1786	1841	248	132	-1.6	111	1406	-519	3906	5205	2414	1583

Loads and Resources - Pacific Northwest Region
PNW Loads and Resource Study
2020 - 2021 Operating Year
1937 Water Year
[76] 2011 White Book (Final)

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
<u>Firm Regional Loads</u>															
1 Regional Firm Loads	24572	24438	22717	21850	24231	26756	26891	25631	23610	22484	22484	22006	23925	25428	24166
2 Exports	1412	1333	1235	1029	1030	933	832	752	989	1058	1111	1045	1209	1196	1060
3 Federal Diversity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Total Firm Regional Loads	25984	25771	23952	22879	25261	27689	27723	26383	24599	23542	23595	23051	25134	26624	25227
<u>Non-Firm Regional Loads</u>															
5 Regional Non-Firm Loads	0	0	14	0	0	0	3.5	24	54	34	34	0	0	0	11
6 Total Non-Firm Regional Loads	0	0	14	0	0	0	3.5	24	54	34	34	0	0	0	11
7 Total Loads	25984	25771	23966	22879	25261	27689	27727	26406	24653	23576	23628	23051	25134	26624	25238
<u>Hydro Resources</u>															
8 Regulated Hydro	11598	9768	9588	8830	11064	11597	11775	10612	9156	8954	7885	13633	13356	12307	10922
9 Independent Hydro	989	967	842	903	835	886	753	794	977	1251	1297	1605	1685	1217	1063
10 Regional Hydro Maintenance	-30	-25	-8.6	-9	-3.8	0	0	0	-5.2	-7.4	-7.6	-20	-14	-49	-12
11 Total Hydro Resources	12557	10711	10421	9724	11894	12483	12528	11407	10128	10198	9174	15217	15026	13474	11973
<u>Other Resources</u>															
12 Small Thermal & Misc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13 Combustion Turbines	3680	3680	3505	3544	3606	3880	3850	3613	3581	3384	3123	2049	3412	3665	3469
14 Renewables	2045	1868	1478	1403	1415	1160	1317	1013	1846	2153	2226	1998	2264	1799	1656
15 Cogeneration	2727	2726	2735	2738	2804	2822	2782	2813	2040	2741	2331	2207	2572	2729	2623
16 Imports	773	758	695	780	1046	1228	1138	1101	955	826	797	709	811	887	910
17 Large Thermal	6400	6400	6400	6400	6400	5774	5240	5240	4979	5124	4927	3984	4017	5007	5407
18 Non-Utility Generation	676	675	614	535	492	486	472	475	493	635	636	776	802	770	603
19 Resource Acquisition	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20 Total Other Resources	16302	16108	15428	15400	15763	15349	14800	14254	13894	14863	14040	11722	13878	14858	14668
21 Total Resources	28858	26819	25849	25124	27657	27833	27327	25661	24022	25061	23214	26939	28904	28332	26641
<u>Reserves & Losses</u>															
22 Contingency Reserves (Non-Spinning)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23 Contingency Reserves (Spinning)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 Generation Imbalance Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 Load Following Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 Regional Transmission Losses	-814	-756	-729	-709	-780	-785	-771	-724	-677	-707	-655	-760	-815	-799	-751
27 Total Reserves & Losses	-814	-756	-729	-709	-780	-785	-771	-724	-677	-707	-655	-760	-815	-799	-751
28 Total Net Resources	28045	26062	25120	24416	26878	27048	26557	24938	23344	24354	22559	26180	28089	27533	25890
<u>Surplus/Deficits</u>															
29 Firm Surplus/Deficit	2061	291	1168	1537	1616	-641	-1167	-1445	-1254	812	-1036	3128	2955	910	663
30 Total Surplus/Deficit	2061	291	1154	1537	1616	-641	-1170	-1469	-1309	778	-1069	3128	2955	910	652

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Section 7
Monthly Regional 70-Water Year
Surplus/Deficit
Average Energy in Megawatts

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70-Water Year Surplus/Deficit
Regional Tables
Monthly OY 2012 – 2021
Average Energy in Megawatts

Power Services

Reports Powered by:



Loads and Resources Information System

**Table A-30: Regional Surplus/Deficit - By Water Year
PNW Loads and Resource Study
2011 - 2012 Operating Year
[76] 2011 White Book (Final)**

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
<i>1993 Regional Surplus/Deficit</i>	2048	1450	2065	3477	4168	3378	3281	748	3167	7341	6787	9803	8716	6071	4482
<i>1994 Regional Surplus/Deficit</i>	4602	3424	2335	3684	4802	3547	3703	3647	3591	4896	7821	6426	7864	4068	4497
<i>1995 Regional Surplus/Deficit</i>	2673	1524	2326	3202	3846	2977	3681	7467	8497	12061	8445	9020	12255	7955	6111
<i>1996 Regional Surplus/Deficit</i>	5193	2981	3468	5693	11211	14813	14879	15671	13897	14525	16349	12140	13479	11644	11347
<i>1997 Regional Surplus/Deficit</i>	7990	3821	4178	5363	6045	7233	15060	14613	14791	14878	15858	12000	14731	12463	10624
<i>1998 Regional Surplus/Deficit</i>	8228	5147	6812	10268	8265	6554	7701	7406	7469	9400	10646	12125	13759	7670	8721
-Ranked Averages-															
Top Ten Percent	7356	4803	4319	6475	8709	10921	13732	13517	13164	15012	14584	11831	13395	10711	10621
Middle Eighty Percent	5730	3645	4016	5096	5623	5573	7547	7122	7130	10963	10790	10159	11942	7778	7285
Bottom Ten Percent	3853	2112	2896	3992	4131	3092	2868	2718	2590	4890	4902	6020	6396	4662	3934

Table A-30: Regional Surplus/Deficit - By Water Year
PNW Loads and Resource Study
2012 - 2013 Operating Year
[76] 2011 White Book (Final)

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
<i>1993 Regional Surplus/Deficit</i>	2453	1243	2853	3384	4086	3165	3181	559	3197	5821	5636	9139	8058	5496	4243
<i>1994 Regional Surplus/Deficit</i>	4347	3231	3792	3591	4721	3333	3602	3458	3621	3376	6670	5765	7203	3499	4279
<i>1995 Regional Surplus/Deficit</i>	3638	2036	3632	3109	3765	2763	3580	7267	8527	10541	7294	8345	11248	7344	5921
<i>1996 Regional Surplus/Deficit</i>	4595	3481	4734	5600	11113	14525	14713	15397	13892	12908	15076	11376	12211	10881	11008
<i>1997 Regional Surplus/Deficit</i>	7982	5341	3854	5270	5964	7020	14878	14338	14753	13254	14554	11165	13413	11761	10221
<i>1998 Regional Surplus/Deficit</i>	8309	6411	6826	10154	8184	6340	7601	7540	7180	7880	9495	11295	12476	7101	8393
-Ranked Averages-															
Top Ten Percent	7540	5629	4623	6382	8621	10684	13582	13282	13157	13398	13336	11025	12206	10014	10273
Middle Eighty Percent	5672	4218	4571	5002	5541	5359	7462	6934	7112	9425	9621	9421	10922	7151	6986
Bottom Ten Percent	4077	2627	3760	3899	4049	2879	2768	2529	2621	3370	3751	5349	5731	4093	3718

**Table A-30: Regional Surplus/Deficit - By Water Year
PNW Loads and Resource Study
2013 - 2014 Operating Year
[76] 2011 White Book (Final)**

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
<i>1993 Regional Surplus/Deficit</i>	1984	775	2560	3036	3669	2689	2488	-92	2386	6199	5227	9074	8240	5043	3866
<i>1994 Regional Surplus/Deficit</i>	3878	2763	3499	3243	4303	2858	2909	2808	2811	3753	6261	5996	7427	3103	3936
<i>1995 Regional Surplus/Deficit</i>	3169	1567	3339	2761	3347	2288	2887	7113	7220	10918	6885	8412	11477	6864	5553
<i>1996 Regional Surplus/Deficit</i>	4126	3013	4442	5252	10685	13950	13951	14624	13021	13319	14554	11086	12565	10179	10573
<i>1997 Regional Surplus/Deficit</i>	7489	4873	3561	4922	5546	6535	14100	13718	13650	13671	14023	10943	13516	11014	9765
<i>1998 Regional Surplus/Deficit</i>	7815	5943	6522	9795	7767	5865	6907	6890	6370	8257	9085	11127	12784	6729	8022
-Ranked Averages-															
Top Ten Percent	7056	5161	4331	6034	8198	10174	12850	12592	12244	13752	12846	10799	12411	9373	9846
Middle Eighty Percent	5196	3748	4271	4653	5123	4882	6771	6276	6287	9795	9187	9353	11118	6655	6603
Bottom Ten Percent	3608	2153	3466	3551	3632	2403	2075	1878	1810	3748	3342	5557	5965	3685	3372

**Table A-30: Regional Surplus/Deficit - By Water Year
PNW Loads and Resource Study
2014 - 2015 Operating Year
[76] 2011 White Book (Final)**

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
<i>1993 Regional Surplus/Deficit</i>	1504	434	2158	2637	3319	2261	2195	-357	2164	6315	5675	8822	6749	4583	3476
<i>1994 Regional Surplus/Deficit</i>	3398	2421	3098	2844	3954	2430	2616	2543	2589	3869	6709	5526	5955	2585	3524
<i>1995 Regional Surplus/Deficit</i>	2689	1226	2937	2362	2998	1860	2594	7305	6514	11031	7328	8059	9633	6429	5121
<i>1996 Regional Surplus/Deficit</i>	3646	2672	4040	4854	10314	13485	13586	14252	12802	13207	14840	11003	10604	9912	10139
<i>1997 Regional Surplus/Deficit</i>	6984	4532	3160	4524	5197	6097	13759	13362	13422	13573	14309	10800	11413	10766	9323
<i>1998 Regional Surplus/Deficit</i>	7310	5602	6120	9375	7417	5437	6604	6604	6148	8372	9532	10993	10808	6186	7590
-Ranked Averages-															
Top Ten Percent	6563	4819	3930	5641	7843	9732	12603	12342	11753	13696	13175	10639	10430	9067	9404
Middle Eighty Percent	4705	3403	3873	4253	4774	4452	6468	6015	6041	9858	9610	9107	9274	6231	6181
Bottom Ten Percent	3126	1816	3061	3147	3270	1970	1775	1611	1587	3865	3789	5119	4518	3173	2962

**Table A-30: Regional Surplus/Deficit - By Water Year
PNW Loads and Resource Study
2015 - 2016 Operating Year
[76] 2011 White Book (Final)**

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
<i>1993 Regional Surplus/Deficit</i>	1188	118	1813	2381	2964	1912	1689	-639	2067	4510	3690	9215	7765	4467	3208
<i>1994 Regional Surplus/Deficit</i>	3081	2105	2753	2588	3599	2081	2110	2260	2491	2065	4724	5924	7018	2468	3268
<i>1995 Regional Surplus/Deficit</i>	2372	910	2592	2106	2643	1511	2088	7023	6417	9228	5346	8477	10682	6298	4873
<i>1996 Regional Surplus/Deficit</i>	3330	2356	3695	4597	9959	13136	13080	13962	12705	11400	12853	11438	11643	9682	9888
<i>1997 Regional Surplus/Deficit</i>	6692	4216	2815	4267	4841	5748	13401	12863	13325	11746	12302	11220	12449	10496	9062
<i>1998 Regional Surplus/Deficit</i>	7018	5286	5756	9119	7062	5088	6098	6322	6050	6569	7549	11457	11868	6070	7339
-Ranked Averages-															
Top Ten Percent	6264	4506	3585	5384	7488	9383	12118	12027	11656	11882	11181	11083	11479	8864	9154
Middle Eighty Percent	4395	3089	3526	3997	4418	4103	5988	5728	5911	8057	7629	9518	10331	6082	5925
Bottom Ten Percent	2809	1500	2716	2890	2914	1621	1269	1328	1489	2061	1804	5508	5563	3056	2703

**Table A-30: Regional Surplus/Deficit - By Water Year
PNW Loads and Resource Study
2016 - 2017 Operating Year
[76] 2011 White Book (Final)**

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
<i>1993 Regional Surplus/Deficit</i>	927	-291	1563	2145	2641	1594	1335	-1145	1337	4834	4052	8152	6372	3928	2743
<i>1994 Regional Surplus/Deficit</i>	2821	1697	2502	2352	3275	1763	1757	1754	1761	2389	5086	4917	5546	1925	2792
<i>1995 Regional Surplus/Deficit</i>	2112	502	2341	1870	2319	1193	1734	6517	5687	9551	5706	7447	9632	5811	4426
<i>1996 Regional Surplus/Deficit</i>	3069	1947	3444	4361	9614	12733	12642	13365	11915	11772	13190	10026	10475	9153	9363
<i>1997 Regional Surplus/Deficit</i>	6407	3807	2564	4031	4518	5429	12957	12275	12519	12110	12651	9898	11320	10023	8560
<i>1998 Regional Surplus/Deficit</i>	6734	4877	5495	8862	6730	4770	5745	5816	5320	6893	7910	10149	10719	5526	6860
-Ranked Averages-															
Top Ten Percent	5986	4094	3334	5148	7154	9043	11703	11460	10879	12227	11547	9674	10309	8357	8645
Middle Eighty Percent	4124	2672	3272	3759	4094	3785	5626	5215	5177	8382	7985	8340	9137	5574	5456
Bottom Ten Percent	2549	1091	2465	2655	2591	1303	915	822	759	2385	2166	4515	4098	2513	2231

**Table A-30: Regional Surplus/Deficit - By Water Year
PNW Loads and Resource Study
2017 - 2018 Operating Year
[76] 2011 White Book (Final)**

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
<i>1993 Regional Surplus/Deficit</i>	605	-614	1287	1899	2409	1288	1053	-1423	1452	5682	4620	8657	6880	3802	2723
<i>1994 Regional Surplus/Deficit</i>	2498	1373	2226	2106	3044	1457	1475	1477	1876	3237	5654	5366	6133	1803	2775
<i>1995 Regional Surplus/Deficit</i>	1789	178	2066	1624	2088	886	1452	6239	5802	10400	6276	7919	9796	5632	4372
<i>1996 Regional Surplus/Deficit</i>	2747	1624	3169	4115	9404	12511	12445	13179	12090	12572	13783	10880	10758	9016	9381
<i>1997 Regional Surplus/Deficit</i>	6060	3484	2288	3785	4286	5123	12766	12080	12710	12918	13233	10662	11563	9830	8554
<i>1998 Regional Surplus/Deficit</i>	6386	4554	5198	8637	6507	4464	5463	5538	5435	7741	8479	10899	10982	5404	6841
-Ranked Averages-															
Top Ten Percent	5637	3767	3059	4902	6933	8759	11482	11244	11041	13054	12112	10525	10594	8198	8648
Middle Eighty Percent	3787	2348	2993	3515	3864	3478	5353	4944	5296	9229	8559	8960	9446	5417	5428
Bottom Ten Percent	2226	768	2190	2409	2360	997	633	545	874	3233	2735	4950	4678	2391	2211

**Table A-30: Regional Surplus/Deficit - By Water Year
PNW Loads and Resource Study
2018 - 2019 Operating Year
[76] 2011 White Book (Final)**

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
<i>1993 Regional Surplus/Deficit</i>	267	-951	961	1631	2120	974	754	-1716	1099	4321	3729	7644	5956	3384	2227
<i>1994 Regional Surplus/Deficit</i>	2160	1036	1900	1838	2755	1143	1176	1183	1523	1875	4763	4408	5130	1381	2276
<i>1995 Regional Surplus/Deficit</i>	1451	-159	1740	1356	1799	573	1153	5946	5449	9037	5383	6938	9216	5267	3910
<i>1996 Regional Surplus/Deficit</i>	2409	1287	2842	3847	9094	12113	12062	12794	11677	11259	12867	9518	10059	8609	8847
<i>1997 Regional Surplus/Deficit</i>	5747	3146	1962	3517	3998	4810	12376	11704	12281	11596	12327	9390	10904	9479	8044
<i>1998 Regional Surplus/Deficit</i>	6073	4216	4893	8347	6210	4150	5164	5245	5082	6379	7587	9641	10303	4982	6344
-Ranked Averages-															
Top Ten Percent	5325	3433	2732	4634	6634	8423	11122	10889	10641	11714	11224	9165	9893	7813	8129
Middle Eighty Percent	3464	2012	2670	3245	3574	3165	5045	4644	4939	7869	7662	7832	8721	5030	4940
Bottom Ten Percent	1888	430	1863	2140	2071	683	334	251	521	1871	1843	4006	3682	1969	1715

**Table A-30: Regional Surplus/Deficit - By Water Year
PNW Loads and Resource Study
2019 - 2020 Operating Year
[76] 2011 White Book (Final)**

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
<i>1993 Regional Surplus/Deficit</i>	-61	-1269	718	1369	1815	680	457	-1811	872	4465	3332	7850	6259	3122	2054
<i>1994 Regional Surplus/Deficit</i>	1832	718	1657	1576	2450	849	878	1089	1296	2020	4366	4560	5512	1123	2114
<i>1995 Regional Surplus/Deficit</i>	1123	-477	1497	1094	1494	279	856	5851	5222	9183	4988	7112	9175	4952	3719
<i>1996 Regional Surplus/Deficit</i>	2081	969	2600	3585	8810	11904	11848	12791	11510	11355	12495	10073	10137	8336	8734
<i>1997 Regional Surplus/Deficit</i>	5394	2829	1719	3255	3693	4516	12170	11692	12130	11701	11945	9855	10942	9151	7906
<i>1998 Regional Surplus/Deficit</i>	5720	3898	4628	8107	5913	3856	4866	5151	4856	6524	7191	10092	10361	4724	6180
-Ranked Averages-															
Top Ten Percent	4971	3112	2490	4372	6340	8151	10886	10856	10461	11837	10823	9718	9973	7518	7998
Middle Eighty Percent	3120	1693	2424	2985	3270	2871	4756	4557	4716	8012	7271	8153	8825	4737	4769
Bottom Ten Percent	1560	112	1621	1878	1766	389	37	157	295	2016	1447	4144	4057	1711	1550

**Table A-30: Regional Surplus/Deficit - By Water Year
PNW Loads and Resource Study
2020 - 2021 Operating Year
[76] 2011 White Book (Final)**

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
<i>1993 Regional Surplus/Deficit</i>	-463	-1512	444	1119	1591	-209	-845	-3278	-548	3838	2781	6996	4110	1621	1131
<i>1994 Regional Surplus/Deficit</i>	1431	475	1383	1326	2226	-40	-424	-378	-124	1392	3815	3760	3284	-382	1181
<i>1995 Regional Surplus/Deficit</i>	721	-720	1223	844	1269	-610	-446	4384	3802	8555	4436	6290	7370	3505	2815
<i>1996 Regional Surplus/Deficit</i>	1679	726	2326	3336	8564	10930	10462	11232	10030	10776	11920	8869	8214	6846	7752
<i>1997 Regional Surplus/Deficit</i>	5017	2586	1445	3006	3468	3626	10776	10143	10635	11114	11380	8742	9058	7716	6949
<i>1998 Regional Surplus/Deficit</i>	5343	3656	4376	7836	5680	2967	3564	3683	3435	5897	6640	8992	8457	3220	5249
-Ranked Averages-															
Top Ten Percent	4596	2873	2216	4123	6104	7240	9523	9328	8994	11231	10277	8517	8047	6050	7034
Middle Eighty Percent	2734	1451	2154	2734	3044	1982	3446	3083	3292	7386	6714	7184	6875	3268	3845
Bottom Ten Percent	1159	-130	1347	1629	1541	-500	-1265	-1310	-1125	1389	896	3358	1836	206	619

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Section 8

Monthly OY 2012 – 2021

Average Energy in Megawatts ¹

	<u>Table Number</u>
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¹ Tables A-11 through A-14 are obsolete and no longer available.

² Capacity Reserves are not applicable to energy.

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Table A-1
Total Retail Loads
Monthly OY 2012 – 2021
Average Energy in Megawatts

Power Services

Reports Powered by:



Loads and Resources Information System

**Table A-1: Pacific Northwest Total Retail Loads
PNW Loads and Resource Study
2011 - 2012 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
Firm Loads															
-Federal Entities-															
1 Federal Entities	115	115	102	111	132	157	152	139	136	119	120	109	113	123	126
2 Total Federal Entities	115	115	102	111	132	157	152	139	136	119	120	109	113	123	126
-U.S. Bureau of Reclamation-															
3 U.S. Bureau of Reclamation	311	309	293	96	17	18	2.6	7.1	57	227	218	321	315	417	173
4 Total U.S. Bureau of Reclamation	311	309	293	96	17	18	2.6	7.1	57	227	218	321	315	417	173
-Direct Service Industry-															
5 Direct Service Industry	441	441	441	439	441	438	439	441	440	439	440	439	439	440	440
6 Total Direct Service Industry	441	441	441	439	441	438	439	441	440	439	440	439	439	440	440
-Generating Public Entities-															
7 Generating Public Entities	4649	4653	4505	4760	5569	5996	6007	5690	5148	4898	4940	4609	4602	4706	5096
8 Total Generating Public Entities	4649	4653	4505	4760	5569	5996	6007	5690	5148	4898	4940	4609	4602	4706	5096
-Non-Generating Public Entities-															
9 Non-Generating Public Entities	3746	3749	3427	3372	3844	4448	4323	4030	3660	3506	3536	3510	3704	3963	3796
10 Total Non-Generating Public Entities	3746	3749	3427	3372	3844	4448	4323	4030	3660	3506	3536	3510	3704	3963	3796
-Investor-Owned Entities-															
11 Investor-Owned Entities	11205	11209	10416	9750	10706	11792	11984	11379	10620	9889	9958	9663	10902	11718	10839
12 Total Investor-Owned Entities	11205	11209	10416	9750	10706	11792	11984	11379	10620	9889	9958	9663	10902	11718	10839
-Other Firm Loads-															
13 Other PNW Entities	377	377	325	343	376	404	401	406	393	386	387	386	395	405	383
14 Total Other Firm Loads	377	377	325	343	376	404	401	406	393	386	387	386	395	405	383
-Total Regional Firm Loads-															
15 Federal Entities	425	424	395	207	149	175	155	146	193	347	338	430	428	539	299
16 Direct Service Industry	441	441	441	439	441	438	439	441	440	439	440	439	439	440	440
17 Public Entities	8395	8402	7932	8133	9412	10444	10330	9721	8808	8404	8476	8119	8306	8669	8892
18 Investor-Owned Entities	11205	11209	10416	9750	10706	11792	11984	11379	10620	9889	9958	9663	10902	11718	10839
19 Other Entities	377	377	325	343	376	404	401	406	393	386	387	386	395	405	383
20 Total Regional Firm Loads	20843	20852	19510	18871	21083	23253	23309	22092	20454	19464	19599	19037	20469	21771	20853
Non-Firm Loads															
-Investor-Owned Entities-															
21 Investor-Owned Entities	0	0	14	0	0	0	3.5	24	54	34	34	0	0	0	11
22 Total Investor-Owned Entities	0	0	14	0	0	0	3.5	24	54	34	34	0	0	0	11
-Total Regional Non-Firm Loads-															
23 Federal Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 Direct Service Industry	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 Investor-Owned Entities	0	0	14	0	0	0	3.5	24	54	34	34	0	0	0	11
27 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28 Total Regional Non-Firm Loads	0	0	14	0	0	0	3.5	24	54	34	34	0	0	0	11
-Total Regional Loads-															
29 Federal Entities	425	424	395	207	149	175	155	146	193	347	338	430	428	539	299
30 Direct Service Industry	441	441	441	439	441	438	439	441	440	439	440	439	439	440	440
31 Public Entities	8395	8402	7932	8133	9412	10444	10330	9721	8808	8404	8476	8119	8306	8669	8892
32 Investor-Owned Entities	11205	11209	10431	9750	10706	11792	11988	11402	10674	9922	9992	9663	10902	11718	10850
33 Other Entities	377	377	325	343	376	404	401	406	393	386	387	386	395	405	383
34 Total Regional Loads	20843	20852	19524	18871	21083	23253	23313	22116	20509	19498	19632	19037	20469	21771	20864

**Table A-1: Pacific Northwest Total Retail Loads
PNW Loads and Resource Study
2012 - 2013 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
Firm Loads															
-Federal Entities-															
1 Federal Entities	119	119	105	115	137	163	154	144	138	121	121	110	114	124	129
2 Total Federal Entities	119	119	105	115	137	163	154	144	138	121	121	110	114	124	129
-U.S. Bureau of Reclamation-															
3 U.S. Bureau of Reclamation	311	309	293	96	17	18	2.6	7.1	57	222	222	321	315	417	174
4 Total U.S. Bureau of Reclamation	311	309	293	96	17	18	2.6	7.1	57	222	222	321	315	417	174
-Direct Service Industry-															
5 Direct Service Industry	441	441	441	436	438	434	436	438	437	436	436	436	436	437	437
6 Total Direct Service Industry	441	441	441	436	438	434	436	438	437	436	436	436	436	437	437
-Generating Public Entities-															
7 Generating Public Entities	4700	4703	4545	4788	5596	6030	6034	5787	5172	4938	4938	4626	4622	4726	5127
8 Total Generating Public Entities	4700	4703	4545	4788	5596	6030	6034	5787	5172	4938	4938	4626	4622	4726	5127
-Non-Generating Public Entities-															
9 Non-Generating Public Entities	3819	3823	3499	3439	3908	4517	4387	4189	3735	3585	3585	3581	3775	4040	3872
10 Total Non-Generating Public Entities	3819	3823	3499	3439	3908	4517	4387	4189	3735	3585	3585	3581	3775	4040	3872
-Investor-Owned Entities-															
11 Investor-Owned Entities	11496	11500	10669	10001	11005	12127	12368	11742	10974	10282	10282	10019	11315	12170	11180
12 Total Investor-Owned Entities	11496	11500	10669	10001	11005	12127	12368	11742	10974	10282	10282	10019	11315	12170	11180
-Other Firm Loads-															
13 Other PNW Entities	378	378	326	344	377	405	403	405	394	388	388	388	396	407	384
14 Total Other Firm Loads	378	378	326	344	377	405	403	405	394	388	388	388	396	407	384
-Total Regional Firm Loads-															
15 Federal Entities	429	427	399	211	154	181	156	151	195	343	343	431	429	541	302
16 Direct Service Industry	441	441	441	436	438	434	436	438	437	436	436	436	436	437	437
17 Public Entities	8519	8526	8044	8227	9504	10547	10421	9976	8907	8523	8523	8206	8397	8766	9000
18 Investor-Owned Entities	11496	11500	10669	10001	11005	12127	12368	11742	10974	10282	10282	10019	11315	12170	11180
19 Other Entities	378	378	326	344	377	405	403	405	394	388	388	388	396	407	384
20 Total Regional Firm Loads	21263	21272	19879	19218	21478	23694	23784	22711	20907	19972	19972	19479	20973	22320	21304
Non-Firm Loads															
-Investor-Owned Entities-															
21 Investor-Owned Entities	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0	11
22 Total Investor-Owned Entities	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0	11
-Total Regional Non-Firm Loads-															
23 Federal Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 Direct Service Industry	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 Investor-Owned Entities	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0	11
27 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28 Total Regional Non-Firm Loads	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0	11
-Total Regional Loads-															
29 Federal Entities	429	427	399	211	154	181	156	151	195	343	343	431	429	541	302
30 Direct Service Industry	441	441	441	436	438	434	436	438	437	436	436	436	436	437	437
31 Public Entities	8519	8526	8044	8227	9504	10547	10421	9976	8907	8523	8523	8206	8397	8766	9000
32 Investor-Owned Entities	11496	11500	10683	10001	11005	12127	12371	11765	11028	10316	10316	10019	11315	12170	11191
33 Other Entities	378	378	326	344	377	405	403	405	394	388	388	388	396	407	384
34 Total Regional Loads	21263	21272	19894	19218	21478	23694	23787	22734	20962	20006	20006	19479	20973	22320	21314

**Table A-1: Pacific Northwest Total Retail Loads
PNW Loads and Resource Study
2013 - 2014 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
Firm Loads															
-Federal Entities-															
1 Federal Entities	120	120	106	116	138	165	167	156	149	130	130	118	123	133	135
2 Total Federal Entities	120	120	106	116	138	165	167	156	149	130	130	118	123	133	135
-U.S. Bureau of Reclamation-															
3 U.S. Bureau of Reclamation	311	309	293	96	17	18	2.6	7.1	57	222	222	321	315	417	174
4 Total U.S. Bureau of Reclamation	311	309	293	96	17	18	2.6	7.1	57	222	222	321	315	417	174
-Direct Service Industry-															
5 Direct Service Industry	438	438	438	436	438	434	436	438	437	436	436	436	436	437	437
6 Total Direct Service Industry	438	438	438	436	438	434	436	438	437	436	436	436	436	437	437
-Generating Public Entities-															
7 Generating Public Entities	4720	4724	4564	4826	5638	6073	6078	5832	5212	4979	4979	4666	4665	4769	5165
8 Total Generating Public Entities	4720	4724	4564	4826	5638	6073	6078	5832	5212	4979	4979	4666	4665	4769	5165
-Non-Generating Public Entities-															
9 Non-Generating Public Entities	3893	3896	3569	3489	3957	4574	4435	4237	3779	3629	3629	3626	3825	4093	3925
10 Total Non-Generating Public Entities	3893	3896	3569	3489	3957	4574	4435	4237	3779	3629	3629	3626	3825	4093	3925
-Investor-Owned Entities-															
11 Investor-Owned Entities	11931	11934	11046	10365	11402	12606	12858	12192	11393	10626	10626	10363	11741	12584	11592
12 Total Investor-Owned Entities	11931	11934	11046	10365	11402	12606	12858	12192	11393	10626	10626	10363	11741	12584	11592
-Other Firm Loads-															
13 Other PNW Entities	380	380	328	345	378	406	411	404	396	389	389	389	398	409	386
14 Total Other Firm Loads	380	380	328	345	378	406	411	404	396	389	389	389	398	409	386
-Total Regional Firm Loads-															
15 Federal Entities	430	428	399	212	156	183	169	163	205	352	352	439	437	550	309
16 Direct Service Industry	438	438	438	436	438	434	436	438	437	436	436	436	436	437	437
17 Public Entities	8613	8620	8132	8316	9595	10647	10513	10069	8991	8608	8608	8292	8490	8862	9091
18 Investor-Owned Entities	11931	11934	11046	10365	11402	12606	12858	12192	11393	10626	10626	10363	11741	12584	11592
19 Other Entities	380	380	328	345	378	406	411	404	396	389	389	389	398	409	386
20 Total Regional Firm Loads	21791	21800	20345	19674	21969	24277	24388	23266	21423	20411	20411	19920	21502	22841	21814
Non-Firm Loads															
-Investor-Owned Entities-															
21 Investor-Owned Entities	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0	11
22 Total Investor-Owned Entities	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0	11
-Total Regional Non-Firm Loads-															
23 Federal Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 Direct Service Industry	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 Investor-Owned Entities	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0	11
27 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28 Total Regional Non-Firm Loads	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0	11
-Total Regional Loads-															
29 Federal Entities	430	428	399	212	156	183	169	163	205	352	352	439	437	550	309
30 Direct Service Industry	438	438	438	436	438	434	436	438	437	436	436	436	436	437	437
31 Public Entities	8613	8620	8132	8316	9595	10647	10513	10069	8991	8608	8608	8292	8490	8862	9091
32 Investor-Owned Entities	11931	11934	11061	10365	11402	12606	12862	12215	11448	10660	10660	10363	11741	12584	11602
33 Other Entities	380	380	328	345	378	406	411	404	396	389	389	389	398	409	386
34 Total Regional Loads	21791	21800	20359	19674	21969	24277	24391	23289	21478	20445	20445	19920	21502	22841	21825

**Table A-1: Pacific Northwest Total Retail Loads
PNW Loads and Resource Study
2014 - 2015 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
Firm Loads															
-Federal Entities-															
1 Federal Entities	129	128	114	125	150	180	180	168	160	139	139	127	132	143	146
2 Total Federal Entities	129	128	114	125	150	180	180	168	160	139	139	127	132	143	146
-U.S. Bureau of Reclamation-															
3 U.S. Bureau of Reclamation	304	315	293	96	17	18	2.6	7.1	57	222	222	321	315	417	174
4 Total U.S. Bureau of Reclamation	304	315	293	96	17	18	2.6	7.1	57	222	222	321	315	417	174
-Direct Service Industry-															
5 Direct Service Industry	438	437	438	480	482	478	480	482	481	480	480	479	480	480	473
6 Total Direct Service Industry	438	437	438	480	482	478	480	482	481	480	480	479	480	480	473
-Generating Public Entities-															
7 Generating Public Entities	4784	4749	4608	4871	5685	6121	6128	5883	5258	5025	5025	4712	4712	4817	5212
8 Total Generating Public Entities	4784	4749	4608	4871	5685	6121	6128	5883	5258	5025	5025	4712	4712	4817	5212
-Non-Generating Public Entities-															
9 Non-Generating Public Entities	3961	3931	3620	3533	4002	4624	4484	4287	3824	3674	3674	3675	3878	4148	3974
10 Total Non-Generating Public Entities	3961	3931	3620	3533	4002	4624	4484	4287	3824	3674	3674	3675	3878	4148	3974
-Investor-Owned Entities-															
11 Investor-Owned Entities	12374	12309	11405	10691	11720	12961	13219	12520	11660	10869	10869	10611	12036	12903	11911
12 Total Investor-Owned Entities	12374	12309	11405	10691	11720	12961	13219	12520	11660	10869	10869	10611	12036	12903	11911
-Other Firm Loads-															
13 Other PNW Entities	382	381	330	347	380	408	412	405	398	391	391	391	399	410	388
14 Total Other Firm Loads	382	381	330	347	380	408	412	405	398	391	391	391	399	410	388
-Total Regional Firm Loads-															
15 Federal Entities	433	443	408	221	167	198	183	175	217	362	362	448	447	560	320
16 Direct Service Industry	438	437	438	480	482	478	480	482	481	480	480	479	480	480	473
17 Public Entities	8745	8680	8228	8404	9687	10745	10612	10169	9082	8700	8700	8388	8590	8965	9186
18 Investor-Owned Entities	12374	12309	11405	10691	11720	12961	13219	12520	11660	10869	10869	10611	12036	12903	11911
19 Other Entities	382	381	330	347	380	408	412	405	398	391	391	391	399	410	388
20 Total Regional Firm Loads	22372	22251	20809	20143	22437	24790	24906	23752	21837	20801	20801	20317	21951	23318	22277
Non-Firm Loads															
-Investor-Owned Entities-															
21 Investor-Owned Entities	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0	11
22 Total Investor-Owned Entities	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0	11
-Total Regional Non-Firm Loads-															
23 Federal Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 Direct Service Industry	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 Investor-Owned Entities	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0	11
27 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28 Total Regional Non-Firm Loads	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0	11
-Total Regional Loads-															
29 Federal Entities	433	443	408	221	167	198	183	175	217	362	362	448	447	560	320
30 Direct Service Industry	438	437	438	480	482	478	480	482	481	480	480	479	480	480	473
31 Public Entities	8745	8680	8228	8404	9687	10745	10612	10169	9082	8700	8700	8388	8590	8965	9186
32 Investor-Owned Entities	12374	12309	11419	10691	11720	12961	13222	12543	11715	10903	10903	10611	12036	12903	11921
33 Other Entities	382	381	330	347	380	408	412	405	398	391	391	391	399	410	388
34 Total Regional Loads	22372	22251	20823	20143	22437	24790	24910	23775	21891	20835	20835	20317	21951	23318	22288

**Table A-1: Pacific Northwest Total Retail Loads
PNW Loads and Resource Study
2015 - 2016 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
Firm Loads															
-Federal Entities-															
1 Federal Entities	139	138	123	134	163	196	187	170	166	144	144	132	136	148	153
2 Total Federal Entities	139	138	123	134	163	196	187	170	166	144	144	132	136	148	153
-U.S. Bureau of Reclamation-															
3 U.S. Bureau of Reclamation	304	315	293	96	17	18	2.6	7.1	57	222	222	321	315	417	173
4 Total U.S. Bureau of Reclamation	304	315	293	96	17	18	2.6	7.1	57	222	222	321	315	417	173
-Direct Service Industry-															
5 Direct Service Industry	482	481	482	523	525	522	524	525	524	524	524	523	524	524	517
6 Total Direct Service Industry	482	481	482	523	525	522	524	525	524	524	524	523	524	524	517
-Generating Public Entities-															
7 Generating Public Entities	4830	4795	4656	4916	5733	6170	6178	5839	5305	5064	5064	4758	4751	4866	5253
8 Total Generating Public Entities	4830	4795	4656	4916	5733	6170	6178	5839	5305	5064	5064	4758	4751	4866	5253
-Non-Generating Public Entities-															
9 Non-Generating Public Entities	4014	3983	3667	3572	4047	4672	4530	4230	3862	3714	3714	3716	3922	4194	4011
10 Total Non-Generating Public Entities	4014	3983	3667	3572	4047	4672	4530	4230	3862	3714	3714	3716	3922	4194	4011
-Investor-Owned Entities-															
11 Investor-Owned Entities	12665	12599	11658	10907	11939	13201	13468	12754	11883	11072	11072	10805	12272	13145	12146
12 Total Investor-Owned Entities	12665	12599	11658	10907	11939	13201	13468	12754	11883	11072	11072	10805	12272	13145	12146
-Other Firm Loads-															
13 Other PNW Entities	383	383	331	348	382	409	414	412	399	392	392	392	401	412	390
14 Total Other Firm Loads	383	383	331	348	382	409	414	412	399	392	392	392	401	412	390
-Total Regional Firm Loads-															
15 Federal Entities	443	453	416	230	180	214	189	177	222	366	366	453	451	564	326
16 Direct Service Industry	482	481	482	523	525	522	524	525	524	524	524	523	524	524	517
17 Public Entities	8844	8778	8323	8488	9780	10843	10709	10069	9167	8778	8778	8474	8674	9060	9264
18 Investor-Owned Entities	12665	12599	11658	10907	11939	13201	13468	12754	11883	11072	11072	10805	12272	13145	12146
19 Other Entities	383	383	331	348	382	409	414	412	399	392	392	392	401	412	390
20 Total Regional Firm Loads	22817	22694	21210	20496	22806	25189	25304	23938	22196	21132	21132	20647	22321	23705	22643
Non-Firm Loads															
-Investor-Owned Entities-															
21 Investor-Owned Entities	0	0	14	0	0	0	3.5	24	54	34	34	0	0	0	11
22 Total Investor-Owned Entities	0	0	14	0	0	0	3.5	24	54	34	34	0	0	0	11
-Total Regional Non-Firm Loads-															
23 Federal Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 Direct Service Industry	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 Investor-Owned Entities	0	0	14	0	0	0	3.5	24	54	34	34	0	0	0	11
27 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28 Total Regional Non-Firm Loads	0	0	14	0	0	0	3.5	24	54	34	34	0	0	0	11
-Total Regional Loads-															
29 Federal Entities	443	453	416	230	180	214	189	177	222	366	366	453	451	564	326
30 Direct Service Industry	482	481	482	523	525	522	524	525	524	524	524	523	524	524	517
31 Public Entities	8844	8778	8323	8488	9780	10843	10709	10069	9167	8778	8778	8474	8674	9060	9264
32 Investor-Owned Entities	12665	12599	11672	10907	11939	13201	13472	12778	11937	11106	11106	10805	12272	13145	12156
33 Other Entities	383	383	331	348	382	409	414	412	399	392	392	392	401	412	390
34 Total Regional Loads	22817	22694	21224	20496	22806	25189	25307	23962	22250	21165	21165	20647	22321	23705	22654

**Table A-1: Pacific Northwest Total Retail Loads
PNW Loads and Resource Study
2016 - 2017 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
Firm Loads															
-Federal Entities-															
1 Federal Entities	143	143	127	139	169	203	220	205	194	168	167	154	159	171	171
2 Total Federal Entities	143	143	127	139	169	203	220	205	194	168	167	154	159	171	171
-U.S. Bureau of Reclamation-															
3 U.S. Bureau of Reclamation	311	309	293	96	17	18	2.6	7.1	57	218	227	321	315	417	174
4 Total U.S. Bureau of Reclamation	311	309	293	96	17	18	2.6	7.1	57	218	227	321	315	417	174
-Direct Service Industry-															
5 Direct Service Industry	525	525	525	523	525	522	524	525	524	524	523	523	524	524	524
6 Total Direct Service Industry	525	525	525	523	525	522	524	525	524	524	523	523	524	524	524
-Generating Public Entities-															
7 Generating Public Entities	4861	4865	4694	4964	5775	6222	6231	5963	5352	5135	5091	4805	4801	4917	5305
8 Total Generating Public Entities	4861	4865	4694	4964	5775	6222	6231	5963	5352	5135	5091	4805	4801	4917	5305
-Non-Generating Public Entities-															
9 Non-Generating Public Entities	4041	4045	3709	3614	4088	4717	4575	4377	3903	3772	3740	3760	3970	4244	4062
10 Total Non-Generating Public Entities	4041	4045	3709	3614	4088	4717	4575	4377	3903	3772	3740	3760	3970	4244	4062
-Investor-Owned Entities-															
11 Investor-Owned Entities	12868	12872	11854	11080	12126	13408	13681	12944	12060	11276	11197	10972	12483	13376	12340
12 Total Investor-Owned Entities	12868	12872	11854	11080	12126	13408	13681	12944	12060	11276	11197	10972	12483	13376	12340
-Other Firm Loads-															
13 Other PNW Entities	385	385	333	350	383	411	416	409	401	394	393	394	402	414	391
14 Total Other Firm Loads	385	385	333	350	383	411	416	409	401	394	393	394	402	414	391
-Total Regional Firm Loads-															
15 Federal Entities	453	452	420	235	186	222	222	212	250	385	394	475	473	588	345
16 Direct Service Industry	525	525	525	523	525	522	524	525	524	524	523	523	524	524	524
17 Public Entities	8902	8909	8403	8578	9863	10938	10805	10340	9255	8907	8832	8565	8770	9161	9368
18 Investor-Owned Entities	12868	12872	11854	11080	12126	13408	13681	12944	12060	11276	11197	10972	12483	13376	12340
19 Other Entities	385	385	333	350	383	411	416	409	401	394	393	394	402	414	391
20 Total Regional Firm Loads	23133	23142	21536	20766	23084	25501	25648	24430	22491	21486	21339	20929	22652	24063	22968
Non-Firm Loads															
-Investor-Owned Entities-															
21 Investor-Owned Entities	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0	11
22 Total Investor-Owned Entities	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0	11
-Total Regional Non-Firm Loads-															
23 Federal Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 Direct Service Industry	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 Investor-Owned Entities	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0	11
27 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28 Total Regional Non-Firm Loads	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0	11
-Total Regional Loads-															
29 Federal Entities	453	452	420	235	186	222	222	212	250	385	394	475	473	588	345
30 Direct Service Industry	525	525	525	523	525	522	524	525	524	524	523	523	524	524	524
31 Public Entities	8902	8909	8403	8578	9863	10938	10805	10340	9255	8907	8832	8565	8770	9161	9368
32 Investor-Owned Entities	12868	12872	11868	11080	12126	13408	13684	12967	12114	11310	11231	10972	12483	13376	12351
33 Other Entities	385	385	333	350	383	411	416	409	401	394	393	394	402	414	391
34 Total Regional Loads	23133	23142	21550	20766	23084	25501	25652	24453	22546	21520	21373	20929	22652	24063	22978

**Table A-1: Pacific Northwest Total Retail Loads
PNW Loads and Resource Study
2017 - 2018 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
Firm Loads															
-Federal Entities-															
1 Federal Entities	166	166	148	162	199	242	223	208	197	169	170	156	161	174	184
2 Total Federal Entities	166	166	148	162	199	242	223	208	197	169	170	156	161	174	184
-U.S. Bureau of Reclamation-															
3 U.S. Bureau of Reclamation	311	309	293	96	17	18	2.6	7.1	57	227	218	321	315	417	174
4 Total U.S. Bureau of Reclamation	311	309	293	96	17	18	2.6	7.1	57	227	218	321	315	417	174
-Direct Service Industry-															
5 Direct Service Industry	525	525	525	523	525	522	524	525	524	523	524	523	524	524	524
6 Total Direct Service Industry	525	525	525	523	525	522	524	525	524	523	524	523	524	524	524
-Generating Public Entities-															
7 Generating Public Entities	4911	4915	4744	5012	5825	6273	6283	6017	5401	5140	5184	4854	4852	4969	5356
8 Total Generating Public Entities	4911	4915	4744	5012	5825	6273	6283	6017	5401	5140	5184	4854	4852	4969	5356
-Non-Generating Public Entities-															
9 Non-Generating Public Entities	4090	4093	3752	3654	4131	4763	4641	4443	3966	3802	3834	3824	4041	4320	4120
10 Total Non-Generating Public Entities	4090	4093	3752	3654	4131	4763	4641	4443	3966	3802	3834	3824	4041	4320	4120
-Investor-Owned Entities-															
11 Investor-Owned Entities	13093	13098	12040	11239	12296	13594	13875	13125	12226	11354	11433	11132	12678	13593	12523
12 Total Investor-Owned Entities	13093	13098	12040	11239	12296	13594	13875	13125	12226	11354	11433	11132	12678	13593	12523
-Other Firm Loads-															
13 Other PNW Entities	386	386	334	351	384	412	417	410	402	394	395	395	403	415	392
14 Total Other Firm Loads	386	386	334	351	384	412	417	410	402	394	395	395	403	415	392
-Total Regional Firm Loads-															
15 Federal Entities	477	475	441	258	217	260	226	215	253	396	388	477	476	590	358
16 Direct Service Industry	525	525	525	523	525	522	524	525	524	523	524	523	524	524	524
17 Public Entities	9001	9008	8496	8667	9956	11037	10924	10460	9367	8942	9018	8678	8893	9289	9476
18 Investor-Owned Entities	13093	13098	12040	11239	12296	13594	13875	13125	12226	11354	11433	11132	12678	13593	12523
19 Other Entities	386	386	334	351	384	412	417	410	402	394	395	395	403	415	392
20 Total Regional Firm Loads	23482	23491	21837	21038	23378	25825	25965	24734	22772	21609	21758	21205	22974	24411	23273
Non-Firm Loads															
-Investor-Owned Entities-															
21 Investor-Owned Entities	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0	11
22 Total Investor-Owned Entities	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0	11
-Total Regional Non-Firm Loads-															
23 Federal Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 Direct Service Industry	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 Investor-Owned Entities	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0	11
27 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28 Total Regional Non-Firm Loads	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0	11
-Total Regional Loads-															
29 Federal Entities	477	475	441	258	217	260	226	215	253	396	388	477	476	590	358
30 Direct Service Industry	525	525	525	523	525	522	524	525	524	523	524	523	524	524	524
31 Public Entities	9001	9008	8496	8667	9956	11037	10924	10460	9367	8942	9018	8678	8893	9289	9476
32 Investor-Owned Entities	13093	13098	12054	11239	12296	13594	13878	13148	12280	11387	11467	11132	12678	13593	12534
33 Other Entities	386	386	334	351	384	412	417	410	402	394	395	395	403	415	392
34 Total Regional Loads	23482	23491	21851	21038	23378	25825	25969	24757	22827	21643	21792	21205	22974	24411	23283

**Table A-1: Pacific Northwest Total Retail Loads
PNW Loads and Resource Study
2018 - 2019 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
Firm Loads															
-Federal Entities-															
1 Federal Entities	169	169	150	164	202	246	225	210	198	171	171	157	163	175	186
2 Total Federal Entities	169	169	150	164	202	246	225	210	198	171	171	157	163	175	186
-U.S. Bureau of Reclamation-															
3 U.S. Bureau of Reclamation	311	309	293	96	17	18	2.6	7.1	57	222	222	321	315	417	174
4 Total U.S. Bureau of Reclamation	311	309	293	96	17	18	2.6	7.1	57	222	222	321	315	417	174
-Direct Service Industry-															
5 Direct Service Industry	525	525	525	523	525	522	524	525	524	524	524	523	524	524	524
6 Total Direct Service Industry	525	525	525	523	525	522	524	525	524	524	524	523	524	524	524
-Generating Public Entities-															
7 Generating Public Entities	4968	4971	4797	5065	5880	6330	6343	6078	5457	5218	5218	4909	4909	5028	5412
8 Total Generating Public Entities	4968	4971	4797	5065	5880	6330	6343	6078	5457	5218	5218	4909	4909	5028	5412
-Non-Generating Public Entities-															
9 Non-Generating Public Entities	4165	4169	3828	3727	4207	4846	4705	4506	4024	3874	3874	3880	4102	4383	4187
10 Total Non-Generating Public Entities	4165	4169	3828	3727	4207	4846	4705	4506	4024	3874	3874	3880	4102	4383	4187
-Investor-Owned Entities-															
11 Investor-Owned Entities	13308	13312	12213	11394	12460	13775	14061	13300	12393	11550	11550	11288	12878	13811	12703
12 Total Investor-Owned Entities	13308	13312	12213	11394	12460	13775	14061	13300	12393	11550	11550	11288	12878	13811	12703
-Other Firm Loads-															
13 Other PNW Entities	387	387	335	352	386	414	418	411	403	396	396	396	405	416	393
14 Total Other Firm Loads	387	387	335	352	386	414	418	411	403	396	396	396	405	416	393
-Total Regional Firm Loads-															
15 Federal Entities	479	477	443	260	220	264	228	217	255	393	393	478	477	592	360
16 Direct Service Industry	525	525	525	523	525	522	524	525	524	524	524	523	524	524	524
17 Public Entities	9133	9140	8626	8792	10087	11176	11048	10584	9481	9092	9092	8789	9011	9411	9599
18 Investor-Owned Entities	13308	13312	12213	11394	12460	13775	14061	13300	12393	11550	11550	11288	12878	13811	12703
19 Other Entities	387	387	335	352	386	414	418	411	403	396	396	396	405	416	393
20 Total Regional Firm Loads	23832	23842	22142	21321	23677	26150	26278	25038	23057	21955	21955	21474	23294	24754	23579
Non-Firm Loads															
-Investor-Owned Entities-															
21 Investor-Owned Entities	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0	11
22 Total Investor-Owned Entities	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0	11
-Total Regional Non-Firm Loads-															
23 Federal Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 Direct Service Industry	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 Investor-Owned Entities	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0	11
27 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28 Total Regional Non-Firm Loads	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0	11
-Total Regional Loads-															
29 Federal Entities	479	477	443	260	220	264	228	217	255	393	393	478	477	592	360
30 Direct Service Industry	525	525	525	523	525	522	524	525	524	524	524	523	524	524	524
31 Public Entities	9133	9140	8626	8792	10087	11176	11048	10584	9481	9092	9092	8789	9011	9411	9599
32 Investor-Owned Entities	13308	13312	12227	11394	12460	13775	14064	13323	12447	11584	11584	11288	12878	13811	12713
33 Other Entities	387	387	335	352	386	414	418	411	403	396	396	396	405	416	393
34 Total Regional Loads	23832	23842	22157	21321	23677	26150	26282	25061	23111	21989	21989	21474	23294	24754	23589

**Table A-1: Pacific Northwest Total Retail Loads
PNW Loads and Resource Study
2019 - 2020 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
Firm Loads															
-Federal Entities-															
1 Federal Entities	170	170	151	165	204	248	226	205	199	172	172	158	163	176	187
2 Total Federal Entities	170	170	151	165	204	248	226	205	199	172	172	158	163	176	187
-U.S. Bureau of Reclamation-															
3 U.S. Bureau of Reclamation	311	309	293	96	17	18	2.6	7.1	57	222	222	321	315	417	173
4 Total U.S. Bureau of Reclamation	311	309	293	96	17	18	2.6	7.1	57	222	222	321	315	417	173
-Direct Service Industry-															
5 Direct Service Industry	525	525	525	523	525	522	524	525	524	524	524	523	524	524	524
6 Total Direct Service Industry	525	525	525	523	525	522	524	525	524	524	524	523	524	524	524
-Generating Public Entities-															
7 Generating Public Entities	5024	5028	4855	5121	5939	6391	6402	6064	5513	5275	5275	4965	4968	5087	5466
8 Total Generating Public Entities	5024	5028	4855	5121	5939	6391	6402	6064	5513	5275	5275	4965	4968	5087	5466
-Non-Generating Public Entities-															
9 Non-Generating Public Entities	4225	4228	3884	3779	4261	4902	4761	4456	4073	3922	3922	3929	4154	4436	4233
10 Total Non-Generating Public Entities	4225	4228	3884	3779	4261	4902	4761	4456	4073	3922	3922	3929	4154	4436	4233
-Investor-Owned Entities-															
11 Investor-Owned Entities	13524	13529	12387	11550	12624	13963	14250	13482	12563	11710	11710	11448	13081	14034	12886
12 Total Investor-Owned Entities	13524	13529	12387	11550	12624	13963	14250	13482	12563	11710	11710	11448	13081	14034	12886
-Other Firm Loads-															
13 Other PNW Entities	388	388	336	353	387	415	420	412	405	397	397	397	406	418	394
14 Total Other Firm Loads	388	388	336	353	387	415	420	412	405	397	397	397	406	418	394
-Total Regional Firm Loads-															
15 Federal Entities	481	479	445	261	221	266	229	212	256	394	394	479	478	593	360
16 Direct Service Industry	525	525	525	523	525	522	524	525	524	524	524	523	524	524	524
17 Public Entities	9249	9256	8739	8900	10200	11293	11163	10520	9586	9196	9196	8894	9122	9523	9699
18 Investor-Owned Entities	13524	13529	12387	11550	12624	13963	14250	13482	12563	11710	11710	11448	13081	14034	12886
19 Other Entities	388	388	336	353	387	415	420	412	405	397	397	397	406	418	394
20 Total Regional Firm Loads	24168	24177	22432	21588	23958	26459	26585	25152	23334	22221	22221	21741	23610	25092	23864
Non-Firm Loads															
-Investor-Owned Entities-															
21 Investor-Owned Entities	0	0	14	0	0	0	3.5	24	54	34	34	0	0	0	11
22 Total Investor-Owned Entities	0	0	14	0	0	0	3.5	24	54	34	34	0	0	0	11
-Total Regional Non-Firm Loads-															
23 Federal Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 Direct Service Industry	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 Investor-Owned Entities	0	0	14	0	0	0	3.5	24	54	34	34	0	0	0	11
27 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28 Total Regional Non-Firm Loads	0	0	14	0	0	0	3.5	24	54	34	34	0	0	0	11
-Total Regional Loads-															
29 Federal Entities	481	479	445	261	221	266	229	212	256	394	394	479	478	593	360
30 Direct Service Industry	525	525	525	523	525	522	524	525	524	524	524	523	524	524	524
31 Public Entities	9249	9256	8739	8900	10200	11293	11163	10520	9586	9196	9196	8894	9122	9523	9699
32 Investor-Owned Entities	13524	13529	12401	11550	12624	13963	14254	13506	12617	11744	11744	11448	13081	14034	12897
33 Other Entities	388	388	336	353	387	415	420	412	405	397	397	397	406	418	394
34 Total Regional Loads	24168	24177	22446	21588	23958	26459	26589	25176	23388	22255	22255	21741	23610	25092	23875

**Table A-1: Pacific Northwest Total Retail Loads
PNW Loads and Resource Study
2020 - 2021 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
Firm Loads															
-Federal Entities-															
1 Federal Entities	171	170	152	166	205	249	228	212	201	173	173	159	164	177	188
2 Total Federal Entities	171	170	152	166	205	249	228	212	201	173	173	159	164	177	188
-U.S. Bureau of Reclamation-															
3 U.S. Bureau of Reclamation	304	315	293	96	17	18	2.6	7.1	57	222	222	321	315	417	174
4 Total U.S. Bureau of Reclamation	304	315	293	96	17	18	2.6	7.1	57	222	222	321	315	417	174
-Direct Service Industry-															
5 Direct Service Industry	526	525	525	523	525	522	524	525	524	524	524	523	524	524	524
6 Total Direct Service Industry	526	525	525	523	525	522	524	525	524	524	524	523	524	524	524
-Generating Public Entities-															
7 Generating Public Entities	5104	5067	4912	5177	5998	6450	6465	6204	5571	5333	5333	5022	5028	5146	5530
8 Total Generating Public Entities	5104	5067	4912	5177	5998	6450	6465	6204	5571	5333	5333	5022	5028	5146	5530
-Non-Generating Public Entities-															
9 Non-Generating Public Entities	4295	4262	3932	3823	4306	4951	4807	4608	4115	3964	3964	3973	4202	4486	4286
10 Total Non-Generating Public Entities	4295	4262	3932	3823	4306	4951	4807	4608	4115	3964	3964	3973	4202	4486	4286
-Investor-Owned Entities-															
11 Investor-Owned Entities	13782	13710	12566	11710	12792	14149	14443	13661	12736	11871	11871	11610	13286	14259	13069
12 Total Investor-Owned Entities	13782	13710	12566	11710	12792	14149	14443	13661	12736	11871	11871	11610	13286	14259	13069
-Other Firm Loads-															
13 Other PNW Entities	390	389	337	354	388	416	421	414	406	398	398	398	407	419	396
14 Total Other Firm Loads	390	389	337	354	388	416	421	414	406	398	398	398	407	419	396
-Total Regional Firm Loads-															
15 Federal Entities	475	485	445	262	222	268	230	219	257	395	395	480	479	594	362
16 Direct Service Industry	526	525	525	523	525	522	524	525	524	524	524	523	524	524	524
17 Public Entities	9398	9329	8844	9000	10304	11401	11273	10812	9686	9296	9296	8996	9230	9632	9816
18 Investor-Owned Entities	13782	13710	12566	11710	12792	14149	14443	13661	12736	11871	11871	11610	13286	14259	13069
19 Other Entities	390	389	337	354	388	416	421	414	406	398	398	398	407	419	396
20 Total Regional Firm Loads	24572	24438	22717	21850	24231	26756	26891	25631	23610	22484	22484	22006	23925	25428	24166
Non-Firm Loads															
-Investor-Owned Entities-															
21 Investor-Owned Entities	0	0	14	0	0	0	3.5	24	54	34	34	0	0	0	11
22 Total Investor-Owned Entities	0	0	14	0	0	0	3.5	24	54	34	34	0	0	0	11
-Total Regional Non-Firm Loads-															
23 Federal Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 Direct Service Industry	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 Investor-Owned Entities	0	0	14	0	0	0	3.5	24	54	34	34	0	0	0	11
27 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28 Total Regional Non-Firm Loads	0	0	14	0	0	0	3.5	24	54	34	34	0	0	0	11
-Total Regional Loads-															
29 Federal Entities	475	485	445	262	222	268	230	219	257	395	395	480	479	594	362
30 Direct Service Industry	526	525	525	523	525	522	524	525	524	524	524	523	524	524	524
31 Public Entities	9398	9329	8844	9000	10304	11401	11273	10812	9686	9296	9296	8996	9230	9632	9816
32 Investor-Owned Entities	13782	13710	12580	11710	12792	14149	14447	13685	12791	11905	11905	11610	13286	14259	13080
33 Other Entities	390	389	337	354	388	416	421	414	406	398	398	398	407	419	396
34 Total Regional Loads	24572	24438	22731	21850	24231	26756	26895	25655	23664	22518	22518	22006	23925	25428	24177

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Table A-2
Exports
Monthly OY 2012 – 2021
Average Energy in Megawatts

Power Services

Reports Powered by:



Loads and Resources Information System

**Table A-2: Regional Exports
PNW Loads and Resource Study
2011 - 2012 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Exports East of Continental Divide-															
1 AVWP to PPLM PwrS	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
2 BPA to Other Entities	169	169	163	130	130	131	130	130	130	128	128	130	130	132	136
3 Total Exports to ECD	176	176	170	137	137	138	137	137	136	135	135	137	137	138	143
-Exports to Pacific Southwest-															
4 AVWP to SMUD PwrS	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75
5 BPA to Other Entities	144	143	132	98	94	89	89	88	93	105	109	109	113	114	106
6 BPA to PASA C/N/X	0	0	0	0	0	0	0	0	0	0	0	0	0	4.5	0.4
7 BPA to PASA C/N/X	4.5	4.5	4.5	0	0	0	0	0	0	0	0	0	0	0	0.7
8 BPA to PASA S/N/X	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9 BPA to PASA S/N/X	0	0	0	0	0	0	0	0	0	0	0	2.2	2.2	0	0.4
10 BPA to RVSD C/N/X	0	0	0	10	2.8	2.7	2.7	2.7	2.7	2.5	2.8	0	0	11	3.1
11 BPA to RVSD C/N/X	11	11	10	0	0	0	0	0	0	0	0	0	0	0	1.8
12 BPA to RVSD S/Pwr/X	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13 BPA to RVSD S/Pwr/X	0	0	0	0	0	0	0	0	0	0	0	26	26	0	4.3
14 BURB to BURB PwrS	1.6	0.8	0.9	0.5	2.6	3.8	3.6	3.5	4.1	3.3	4.7	3.1	2.4	2.1	2.7
15 GLEN to GLEN PwrS	9.4	6.3	4.9	4.2	3.1	1.6	1.8	1	5.2	7.7	7.3	7.1	8.3	6.6	4.9
16 GLEN to GLEN PwrS	5.9	6.5	3.9	3.2	3.6	1.7	1.6	1.0	3.7	4.8	7.9	6.7	7.3	6.3	4.3
17 GLEN to GLEN PwrS	1.8	1.9	1.2	0.9	1.1	0.5	0.5	0.3	1.1	1.4	2.3	2.0	2.2	1.9	1.3
18 GLEN to GLEN PwrS	1.9	2.0	1.4	1.3	1.4	0.9	0.9	0.5	1.4	1.9	2.6	2.1	2.5	2.0	1.5
19 LDWP to LDWP PwrS	32	22	17	14	11	5.3	6.2	3.5	18	26	25	24	28	22	17
20 LDWP to LDWP PwrS	37	17	21	17	15	14	17	13	26	31	21	22	31	21	21
21 LDWP to LDWP PwrS	72	79	48	38	44	20	19	12	45	59	96	81	89	77	52
22 LDWP to LDWP PwrS	21	23	14	11	13	5.9	5.6	3.5	13	17	28	24	26	23	15
23 LDWP to LDWP PwrS	18	18	13	11	13	7.9	7.8	4.3	13	17	23	19	22	18	14
24 MACQ to BURB PwrS	7.8	7.8	7.8	7.8	0	0	0	0	0	0	7.8	7.8	7.8	7.8	4.2
25 MID to MID PwrS	34	38	22	21	21	17	12	4.9	23	32	46	37	41	38	26
26 Other Entities to Other Entities	44	39	31	30	31	25	30	22	41	47	46	43	49	39	36
27 Other Entities to Other Entities	83	71	61	70	72	64	67	58	98	106	94	84	96	70	76
28 PG&E to PG&E PwrS	40	34	27	21	17	15	18	16	26	31	34	35	42	37	27
29 PG&E to PG&E PwrS	32	28	22	22	22	18	21	16	30	34	33	31	35	28	26
30 PG&E to PG&E PwrS	44	30	24	20	14	7.1	17	7.5	29	36	35	34	38	30	24
31 PG&E to PG&E PwrS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32 PGE to GLEN PwrS	18	18	17	13	13	12	9	12	11	10	10	0	0	10	10
33 PGE to GLEN S/Pwr/X	11	11	11	0	0	0	0	0	0	0	0	0	0	0	1.8
34 PPL to REDD PwrS	28	28	22	21	0	0	0	0	0	0	0	18	18	25	11
35 PPL to SMUD PwrS	74	74	44	42	42	74	74	70	74	40	40	0	0	42	48
36 PSE to PG&E S/Pwr/X	186	186	167	0	0	0	0	0	0	0	0	0	49	159	47
37 SCL to NCPA S/Pwr/X	19	19	30	14	0	0	0	0	0	0	0	0	30	30	10
38 SDGE to SDGE PwrS	79	79	79	79	79	79	79	79	79	79	79	0	79	79	72
39 SMUD to SMUD PwrS	18	18	18	18	18	16	16	16	18	18	18	18	18	18	18
40 SMUD to SMUD PwrS	45	45	44	41	47	49	50	49	40	41	41	36	43	48	44
41 TID to TID PwrS	53	53	53	53	53	53	53	53	53	53	53	0	53	53	49
42 TID to TID PwrS	24	13	39	52	72	57	61	50	67	48	44	37	39	20	46
43 BPA NW-SW Intertie Losses	4.8	4.8	4.4	3.2	2.9	2.7	2.7	2.7	2.9	3.2	3.4	4.1	4.2	3.9	3.5
44 Total Exports To PSW	1279	1207	1071	813	783	717	740	665	895	932	990	787	1079	1122	907
-Exports to Inland Southwest-															
45 BPA to SPP PwrS	0	0	0	45	45	45	45	45	45	75	75	75	75	75	48
46 BPA to SPP PwrS	75	75	75	0	0	0	0	0	0	0	0	0	0	0	12
47 Total Exports To ISW	75	75	75	45	45	45	45	45	45	75	75	75	75	75	60
-Exports to Canada-															
48 BPA to BCHP CanEnt	0	0	0	526	526	526	526	526	526	526	526	526	526	526	438
49 BPA to BCHP CanEnt	526	526	526	0	0	0	0	0	0	0	0	0	0	0	88
50 Total Exports To Canada	526	526	526	526	526	526	526	526	526	526	526	526	526	526	526
-Exports to Other Entities-															
51 Total Exports To Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table A-2: Regional Exports
 PNW Loads and Resource Study
 2011 - 2012 Operating Year
 [76] 2011 White Book (Final)

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Total Exports-															
52 Federal Entities	934	933	915	812	800	796	795	794	799	840	845	872	877	865	842
53 Public Entities	477	434	393	371	391	318	322	273	431	469	515	403	540	457	404
54 Investor-Owned Entities	636	609	527	329	299	312	331	305	372	359	359	242	393	531	386
55 Other Entities	7.8	7.8	7.8	7.8	0	0	0	0	0	0	7.8	7.8	7.8	7.8	4.2
56 Total Exports.	2055	1984	1842	1521	1491	1426	1448	1373	1602	1668	1726	1524	1817	1861	1636

**Table A-2: Regional Exports
PNW Loads and Resource Study
2012 - 2013 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
<i>-Exports East of Continental Divide-</i>															
1 AVWP to PPLM PwrS	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
2 BPA to Other Entities	131	131	130	130	130	131	5.5	5.3	4.6	3.4	3.4	5	5.3	6.6	58
3 Total Exports to ECD	138	138	136	137	137	138	12	12	11	10	10	12	12	13	64
<i>-Exports to Pacific Southwest-</i>															
4 AVWP to SMUD PwrS	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75
5 BPA to Other Entities	115	114	104	98	94	89	14	13	18	30	34	34	38	39	57
6 BPA to PASA C/N/X	4.5	4.5	4.5	0	0	0	0	0	0	0	0	0	0	4.5	1.1
7 BPA to PASA S/N/X	0	0	0	0	0	0	0	0	0	0	0	2.2	2.2	0	0.4
8 BPA to RVSD C/N/X	11	11	9.5	11	2.8	2.5	2.8	2.7	2.5	2.8	2.8	0	0	11	4.9
9 BPA to RVSD S/Pwr/X	0	0	0	0	0	0	0	0	0	0	0	26	26	0	4.3
10 BURB to BURB PwrS	1.6	0.8	0.9	0.5	2.6	3.8	3.6	3.5	4.1	3.3	4.7	3.1	2.4	2.1	2.7
11 GLEN to GLEN PwrS	9.4	6.3	4.9	4.2	3.1	1.6	1.8	1	5.1	7.7	7.3	7.1	8.3	6.5	4.9
12 GLEN to GLEN PwrS	5.9	6.5	3.9	3.1	3.6	1.7	1.6	1.0	3.7	4.9	7.9	6.7	7.3	6.3	4.3
13 GLEN to GLEN PwrS	1.8	1.9	1.2	0.9	1.1	0.5	0.5	0.3	1.1	1.4	2.3	2.0	2.2	1.8	1.3
14 GLEN to GLEN PwrS	1.9	2.0	1.4	1.3	1.4	0.9	0.9	0.5	1.4	1.9	2.6	2.1	2.5	2	1.6
15 LDWP to LDWP PwrS	32	22	17	14	11	5.3	6.3	3.5	18	26	25	24	28	22	17
16 LDWP to LDWP PwrS	37	17	21	17	15	14	17	13	26	31	21	22	31	21	21
17 LDWP to LDWP PwrS	72	79	48	38	44	20	19	12	45	59	96	81	89	76	52
18 LDWP to LDWP PwrS	21	23	14	11	13	6.0	5.6	3.5	13	17	28	24	26	22	15
19 LDWP to LDWP PwrS	18	18	13	11	13	7.9	7.8	4.3	13	17	23	19	22	18	14
20 MACQ to BURB PwrS	7.8	7.8	7.8	7.8	0	0	0	0	0	0	7.8	7.8	7.8	7.8	4.3
21 MID to MID PwrS	34	38	22	20	21	17	12	4.9	23	32	46	37	41	38	26
22 Other Entities to Other Entities	44	39	31	30	31	25	30	22	41	47	46	43	49	39	36
23 Other Entities to Other Entities	83	71	61	69	72	64	67	58	98	106	94	84	96	70	76
24 PG&E to PG&E PwrS	40	34	27	21	17	15	18	16	26	31	34	35	43	37	27
25 PG&E to PG&E PwrS	32	28	22	22	22	18	22	16	30	34	33	31	36	28	26
26 PG&E to PG&E PwrS	44	30	24	20	14	7.1	17	7.5	29	36	35	34	38	30	24
27 PG&E to PG&E PwrS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28 PGE to GLEN PwrS	18	18	18	0	0	0	0	0	0	0	0	0	0	0	3
29 PGE to GLEN S/Pwr/X	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30 PPL to REDD PwrS	28	28	22	21	0	0	0	0	0	0	0	18	18	25	11
31 PPL to SMUD PwrS	74	74	43	43	42	74	74	67	74	42	42	0	0	43	48
32 PSE to PG&E S/Pwr/X	186	186	167	0	0	0	0	0	0	0	0	0	49	159	47
33 SCL to NCPA S/Pwr/X	19	19	30	14	0	0	0	0	0	0	0	0	30	30	10
34 SDGE to SDGE PwrS	79	79	79	79	79	79	79	79	79	79	79	0	79	79	72
35 SMUD to SMUD PwrS	18	18	18	18	18	16	16	16	18	18	18	18	18	18	18
36 SMUD to SMUD PwrS	45	45	44	41	47	49	50	49	40	41	41	36	43	48	44
37 TID to TID PwrS	53	53	53	53	53	53	53	53	53	53	53	0	53	53	49
38 TID to TID PwrS	24	13	39	52	72	56	61	50	67	48	44	37	39	20	46
39 BPA NW-SW Intertie Losses	3.9	3.9	3.5	3.3	2.9	2.7	0.5	0.5	0.6	1.0	1.1	1.9	2.0	1.6	2
40 Total Exports To PSW	1238	1167	1031	802	770	706	655	573	806	847	905	709	1003	1035	849
<i>-Exports to Inland Southwest-</i>															
41 BPA to SPP PwrS	75	75	75	45	45	45	45	45	45	75	75	75	75	75	60
42 Total Exports To ISW	75	75	75	45	45	45	45	45	45	75	75	75	75	75	60
<i>-Exports to Canada-</i>															
43 BPA to BCHP CanEnt	504	504	504	504	504	504	504	504	504	504	504	504	504	504	504
44 Total Exports To Canada	504	504	504	504	504	504	504	504	504	504	504	504	504	504	504
<i>-Exports to Other Entities-</i>															
45 Total Exports To Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Total Exports-</i>															
46 Federal Entities	845	844	830	792	779	775	572	571	575	617	621	648	653	642	692
47 Public Entities	477	434	393	370	391	318	323	273	431	469	515	403	540	456	404
48 Investor-Owned Entities	626	598	515	318	286	300	322	290	361	351	351	242	393	523	377
49 Other Entities	7.8	7.8	7.8	7.8	0	0	0	0	0	0	7.8	7.8	7.8	7.8	4.3
50 Total Exports.	1955	1884	1746	1488	1457	1393	1217	1134	1367	1437	1494	1301	1594	1628	1478

**Table A-2: Regional Exports
PNW Loads and Resource Study
2013 - 2014 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Exports East of Continental Divide-															
1 AVWP to PPLM PwrS	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
2 BPA to Other Entities	5.8	5.8	4.6	5.1	5.2	6.1	5.5	5.3	4.6	3.4	3.4	5	5.3	6.6	5.2
3 Total Exports to ECD	13	13	11	12	12	13	12	12	11	10	10	12	12	13	12
-Exports to Pacific Southwest-															
4 AVWP to SMUD PwrS	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75
5 BPA to Other Entities	40	39	29	23	19	14	14	13	18	30	34	34	38	39	26
6 BPA to PASA C/N/X	4.5	4.5	4.5	0	0	0	0	0	0	0	0	0	0	4.5	1.1
7 BPA to PASA S/N/X	0	0	0	0	0	0	0	0	0	0	0	2.2	2.2	0	0.4
8 BPA to RVSD C/N/X	11	10	10	11	2.6	2.7	2.8	2.7	2.5	2.8	2.8	0	0	11	4.9
9 BPA to RVSD S/Pwr/X	0	0	0	0	0	0	0	0	0	0	0	25	26	0	4.3
10 BURB to BURB PwrS	1.6	0.8	0.9	0.5	2.5	3.8	3.6	3.5	4.1	3.2	4.7	3.1	2.4	2.1	2.7
11 GLEN to GLEN PwrS	9.4	6.3	4.9	4.2	3.1	1.6	1.8	1	5.1	7.7	7.3	7.1	8.3	6.5	4.9
12 GLEN to GLEN PwrS	5.9	6.5	3.9	3.1	3.6	1.7	1.6	1.0	3.7	4.9	7.9	6.7	7.3	6.3	4.3
13 GLEN to GLEN PwrS	1.8	1.9	1.2	0.9	1.1	0.5	0.5	0.3	1.1	1.4	2.3	2.0	2.2	1.8	1.3
14 GLEN to GLEN PwrS	1.9	2.0	1.4	1.3	1.4	0.9	0.9	0.5	1.4	1.9	2.6	2.1	2.5	2	1.6
15 LDWP to LDWP PwrS	32	22	17	14	11	5.3	6.3	3.5	18	26	25	24	28	22	17
16 LDWP to LDWP PwrS	37	17	21	17	15	14	17	13	26	31	21	22	31	21	21
17 LDWP to LDWP PwrS	72	79	48	38	44	20	19	12	45	59	96	81	89	76	52
18 LDWP to LDWP PwrS	21	23	14	11	13	6.0	5.6	3.5	13	17	28	24	26	22	15
19 LDWP to LDWP PwrS	18	18	13	11	13	7.9	7.8	4.3	13	17	23	19	22	18	14
20 MACQ to BURB PwrS	7.8	7.8	7.8	7.8	0	0	0	0	0	0	7.8	7.8	7.8	7.8	4.3
21 MID to MID PwrS	34	38	22	20	21	17	12	4.9	23	32	46	37	41	38	26
22 Other Entities to Other Entities	44	39	31	30	31	25	30	22	41	47	46	43	49	39	36
23 Other Entities to Other Entities	83	71	61	69	72	64	67	58	98	106	94	84	96	70	76
24 PG&E to PG&E PwrS	40	34	27	21	17	15	18	16	26	31	34	35	43	37	27
25 PG&E to PG&E PwrS	32	28	22	22	22	18	22	16	30	34	33	31	36	28	26
26 PG&E to PG&E PwrS	44	30	24	20	14	7.1	17	7.5	29	36	35	34	38	30	24
27 PG&E to PG&E PwrS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28 PPL to REDD PwrS	28	28	22	21	0	0	0	0	0	0	0	18	18	25	11
29 PPL to SMUD PwrS	74	74	43	43	42	74	74	67	74	42	42	0	0	43	48
30 PSE to PG&E S/Pwr/X	186	186	167	0	0	0	0	0	0	0	0	0	49	159	47
31 SCL to NCPA S/Pwr/X	19	19	30	14	0	0	0	0	0	0	0	0	30	30	10
32 SDGE to SDGE PwrS	79	79	79	79	79	79	79	79	79	79	79	0	79	79	72
33 SMUD to SMUD PwrS	18	18	18	18	18	16	16	16	18	18	18	18	18	18	18
34 SMUD to SMUD PwrS	45	45	44	41	47	49	50	49	40	41	41	36	43	48	44
35 TID to TID PwrS	53	53	53	53	53	53	53	53	53	53	53	0	53	53	49
36 TID to TID PwrS	24	13	39	52	72	56	62	50	67	48	44	37	39	20	46
37 BPA NW-SW Intertie Losses	1.7	1.6	1.3	1	0.6	0.5	0.5	0.5	0.6	1.0	1.1	1.8	2.0	1.6	1.1
38 Total Exports To PSW	1143	1070	936	724	693	628	655	572	806	847	905	709	1003	1035	813
-Exports to Inland Southwest-															
39 BPA to SPP PwrS	75	75	75	45	45	45	45	45	45	75	75	75	75	75	60
40 Total Exports To ISW	75	75	75	45	45	45	45	45	45	75	75	75	75	75	60
-Exports to Canada-															
41 BPA to BCHP CanEnt	506	506	506	506	506	506	506	506	506	506	506	506	506	506	506
42 Total Exports To Canada	506	506	506	506	506	506	506	506	506	506	506	506	506	506	506
-Exports to Other Entities-															
43 Total Exports To Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Total Exports-															
44 Federal Entities	643	641	630	591	578	574	573	572	576	618	622	649	654	643	608
45 Public Entities	477	434	393	370	391	318	323	273	431	469	515	403	540	456	404
46 Investor-Owned Entities	608	580	497	318	286	300	322	290	361	351	351	242	393	523	374
47 Other Entities	7.8	7.8	7.8	7.8	0	0	0	0	0	0	7.8	7.8	7.8	7.8	4.3
48 Total Exports.	1736	1664	1528	1287	1255	1192	1218	1135	1368	1438	1495	1301	1596	1629	1391

**Table A-2: Regional Exports
PNW Loads and Resource Study
2014 - 2015 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Exports East of Continental Divide-															
1 AVWP to PPLM PwrS	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
2 BPA to Other Entities	5.8	5.8	4.6	5.1	5.2	6.1	5.5	5.3	4.6	3.4	3.4	5	5.3	6.6	5.2
3 Total Exports to ECD	13	13	11	12	12	13	12	12	11	10	10	12	12	13	12
-Exports to Pacific Southwest-															
4 AVWP to SMUD PwrS	75	75	75	75	75	75	0	0	0	0	0	0	0	0	31
5 BPA to Other Entities	40	39	29	23	19	14	14	13	18	30	34	34	38	38	26
6 BPA to PASA C/N/X	4.5	4.5	4.5	0	0	0	0	0	0	0	0	0	0	0	0.7
7 BPA to PASA S/N/X	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 BPA to RVSD C/N/X	11	9.4	10	11	2.5	2.8	2.7	2.7	2.7	2.8	2.8	0	0	11	4.9
9 BPA to RVSD S/Pwr/X	0	0	0	0	0	0	0	0	0	0	0	25	26	0	4.3
10 BURB to BURB PwrS	1.6	0.8	0.9	0.5	2.5	3.8	3.6	3.5	4.1	3.2	4.7	3.2	2.4	2.1	2.7
11 GLEN to GLEN PwrS	9.4	6.4	4.9	4.2	3.1	1.6	1.8	1	5.1	7.7	7.3	7.1	8.3	6.5	4.9
12 GLEN to GLEN PwrS	5.9	6.6	3.9	3.1	3.6	1.7	1.6	1.0	3.7	4.9	7.9	6.7	7.3	6.3	4.3
13 GLEN to GLEN PwrS	1.8	2.0	1.2	0.9	1.1	0.5	0.5	0.3	1.1	1.4	2.3	2.0	2.2	1.8	1.3
14 GLEN to GLEN PwrS	1.9	1.9	1.4	1.3	1.4	0.9	0.9	0.5	1.4	1.9	2.6	2.1	2.5	2	1.6
15 LDWP to LDWP PwrS	32	22	17	14	11	5.3	6.3	3.5	18	26	25	24	28	22	17
16 LDWP to LDWP PwrS	37	18	21	17	15	14	17	13	26	31	21	22	31	21	21
17 LDWP to LDWP PwrS	72	80	48	38	44	20	19	12	45	59	96	81	89	76	52
18 LDWP to LDWP PwrS	21	24	14	11	13	5.9	5.6	3.5	13	17	28	24	26	22	15
19 LDWP to LDWP PwrS	18	17	13	11	13	7.9	7.8	4.3	13	17	23	19	22	18	14
20 MACQ to BURB PwrS	7.8	7.8	7.8	7.8	0	0	0	0	0	0	7.8	7.8	7.8	7.8	4.3
21 MID to MID PwrS	34	39	22	20	21	17	12	4.9	23	32	46	37	41	38	26
22 Other Entities to Other Entities	44	40	31	30	31	25	30	22	41	47	46	43	49	39	36
23 Other Entities to Other Entities	83	70	61	69	72	64	67	58	98	106	94	84	96	70	76
24 PG&E to PG&E PwrS	40	34	27	21	17	15	18	16	26	31	34	35	42	37	27
25 PG&E to PG&E PwrS	32	29	22	22	22	18	22	16	30	34	33	31	35	28	26
26 PG&E to PG&E PwrS	44	30	24	20	14	7.1	17	7.5	29	36	35	34	38	30	24
27 PG&E to PG&E PwrS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28 PPL to REDD PwrS	27	27	22	21	0	0	0	0	0	0	0	17	18	25	11
29 PPL to SMUD PwrS	74	74	44	43	40	74	0	0	0	0	0	0	0	0	23
30 PSE to PG&E S/Pwr/X	186	186	167	0	0	0	0	0	0	0	0	0	49	159	47
31 SCL to NCPA S/Pwr/X	19	19	30	14	0	0	0	0	0	0	0	0	30	30	10
32 SDGE to SDGE PwrS	79	79	79	79	79	79	79	79	79	79	79	0	79	79	72
33 SMUD to SMUD PwrS	18	18	18	18	18	16	16	16	18	18	18	18	18	18	18
34 SMUD to SMUD PwrS	45	45	44	41	47	49	50	49	40	41	41	36	43	48	44
35 TID to TID PwrS	53	53	53	53	53	53	53	53	53	53	53	0	53	53	49
36 TID to TID PwrS	24	13	39	52	72	56	62	50	67	49	44	37	39	20	46
37 BPA NW-SW Intertie Losses	1.7	1.6	1.3	1	0.6	0.5	0.5	0.5	0.6	1.0	1.1	1.8	1.9	1.5	1.1
38 Total Exports To PSW	1142	1074	938	725	692	628	506	430	656	731	788	632	925	912	744
-Exports to Inland Southwest-															
39 BPA to SPP PwrS	75	75	75	45	45	45	45	45	45	75	75	75	75	75	60
40 Total Exports To ISW	75	75	75	45	45	45	45	45	45	75	75	75	75	75	60
-Exports to Canada-															
41 BPA to BCHP CanEnt	470	470	470	470	470	470	470	470	470	470	470	470	470	470	470
42 Total Exports To Canada	470	470	470	470	470	470	470	470	470	470	470	470	470	470	470
-Exports to Other Entities-															
43 Total Exports To Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Total Exports-															
44 Federal Entities	608	605	595	555	542	538	537	536	540	582	587	611	616	603	572
45 Public Entities	477	437	393	370	392	317	323	273	431	470	515	403	540	456	404
46 Investor-Owned Entities	607	581	499	318	285	300	172	148	212	235	234	167	318	405	305
47 Other Entities	7.8	7.8	7.8	7.8	0	0	0	0	0	0	7.8	7.8	7.8	7.8	4.3
48 Total Exports.	1700	1631	1494	1251	1219	1156	1033	957	1183	1287	1343	1189	1482	1471	1286

**Table A-2: Regional Exports
PNW Loads and Resource Study
2015 - 2016 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Exports East of Continental Divide-															
1 AVWP to PPLM PwrS	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
2 BPA to Other Entities	5.8	5.8	4.6	5.1	5.2	6.1	5.5	5.3	4.6	3.4	3.4	5	5.3	0	4.7
3 Total Exports to ECD	13	13	11	12	12	13	12	12	11	10	10	12	12	6.8	11
-Exports to Pacific Southwest-															
4 BPA to Other Entities	40	39	29	23	19	14	14	13	18	30	34	34	38	39	26
5 BPA to RVSD C/N/X	10	10	11	11	2.6	2.8	2.5	2.7	2.8	2.8	2.5	0	0	0	4.0
6 BPA to RVSD S/Pwr/X	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7 BURB to BURB PwrS	1.6	0.8	0.9	0.5	2.5	3.8	3.6	3.5	4.1	3.2	4.7	3.2	2.4	2.1	2.7
8 GLEN to GLEN PwrS	9.4	6.4	4.9	4.2	3.1	1.6	1.8	1	5.2	7.7	7.3	7.1	8.3	6.6	4.9
9 GLEN to GLEN PwrS	5.9	6.6	3.9	3.1	3.6	1.7	1.6	1.0	3.7	4.9	7.9	6.7	7.3	6.3	4.3
10 GLEN to GLEN PwrS	1.8	2.0	1.2	0.9	1.1	0.5	0.5	0.3	1.1	1.4	2.3	2.0	2.2	1.9	1.3
11 GLEN to GLEN PwrS	1.9	1.9	1.4	1.3	1.4	0.9	0.9	0.5	1.4	1.9	2.6	2.1	2.5	2.0	1.5
12 LDWP to LDWP PwrS	32	22	17	14	11	5.3	6.2	3.5	18	26	25	24	28	22	17
13 LDWP to LDWP PwrS	37	18	21	17	15	14	17	13	26	31	21	22	31	21	21
14 LDWP to LDWP PwrS	72	80	48	38	44	20	19	12	45	59	96	81	89	77	52
15 LDWP to LDWP PwrS	21	24	14	11	13	5.9	5.6	3.5	13	17	28	24	26	23	15
16 LDWP to LDWP PwrS	18	17	13	11	13	7.9	7.8	4.3	13	17	23	19	22	18	14
17 MACQ to BURB PwrS	7.8	7.8	7.8	7.8	0	0	0	0	0	0	7.8	7.8	7.8	7.8	4.2
18 MID to MID PwrS	34	39	22	20	21	17	12	4.9	23	32	46	37	41	38	26
19 Other Entities to Other Entities	44	40	31	30	31	25	30	22	41	47	46	43	49	39	36
20 Other Entities to Other Entities	83	70	61	69	72	64	67	58	98	106	94	84	96	70	76
21 PG&E to PG&E PwrS	40	34	27	21	17	15	18	16	26	31	34	35	42	37	27
22 PG&E to PG&E PwrS	32	29	22	22	22	18	21	16	30	34	33	31	35	28	26
23 PG&E to PG&E PwrS	44	30	24	20	14	7.1	17	7.5	29	36	35	34	38	30	24
24 PG&E to PG&E PwrS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 PPL to REDD PwrS	27	27	22	21	0	0	0	0	0	0	0	0	0	0	6.0
26 PSE to PG&E S/Pwr/X	186	186	167	0	0	0	0	0	0	0	0	0	49	159	47
27 SCL to NCPA S/Pwr/X	19	19	30	14	0	0	0	0	0	0	0	0	30	30	10
28 SDGE to SDGE PwrS	79	79	79	79	79	79	79	79	79	79	79	0	79	79	72
29 SMUD to SMUD PwrS	18	18	18	18	18	16	16	16	18	18	18	18	18	18	18
30 SMUD to SMUD PwrS	45	45	44	41	47	49	50	49	40	41	41	36	43	48	44
31 TID to TID PwrS	53	53	53	53	53	53	53	53	53	53	53	0	53	53	49
32 TID to TID PwrS	24	13	39	52	72	57	61	50	67	49	44	37	39	20	46
33 BPA NW-SW Intertie Losses	1.5	1.5	1.2	1	0.6	0.5	0.5	0.5	0.6	1.0	1.1	1	1.1	1.2	0.9
34 Total Exports To PSW	987	921	815	606	577	479	504	430	657	732	788	589	880	878	678
-Exports to Inland Southwest-															
35 BPA to SPP PwrS	75	75	75	45	45	45	45	45	45	75	75	75	75	75	60
36 Total Exports To ISW	75	75	75	45	45	45	45	45	45	75	75	75	75	75	60
-Exports to Canada-															
37 BPA to BCHP CanEnt	497	497	497	497	497	497	497	497	497	497	497	497	497	497	497
38 Total Exports To Canada	497	497	497	497	497	497	497	497	497	497	497	497	497	497	497
-Exports to Other Entities-															
39 Total Exports To Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Total Exports-															
40 Federal Entities	629	629	618	582	570	566	564	563	568	610	614	612	617	612	593
41 Public Entities	477	437	393	370	392	318	322	273	431	470	515	403	540	457	404
42 Investor-Owned Entities	458	431	380	200	170	151	172	148	212	235	234	149	300	380	245
43 Other Entities	7.8	7.8	7.8	7.8	0	0	0	0	0	0	7.8	7.8	7.8	7.8	4.2
44 Total Exports.	1572	1505	1398	1160	1131	1034	1059	985	1211	1314	1370	1173	1464	1457	1246

**Table A-2: Regional Exports
PNW Loads and Resource Study
2016 - 2017 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Exports East of Continental Divide-															
1 AVWP to PPLM PwrS	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
2 Total Exports to ECD	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
-Exports to Pacific Southwest-															
3 BPA to Other Entities	40	39	29	23	19	14	14	13	18	30	34	34	38	39	26
4 BURB to BURB PwrS	1.6	0.8	0.9	0.5	2.6	3.8	3.6	3.5	4.1	3.3	4.7	3.1	2.4	2.1	2.7
5 GLEN to GLEN PwrS	9.4	6.3	4.9	4.2	3.1	1.6	1.8	1	5.2	7.7	7.2	7.1	8.3	6.6	4.9
6 GLEN to GLEN PwrS	5.9	6.5	3.9	3.2	3.6	1.7	1.6	1.0	3.7	4.9	7.8	6.7	7.3	6.3	4.3
7 GLEN to GLEN PwrS	1.8	1.9	1.2	0.9	1.1	0.5	0.5	0.3	1.1	1.4	2.3	2.0	2.2	1.9	1.3
8 GLEN to GLEN PwrS	1.9	2.0	1.4	1.3	1.4	0.9	0.9	0.5	1.4	1.9	2.6	2.1	2.5	2.0	1.6
9 LDWP to LDWP PwrS	32	22	17	14	11	5.3	6.2	3.5	18	26	25	24	28	22	17
10 LDWP to LDWP PwrS	37	17	21	17	15	14	17	13	26	31	21	22	31	21	21
11 LDWP to LDWP PwrS	72	79	48	38	44	20	19	12	45	59	95	81	89	77	52
12 LDWP to LDWP PwrS	21	23	14	11	13	5.9	5.6	3.5	13	17	28	24	26	23	15
13 LDWP to LDWP PwrS	18	18	13	11	13	7.9	7.8	4.3	13	17	23	19	22	18	14
14 MACQ to BURB PwrS	7.8	7.8	7.8	7.8	0	0	0	0	0	0	7.8	7.8	7.8	7.8	4.3
15 MID to MID PwrS	34	38	22	21	21	17	12	4.9	23	32	46	37	41	38	26
16 Other Entities to Other Entities	44	39	31	30	31	25	30	22	41	47	46	43	49	39	36
17 Other Entities to Other Entities	83	71	61	70	72	64	67	58	98	106	93	84	96	70	76
18 PG&E to PG&E PwrS	40	34	27	21	17	15	18	16	26	31	34	35	42	37	27
19 PG&E to PG&E PwrS	32	28	22	22	22	18	21	16	30	34	33	31	35	28	26
20 PG&E to PG&E PwrS	44	30	24	20	14	7.1	17	7.5	29	36	34	34	38	30	24
21 PG&E to PG&E PwrS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22 PSE to PG&E S/Pwr/X	186	186	167	0	0	0	0	0	0	0	0	0	49	159	47
23 SCL to NCPA S/Pwr/X	19	19	30	14	0	0	0	0	0	0	0	0	30	30	10
24 SDGE to SDGE PwrS	79	79	79	79	79	79	79	79	79	79	79	0	79	79	72
25 SMUD to SMUD PwrS	18	18	18	18	18	16	16	16	18	18	18	18	18	18	18
26 SMUD to SMUD PwrS	45	45	44	41	47	49	50	49	40	41	41	36	43	48	44
27 TID to TID PwrS	53	53	53	53	53	53	53	53	53	53	53	0	53	53	49
28 TID to TID PwrS	24	13	39	52	72	57	61	50	67	48	44	37	39	20	46
29 BPA NW-SW Intertie Losses	1.2	1.2	0.9	0.7	0.6	0.4	0.4	0.4	0.5	0.9	1	1	1.1	1.2	0.8
30 Total Exports To PSW	950	878	781	574	573	476	502	428	654	728	782	588	879	878	668
-Exports to Inland Southwest-															
31 BPA to SPP PwrS	75	75	75	45	45	45	45	45	45	75	75	75	75	75	60
32 Total Exports To ISW	75	75	75	45	45	45	45	45	45	75	75	75	75	75	60
-Exports to Canada-															
33 BPA to BCHP CanEnt	492	492	492	492	492	492	492	492	492	492	492	492	492	492	492
34 Total Exports To Canada	492	492	492	492	492	492	492	492	492	492	492	492	492	492	492
-Exports to Other Entities-															
35 Total Exports To Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Total Exports-															
36 Federal Entities	608	607	597	560	556	551	551	550	555	598	602	601	606	607	579
37 Public Entities	477	434	393	371	391	318	322	273	431	469	512	403	540	457	404
38 Investor-Owned Entities	431	403	357	179	170	151	172	148	212	235	234	149	300	380	239
39 Other Entities	7.8	7.8	7.8	7.8	0	0	0	0	0	0	7.8	7.8	7.8	7.8	4.3
40 Total Exports.	1523	1452	1354	1118	1117	1019	1045	971	1198	1301	1356	1162	1453	1451	1226

**Table A-2: Regional Exports
PNW Loads and Resource Study
2017 - 2018 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Exports East of Continental Divide-															
1 AVWP to PPLM PwrS	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
2 Total Exports to ECD	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
-Exports to Pacific Southwest-															
3 BPA to Other Entities	40	39	29	23	19	14	14	13	18	30	34	34	38	39	26
4 BURB to BURB PwrS	1.6	0.8	0.9	0.5	2.6	3.8	3.6	3.5	4.1	3.3	4.7	3.1	2.4	2.1	2.6
5 GLEN to GLEN PwrS	9.4	6.3	4.9	4.2	3.1	1.6	1.8	1	5.2	7.7	7.3	7.1	8.3	6.6	4.9
6 GLEN to GLEN PwrS	5.9	6.5	3.9	3.2	3.6	1.7	1.6	1.0	3.7	4.8	7.9	6.7	7.3	6.3	4.3
7 GLEN to GLEN PwrS	1.8	1.9	1.2	0.9	1.1	0.5	0.5	0.3	1.1	1.4	2.3	2.0	2.2	1.9	1.3
8 GLEN to GLEN PwrS	1.9	2.0	1.4	1.3	1.4	0.9	0.9	0.5	1.4	1.9	2.6	2.1	2.5	2.0	1.6
9 LDWP to LDWP PwrS	32	22	17	14	11	5.3	6.3	3.5	18	26	25	24	28	22	17
10 LDWP to LDWP PwrS	37	17	21	17	15	14	17	13	26	31	21	22	31	21	21
11 LDWP to LDWP PwrS	72	79	48	38	44	20	19	12	45	59	96	81	89	77	52
12 LDWP to LDWP PwrS	21	23	14	11	13	6.0	5.6	3.5	13	17	28	24	26	23	15
13 LDWP to LDWP PwrS	18	18	13	11	13	7.9	7.8	4.3	13	17	23	19	22	18	14
14 MACQ to BURB PwrS	7.8	7.8	7.8	7.8	0	0	0	0	0	0	7.8	7.8	7.8	7.8	4.3
15 MID to MID PwrS	34	38	22	21	21	17	12	4.9	23	32	46	37	41	38	26
16 Other Entities to Other Entities	44	39	31	30	31	25	30	22	41	47	46	43	49	39	36
17 Other Entities to Other Entities	83	71	61	70	72	64	67	58	98	106	94	84	96	70	76
18 PG&E to PG&E PwrS	40	34	27	21	17	15	18	16	26	31	34	35	42	37	27
19 PG&E to PG&E PwrS	32	28	22	22	22	18	22	16	30	34	33	31	35	28	26
20 PG&E to PG&E PwrS	44	30	24	20	14	7.1	17	7.5	29	36	35	34	38	30	24
21 PG&E to PG&E PwrS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22 PSE to PG&E S/Pwr/X	186	186	167	0	0	0	0	0	0	0	0	0	49	159	47
23 SCL to NCPA S/Pwr/X	19	19	30	14	0	0	0	0	0	0	0	0	30	30	10
24 SDGE to SDGE PwrS	79	79	79	79	79	79	79	79	79	79	79	0	79	79	72
25 SMUD to SMUD PwrS	45	45	44	41	47	49	50	49	40	41	41	36	43	48	44
26 TID to TID PwrS	53	53	53	53	53	53	53	53	53	53	53	0	53	53	49
27 TID to TID PwrS	24	13	39	52	71	56	61	50	67	48	44	37	39	20	46
28 BPA NW-SW Intertie Losses	1.2	1.2	0.9	0.7	0.6	0.4	0.4	0.4	0.5	0.9	1	1	1.1	1.2	0.8
29 Total Exports To PSW	931	860	762	556	555	460	486	412	636	708	767	570	861	860	650
-Exports to Inland Southwest-															
30 BPA to SPP PwrS	75	75	75	45	45	45	45	40	0	0	0	0	0	0	31
31 Total Exports To ISW	75	75	75	45	45	45	45	40	0	0	0	0	0	0	31
-Exports to Canada-															
32 BPA to BCHP CanEnt	486	486	486	486	486	486	486	486	486	486	486	486	486	486	486
33 Total Exports To Canada	486	486	486	486	486	486	486	486	486	486	486	486	486	486	486
-Exports to Other Entities-															
34 Total Exports To Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Total Exports-															
35 Federal Entities	602	601	591	554	550	545	545	539	504	517	521	521	525	526	543
36 Public Entities	459	416	374	353	372	302	307	257	413	450	496	385	521	439	387
37 Investor-Owned Entities	431	403	357	179	170	151	172	148	212	234	234	149	300	380	239
38 Other Entities	7.8	7.8	7.8	7.8	0	0	0	0	0	0	7.8	7.8	7.8	7.8	4.3
39 Total Exports.	1499	1427	1330	1094	1092	998	1024	945	1129	1201	1259	1062	1354	1352	1174

**Table A-2: Regional Exports
PNW Loads and Resource Study
2018 - 2019 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Exports East of Continental Divide-															
1 AVWP to PPLM PwrS	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
2 Total Exports to ECD	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
-Exports to Pacific Southwest-															
3 BPA to Other Entities	40	39	29	23	19	14	14	8.3	0	0	0	0	0	0	12
4 BURB to BURB PwrS	1.6	0.8	0.9	0.5	2.6	3.8	3.6	3.5	4.1	3.3	4.7	3.1	2.4	2.1	2.7
5 GLEN to GLEN PwrS	9.4	6.3	4.9	4.2	3.1	1.6	1.8	1	5.1	7.7	7.3	7.1	8.3	6.5	4.9
6 GLEN to GLEN PwrS	5.9	6.5	3.9	3.1	3.6	1.7	1.6	1.0	3.7	4.9	7.9	6.7	7.3	6.3	4.3
7 GLEN to GLEN PwrS	1.8	1.9	1.2	0.9	1.1	0.5	0.5	0.3	1.1	1.4	2.3	2.0	2.2	1.8	1.3
8 GLEN to GLEN PwrS	1.9	2.0	1.4	1.3	1.4	0.9	0.9	0.5	1.4	1.9	2.6	2.1	2.5	2	1.6
9 LDWP to LDWP PwrS	32	22	17	14	11	5.3	6.3	3.5	18	26	25	24	28	22	17
10 LDWP to LDWP PwrS	37	17	21	17	15	14	17	13	26	31	21	22	31	21	21
11 LDWP to LDWP PwrS	72	79	48	38	44	20	19	12	45	59	96	81	89	76	52
12 LDWP to LDWP PwrS	21	23	14	11	13	6.0	5.6	3.5	13	17	28	24	26	22	15
13 LDWP to LDWP PwrS	18	18	13	11	13	7.9	7.8	4.3	13	17	23	19	22	18	14
14 MACQ to BURB PwrS	7.8	7.8	7.8	7.8	0	0	0	0	0	0	7.8	7.8	7.8	7.8	4.3
15 MID to MID PwrS	34	38	22	20	21	17	12	4.9	23	32	46	37	41	38	26
16 Other Entities to Other Entities	44	39	31	30	31	25	30	22	41	47	46	43	49	39	36
17 Other Entities to Other Entities	83	71	61	69	72	64	67	58	98	106	94	84	96	70	76
18 PG&E to PG&E PwrS	40	34	27	21	17	15	18	19	30	36	39	40	49	43	30
19 PG&E to PG&E PwrS	32	28	22	22	22	18	22	16	30	34	33	31	36	28	26
20 PG&E to PG&E PwrS	44	30	24	20	14	7.1	17	7.5	29	36	35	34	38	30	24
21 PG&E to PG&E PwrS	0	0	0	0	0	0	0	6.3	22	29	29	27	36	29	12
22 PSE to PG&E S/Pwr/X	186	186	167	0	0	0	0	0	0	0	0	0	49	159	47
23 SCL to NCPA S/Pwr/X	19	19	30	14	0	0	0	0	0	0	0	0	30	30	10
24 SDGE to SDGE PwrS	79	79	79	79	79	79	79	79	79	79	79	0	79	79	72
25 SMUD to SMUD PwrS	45	45	44	41	47	49	50	49	40	41	41	36	43	48	44
26 TID to TID PwrS	53	53	53	53	53	53	53	53	53	53	53	0	53	53	49
27 TID to TID PwrS	24	13	39	52	72	56	61	50	67	48	44	37	39	20	46
28 BPA NW-SW Intertie Losses	1.2	1.2	0.9	0.7	0.6	0.4	0.4	0.2	0	0	0	0	0	0	0.4
29 Total Exports To PSW	931	860	763	555	555	460	487	416	644	712	766	568	866	852	651
-Exports to Inland Southwest-															
30 Total Exports To ISW	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Exports to Canada-															
31 BPA to BCHP CanEnt	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480
32 Total Exports To Canada	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480
-Exports to Other Entities-															
33 Total Exports To Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Total Exports-															
34 Federal Entities	522	520	510	504	500	495	494	489	480	480	480	480	480	480	493
35 Public Entities	459	416	374	352	373	302	307	257	412	451	496	385	522	437	386
36 Investor-Owned Entities	431	403	358	179	170	151	172	157	238	269	269	182	343	414	254
37 Other Entities	7.8	7.8	7.8	7.8	0	0	0	0	0	0	7.8	7.8	7.8	7.8	4.3
38 Total Exports.	1419	1347	1250	1042	1042	947	974	903	1131	1200	1254	1055	1353	1339	1138

**Table A-2: Regional Exports
PNW Loads and Resource Study
2019 - 2020 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Exports East of Continental Divide-															
1 AVWP to PPLM PwrS	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
2 Total Exports to ECD	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
-Exports to Pacific Southwest-															
3 BURB to BURB PwrS	1.6	0.8	0.9	0.5	2.5	3.8	3.6	3.5	4.1	3.2	4.7	3.1	2.4	2.1	2.7
4 GLEN to GLEN PwrS	9.4	6.3	4.9	4.2	3.1	1.6	1.8	1	5.1	7.7	7.3	7.1	8.3	6.5	4.9
5 GLEN to GLEN PwrS	5.9	6.5	3.9	3.1	3.6	1.7	1.6	1.0	3.7	4.9	7.9	6.7	7.3	6.3	4.3
6 GLEN to GLEN PwrS	1.8	1.9	1.2	0.9	1.1	0.5	0.5	0.3	1.1	1.4	2.3	2.0	2.2	1.8	1.3
7 GLEN to GLEN PwrS	1.9	2.0	1.4	1.3	1.4	0.9	0.9	0.5	1.4	1.9	2.6	2.1	2.5	2	1.5
8 LDWP to LDWP PwrS	32	22	17	14	11	5.3	6.3	3.5	18	26	25	24	28	22	17
9 LDWP to LDWP PwrS	37	17	21	17	15	14	17	13	26	31	21	22	31	21	21
10 LDWP to LDWP PwrS	72	79	48	38	44	20	19	12	45	59	96	81	89	76	52
11 LDWP to LDWP PwrS	21	23	14	11	13	6.0	5.6	3.5	13	17	28	24	26	22	15
12 LDWP to LDWP PwrS	18	18	13	11	13	7.9	7.8	4.3	13	17	23	19	22	18	14
13 MACQ to BURB PwrS	7.8	7.8	7.8	7.8	0	0	0	0	0	0	7.8	7.8	7.8	7.8	4.2
14 MID to MID PwrS	34	38	22	20	21	17	12	4.9	23	32	46	37	41	38	26
15 Other Entities to Other Entities	44	39	31	30	31	25	30	22	41	47	46	43	49	39	36
16 Other Entities to Other Entities	83	71	61	69	72	64	67	58	98	106	94	84	96	70	76
17 PG&E to PG&E PwrS	46	39	32	25	20	17	21	19	30	36	39	40	49	43	31
18 PG&E to PG&E PwrS	32	28	22	22	22	18	22	16	30	34	33	31	35	28	26
19 PG&E to PG&E PwrS	44	30	24	20	14	7.1	17	7.5	29	36	35	34	38	30	24
20 PG&E to PG&E PwrS	39	27	21	17	14	8.8	13	6.3	22	29	29	27	36	29	21
21 PSE to PG&E S/Pwr/X	186	186	167	0	0	0	0	0	0	0	0	0	49	159	47
22 SCL to NCPA S/Pwr/X	19	19	30	14	0	0	0	0	0	0	0	0	30	30	10
23 SDGE to SDGE PwrS	79	79	79	79	79	79	79	79	79	79	79	0	79	79	72
24 SMUD to SMUD PwrS	45	45	44	41	47	49	50	49	40	41	41	36	43	48	44
25 TID to TID PwrS	53	53	53	53	53	53	53	53	53	53	53	0	53	53	49
26 TID to TID PwrS	24	13	39	52	72	56	62	50	67	48	44	37	39	20	46
27 BPA NW-SW Intertie Losses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28 Total Exports To PSW	936	852	758	552	553	457	489	407	644	712	766	568	865	852	648
-Exports to Inland Southwest-															
29 Total Exports To ISW	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Exports to Canada-															
30 BPA to BCHP CanEnt	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475
31 Total Exports To Canada	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475
-Exports to Other Entities-															
32 Total Exports To Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Total Exports-															
33 Federal Entities	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475
34 Public Entities	459	416	374	352	373	302	307	257	412	451	496	385	521	437	386
35 Investor-Owned Entities	476	435	383	199	187	162	189	157	238	269	269	182	343	414	265
36 Other Entities	7.8	7.8	7.8	7.8	0	0	0	0	0	0	7.8	7.8	7.8	7.8	4.2
37 Total Exports.	1418	1334	1240	1034	1034	939	971	889	1126	1194	1248	1050	1347	1334	1130

**Table A-2: Regional Exports
PNW Loads and Resource Study
2020 - 2021 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Exports East of Continental Divide-															
1 AVWP to PPLM PwrS	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
2 Total Exports to ECD	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
-Exports to Pacific Southwest-															
3 BURB to BURB PwrS	1.6	0.8	0.9	0.5	2.5	3.8	3.6	3.5	4.1	3.2	4.7	3.2	2.4	2.1	2.7
4 GLEN to GLEN PwrS	9.4	6.4	4.9	4.2	3.1	1.6	1.8	1	5.2	7.7	7.3	7.1	8.3	6.5	4.9
5 GLEN to GLEN PwrS	5.9	6.6	3.9	3.1	3.6	1.7	1.6	1.0	3.7	4.9	7.9	6.7	7.3	6.3	4.3
6 GLEN to GLEN PwrS	1.8	2.0	1.2	0.9	1.1	0.5	0.5	0.3	1.1	1.4	2.3	2.0	2.2	1.8	1.3
7 GLEN to GLEN PwrS	1.9	1.9	1.4	1.3	1.4	0.9	0.9	0.5	1.4	1.9	2.6	2.1	2.5	2	1.6
8 LDWP to LDWP PwrS	32	22	17	14	11	5.3	6.2	3.5	18	26	25	24	28	22	17
9 LDWP to LDWP PwrS	37	18	21	17	15	14	17	13	26	31	21	22	31	21	21
10 LDWP to LDWP PwrS	72	80	48	38	44	20	19	12	45	59	96	81	89	76	52
11 LDWP to LDWP PwrS	21	24	14	11	13	5.9	5.6	3.5	13	17	28	24	26	22	15
12 LDWP to LDWP PwrS	18	17	13	11	13	7.9	7.8	4.3	13	17	23	19	22	18	14
13 MACQ to BURB PwrS	7.8	7.8	7.8	7.8	0	0	0	0	0	0	7.8	7.8	7.8	7.8	4.3
14 MID to MID PwrS	34	39	22	20	21	17	12	4.9	23	32	46	37	41	38	26
15 Other Entities to Other Entities	44	40	31	30	31	25	30	22	41	47	46	43	49	39	36
16 Other Entities to Other Entities	83	70	61	69	72	64	67	58	98	106	94	84	96	70	76
17 PG&E to PG&E PwrS	46	39	32	25	20	17	21	19	30	36	39	40	49	43	31
18 PG&E to PG&E PwrS	32	29	22	22	22	18	21	16	30	34	33	31	35	28	26
19 PG&E to PG&E PwrS	44	30	24	20	14	7.1	17	7.5	29	36	35	34	38	30	24
20 PG&E to PG&E PwrS	39	27	21	17	14	8.7	13	6.3	22	29	29	27	36	29	21
21 PSE to PG&E S/Pwr/X	186	186	167	0	0	0	0	0	0	0	0	0	49	159	47
22 SCL to NCPA S/Pwr/X	19	19	30	14	0	0	0	0	0	0	0	0	30	30	10
23 SDGE to SDGE PwrS	79	79	79	79	79	79	0	0	0	0	0	0	0	0	33
24 SMUD to SMUD PwrS	45	45	44	41	47	49	50	49	40	41	41	36	43	48	44
25 TID to TID PwrS	53	53	53	53	53	53	0	0	0	0	0	0	0	0	22
26 TID to TID PwrS	24	13	39	52	72	57	61	50	67	49	44	37	39	20	46
27 BPA NW-SW Intertie Losses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28 Total Exports To PSW	936	856	758	552	553	456	355	275	512	581	634	568	732	719	584
-Exports to Inland Southwest-															
29 Total Exports To ISW	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Exports to Canada-															
30 BPA to BCHP CanEnt	470	470	470	470	470	470	470	470	470	470	470	470	470	470	470
31 Total Exports To Canada	470	470	470	470	470	470	470	470	470	470	470	470	470	470	470
-Exports to Other Entities-															
32 Total Exports To Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Total Exports-															
33 Federal Entities	470	470	470	470	470	470	470	470	470	470	470	470	470	470	470
34 Public Entities	459	419	374	352	373	302	253	204	359	398	443	385	468	384	360
35 Investor-Owned Entities	476	436	383	199	187	162	109	78	159	190	190	182	264	335	226
36 Other Entities	7.8	7.8	7.8	7.8	0	0	0	0	0	0	7.8	7.8	7.8	7.8	4.3
37 Total Exports.	1412	1333	1235	1029	1030	933	832	752	989	1058	1111	1045	1209	1196	1060

Table A-3
Regulated Hydro Projects
Monthly OY 2012 – 2021
Average Energy in Megawatts

Power Services

Reports Powered by:



Loads and Resources Information System

**Table A-3: Regional Regulated Hydro Projects
PNW Loads and Resource Study
2011 - 2012 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Regulated Hydro Projects-															
1 Albeni Falls	22	18	21	36	20	22	16	14	14	25	23	41	43	38	26
2 Alder	51	43	0	0	0	0	35	27	25	30	0	43	17	22	19
3 Bonneville	194	140	434	435	548	557	569	536	500	301	138	377	354	272	414
4 Boundary	177	144	175	380	237	298	201	164	161	486	276	608	791	401	330
5 Box Canyon	29	24	29	57	37	46	32	27	26	56	43	57	51	56	41
6 Brownlee	187	187	236	233	162	276	212	232	228	322	326	346	209	224	239
7 Cabinet Gorge	44	33	37	49	34	82	56	38	31	126	100	194	212	106	83
8 Chelan	58	52	16	56	45	9.4	54	53	4.2	28	5.2	30	30	31	33
9 Chief Joseph	1414	1066	805	867	1281	1200	1294	1072	916	617	675	1294	1156	1439	1102
10 Cushman 1	44	39	0	2.6	2.5	2.7	4.6	14	2.6	2.9	3	23	3.1	3.4	8.7
11 Cushman 2	77	74	0	0.1	0.3	0.5	5.6	37	0.4	0.2	0.2	53	0.1	0	14
12 Diablo	172	112	34	35	41	71	144	149	36	58	78	81	118	91	84
13 Dworshak	432	410	183	51	51	51	51	50	50	51	53	56	300	448	148
14 Faraday	8.1	7.5	8.6	7.2	5.8	17	8.9	17	31	43	43	40	39	14	20
15 Gorge	182	125	43	43	49	86	153	158	48	73	93	100	140	109	97
16 Grand Coulee	2587	1909	1448	1610	2380	2181	2276	1769	1386	877	978	1991	2013	2705	1914
17 Hells Canyon	150	150	192	196	130	208	160	176	180	250	258	282	174	176	190
18 Hungry Horse	70	67	78	87	92	93	94	93	90	69	28	29	85	122	82
19 Ice Harbor	110	168	138	132	95	141	108	137	175	204	201	332	266	157	169
20 John Day	735	589	668	678	907	895	914	846	805	663	586	972	928	828	811
21 Kerr	46	47	53	76	55	137	95	60	44	170	106	148	178	140	98
22 La Grande	63	63	0	0	0	0	56	53	56	62	0	63	27	33	32
23 Libby	205	178	168	113	245	173	86	85	84	84	83	495	212	179	177
24 Little Falls	11	8.6	14	6.1	6.3	14	13	10	18	34	33	32	35	14	17
25 Little Goose	136	169	148	132	97	141	111	124	168	247	306	522	289	155	193
26 Long Lake	28	22	34	16	17	35	31	24	41	72	72	72	72	35	40
27 Lower Baker	71	66	16	6.3	20	20	44	12	7	43	55	49	65	59	35
28 Lower Granite	114	174	156	131	98	144	113	127	172	244	315	528	293	104	191
29 Lower Monumental	80	169	143	134	94	142	108	139	178	263	318	528	301	112	191
30 Mayfield	89	20	41	55	55	55	70	129	70	70	70	8.4	120	69	66
31 McNary	357	283	465	468	596	587	607	561	512	384	320	564	499	402	494
32 Merwin	40	17	20	7.6	14	59	56	61	66	109	60	29	65	33	43
33 Monroe Street	6.6	5.3	11	2.9	3	11	4.6	5.9	12	14	14	14	14	11	9.2
34 Mossyrock	168	37	72	81	79	58	87	155	52	55	30	0	224	126	89
35 Nine Mile	6.4	5.2	9.7	3.2	3.3	10	4.4	6.1	14	22	21	20	21	9.9	11
36 North Fork	9	8.4	9.5	8	6.5	19	9.9	18	34	54	48	54	43	15	23
37 Noxon	62	51	54	73	52	125	85	57	47	196	142	280	318	155	123
38 Oak Grove	17	11	27	22	14	26	17	18	19	34	34	34	34	25	24
39 Oxbow	78	78	100	102	67	107	82	90	90	127	127	136	82	90	96
40 Pelton	36	35	35	37	38	40	36	36	40	49	49	41	39	36	39
41 Pelton Rereg. Dam	8.5	8.2	6.4	8.6	8.9	9.5	8.5	8.5	9.6	12	12	9.8	9.2	8.3	9.0
42 Post Falls	2.2	1.4	5.2	0.2	0.2	6.1	1.9	2.5	8.9	15	14	13	15	4.6	6.2
43 Priest Rapids	336	337	323	356	520	495	542	447	375	254	93	422	414	360	397
44 River Mill	4.6	4.3	4.9	4.1	3.3	9.7	5.1	9.5	18	23	23	22	20	7.7	11
45 Rock Island PH#1	188	169	142	152	184	179	184	172	155	110	124	185	184	183	168
46 Rock Island PH#2	131	139	109	117	173	160	179	144	120	87	74	156	151	152	140
47 Rocky Reach	652	546	417	459	658	612	672	562	475	324	347	547	615	684	553
48 Ross	194	105	23	32	45	72	152	139	27	42	57	57	86	66	75
49 Round Butte	91	87	86	91	94	99	89	89	101	126	125	103	98	88	96
50 Swift 1	52	26	30	0	0	54	31	75	45	154	0	27	143	58	48
51 Swift 2	15	7.7	9	0	0	22	13	33	20	69	0	9.8	42	16	17
52 The Dalles	484	387	538	533	706	727	738	687	642	501	399	656	626	554	607
53 Thompson Falls	29	28	31	38	32	53	41	33	30	67	53	83	79	60	47
54 Upper Baker	82	22	22	4.4	30	23	42	9.9	0	41	48	43	88	61	35
55 Upper Falls	5.7	4.6	9	2.6	2.7	9.3	4.1	5.1	9.8	9.4	8.8	8.7	9.3	8.9	7.0
56 Wanapum	411	312	268	301	479	449	502	399	324	203	110	399	456	467	380
57 Wells	429	332	269	290	424	398	428	354	304	193	204	403	388	444	357
58 Yale	47	19	25	7.5	21	82	40	64	60	106	81	0	108	42	48
Total Regulated Hydro Projects	11530	9342	8437	8830	11064	11597	11775	10613	9156	8954	7885	13715	13392	12307	10815

-Idle Capacity-

**Table A-3: Regional Regulated Hydro Projects
PNW Loads and Resource Study
2011 - 2012 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
59 Operational Peaking Adj.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Idle Capacity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Hydro Maintenance-															
60 AVWP Hydro Maintenance	-1.2	0	0	0	0	0	0	0	0	0	0	0	0	-16	-1.4
61 CHPD Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
62 CLKM Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
63 COPD Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
64 DOPD Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
65 EWEB Hydro Maintenance	0	-3.6	-1.6	-1.8	-3.8	0	0	0	-2	-3.8	-3.8	-3.8	0	0	-1.6
66 Federal Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
67 GCPD Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
68 IPC Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
69 PGE Hydro Maintenance	-9	-11	-5	-3.8	0	0	0	0	0	0	0	-2.4	0	-2.4	-2.0
70 PPL Hydro Maintenance	-6.6	-3	-0.6	0	0	0	0	0	0	0	0	-1.2	-6.8	-18	-2.7
71 PSE Hydro Maintenance	-13	-7.4	-1.4	0	0	0	0	0	-3.2	-3.6	-3.8	-5.2	-4.2	-12	-3.4
72 SCL Hydro Maintenance	0	0	0	-3.4	0	0	0	0	0	0	0	-7.4	-3.4	0	-1.2
73 SHPD Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
74 TPU Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Hydro Maintenance	-30	-25	-8.6	-9	-3.8	0	0	0	-5.2	-7.4	-7.6	-20	-14	-49	-12
-Total Regulated Hydro w/Enc.-															
75 Federal System	6941	5727	5393	5409	7211	7054	7086	6240	5692	4529	4422	8385	7364	7513	6518
76 Public Entities	2267	1660	1141	1506	1907	1957	2361	2255	1467	1647	1132	2254	2838	2246	1939
77 Investor-Owned Entities	1981	1661	1665	1652	1516	2180	1890	1750	1674	2530	2128	2691	2784	2025	1998
78 Other Entities	311	269	230	253	427	405	438	367	319	239	194	364	391	473	348
79 Total Regulated Hydro w/Enc1500	9317	8429	8821	11060	11597	11775	10613	9151	8946	7877	13695	13377	12258	10803	

**Table A-3: Regional Regulated Hydro Projects
PNW Loads and Resource Study
2012 - 2013 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Regulated Hydro Projects-															
1 Albeni Falls	22	17	23	36	20	22	16	14	14	25	23	41	43	38	26
2 Alder	51	43	17	0	0	0	35	27	25	30	0	43	17	22	21
3 Bonneville	195	139	450	435	548	557	569	536	500	301	138	377	354	272	415
4 Boundary	176	141	199	380	237	298	201	164	161	486	276	608	791	401	332
5 Box Canyon	29	24	32	57	37	46	32	27	26	56	43	57	51	56	42
6 Brownlee	187	187	236	233	162	276	212	232	228	322	326	346	209	224	239
7 Cabinet Gorge	44	32	46	49	34	82	56	38	31	126	100	194	212	106	83
8 Chelan	31	30	41	56	45	9.4	54	53	4.2	28	5.2	30	30	31	33
9 Chief Joseph	1414	1151	845	867	1281	1200	1294	1072	916	617	675	1294	1156	1439	1109
10 Cushman 1	38	32	24	2.6	2.5	2.7	4.6	14	2.6	2.9	3	23	3.1	3.4	10
11 Cushman 2	69	64	54	0.1	0.3	0.5	5.6	37	0.4	0.2	0.2	53	0.1	0	18
12 Diablo	172	112	34	35	41	71	144	149	36	58	78	81	118	91	84
13 Dworshak	448	406	183	51	51	51	51	50	50	51	53	56	300	448	148
14 Faraday	8.1	7.5	8.6	7.2	5.8	17	8.9	17	31	43	43	40	39	14	20
15 Gorge	182	125	43	43	49	86	153	158	48	73	93	100	140	109	97
16 Grand Coulee	2622	2094	1538	1610	2380	2181	2276	1769	1386	877	978	1991	2013	2705	1931
17 Hells Canyon	150	150	192	196	130	208	160	176	180	250	258	282	174	176	190
18 Hungry Horse	68	68	78	87	92	93	94	93	90	69	28	29	85	122	82
19 Ice Harbor	132	163	138	132	95	141	108	137	175	204	201	332	266	157	170
20 John Day	745	619	699	678	907	895	914	846	805	663	586	972	928	828	815
21 Kerr	45	45	69	76	55	137	95	60	44	170	106	148	178	140	99
22 La Grande	63	63	32	0	0	0	56	53	56	62	0	63	27	33	34
23 Libby	183	183	176	113	245	173	86	85	84	84	83	495	212	179	177
24 Little Falls	11	8.6	27	6.1	6.3	14	13	10	18	34	33	32	35	14	18
25 Little Goose	147	169	147	132	97	141	111	124	168	247	306	522	289	155	194
26 Long Lake	28	22	62	16	17	35	31	24	41	72	72	72	72	35	42
27 Lower Baker	71	66	19	6.3	20	20	44	12	7	43	55	49	65	59	35
28 Lower Granite	141	174	156	131	98	144	113	127	172	244	315	528	293	104	192
29 Lower Monumental	80	169	143	134	94	142	108	139	178	263	318	528	301	112	192
30 Mayfield	89	20	94	55	55	55	70	129	70	70	70	8.4	120	69	70
31 McNary	362	298	487	468	596	587	607	561	512	384	320	562	472	402	494
32 Merwin	43	17	116	7.6	14	59	56	61	66	109	60	29	65	33	51
33 Monroe Street	6.6	5.3	14	2.9	3	11	4.6	5.9	12	14	14	14	14	11	9.5
34 Mossyrock	168	37	168	81	79	58	87	155	52	55	30	0	224	126	97
35 Nine Mile	6.4	5.2	17	3.2	3.3	10	4.4	6.1	14	22	21	20	21	9.9	11
36 North Fork	9	8.4	9.5	8	6.5	19	9.9	18	34	54	48	54	43	15	23
37 Noxon	62	49	67	73	52	125	85	57	47	196	142	280	318	155	124
38 Oak Grove	21	16	9.4	22	14	26	17	18	19	34	34	34	34	25	22
39 Oxbow	78	78	100	102	67	107	82	90	90	127	127	136	82	90	96
40 Pelton	36	35	35	37	38	40	36	36	40	49	49	41	39	36	39
41 Pelton Rereg. Dam	8.5	8.2	6.1	8.6	8.9	9.5	8.5	8.5	9.6	12	12	9.8	9.2	8.3	8.9
42 Post Falls	2.2	1.4	12	0.2	0.2	6.1	1.9	2.5	8.9	15	14	13	15	4.6	6.8
43 Priest Rapids	333	361	344	356	520	495	542	447	375	254	93	422	414	360	400
44 River Mill	4.6	4.3	4.9	4.1	3.3	9.7	5.1	9.5	18	23	23	22	20	7.7	11
45 Rock Island PH#1	188	174	149	152	184	179	184	172	155	110	124	185	184	183	169
46 Rock Island PH#2	128	150	114	117	173	160	179	144	120	87	74	156	151	152	141
47 Rocky Reach	646	582	444	459	658	612	672	562	475	324	347	547	615	684	557
48 Ross	191	103	23	32	45	72	152	139	27	42	57	57	86	66	74
49 Round Butte	91	87	86	91	94	99	89	89	101	126	125	103	98	88	96
50 Swift 1	52	26	188	0	0	54	31	75	45	154	0	27	143	58	61
51 Swift 2	15	7.7	61	0	0	22	13	33	20	69	0	9.8	42	16	22
52 The Dalles	497	410	556	533	706	727	738	687	642	501	399	656	626	554	610
53 Thompson Falls	28	27	36	38	32	53	41	33	30	67	53	83	79	60	48
54 Upper Baker	82	22	22	4.4	30	23	42	9.9	0	41	48	43	88	61	35
55 Upper Falls	5.7	4.6	9.6	2.6	2.7	9.3	4.1	5.1	9.8	9.4	8.8	8.7	9.3	8.9	7
56 Wanapum	417	349	289	301	479	449	502	399	324	203	110	399	456	467	384
57 Wells	429	358	282	290	424	398	428	354	304	193	204	403	388	444	359
58 Yale	47	19	133	7.5	21	82	40	64	60	106	81	0	108	42	57
Total Regulated Hydro Projects	11598	9768	9588	8830	11064	11597	11775	10613	9156	8954	7885	13713	13365	12307	10929

-Idle Capacity-

**Table A-3: Regional Regulated Hydro Projects
PNW Loads and Resource Study
2012 - 2013 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
59 Operational Peaking Adj.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Idle Capacity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Hydro Maintenance-															
60 AVWP Hydro Maintenance	-1.2	0	0	0	0	0	0	0	0	0	0	0	0	-16	-1.4
61 CHPD Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
62 CLKM Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
63 COPD Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
64 DOPD Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
65 EWEB Hydro Maintenance	0	-3.6	-1.6	-1.8	-3.8	0	0	0	-2	-3.8	-3.8	-3.8	0	0	-1.6
66 Federal Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
67 GCPD Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
68 IPC Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
69 PGE Hydro Maintenance	-9	-11	-5	-3.8	0	0	0	0	0	0	0	-2.4	0	-2.4	-2.0
70 PPL Hydro Maintenance	-6.6	-3	-0.6	0	0	0	0	0	0	0	0	-1.2	-6.8	-18	-2.7
71 PSE Hydro Maintenance	-13	-7.4	-1.4	0	0	0	0	0	-3.2	-3.6	-3.8	-5.2	-4.2	-12	-3.4
72 SCL Hydro Maintenance	0	0	0	-3.4	0	0	0	0	0	0	0	-7.4	-3.4	0	-1.2
73 SHPD Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
74 TPU Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Hydro Maintenance	-30	-25	-8.6	-9	-3.8	0	0	0	-5.2	-7.4	-7.6	-20	-14	-49	-12
-Total Regulated Hydro w/Enc.-															
75 Federal System	7054	6060	5618	5409	7211	7054	7086	6240	5692	4529	4422	8383	7337	7513	6554
76 Public Entities	2414	1852	1699	1641	1915	1965	2370	2262	1473	1651	1136	2261	2846	2248	2015
77 Investor-Owned Entities	1656	1411	1910	1405	1424	2093	1797	1669	1603	2480	2078	2604	2699	2023	1920
78 Other Entities	444	420	352	365	510	484	522	441	383	286	240	445	468	473	428
79 Total Regulated Hydro w/Enc1	1568	9744	9580	8821	11060	11597	11775	10613	9151	8946	7877	13693	13350	12258	10917

**Table A-3: Regional Regulated Hydro Projects
PNW Loads and Resource Study
2013 - 2014 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Regulated Hydro Projects-															
1 Albeni Falls	22	17	23	36	20	22	16	14	14	25	23	41	43	38	26
2 Alder	51	43	17	0	0	0	35	27	25	30	0	43	17	22	21
3 Bonneville	195	139	450	435	548	557	569	536	500	301	138	377	354	272	415
4 Boundary	176	141	199	380	237	298	201	164	161	486	276	608	791	401	332
5 Box Canyon	29	24	32	57	37	46	32	27	26	56	43	57	51	56	42
6 Brownlee	187	187	236	233	162	276	212	232	228	322	326	346	209	224	239
7 Cabinet Gorge	44	32	46	49	34	82	56	38	31	126	100	194	212	106	83
8 Chelan	31	30	41	56	45	9.4	54	53	4.2	28	5.2	30	30	31	33
9 Chief Joseph	1414	1151	845	867	1281	1200	1294	1072	916	617	675	1294	1156	1439	1109
10 Cushman 1	38	32	24	2.6	2.5	2.7	4.6	14	2.6	2.9	3	23	3.1	3.4	10
11 Cushman 2	69	64	54	0.1	0.3	0.5	5.6	37	0.4	0.2	0.2	53	0.1	0	18
12 Diablo	172	112	34	35	41	71	144	149	36	58	78	81	118	91	84
13 Dworshak	448	406	183	51	51	51	51	50	50	51	53	56	300	448	148
14 Faraday	8.1	7.5	8.6	7.2	5.8	17	8.9	17	31	43	43	40	39	14	20
15 Gorge	182	125	43	43	49	86	153	158	48	73	93	100	140	109	97
16 Grand Coulee	2622	2094	1538	1610	2380	2181	2276	1769	1386	877	978	1991	2013	2705	1931
17 Hells Canyon	150	150	192	196	130	208	160	176	180	250	258	282	174	176	190
18 Hungry Horse	68	68	78	87	92	93	94	93	90	69	28	29	85	122	82
19 Ice Harbor	132	163	138	132	95	141	108	137	175	204	201	332	266	157	170
20 John Day	745	619	699	678	907	895	914	846	805	663	586	972	928	828	815
21 Kerr	45	45	69	76	55	137	95	60	44	170	106	148	178	140	99
22 La Grande	63	63	32	0	0	0	56	53	56	62	0	63	27	33	34
23 Libby	183	183	176	113	245	173	86	85	84	84	83	495	212	179	177
24 Little Falls	11	8.6	27	6.1	6.3	14	13	10	18	34	33	32	35	14	18
25 Little Goose	147	169	147	132	97	141	111	124	168	247	306	522	289	155	194
26 Long Lake	28	22	62	16	17	35	31	24	41	72	72	72	72	35	42
27 Lower Baker	71	66	19	6.3	20	20	44	12	7	43	55	49	65	59	35
28 Lower Granite	141	174	156	131	98	144	113	127	172	244	315	528	293	104	192
29 Lower Monumental	80	169	143	134	94	142	108	139	178	263	318	528	301	112	192
30 Mayfield	89	20	94	55	55	55	70	129	70	70	70	8.4	120	69	70
31 McNary	362	298	487	468	596	587	607	561	512	384	320	484	447	340	480
32 Merwin	43	17	116	7.6	14	59	56	61	66	109	60	29	65	33	51
33 Monroe Street	6.6	5.3	14	2.9	3	11	4.6	5.9	12	14	14	14	14	11	9.5
34 Mossyrock	168	37	168	81	79	58	87	155	52	55	30	0	224	126	97
35 Nine Mile	6.4	5.2	17	3.2	3.3	10	4.4	6.1	14	22	21	20	21	9.9	11
36 North Fork	9	8.4	9.5	8	6.5	19	9.9	18	34	54	48	54	43	15	23
37 Noxon	62	49	67	73	52	125	85	57	47	196	142	280	318	155	124
38 Oak Grove	21	16	9.4	22	14	26	17	18	19	34	34	34	34	25	22
39 Oxbow	78	78	100	102	67	107	82	90	90	127	127	136	82	90	96
40 Pelton	36	35	35	37	38	40	36	36	40	49	49	41	39	36	39
41 Pelton Rereg. Dam	8.5	8.2	6.1	8.6	8.9	9.5	8.5	8.5	9.6	12	12	9.8	9.2	8.3	8.9
42 Post Falls	2.2	1.4	12	0.2	0.2	6.1	1.9	2.5	8.9	15	14	13	15	4.6	6.8
43 Priest Rapids	333	361	344	356	520	495	542	447	375	254	93	422	414	360	400
44 River Mill	4.6	4.3	4.9	4.1	3.3	9.7	5.1	9.5	18	23	23	22	20	7.7	11
45 Rock Island PH#1	188	174	149	152	184	179	184	172	155	110	124	185	184	183	169
46 Rock Island PH#2	128	150	114	117	173	160	179	144	120	87	74	156	151	152	141
47 Rocky Reach	646	582	444	459	658	612	672	562	475	324	347	547	615	684	557
48 Ross	191	103	23	32	45	72	152	139	27	42	57	57	86	66	74
49 Round Butte	91	87	86	91	94	99	89	89	101	126	125	103	98	88	96
50 Swift 1	52	26	188	0	0	54	31	75	45	154	0	27	143	58	61
51 Swift 2	15	7.7	61	0	0	22	13	33	20	69	0	9.8	42	16	22
52 The Dalles	497	410	556	533	706	727	738	687	642	501	399	656	626	554	610
53 Thompson Falls	28	27	36	38	32	53	41	33	30	67	53	83	79	60	48
54 Upper Baker	82	22	22	4.4	30	23	42	9.9	0	41	48	43	88	61	35
55 Upper Falls	5.7	4.6	9.6	2.6	2.7	9.3	4.1	5.1	9.8	9.4	8.8	8.7	9.3	8.9	7
56 Wanapum	417	349	289	301	479	449	502	399	324	203	110	399	456	467	384
57 Wells	429	358	282	290	424	398	428	354	304	193	204	403	388	444	359
58 Yale	47	19	133	7.5	21	82	40	64	60	106	81	0	108	42	57
Total Regulated Hydro Projects	11598	9768	9588	8830	11064	11597	11775	10613	9156	8954	7885	13635	13340	12246	10916

-Idle Capacity-

**Table A-3: Regional Regulated Hydro Projects
PNW Loads and Resource Study
2013 - 2014 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
59 Operational Peaking Adj.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Idle Capacity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Hydro Maintenance-															
60 AVWP Hydro Maintenance	-1.2	0	0	0	0	0	0	0	0	0	0	0	0	-16	-1.4
61 CHPD Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
62 CLKM Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
63 COPD Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
64 DOPD Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
65 EWEB Hydro Maintenance	0	-3.6	-1.6	-1.8	-3.8	0	0	0	-2	-3.8	-3.8	-3.8	0	0	-1.6
66 Federal Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
67 GCPD Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
68 IPC Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
69 PGE Hydro Maintenance	-9	-11	-5	-3.8	0	0	0	0	0	0	0	-2.4	0	-2.4	-2.0
70 PPL Hydro Maintenance	-6.6	-3	-0.6	0	0	0	0	0	0	0	0	-1.2	-6.8	-18	-2.7
71 PSE Hydro Maintenance	-13	-7.4	-1.4	0	0	0	0	0	-3.2	-3.6	-3.8	-5.2	-4.2	-12	-3.4
72 SCL Hydro Maintenance	0	0	0	-3.4	0	0	0	0	0	0	0	-7.4	-3.4	0	-1.2
73 SHPD Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
74 TPU Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Hydro Maintenance	-30	-25	-8.6	-9	-3.8	0	0	0	-5.2	-7.4	-7.6	-20	-14	-49	-12
-Total Regulated Hydro w/Enc.-															
75 Federal System	7054	6060	5618	5409	7211	7054	7086	6240	5692	4529	4422	8305	7312	7452	6540
76 Public Entities	2416	1854	1700	1643	1915	1965	2370	2262	1473	1651	1136	2261	2846	2248	2016
77 Investor-Owned Entities	1654	1409	1909	1404	1424	2093	1797	1669	1603	2480	2078	2604	2699	2023	1920
78 Other Entities	444	420	352	365	510	484	522	441	383	286	240	445	468	473	428
79 Total Regulated Hydro w/Enc1	1568	9744	9580	8821	11060	11597	11775	10613	9151	8946	7877	13615	13325	12197	10903

**Table A-3: Regional Regulated Hydro Projects
PNW Loads and Resource Study
2014 - 2015 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Regulated Hydro Projects-															
1 Albeni Falls	22	17	23	36	20	22	16	14	14	25	23	41	43	38	26
2 Alder	51	43	17	0	0	0	35	27	25	30	0	43	17	22	21
3 Bonneville	195	139	450	435	548	557	569	536	500	301	138	377	354	272	415
4 Boundary	176	141	199	380	237	298	201	164	161	486	276	608	791	401	332
5 Box Canyon	29	24	32	57	37	46	32	27	26	56	43	57	51	56	42
6 Brownlee	187	187	236	233	162	276	212	232	228	322	326	346	209	224	239
7 Cabinet Gorge	44	32	46	49	34	82	56	38	31	126	100	194	212	106	83
8 Chelan	31	30	41	56	45	9.4	54	53	4.2	28	5.2	30	30	31	33
9 Chief Joseph	1414	1151	845	867	1281	1200	1294	1072	916	617	675	1294	1156	1439	1109
10 Cushman 1	38	32	24	2.6	2.5	2.7	4.6	14	2.6	2.9	3	23	3.1	3.4	10
11 Cushman 2	69	64	54	0.1	0.3	0.5	5.6	37	0.4	0.2	0.2	53	0.1	0	18
12 Diablo	172	112	34	35	41	71	144	149	36	58	78	81	118	91	84
13 Dworshak	448	406	183	51	51	51	51	50	50	51	53	56	300	448	148
14 Faraday	8.1	7.5	8.6	7.2	5.8	17	8.9	17	31	43	43	40	39	14	20
15 Gorge	182	125	43	43	49	86	153	158	48	73	93	100	140	109	97
16 Grand Coulee	2622	2094	1538	1610	2380	2181	2276	1769	1386	877	978	1991	2013	2705	1931
17 Hells Canyon	150	150	192	196	130	208	160	176	180	250	258	282	174	176	190
18 Hungry Horse	68	68	78	87	92	93	94	93	90	69	28	29	85	122	82
19 Ice Harbor	132	163	138	132	95	141	108	137	175	204	201	332	266	157	170
20 John Day	745	619	699	678	907	895	914	846	805	663	586	972	928	828	815
21 Kerr	45	45	69	76	55	137	95	60	44	170	106	148	178	140	99
22 La Grande	63	63	32	0	0	0	56	53	56	62	0	63	27	33	34
23 Libby	183	183	176	113	245	173	86	85	84	84	83	495	212	179	177
24 Little Falls	11	8.6	27	6.1	6.3	14	13	10	18	34	33	32	35	14	18
25 Little Goose	147	169	147	132	97	141	111	124	168	247	306	522	289	155	194
26 Long Lake	28	22	62	16	17	35	31	24	41	72	72	72	72	35	42
27 Lower Baker	71	66	19	6.3	20	20	44	12	7	43	55	49	65	59	35
28 Lower Granite	141	174	156	131	98	144	113	127	172	244	315	528	293	104	192
29 Lower Monumental	80	169	143	134	94	142	108	139	178	263	318	528	301	112	192
30 Mayfield	89	20	94	55	55	55	70	129	70	70	70	8.4	120	69	70
31 McNary	362	298	487	468	596	587	607	561	512	384	320	540	401	402	486
32 Merwin	43	17	116	7.6	14	59	56	61	66	109	60	29	65	33	51
33 Monroe Street	6.6	5.3	14	2.9	3	11	4.6	5.9	12	14	14	14	14	11	9.5
34 Mossyrock	168	37	168	81	79	58	87	155	52	55	30	0	224	126	97
35 Nine Mile	6.4	5.2	17	3.2	3.3	10	4.4	6.1	14	22	21	20	21	9.9	11
36 North Fork	9	8.4	9.5	8	6.5	19	9.9	18	34	54	48	54	43	15	23
37 Noxon	62	49	67	73	52	125	85	57	47	196	142	280	318	155	124
38 Oak Grove	21	16	9.4	22	14	26	17	18	19	34	34	34	34	25	22
39 Oxbow	78	78	100	102	67	107	82	90	90	127	127	136	82	90	96
40 Pelton	36	35	35	37	38	40	36	36	40	49	49	41	39	36	39
41 Pelton Rereg. Dam	8.5	8.2	6.1	8.6	8.9	9.5	8.5	8.5	9.6	12	12	9.8	9.2	8.3	8.9
42 Post Falls	2.2	1.4	12	0.2	0.2	6.1	1.9	2.5	8.9	15	14	13	15	4.6	6.8
43 Priest Rapids	333	361	344	356	520	495	542	447	375	254	93	422	414	360	400
44 River Mill	4.6	4.3	4.9	4.1	3.3	9.7	5.1	9.5	18	23	23	22	20	7.7	11
45 Rock Island PH#1	188	174	149	152	184	179	184	172	155	110	124	185	184	183	169
46 Rock Island PH#2	128	150	114	117	173	160	179	144	120	87	74	156	151	152	141
47 Rocky Reach	646	582	444	459	658	612	672	562	475	324	347	547	615	684	557
48 Ross	191	103	23	32	45	72	152	139	27	42	57	57	86	66	74
49 Round Butte	91	87	86	91	94	99	89	89	101	126	125	103	98	88	96
50 Swift 1	52	26	188	0	0	54	31	75	45	154	0	27	143	58	61
51 Swift 2	15	7.7	61	0	0	22	13	33	20	69	0	9.8	42	16	22
52 The Dalles	497	410	556	533	706	727	738	687	642	501	399	656	626	554	610
53 Thompson Falls	28	27	36	38	32	53	41	33	30	67	53	83	79	60	48
54 Upper Baker	82	22	22	4.4	30	23	42	9.9	0	41	48	43	88	61	35
55 Upper Falls	5.7	4.6	9.6	2.6	2.7	9.3	4.1	5.1	9.8	9.4	8.8	8.7	9.3	8.9	7
56 Wanapum	417	349	289	301	479	449	502	399	324	203	110	399	456	467	384
57 Wells	429	358	282	290	424	398	428	354	304	193	204	403	388	444	359
58 Yale	47	19	133	7.5	21	82	40	64	60	106	81	0	108	42	57
Total Regulated Hydro Projects	11598	9768	9588	8830	11064	11597	11775	10613	9156	8954	7885	13691	13294	12307	10922

-Idle Capacity-

**Table A-3: Regional Regulated Hydro Projects
PNW Loads and Resource Study
2014 - 2015 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
59 Operational Peaking Adj.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Idle Capacity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Hydro Maintenance-															
60 AVWP Hydro Maintenance	-1.2	0	0	0	0	0	0	0	0	0	0	0	0	-16	-1.4
61 CHPD Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
62 CLKM Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
63 COPD Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
64 DOPD Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
65 EWEB Hydro Maintenance	0	-3.6	-1.6	-1.8	-3.8	0	0	0	-2	-3.8	-3.8	-3.8	0	0	-1.6
66 Federal Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
67 GCPD Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
68 IPC Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
69 PGE Hydro Maintenance	-9	-11	-5	-3.8	0	0	0	0	0	0	0	-2.4	0	-2.4	-2.0
70 PPL Hydro Maintenance	-6.6	-3	-0.6	0	0	0	0	0	0	0	0	-1.2	-6.8	-18	-2.7
71 PSE Hydro Maintenance	-13	-7.4	-1.4	0	0	0	0	0	-3.2	-3.6	-3.8	-5.2	-4.2	-12	-3.4
72 SCL Hydro Maintenance	0	0	0	-3.4	0	0	0	0	0	0	0	-7.4	-3.4	0	-1.2
73 SHPD Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
74 TPU Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Hydro Maintenance	-30	-25	-8.6	-9	-3.8	0	0	0	-5.2	-7.4	-7.6	-20	-14	-49	-12
-Total Regulated Hydro w/Enc.-															
75 Federal System	7054	6060	5618	5409	7211	7054	7086	6240	5692	4529	4422	8361	7266	7513	6546
76 Public Entities	2416	1854	1700	1643	1915	1965	2370	2262	1473	1651	1136	2261	2846	2248	2016
77 Investor-Owned Entities	1654	1409	1909	1404	1424	2093	1797	1669	1603	2480	2078	2604	2699	2023	1920
78 Other Entities	444	420	352	365	510	484	522	441	383	286	240	445	468	473	428
79 Total Regulated Hydro w/Enc1	1568	9744	9580	8821	11060	11597	11775	10613	9151	8946	7877	13671	13279	12258	10910

**Table A-3: Regional Regulated Hydro Projects
PNW Loads and Resource Study
2015 - 2016 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Regulated Hydro Projects-															
1 Albeni Falls	22	17	23	36	20	22	16	14	14	25	23	41	43	38	26
2 Alder	51	43	17	0	0	0	35	27	25	30	0	43	17	22	21
3 Bonneville	195	139	450	435	548	557	569	536	500	301	138	377	354	272	415
4 Boundary	176	141	199	380	237	298	201	164	161	486	276	608	791	401	332
5 Box Canyon	29	24	32	57	37	46	32	27	26	56	43	57	51	56	41
6 Brownlee	187	187	236	233	162	276	212	232	228	322	326	346	209	224	239
7 Cabinet Gorge	44	32	46	49	34	82	56	38	31	126	100	194	212	106	83
8 Chelan	31	30	41	56	45	9.4	54	53	4.2	28	5.2	30	30	31	33
9 Chief Joseph	1414	1151	845	867	1281	1200	1294	1072	916	617	675	1294	1156	1439	1109
10 Cushman 1	38	32	24	2.6	2.5	2.7	4.6	14	2.6	2.9	3	23	3.1	3.4	10
11 Cushman 2	69	64	54	0.1	0.3	0.5	5.6	37	0.4	0.2	0.2	53	0.1	0	18
12 Diablo	172	112	34	35	41	71	144	149	36	58	78	81	118	91	84
13 Dworshak	448	406	183	51	51	51	51	50	50	51	53	56	300	448	148
14 Faraday	8.1	7.5	8.6	7.2	5.8	17	8.9	17	31	43	43	40	39	14	20
15 Gorge	182	125	43	43	49	86	153	158	48	73	93	100	140	109	97
16 Grand Coulee	2622	2094	1538	1610	2380	2181	2276	1769	1386	877	978	1991	2013	2705	1930
17 Hells Canyon	150	150	192	196	130	208	160	176	180	250	258	282	174	176	190
18 Hungry Horse	68	68	78	87	92	93	94	93	90	69	28	29	85	122	82
19 Ice Harbor	132	163	138	132	95	141	108	137	175	204	201	332	266	157	169
20 John Day	745	619	699	678	907	895	914	846	805	663	586	972	928	828	815
21 Kerr	45	45	69	76	55	137	95	60	44	170	106	148	178	140	99
22 La Grande	63	63	32	0	0	0	56	53	56	62	0	63	27	33	35
23 Libby	183	183	176	113	245	173	86	85	84	84	83	495	212	179	177
24 Little Falls	11	8.6	27	6.1	6.3	14	13	10	18	34	33	32	35	14	18
25 Little Goose	147	169	147	132	97	141	111	124	168	247	306	522	289	155	194
26 Long Lake	28	22	62	16	17	35	31	24	41	72	72	72	72	35	42
27 Lower Baker	71	66	19	6.3	20	20	44	12	7	43	55	49	65	59	35
28 Lower Granite	141	174	156	131	98	144	113	127	172	244	315	528	293	104	192
29 Lower Monumental	80	169	143	134	94	142	108	139	178	263	318	528	301	112	191
30 Mayfield	89	20	94	55	55	55	70	129	70	70	70	8.4	120	69	70
31 McNary	362	298	487	468	596	587	607	561	512	384	320	544	391	402	486
32 Merwin	43	17	116	7.6	14	59	56	61	66	109	60	29	65	33	51
33 Monroe Street	6.6	5.3	14	2.9	3	11	4.6	5.9	12	14	14	14	14	11	9.5
34 Mossyrock	168	37	168	81	79	58	87	155	52	55	30	0	224	126	97
35 Nine Mile	6.4	5.2	17	3.2	3.3	10	4.4	6.1	14	22	21	20	21	9.9	11
36 North Fork	9	8.4	9.5	8	6.5	19	9.9	18	34	54	48	54	43	15	23
37 Noxon	62	49	67	73	52	125	85	57	47	196	142	280	318	155	124
38 Oak Grove	21	16	9.4	22	14	26	17	18	19	34	34	34	34	25	22
39 Oxbow	78	78	100	102	67	107	82	90	90	127	127	136	82	90	96
40 Pelton	36	35	35	37	38	40	36	36	40	49	49	41	39	36	39
41 Pelton Rereg. Dam	8.5	8.2	6.1	8.6	8.9	9.5	8.5	8.5	9.6	12	12	9.8	9.2	8.3	8.9
42 Post Falls	2.2	1.4	12	0.2	0.2	6.1	1.9	2.5	8.9	15	14	13	15	4.6	6.8
43 Priest Rapids	333	361	344	356	520	495	542	447	375	254	93	422	414	360	400
44 River Mill	4.6	4.3	4.9	4.1	3.3	9.7	5.1	9.5	18	23	23	22	20	7.7	11
45 Rock Island PH#1	188	174	149	152	184	179	184	172	155	110	124	185	184	183	169
46 Rock Island PH#2	128	150	114	117	173	160	179	144	120	87	74	156	151	152	141
47 Rocky Reach	646	582	444	459	658	612	672	562	475	324	347	547	615	684	557
48 Ross	191	103	23	32	45	72	152	139	27	42	57	57	86	66	74
49 Round Butte	91	87	86	91	94	99	89	89	101	126	125	103	98	88	96
50 Swift 1	52	26	188	0	0	54	31	75	45	154	0	27	143	58	61
51 Swift 2	15	7.7	61	0	0	22	13	33	20	69	0	9.8	42	16	22
52 The Dalles	497	410	556	533	706	727	738	687	642	501	399	656	626	554	611
53 Thompson Falls	28	27	36	38	32	53	41	33	30	67	53	83	79	60	48
54 Upper Baker	82	22	22	4.4	30	23	42	9.9	0	41	48	43	88	61	35
55 Upper Falls	5.7	4.6	9.6	2.6	2.7	9.3	4.1	5.1	9.8	9.4	8.8	8.7	9.3	8.9	7
56 Wanapum	417	349	289	301	479	449	502	399	324	203	110	399	456	467	384
57 Wells	429	358	282	290	424	398	428	354	304	193	204	403	388	444	359
58 Yale	47	19	133	7.5	21	82	40	64	60	106	81	0	108	42	57
Total Regulated Hydro Projects	11598	9768	9588	8830	11064	11597	11775	10613	9156	8954	7885	13695	13284	12307	10920

-Idle Capacity-

**Table A-3: Regional Regulated Hydro Projects
PNW Loads and Resource Study
2015 - 2016 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
59 Operational Peaking Adj.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Idle Capacity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Hydro Maintenance-															
60 AVWP Hydro Maintenance	-1.2	0	0	0	0	0	0	0	0	0	0	0	0	-16	-1.4
61 CHPD Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
62 CLKM Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
63 COPD Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
64 DOPD Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
65 EWEB Hydro Maintenance	0	-3.6	-1.6	-1.8	-3.8	0	0	0	-2	-3.8	-3.8	-3.8	0	0	-1.6
66 Federal Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
67 GCPD Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
68 IPC Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
69 PGE Hydro Maintenance	-9	-11	-5	-3.8	0	0	0	0	0	0	0	-2.4	0	-2.4	-2.0
70 PPL Hydro Maintenance	-6.6	-3	-0.6	0	0	0	0	0	0	0	0	-1.2	-6.8	-18	-2.7
71 PSE Hydro Maintenance	-13	-7.4	-1.4	0	0	0	0	0	-3.2	-3.6	-3.8	-5.2	-4.2	-12	-3.4
72 SCL Hydro Maintenance	0	0	0	-3.4	0	0	0	0	0	0	0	-7.4	-3.4	0	-1.2
73 SHPD Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
74 TPU Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Hydro Maintenance	-30	-25	-8.6	-9	-3.8	0	0	0	-5.2	-7.4	-7.6	-20	-14	-49	-12
-Total Regulated Hydro w/Enc.-															
75 Federal System	7054	6060	5618	5409	7211	7054	7086	6240	5692	4529	4422	8365	7256	7513	6545
76 Public Entities	2416	1854	1700	1643	1915	1965	2370	2262	1473	1651	1136	2261	2846	2248	2016
77 Investor-Owned Entities	1654	1409	1909	1404	1424	2093	1797	1669	1603	2480	2078	2604	2699	2023	1919
78 Other Entities	444	420	352	365	510	484	522	441	383	286	240	445	468	473	429
79 Total Regulated Hydro w/Enc1	1568	9744	9580	8821	11060	11597	11775	10613	9151	8946	7877	13675	13269	12258	10908

**Table A-3: Regional Regulated Hydro Projects
PNW Loads and Resource Study
2016 - 2017 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Regulated Hydro Projects-															
1 Albeni Falls	22	17	23	36	20	22	16	14	14	25	23	41	43	38	26
2 Alder	51	43	17	0	0	0	35	27	25	30	0	43	17	22	21
3 Bonneville	195	139	450	435	548	557	569	536	500	301	138	377	354	272	415
4 Boundary	176	141	199	380	237	298	201	164	161	486	276	608	791	401	332
5 Box Canyon	29	24	32	57	37	46	32	27	26	56	43	57	51	56	42
6 Brownlee	187	187	236	233	162	276	212	232	228	322	326	346	209	224	239
7 Cabinet Gorge	44	32	46	49	34	82	56	38	31	126	100	194	212	106	83
8 Chelan	31	30	41	56	45	9.4	54	53	4.2	28	5.2	30	30	31	33
9 Chief Joseph	1414	1151	845	867	1281	1200	1294	1072	916	617	675	1294	1156	1439	1109
10 Cushman 1	38	32	24	2.6	2.5	2.7	4.6	14	2.6	2.9	3	23	3.1	3.4	10
11 Cushman 2	69	64	54	0.1	0.3	0.5	5.6	37	0.4	0.2	0.2	53	0.1	0	18
12 Diablo	172	112	34	35	41	71	144	149	36	58	78	81	118	91	84
13 Dworshak	448	406	183	51	51	51	51	50	50	51	53	56	300	448	148
14 Faraday	8.1	7.5	8.6	7.2	5.8	17	8.9	17	31	43	43	40	39	14	20
15 Gorge	182	125	43	43	49	86	153	158	48	73	93	100	140	109	97
16 Grand Coulee	2622	2094	1538	1610	2380	2181	2276	1769	1386	877	978	1991	2013	2705	1931
17 Hells Canyon	150	150	192	196	130	208	160	176	180	250	258	282	174	176	190
18 Hungry Horse	68	68	78	87	92	93	94	93	90	69	28	29	85	122	82
19 Ice Harbor	132	163	138	132	95	141	108	137	175	204	201	332	266	157	170
20 John Day	745	619	699	678	907	895	914	846	805	663	586	972	928	828	815
21 Kerr	45	45	69	76	55	137	95	60	44	170	106	148	178	140	99
22 La Grande	63	63	32	0	0	0	56	53	56	62	0	63	27	33	34
23 Libby	183	183	176	113	245	173	86	85	84	84	83	495	212	179	177
24 Little Falls	11	8.6	27	6.1	6.3	14	13	10	18	34	33	32	35	14	18
25 Little Goose	147	169	147	132	97	141	111	124	168	247	306	522	289	155	194
26 Long Lake	28	22	62	16	17	35	31	24	41	72	72	72	72	35	42
27 Lower Baker	71	66	19	6.3	20	20	44	12	7	43	55	49	65	59	35
28 Lower Granite	141	174	156	131	98	144	113	127	172	244	315	528	293	104	192
29 Lower Monumental	80	169	143	134	94	142	108	139	178	263	318	528	301	112	192
30 Mayfield	89	20	94	55	55	55	70	129	70	70	70	8.4	120	69	70
31 McNary	362	298	487	468	596	587	607	561	512	384	320	482	463	402	487
32 Merwin	43	17	116	7.6	14	59	56	61	66	109	60	29	65	33	51
33 Monroe Street	6.6	5.3	14	2.9	3	11	4.6	5.9	12	14	14	14	14	11	9.5
34 Mossyrock	168	37	168	81	79	58	87	155	52	55	30	0	224	126	97
35 Nine Mile	6.4	5.2	17	3.2	3.3	10	4.4	6.1	14	22	21	20	21	9.9	11
36 North Fork	9	8.4	9.5	8	6.5	19	9.9	18	34	54	48	54	43	15	23
37 Noxon	62	49	67	73	52	125	85	57	47	196	142	280	318	155	124
38 Oak Grove	21	16	9.4	22	14	26	17	18	19	34	34	34	34	25	22
39 Oxbow	78	78	100	102	67	107	82	90	90	127	127	136	82	90	96
40 Pelton	36	35	35	37	38	40	36	36	40	49	49	41	39	36	39
41 Pelton Rereg. Dam	8.5	8.2	6.1	8.6	8.9	9.5	8.5	8.5	9.6	12	12	9.8	9.2	8.3	8.9
42 Post Falls	2.2	1.4	12	0.2	0.2	6.1	1.9	2.5	8.9	15	14	13	15	4.6	6.8
43 Priest Rapids	333	361	344	356	520	495	542	447	375	254	93	422	414	360	400
44 River Mill	4.6	4.3	4.9	4.1	3.3	9.7	5.1	9.5	18	23	23	22	20	7.7	11
45 Rock Island PH#1	188	174	149	152	184	179	184	172	155	110	124	185	184	183	169
46 Rock Island PH#2	128	150	114	117	173	160	179	144	120	87	74	156	151	152	141
47 Rocky Reach	646	582	444	459	658	612	672	562	475	324	347	547	615	684	557
48 Ross	191	103	23	32	45	72	152	139	27	42	57	57	86	66	74
49 Round Butte	91	87	86	91	94	99	89	89	101	126	125	103	98	88	96
50 Swift 1	52	26	188	0	0	54	31	75	45	154	0	27	143	58	61
51 Swift 2	15	7.7	61	0	0	22	13	33	20	69	0	9.8	42	16	22
52 The Dalles	497	410	556	533	706	727	738	687	642	501	399	656	626	554	610
53 Thompson Falls	28	27	36	38	32	53	41	33	30	67	53	83	79	60	48
54 Upper Baker	82	22	22	4.4	30	23	42	9.9	0	41	48	43	88	61	35
55 Upper Falls	5.7	4.6	9.6	2.6	2.7	9.3	4.1	5.1	9.8	9.4	8.8	8.7	9.3	8.9	7
56 Wanapum	417	349	289	301	479	449	502	399	324	203	110	399	456	467	384
57 Wells	429	358	282	290	424	398	428	354	304	193	204	403	388	444	359
58 Yale	47	19	133	7.5	21	82	40	64	60	106	81	0	108	42	57
Total Regulated Hydro Projects	11598	9768	9588	8830	11064	11597	11775	10613	9156	8954	7885	13633	13356	12307	10922

-Idle Capacity-

**Table A-3: Regional Regulated Hydro Projects
PNW Loads and Resource Study
2016 - 2017 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
59 Operational Peaking Adj.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Idle Capacity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Hydro Maintenance-															
60 AVWP Hydro Maintenance	-1.2	0	0	0	0	0	0	0	0	0	0	0	0	-16	-1.4
61 CHPD Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
62 CLKM Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
63 COPD Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
64 DOPD Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
65 EWEB Hydro Maintenance	0	-3.6	-1.6	-1.8	-3.8	0	0	0	-2	-3.8	-3.8	-3.8	0	0	-1.6
66 Federal Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
67 GCPD Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
68 IPC Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
69 PGE Hydro Maintenance	-9	-11	-5	-3.8	0	0	0	0	0	0	0	-2.4	0	-2.4	-2.0
70 PPL Hydro Maintenance	-6.6	-3	-0.6	0	0	0	0	0	0	0	0	-1.2	-6.8	-18	-2.7
71 PSE Hydro Maintenance	-13	-7.4	-1.4	0	0	0	0	0	-3.2	-3.6	-3.8	-5.2	-4.2	-12	-3.4
72 SCL Hydro Maintenance	0	0	0	-3.4	0	0	0	0	0	0	0	-7.4	-3.4	0	-1.2
73 SHPD Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
74 TPU Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Hydro Maintenance	-30	-25	-8.6	-9	-3.8	0	0	0	-5.2	-7.4	-7.6	-20	-14	-49	-12
-Total Regulated Hydro w/Enc.-															
75 Federal System	7054	6060	5618	5409	7211	7054	7086	6240	5692	4529	4422	8303	7328	7513	6546
76 Public Entities	2416	1854	1700	1643	1915	1965	2370	2262	1473	1651	1136	2261	2846	2248	2016
77 Investor-Owned Entities	1654	1409	1909	1404	1424	2093	1797	1669	1603	2480	2078	2604	2699	2023	1920
78 Other Entities	444	420	352	365	510	484	522	441	383	286	240	445	468	473	428
79 Total Regulated Hydro w/Enc1	1568	9744	9580	8821	11060	11597	11775	10613	9151	8946	7877	13613	13341	12258	10910

**Table A-3: Regional Regulated Hydro Projects
 PNW Loads and Resource Study
 2017 - 2018 Operating Year
 1937 Water Year
 [76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Regulated Hydro Projects-															
1 Albeni Falls	22	17	23	36	20	22	16	14	14	25	23	41	43	38	26
2 Alder	51	43	17	0	0	0	35	27	25	30	0	43	17	22	21
3 Bonneville	195	139	450	435	548	557	569	536	500	301	138	377	354	272	415
4 Boundary	176	141	199	380	237	298	201	164	161	486	276	608	791	401	332
5 Box Canyon	29	24	32	57	37	46	32	27	26	56	43	57	51	56	42
6 Brownlee	187	187	236	233	162	276	212	232	228	322	326	346	209	224	239
7 Cabinet Gorge	44	32	46	49	34	82	56	38	31	126	100	194	212	106	83
8 Chelan	31	30	41	56	45	9.4	54	53	4.2	28	5.2	30	30	31	33
9 Chief Joseph	1414	1151	845	867	1281	1200	1294	1072	916	617	675	1294	1156	1439	1109
10 Cushman 1	38	32	24	2.6	2.5	2.7	4.6	14	2.6	2.9	3	23	3.1	3.4	10
11 Cushman 2	69	64	54	0.1	0.3	0.5	5.6	37	0.4	0.2	0.2	53	0.1	0	18
12 Diablo	172	112	34	35	41	71	144	149	36	58	78	81	118	91	84
13 Dworshak	448	406	183	51	51	51	51	50	50	51	53	56	300	448	148
14 Faraday	8.1	7.5	8.6	7.2	5.8	17	8.9	17	31	43	43	40	39	14	20
15 Gorge	182	125	43	43	49	86	153	158	48	73	93	100	140	109	97
16 Grand Coulee	2622	2094	1538	1610	2380	2181	2276	1769	1386	877	978	1991	2013	2705	1931
17 Hells Canyon	150	150	192	196	130	208	160	176	180	250	258	282	174	176	190
18 Hungry Horse	68	68	78	87	92	93	94	93	90	69	28	29	85	122	82
19 Ice Harbor	132	163	138	132	95	141	108	137	175	204	201	332	266	157	170
20 John Day	745	619	699	678	907	895	914	846	805	663	586	972	928	828	815
21 Kerr	45	45	69	76	55	137	95	60	44	170	106	148	178	140	99
22 La Grande	63	63	32	0	0	0	56	53	56	62	0	63	27	33	34
23 Libby	183	183	176	113	245	173	86	85	84	84	83	495	212	179	177
24 Little Falls	11	8.6	27	6.1	6.3	14	13	10	18	34	33	32	35	14	18
25 Little Goose	147	169	147	132	97	141	111	124	168	247	306	522	289	155	194
26 Long Lake	28	22	62	16	17	35	31	24	41	72	72	72	72	35	42
27 Lower Baker	71	66	19	6.3	20	20	44	12	7	43	55	49	65	59	35
28 Lower Granite	141	174	156	131	98	144	113	127	172	244	315	528	293	104	192
29 Lower Monumental	80	169	143	134	94	142	108	139	178	263	318	528	301	112	192
30 Mayfield	89	20	94	55	55	55	70	129	70	70	70	8.4	120	69	70
31 McNary	362	298	487	468	596	587	607	561	512	384	320	544	391	402	486
32 Merwin	43	17	116	7.6	14	59	56	61	66	109	60	29	65	33	51
33 Monroe Street	6.6	5.3	14	2.9	3	11	4.6	5.9	12	14	14	14	14	11	9.5
34 Mossyrock	168	37	168	81	79	58	87	155	52	55	30	0	224	126	97
35 Nine Mile	6.4	5.2	17	3.2	3.3	10	4.4	6.1	14	22	21	20	21	9.9	11
36 North Fork	9	8.4	9.5	8	6.5	19	9.9	18	34	54	48	54	43	15	23
37 Noxon	62	49	67	73	52	125	85	57	47	196	142	280	318	155	124
38 Oak Grove	21	16	9.4	22	14	26	17	18	19	34	34	34	34	25	22
39 Oxbow	78	78	100	102	67	107	82	90	90	127	127	136	82	90	96
40 Pelton	36	35	35	37	38	40	36	36	40	49	49	41	39	36	39
41 Pelton Rereg. Dam	8.5	8.2	6.1	8.6	8.9	9.5	8.5	8.5	9.6	12	12	9.8	9.2	8.3	8.9
42 Post Falls	2.2	1.4	12	0.2	0.2	6.1	1.9	2.5	8.9	15	14	13	15	4.6	6.8
43 Priest Rapids	333	361	344	356	520	495	542	447	375	254	93	422	414	360	400
44 River Mill	4.6	4.3	4.9	4.1	3.3	9.7	5.1	9.5	18	23	23	22	20	7.7	11
45 Rock Island PH#1	188	174	149	152	184	179	184	172	155	110	124	185	184	183	169
46 Rock Island PH#2	128	150	114	117	173	160	179	144	120	87	74	156	151	152	141
47 Rocky Reach	646	582	444	459	658	612	672	562	475	324	347	547	615	684	557
48 Ross	191	103	23	32	45	72	152	139	27	42	57	57	86	66	74
49 Round Butte	91	87	86	91	94	99	89	89	101	126	125	103	98	88	96
50 Swift 1	52	26	188	0	0	54	31	75	45	154	0	27	143	58	61
51 Swift 2	15	7.7	61	0	0	22	13	33	20	69	0	9.8	42	16	22
52 The Dalles	497	410	556	533	706	727	738	687	642	501	399	656	626	554	610
53 Thompson Falls	28	27	36	38	32	53	41	33	30	67	53	83	79	60	48
54 Upper Baker	82	22	22	4.4	30	23	42	9.9	0	41	48	43	88	61	35
55 Upper Falls	5.7	4.6	9.6	2.6	2.7	9.3	4.1	5.1	9.8	9.4	8.8	8.7	9.3	8.9	7
56 Wanapum	417	349	289	301	479	449	502	399	324	203	110	399	456	467	384
57 Wells	429	358	282	290	424	398	428	354	304	193	204	403	388	444	359
58 Yale	47	19	133	7.5	21	82	40	64	60	106	81	0	108	42	57
Total Regulated Hydro Projects	11598	9768	9588	8830	11064	11597	11775	10613	9156	8954	7885	13695	13284	12307	10921

-Idle Capacity-

**Table A-3: Regional Regulated Hydro Projects
PNW Loads and Resource Study
2017 - 2018 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
59 Operational Peaking Adj.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Idle Capacity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Hydro Maintenance-															
60 AVWP Hydro Maintenance	-1.2	0	0	0	0	0	0	0	0	0	0	0	0	-16	-1.4
61 CHPD Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
62 CLKM Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
63 COPD Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
64 DOPD Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
65 EWEB Hydro Maintenance	0	-3.6	-1.6	-1.8	-3.8	0	0	0	-2	-3.8	-3.8	-3.8	0	0	-1.6
66 Federal Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
67 GCPD Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
68 IPC Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
69 PGE Hydro Maintenance	-9	-11	-5	-3.8	0	0	0	0	0	0	0	-2.4	0	-2.4	-2.0
70 PPL Hydro Maintenance	-6.6	-3	-0.6	0	0	0	0	0	0	0	0	-1.2	-6.8	-18	-2.7
71 PSE Hydro Maintenance	-13	-7.4	-1.4	0	0	0	0	0	-3.2	-3.6	-3.8	-5.2	-4.2	-12	-3.4
72 SCL Hydro Maintenance	0	0	0	-3.4	0	0	0	0	0	0	0	-7.4	-3.4	0	-1.2
73 SHPD Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
74 TPU Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Hydro Maintenance	-30	-25	-8.6	-9	-3.8	0	0	0	-5.2	-7.4	-7.6	-20	-14	-49	-12
-Total Regulated Hydro w/Enc.-															
75 Federal System	7054	6060	5618	5409	7211	7054	7086	6240	5692	4529	4422	8365	7256	7513	6545
76 Public Entities	2416	1854	1700	1643	1915	1965	2370	2262	1473	1651	1136	2261	2846	2248	2016
77 Investor-Owned Entities	1654	1409	1909	1404	1424	2093	1797	1669	1603	2480	2078	2604	2699	2023	1920
78 Other Entities	444	420	352	365	510	484	522	441	383	286	240	445	468	473	428
79 Total Regulated Hydro w/Enc1	1568	9744	9580	8821	11060	11597	11775	10613	9151	8946	7877	13675	13269	12258	10909

**Table A-3: Regional Regulated Hydro Projects
PNW Loads and Resource Study
2018 - 2019 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
59 Operational Peaking Adj.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Idle Capacity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Hydro Maintenance-															
60 AVWP Hydro Maintenance	-1.2	0	0	0	0	0	0	0	0	0	0	0	0	-16	-1.4
61 CHPD Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
62 CLKM Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
63 COPD Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
64 DOPD Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
65 EWEB Hydro Maintenance	0	-3.6	-1.6	-1.8	-3.8	0	0	0	-2	-3.8	-3.8	-3.8	0	0	-1.6
66 Federal Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
67 GCPD Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
68 IPC Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
69 PGE Hydro Maintenance	-9	-11	-5	-3.8	0	0	0	0	0	0	0	-2.4	0	-2.4	-2.0
70 PPL Hydro Maintenance	-6.6	-3	-0.6	0	0	0	0	0	0	0	0	-1.2	-6.8	-18	-2.7
71 PSE Hydro Maintenance	-13	-7.4	-1.4	0	0	0	0	0	-3.2	-3.6	-3.8	-5.2	-4.2	-12	-3.4
72 SCL Hydro Maintenance	0	0	0	-3.4	0	0	0	0	0	0	0	-7.4	-3.4	0	-1.2
73 SHPD Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
74 TPU Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Hydro Maintenance	-30	-25	-8.6	-9	-3.8	0	0	0	-5.2	-7.4	-7.6	-20	-14	-49	-12
-Total Regulated Hydro w/Enc.-															
75 Federal System	7054	6060	5618	5409	7211	7054	7086	6240	5692	4529	4422	8303	7328	7513	6546
76 Public Entities	2416	1854	1867	1814	2167	2201	2624	2472	1653	1766	1257	2500	3076	2511	2209
77 Investor-Owned Entities	1654	1409	1742	1232	1173	1858	1543	1459	1423	2365	1957	2366	2469	1760	1727
78 Other Entities	444	420	352	365	510	484	522	441	383	286	240	445	468	473	428
79 Total Regulated Hydro w/Enc1	1568	9744	9580	8821	11060	11597	11775	10613	9151	8946	7877	13613	13341	12258	10910

**Table A-3: Regional Regulated Hydro Projects
PNW Loads and Resource Study
2019 - 2020 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
<i>-Regulated Hydro Projects-</i>															
1 Albeni Falls	22	17	23	36	20	22	16	14	14	25	23	41	43	38	26
2 Alder	51	43	17	0	0	0	35	27	25	30	0	43	17	22	21
3 Bonneville	195	139	450	435	548	557	569	536	500	301	138	377	354	272	415
4 Boundary	176	141	199	380	237	298	201	164	161	486	276	608	791	401	332
5 Box Canyon	29	24	32	57	37	46	32	27	26	56	43	57	51	56	41
6 Brownlee	187	187	236	233	162	276	212	232	228	322	326	346	209	224	239
7 Cabinet Gorge	44	32	46	49	34	82	56	38	31	126	100	194	212	106	83
8 Chelan	31	30	41	56	45	9.4	54	53	4.2	28	5.2	30	30	31	33
9 Chief Joseph	1414	1151	845	867	1281	1200	1294	1072	916	617	675	1294	1156	1439	1109
10 Cushman 1	38	32	24	2.6	2.5	2.7	4.6	14	2.6	2.9	3	23	3.1	3.4	10
11 Cushman 2	69	64	54	0.1	0.3	0.5	5.6	37	0.4	0.2	0.2	53	0.1	0	18
12 Diablo	172	112	34	35	41	71	144	149	36	58	78	81	118	91	84
13 Dworshak	448	406	183	51	51	51	51	50	50	51	53	56	300	448	148
14 Faraday	8.1	7.5	8.6	7.2	5.8	17	8.9	17	31	43	43	40	39	14	20
15 Gorge	182	125	43	43	49	86	153	158	48	73	93	100	140	109	97
16 Grand Coulee	2622	2094	1538	1610	2380	2181	2276	1769	1386	877	978	1991	2013	2705	1930
17 Hells Canyon	150	150	192	196	130	208	160	176	180	250	258	282	174	176	190
18 Hungry Horse	68	68	78	87	92	93	94	93	90	69	28	29	85	122	82
19 Ice Harbor	132	163	138	132	95	141	108	137	175	204	201	332	266	157	169
20 John Day	745	619	699	678	907	895	914	846	805	663	586	972	928	828	815
21 Kerr	45	45	69	76	55	137	95	60	44	170	106	148	178	140	99
22 La Grande	63	63	32	0	0	0	56	53	56	62	0	63	27	33	35
23 Libby	183	183	176	113	245	173	86	85	84	84	83	495	212	179	177
24 Little Falls	11	8.6	27	6.1	6.3	14	13	10	18	34	33	32	35	14	18
25 Little Goose	147	169	147	132	97	141	111	124	168	247	306	522	289	155	194
26 Long Lake	28	22	62	16	17	35	31	24	41	72	72	72	72	35	42
27 Lower Baker	71	66	19	6.3	20	20	44	12	7	43	55	49	65	59	35
28 Lower Granite	141	174	156	131	98	144	113	127	172	244	315	528	293	104	192
29 Lower Monumental	80	169	143	134	94	142	108	139	178	263	318	528	301	112	191
30 Mayfield	89	20	94	55	55	55	70	129	70	70	70	8.4	120	69	70
31 McNary	362	298	487	468	596	587	607	561	512	384	320	544	391	402	486
32 Merwin	43	17	116	7.6	14	59	56	61	66	109	60	29	65	33	51
33 Monroe Street	6.6	5.3	14	2.9	3	11	4.6	5.9	12	14	14	14	14	11	9.5
34 Mossyrock	168	37	168	81	79	58	87	155	52	55	30	0	224	126	97
35 Nine Mile	6.4	5.2	17	3.2	3.3	10	4.4	6.1	14	22	21	20	21	9.9	11
36 North Fork	9	8.4	9.5	8	6.5	19	9.9	18	34	54	48	54	43	15	23
37 Noxon	62	49	67	73	52	125	85	57	47	196	142	280	318	155	124
38 Oak Grove	21	16	9.4	22	14	26	17	18	19	34	34	34	34	25	22
39 Oxbow	78	78	100	102	67	107	82	90	90	127	127	136	82	90	96
40 Pelton	36	35	35	37	38	40	36	36	40	49	49	41	39	36	39
41 Pelton Rereg. Dam	8.5	8.2	6.1	8.6	8.9	9.5	8.5	8.5	9.6	12	12	9.8	9.2	8.3	8.9
42 Post Falls	2.2	1.4	12	0.2	0.2	6.1	1.9	2.5	8.9	15	14	13	15	4.6	6.8
43 Priest Rapids	333	361	344	356	520	495	542	447	375	254	93	422	414	360	400
44 River Mill	4.6	4.3	4.9	4.1	3.3	9.7	5.1	9.5	18	23	23	22	20	7.7	11
45 Rock Island PH#1	188	174	149	152	184	179	184	172	155	110	124	185	184	183	169
46 Rock Island PH#2	128	150	114	117	173	160	179	144	120	87	74	156	151	152	141
47 Rocky Reach	646	582	444	459	658	612	672	562	475	324	347	547	615	684	557
48 Ross	191	103	23	32	45	72	152	139	27	42	57	57	86	66	74
49 Round Butte	91	87	86	91	94	99	89	89	101	126	125	103	98	88	96
50 Swift 1	52	26	188	0	0	54	31	75	45	154	0	27	143	58	61
51 Swift 2	15	7.7	61	0	0	22	13	33	20	69	0	9.8	42	16	22
52 The Dalles	497	410	556	533	706	727	738	687	642	501	399	656	626	554	611
53 Thompson Falls	28	27	36	38	32	53	41	33	30	67	53	83	79	60	48
54 Upper Baker	82	22	22	4.4	30	23	42	9.9	0	41	48	43	88	61	35
55 Upper Falls	5.7	4.6	9.6	2.6	2.7	9.3	4.1	5.1	9.8	9.4	8.8	8.7	9.3	8.9	7
56 Wanapum	417	349	289	301	479	449	502	399	324	203	110	399	456	467	384
57 Wells	429	358	282	290	424	398	428	354	304	193	204	403	388	444	359
58 Yale	47	19	133	7.5	21	82	40	64	60	106	81	0	108	42	57
Total Regulated Hydro Projects	11598	9768	9588	8830	11064	11597	11775	10613	9156	8954	7885	13695	13284	12307	10920

-Idle Capacity-

**Table A-3: Regional Regulated Hydro Projects
PNW Loads and Resource Study
2019 - 2020 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
59 Operational Peaking Adj.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Idle Capacity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Hydro Maintenance-															
60 AVWP Hydro Maintenance	-1.2	0	0	0	0	0	0	0	0	0	0	0	0	-16	-1.4
61 CHPD Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
62 CLKM Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
63 COPD Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
64 DOPD Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
65 EWEB Hydro Maintenance	0	-3.6	-1.6	-1.8	-3.8	0	0	0	-2	-3.8	-3.8	-3.8	0	0	-1.6
66 Federal Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
67 GCPD Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
68 IPC Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
69 PGE Hydro Maintenance	-9	-11	-5	-3.8	0	0	0	0	0	0	0	-2.4	0	-2.4	-2.0
70 PPL Hydro Maintenance	-6.6	-3	-0.6	0	0	0	0	0	0	0	0	-1.2	-6.8	-18	-2.7
71 PSE Hydro Maintenance	-13	-7.4	-1.4	0	0	0	0	0	-3.2	-3.6	-3.8	-5.2	-4.2	-12	-3.4
72 SCL Hydro Maintenance	0	0	0	-3.4	0	0	0	0	0	0	0	-7.4	-3.4	0	-1.2
73 SHPD Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
74 TPU Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Hydro Maintenance	-30	-25	-8.6	-9	-3.8	0	0	0	-5.2	-7.4	-7.6	-20	-14	-49	-12
-Total Regulated Hydro w/Enc.-															
75 Federal System	7054	6060	5618	5409	7211	7054	7086	6240	5692	4529	4422	8365	7256	7513	6545
76 Public Entities	2670	2066	1867	1814	2167	2201	2624	2472	1653	1766	1257	2500	3076	2511	2229
77 Investor-Owned Entities	1400	1197	1742	1232	1173	1858	1543	1459	1423	2365	1957	2366	2469	1760	1706
78 Other Entities	444	420	352	365	510	484	522	441	383	286	240	445	468	473	429
79 Total Regulated Hydro w/Enc1	1568	9744	9580	8821	11060	11597	11775	10613	9151	8946	7877	13675	13269	12258	10908

**Table A-3: Regional Regulated Hydro Projects
PNW Loads and Resource Study
2020 - 2021 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Regulated Hydro Projects-															
1 Albeni Falls	22	17	23	36	20	22	16	14	14	25	23	41	43	38	26
2 Alder	51	43	17	0	0	0	35	27	25	30	0	43	17	22	21
3 Bonneville	195	139	450	435	548	557	569	536	500	301	138	377	354	272	415
4 Boundary	176	141	199	380	237	298	201	164	161	486	276	608	791	401	332
5 Box Canyon	29	24	32	57	37	46	32	27	26	56	43	57	51	56	42
6 Brownlee	187	187	236	233	162	276	212	232	228	322	326	346	209	224	239
7 Cabinet Gorge	44	32	46	49	34	82	56	38	31	126	100	194	212	106	83
8 Chelan	31	30	41	56	45	9.4	54	53	4.2	28	5.2	30	30	31	33
9 Chief Joseph	1414	1151	845	867	1281	1200	1294	1072	916	617	675	1294	1156	1439	1109
10 Cushman 1	38	32	24	2.6	2.5	2.7	4.6	14	2.6	2.9	3	23	3.1	3.4	10
11 Cushman 2	69	64	54	0.1	0.3	0.5	5.6	37	0.4	0.2	0.2	53	0.1	0	18
12 Diablo	172	112	34	35	41	71	144	149	36	58	78	81	118	91	84
13 Dworshak	448	406	183	51	51	51	51	50	50	51	53	56	300	448	148
14 Faraday	8.1	7.5	8.6	7.2	5.8	17	8.9	17	31	43	43	40	39	14	20
15 Gorge	182	125	43	43	49	86	153	158	48	73	93	100	140	109	97
16 Grand Coulee	2622	2094	1538	1610	2380	2181	2276	1769	1386	877	978	1991	2013	2705	1931
17 Hells Canyon	150	150	192	196	130	208	160	176	180	250	258	282	174	176	190
18 Hungry Horse	68	68	78	87	92	93	94	93	90	69	28	29	85	122	82
19 Ice Harbor	132	163	138	132	95	141	108	137	175	204	201	332	266	157	170
20 John Day	745	619	699	678	907	895	914	846	805	663	586	972	928	828	815
21 Kerr	45	45	69	76	55	137	95	60	44	170	106	148	178	140	99
22 La Grande	63	63	32	0	0	0	56	53	56	62	0	63	27	33	34
23 Libby	183	183	176	113	245	173	86	85	84	84	83	495	212	179	177
24 Little Falls	11	8.6	27	6.1	6.3	14	13	10	18	34	33	32	35	14	18
25 Little Goose	147	169	147	132	97	141	111	124	168	247	306	522	289	155	194
26 Long Lake	28	22	62	16	17	35	31	24	41	72	72	72	72	35	42
27 Lower Baker	71	66	19	6.3	20	20	44	12	7	43	55	49	65	59	35
28 Lower Granite	141	174	156	131	98	144	113	127	172	244	315	528	293	104	192
29 Lower Monumental	80	169	143	134	94	142	108	139	178	263	318	528	301	112	192
30 Mayfield	89	20	94	55	55	55	70	129	70	70	70	8.4	120	69	70
31 McNary	362	298	487	468	596	587	607	561	512	384	320	482	463	402	487
32 Merwin	43	17	116	7.6	14	59	56	61	66	109	60	29	65	33	51
33 Monroe Street	6.6	5.3	14	2.9	3	11	4.6	5.9	12	14	14	14	14	11	9.5
34 Mossyrock	168	37	168	81	79	58	87	155	52	55	30	0	224	126	97
35 Nine Mile	6.4	5.2	17	3.2	3.3	10	4.4	6.1	14	22	21	20	21	9.9	11
36 North Fork	9	8.4	9.5	8	6.5	19	9.9	18	34	54	48	54	43	15	23
37 Noxon	62	49	67	73	52	125	85	57	47	196	142	280	318	155	124
38 Oak Grove	21	16	9.4	22	14	26	17	18	19	34	34	34	34	25	22
39 Oxbow	78	78	100	102	67	107	82	90	90	127	127	136	82	90	96
40 Pelton	36	35	35	37	38	40	36	36	40	49	49	41	39	36	39
41 Pelton Rereg. Dam	8.5	8.2	6.1	8.6	8.9	9.5	8.5	8.5	9.6	12	12	9.8	9.2	8.3	8.9
42 Post Falls	2.2	1.4	12	0.2	0.2	6.1	1.9	2.5	8.9	15	14	13	15	4.6	6.8
43 Priest Rapids	333	361	344	356	520	495	542	447	375	254	93	422	414	360	400
44 River Mill	4.6	4.3	4.9	4.1	3.3	9.7	5.1	9.5	18	23	23	22	20	7.7	11
45 Rock Island PH#1	188	174	149	152	184	179	184	172	155	110	124	185	184	183	169
46 Rock Island PH#2	128	150	114	117	173	160	179	144	120	87	74	156	151	152	141
47 Rocky Reach	646	582	444	459	658	612	672	562	475	324	347	547	615	684	557
48 Ross	191	103	23	32	45	72	152	139	27	42	57	57	86	66	74
49 Round Butte	91	87	86	91	94	99	89	89	101	126	125	103	98	88	96
50 Swift 1	52	26	188	0	0	54	31	75	45	154	0	27	143	58	61
51 Swift 2	15	7.7	61	0	0	22	13	33	20	69	0	9.8	42	16	22
52 The Dalles	497	410	556	533	706	727	738	687	642	501	399	656	626	554	610
53 Thompson Falls	28	27	36	38	32	53	41	33	30	67	53	83	79	60	48
54 Upper Baker	82	22	22	4.4	30	23	42	9.9	0	41	48	43	88	61	35
55 Upper Falls	5.7	4.6	9.6	2.6	2.7	9.3	4.1	5.1	9.8	9.4	8.8	8.7	9.3	8.9	7
56 Wanapum	417	349	289	301	479	449	502	399	324	203	110	399	456	467	384
57 Wells	429	358	282	290	424	398	428	354	304	193	204	403	388	444	359
58 Yale	47	19	133	7.5	21	82	40	64	60	106	81	0	108	42	57
Total Regulated Hydro Projects	11598	9768	9588	8830	11064	11597	11775	10613	9156	8954	7885	13633	13356	12307	10922

-Idle Capacity-

**Table A-3: Regional Regulated Hydro Projects
PNW Loads and Resource Study
2020 - 2021 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
59 Operational Peaking Adj.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Idle Capacity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Hydro Maintenance-															
60 AVWP Hydro Maintenance	-1.2	0	0	0	0	0	0	0	0	0	0	0	0	-16	-1.4
61 CHPD Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
62 CLKM Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
63 COPD Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
64 DOPD Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
65 EWEB Hydro Maintenance	0	-3.6	-1.6	-1.8	-3.8	0	0	0	-2	-3.8	-3.8	-3.8	0	0	-1.6
66 Federal Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
67 GCPD Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
68 IPC Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
69 PGE Hydro Maintenance	-9	-11	-5	-3.8	0	0	0	0	0	0	0	-2.4	0	-2.4	-2.0
70 PPL Hydro Maintenance	-6.6	-3	-0.6	0	0	0	0	0	0	0	0	-1.2	-6.8	-18	-2.7
71 PSE Hydro Maintenance	-13	-7.4	-1.4	0	0	0	0	0	-3.2	-3.6	-3.8	-5.2	-4.2	-12	-3.4
72 SCL Hydro Maintenance	0	0	0	-3.4	0	0	0	0	0	0	0	-7.4	-3.4	0	-1.2
73 SHPD Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
74 TPU Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Hydro Maintenance	-30	-25	-8.6	-9	-3.8	0	0	0	-5.2	-7.4	-7.6	-20	-14	-49	-12
-Total Regulated Hydro w/Enc.-															
75 Federal System	7054	6060	5618	5409	7211	7054	7086	6240	5692	4529	4422	8303	7328	7513	6546
76 Public Entities	2670	2066	1867	1814	2167	2201	2624	2472	1653	1766	1257	2500	3076	2511	2228
77 Investor-Owned Entities	1400	1197	1742	1232	1173	1858	1543	1459	1423	2365	1957	2366	2469	1760	1707
78 Other Entities	444	420	352	365	510	484	522	441	383	286	240	445	468	473	428
79 Total Regulated Hydro w/Enc1	1568	9744	9580	8821	11060	11597	11775	10613	9151	8946	7877	13613	13341	12258	10910

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Table A-4
Independent Hydro Projects
Monthly OY 2012 – 2021
Average Energy in Megawatts

Power Services

Reports Powered by:



Loads and Resources Information System

**Table A-4: Regional Independent Hydro Projects
PNW Loads and Resource Study
2011 - 2012 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
<i>-Independent Hydro Projects-</i>															
1 American Falls	0	0	9.2	15	0	0	0	0	6.7	28	28	71	75	82	24
2 Anderson Ranch	34	31	10	6.3	6.2	6.2	6.2	6.2	6.2	6.3	6.5	34	33	32	16
3 Arrowrock Hydro	13	12	3.8	2.4	2.3	2.3	2.3	2.3	2.3	2.4	2.4	13	12	12	5.8
4 Ashton	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
5 Bend Power Dam	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
6 Big Cliff	5.9	5.9	8.1	11	13	6.6	7.1	5.9	7.4	8.8	8.8	21	21	7.2	10
7 Big Fork	3.4	3.4	2.4	3.3	3.4	2.6	4.3	3.1	4.1	4.5	4.5	4.3	4.4	4.1	3.7
8 Black Canyon	7.5	7.5	4	9	5.9	7.1	8.8	4.8	7.9	10	10	10	8.1	7.5	7.6
9 Bliss	48	48	40	52	44	42	41	46	46	55	55	40	41	40	45
10 Boise River Diversion	3	3	2.1	0.4	0	0	0	0	0	0	2.3	3	2.6	3	1.3
11 Calispell Creek	0	0	1	0	0	1	0	0	1	0	0	1	0	0	0.3
12 Carmen-Smith	17	17	16	14	13	16	14	14	17	17	17	17	17	17	16
13 Cascade	11	11	10	9.0	8.9	8.8	8.7	8.6	8.5	8.0	8.0	7.7	7.6	9.0	8.8
14 Cedar Falls & Newhalem	5.5	4.5	4.4	2.1	1.3	9.1	9.9	11	16	10	13	16	30	8.9	10
15 Chandler	5.2	5.2	4.1	6.7	12	13	9.5	9.3	13	10	10	8.4	8.1	4.6	8.6
16 CJ Strike	50	50	45	63	56	54	52	59	59	68	68	48	46	42	53
17 Clear Lake	2.2	2.2	2	1.8	1.8	1.8	1.7	1.7	1.7	1.6	1.6	1.5	1.5	1.8	1.8
18 Cougar	9.2	9.2	26	26	25	6.4	4.7	6.5	7.3	8.3	29	29	29	12	17
19 Cowlitz Falls	12	9.1	8.1	6.2	3.1	23	10	14	33	46	50	64	66	29	26
20 Detroit	26	26	34	45	48	21	22	18	25	35	37	102	95	32	42
21 Dexter	11	11	4.6	9.8	16	3.9	3.8	4.6	4.6	10	16	17	17	5.8	9.2
22 Eagle Point	0	0	0	0	0.4	0.7	0.7	0.9	0.6	0.7	0.7	0.5	0	0	0.4
23 East Side (Klamath)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 Felt	3.6	3.6	3.8	3.5	3.6	3.1	2.5	2.7	3.4	3.4	3.4	5.1	6.5	4.8	3.8
25 Foster	6.6	6.6	12	10	7.5	10	4.6	10	20	19	18	20	23	6.6	13
26 Gem State Hydro	15	15	11	10	11	12	12	11	15	19	19	18	17	19	14
27 Grace	27	26	22	19	20	19	19	21	22	27	27	27	27	27	23
28 Green Peter	16	16	30	19	17	19	8.2	0.9	34	90	45	59	50	12	28
29 Green Springs - USBR	9.9	8.8	6.5	2.6	3.3	5.2	6.2	5.8	4.9	4.6	4.6	5.0	7.5	9.1	5.8
30 Hellroaring (Big) Creek	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0.2
31 Hills Creek	9.1	9.1	23	24	29	6	6.1	6.1	7.1	12	32	34	34	14	18
32 Hood Street	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
33 Idaho Falls - City Plant	4.9	4.9	3.3	2.1	3.1	4.0	3.1	3.4	4.2	5.3	5.3	6.8	7.1	6.7	4.5
34 Idaho Falls - Lower Plant	5.1	5.1	3.4	2.2	3.3	4.2	3.2	3.5	4.4	5.5	5.5	7.5	7.7	7	4.8
35 Idaho Falls - Upper Plant	5.2	5.2	3.6	2.4	3.4	4.3	3.4	3.7	4.6	5.6	5.6	7.3	7.4	7.0	4.8
36 Island Park	3.3	3.1	1.8	1.5	1.5	1.5	1.7	1.8	1.8	1.8	1.8	3.3	3.9	3.8	2.3
37 Jackson	18	18	20	21	19	80	33	16	42	65	65	74	82	46	43
38 John C Boyle	0	0	0	33	40	45	45	52	78	82	82	28	21	0	35
39 Lake Creek	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
40 Last Chance	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
41 Leaburg	5.3	4.2	3	0	0	7.1	4	12	12	12	12	12	13	10	7.4
42 Lookout Point	44	45	18	38	49	9.8	9.6	12	16	40	66	83	78	26	36
43 Lost Creek	41	40	31	18	19	19	19	13	14	15	16	55	55	46	29
44 Lower Malad	12	12	11	9.8	9.7	9.6	9.4	9.4	9.2	8.7	8.7	8.3	8.2	9.8	9.6
45 Lower Salmon	30	30	26	33	28	27	26	29	28	33	33	25	25	25	28
46 McNary Fishway	9.2	8.6	9.5	9.5	9.5	9.4	3.7	8.6	9.4	9.3	9.3	9.3	9.3	8.7	8.8
47 Mill Creek (WA)	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
48 Milner	0	0	0	0	5.7	9.1	4.7	3.4	0	0	0	0	0	0	1.9
49 Minidoka	28	28	12	12	3.1	9	2.8	2.4	2.2	14	14	30	30	30	15
50 Moyie Springs	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
51 North Umpqua	81	81	75	73	70	74	70	79	81	121	121	147	139	92	92
52 Oneida	7.5	7.0	6.1	5.3	5.4	5.3	5.3	5.6	5.9	7.5	7.5	7.2	7.5	7.2	6.3
53 Packwood	7.8	21	3.9	3	1.6	4.7	2.6	3.2	5.4	9.7	9.7	24	45	25	12
54 Palisades	94	78	69	56	19	16	34	28	22	19	19	97	165	162	65
55 Paris	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
56 Powerdale	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
57 Reeder Gulch	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
58 Rogue	32	32	28	27	26	28	25	27	40	50	50	51	51	42	36
59 Roza	13	13	0	3.6	0	5	4	4.3	13	13	13	13	13	13	7.9
60 Shoshone Falls	6.1	6.1	4.9	9.8	11	11	11	13	8.5	9.1	9.1	6	5.7	6.9	8.7
61 Smith Creek	0	0	0.1	1.7	1.2	0.5	0	0.7	0.9	5.7	5.7	36	28	3.9	6.5
62 Snoq. Electron & Nooksack	12	12	11	8.8	5.7	17	8.2	12	18	19	21	21	21	17	14

**Table A-4: Regional Independent Hydro Projects
PNW Loads and Resource Study
2011 - 2012 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
63 Soda Creek	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
64 Soda Point Project	3.6	3.3	2.9	2.5	2.6	2.5	2.5	2.7	2.8	3.6	3.6	3.4	3.6	3.4	3.0
65 South Fork Tolt	9	9	6	5	5	5	5	5	5	5	5	6	8	9	6.1
66 Stone Creek	7.9	7.1	6.2	5.1	4.1	5.3	4.1	4.6	6.9	9	9	9	9	9	6.7
67 Strawberry Creek	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
68 Swan Falls	19	19	16	21	18	17	16	20	18	22	22	16	15	15	18
69 Swift Creek Hydro	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
70 The Dalles Fishway	5.1	4.8	4.9	5	5	3.4	3.2	3	4.7	4.8	4.8	4.7	4.7	4.9	4.4
71 Thousand Springs	7.9	7.9	7.2	6.4	6.3	6.2	6.1	6.1	6.0	5.6	5.6	5.4	5.4	6.4	6.3
72 Trail Bridge	3.8	3.8	3.5	3.4	3.2	3.3	3	3.2	3.8	3.8	3.8	3.8	2.5	3.8	3.4
73 TW Sullivan	12	10	11	11	11	15	15	15	15	15	15	15	15	15	14
74 Twin Falls	8.0	8.0	8	4.7	10	13	9.5	9.2	0	0	0	0	0	7.7	5.8
75 Upper Malad	7.5	7.5	6.8	6.0	5.9	5.9	5.8	5.8	5.7	5.3	5.3	5.1	5.1	6.0	5.9
76 Upper Salmon 1 & 2	21	21	18	22	18	17	18	20	19	23	23	17	17	17	19
77 Upper Salmon 3 & 4	18	18	15	19	17	16	15	17	16	20	20	14	15	14	16
78 Wallowa Falls	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
79 WALTERVILLE	3.8	3.2	2.6	0	0	5	3.1	8.7	9.5	9.5	9.5	9.5	9.5	7.7	5.7
80 West Side (Klamath)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 WYNOCHEE	1.2	1.1	2.1	3.6	6.4	7.5	8.0	5.5	3.9	0.8	0.8	0	0	1.5	3.4
82 YELM	9	9	6	10	10	10	10	10	10	10	10	10	10	8	9.4
Total Independent Hydro w/Enc.	962	941	818	884	822	848	735	766	936	1209	1250	1558	1638	1180	1031
-Total Independent Hydro W/Enc.-															
83 Federal System	390	366	313	311	284	199	176	162	251	377	414	705	760	472	368
84 Public Entities	127	134	110	102	97	186	123	124	168	184	186	255	292	187	163
85 Investor-Owned Entities	446	441	394	471	440	463	436	480	517	648	650	598	587	521	500
86 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
87 Total Independent Hydro w/Enc	962	941	818	884	822	848	735	766	936	1209	1250	1558	1638	1180	1031

**Table A-4: Regional Independent Hydro Projects
PNW Loads and Resource Study
2012 - 2013 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Independent Hydro Projects-															
1 American Falls	0	0	9.2	15	0	0	0	0	6.7	28	28	71	75	82	24
2 Anderson Ranch	34	31	10	6.3	6.2	6.2	6.2	6.2	6.2	6.3	6.5	34	33	32	16
3 Arrowrock Hydro	13	12	3.8	2.4	2.3	2.3	2.3	2.3	2.3	2.4	2.4	13	12	12	5.8
4 Ashton	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
5 Bend Power Dam	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
6 Big Cliff	5.9	5.9	8.1	11	13	6.6	7.1	5.9	7.4	8.8	8.8	21	21	7.2	10
7 Big Fork	3.4	3.4	2.4	3.3	3.4	2.6	4.3	3.1	4.1	4.5	4.5	4.3	4.4	4.1	3.7
8 Black Canyon	7.5	7.5	4	9	5.9	7.1	8.8	4.8	7.9	10	10	10	8.1	7.5	7.6
9 Bliss	48	48	40	52	44	42	41	46	46	55	55	40	41	40	45
10 Boise River Diversion	3	3	2.1	0.4	0	0	0	0	0	0	2.3	3	2.6	3	1.3
11 Calispell Creek	0	0	1	0	0	1	0	0	1	0	0	1	0	0	0.3
12 Carmen-Smith	17	17	16	14	13	16	14	14	17	17	17	17	17	17	16
13 Cascade	11	11	10	9.0	8.9	8.8	8.7	8.6	8.5	8.0	8.0	7.7	7.6	9.0	8.8
14 Cedar Falls & Newhalem	5.5	4.5	4.4	2.1	1.3	9.1	9.9	11	16	10	13	16	30	8.9	10
15 Chandler	5.2	5.2	4.1	6.7	12	13	9.5	9.3	13	10	10	8.4	8.1	4.6	8.6
16 CJ Strike	50	50	45	63	56	54	52	59	59	68	68	48	46	42	53
17 Clear Lake	2.2	2.2	2	1.8	1.8	1.8	1.7	1.7	1.7	1.6	1.6	1.5	1.5	1.8	1.8
18 Cougar	9.2	9.2	26	26	25	6.4	4.7	6.5	7.3	8.3	29	29	29	12	17
19 Cowlitz Falls	12	9.1	8.1	6.2	3.1	23	10	14	33	46	50	64	66	29	26
20 Detroit	26	26	34	45	48	21	22	18	25	35	37	102	95	32	42
21 Dexter	11	11	4.6	9.8	16	3.9	3.8	4.6	4.6	10	16	17	17	5.8	9.2
22 Eagle Point	0	0	0	0	0.4	0.7	0.7	0.9	0.6	0.7	0.7	0.5	0	0	0.4
23 East Side (Klamath)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 Felt	3.6	3.6	3.8	3.5	3.6	3.1	2.5	2.7	3.4	3.4	3.4	5.1	6.5	4.8	3.8
25 Foster	6.6	6.6	12	10	7.5	10	4.6	10	20	19	18	20	23	6.6	13
26 Gem State Hydro	15	15	11	10	11	12	12	11	15	19	19	18	17	19	14
27 Grace	27	26	22	19	20	19	19	21	22	27	27	27	27	27	23
28 Green Peter	16	16	30	19	17	19	8.2	0.9	34	90	45	59	50	12	28
29 Green Springs - USBR	9.9	8.8	6.5	2.6	3.3	5.2	6.2	5.8	4.9	4.6	4.6	5.0	7.5	9.1	5.8
30 Hellroaring (Big) Creek	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0.2
31 Hills Creek	9.1	9.1	23	24	29	6	6.1	6.1	7.1	12	32	34	34	14	18
32 Hood Street	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
33 Idaho Falls - City Plant	4.9	4.9	3.3	2.1	3.1	4.0	3.1	3.4	4.2	5.3	5.3	6.8	7.1	6.7	4.5
34 Idaho Falls - Lower Plant	5.1	5.1	3.4	2.2	3.3	4.2	3.2	3.5	4.4	5.5	5.5	7.5	7.7	7	4.8
35 Idaho Falls - Upper Plant	5.2	5.2	3.6	2.4	3.4	4.3	3.4	3.7	4.6	5.6	5.6	7.3	7.4	7.0	4.8
36 Island Park	3.3	3.1	1.8	1.5	1.5	1.5	1.7	1.9	1.8	1.8	1.8	3.3	3.9	3.8	2.3
37 Jackson	18	18	20	21	19	80	33	16	42	65	65	74	82	46	43
38 John C Boyle	0	0	0	33	40	45	45	52	78	82	82	28	21	0	35
39 Lake Creek	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
40 Last Chance	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
41 Leaburg	5.3	4.2	3	0	0	7.1	4	12	12	12	12	12	13	10	7.4
42 Lookout Point	44	45	18	38	49	9.8	9.6	12	16	40	66	83	78	26	36
43 Lost Creek	41	40	31	18	19	19	19	13	14	15	16	55	55	46	29
44 Lower Malad	12	12	11	9.8	9.7	9.6	9.4	9.4	9.2	8.7	8.7	8.3	8.2	9.8	9.6
45 Lower Salmon	30	30	26	33	28	27	26	29	28	33	33	25	25	25	28
46 McNary Fishway	9.2	8.6	9.5	9.5	9.5	9.4	3.7	8.9	9.4	9.3	9.3	9.3	9.3	8.7	8.8
47 Mill Creek (WA)	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
48 Milner	0	0	0	0	5.7	9.1	4.7	3.4	0	0	0	0	0	0	1.9
49 Minidoka	28	28	12	12	3.1	9	2.8	2.4	2.2	14	14	30	30	30	15
50 Moyie Springs	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
51 North Umpqua	81	81	75	73	70	74	70	79	81	121	121	147	139	92	92
52 Oneida	7.5	7.0	6.1	5.3	5.4	5.3	5.3	5.8	5.9	7.5	7.5	7.2	7.5	7.2	6.3
53 Packwood	7.8	21	3.9	3	1.6	4.7	2.6	3.2	5.4	9.7	9.7	24	45	25	12
54 Palisades	94	78	69	56	19	16	34	28	22	19	19	97	165	162	65
55 Paris	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
56 Powerdale	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
57 Reeder Gulch	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
58 Rogue	32	32	28	27	26	28	25	27	40	50	50	51	51	42	36
59 Roza	13	13	0	3.6	0	5	4	4.3	13	13	13	13	13	13	7.9
60 Shoshone Falls	6.1	6.1	4.9	9.8	11	11	11	13	8.5	9.1	9.1	6	5.7	6.9	8.7
61 Smith Creek	0	0	0.1	1.7	1.2	0.5	0	0.7	0.9	5.7	5.7	36	28	3.9	6.5
62 Snoq. Electron & Nooksack	12	12	11	8.8	5.7	17	8.2	12	18	19	21	21	21	17	14

**Table A-4: Regional Independent Hydro Projects
PNW Loads and Resource Study
2012 - 2013 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
63 Soda Creek	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
64 Soda Point Project	3.6	3.3	2.9	2.5	2.6	2.5	2.5	2.8	2.8	3.6	3.6	3.4	3.6	3.4	3
65 South Fork Tolt	9	9	6	5	5	5	5	5	5	5	5	6	8	9	6.1
66 Stone Creek	7.9	7.1	6.2	5.1	4.1	5.3	4.1	4.6	6.9	9	9	9	9	9	6.7
67 Strawberry Creek	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
68 Swan Falls	19	19	16	21	18	17	16	20	18	22	22	16	15	15	18
69 Swift Creek Hydro	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
70 The Dalles Fishway	5.1	4.8	4.9	5	5	3.4	3.2	3.2	4.7	4.8	4.8	4.7	4.7	4.9	4.5
71 Thousand Springs	7.9	7.9	7.2	6.4	6.3	6.2	6.1	6.1	6.0	5.6	5.6	5.4	5.4	6.4	6.3
72 Trail Bridge	3.8	3.8	3.5	3.4	3.2	3.3	3	3.2	3.8	3.8	3.8	3.8	2.5	3.8	3.4
73 TW Sullivan	12	10	11	11	11	15	15	15	15	15	15	15	15	15	14
74 Twin Falls	8.0	8.0	8	4.7	10	13	9.5	9.2	0	0	0	0	0	7.7	5.8
75 Upper Malad	7.5	7.5	6.8	6.0	5.9	5.9	5.8	5.8	5.7	5.3	5.3	5.1	5.1	6.0	5.9
76 Upper Salmon 1 & 2	21	21	18	22	18	17	18	20	19	23	23	17	17	17	19
77 Upper Salmon 3 & 4	18	18	15	19	17	16	15	17	16	20	20	14	15	14	16
78 Wallowa Falls	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
79 Walterville	3.8	3.2	2.6	0	0	5	3.1	8.7	9.5	9.5	9.5	9.5	9.5	7.7	5.7
80 West Side (Klamath)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 Wyochee	1.2	1.1	2.1	3.6	6.4	7.5	8.0	5.7	3.9	0.8	0.8	0	0	1.5	3.4
82 Yelm	9	9	6	10	10	10	10	10	10	10	10	10	10	8	9.4
Total Independent Hydro w/Enc.	962	941	818	884	822	848	735	768	936	1209	1250	1558	1638	1180	1032
-Total Independent Hydro W/Enc.-															
83 Federal System	390	366	313	311	284	199	176	162	251	377	414	705	760	472	368
84 Public Entities	127	134	110	102	97	186	123	125	168	184	186	255	292	187	164
85 Investor-Owned Entities	446	441	394	471	440	463	436	481	517	648	650	598	587	521	500
86 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
87 Total Independent Hydro w/Enc	962	941	818	884	822	848	735	768	936	1209	1250	1558	1638	1180	1032

**Table A-4: Regional Independent Hydro Projects
PNW Loads and Resource Study
2013 - 2014 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
<i>-Independent Hydro Projects-</i>															
1 American Falls	0	0	9.2	15	0	0	0	0	6.7	28	28	71	75	82	24
2 Anderson Ranch	34	31	10	6.3	6.2	6.2	6.2	6.2	6.2	6.3	6.5	34	33	32	16
3 Arrowrock Hydro	13	12	3.8	2.4	2.3	2.3	2.3	2.3	2.3	2.4	2.4	13	12	12	5.8
4 Ashton	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
5 Bend Power Dam	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
6 Big Cliff	5.9	5.9	8.1	11	13	6.6	7.1	5.9	7.4	8.8	8.8	21	21	7.2	10
7 Big Fork	3.4	3.4	2.4	3.3	3.4	2.6	4.3	3.1	4.1	4.5	4.5	4.3	4.4	4.1	3.7
8 Black Canyon	7.5	7.5	4	9	5.9	7.1	8.8	4.8	7.9	10	10	10	8.1	7.5	7.6
9 Bliss	48	48	40	52	44	42	41	46	46	55	55	40	41	40	45
10 Boise River Diversion	3	3	2.1	0.4	0	0	0	0	0	0	2.3	3	2.6	3	1.3
11 Calispell Creek	0	0	1	0	0	1	0	0	1	0	0	1	0	0	0.3
12 Carmen-Smith	17	17	16	14	13	16	14	14	17	17	17	17	17	17	16
13 Cascade	11	11	10	9.0	8.9	8.8	8.7	8.6	8.5	8.0	8.0	7.7	7.6	9.0	8.8
14 Cedar Falls & Newhalem	5.5	4.5	4.4	2.1	1.3	9.1	9.9	11	16	10	13	16	30	8.9	10
15 Chandler	5.2	5.2	4.1	6.7	12	13	9.5	9.3	13	10	10	8.4	8.1	4.6	8.6
16 CJ Strike	50	50	45	63	56	54	52	59	59	68	68	48	46	42	53
17 Clear Lake	2.2	2.2	2	1.8	1.8	1.8	1.7	1.7	1.7	1.6	1.6	1.5	1.5	1.8	1.8
18 Cougar	9.2	9.2	26	26	25	6.4	4.7	6.5	7.3	8.3	29	29	29	12	17
19 Cowlitz Falls	12	9.1	8.1	6.2	3.1	23	10	14	33	46	50	64	66	29	26
20 Detroit	26	26	34	45	48	21	22	18	25	35	37	102	95	32	42
21 Dexter	11	11	4.6	9.8	16	3.9	3.8	4.6	4.6	10	16	17	17	5.8	9.2
22 Eagle Point	0	0	0	0	0.4	0.7	0.7	0.9	0.6	0.7	0.7	0.5	0	0	0.4
23 East Side (Klamath)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 Felt	3.6	3.6	3.8	3.5	3.6	3.1	2.5	2.7	3.4	3.4	3.4	5.1	6.5	4.8	3.8
25 Foster	6.6	6.6	12	10	7.5	10	4.6	10	20	19	18	20	23	6.6	13
26 Gem State Hydro	15	15	11	10	11	12	12	11	15	19	19	18	17	19	14
27 Grace	27	26	22	19	20	19	19	21	22	27	27	27	27	27	23
28 Green Peter	16	16	30	19	17	19	8.2	0.9	34	90	45	59	50	12	28
29 Green Springs - USBR	9.9	8.8	6.5	2.6	3.3	5.2	6.2	5.8	4.9	4.6	4.6	5.0	7.5	9.1	5.8
30 Hellroaring (Big) Creek	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0.2
31 Hills Creek	9.1	9.1	23	24	29	6	6.1	6.1	7.1	12	32	34	34	14	18
32 Hood Street	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
33 Idaho Falls - City Plant	4.9	4.9	3.3	2.1	3.1	4.0	3.1	3.4	4.2	5.3	5.3	6.8	7.1	6.7	4.5
34 Idaho Falls - Lower Plant	5.1	5.1	3.4	2.2	3.3	4.2	3.2	3.5	4.4	5.5	5.5	7.5	7.7	7	4.8
35 Idaho Falls - Upper Plant	5.2	5.2	3.6	2.4	3.4	4.3	3.4	3.7	4.6	5.6	5.6	7.3	7.4	7.0	4.8
36 Island Park	3.3	3.1	1.8	1.5	1.5	1.5	1.7	1.9	1.8	1.8	1.8	3.3	3.9	3.8	2.3
37 Jackson	18	18	20	21	19	80	33	16	42	65	65	74	82	46	43
38 John C Boyle	0	0	0	33	40	45	45	52	78	82	82	28	21	0	35
39 Lake Creek	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
40 Last Chance	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
41 Leaburg	5.3	4.2	3	0	0	7.1	4	12	12	12	12	12	13	10	7.4
42 Lookout Point	44	45	18	38	49	9.8	9.6	12	16	40	66	83	78	26	36
43 Lost Creek	41	40	31	18	19	19	19	13	14	15	16	55	55	46	29
44 Lower Malad	12	12	11	9.8	9.7	9.6	9.4	9.4	9.2	8.7	8.7	8.3	8.2	9.8	9.6
45 Lower Salmon	30	30	26	33	28	27	26	29	28	33	33	25	25	25	28
46 McNary Fishway	9.2	8.6	9.5	9.5	9.5	9.4	3.7	8.9	9.4	9.3	9.3	9.3	9.3	8.7	8.8
47 Mill Creek (WA)	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
48 Milner	0	0	0	0	5.7	9.1	4.7	3.4	0	0	0	0	0	0	1.9
49 Minidoka	28	28	12	12	3.1	9	2.8	2.4	2.2	14	14	30	30	30	15
50 Moyie Springs	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
51 North Umpqua	81	81	75	73	70	74	70	79	81	121	121	147	139	92	92
52 Oneida	7.5	7.0	6.1	5.3	5.4	5.3	5.3	5.8	5.9	7.5	7.5	7.2	7.5	7.2	6.3
53 Packwood	7.8	21	3.9	3	1.6	4.7	2.6	3.2	5.4	9.7	9.7	24	45	25	12
54 Palisades	94	78	69	56	19	16	34	28	22	19	19	97	165	162	65
55 Paris	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
56 Powerdale	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
57 Reeder Gulch	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
58 Rogue	32	32	28	27	26	28	25	27	40	50	50	51	51	42	36
59 Roza	13	13	0	3.6	0	5	4	4.3	13	13	13	13	13	13	7.9
60 Shoshone Falls	6.1	6.1	4.9	9.8	11	11	11	13	8.5	9.1	9.1	6	5.7	6.9	8.7
61 Smith Creek	0	0	0.1	1.7	1.2	0.5	0	0.7	0.9	5.7	5.7	36	28	3.9	6.5
62 Snoq. Electron & Nooksack	12	12	11	8.8	5.7	17	8.2	12	18	19	21	68	68	54	25

**Table A-4: Regional Independent Hydro Projects
PNW Loads and Resource Study
2013 - 2014 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
63 Soda Creek	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
64 Soda Point Project	3.6	3.3	2.9	2.5	2.6	2.5	2.5	2.8	2.8	3.6	3.6	3.4	3.6	3.4	3
65 South Fork Tolt	9	9	6	5	5	5	5	5	5	5	5	6	8	9	6.1
66 Stone Creek	7.9	7.1	6.2	5.1	4.1	5.3	4.1	4.6	6.9	9	9	9	9	9	6.7
67 Strawberry Creek	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
68 Swan Falls	19	19	16	21	18	17	16	20	18	22	22	16	15	15	18
69 Swift Creek Hydro	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
70 The Dalles Fishway	5.1	4.8	4.9	5	5	3.4	3.2	3.2	4.7	4.8	4.8	4.7	4.7	4.9	4.5
71 Thousand Springs	7.9	7.9	7.2	6.4	6.3	6.2	6.1	6.1	6.0	5.6	5.6	5.4	5.4	6.4	6.3
72 Trail Bridge	3.8	3.8	3.5	3.4	3.2	3.3	3	3.2	3.8	3.8	3.8	3.8	2.5	3.8	3.4
73 TW Sullivan	12	10	11	11	11	15	15	15	15	15	15	15	15	15	14
74 Twin Falls	8.0	8.0	8	4.7	10	13	9.5	9.2	0	0	0	0	0	7.7	5.8
75 Upper Malad	7.5	7.5	6.8	6.0	5.9	5.9	5.8	5.8	5.7	5.3	5.3	5.1	5.1	6.0	5.9
76 Upper Salmon 1 & 2	21	21	18	22	18	17	18	20	19	23	23	17	17	17	19
77 Upper Salmon 3 & 4	18	18	15	19	17	16	15	17	16	20	20	14	15	14	16
78 Wallowa Falls	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
79 Walterville	3.8	3.2	2.6	0	0	5	3.1	8.7	9.5	9.5	9.5	9.5	9.5	7.7	5.7
80 West Side (Klamath)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 Wyochee	1.2	1.1	2.1	3.6	6.4	7.5	8.0	5.7	3.9	0.8	0.8	0	0	1.5	3.4
82 Yelm	9	9	6	10	10	10	10	10	10	10	10	10	10	8	9.4
Total Independent Hydro w/Enc.	962	941	818	884	822	848	735	768	936	1209	1250	1605	1685	1217	1043
-Total Independent Hydro W/Enc.-															
83 Federal System	390	366	313	311	284	199	176	162	251	377	414	705	760	472	368
84 Public Entities	127	134	110	102	97	186	123	125	168	184	186	255	292	187	164
85 Investor-Owned Entities	446	441	394	471	440	463	436	481	517	648	650	645	633	558	511
86 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
87 Total Independent Hydro w/Enc	962	941	818	884	822	848	735	768	936	1209	1250	1605	1685	1217	1043

**Table A-4: Regional Independent Hydro Projects
PNW Loads and Resource Study
2014 - 2015 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Independent Hydro Projects-															
1 American Falls	0	0	9.2	15	0	0	0	0	6.7	28	28	71	75	82	24
2 Anderson Ranch	34	31	10	6.3	6.2	6.2	6.2	6.2	6.2	6.3	6.5	34	33	32	16
3 Arrowrock Hydro	13	12	3.8	2.4	2.3	2.3	2.3	2.3	2.3	2.4	2.4	13	12	12	5.8
4 Ashton	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
5 Bend Power Dam	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
6 Big Cliff	5.9	5.9	8.1	11	13	6.6	7.1	5.9	7.4	8.8	8.8	21	21	7.2	10
7 Big Fork	3.4	3.4	2.4	3.3	3.4	2.6	4.3	3.1	4.1	4.5	4.5	4.3	4.4	4.1	3.7
8 Black Canyon	7.5	7.5	4	9	5.9	7.1	8.8	4.8	7.9	10	10	10	8.1	7.5	7.6
9 Bliss	48	48	40	52	44	42	41	46	46	55	55	40	41	40	45
10 Boise River Diversion	3	3	2.1	0.4	0	0	0	0	0	0	2.3	3	2.6	3	1.3
11 Calispell Creek	0	0	1	0	0	1	0	0	1	0	0	1	0	0	0.3
12 Carmen-Smith	17	17	16	14	13	16	14	14	17	17	17	17	17	17	16
13 Cascade	11	11	10	9.0	8.9	8.8	8.7	8.6	8.5	8.0	8.0	7.7	7.6	9.0	8.8
14 Cedar Falls & Newhalem	5.5	4.5	4.4	2.1	1.3	9.1	9.9	11	16	10	13	16	30	8.9	10
15 Chandler	5.2	5.2	4.1	6.7	12	13	9.5	9.3	13	10	10	8.4	8.1	4.6	8.6
16 CJ Strike	50	50	45	63	56	54	52	59	59	68	68	48	46	42	53
17 Clear Lake	2.2	2.2	2	1.8	1.8	1.8	1.7	1.7	1.7	1.6	1.6	1.5	1.5	1.8	1.8
18 Cougar	9.2	9.2	26	26	25	6.4	4.7	6.5	7.3	8.3	29	29	29	12	17
19 Cowlitz Falls	12	9.1	8.1	6.2	3.1	23	10	14	33	46	50	64	66	29	26
20 Detroit	26	26	34	45	48	21	22	18	25	35	37	102	95	32	42
21 Dexter	11	11	4.6	9.8	16	3.9	3.8	4.6	4.6	10	16	17	17	5.8	9.2
22 Eagle Point	0	0	0	0	0.4	0.7	0.7	0.9	0.6	0.7	0.7	0.5	0	0	0.4
23 East Side (Klamath)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 Felt	3.6	3.6	3.8	3.5	3.6	3.1	2.5	2.7	3.4	3.4	3.4	5.1	6.5	4.8	3.8
25 Foster	6.6	6.6	12	10	7.5	10	4.6	10	20	19	18	20	23	6.6	13
26 Gem State Hydro	15	15	11	10	11	12	12	11	15	19	19	18	17	19	14
27 Grace	27	26	22	19	20	19	19	21	22	27	27	27	27	27	23
28 Green Peter	16	16	30	19	17	19	8.2	0.9	34	90	45	59	50	12	28
29 Green Springs - USBR	9.9	8.8	6.5	2.6	3.3	5.2	6.2	5.8	4.9	4.6	4.6	5.0	7.5	9.1	5.8
30 Hellroaring (Big) Creek	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0.2
31 Hills Creek	9.1	9.1	23	24	29	6	6.1	6.1	7.1	12	32	34	34	14	18
32 Hood Street	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
33 Idaho Falls - City Plant	4.9	4.9	3.3	2.1	3.1	4.0	3.1	3.4	4.2	5.3	5.3	6.8	7.1	6.7	4.5
34 Idaho Falls - Lower Plant	5.1	5.1	3.4	2.2	3.3	4.2	3.2	3.5	4.4	5.5	5.5	7.5	7.7	7	4.8
35 Idaho Falls - Upper Plant	5.2	5.2	3.6	2.4	3.4	4.3	3.4	3.7	4.6	5.6	5.6	7.3	7.4	7.0	4.8
36 Island Park	3.3	3.1	1.8	1.5	1.5	1.5	1.7	1.9	1.8	1.8	1.8	3.3	3.9	3.8	2.3
37 Jackson	18	18	20	21	19	80	33	16	42	65	65	74	82	46	43
38 John C Boyle	0	0	0	33	40	45	45	52	78	82	82	28	21	0	35
39 Lake Creek	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
40 Last Chance	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
41 Leaburg	5.3	4.2	3	0	0	7.1	4	12	12	12	12	12	13	10	7.4
42 Lookout Point	44	45	18	38	49	9.8	9.6	12	16	40	66	83	78	26	36
43 Lost Creek	41	40	31	18	19	19	19	13	14	15	16	55	55	46	29
44 Lower Malad	12	12	11	9.8	9.7	9.6	9.4	9.4	9.2	8.7	8.7	8.3	8.2	9.8	9.6
45 Lower Salmon	30	30	26	33	28	27	26	29	28	33	33	25	25	25	28
46 McNary Fishway	9.2	8.6	9.5	9.5	9.5	9.4	3.7	8.9	9.4	9.3	9.3	9.3	9.3	8.7	8.8
47 Mill Creek (WA)	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
48 Milner	0	0	0	0	5.7	9.1	4.7	3.4	0	0	0	0	0	0	1.9
49 Minidoka	28	28	12	12	3.1	9	2.8	2.4	2.2	14	14	30	30	30	15
50 Moyie Springs	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
51 North Umpqua	81	81	75	73	70	74	70	79	81	121	121	147	139	92	92
52 Oneida	7.5	7.0	6.1	5.3	5.4	5.3	5.3	5.8	5.9	7.5	7.5	7.2	7.5	7.2	6.3
53 Packwood	7.8	21	3.9	3	1.6	4.7	2.6	3.2	5.4	9.7	9.7	24	45	25	12
54 Palisades	94	78	69	56	19	16	34	28	22	19	19	97	165	162	65
55 Paris	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
56 Powerdale	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
57 Reeder Gulch	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
58 Rogue	32	32	28	27	26	28	25	27	40	50	50	51	51	42	36
59 Roza	13	13	0	3.6	0	5	4	4.3	13	13	13	13	13	13	7.9
60 Shoshone Falls	6.1	6.1	4.9	9.8	11	11	11	13	8.5	9.1	9.1	6	5.7	6.9	8.7
61 Smith Creek	0	0	0.1	1.7	1.2	0.5	0	0.7	0.9	5.7	5.7	36	28	3.9	6.5
62 Snoq. Electron & Nooksack	39	38	35	28	18	56	26	38	59	62	68	68	68	54	46

**Table A-4: Regional Independent Hydro Projects
PNW Loads and Resource Study
2014 - 2015 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
63 Soda Creek	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
64 Soda Point Project	3.6	3.3	2.9	2.5	2.6	2.5	2.5	2.8	2.8	3.6	3.6	3.4	3.6	3.4	3
65 South Fork Tolt	9	9	6	5	5	5	5	5	5	5	5	6	8	9	6.1
66 Stone Creek	7.9	7.1	6.2	5.1	4.1	5.3	4.1	4.6	6.9	9	9	9	9	9	6.7
67 Strawberry Creek	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
68 Swan Falls	19	19	16	21	18	17	16	20	18	22	22	16	15	15	18
69 Swift Creek Hydro	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
70 The Dalles Fishway	5.1	4.8	4.9	5	5	3.4	3.2	3.2	4.7	4.8	4.8	4.7	4.7	4.9	4.5
71 Thousand Springs	7.9	7.9	7.2	6.4	6.3	6.2	6.1	6.1	6.0	5.6	5.6	5.4	5.4	6.4	6.3
72 Trail Bridge	3.8	3.8	3.5	3.4	3.2	3.3	3	3.2	3.8	3.8	3.8	3.8	2.5	3.8	3.4
73 TW Sullivan	12	10	11	11	11	15	15	15	15	15	15	15	15	15	14
74 Twin Falls	8.0	8.0	8	4.7	10	13	9.5	9.2	0	0	0	0	0	7.7	5.8
75 Upper Malad	7.5	7.5	6.8	6.0	5.9	5.9	5.8	5.8	5.7	5.3	5.3	5.1	5.1	6.0	5.9
76 Upper Salmon 1 & 2	21	21	18	22	18	17	18	20	19	23	23	17	17	17	19
77 Upper Salmon 3 & 4	18	18	15	19	17	16	15	17	16	20	20	14	15	14	16
78 Wallowa Falls	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
79 WALTERVILLE	3.8	3.2	2.6	0	0	5	3.1	8.7	9.5	9.5	9.5	9.5	9.5	7.7	5.7
80 West Side (Klamath)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 WYNOCHEE	1.2	1.1	2.1	3.6	6.4	7.5	8.0	5.7	3.9	0.8	0.8	0	0	1.5	3.4
82 YELM	9	9	6	10	10	10	10	10	10	10	10	10	10	8	9.4
Total Independent Hydro w/Enc.	989	967	842	903	835	886	753	794	977	1251	1297	1605	1685	1217	1063
-Total Independent Hydro W/Enc.-															
83 Federal System	390	366	313	311	284	199	176	162	251	377	414	705	760	472	368
84 Public Entities	127	134	110	102	97	186	123	125	168	184	186	255	292	187	164
85 Investor-Owned Entities	472	467	418	490	453	501	454	508	558	690	696	645	633	558	532
86 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
87 Total Independent Hydro w/Enc	989	967	842	903	835	886	753	794	977	1251	1297	1605	1685	1217	1063

**Table A-4: Regional Independent Hydro Projects
 PNW Loads and Resource Study
 2015 - 2016 Operating Year
 1937 Water Year
 [76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Independent Hydro Projects-															
1 American Falls	0	0	9.2	15	0	0	0	0	6.7	28	28	71	75	82	24
2 Anderson Ranch	34	31	10	6.3	6.2	6.2	6.2	6.2	6.2	6.3	6.5	34	33	32	16
3 Arrowrock Hydro	13	12	3.8	2.4	2.3	2.3	2.3	2.3	2.3	2.4	2.4	13	12	12	5.8
4 Ashton	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
5 Bend Power Dam	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
6 Big Cliff	5.9	5.9	8.1	11	13	6.6	7.1	5.9	7.4	8.8	8.8	21	21	7.2	10
7 Big Fork	3.4	3.4	2.4	3.3	3.4	2.6	4.3	3.1	4.1	4.5	4.5	4.3	4.4	4.1	3.7
8 Black Canyon	7.5	7.5	4	9	5.9	7.1	8.8	4.8	7.9	10	10	10	8.1	7.5	7.6
9 Bliss	48	48	40	52	44	42	41	46	46	55	55	40	41	40	45
10 Boise River Diversion	3	3	2.1	0.4	0	0	0	0	0	0	2.3	3	2.6	3	1.3
11 Calispell Creek	0	0	1	0	0	1	0	0	1	0	0	1	0	0	0.3
12 Carmen-Smith	17	17	16	14	13	16	14	14	17	17	17	17	17	17	16
13 Cascade	11	11	10	9.0	8.9	8.8	8.7	8.6	8.5	8.0	8.0	7.7	7.6	9.0	8.8
14 Cedar Falls & Newhalem	5.5	4.5	4.4	2.1	1.3	9.1	9.9	11	16	10	13	16	30	8.9	10
15 Chandler	5.2	5.2	4.1	6.7	12	13	9.5	9.3	13	10	10	8.4	8.1	4.6	8.6
16 CJ Strike	50	50	45	63	56	54	52	59	59	68	68	48	46	42	53
17 Clear Lake	2.2	2.2	2	1.8	1.8	1.8	1.7	1.7	1.7	1.6	1.6	1.5	1.5	1.8	1.8
18 Cougar	9.2	9.2	26	26	25	6.4	4.7	6.5	7.3	8.3	29	29	29	12	17
19 Cowlitz Falls	12	9.1	8.1	6.2	3.1	23	10	14	33	46	50	64	66	29	26
20 Detroit	26	26	34	45	48	21	22	18	25	35	37	102	95	32	42
21 Dexter	11	11	4.6	9.8	16	3.9	3.8	4.6	4.6	10	16	17	17	5.8	9.2
22 Eagle Point	0	0	0	0	0.4	0.7	0.7	0.9	0.6	0.7	0.7	0.5	0	0	0.4
23 East Side (Klamath)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 Felt	3.6	3.6	3.8	3.5	3.6	3.1	2.5	2.7	3.4	3.4	3.4	5.1	6.5	4.8	3.8
25 Foster	6.6	6.6	12	10	7.5	10	4.6	10	20	19	18	20	23	6.6	13
26 Gem State Hydro	15	15	11	10	11	12	12	11	15	19	19	18	17	19	14
27 Grace	27	26	22	19	20	19	19	21	22	27	27	27	27	27	23
28 Green Peter	16	16	30	19	17	19	8.2	0.9	34	90	45	59	50	12	28
29 Green Springs - USBR	9.9	8.8	6.5	2.6	3.3	5.2	6.2	5.8	4.9	4.6	4.6	5.0	7.5	9.1	5.8
30 Hellroaring (Big) Creek	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0.2
31 Hills Creek	9.1	9.1	23	24	29	6	6.1	6.1	7.1	12	32	34	34	14	18
32 Hood Street	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
33 Idaho Falls - City Plant	4.9	4.9	3.3	2.1	3.1	4.0	3.1	3.4	4.2	5.3	5.3	6.8	7.1	6.7	4.5
34 Idaho Falls - Lower Plant	5.1	5.1	3.4	2.2	3.3	4.2	3.2	3.5	4.4	5.5	5.5	7.5	7.7	7	4.8
35 Idaho Falls - Upper Plant	5.2	5.2	3.6	2.4	3.4	4.3	3.4	3.7	4.6	5.6	5.6	7.3	7.4	7.0	4.8
36 Island Park	3.3	3.1	1.8	1.5	1.5	1.5	1.7	1.8	1.8	1.8	1.8	3.3	3.9	3.8	2.3
37 Jackson	18	18	20	21	19	80	33	16	42	65	65	74	82	46	43
38 John C Boyle	0	0	0	33	40	45	45	52	78	82	82	28	21	0	35
39 Lake Creek	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
40 Last Chance	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
41 Leaburg	5.3	4.2	3	0	0	7.1	4	12	12	12	12	12	13	10	7.4
42 Lookout Point	44	45	18	38	49	9.8	9.6	12	16	40	66	83	78	26	36
43 Lost Creek	41	40	31	18	19	19	19	13	14	15	16	55	55	46	29
44 Lower Malad	12	12	11	9.8	9.7	9.6	9.4	9.4	9.2	8.7	8.7	8.3	8.2	9.8	9.6
45 Lower Salmon	30	30	26	33	28	27	26	29	28	33	33	25	25	25	28
46 McNary Fishway	9.2	8.6	9.5	9.5	9.5	9.4	3.7	8.6	9.4	9.3	9.3	9.3	9.3	8.7	8.8
47 Mill Creek (WA)	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
48 Milner	0	0	0	0	5.7	9.1	4.7	3.4	0	0	0	0	0	0	1.9
49 Minidoka	28	28	12	12	3.1	9	2.8	2.4	2.2	14	14	30	30	30	15
50 Moyie Springs	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
51 North Umpqua	81	81	75	73	70	74	70	79	81	121	121	147	139	92	92
52 Oneida	7.5	7.0	6.1	5.3	5.4	5.3	5.3	5.6	5.9	7.5	7.5	7.2	7.5	7.2	6.3
53 Packwood	7.8	21	3.9	3	1.6	4.7	2.6	3.2	5.4	9.7	9.7	24	45	25	12
54 Palisades	94	78	69	56	19	16	34	28	22	19	19	97	165	162	65
55 Paris	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
56 Powerdale	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
57 Reeder Gulch	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
58 Rogue	32	32	28	27	26	28	25	27	40	50	50	51	51	42	36
59 Roza	13	13	0	3.6	0	5	4	4.3	13	13	13	13	13	13	7.9
60 Shoshone Falls	6.1	6.1	4.9	9.8	11	11	11	13	8.5	9.1	9.1	6	5.7	6.9	8.7
61 Smith Creek	0	0	0.1	1.7	1.2	0.5	0	0.7	0.9	5.7	5.7	36	28	3.9	6.5
62 Snoq. Electron & Nooksack	39	38	35	28	18	56	26	38	59	62	68	68	68	54	46

**Table A-4: Regional Independent Hydro Projects
PNW Loads and Resource Study
2015 - 2016 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
63 Soda Creek	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
64 Soda Point Project	3.6	3.3	2.9	2.5	2.6	2.5	2.5	2.7	2.8	3.6	3.6	3.4	3.6	3.4	3.0
65 South Fork Tolt	9	9	6	5	5	5	5	5	5	5	5	6	8	9	6.1
66 Stone Creek	7.9	7.1	6.2	5.1	4.1	5.3	4.1	4.6	6.9	9	9	9	9	9	6.7
67 Strawberry Creek	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
68 Swan Falls	19	19	16	21	18	17	16	20	18	22	22	16	15	15	18
69 Swift Creek Hydro	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
70 The Dalles Fishway	5.1	4.8	4.9	5	5	3.4	3.2	3	4.7	4.8	4.8	4.7	4.7	4.9	4.4
71 Thousand Springs	7.9	7.9	7.2	6.4	6.3	6.2	6.1	6.1	6.0	5.6	5.6	5.4	5.4	6.4	6.3
72 Trail Bridge	3.8	3.8	3.5	3.4	3.2	3.3	3	3.2	3.8	3.8	3.8	3.8	2.5	3.8	3.4
73 TW Sullivan	12	10	11	11	11	15	15	15	15	15	15	15	15	15	14
74 Twin Falls	8.0	8.0	8	4.7	10	13	9.5	9.2	0	0	0	0	0	7.7	5.8
75 Upper Malad	7.5	7.5	6.8	6.0	5.9	5.9	5.8	5.8	5.7	5.3	5.3	5.1	5.1	6.0	5.9
76 Upper Salmon 1 & 2	21	21	18	22	18	17	18	20	19	23	23	17	17	17	19
77 Upper Salmon 3 & 4	18	18	15	19	17	16	15	17	16	20	20	14	15	14	16
78 Wallowa Falls	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
79 WALTERVILLE	3.8	3.2	2.6	0	0	5	3.1	8.7	9.5	9.5	9.5	9.5	9.5	7.7	5.7
80 West Side (Klamath)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 WYNOCHEE	1.2	1.1	2.1	3.6	6.4	7.5	8.0	5.5	3.9	0.8	0.8	0	0	1.5	3.4
82 YELM	9	9	6	10	10	10	10	10	10	10	10	10	10	8	9.4
Total Independent Hydro w/Enc.	989	967	842	903	835	886	753	793	977	1251	1297	1605	1685	1217	1063
-Total Independent Hydro W/Enc.-															
83 Federal System	390	366	313	311	284	199	176	162	251	377	414	705	760	472	368
84 Public Entities	127	134	110	102	97	186	123	124	168	184	186	255	292	187	163
85 Investor-Owned Entities	472	467	418	490	453	501	454	507	558	690	696	645	633	558	532
86 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
87 Total Independent Hydro w/Enc	989	967	842	903	835	886	753	793	977	1251	1297	1605	1685	1217	1063

**Table A-4: Regional Independent Hydro Projects
PNW Loads and Resource Study
2016 - 2017 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Independent Hydro Projects-															
1 American Falls	0	0	9.2	15	0	0	0	0	6.7	28	28	71	75	82	24
2 Anderson Ranch	34	31	10	6.3	6.2	6.2	6.2	6.2	6.2	6.3	6.5	34	33	32	16
3 Arrowrock Hydro	13	12	3.8	2.4	2.3	2.3	2.3	2.3	2.3	2.4	2.4	13	12	12	5.8
4 Ashton	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
5 Bend Power Dam	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
6 Big Cliff	5.9	5.9	8.1	11	13	6.6	7.1	5.9	7.4	8.8	8.8	21	21	7.2	10
7 Big Fork	3.4	3.4	2.4	3.3	3.4	2.6	4.3	3.1	4.1	4.5	4.5	4.3	4.4	4.1	3.7
8 Black Canyon	7.5	7.5	4	9	5.9	7.1	8.8	4.8	7.9	10	10	10	8.1	7.5	7.6
9 Bliss	48	48	40	52	44	42	41	46	46	55	55	40	41	40	45
10 Boise River Diversion	3	3	2.1	0.4	0	0	0	0	0	0	2.3	3	2.6	3	1.3
11 Calispell Creek	0	0	1	0	0	1	0	0	1	0	0	1	0	0	0.3
12 Carmen-Smith	17	17	16	14	13	16	14	14	17	17	17	17	17	17	16
13 Cascade	11	11	10	9.0	8.9	8.8	8.7	8.6	8.5	8.0	8.0	7.7	7.6	9.0	8.8
14 Cedar Falls & Newhalem	5.5	4.5	4.4	2.1	1.3	9.1	9.9	11	16	10	13	16	30	8.9	10
15 Chandler	5.2	5.2	4.1	6.7	12	13	9.5	9.3	13	10	10	8.4	8.1	4.6	8.6
16 CJ Strike	50	50	45	63	56	54	52	59	59	68	68	48	46	42	53
17 Clear Lake	2.2	2.2	2	1.8	1.8	1.8	1.7	1.7	1.7	1.6	1.6	1.5	1.5	1.8	1.8
18 Cougar	9.2	9.2	26	26	25	6.4	4.7	6.5	7.3	8.3	29	29	29	12	17
19 Cowlitz Falls	12	9.1	8.1	6.2	3.1	23	10	14	33	46	50	64	66	29	26
20 Detroit	26	26	34	45	48	21	22	18	25	35	37	102	95	32	42
21 Dexter	11	11	4.6	9.8	16	3.9	3.8	4.6	4.6	10	16	17	17	5.8	9.2
22 Eagle Point	0	0	0	0	0.4	0.7	0.7	0.9	0.6	0.7	0.7	0.5	0	0	0.4
23 East Side (Klamath)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 Felt	3.6	3.6	3.8	3.5	3.6	3.1	2.5	2.7	3.4	3.4	3.4	5.1	6.5	4.8	3.8
25 Foster	6.6	6.6	12	10	7.5	10	4.6	10	20	19	18	20	23	6.6	13
26 Gem State Hydro	15	15	11	10	11	12	12	11	15	19	19	18	17	19	14
27 Grace	27	26	22	19	20	19	19	21	22	27	27	27	27	27	23
28 Green Peter	16	16	30	19	17	19	8.2	0.9	34	90	45	59	50	12	28
29 Green Springs - USBR	9.9	8.8	6.5	2.6	3.3	5.2	6.2	5.8	4.9	4.6	4.6	5.0	7.5	9.1	5.8
30 Hellroaring (Big) Creek	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0.2
31 Hills Creek	9.1	9.1	23	24	29	6	6.1	6.1	7.1	12	32	34	34	14	18
32 Hood Street	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
33 Idaho Falls - City Plant	4.9	4.9	3.3	2.1	3.1	4.0	3.1	3.4	4.2	5.3	5.3	6.8	7.1	6.7	4.5
34 Idaho Falls - Lower Plant	5.1	5.1	3.4	2.2	3.3	4.2	3.2	3.5	4.4	5.5	5.5	7.5	7.7	7	4.8
35 Idaho Falls - Upper Plant	5.2	5.2	3.6	2.4	3.4	4.3	3.4	3.7	4.6	5.6	5.6	7.3	7.4	7.0	4.8
36 Island Park	3.3	3.1	1.8	1.5	1.5	1.5	1.7	1.9	1.8	1.8	1.8	3.3	3.9	3.8	2.3
37 Jackson	18	18	20	21	19	80	33	16	42	65	65	74	82	46	43
38 John C Boyle	0	0	0	33	40	45	45	52	78	82	82	28	21	0	35
39 Lake Creek	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
40 Last Chance	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
41 Leaburg	5.3	4.2	3	0	0	7.1	4	12	12	12	12	12	13	10	7.4
42 Lookout Point	44	45	18	38	49	9.8	9.6	12	16	40	66	83	78	26	36
43 Lost Creek	41	40	31	18	19	19	19	13	14	15	16	55	55	46	29
44 Lower Malad	12	12	11	9.8	9.7	9.6	9.4	9.4	9.2	8.7	8.7	8.3	8.2	9.8	9.6
45 Lower Salmon	30	30	26	33	28	27	26	29	28	33	33	25	25	25	28
46 McNary Fishway	9.2	8.6	9.5	9.5	9.5	9.4	3.7	8.9	9.4	9.3	9.3	9.3	9.3	8.7	8.8
47 Mill Creek (WA)	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
48 Milner	0	0	0	0	5.7	9.1	4.7	3.4	0	0	0	0	0	0	1.9
49 Minidoka	28	28	12	12	3.1	9	2.8	2.4	2.2	14	14	30	30	30	15
50 Moyie Springs	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
51 North Umpqua	81	81	75	73	70	74	70	79	81	121	121	147	139	92	92
52 Oneida	7.5	7.0	6.1	5.3	5.4	5.3	5.3	5.8	5.9	7.5	7.5	7.2	7.5	7.2	6.3
53 Packwood	7.8	21	3.9	3	1.6	4.7	2.6	3.2	5.4	9.7	9.7	24	45	25	12
54 Palisades	94	78	69	56	19	16	34	28	22	19	19	97	165	162	65
55 Paris	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
56 Powerdale	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
57 Reeder Gulch	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
58 Rogue	32	32	28	27	26	28	25	27	40	50	50	51	51	42	36
59 Roza	13	13	0	3.6	0	5	4	4.3	13	13	13	13	13	13	7.9
60 Shoshone Falls	6.1	6.1	4.9	9.8	11	11	11	13	8.5	9.1	9.1	6	5.7	6.9	8.7
61 Smith Creek	0	0	0.1	1.7	1.2	0.5	0	0.7	0.9	5.7	5.7	36	28	3.9	6.5
62 Snoq. Electron & Nooksack	39	38	35	28	18	56	26	38	59	62	68	68	68	54	46

**Table A-4: Regional Independent Hydro Projects
PNW Loads and Resource Study
2016 - 2017 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
63 Soda Creek	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
64 Soda Point Project	3.6	3.3	2.9	2.5	2.6	2.5	2.5	2.8	2.8	3.6	3.6	3.4	3.6	3.4	3
65 South Fork Tolt	9	9	6	5	5	5	5	5	5	5	5	6	8	9	6.1
66 Stone Creek	7.9	7.1	6.2	5.1	4.1	5.3	4.1	4.6	6.9	9	9	9	9	9	6.7
67 Strawberry Creek	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
68 Swan Falls	19	19	16	21	18	17	16	20	18	22	22	16	15	15	18
69 Swift Creek Hydro	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
70 The Dalles Fishway	5.1	4.8	4.9	5	5	3.4	3.2	3.2	4.7	4.8	4.8	4.7	4.7	4.9	4.5
71 Thousand Springs	7.9	7.9	7.2	6.4	6.3	6.2	6.1	6.1	6.0	5.6	5.6	5.4	5.4	6.4	6.3
72 Trail Bridge	3.8	3.8	3.5	3.4	3.2	3.3	3	3.2	3.8	3.8	3.8	3.8	2.5	3.8	3.4
73 TW Sullivan	12	10	11	11	11	15	15	15	15	15	15	15	15	15	14
74 Twin Falls	8.0	8.0	8	4.7	10	13	9.5	9.2	0	0	0	0	0	7.7	5.8
75 Upper Malad	7.5	7.5	6.8	6.0	5.9	5.9	5.8	5.8	5.7	5.3	5.3	5.1	5.1	6.0	5.9
76 Upper Salmon 1 & 2	21	21	18	22	18	17	18	20	19	23	23	17	17	17	19
77 Upper Salmon 3 & 4	18	18	15	19	17	16	15	17	16	20	20	14	15	14	16
78 Wallowa Falls	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
79 Walterville	3.8	3.2	2.6	0	0	5	3.1	8.7	9.5	9.5	9.5	9.5	9.5	7.7	5.7
80 West Side (Klamath)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 Wyochee	1.2	1.1	2.1	3.6	6.4	7.5	8.0	5.7	3.9	0.8	0.8	0	0	1.5	3.4
82 Yelm	9	9	6	10	10	10	10	10	10	10	10	10	10	8	9.4
Total Independent Hydro w/Enc.	989	967	842	903	835	886	753	794	977	1251	1297	1605	1685	1217	1063
-Total Independent Hydro W/Enc.-															
83 Federal System	390	366	313	311	284	199	176	162	251	377	414	705	760	472	368
84 Public Entities	127	134	110	102	97	186	123	125	168	184	186	255	292	187	164
85 Investor-Owned Entities	472	467	418	490	453	501	454	508	558	690	696	645	633	558	532
86 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
87 Total Independent Hydro w/Enc	989	967	842	903	835	886	753	794	977	1251	1297	1605	1685	1217	1063

**Table A-4: Regional Independent Hydro Projects
PNW Loads and Resource Study
2017 - 2018 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Independent Hydro Projects-															
1 American Falls	0	0	9.2	15	0	0	0	0	6.7	28	28	71	75	82	24
2 Anderson Ranch	34	31	10	6.3	6.2	6.2	6.2	6.2	6.2	6.3	6.5	34	33	32	16
3 Arrowrock Hydro	13	12	3.8	2.4	2.3	2.3	2.3	2.3	2.3	2.4	2.4	13	12	12	5.8
4 Ashton	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
5 Bend Power Dam	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
6 Big Cliff	5.9	5.9	8.1	11	13	6.6	7.1	5.9	7.4	8.8	8.8	21	21	7.2	10
7 Big Fork	3.4	3.4	2.4	3.3	3.4	2.6	4.3	3.1	4.1	4.5	4.5	4.3	4.4	4.1	3.7
8 Black Canyon	7.5	7.5	4	9	5.9	7.1	8.8	4.8	7.9	10	10	10	8.1	7.5	7.6
9 Bliss	48	48	40	52	44	42	41	46	46	55	55	40	41	40	45
10 Boise River Diversion	3	3	2.1	0.4	0	0	0	0	0	0	2.3	3	2.6	3	1.3
11 Calispell Creek	0	0	1	0	0	1	0	0	1	0	0	1	0	0	0.3
12 Carmen-Smith	17	17	16	14	13	16	14	14	17	17	17	17	17	17	16
13 Cascade	11	11	10	9.0	8.9	8.8	8.7	8.6	8.5	8.0	8.0	7.7	7.6	9.0	8.8
14 Cedar Falls & Newhalem	5.5	4.5	4.4	2.1	1.3	9.1	9.9	11	16	10	13	16	30	8.9	10
15 Chandler	5.2	5.2	4.1	6.7	12	13	9.5	9.3	13	10	10	8.4	8.1	4.6	8.6
16 CJ Strike	50	50	45	63	56	54	52	59	59	68	68	48	46	42	53
17 Clear Lake	2.2	2.2	2	1.8	1.8	1.8	1.7	1.7	1.7	1.6	1.6	1.5	1.5	1.8	1.8
18 Cougar	9.2	9.2	26	26	25	6.4	4.7	6.5	7.3	8.3	29	29	29	12	17
19 Cowlitz Falls	12	9.1	8.1	6.2	3.1	23	10	14	33	46	50	64	66	29	26
20 Detroit	26	26	34	45	48	21	22	18	25	35	37	102	95	32	42
21 Dexter	11	11	4.6	9.8	16	3.9	3.8	4.6	4.6	10	16	17	17	5.8	9.2
22 Eagle Point	0	0	0	0	0.4	0.7	0.7	0.9	0.6	0.7	0.7	0.5	0	0	0.4
23 East Side (Klamath)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 Felt	3.6	3.6	3.8	3.5	3.6	3.1	2.5	2.7	3.4	3.4	3.4	5.1	6.5	4.8	3.8
25 Foster	6.6	6.6	12	10	7.5	10	4.6	10	20	19	18	20	23	6.6	13
26 Gem State Hydro	15	15	11	10	11	12	12	11	15	19	19	18	17	19	14
27 Grace	27	26	22	19	20	19	19	21	22	27	27	27	27	27	23
28 Green Peter	16	16	30	19	17	19	8.2	0.9	34	90	45	59	50	12	28
29 Green Springs - USBR	9.9	8.8	6.5	2.6	3.3	5.2	6.2	5.8	4.9	4.6	4.6	5.0	7.5	9.1	5.8
30 Hellroaring (Big) Creek	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0.2
31 Hills Creek	9.1	9.1	23	24	29	6	6.1	6.1	7.1	12	32	34	34	14	18
32 Hood Street	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
33 Idaho Falls - City Plant	4.9	4.9	3.3	2.1	3.1	4.0	3.1	3.4	4.2	5.3	5.3	6.8	7.1	6.7	4.5
34 Idaho Falls - Lower Plant	5.1	5.1	3.4	2.2	3.3	4.2	3.2	3.5	4.4	5.5	5.5	7.5	7.7	7	4.8
35 Idaho Falls - Upper Plant	5.2	5.2	3.6	2.4	3.4	4.3	3.4	3.7	4.6	5.6	5.6	7.3	7.4	7.0	4.8
36 Island Park	3.3	3.1	1.8	1.5	1.5	1.5	1.7	1.9	1.8	1.8	1.8	3.3	3.9	3.8	2.3
37 Jackson	18	18	20	21	19	80	33	16	42	65	65	74	82	46	43
38 John C Boyle	0	0	0	33	40	45	45	52	78	82	82	28	21	0	35
39 Lake Creek	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
40 Last Chance	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
41 Leaburg	5.3	4.2	3	0	0	7.1	4	12	12	12	12	12	13	10	7.4
42 Lookout Point	44	45	18	38	49	9.8	9.6	12	16	40	66	83	78	26	36
43 Lost Creek	41	40	31	18	19	19	19	13	14	15	16	55	55	46	29
44 Lower Malad	12	12	11	9.8	9.7	9.6	9.4	9.4	9.2	8.7	8.7	8.3	8.2	9.8	9.6
45 Lower Salmon	30	30	26	33	28	27	26	29	28	33	33	25	25	25	28
46 McNary Fishway	9.2	8.6	9.5	9.5	9.5	9.4	3.7	8.9	9.4	9.3	9.3	9.3	9.3	8.7	8.8
47 Mill Creek (WA)	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
48 Milner	0	0	0	0	5.7	9.1	4.7	3.4	0	0	0	0	0	0	1.9
49 Minidoka	28	28	12	12	3.1	9	2.8	2.4	2.2	14	14	30	30	30	15
50 Moyie Springs	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
51 North Umpqua	81	81	75	73	70	74	70	79	81	121	121	147	139	92	92
52 Oneida	7.5	7.0	6.1	5.3	5.4	5.3	5.3	5.8	5.9	7.5	7.5	7.2	7.5	7.2	6.3
53 Packwood	7.8	21	3.9	3	1.6	4.7	2.6	3.2	5.4	9.7	9.7	24	45	25	12
54 Palisades	94	78	69	56	19	16	34	28	22	19	19	97	165	162	65
55 Paris	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
56 Powerdale	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
57 Reeder Gulch	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
58 Rogue	32	32	28	27	26	28	25	27	40	50	50	51	51	42	36
59 Roza	13	13	0	3.6	0	5	4	4.3	13	13	13	13	13	13	7.9
60 Shoshone Falls	6.1	6.1	4.9	9.8	11	11	11	13	8.5	9.1	9.1	6	5.7	6.9	8.7
61 Smith Creek	0	0	0.1	1.7	1.2	0.5	0	0.7	0.9	5.7	5.7	36	28	3.9	6.5
62 Snoq. Electron & Nooksack	39	38	35	28	18	56	26	38	59	62	68	68	68	54	46

**Table A-4: Regional Independent Hydro Projects
PNW Loads and Resource Study
2017 - 2018 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
63 Soda Creek	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
64 Soda Point Project	3.6	3.3	2.9	2.5	2.6	2.5	2.5	2.8	2.8	3.6	3.6	3.4	3.6	3.4	3
65 South Fork Tolt	9	9	6	5	5	5	5	5	5	5	5	6	8	9	6.1
66 Stone Creek	7.9	7.1	6.2	5.1	4.1	5.3	4.1	4.6	6.9	9	9	9	9	9	6.7
67 Strawberry Creek	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
68 Swan Falls	19	19	16	21	18	17	16	20	18	22	22	16	15	15	18
69 Swift Creek Hydro	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
70 The Dalles Fishway	5.1	4.8	4.9	5	5	3.4	3.2	3.2	4.7	4.8	4.8	4.7	4.7	4.9	4.5
71 Thousand Springs	7.9	7.9	7.2	6.4	6.3	6.2	6.1	6.1	6.0	5.6	5.6	5.4	5.4	6.4	6.3
72 Trail Bridge	3.8	3.8	3.5	3.4	3.2	3.3	3	3.2	3.8	3.8	3.8	3.8	2.5	3.8	3.4
73 TW Sullivan	12	10	11	11	11	15	15	15	15	15	15	15	15	15	14
74 Twin Falls	8.0	8.0	8	4.7	10	13	9.5	9.2	0	0	0	0	0	7.7	5.8
75 Upper Malad	7.5	7.5	6.8	6.0	5.9	5.9	5.8	5.8	5.7	5.3	5.3	5.1	5.1	6.0	5.9
76 Upper Salmon 1 & 2	21	21	18	22	18	17	18	20	19	23	23	17	17	17	19
77 Upper Salmon 3 & 4	18	18	15	19	17	16	15	17	16	20	20	14	15	14	16
78 Wallowa Falls	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
79 WALTERVILLE	3.8	3.2	2.6	0	0	5	3.1	8.7	9.5	9.5	9.5	9.5	9.5	7.7	5.7
80 West Side (Klamath)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 WYNOCHEE	1.2	1.1	2.1	3.6	6.4	7.5	8.0	5.7	3.9	0.8	0.8	0	0	1.5	3.4
82 YELM	9	9	6	10	10	10	10	10	10	10	10	10	10	8	9.4
Total Independent Hydro w/Enc.	989	967	842	903	835	886	753	794	977	1251	1297	1605	1685	1217	1063
-Total Independent Hydro W/Enc.-															
83 Federal System	390	366	313	311	284	199	176	162	251	377	414	705	760	472	368
84 Public Entities	127	134	110	102	97	186	123	125	168	184	186	255	292	187	164
85 Investor-Owned Entities	472	467	418	490	453	501	454	508	558	690	696	645	633	558	532
86 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
87 Total Independent Hydro w/Enc	989	967	842	903	835	886	753	794	977	1251	1297	1605	1685	1217	1063

**Table A-4: Regional Independent Hydro Projects
PNW Loads and Resource Study
2018 - 2019 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Independent Hydro Projects-															
1 American Falls	0	0	9.2	15	0	0	0	0	6.7	28	28	71	75	82	24
2 Anderson Ranch	34	31	10	6.3	6.2	6.2	6.2	6.2	6.2	6.3	6.5	34	33	32	16
3 Arrowrock Hydro	13	12	3.8	2.4	2.3	2.3	2.3	2.3	2.3	2.4	2.4	13	12	12	5.8
4 Ashton	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
5 Bend Power Dam	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
6 Big Cliff	5.9	5.9	8.1	11	13	6.6	7.1	5.9	7.4	8.8	8.8	21	21	7.2	10
7 Big Fork	3.4	3.4	2.4	3.3	3.4	2.6	4.3	3.1	4.1	4.5	4.5	4.3	4.4	4.1	3.7
8 Black Canyon	7.5	7.5	4	9	5.9	7.1	8.8	4.8	7.9	10	10	10	8.1	7.5	7.6
9 Bliss	48	48	40	52	44	42	41	46	46	55	55	40	41	40	45
10 Boise River Diversion	3	3	2.1	0.4	0	0	0	0	0	0	2.3	3	2.6	3	1.3
11 Calispell Creek	0	0	1	0	0	1	0	0	1	0	0	1	0	0	0.3
12 Carmen-Smith	17	17	16	14	13	16	14	14	17	17	17	17	17	17	16
13 Cascade	11	11	10	9.0	8.9	8.8	8.7	8.6	8.5	8.0	8.0	7.7	7.6	9.0	8.8
14 Cedar Falls & Newhalem	5.5	4.5	4.4	2.1	1.3	9.1	9.9	11	16	10	13	16	30	8.9	10
15 Chandler	5.2	5.2	4.1	6.7	12	13	9.5	9.3	13	10	10	8.4	8.1	4.6	8.6
16 CJ Strike	50	50	45	63	56	54	52	59	59	68	68	48	46	42	53
17 Clear Lake	2.2	2.2	2	1.8	1.8	1.8	1.7	1.7	1.7	1.6	1.6	1.5	1.5	1.8	1.8
18 Cougar	9.2	9.2	26	26	25	6.4	4.7	6.5	7.3	8.3	29	29	29	12	17
19 Cowlitz Falls	12	9.1	8.1	6.2	3.1	23	10	14	33	46	50	64	66	29	26
20 Detroit	26	26	34	45	48	21	22	18	25	35	37	102	95	32	42
21 Dexter	11	11	4.6	9.8	16	3.9	3.8	4.6	4.6	10	16	17	17	5.8	9.2
22 Eagle Point	0	0	0	0	0.4	0.7	0.7	0.9	0.6	0.7	0.7	0.5	0	0	0.4
23 East Side (Klamath)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 Felt	3.6	3.6	3.8	3.5	3.6	3.1	2.5	2.7	3.4	3.4	3.4	5.1	6.5	4.8	3.8
25 Foster	6.6	6.6	12	10	7.5	10	4.6	10	20	19	18	20	23	6.6	13
26 Gem State Hydro	15	15	11	10	11	12	12	11	15	19	19	18	17	19	14
27 Grace	27	26	22	19	20	19	19	21	22	27	27	27	27	27	23
28 Green Peter	16	16	30	19	17	19	8.2	0.9	34	90	45	59	50	12	28
29 Green Springs - USBR	9.9	8.8	6.5	2.6	3.3	5.2	6.2	5.8	4.9	4.6	4.6	5.0	7.5	9.1	5.8
30 Hellroaring (Big) Creek	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0.2
31 Hills Creek	9.1	9.1	23	24	29	6	6.1	6.1	7.1	12	32	34	34	14	18
32 Hood Street	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
33 Idaho Falls - City Plant	4.9	4.9	3.3	2.1	3.1	4.0	3.1	3.4	4.2	5.3	5.3	6.8	7.1	6.7	4.5
34 Idaho Falls - Lower Plant	5.1	5.1	3.4	2.2	3.3	4.2	3.2	3.5	4.4	5.5	5.5	7.5	7.7	7	4.8
35 Idaho Falls - Upper Plant	5.2	5.2	3.6	2.4	3.4	4.3	3.4	3.7	4.6	5.6	5.6	7.3	7.4	7.0	4.8
36 Island Park	3.3	3.1	1.8	1.5	1.5	1.5	1.7	1.9	1.8	1.8	1.8	3.3	3.9	3.8	2.3
37 Jackson	18	18	20	21	19	80	33	16	42	65	65	74	82	46	43
38 John C Boyle	0	0	0	33	40	45	45	52	78	82	82	28	21	0	35
39 Lake Creek	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
40 Last Chance	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
41 Leaburg	5.3	4.2	3	0	0	7.1	4	12	12	12	12	12	13	10	7.4
42 Lookout Point	44	45	18	38	49	9.8	9.6	12	16	40	66	83	78	26	36
43 Lost Creek	41	40	31	18	19	19	19	13	14	15	16	55	55	46	29
44 Lower Malad	12	12	11	9.8	9.7	9.6	9.4	9.4	9.2	8.7	8.7	8.3	8.2	9.8	9.6
45 Lower Salmon	30	30	26	33	28	27	26	29	28	33	33	25	25	25	28
46 McNary Fishway	9.2	8.6	9.5	9.5	9.5	9.4	3.7	8.9	9.4	9.3	9.3	9.3	9.3	8.7	8.8
47 Mill Creek (WA)	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
48 Milner	0	0	0	0	5.7	9.1	4.7	3.4	0	0	0	0	0	0	1.9
49 Minidoka	28	28	12	12	3.1	9	2.8	2.4	2.2	14	14	30	30	30	15
50 Moyie Springs	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
51 North Umpqua	81	81	75	73	70	74	70	79	81	121	121	147	139	92	92
52 Oneida	7.5	7.0	6.1	5.3	5.4	5.3	5.3	5.8	5.9	7.5	7.5	7.2	7.5	7.2	6.3
53 Packwood	7.8	21	3.9	3	1.6	4.7	2.6	3.2	5.4	9.7	9.7	24	45	25	12
54 Palisades	94	78	69	56	19	16	34	28	22	19	19	97	165	162	65
55 Paris	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
56 Powerdale	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
57 Reeder Gulch	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
58 Rogue	32	32	28	27	26	28	25	27	40	50	50	51	51	42	36
59 Roza	13	13	0	3.6	0	5	4	4.3	13	13	13	13	13	13	7.9
60 Shoshone Falls	6.1	6.1	4.9	9.8	11	11	11	13	8.5	9.1	9.1	6	5.7	6.9	8.7
61 Smith Creek	0	0	0.1	1.7	1.2	0.5	0	0.7	0.9	5.7	5.7	36	28	3.9	6.5
62 Snoq. Electron & Nooksack	39	38	35	28	18	56	26	38	59	62	68	68	68	54	46

**Table A-4: Regional Independent Hydro Projects
PNW Loads and Resource Study
2018 - 2019 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
63 Soda Creek	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
64 Soda Point Project	3.6	3.3	2.9	2.5	2.6	2.5	2.5	2.8	2.8	3.6	3.6	3.4	3.6	3.4	3
65 South Fork Tolt	9	9	6	5	5	5	5	5	5	5	5	6	8	9	6.1
66 Stone Creek	7.9	7.1	6.2	5.1	4.1	5.3	4.1	4.6	6.9	9	9	9	9	9	6.7
67 Strawberry Creek	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
68 Swan Falls	19	19	16	21	18	17	16	20	18	22	22	16	15	15	18
69 Swift Creek Hydro	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
70 The Dalles Fishway	5.1	4.8	4.9	5	5	3.4	3.2	3.2	4.7	4.8	4.8	4.7	4.7	4.9	4.5
71 Thousand Springs	7.9	7.9	7.2	6.4	6.3	6.2	6.1	6.1	6.0	5.6	5.6	5.4	5.4	6.4	6.3
72 Trail Bridge	3.8	3.8	3.5	3.4	3.2	3.3	3	3.2	3.8	3.8	3.8	3.8	2.5	3.8	3.4
73 TW Sullivan	12	10	11	11	11	15	15	15	15	15	15	15	15	15	14
74 Twin Falls	8.0	8.0	8	4.7	10	13	9.5	9.2	0	0	0	0	0	7.7	5.8
75 Upper Malad	7.5	7.5	6.8	6.0	5.9	5.9	5.8	5.8	5.7	5.3	5.3	5.1	5.1	6.0	5.9
76 Upper Salmon 1 & 2	21	21	18	22	18	17	18	20	19	23	23	17	17	17	19
77 Upper Salmon 3 & 4	18	18	15	19	17	16	15	17	16	20	20	14	15	14	16
78 Wallowa Falls	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
79 WALTERVILLE	3.8	3.2	2.6	0	0	5	3.1	8.7	9.5	9.5	9.5	9.5	9.5	7.7	5.7
80 West Side (Klamath)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 WYNOCHEE	1.2	1.1	2.1	3.6	6.4	7.5	8.0	5.7	3.9	0.8	0.8	0	0	1.5	3.4
82 YELM	9	9	6	10	10	10	10	10	10	10	10	10	10	8	9.4
Total Independent Hydro w/Enc.	989	967	842	903	835	886	753	794	977	1251	1297	1605	1685	1217	1063
-Total Independent Hydro W/Enc.-															
83 Federal System	390	366	313	311	284	199	176	162	251	377	414	705	760	472	368
84 Public Entities	127	134	110	102	97	186	123	125	168	184	186	255	292	187	164
85 Investor-Owned Entities	472	467	418	490	453	501	454	508	558	690	696	645	633	558	532
86 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
87 Total Independent Hydro w/Enc	989	967	842	903	835	886	753	794	977	1251	1297	1605	1685	1217	1063

**Table A-4: Regional Independent Hydro Projects
PNW Loads and Resource Study
2019 - 2020 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Independent Hydro Projects-															
1 American Falls	0	0	9.2	15	0	0	0	0	6.7	28	28	71	75	82	24
2 Anderson Ranch	34	31	10	6.3	6.2	6.2	6.2	6.2	6.2	6.3	6.5	34	33	32	16
3 Arrowrock Hydro	13	12	3.8	2.4	2.3	2.3	2.3	2.3	2.3	2.4	2.4	13	12	12	5.8
4 Ashton	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
5 Bend Power Dam	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
6 Big Cliff	5.9	5.9	8.1	11	13	6.6	7.1	5.9	7.4	8.8	8.8	21	21	7.2	10
7 Big Fork	3.4	3.4	2.4	3.3	3.4	2.6	4.3	3.1	4.1	4.5	4.5	4.3	4.4	4.1	3.7
8 Black Canyon	7.5	7.5	4	9	5.9	7.1	8.8	4.8	7.9	10	10	10	8.1	7.5	7.6
9 Bliss	48	48	40	52	44	42	41	46	46	55	55	40	41	40	45
10 Boise River Diversion	3	3	2.1	0.4	0	0	0	0	0	0	2.3	3	2.6	3	1.3
11 Calispell Creek	0	0	1	0	0	1	0	0	1	0	0	1	0	0	0.3
12 Carmen-Smith	17	17	16	14	13	16	14	14	17	17	17	17	17	17	16
13 Cascade	11	11	10	9.0	8.9	8.8	8.7	8.6	8.5	8.0	8.0	7.7	7.6	9.0	8.8
14 Cedar Falls & Newhalem	5.5	4.5	4.4	2.1	1.3	9.1	9.9	11	16	10	13	16	30	8.9	10
15 Chandler	5.2	5.2	4.1	6.7	12	13	9.5	9.3	13	10	10	8.4	8.1	4.6	8.6
16 CJ Strike	50	50	45	63	56	54	52	59	59	68	68	48	46	42	53
17 Clear Lake	2.2	2.2	2	1.8	1.8	1.8	1.7	1.7	1.7	1.6	1.6	1.5	1.5	1.8	1.8
18 Cougar	9.2	9.2	26	26	25	6.4	4.7	6.5	7.3	8.3	29	29	29	12	17
19 Cowlitz Falls	12	9.1	8.1	6.2	3.1	23	10	14	33	46	50	64	66	29	26
20 Detroit	26	26	34	45	48	21	22	18	25	35	37	102	95	32	42
21 Dexter	11	11	4.6	9.8	16	3.9	3.8	4.6	4.6	10	16	17	17	5.8	9.2
22 Eagle Point	0	0	0	0	0.4	0.7	0.7	0.9	0.6	0.7	0.7	0.5	0	0	0.4
23 East Side (Klamath)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 Felt	3.6	3.6	3.8	3.5	3.6	3.1	2.5	2.7	3.4	3.4	3.4	5.1	6.5	4.8	3.8
25 Foster	6.6	6.6	12	10	7.5	10	4.6	10	20	19	18	20	23	6.6	13
26 Gem State Hydro	15	15	11	10	11	12	12	11	15	19	19	18	17	19	14
27 Grace	27	26	22	19	20	19	19	21	22	27	27	27	27	27	23
28 Green Peter	16	16	30	19	17	19	8.2	0.9	34	90	45	59	50	12	28
29 Green Springs - USBR	9.9	8.8	6.5	2.6	3.3	5.2	6.2	5.8	4.9	4.6	4.6	5.0	7.5	9.1	5.8
30 Hellroaring (Big) Creek	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0.2
31 Hills Creek	9.1	9.1	23	24	29	6	6.1	6.1	7.1	12	32	34	34	14	18
32 Hood Street	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
33 Idaho Falls - City Plant	4.9	4.9	3.3	2.1	3.1	4.0	3.1	3.4	4.2	5.3	5.3	6.8	7.1	6.7	4.5
34 Idaho Falls - Lower Plant	5.1	5.1	3.4	2.2	3.3	4.2	3.2	3.5	4.4	5.5	5.5	7.5	7.7	7	4.8
35 Idaho Falls - Upper Plant	5.2	5.2	3.6	2.4	3.4	4.3	3.4	3.7	4.6	5.6	5.6	7.3	7.4	7.0	4.8
36 Island Park	3.3	3.1	1.8	1.5	1.5	1.5	1.7	1.8	1.8	1.8	1.8	3.3	3.9	3.8	2.3
37 Jackson	18	18	20	21	19	80	33	16	42	65	65	74	82	46	43
38 John C Boyle	0	0	0	33	40	45	45	52	78	82	82	28	21	0	35
39 Lake Creek	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
40 Last Chance	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
41 Leaburg	5.3	4.2	3	0	0	7.1	4	12	12	12	12	12	13	10	7.4
42 Lookout Point	44	45	18	38	49	9.8	9.6	12	16	40	66	83	78	26	36
43 Lost Creek	41	40	31	18	19	19	19	13	14	15	16	55	55	46	29
44 Lower Malad	12	12	11	9.8	9.7	9.6	9.4	9.4	9.2	8.7	8.7	8.3	8.2	9.8	9.6
45 Lower Salmon	30	30	26	33	28	27	26	29	28	33	33	25	25	25	28
46 McNary Fishway	9.2	8.6	9.5	9.5	9.5	9.4	3.7	8.6	9.4	9.3	9.3	9.3	9.3	8.7	8.8
47 Mill Creek (WA)	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
48 Milner	0	0	0	0	5.7	9.1	4.7	3.4	0	0	0	0	0	0	1.9
49 Minidoka	28	28	12	12	3.1	9	2.8	2.4	2.2	14	14	30	30	30	15
50 Moyie Springs	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
51 North Umpqua	81	81	75	73	70	74	70	79	81	121	121	147	139	92	92
52 Oneida	7.5	7.0	6.1	5.3	5.4	5.3	5.3	5.6	5.9	7.5	7.5	7.2	7.5	7.2	6.3
53 Packwood	7.8	21	3.9	3	1.6	4.7	2.6	3.2	5.4	9.7	9.7	24	45	25	12
54 Palisades	94	78	69	56	19	16	34	28	22	19	19	97	165	162	65
55 Paris	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
56 Powerdale	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
57 Reeder Gulch	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
58 Rogue	32	32	28	27	26	28	25	27	40	50	50	51	51	42	36
59 Roza	13	13	0	3.6	0	5	4	4.3	13	13	13	13	13	13	7.9
60 Shoshone Falls	6.1	6.1	4.9	9.8	11	11	11	13	8.5	9.1	9.1	6	5.7	6.9	8.7
61 Smith Creek	0	0	0.1	1.7	1.2	0.5	0	0.7	0.9	5.7	5.7	36	28	3.9	6.5
62 Snoq. Electron & Nooksack	39	38	35	28	18	56	26	38	59	62	68	68	68	54	46

**Table A-4: Regional Independent Hydro Projects
PNW Loads and Resource Study
2019 - 2020 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
63 Soda Creek	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
64 Soda Point Project	3.6	3.3	2.9	2.5	2.6	2.5	2.5	2.7	2.8	3.6	3.6	3.4	3.6	3.4	3.0
65 South Fork Tolt	9	9	6	5	5	5	5	5	5	5	5	6	8	9	6.1
66 Stone Creek	7.9	7.1	6.2	5.1	4.1	5.3	4.1	4.6	6.9	9	9	9	9	9	6.7
67 Strawberry Creek	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
68 Swan Falls	19	19	16	21	18	17	16	20	18	22	22	16	15	15	18
69 Swift Creek Hydro	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
70 The Dalles Fishway	5.1	4.8	4.9	5	5	3.4	3.2	3	4.7	4.8	4.8	4.7	4.7	4.9	4.4
71 Thousand Springs	7.9	7.9	7.2	6.4	6.3	6.2	6.1	6.1	6.0	5.6	5.6	5.4	5.4	6.4	6.3
72 Trail Bridge	3.8	3.8	3.5	3.4	3.2	3.3	3	3.2	3.8	3.8	3.8	3.8	2.5	3.8	3.4
73 TW Sullivan	12	10	11	11	11	15	15	15	15	15	15	15	15	15	14
74 Twin Falls	8.0	8.0	8	4.7	10	13	9.5	9.2	0	0	0	0	0	7.7	5.8
75 Upper Malad	7.5	7.5	6.8	6.0	5.9	5.9	5.8	5.8	5.7	5.3	5.3	5.1	5.1	6.0	5.9
76 Upper Salmon 1 & 2	21	21	18	22	18	17	18	20	19	23	23	17	17	17	19
77 Upper Salmon 3 & 4	18	18	15	19	17	16	15	17	16	20	20	14	15	14	16
78 Wallowa Falls	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
79 Walterville	3.8	3.2	2.6	0	0	5	3.1	8.7	9.5	9.5	9.5	9.5	9.5	7.7	5.7
80 West Side (Klamath)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 Wyochee	1.2	1.1	2.1	3.6	6.4	7.5	8.0	5.5	3.9	0.8	0.8	0	0	1.5	3.4
82 Yelm	9	9	6	10	10	10	10	10	10	10	10	10	10	8	9.4
Total Independent Hydro w/Enc.	989	967	842	903	835	886	753	793	977	1251	1297	1605	1685	1217	1063
-Total Independent Hydro W/Enc.-															
83 Federal System	390	366	313	311	284	199	176	162	251	377	414	705	760	472	368
84 Public Entities	127	134	110	102	97	186	123	124	168	184	186	255	292	187	163
85 Investor-Owned Entities	472	467	418	490	453	501	454	507	558	690	696	645	633	558	532
86 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
87 Total Independent Hydro w/Enc	989	967	842	903	835	886	753	793	977	1251	1297	1605	1685	1217	1063

**Table A-4: Regional Independent Hydro Projects
PNW Loads and Resource Study
2020 - 2021 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
<i>-Independent Hydro Projects-</i>															
1 American Falls	0	0	9.2	15	0	0	0	0	6.7	28	28	71	75	82	24
2 Anderson Ranch	34	31	10	6.3	6.2	6.2	6.2	6.2	6.2	6.3	6.5	34	33	32	16
3 Arrowrock Hydro	13	12	3.8	2.4	2.3	2.3	2.3	2.3	2.3	2.4	2.4	13	12	12	5.8
4 Ashton	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
5 Bend Power Dam	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
6 Big Cliff	5.9	5.9	8.1	11	13	6.6	7.1	5.9	7.4	8.8	8.8	21	21	7.2	10
7 Big Fork	3.4	3.4	2.4	3.3	3.4	2.6	4.3	3.1	4.1	4.5	4.5	4.3	4.4	4.1	3.7
8 Black Canyon	7.5	7.5	4	9	5.9	7.1	8.8	4.8	7.9	10	10	10	8.1	7.5	7.6
9 Bliss	48	48	40	52	44	42	41	46	46	55	55	40	41	40	45
10 Boise River Diversion	3	3	2.1	0.4	0	0	0	0	0	0	2.3	3	2.6	3	1.3
11 Calispell Creek	0	0	1	0	0	1	0	0	1	0	0	1	0	0	0.3
12 Carmen-Smith	17	17	16	14	13	16	14	14	17	17	17	17	17	17	16
13 Cascade	11	11	10	9.0	8.9	8.8	8.7	8.6	8.5	8.0	8.0	7.7	7.6	9.0	8.8
14 Cedar Falls & Newhalem	5.5	4.5	4.4	2.1	1.3	9.1	9.9	11	16	10	13	16	30	8.9	10
15 Chandler	5.2	5.2	4.1	6.7	12	13	9.5	9.3	13	10	10	8.4	8.1	4.6	8.6
16 CJ Strike	50	50	45	63	56	54	52	59	59	68	68	48	46	42	53
17 Clear Lake	2.2	2.2	2	1.8	1.8	1.8	1.7	1.7	1.7	1.6	1.6	1.5	1.5	1.8	1.8
18 Cougar	9.2	9.2	26	26	25	6.4	4.7	6.5	7.3	8.3	29	29	29	12	17
19 Cowlitz Falls	12	9.1	8.1	6.2	3.1	23	10	14	33	46	50	64	66	29	26
20 Detroit	26	26	34	45	48	21	22	18	25	35	37	102	95	32	42
21 Dexter	11	11	4.6	9.8	16	3.9	3.8	4.6	4.6	10	16	17	17	5.8	9.2
22 Eagle Point	0	0	0	0	0.4	0.7	0.7	0.9	0.6	0.7	0.7	0.5	0	0	0.4
23 East Side (Klamath)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 Felt	3.6	3.6	3.8	3.5	3.6	3.1	2.5	2.7	3.4	3.4	3.4	5.1	6.5	4.8	3.8
25 Foster	6.6	6.6	12	10	7.5	10	4.6	10	20	19	18	20	23	6.6	13
26 Gem State Hydro	15	15	11	10	11	12	12	11	15	19	19	18	17	19	14
27 Grace	27	26	22	19	20	19	19	21	22	27	27	27	27	27	23
28 Green Peter	16	16	30	19	17	19	8.2	0.9	34	90	45	59	50	12	28
29 Green Springs - USBR	9.9	8.8	6.5	2.6	3.3	5.2	6.2	5.8	4.9	4.6	4.6	5.0	7.5	9.1	5.8
30 Hellroaring (Big) Creek	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0.2
31 Hills Creek	9.1	9.1	23	24	29	6	6.1	6.1	7.1	12	32	34	34	14	18
32 Hood Street	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
33 Idaho Falls - City Plant	4.9	4.9	3.3	2.1	3.1	4.0	3.1	3.4	4.2	5.3	5.3	6.8	7.1	6.7	4.5
34 Idaho Falls - Lower Plant	5.1	5.1	3.4	2.2	3.3	4.2	3.2	3.5	4.4	5.5	5.5	7.5	7.7	7	4.8
35 Idaho Falls - Upper Plant	5.2	5.2	3.6	2.4	3.4	4.3	3.4	3.7	4.6	5.6	5.6	7.3	7.4	7.0	4.8
36 Island Park	3.3	3.1	1.8	1.5	1.5	1.5	1.7	1.9	1.8	1.8	1.8	3.3	3.9	3.8	2.3
37 Jackson	18	18	20	21	19	80	33	16	42	65	65	74	82	46	43
38 John C Boyle	0	0	0	33	40	45	45	52	78	82	82	28	21	0	35
39 Lake Creek	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
40 Last Chance	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
41 Leaburg	5.3	4.2	3	0	0	7.1	4	12	12	12	12	12	13	10	7.4
42 Lookout Point	44	45	18	38	49	9.8	9.6	12	16	40	66	83	78	26	36
43 Lost Creek	41	40	31	18	19	19	19	13	14	15	16	55	55	46	29
44 Lower Malad	12	12	11	9.8	9.7	9.6	9.4	9.4	9.2	8.7	8.7	8.3	8.2	9.8	9.6
45 Lower Salmon	30	30	26	33	28	27	26	29	28	33	33	25	25	25	28
46 McNary Fishway	9.2	8.6	9.5	9.5	9.5	9.4	3.7	8.9	9.4	9.3	9.3	9.3	9.3	8.7	8.8
47 Mill Creek (WA)	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
48 Milner	0	0	0	0	5.7	9.1	4.7	3.4	0	0	0	0	0	0	1.9
49 Minidoka	28	28	12	12	3.1	9	2.8	2.4	2.2	14	14	30	30	30	15
50 Moyie Springs	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
51 North Umpqua	81	81	75	73	70	74	70	79	81	121	121	147	139	92	92
52 Oneida	7.5	7.0	6.1	5.3	5.4	5.3	5.3	5.8	5.9	7.5	7.5	7.2	7.5	7.2	6.3
53 Packwood	7.8	21	3.9	3	1.6	4.7	2.6	3.2	5.4	9.7	9.7	24	45	25	12
54 Palisades	94	78	69	56	19	16	34	28	22	19	19	97	165	162	65
55 Paris	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
56 Powerdale	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
57 Reeder Gulch	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
58 Rogue	32	32	28	27	26	28	25	27	40	50	50	51	51	42	36
59 Roza	13	13	0	3.6	0	5	4	4.3	13	13	13	13	13	13	7.9
60 Shoshone Falls	6.1	6.1	4.9	9.8	11	11	11	13	8.5	9.1	9.1	6	5.7	6.9	8.7
61 Smith Creek	0	0	0.1	1.7	1.2	0.5	0	0.7	0.9	5.7	5.7	36	28	3.9	6.5
62 Snoq. Electron & Nooksack	39	38	35	28	18	56	26	38	59	62	68	68	68	54	46

**Table A-4: Regional Independent Hydro Projects
PNW Loads and Resource Study
2020 - 2021 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
63 Soda Creek	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
64 Soda Point Project	3.6	3.3	2.9	2.5	2.6	2.5	2.5	2.8	2.8	3.6	3.6	3.4	3.6	3.4	3
65 South Fork Tolt	9	9	6	5	5	5	5	5	5	5	5	6	8	9	6.1
66 Stone Creek	7.9	7.1	6.2	5.1	4.1	5.3	4.1	4.6	6.9	9	9	9	9	9	6.7
67 Strawberry Creek	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
68 Swan Falls	19	19	16	21	18	17	16	20	18	22	22	16	15	15	18
69 Swift Creek Hydro	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
70 The Dalles Fishway	5.1	4.8	4.9	5	5	3.4	3.2	3.2	4.7	4.8	4.8	4.7	4.7	4.9	4.5
71 Thousand Springs	7.9	7.9	7.2	6.4	6.3	6.2	6.1	6.1	6.0	5.6	5.6	5.4	5.4	6.4	6.3
72 Trail Bridge	3.8	3.8	3.5	3.4	3.2	3.3	3	3.2	3.8	3.8	3.8	3.8	2.5	3.8	3.4
73 TW Sullivan	12	10	11	11	11	15	15	15	15	15	15	15	15	15	14
74 Twin Falls	8.0	8.0	8	4.7	10	13	9.5	9.2	0	0	0	0	0	7.7	5.8
75 Upper Malad	7.5	7.5	6.8	6.0	5.9	5.9	5.8	5.8	5.7	5.3	5.3	5.1	5.1	6.0	5.9
76 Upper Salmon 1 & 2	21	21	18	22	18	17	18	20	19	23	23	17	17	17	19
77 Upper Salmon 3 & 4	18	18	15	19	17	16	15	17	16	20	20	14	15	14	16
78 Wallowa Falls	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
79 WALTERVILLE	3.8	3.2	2.6	0	0	5	3.1	8.7	9.5	9.5	9.5	9.5	9.5	7.7	5.7
80 West Side (Klamath)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 WYNOCHEE	1.2	1.1	2.1	3.6	6.4	7.5	8.0	5.7	3.9	0.8	0.8	0	0	1.5	3.4
82 YELM	9	9	6	10	10	10	10	10	10	10	10	10	10	8	9.4
Total Independent Hydro w/Enc.	989	967	842	903	835	886	753	794	977	1251	1297	1605	1685	1217	1063
-Total Independent Hydro W/Enc.-															
83 Federal System	390	366	313	311	284	199	176	162	251	377	414	705	760	472	368
84 Public Entities	127	134	110	102	97	186	123	125	168	184	186	255	292	187	164
85 Investor-Owned Entities	472	467	418	490	453	501	454	508	558	690	696	645	633	558	532
86 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
87 Total Independent Hydro w/Enc	989	967	842	903	835	886	753	794	977	1251	1297	1605	1685	1217	1063

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Table A-5
Imports
Monthly OY 2012 – 2021
Average Energy in Megawatts

Power Services

Reports Powered by:



Loads and Resources Information System

**Table A-5: Regional Imports
PNW Loads and Resource Study
2011 - 2012 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Imports From East of Continental Divide-															
1 ECDMktr to Other Entities	135	135	125	123	130	138	143	141	135	121	122	121	130	142	132
2 Other Entities to IPC	48	48	0	0	0	0	0	0	0	0	0	0	0	45	7.9
3 PPL to BPA PwrS	0	0	0	145	206	277	277	256	246	216	187	54	58	74	149
4 PPL to BPA PwrS	79	65	59	0	0	0	0	0	0	0	0	0	0	0	11
5 Total Imports From ECD	262	248	184	268	336	416	420	396	380	337	309	175	187	261	300
-Imports From Pacific Southwest-															
6 BARC to PSE PwrS	0	0	0	0	75	75	75	75	0	0	0	0	0	0	25
7 GLEN to PGE S/Pwr/X	0	0	0	0	11	11	11	11	0	0	0	0	0	0	3.6
8 NCPA to SCL S/Pwr/X	0	0	0	0	24	30	30	30	30	6.2	6.2	0	0	0	13
9 PASA to BPA XchgNrg	0	0	0	3.5	3.5	3.5	3.5	3.5	1.7	0	0	0	0	0	1.6
10 PASA to BPA XchgNrg	0	0	3.5	0	0	0	0	0	0	0	0	0	0	0	0.3
11 PASA to BPA S/N/X	0	0	0	0.7	0.7	0.7	0.7	0.7	0.3	0	0	0	0	0	0.3
12 PASA to BPA S/N/X	0	0	0.7	0	0	0	0	0	0	0	0	0	0	0	0.1
13 PASA to BPA PkRepl	0	0	0	0	0	0	0	0	0	0	0	0	0	4.5	0.4
14 PASA to BPA PkRepl	4.5	4.5	4.5	0	0	0	0	0	0	0	0	0	0	0	0.7
15 PG&E to PSE S/Pwr/X	0	0	0	0	154	198	124	92	0	0	0	0	0	0	47
16 RVSD to BPA XchgNrg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17 RVSD to BPA XchgNrg	0	0	0	0	16	16	17	16	16	17	0	0	0	0	7.3
18 RVSD to BPA S/Pwr/X	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19 RVSD to BPA S/Pwr/X	0	0	0	0	9.3	9.2	9.7	9.4	9.3	10	0	0	0	0	4.3
20 RVSD to BPA PkRepl	0	0	0	10	2.7	2.7	2.7	2.7	2.7	2.7	2.5	0	0	11	3.1
21 RVSD to BPA PkRepl	11	11	10	0	0	0	0	0	0	0	0	0	0	0	1.8
22 SEMP to PSE PwrS	75	75	75	75	75	75	75	75	75	25	25	25	25	75	63
23 SUISSSE to PSE PwrS	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
24 Total Imports From PSW	141	141	144	139	422	470	397	366	185	112	84	75	75	140	221
-Imports From Inland Southwest-															
25 SPP to BPA PwrS	0	0	0	45	45	45	45	45	45	75	75	75	75	75	48
26 SPP to BPA PwrS	75	75	75	0	0	0	0	0	0	0	0	0	0	0	12
27 UPL to UPL PwrS	481	481	448	448	447	479	450	464	434	410	410	458	530	585	470
28 Total Imports From ISW	556	556	523	493	492	524	495	509	479	485	485	533	605	660	530
-Imports From Canada-															
29 BCHP to BPA PwrS	0	0	0	1	1	1	1	1	1	1	1	1	1	1	0.8
30 BCHP to BPA PwrS	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.2
31 BCHP to SCL PwrS	23	23	13	14	34	49	62	69	61	27	27	25	34	18	36
32 Other Entities to PSE	1.8	1.8	1.8	2.1	2.7	3.1	3.1	2.9	2.6	2.2	2.2	1.8	1.7	1.8	2.3
33 PWRX to PSE PwrS	0	0	0	0	0	81	84	86	0	0	0	0	0	0	21
34 Total Imports From Canada	26	26	16	17	37	134	150	159	65	31	31	27	37	21	60
-Imports From Other Entities-															
35 Total Imports From Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Total Imports-															
36 Federal System	171	156	154	206	284	355	356	334	321	322	265	130	134	165	241
37 Public Entities	23	23	13	14	58	79	92	99	91	34	34	25	34	18	48
38 Investor-Owned Entities	656	656	575	575	815	972	871	856	562	487	487	535	606	756	689
39 Other Entities	135	135	125	123	130	138	143	141	135	121	122	121	130	142	132
40 Total Imports.	985	971	867	917	1287	1544	1462	1430	1109	964	908	811	904	1082	1110

**Table A-5: Regional Imports
PNW Loads and Resource Study
2012 - 2013 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Imports From East of Continental Divide-															
1 ECDMktr to Other Entities	137	137	126	124	132	140	144	137	136	123	123	123	131	144	133
2 Other Entities to IPC	48	48	0	0	0	0	0	0	0	0	0	0	0	0	4.1
3 PPL to BPA PwrS	79	65	59	145	206	277	277	256	246	216	187	54	58	74	160
4 Total Imports From ECD	264	249	186	269	338	417	421	393	382	339	310	177	189	218	297
-Imports From Pacific Southwest-															
5 BARC to PSE PwrS	0	0	0	0	75	75	75	75	0	0	0	0	0	0	25
6 NCPA to SCL S/Pwr/X	0	0	0	0	24	30	30	30	30	6.2	6.2	0	0	0	12
7 PASA to BPA XchgNrg	0	0	3.5	3.5	3.5	3.5	3.5	3.5	1.7	0	0	0	0	0	1.9
8 PASA to BPA S/N/X	0	0	0.7	0.7	0.7	0.7	0.7	0.7	0.3	0	0	0	0	0	0.4
9 PASA to BPA PkRepl	4.5	4.5	4.5	0	0	0	0	0	0	0	0	0	0	4.5	1.1
10 PG&E to PSE S/Pwr/X	0	0	0	0	154	198	124	92	0	0	0	0	0	0	47
11 RVSD to BPA XchgNrg	0	0	0	0	16	17	16	16	17	16	0	0	0	0	7.3
12 RVSD to BPA S/Pwr/X	0	0	0	0	9.3	9.8	9.3	9.5	9.8	9.3	0	0	0	0	4.3
13 RVSD to BPA PkRepl	11	11	9.5	11	2.7	2.5	2.8	2.7	2.5	2.7	2.8	0	0	11	4.9
14 SEMP to PSE PwrS	75	75	75	75	75	75	75	75	75	0	0	0	0	0	50
15 SUISE to PSE PwrS	50	50	50	50	50	50	50	50	50	0	0	0	0	0	33
16 Total Imports From PSW	141	141	143	140	411	461	386	355	186	34	9.0	0	0	16	187
-Imports From Inland Southwest-															
17 SPP to BPA PwrS	75	75	75	45	45	45	45	45	45	75	75	75	75	75	60
18 UPL to UPL PwrS	486	486	452	452	451	483	454	468	437	413	413	462	534	590	474
19 Total Imports From ISW	560	560	527	497	496	528	499	513	482	488	488	537	609	665	534
-Imports From Canada-															
20 BCHP to BPA PwrS	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
21 BCHP to SCL PwrS	23	23	13	14	34	49	62	69	61	27	27	25	34	18	36
22 Other Entities to PSE	1.8	1.8	1.8	2.1	2.7	3.1	3.1	2.9	2.6	2.2	2.2	1.8	1.7	1.8	2.3
23 Total Imports From Canada	26	26	16	17	37	53	66	73	65	31	31	27	37	21	39
-Imports From Other Entities-															
24 Total Imports From Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Total Imports-															
25 Federal System	171	156	153	207	284	356	355	334	323	320	266	130	134	166	241
26 Public Entities	23	23	13	14	58	79	92	99	91	34	34	25	34	18	48
27 Investor-Owned Entities	660	660	578	579	808	885	780	763	565	415	415	464	536	592	635
28 Other Entities	137	137	126	124	132	140	144	137	136	123	123	123	131	144	133
29 Total Imports.	991	976	871	923	1281	1460	1372	1334	1115	891	838	741	835	920	1057

Table A-5: Regional Imports
 PNW Loads and Resource Study
 2013 - 2014 Operating Year
 [76] 2011 White Book (Final)

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Imports From East of Continental Divide-															
1 ECDMktr to Other Entities	138	138	128	125	133	141	146	139	138	124	124	124	133	145	135
2 PPL to BPA PwrS	79	65	59	145	206	277	277	256	246	216	187	54	58	74	160
3 Total Imports From ECD	217	203	187	271	339	419	423	395	383	340	311	178	190	219	294
-Imports From Pacific Southwest-															
4 BARC to PSE PwrS	0	0	0	0	75	75	75	75	0	0	0	0	0	0	25
5 NCPA to SCL S/Pwr/X	0	0	0	0	24	30	30	30	30	6.2	6.2	0	0	0	12
6 PASA to BPA XchgNrg	0	0	3.5	3.5	3.5	3.5	3.5	3.5	1.7	0	0	0	0	0	1.9
7 PASA to BPA S/N/X	0	0	0.7	0.7	0.7	0.7	0.7	0.7	0.3	0	0	0	0	0	0.4
8 PASA to BPA PkRepl	4.5	4.5	4.5	0	0	0	0	0	0	0	0	0	0	4.5	1.1
9 PG&E to PSE S/Pwr/X	0	0	0	0	154	198	124	92	0	0	0	0	0	0	47
10 RVSD to BPA XchgNrg	0	0	0	0	16	17	16	16	17	16	0	0	0	0	7.3
11 RVSD to BPA S/Pwr/X	0	0	0	0	9.3	9.7	9.2	9.4	9.7	9.2	0	0	0	0	4.3
12 RVSD to BPA PkRepl	11	11	10	11	2.6	2.7	2.8	2.7	2.5	2.7	2.8	0	0	11	4.9
13 Total Imports From PSW	15	15	19	15	286	336	261	230	61	34	9.0	0	0	16	104
-Imports From Inland Southwest-															
14 SPP to BPA PwrS	75	75	75	45	45	45	45	45	45	75	75	75	75	75	60
15 UPL to UPL PwrS	490	490	455	455	454	488	458	472	441	416	416	466	539	596	478
16 Total Imports From ISW	565	565	530	500	499	532	503	517	486	491	491	541	614	671	538
-Imports From Canada-															
17 BCHP to BPA PwrS	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
18 BCHP to SCL PwrS	23	23	13	14	34	49	62	69	61	27	27	25	34	18	36
19 Other Entities to PSE	1.8	1.8	1.8	2.1	2.7	3.1	3.1	2.9	2.6	2.2	2.2	1.8	1.7	1.8	2.3
20 Total Imports From Canada	26	26	16	17	37	53	66	73	65	31	31	27	37	21	39
-Imports From Other Entities-															
21 Total Imports From Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Total Imports-															
22 Federal System	170	156	154	207	284	357	355	334	322	319	266	130	134	166	241
23 Public Entities	23	23	13	14	58	79	92	99	91	34	34	25	34	18	48
24 Investor-Owned Entities	491	491	457	458	686	764	659	642	444	419	419	468	541	598	552
25 Other Entities	138	138	128	125	133	141	146	139	138	124	124	124	133	145	135
26 Total Imports.	823	808	752	804	1161	1340	1252	1214	995	896	842	746	841	927	975

**Table A-5: Regional Imports
PNW Loads and Resource Study
2014 - 2015 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Imports From East of Continental Divide-															
1 ECDMktr to Other Entities	140	139	129	127	135	143	147	140	139	126	126	126	134	147	136
2 PPL to BPA PwrS	79	65	59	145	206	277	277	256	246	216	187	54	58	74	160
3 Total Imports From ECD	219	204	188	272	340	420	424	396	385	341	312	179	192	221	296
-Imports From Pacific Southwest-															
4 BARC to PSE PwrS	0	0	0	0	75	75	75	75	0	0	0	0	0	0	25
5 NCPA to SCL S/Pwr/X	0	0	0	0	24	30	30	30	30	6.2	6.2	0	0	0	12
6 PASA to BPA XchgNrg	0	0	3.5	3.5	3.5	3.5	3.5	3.5	1.7	0	0	0	0	0	1.9
7 PASA to BPA S/N/X	0	0	0.7	0.7	0.7	0.7	0.7	0.7	0.3	0	0	0	0	0	0.4
8 PASA to BPA PkRepl	4.5	4.5	4.5	0	0	0	0	0	0	0	0	0	0	0	0.7
9 PG&E to PSE S/Pwr/X	0	0	0	0	154	198	124	92	0	0	0	0	0	0	47
10 RVSD to BPA XchgNrg	0	0	0	0	17	16	16	16	17	16	0	0	0	0	7.3
11 RVSD to BPA S/Pwr/X	0	0	0	0	9.8	9.2	9.2	9.4	9.7	9.2	0	0	0	0	4.3
12 RVSD to BPA PkRepl	9.7	11	10	11	2.5	2.8	2.7	2.7	2.7	2.7	2.8	0	0	11	4.9
13 Total Imports From PSW	14	15	19	15	287	335	260	230	61	34	9.0	0	0	11	104
-Imports From Inland Southwest-															
14 SPP to BPA PwrS	75	75	75	45	45	45	45	45	45	75	75	75	75	75	60
15 UPL to UPL PwrS	494	494	459	459	458	492	461	476	445	420	420	470	544	602	482
16 Total Imports From ISW	569	569	534	504	503	537	506	521	490	495	495	545	619	676	542
-Imports From Canada-															
17 BCHP to BPA PwrS	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
18 BCHP to SCL PwrS	23	23	13	14	34	49	62	69	61	27	27	25	34	18	36
19 Other Entities to PSE	1.8	1.8	1.8	2.1	2.7	3.1	3.1	2.9	2.6	2.2	2.2	1.8	1.7	1.8	2.3
20 Total Imports From Canada	26	26	16	17	37	53	66	73	65	31	31	27	37	21	39
-Imports From Other Entities-															
21 Total Imports From Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Total Imports-															
22 Federal System	169	156	154	207	285	355	355	334	323	319	266	130	134	161	241
23 Public Entities	23	23	13	14	58	79	92	99	91	34	34	25	34	18	48
24 Investor-Owned Entities	496	496	461	461	690	768	663	646	447	422	422	472	546	603	556
25 Other Entities	140	139	129	127	135	143	147	140	139	126	126	126	134	147	136
26 Total Imports.	828	813	758	809	1168	1345	1257	1220	1000	901	847	752	847	930	980

**Table A-5: Regional Imports
PNW Loads and Resource Study
2015 - 2016 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Imports From East of Continental Divide-															
1 ECDMktr to Other Entities	142	141	130	128	136	144	149	147	141	127	127	127	136	149	138
2 PPL to BPA PwrS	79	65	59	145	206	277	277	256	246	216	187	54	58	74	160
3 Total Imports From ECD	221	205	190	273	342	422	426	403	386	343	314	181	193	223	298
-Imports From Pacific Southwest-															
4 NCPA to SCL S/Pwr/X	0	0	0	0	24	30	30	30	30	6.2	6.2	0	0	0	13
5 PG&E to PSE S/Pwr/X	0	0	0	0	154	198	124	92	0	0	0	0	0	0	47
6 RVSD to BPA XchgNrg	0	0	0	0	17	16	17	16	16	16	0	0	0	0	7.3
7 RVSD to BPA S/Pwr/X	0	0	0	0	9.7	9.2	9.6	9.3	9.2	9.2	0	0	0	0	4.3
8 RVSD to BPA PkRepl	9.7	11	11	11	2.6	2.8	2.5	2.7	2.8	2.6	2.6	0	0	0	4.0
9 Total Imports From PSW	9.7	11	11	11	208	256	182	150	58	34	8.8	0	0	0	75
-Imports From Inland Southwest-															
10 SPP to BPA PwrS	75	75	75	45	45	45	45	45	45	75	75	75	75	75	60
11 UPL to UPL PwrS	498	498	463	463	462	496	465	480	448	423	423	474	549	607	486
12 Total Imports From ISW	573	573	538	508	507	541	510	525	493	498	498	549	624	682	546
-Imports From Canada-															
13 BCHP to BPA PwrS	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
14 BCHP to SCL PwrS	23	23	13	14	34	49	62	69	61	27	27	25	34	18	36
15 Other Entities to PSE	1.8	1.8	1.8	2.1	2.7	3.1	3.1	2.9	2.6	2.2	2.2	1.8	1.7	1.8	2.3
16 Total Imports From Canada	26	26	16	17	37	53	66	73	65	31	31	27	37	21	39
-Imports From Other Entities-															
17 Total Imports From Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Total Imports-															
18 Federal System	165	151	146	202	281	351	352	330	319	319	265	130	134	150	237
19 Public Entities	23	23	13	14	58	79	92	99	91	34	34	25	34	18	48
20 Investor-Owned Entities	500	500	465	465	619	697	592	575	451	425	425	476	551	609	535
21 Other Entities	142	141	130	128	136	144	149	147	141	127	127	127	136	149	138
22 Total Imports.	829	815	755	809	1094	1271	1185	1151	1002	905	851	757	854	926	958

**Table A-5: Regional Imports
PNW Loads and Resource Study
2016 - 2017 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Imports From East of Continental Divide-															
1 ECDMktr to Other Entities	143	143	132	130	138	146	151	144	143	129	128	129	137	151	139
2 PPL to BPA PwrS	79	65	59	145	206	277	277	256	246	216	187	54	58	74	160
3 Total Imports From ECD	222	208	191	275	344	424	428	400	388	345	315	182	195	224	299
-Imports From Pacific Southwest-															
4 NCPA to SCL S/Pwr/X	0	0	0	0	24	30	30	30	30	6.2	6.2	0	0	0	12
5 PG&E to PSE S/Pwr/X	0	0	0	0	154	198	124	92	0	0	0	0	0	0	47
6 Total Imports From PSW	0	0	0	0	179	228	154	122	30	6.2	6.2	0	0	0	60
-Imports From Inland Southwest-															
7 SPP to BPA PwrS	75	75	75	45	45	45	45	45	45	75	75	75	75	75	60
8 UPL to UPL PwrS	502	502	467	467	466	500	469	484	452	426	426	478	554	613	490
9 Total Imports From ISW	577	577	542	512	511	545	514	529	497	502	502	553	629	688	550
-Imports From Canada-															
10 BCHP to BPA PwrS	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
11 BCHP to SCL PwrS	23	23	13	14	34	49	62	69	61	27	27	25	34	18	36
12 Other Entities to PSE	1.8	1.8	1.8	2.1	2.7	3.1	3.1	2.9	2.6	2.2	2.2	1.8	1.7	1.8	2.3
13 Total Imports From Canada	26	26	16	17	37	53	66	73	65	31	31	27	37	21	39
-Imports From Other Entities-															
14 Total Imports From Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Total Imports-															
15 Federal System	155	141	135	191	252	323	323	302	292	292	263	130	134	150	221
16 Public Entities	23	23	13	14	58	79	92	99	91	34	34	25	34	18	48
17 Investor-Owned Entities	504	504	469	469	623	701	596	579	455	429	429	480	556	615	539
18 Other Entities	143	143	132	130	138	146	151	144	143	129	128	129	137	151	139
19 Total Imports.	825	811	749	804	1071	1250	1162	1124	980	883	853	763	860	934	948

**Table A-5: Regional Imports
PNW Loads and Resource Study
2017 - 2018 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Imports From East of Continental Divide-															
1 ECDMktr to Other Entities	144	144	133	131	139	147	152	145	144	129	130	130	138	152	140
2 PPL to BPA PwrS	79	65	59	145	206	277	277	256	246	216	187	54	58	74	160
3 Total Imports From ECD	223	209	192	276	345	425	429	401	389	345	317	183	196	226	300
-Imports From Pacific Southwest-															
4 NCPA to SCL S/Pwr/X	0	0	0	0	24	30	30	30	30	6.2	6.2	0	0	0	12
5 PG&E to PSE S/Pwr/X	0	0	0	0	154	198	124	92	0	0	0	0	0	0	47
6 Total Imports From PSW	0	0	0	0	179	228	154	122	30	6.2	6.2	0	0	0	60
-Imports From Inland Southwest-															
7 SPP to BPA PwrS	75	75	75	45	45	45	45	40	0	0	0	0	0	0	31
8 UPL to UPL PwrS	507	507	471	471	470	505	473	488	456	430	430	482	559	618	494
9 Total Imports From ISW	582	582	546	516	515	550	518	528	456	430	430	482	559	618	525
-Imports From Canada-															
10 BCHP to BPA PwrS	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
11 BCHP to SCL PwrS	23	23	13	14	34	49	62	69	61	27	27	25	34	18	36
12 Other Entities to PSE	1.8	1.8	1.8	2.1	2.7	3.1	3.1	2.9	2.6	2.2	2.2	1.8	1.7	1.8	2.3
13 Total Imports From Canada	26	26	16	17	37	53	66	73	65	31	31	27	37	21	39
-Imports From Other Entities-															
14 Total Imports From Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Total Imports-															
15 Federal System	155	141	135	191	252	323	323	297	247	217	188	55	59	75	192
16 Public Entities	23	23	13	14	58	79	92	99	91	34	34	25	34	18	48
17 Investor-Owned Entities	509	509	473	473	627	706	600	584	458	432	432	484	561	620	544
18 Other Entities	144	144	133	131	139	147	152	145	144	129	130	130	138	152	140
19 Total Imports.	831	816	754	809	1076	1255	1167	1124	940	812	784	693	792	866	924

**Table A-5: Regional Imports
PNW Loads and Resource Study
2018 - 2019 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
<i>-Imports From East of Continental Divide-</i>															
1 ECDMktr to Other Entities	145	145	134	132	140	149	153	146	145	131	131	131	140	153	142
2 PPL to BPA PwrS	79	65	59	145	206	277	277	256	246	216	187	54	58	74	160
3 Total Imports From ECD	224	210	194	277	346	426	430	402	391	347	318	184	197	227	301
<i>-Imports From Pacific Southwest-</i>															
4 NCPA to SCL S/Pwr/X	0	0	0	0	24	30	30	30	30	6.2	6.2	0	0	0	12
5 PG&E to PSE S/Pwr/X	0	0	0	0	154	198	124	92	0	0	0	0	0	0	47
6 Total Imports From PSW	0	0	0	0	179	228	154	122	30	6.2	6.2	0	0	0	60
<i>-Imports From Inland Southwest-</i>															
7 UPL to UPL PwrS	511	511	475	475	474	509	477	492	460	433	433	486	564	624	499
8 Total Imports From ISW	511	511	475	475	474	509	477	492	460	433	433	486	564	624	499
<i>-Imports From Canada-</i>															
9 BCHP to BPA PwrS	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
10 BCHP to SCL PwrS	23	23	13	14	34	49	62	69	61	27	27	25	34	18	36
11 Other Entities to PSE	1.8	1.8	1.8	2.1	2.7	3.1	3.1	2.9	2.6	2.2	2.2	1.8	1.7	1.8	2.3
12 Total Imports From Canada	26	26	16	17	37	53	66	73	65	31	31	27	37	21	39
<i>-Imports From Other Entities-</i>															
13 Total Imports From Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Total Imports-</i>															
14 Federal System	80	66	60	146	207	278	278	257	247	217	188	55	59	75	161
15 Public Entities	23	23	13	14	58	79	92	99	91	34	34	25	34	18	48
16 Investor-Owned Entities	513	513	477	477	631	710	604	588	462	436	436	488	566	626	548
17 Other Entities	145	145	134	132	140	149	153	146	145	131	131	131	140	153	142
18 Total Imports.	761	747	684	769	1036	1216	1127	1090	945	817	788	698	798	873	899

**Table A-5: Regional Imports
PNW Loads and Resource Study
2019 - 2020 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Imports From East of Continental Divide-															
1 ECDMktr to Other Entities	146	147	135	133	141	150	155	153	146	132	132	132	141	154	143
2 PPL to BPA PwrS	79	65	59	145	206	277	277	256	246	216	187	54	58	74	160
3 Total Imports From ECD	225	211	195	278	347	427	432	408	392	348	319	186	198	228	303
-Imports From Pacific Southwest-															
4 NCPA to SCL S/Pwr/X	0	0	0	0	24	30	30	30	30	6.2	6.2	0	0	0	13
5 PG&E to PSE S/Pwr/X	0	0	0	0	154	198	124	92	0	0	0	0	0	0	47
6 Total Imports From PSW	0	0	0	0	179	228	154	122	30	6.2	6.2	0	0	0	60
-Imports From Inland Southwest-															
7 UPL to UPL PwrS	516	516	479	479	478	513	481	497	463	437	437	490	569	630	503
8 Total Imports From ISW	516	516	479	479	478	513	481	497	463	437	437	490	569	630	503
-Imports From Canada-															
9 BCHP to BPA PwrS	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
10 BCHP to SCL PwrS	23	23	13	14	34	49	62	69	61	27	27	25	34	18	36
11 Other Entities to PSE	1.8	1.8	1.8	2.1	2.7	3.1	3.1	2.9	2.6	2.2	2.2	1.8	1.7	1.8	2.3
12 Total Imports From Canada	26	26	16	17	37	53	66	73	65	31	31	27	37	21	39
-Imports From Other Entities-															
13 Total Imports From Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Total Imports-															
14 Federal System	80	66	60	146	207	278	278	257	247	217	188	55	59	75	161
15 Public Entities	23	23	13	14	58	79	92	99	91	34	34	25	34	18	48
16 Investor-Owned Entities	518	518	481	481	635	715	608	592	466	439	439	492	571	632	552
17 Other Entities	146	147	135	133	141	150	155	153	146	132	132	132	141	154	143
18 Total Imports.	767	753	690	774	1041	1222	1133	1100	950	821	792	703	804	880	905

**Table A-5: Regional Imports
PNW Loads and Resource Study
2020 - 2021 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Imports From East of Continental Divide-															
1 ECDMktr to Other Entities	148	147	136	134	142	151	156	149	147	133	133	133	142	156	144
2 PPL to BPA PwrS	79	65	59	145	206	277	277	256	246	216	187	54	58	74	160
3 Total Imports From ECD	227	212	196	279	348	429	433	404	393	349	320	187	200	230	304
-Imports From Pacific Southwest-															
4 NCPA to SCL S/Pwr/X	0	0	0	0	24	30	30	30	30	6.2	6.2	0	0	0	12
5 PG&E to PSE S/Pwr/X	0	0	0	0	154	198	124	92	0	0	0	0	0	0	47
6 Total Imports From PSW	0	0	0	0	179	228	154	122	30	6.2	6.2	0	0	0	60
-Imports From Inland Southwest-															
7 UPL to UPL PwrS	520	520	483	483	482	518	485	501	467	440	440	495	574	636	507
8 Total Imports From ISW	520	520	483	483	482	518	485	501	467	440	440	495	574	636	507
-Imports From Canada-															
9 BCHP to BPA PwrS	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
10 BCHP to SCL PwrS	23	23	13	14	34	49	62	69	61	27	27	25	34	18	36
11 Other Entities to PSE	1.8	1.8	1.8	2.1	2.7	3.1	3.1	2.9	2.6	2.2	2.2	1.8	1.7	1.8	2.3
12 Total Imports From Canada	26	26	16	17	37	53	66	73	65	31	31	27	37	21	39
-Imports From Other Entities-															
13 Total Imports From Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Total Imports-															
14 Federal System	80	66	60	146	207	278	278	257	247	217	188	55	59	75	161
15 Public Entities	23	23	13	14	58	79	92	99	91	34	34	25	34	18	48
16 Investor-Owned Entities	522	522	485	485	639	719	612	596	470	443	443	496	576	638	557
17 Other Entities	148	147	136	134	142	151	156	149	147	133	133	133	142	156	144
18 Total Imports.	773	758	695	780	1046	1228	1138	1101	955	826	797	709	811	887	910

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Table A-6
Small Thermal & Miscellaneous
Monthly OY 2012 – 2021
Average Energy in Megawatts

Power Services

Reports Powered by:



Loads and Resources Information System

**Table A-6: Regional Small Thermal and Miscellaneous
PNW Loads and Resource Study
2011 - 2012 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Federal System-															
1 Bangor Base #1 Diesel Generators	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2 Bangor Base #2 Diesel Generators	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3 Puget Sound Shipyards Diesel Generators	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Total Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Public Entities-															
5 Total Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Investor-Owned Entities-															
6 Crystal Mountain	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Other Entities-															
8 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Small Thermal and Miscellaneous-															
9 Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10 Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13 Total Small Thermal & Misc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

**Table A-6: Regional Small Thermal and Miscellaneous
PNW Loads and Resource Study
2012 - 2013 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Federal System-															
1 Bangor Base #1 Diesel Generators	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2 Bangor Base #2 Diesel Generators	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3 Puget Sound Shipyards Diesel Generators	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Total Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Public Entities-															
5 Total Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Investor-Owned Entities-															
6 Crystal Mountain	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Other Entities-															
8 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Small Thermal and Miscellaneous-															
9 Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10 Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13 Total Small Thermal & Misc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

**Table A-6: Regional Small Thermal and Miscellaneous
PNW Loads and Resource Study
2013 - 2014 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Federal System-															
1 Bangor Base #1 Diesel Generators	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2 Bangor Base #2 Diesel Generators	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3 Puget Sound Shipyards Diesel Generators	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Total Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Public Entities-															
5 Total Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Investor-Owned Entities-															
6 Crystal Mountain	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Other Entities-															
8 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Small Thermal and Miscellaneous-															
9 Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10 Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13 Total Small Thermal & Misc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

**Table A-6: Regional Small Thermal and Miscellaneous
PNW Loads and Resource Study
2014 - 2015 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Federal System-															
1 Bangor Base #1 Diesel Generators	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2 Bangor Base #2 Diesel Generators	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3 Puget Sound Shipyards Diesel Generators	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Total Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Public Entities-															
5 Total Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Investor-Owned Entities-															
6 Crystal Mountain	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Other Entities-															
8 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Small Thermal and Miscellaneous-															
9 Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10 Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13 Total Small Thermal & Misc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

**Table A-6: Regional Small Thermal and Miscellaneous
PNW Loads and Resource Study
2015 - 2016 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Federal System-															
1 Bangor Base #1 Diesel Generators	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2 Bangor Base #2 Diesel Generators	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3 Puget Sound Shipyards Diesel Generators	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Total Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Public Entities-															
5 Total Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Investor-Owned Entities-															
6 Crystal Mountain	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Other Entities-															
8 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Small Thermal and Miscellaneous-															
9 Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10 Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13 Total Small Thermal & Misc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

**Table A-6: Regional Small Thermal and Miscellaneous
PNW Loads and Resource Study
2016 - 2017 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Federal System-															
1 Bangor Base #1 Diesel Generators	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2 Bangor Base #2 Diesel Generators	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3 Puget Sound Shipyards Diesel Generators	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Total Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Public Entities-															
5 Total Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Investor-Owned Entities-															
6 Crystal Mountain	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Other Entities-															
8 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Small Thermal and Miscellaneous-															
9 Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10 Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13 Total Small Thermal & Misc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

**Table A-6: Regional Small Thermal and Miscellaneous
PNW Loads and Resource Study
2017 - 2018 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Federal System-															
1 Bangor Base #1 Diesel Generators	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2 Bangor Base #2 Diesel Generators	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3 Puget Sound Shipyards Diesel Generators	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Total Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Public Entities-															
5 Total Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Investor-Owned Entities-															
6 Crystal Mountain	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Other Entities-															
8 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Small Thermal and Miscellaneous-															
9 Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10 Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13 Total Small Thermal & Misc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

**Table A-6: Regional Small Thermal and Miscellaneous
PNW Loads and Resource Study
2018 - 2019 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Federal System-															
1 Bangor Base #1 Diesel Generators	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2 Bangor Base #2 Diesel Generators	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3 Puget Sound Shipyards Diesel Generators	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Total Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Public Entities-															
5 Total Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Investor-Owned Entities-															
6 Crystal Mountain	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Other Entities-															
8 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Small Thermal and Miscellaneous-															
9 Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10 Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13 Total Small Thermal & Misc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

**Table A-6: Regional Small Thermal and Miscellaneous
PNW Loads and Resource Study
2019 - 2020 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Federal System-															
1 Bangor Base #1 Diesel Generators	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2 Bangor Base #2 Diesel Generators	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3 Puget Sound Shipyards Diesel Generators	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Total Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Public Entities-															
5 Total Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Investor-Owned Entities-															
6 Crystal Mountain	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Other Entities-															
8 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Small Thermal and Miscellaneous-															
9 Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10 Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13 Total Small Thermal & Misc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

**Table A-6: Regional Small Thermal and Miscellaneous
PNW Loads and Resource Study
2020 - 2021 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Federal System-															
1 Bangor Base #1 Diesel Generators	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2 Bangor Base #2 Diesel Generators	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3 Puget Sound Shipyards Diesel Generators	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Total Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Public Entities-															
5 Total Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Investor-Owned Entities-															
6 Crystal Mountain	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Other Entities-															
8 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Small Thermal and Miscellaneous-															
9 Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10 Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13 Total Small Thermal & Misc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Table A-7
Combustion Turbines
Monthly OY 2012 – 2021
Average Energy in Megawatts

Power Services

Reports Powered by:



Loads and Resources Information System

**Table A-7: Regional Combustion Turbines
PNW Loads and Resource Study
2011 - 2012 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Federal System-															
1 Total Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Public Entities-															
2 Boundary CT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3 Finley CT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Frederickson CT	122	122	124	126	128	129	129	128	127	86	86	125	123	122	122
5 Olympic View Generating Station	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6 Pasco Harbor Generating Station	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
7 River Road	186	186	215	230	235	235	235	235	230	225	225	0	220	205	204
8 Wauna Peaking Project (Loki)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	0	2.5	2.5	2.3
9 Total Public Entities	312	312	343	360	367	368	368	367	362	315	315	127	348	332	331
-Investor-Owned Entities-															
10 Basin Creek Project	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
11 Beaver	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12 Beaver 8	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
13 Bennett Mountain	93	93	0	0	0	89	86	0	0	0	0	0	92	86	38
14 Boulder Park	25	25	25	25	25	25	25	25	25	25	25	12	12	25	23
15 Chehalis Generation Facility CCCT	379	379	383	391	398	401	402	400	397	394	394	388	184	379	375
16 Danskin 1	52	52	0	0	0	50	48	0	0	0	0	0	51	48	21
17 Danskin 2	97	97	0	0	0	94	90	0	0	0	0	0	97	90	39
18 Encogen	160	160	162	167	172	175	175	173	171	114	114	165	162	160	163
19 Frederickson 1&2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20 Frederickson CT	122	122	123	125	127	128	128	128	127	85	85	125	123	122	122
21 Fredonia 1&2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22 Fredonia 3&4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23 Goldendale Energy Center	238	238	243	249	254	257	257	255	252	250	250	245	201	238	245
24 Kettle Falls (CT)	9	9	10	10	10	10	10	10	10	10	10	10	4.8	9	9.4
25 Lancaster Power Project (Rathdrum)	244	244	246	252	283	285	285	284	282	279	279	151	249	244	257
26 Langley Gulch CT	0	0	0	0	0	0	0	0	0	0	0	0	0	251	21
27 Mill Creek Gas Turbine (MT)	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
28 Mint Farm Energy Center	252	252	255	260	264	266	266	265	263	262	262	134	256	253	249
29 Northeastern 1 & 2	44	44	46	0	0	0	0	0	0	0	0	0	0	42	11
30 Port Westward CCCT	341	341	361	372	365	383	360	359	356	334	334	165	328	318	337
31 Rathdrum - Boekel Rd. #1	64	64	66	78	80	82	82	81	80	78	78	56	66	64	73
32 Rathdrum - Boekel Rd. #2	64	64	66	78	80	82	82	81	80	78	78	76	66	64	75
33 Whitehorn 2 & 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34 Total Investor-Owned Entities	2210	2210	2014	2036	2085	2354	2324	2087	2071	1936	1936	1555	1920	2418	2085
-Other Entities-															
35 Big Hanaford CCCT	244	244	244	244	244	244	244	244	244	244	244	0	244	244	223
36 Chehalis Generation Facility CCCT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
37 Frederickson CT	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.4	0.4	0.4	0.4
38 Klamath Peaking Unit	15	15	15	15	20	25	25	25	15	0	0	0	0	15	14
39 Lancaster Power Project (Rathdrum)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40 Longview Fibre CT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
41 Mint Farm Energy Center	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42 Satsop	638	638	638	638	638	638	638	638	638	638	638	0	638	638	584
43 Total Other Entities	897	897	897	897	902	907	907	907	897	882	882	0.4	882	897	822
-Combustion Turbines-															
44 Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45 Public Entities	312	312	343	360	367	368	368	367	362	315	315	127	348	332	331
46 Investor-Owned Entities	2210	2210	2014	2036	2085	2354	2324	2087	2071	1936	1936	1555	1920	2418	2085
47 Other Entities	897	897	897	897	902	907	907	907	897	882	882	0.4	882	897	822
48 Total Combustion Turbines	3419	3419	3254	3293	3355	3629	3599	3362	3330	3133	3133	1682	3150	3647	3237

**Table A-7: Regional Combustion Turbines
PNW Loads and Resource Study
2012 - 2013 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Federal System-															
1 Total Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Public Entities-															
2 Boundary CT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3 Finley CT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Frederickson CT	122	122	124	126	128	129	129	128	127	86	86	125	123	122	122
5 Olympic View Generating Station	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6 Pasco Harbor Generating Station	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
7 River Road	205	205	215	230	235	235	235	235	230	225	225	0	220	205	205
8 Wauna Peaking Project (Loki)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	0	2.5	2.5	2.3
9 Total Public Entities	331	331	343	360	367	368	368	367	362	315	315	127	348	332	332
-Investor-Owned Entities-															
10 Basin Creek Project	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
11 Beaver	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12 Beaver 8	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
13 Bennett Mountain	93	93	0	0	0	86	89	0	0	0	0	89	89	38	38
14 Boulder Park	25	25	25	25	25	25	25	25	25	25	25	25	21	25	24
15 Chehalis Generation Facility CCCT	379	379	383	391	398	401	402	400	397	394	394	388	184	379	375
16 Danskin 1	52	52	0	0	0	48	50	0	0	0	0	0	49	50	21
17 Danskin 2	97	97	0	0	0	90	94	0	0	0	0	0	93	94	39
18 Encogen	160	160	162	167	172	175	175	173	171	114	114	165	162	160	163
19 Frederickson 1&2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20 Frederickson CT	122	122	123	125	127	128	128	128	127	85	85	125	123	122	122
21 Fredonia 1&2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22 Fredonia 3&4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23 Goldendale Energy Center	238	238	243	249	254	257	257	255	252	250	250	245	201	238	245
24 Kettle Falls (CT)	9	9	10	10	10	10	10	10	10	10	10	10	4.8	9	9.4
25 Lancaster Power Project (Rathdrum)	244	244	246	252	283	285	285	284	282	279	279	213	208	244	259
26 Langley Gulch CT	251	251	251	251	251	251	251	251	251	251	251	251	251	251	251
27 Mill Creek Gas Turbine (MT)	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
28 Mint Farm Energy Center	252	252	255	260	264	266	266	265	263	262	262	134	256	253	249
29 Northeastern 1 & 2	44	44	46	0	0	0	0	0	0	0	0	0	0	42	11
30 Port Westward CCCT	341	341	361	372	365	383	360	359	356	334	334	165	328	318	337
31 Rathdrum - Boekel Rd. #1	64	64	66	78	80	82	82	81	80	78	78	76	66	64	75
32 Rathdrum - Boekel Rd. #2	64	64	66	78	80	82	82	81	80	78	78	56	66	64	73
33 Whitehorn 2 & 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34 Total Investor-Owned Entities	2461	2461	2265	2287	2336	2596	2584	2338	2322	2187	2187	1880	2129	2427	2318
-Other Entities-															
35 Big Hanaford CCCT	244	244	244	244	244	244	244	244	244	244	244	0	244	244	223
36 Chehalis Generation Facility CCCT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
37 Frederickson CT	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.4	0.4	0.4	0.4
38 Klamath Peaking Unit	15	15	15	15	20	25	25	25	15	0	0	0	0	15	14
39 Lancaster Power Project (Rathdrum)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40 Longview Fibre CT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
41 Mint Farm Energy Center	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42 Satsop	638	638	638	638	638	638	638	638	638	638	638	0	638	638	584
43 Total Other Entities	897	897	897	897	902	907	907	907	897	882	882	0.4	882	897	822
-Combustion Turbines-															
44 Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45 Public Entities	331	331	343	360	367	368	368	367	362	315	315	127	348	332	332
46 Investor-Owned Entities	2461	2461	2265	2287	2336	2596	2584	2338	2322	2187	2187	1880	2129	2427	2318
47 Other Entities	897	897	897	897	902	907	907	907	897	882	882	0.4	882	897	822
48 Total Combustion Turbines	3689	3689	3505	3544	3606	3871	3859	3613	3581	3384	3384	2008	3359	3656	3472

**Table A-7: Regional Combustion Turbines
PNW Loads and Resource Study
2013 - 2014 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Federal System-															
1 Total Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Public Entities-															
2 Boundary CT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3 Finley CT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Frederickson CT	122	122	124	126	128	129	129	128	127	86	86	125	123	122	122
5 Olympic View Generating Station	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6 Pasco Harbor Generating Station	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
7 River Road	205	205	215	230	235	235	235	235	230	225	225	0	220	205	205
8 Wauna Peaking Project (Loki)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	0	2.5	2.5	2.3
9 Total Public Entities	331	331	343	360	367	368	368	367	362	315	315	127	348	332	332
-Investor-Owned Entities-															
10 Basin Creek Project	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
11 Beaver	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12 Beaver 8	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
13 Bennett Mountain	93	93	0	0	0	86	89	0	0	0	0	89	89	89	38
14 Boulder Park	25	25	25	25	25	25	25	25	25	25	25	23	23	25	24
15 Chehalis Generation Facility CCCT	379	379	383	391	398	401	402	400	397	394	394	388	184	379	375
16 Danskin 1	52	52	0	0	0	48	50	0	0	0	0	0	49	50	21
17 Danskin 2	97	97	0	0	0	90	94	0	0	0	0	0	93	94	39
18 Encogen	160	160	162	167	172	175	175	173	171	114	114	165	162	160	163
19 Frederickson 1&2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20 Frederickson CT	122	122	123	125	127	128	128	128	127	85	85	125	123	122	122
21 Fredonia 1&2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22 Fredonia 3&4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23 Goldendale Energy Center	238	238	243	249	254	257	257	255	252	250	250	245	201	238	245
24 Kettle Falls (CT)	9	9	10	10	10	10	10	10	10	10	10	10	6.9	9	9.6
25 Lancaster Power Project (Rathdrum)	244	244	246	252	283	285	285	284	282	279	279	254	82	244	252
26 Langley Gulch CT	251	251	251	251	251	251	251	251	251	251	251	251	251	251	251
27 Mill Creek Gas Turbine (MT)	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
28 Mint Farm Energy Center	252	252	255	260	264	266	266	265	263	262	262	134	256	253	249
29 Northeastern 1 & 2	44	44	46	0	0	0	0	0	0	0	0	0	0	42	11
30 Port Westward CCCT	341	341	361	372	365	383	360	359	356	334	334	165	328	318	337
31 Rathdrum - Boekel Rd. #1	64	64	66	78	80	82	82	81	80	78	78	56	66	64	73
32 Rathdrum - Boekel Rd. #2	64	64	66	78	80	82	82	81	80	78	78	76	66	64	75
33 Whitehorn 2 & 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34 Total Investor-Owned Entities	2461	2461	2265	2287	2336	2596	2584	2338	2322	2187	2187	1920	2007	2427	2312
-Other Entities-															
35 Big Hanaford CCCT	244	244	244	244	244	244	244	244	244	244	244	0	244	244	223
36 Chehalis Generation Facility CCCT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
37 Frederickson CT	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.4	0.4	0.4	0.4
38 Klamath Peaking Unit	15	15	15	15	20	25	25	25	15	0	0	0	0	15	14
39 Lancaster Power Project (Rathdrum)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40 Longview Fibre CT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
41 Mint Farm Energy Center	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42 Satsop	638	638	638	638	638	638	638	638	638	638	638	0	638	638	584
43 Total Other Entities	897	897	897	897	902	907	907	907	897	882	882	0.4	882	897	822
-Combustion Turbines-															
44 Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45 Public Entities	331	331	343	360	367	368	368	367	362	315	315	127	348	332	332
46 Investor-Owned Entities	2461	2461	2265	2287	2336	2596	2584	2338	2322	2187	2187	1920	2007	2427	2312
47 Other Entities	897	897	897	897	902	907	907	907	897	882	882	0.4	882	897	822
48 Total Combustion Turbines	3689	3689	3505	3544	3606	3871	3859	3613	3581	3384	3384	2047	3237	3656	3465

**Table A-7: Regional Combustion Turbines
PNW Loads and Resource Study
2014 - 2015 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Federal System-															
1 Total Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Public Entities-															
2 Boundary CT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3 Finley CT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Frederickson CT	122	122	124	126	128	129	129	128	127	86	86	125	123	122	122
5 Olympic View Generating Station	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6 Pasco Harbor Generating Station	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
7 River Road	205	205	215	230	235	235	235	235	230	225	225	0	220	205	205
8 Wauna Peaking Project (Loki)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	0	2.5	2.5	2.3
9 Total Public Entities	331	331	343	360	367	368	368	367	362	315	315	127	348	332	332
-Investor-Owned Entities-															
10 Basin Creek Project	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
11 Beaver	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12 Beaver 8	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
13 Bennett Mountain	89	89	0	0	0	89	89	0	0	0	0	0	92	89	38
14 Boulder Park	25	25	25	25	25	25	25	25	25	25	25	25	21	25	24
15 Chehalis Generation Facility CCCT	379	379	383	391	398	401	402	400	397	394	394	388	184	379	375
16 Danskin 1	50	50	0	0	0	50	50	0	0	0	0	0	51	50	21
17 Danskin 2	94	94	0	0	0	94	94	0	0	0	0	0	97	94	40
18 Encogen	160	160	162	167	172	175	175	173	171	114	114	165	162	160	163
19 Frederickson 1&2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20 Frederickson CT	122	122	123	125	127	128	128	128	127	85	85	125	123	122	122
21 Fredonia 1&2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22 Fredonia 3&4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23 Goldendale Energy Center	238	238	243	249	254	257	257	255	252	250	250	245	201	238	245
24 Kettle Falls (CT)	9	9	10	10	10	10	10	10	10	10	10	10	4.8	9	9.4
25 Lancaster Power Project (Rathdrum)	244	244	246	252	283	285	285	284	282	279	279	151	249	244	257
26 Langley Gulch CT	251	251	251	251	251	251	251	251	251	251	251	251	251	251	251
27 Mill Creek Gas Turbine (MT)	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
28 Mint Farm Energy Center	252	252	255	260	264	266	266	265	263	262	262	134	256	253	249
29 Northeastern 1 & 2	44	44	46	0	0	0	0	0	0	0	0	0	0	42	11
30 Port Westward CCCT	341	341	361	372	365	383	360	359	356	334	334	165	328	318	337
31 Rathdrum - Boekel Rd. #1	64	64	66	78	80	82	82	81	80	78	78	76	66	64	75
32 Rathdrum - Boekel Rd. #2	64	64	66	78	80	82	82	81	80	78	78	56	66	64	73
33 Whitehorn 2 & 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34 Total Investor-Owned Entities	2452	2452	2265	2287	2336	2605	2584	2338	2322	2187	2187	1818	2180	2427	2317
-Other Entities-															
35 Big Hanaford CCCT	244	244	244	244	244	244	244	244	244	244	244	0	244	244	223
36 Chehalis Generation Facility CCCT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
37 Frederickson CT	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.4	0.4	0.4	0.4
38 Klamath Peaking Unit	15	15	15	15	20	25	25	25	15	0	0	0	0	15	14
39 Lancaster Power Project (Rathdrum)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40 Longview Fibre CT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
41 Mint Farm Energy Center	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42 Satsop	638	638	638	638	638	638	638	638	638	638	638	0	638	638	584
43 Total Other Entities	897	897	897	897	902	907	907	907	897	882	882	0.4	882	897	822
-Combustion Turbines-															
44 Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45 Public Entities	331	331	343	360	367	368	368	367	362	315	315	127	348	332	332
46 Investor-Owned Entities	2452	2452	2265	2287	2336	2605	2584	2338	2322	2187	2187	1818	2180	2427	2317
47 Other Entities	897	897	897	897	902	907	907	907	897	882	882	0.4	882	897	822
48 Total Combustion Turbines	3680	3680	3505	3544	3606	3880	3859	3613	3581	3384	3384	1946	3410	3656	3471

**Table A-7: Regional Combustion Turbines
PNW Loads and Resource Study
2015 - 2016 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Federal System-															
1 Total Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Public Entities-															
2 Boundary CT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3 Finley CT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Frederickson CT	122	122	124	126	128	129	129	128	127	86	86	125	123	122	122
5 Olympic View Generating Station	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6 Pasco Harbor Generating Station	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
7 River Road	205	205	215	230	235	235	235	235	230	225	225	0	220	205	205
8 Wauna Peaking Project (Loki)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	0	2.5	2.5	2.3
9 Total Public Entities	331	331	343	360	367	368	368	367	362	315	315	127	348	332	332
-Investor-Owned Entities-															
10 Basin Creek Project	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
11 Beaver	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12 Beaver 8	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
13 Bennett Mountain	89	89	0	0	0	89	86	0	0	0	0	0	92	86	37
14 Boulder Park	25	25	25	25	25	25	25	25	25	25	25	25	21	25	24
15 Chehalis Generation Facility CCCT	379	379	383	391	398	401	402	400	397	394	394	388	184	379	375
16 Danskin 1	50	50	0	0	0	50	48	0	0	0	0	0	51	48	21
17 Danskin 2	94	94	0	0	0	94	90	0	0	0	0	0	97	90	39
18 Encogen	160	160	162	167	172	175	175	173	171	114	114	165	162	160	163
19 Frederickson 1&2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20 Frederickson CT	122	122	123	125	127	128	128	128	127	85	85	125	123	122	122
21 Fredonia 1&2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22 Fredonia 3&4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23 Goldendale Energy Center	238	238	243	249	254	257	257	255	252	250	250	245	201	238	245
24 Kettle Falls (CT)	9	9	10	10	10	10	10	10	10	10	10	10	6.9	9	9.6
25 Lancaster Power Project (Rathdrum)	244	244	246	252	283	285	285	284	282	279	279	151	249	244	257
26 Langley Gulch CT	251	251	251	251	251	251	251	251	251	251	251	251	251	251	251
27 Mill Creek Gas Turbine (MT)	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
28 Mint Farm Energy Center	252	252	255	260	264	266	266	265	263	262	262	134	256	253	249
29 Northeastern 1 & 2	44	44	46	0	0	0	0	0	0	0	0	0	0	42	11
30 Port Westward CCCT	341	341	361	372	365	383	360	359	356	334	334	165	328	318	337
31 Rathdrum - Boekel Rd. #1	64	64	66	78	80	82	82	81	80	78	78	56	66	64	73
32 Rathdrum - Boekel Rd. #2	64	64	66	78	80	82	82	81	80	78	78	76	66	64	75
33 Whitehorn 2 & 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34 Total Investor-Owned Entities	2452	2452	2265	2287	2336	2605	2575	2338	2322	2187	2187	1818	2182	2418	2316
-Other Entities-															
35 Big Hanaford CCCT	244	244	244	244	244	244	244	244	244	244	244	0	244	244	223
36 Chehalis Generation Facility CCCT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
37 Frederickson CT	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.4	0.4	0.4	0.4
38 Klamath Peaking Unit	15	15	15	15	20	25	25	25	15	0	0	0	0	15	14
39 Lancaster Power Project (Rathdrum)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40 Longview Fibre CT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
41 Mint Farm Energy Center	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42 Satsop	638	638	638	638	638	638	638	638	638	638	638	0	638	638	584
43 Total Other Entities	897	897	897	897	902	907	907	907	897	882	882	0.4	882	897	822
-Combustion Turbines-															
44 Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45 Public Entities	331	331	343	360	367	368	368	367	362	315	315	127	348	332	332
46 Investor-Owned Entities	2452	2452	2265	2287	2336	2605	2575	2338	2322	2187	2187	1818	2182	2418	2316
47 Other Entities	897	897	897	897	902	907	907	907	897	882	882	0.4	882	897	822
48 Total Combustion Turbines	3680	3680	3505	3544	3606	3880	3850	3613	3581	3384	3384	1946	3412	3647	3470

**Table A-7: Regional Combustion Turbines
PNW Loads and Resource Study
2016 - 2017 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Federal System-															
1 Total Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Public Entities-															
2 Boundary CT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3 Finley CT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Frederickson CT	122	122	124	126	128	129	129	128	127	86	86	125	123	122	122
5 Olympic View Generating Station	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6 Pasco Harbor Generating Station	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
7 River Road	205	205	215	230	235	235	235	235	230	225	225	0	220	205	205
8 Wauna Peaking Project (Loki)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	0	2.5	2.5	2.3
9 Total Public Entities	331	331	343	360	367	368	368	367	362	315	315	127	348	332	332
-Investor-Owned Entities-															
10 Basin Creek Project	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
11 Beaver	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12 Beaver 8	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
13 Bennett Mountain	93	93	0	0	0	89	86	0	0	0	0	0	92	86	38
14 Boulder Park	25	25	25	25	25	25	25	25	25	25	25	25	25	22	24
15 Chehalis Generation Facility CCCT	379	379	383	391	398	401	402	400	397	394	394	388	184	379	375
16 Danskin 1	52	52	0	0	0	50	48	0	0	0	0	0	51	48	21
17 Danskin 2	97	97	0	0	0	94	90	0	0	0	0	0	97	90	39
18 Encogen	160	160	162	167	172	175	175	173	171	114	114	165	162	160	163
19 Frederickson 1&2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20 Frederickson CT	122	122	123	125	127	128	128	128	127	85	85	125	123	122	122
21 Fredonia 1&2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22 Fredonia 3&4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23 Goldendale Energy Center	238	238	243	249	254	257	257	255	252	250	250	245	201	238	245
24 Kettle Falls (CT)	9	9	10	10	10	10	10	10	10	10	10	10	6.9	9	9.6
25 Lancaster Power Project (Rathdrum)	244	244	246	252	283	285	285	284	282	279	279	151	249	244	257
26 Langley Gulch CT	251	251	251	251	251	251	251	251	251	251	251	251	251	251	251
27 Mill Creek Gas Turbine (MT)	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
28 Mint Farm Energy Center	252	252	255	260	264	266	266	265	263	262	262	134	256	253	249
29 Northeastern 1 & 2	44	44	46	0	0	0	0	0	0	0	0	0	0	42	11
30 Port Westward CCCT	341	341	361	372	365	383	360	359	356	334	334	165	328	318	337
31 Rathdrum - Boekel Rd. #1	64	64	66	78	80	82	82	81	80	78	78	76	66	64	75
32 Rathdrum - Boekel Rd. #2	64	64	66	78	80	82	82	81	80	78	78	56	66	64	73
33 Whitehorn 2 & 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34 Total Investor-Owned Entities	2461	2461	2265	2287	2336	2605	2575	2338	2322	2187	2187	1818	2185	2416	2317
-Other Entities-															
35 Big Hanaford CCCT	244	244	244	244	244	244	244	244	244	244	244	0	244	244	223
36 Chehalis Generation Facility CCCT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
37 Frederickson CT	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.4	0.4	0.4	0.4
38 Klamath Peaking Unit	15	15	15	15	20	25	25	25	15	0	0	0	0	15	14
39 Lancaster Power Project (Rathdrum)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40 Longview Fibre CT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
41 Mint Farm Energy Center	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42 Satsop	638	638	638	638	638	638	638	638	638	638	638	0	638	638	584
43 Total Other Entities	897	897	897	897	902	907	907	907	897	882	882	0.4	882	897	822
-Combustion Turbines-															
44 Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45 Public Entities	331	331	343	360	367	368	368	367	362	315	315	127	348	332	332
46 Investor-Owned Entities	2461	2461	2265	2287	2336	2605	2575	2338	2322	2187	2187	1818	2185	2416	2317
47 Other Entities	897	897	897	897	902	907	907	907	897	882	882	0.4	882	897	822
48 Total Combustion Turbines	3689	3689	3505	3544	3606	3880	3850	3613	3581	3384	3384	1946	3415	3645	3470

**Table A-7: Regional Combustion Turbines
PNW Loads and Resource Study
2017 - 2018 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Federal System-															
1 Total Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Public Entities-															
2 Boundary CT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3 Finley CT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Frederickson CT	122	122	124	126	128	129	129	128	127	86	86	125	123	122	122
5 Olympic View Generating Station	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6 Pasco Harbor Generating Station	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
7 River Road	205	205	215	230	235	235	235	235	230	225	225	0	220	205	205
8 Wauna Peaking Project (Loki)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	0	2.5	2.5	2.3
9 Total Public Entities	331	331	343	360	367	368	368	367	362	315	315	127	348	332	332
-Investor-Owned Entities-															
10 Basin Creek Project	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
11 Beaver	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12 Beaver 8	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
13 Bennett Mountain	93	93	0	0	0	86	89	0	0	0	0	0	92	86	38
14 Boulder Park	25	24	24	25	25	25	25	25	25	25	25	25	25	21	24
15 Chehalis Generation Facility CCGT	379	379	383	391	398	401	402	400	397	394	394	388	184	379	375
16 Danskin 1	52	52	0	0	0	48	50	0	0	0	0	0	51	48	21
17 Danskin 2	97	97	0	0	0	90	94	0	0	0	0	0	97	90	39
18 Encogen	160	160	162	167	172	175	175	173	171	114	114	165	162	160	163
19 Frederickson CT	122	122	123	125	127	128	128	128	127	85	85	125	123	122	122
20 Fredonia 1&2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21 Fredonia 3&4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22 Goldendale Energy Center	238	238	243	249	254	257	257	255	252	250	250	245	201	238	245
23 Kettle Falls (CT)	9	9	10	10	10	10	10	10	10	10	10	10	6.9	9	9.6
24 Lancaster Power Project (Rathdrum)	244	244	246	252	283	285	285	284	282	279	279	254	145	244	257
25 Langley Gulch CT	251	251	251	251	251	251	251	251	251	251	251	251	251	251	251
26 Mill Creek Gas Turbine (MT)	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
27 Mint Farm Energy Center	252	252	255	260	264	266	266	265	263	262	262	134	256	253	249
28 Northeastern 1 & 2	44	44	46	0	0	0	0	0	0	0	0	0	0	42	11
29 Port Westward CCCT	341	341	361	372	365	383	360	359	356	334	334	165	328	318	337
30 Rathdrum - Boekel Rd. #1	64	64	66	78	80	82	82	81	80	78	78	56	66	64	73
31 Rathdrum - Boekel Rd. #2	64	64	66	78	80	82	82	81	80	78	78	76	66	64	75
32 Total Investor-Owned Entities	2461	2460	2265	2287	2336	2596	2584	2338	2322	2187	2187	1921	2081	2415	2317
-Other Entities-															
33 Big Hanaford CCCT	244	244	244	244	244	244	244	244	244	244	244	0	244	244	223
34 Chehalis Generation Facility CCGT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
35 Frederickson CT	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.4	0.4	0.4	0.4
36 Klamath Peaking Unit	15	15	15	15	20	25	25	25	15	0	0	0	0	15	14
37 Lancaster Power Project (Rathdrum)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
38 Longview Fibre CT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39 Mint Farm Energy Center	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40 Satsop	638	638	638	638	638	638	638	638	638	638	638	0	638	638	584
41 Total Other Entities	897	897	897	897	902	907	907	907	897	882	882	0.4	882	897	822
-Combustion Turbines-															
42 Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43 Public Entities	331	331	343	360	367	368	368	367	362	315	315	127	348	332	332
44 Investor-Owned Entities	2461	2460	2265	2287	2336	2596	2584	2338	2322	2187	2187	1921	2081	2415	2317
45 Other Entities	897	897	897	897	902	907	907	907	897	882	882	0.4	882	897	822
46 Total Combustion Turbines	3689	3689	3505	3544	3606	3871	3859	3613	3581	3384	3384	2049	3311	3644	3470

**Table A-7: Regional Combustion Turbines
PNW Loads and Resource Study
2018 - 2019 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Federal System-															
1 Total Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Public Entities-															
2 Boundary CT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3 Finley CT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Frederickson CT	122	122	124	126	128	129	129	128	127	86	86	125	123	122	122
5 Olympic View Generating Station	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6 Pasco Harbor Generating Station	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
7 River Road	205	205	215	230	235	235	235	235	230	225	225	0	220	205	205
8 Wauna Peaking Project (Loki)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	0	2.5	2.5	2.3
9 Total Public Entities	331	331	343	360	367	368	368	367	362	315	315	127	348	332	332
-Investor-Owned Entities-															
10 Basin Creek Project	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
11 Beaver	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12 Beaver 8	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
13 Bennett Mountain	93	93	0	0	0	86	89	0	0	0	0	0	89	89	38
14 Boulder Park	25	25	25	25	25	25	25	25	25	25	25	25	21	25	24
15 Chehalis Generation Facility CCGT	379	379	383	391	398	401	402	400	397	394	394	388	184	379	375
16 Danskin 1	52	52	0	0	0	48	50	0	0	0	0	0	49	50	21
17 Danskin 2	97	97	0	0	0	90	94	0	0	0	0	0	93	94	39
18 Encogen	160	160	162	167	172	175	175	173	171	114	114	165	162	160	163
19 Frederickson CT	122	122	123	125	127	128	128	128	127	85	85	125	123	122	122
20 Fredonia 1&2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21 Fredonia 3&4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22 Goldendale Energy Center	238	238	243	249	254	257	257	255	252	250	250	245	201	238	245
23 Kettle Falls (CT)	9	9	10	10	10	10	10	10	10	10	10	10	6.9	9	9.6
24 Lancaster Power Project (Rathdrum)	244	244	246	252	283	285	285	284	282	279	279	178	181	244	253
25 Langley Gulch CT	251	251	251	251	251	251	251	251	251	251	251	251	251	251	251
26 Mill Creek Gas Turbine (MT)	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
27 Mint Farm Energy Center	252	252	255	260	264	266	266	265	263	262	262	134	256	253	249
28 Northeastern 1 & 2	44	44	46	0	0	0	0	0	0	0	0	0	0	42	11
29 Port Westward CCCT	341	341	361	372	365	383	360	359	356	334	334	165	328	318	337
30 Rathdrum - Boekel Rd. #1	64	64	66	78	80	82	82	81	80	78	78	76	66	64	75
31 Rathdrum - Boekel Rd. #2	64	64	66	78	80	82	82	81	80	78	78	56	66	64	73
32 Total Investor-Owned Entities	2461	2461	2265	2287	2336	2596	2584	2338	2322	2187	2187	1845	2104	2427	2313
-Other Entities-															
33 Big Hanaford CCCT	244	244	244	244	244	244	244	244	244	244	244	0	244	244	223
34 Chehalis Generation Facility CCGT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
35 Frederickson CT	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.4	0.4	0.4	0.4
36 Klamath Peaking Unit	15	15	15	15	20	25	25	25	15	0	0	0	0	15	14
37 Lancaster Power Project (Rathdrum)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
38 Longview Fibre CT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39 Mint Farm Energy Center	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40 Satsop	638	638	638	638	638	638	638	638	638	638	638	0	638	638	584
41 Total Other Entities	897	897	897	897	902	907	907	907	897	882	882	0.4	882	897	822
-Combustion Turbines-															
42 Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43 Public Entities	331	331	343	360	367	368	368	367	362	315	315	127	348	332	332
44 Investor-Owned Entities	2461	2461	2265	2287	2336	2596	2584	2338	2322	2187	2187	1845	2104	2427	2313
45 Other Entities	897	897	897	897	902	907	907	907	897	882	882	0.4	882	897	822
46 Total Combustion Turbines	3689	3689	3505	3544	3606	3871	3859	3613	3581	3384	3384	1973	3334	3656	3467

**Table A-7: Regional Combustion Turbines
PNW Loads and Resource Study
2019 - 2020 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Federal System-															
1 Total Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Public Entities-															
2 Boundary CT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3 Finley CT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Frederickson CT	122	122	124	126	128	129	129	128	127	86	86	125	123	122	122
5 Olympic View Generating Station	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6 Pasco Harbor Generating Station	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
7 River Road	205	205	215	230	235	235	235	235	230	225	225	0	220	205	205
8 Wauna Peaking Project (Loki)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	0	2.5	2.5	2.3
9 Total Public Entities	331	331	343	360	367	368	368	367	362	315	315	127	348	332	332
-Investor-Owned Entities-															
10 Basin Creek Project	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
11 Beaver	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12 Beaver 8	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
13 Bennett Mountain	93	93	0	0	0	86	89	0	0	0	0	0	92	89	38
14 Boulder Park	25	25	25	25	25	25	25	25	25	20	20	25	25	25	24
15 Chehalis Generation Facility CCGT	379	379	383	391	398	401	402	400	397	394	394	388	184	379	375
16 Danskin 1	52	52	0	0	0	48	50	0	0	0	0	0	51	50	21
17 Danskin 2	97	97	0	0	0	90	94	0	0	0	0	0	97	94	40
18 Encogen	160	160	162	167	172	175	175	173	171	114	114	165	162	160	163
19 Frederickson CT	122	122	123	125	127	128	128	128	127	85	85	125	123	122	122
20 Fredonia 1&2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21 Fredonia 3&4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22 Goldendale Energy Center	238	238	243	249	254	257	257	255	252	250	250	245	201	238	245
23 Kettle Falls (CT)	9	9	10	10	10	10	10	10	10	10	10	10	6.9	9	9.6
24 Lancaster Power Project (Rathdrum)	244	244	246	252	283	285	285	284	282	279	279	151	145	244	248
25 Langley Gulch CT	251	251	251	251	251	251	251	251	251	251	251	251	251	251	251
26 Mill Creek Gas Turbine (MT)	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
27 Mint Farm Energy Center	252	252	255	260	264	266	266	265	263	262	262	134	256	253	249
28 Northeastern 1 & 2	44	44	46	0	0	0	0	0	0	0	0	0	0	42	11
29 Port Westward CCCT	341	341	361	372	365	383	360	359	356	334	334	165	328	318	337
30 Rathdrum - Boekel Rd. #1	64	64	66	78	80	82	82	81	80	78	78	42	66	64	72
31 Rathdrum - Boekel Rd. #2	64	64	66	78	80	82	82	81	80	78	78	76	66	64	75
32 Total Investor-Owned Entities	2461	2461	2265	2287	2336	2596	2584	2338	2322	2182	2182	1804	2081	2427	2308
-Other Entities-															
33 Big Hanaford CCCT	244	244	244	244	244	244	244	244	244	244	244	0	244	244	223
34 Chehalis Generation Facility CCGT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
35 Frederickson CT	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.4	0.4	0.4	0.4
36 Klamath Peaking Unit	15	15	15	15	20	25	25	25	15	0	0	0	0	15	14
37 Lancaster Power Project (Rathdrum)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
38 Longview Fibre CT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39 Mint Farm Energy Center	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40 Satsop	638	638	638	638	638	638	638	638	638	638	638	0	638	638	584
41 Total Other Entities	897	897	897	897	902	907	907	907	897	882	882	0.4	882	897	822
-Combustion Turbines-															
42 Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43 Public Entities	331	331	343	360	367	368	368	367	362	315	315	127	348	332	332
44 Investor-Owned Entities	2461	2461	2265	2287	2336	2596	2584	2338	2322	2182	2182	1804	2081	2427	2308
45 Other Entities	897	897	897	897	902	907	907	907	897	882	882	0.4	882	897	822
46 Total Combustion Turbines	3689	3689	3505	3544	3606	3871	3859	3613	3581	3380	3380	1932	3311	3656	3462

**Table A-7: Regional Combustion Turbines
PNW Loads and Resource Study
2020 - 2021 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Federal System-															
1 Total Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Public Entities-															
2 Boundary CT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3 Finley CT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Frederickson CT	122	122	124	126	128	129	129	128	127	86	86	125	123	122	122
5 Olympic View Generating Station	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6 Pasco Harbor Generating Station	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
7 River Road	205	205	215	230	235	235	235	235	230	225	225	0	220	205	205
8 Wauna Peaking Project (Loki)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	0	2.5	2.5	2.3
9 Total Public Entities	331	331	343	360	367	368	368	367	362	315	315	127	348	332	332
-Investor-Owned Entities-															
10 Basin Creek Project	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
11 Beaver	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12 Beaver 8	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
13 Bennett Mountain	89	89	0	0	0	89	86	0	0	0	0	0	92	93	38
14 Boulder Park	25	25	25	25	25	25	25	25	25	25	25	25	21	25	24
15 Chehalis Generation Facility CCGT	379	379	383	391	398	401	402	400	397	394	394	388	184	379	375
16 Danskin 1	50	50	0	0	0	50	48	0	0	0	0	0	51	52	21
17 Danskin 2	94	94	0	0	0	94	90	0	0	0	0	0	97	97	40
18 Encogen	160	160	162	167	172	175	175	173	171	114	114	165	162	160	163
19 Frederickson CT	122	122	123	125	127	128	128	128	127	85	85	125	123	122	122
20 Fredonia 1&2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21 Fredonia 3&4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22 Goldendale Energy Center	238	238	243	249	254	257	257	255	252	250	250	245	201	238	245
23 Kettle Falls (CT)	9	9	10	10	10	10	10	10	10	10	10	10	6.9	9	9.6
24 Lancaster Power Project (Rathdrum)	244	244	246	252	283	285	285	284	282	279	18	254	249	244	255
25 Langley Gulch CT	251	251	251	251	251	251	251	251	251	251	251	251	251	251	251
26 Mill Creek Gas Turbine (MT)	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
27 Mint Farm Energy Center	252	252	255	260	264	266	266	265	263	262	262	134	256	253	249
28 Northeastern 1 & 2	44	44	46	0	0	0	0	0	0	0	0	0	0	42	11
29 Port Westward CCCT	341	341	361	372	365	383	360	359	356	334	334	165	328	318	337
30 Rathdrum - Boekel Rd. #1	64	64	66	78	80	82	82	81	80	78	78	76	66	64	75
31 Rathdrum - Boekel Rd. #2	64	64	66	78	80	82	82	81	80	78	78	56	66	64	73
32 Total Investor-Owned Entities	2452	2452	2265	2287	2336	2605	2575	2338	2322	2187	1926	1921	2182	2436	2316
-Other Entities-															
33 Big Hanaford CCCT	244	244	244	244	244	244	244	244	244	244	244	0	244	244	223
34 Chehalis Generation Facility CCGT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
35 Frederickson CT	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.4	0.4	0.4	0.4
36 Klamath Peaking Unit	15	15	15	15	20	25	25	25	15	0	0	0	0	15	14
37 Lancaster Power Project (Rathdrum)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
38 Longview Fibre CT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39 Mint Farm Energy Center	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40 Satsop	638	638	638	638	638	638	638	638	638	638	638	0	638	638	584
41 Total Other Entities	897	897	897	897	902	907	907	907	897	882	882	0.4	882	897	822
-Combustion Turbines-															
42 Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43 Public Entities	331	331	343	360	367	368	368	367	362	315	315	127	348	332	332
44 Investor-Owned Entities	2452	2452	2265	2287	2336	2605	2575	2338	2322	2187	1926	1921	2182	2436	2316
45 Other Entities	897	897	897	897	902	907	907	907	897	882	882	0.4	882	897	822
46 Total Combustion Turbines	3680	3680	3505	3544	3606	3880	3850	3613	3581	3384	3123	2049	3412	3665	3469

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Table A-8
Renewable Resources
Monthly OY 2012 – 2021
Average Energy in Megawatts

Power Services

Reports Powered by:



Loads and Resources Information System

**Table A-8: Regional Renewable Resources
PNW Loads and Resource Study
2011 - 2012 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Federal System-															
1 Condon Wind Project	7.4	7.6	7.8	9.7	13	12	13	11	14	12	9.8	9.7	9.4	7.1	10
2 Foote Creek 1	2.8	2.7	3.5	5	7	7.1	7.1	7.3	6.6	5.5	4.6	4.1	3.5	2.3	5.1
3 Foote Creek 2	0.3	0.3	0.4	0.6	0.8	0.8	0.8	0.9	0.8	0.7	0.5	0.5	0.4	0.3	0.6
4 Foote Creek 4	3	3.0	3.9	5.5	7.7	7.8	7.7	8.0	7.2	6.1	5	4.5	3.8	2.5	5.6
5 Klondike I	11	9.5	7.7	6	4.8	4.1	5.2	4.6	7.4	8.8	9.6	9.8	12	10	7.6
6 Klondike III	23	20	16	13	10.0	8.6	11	9.7	15	18	20	20	25	22	16
7 Stateline Wind Project	20	21	18	20	23	18	20	15	31	28	23	24	26	21	22
8 Total Federal System	68	64	57	59	66	59	65	56	83	80	72	73	80	65	67
-Public Entities-															
9 Big Horn	67	56	49	58	58	51	54	46	79	85	74	66	77	56	61
10 Big Horn II	16	15	12	12	14	13	14	12	19	22	20	17	19	14	15
11 Coffin Butte	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.3	2.3	2.4	2.3	2.3	2.4
12 Coffin Butte II	2.9	2.9	2.9	3.0	3	2.7	3.1	3.1	3.2	3.2	3.2	3	3.0	2.8	3.0
13 Columbia Ridge Landfill	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
14 Eurus Combine Hills II	16	22	14	17	18	18	13	8.5	19	30	29	18	24	18	18
15 Flathead County Landfill	0.8	0.8	0.9	0.8	0.8	0.8	0.9	0.8	0.8	0.9	0.9	0.8	0.8	0.8	0.8
16 Foote Creek 1	1.6	1.5	2	2.9	4	4	4	4.2	3.8	3.2	2.6	2.3	2.0	1.3	2.9
17 Grayland Wind (Coastal)	2.1	1.9	1.7	1.7	1.7	2.4	1.5	1.1	2	2.3	2.3	2.1	2.4	1.9	1.9
18 Harvest Wind	33	38	26	23	27	19	15	10	31	48	49	39	40	33	29
19 Hay Canyon Wind	42	29	24	21	20	14	12	5.9	23	35	35	30	39	30	24
20 Klondike III	12	9.9	8.0	6.3	5.0	4.3	5.4	4.8	7.7	9.2	10	10	12	11	8.0
21 Linden Wind Project	19	20	14	13	14	8.8	8.6	4.8	14	19	26	21	25	20	15
22 Nine Canyon Wind Project	25	23	20	25	29	25	27	23	37	40	32	28	30	19	27
23 Pebble Springs Wind Project	46	31	24	21	15	7.6	9.0	5	25	38	36	35	41	32	24
24 River Bend Landfill	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
25 Roosevelt Landfill (H.W. Hill)	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
26 Short Mountain	2.1	2.1	1.9	1.9	1.8	2.0	1.9	2.0	2.0	2	2	2.1	2	2.0	2.0
27 Star Point (100%)	34	38	22	21	21	17	12	4.9	23	32	46	37	41	38	26
28 Stateline Wind Project	38	41	35	39	45	35	40	29	61	55	44	46	51	40	43
29 Wheatfield Wind	41	28	22	19	14	8	9.2	5	21	32	32	28	37	30	22
30 White Creek	77	69	51	53	58	54	57	44	77	94	86	75	85	65	65
31 Willow Creek Wind	37	17	21	17	15	14	17	13	26	31	21	22	31	21	21
32 Windy Flats I	78	85	51	42	48	22	20	13	49	64	103	88	96	83	56
33 Windy Flats II	23	25	15	12	14	6.4	6	3.7	14	19	31	26	28	25	17
34 Windy Point - Tuolumne Wind	67	48	44	37	39	20	24	13	39	52	72	56	61	50	42
35 Total Public Entities	701	626	482	464	484	369	372	276	598	734	776	675	768	614	544
-Investor-Owned Entities-															
36 (Goshen North) Ridgeline	44	39	31	30	31	25	30	22	41	47	46	43	49	39	36
37 Bennett Creek Wind	7.0	6.3	4.9	4.8	4.9	4.0	4.7	3.6	6.6	7.5	7.4	6.8	7.8	6.2	5.7
38 Biglow Canyon Phase I	58	50	35	31	25	19	24	20	40	51	56	53	66	50	39
39 Biglow Canyon Phase II	70	70	49	38	25	14	17	9.1	33	42	76	62	73	66	43
40 Biglow Canyon Phase III	82	82	58	45	29	16	20	11	38	49	89	73	86	77	50
41 Burley Butte Wind	6.9	6.2	4.9	4.7	4.8	3.9	4.7	3.5	6.5	7.4	7.2	6.7	7.7	6.1	5.6
42 Camp Reed	7.9	7.1	5.6	5.4	5.5	4.5	5.4	4	7.5	8.5	8.4	7.8	8.9	7.1	6.5
43 Cassia Farms Wind	3.7	3.3	2.6	2.5	2.6	2.1	2.5	1.9	3.5	4.0	3.9	3.6	4.1	3.3	3
44 Cassia Gulch Wind	6.7	6.0	4.7	4.6	4.7	3.8	4.5	3.4	6.3	7.1	7	6.5	7.4	5.9	5.4
45 Elkhorn Valley Wind Farm	35	32	25	24	25	20	24	18	33	38	37	35	40	31	29
46 Eurus Combine Hills	10	14	8.9	11	11	11	8.6	5.5	12	19	19	12	15	12	12
47 Foote Creek 1	3.1	3.1	4	5.7	8.0	8.0	8.0	8.2	7.5	6.3	5.2	4.6	3.9	2.6	5.8
48 Fossil Gulch Wind Project	3.7	3.3	2.6	2.5	2.6	2.1	2.5	1.9	3.5	4.0	3.9	3.6	4.1	3.3	3
49 Golden Valley Wind	4.2	3.8	3.0	2.9	3.0	2.4	2.9	2.2	4.0	4.5	4.5	4.1	4.7	3.8	3.5
50 Goodnoe Hills	34	31	23	22	24	18	21	9.3	32	40	35	33	36	28	26
51 Hopkins Ridge I	40	39	36	36	42	41	50	39	55	60	55	48	52	33	44
52 Hopkins Ridge II	2.0	1.9	1.6	1.7	2.1	1.9	1.9	1.0	2.6	3.1	2.7	2.6	2.4	1.3	2.0
53 Horseshoe Bend Wind Park	3.2	2.8	2.2	2.2	2.2	1.8	2.1	1.6	3.0	3.4	3.3	3.1	3.5	2.8	2.6
54 Hot Springs Wind	7.0	6.3	4.9	4.8	4.9	4.0	4.7	3.6	6.6	7.5	7.4	6.8	7.8	6.2	5.7
55 Kettle Falls (biomass)	47	47	47	47	47	47	47	47	47	47	47	47	47	47	44
56 Klondike II	35	30	24	19	15	13	16	15	23	28	30	31	37	33	24
57 Klondike III	70	59	48	37	30	26	32	29	46	55	59	61	74	65	47
58 Klondike IIIa	39	27	21	17	14	8.7	13	6.3	22	29	29	27	36	29	21

**Table A-8: Regional Renewable Resources
PNW Loads and Resource Study
2011 - 2012 Operating Year
[76] 2011 White Book (Final)**

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
59 Leaning Juniper	40	34	28	24	20	17	23	19	34	40	42	40	46	39	31
60 Lower Snake River Wind	93	90	82	84	97	93	116	89	126	138	126	110	119	75	101
61 Marengo I Wind Project	38	37	33	34	40	38	47	37	51	56	52	45	49	31	41
62 Marengo II Wind Project	19	18	17	17	20	19	24	18	26	28	26	22	24	15	21
63 Milner Dam	6.9	6.2	4.9	4.7	4.8	3.9	4.7	3.5	6.5	7.4	7.2	6.7	7.7	6.1	5.6
64 Oregon Trail	4.8	4.3	3.4	3.3	3.3	2.7	3.2	2.4	4.5	5.1	5	4.7	5.3	4.2	3.9
65 Oregon Wind Farm I (Echo I)	16	14	11	11	11	8.9	11	8.0	15	17	17	15	18	14	13
66 Oregon Wind Farm II (Echo II)	7.1	6.3	5.0	4.8	4.9	4	4.8	3.6	6.6	7.6	7.4	6.9	7.9	6.3	5.8
67 PaTu Wind	4.2	3.6	2.9	2.3	1.8	1.6	1.9	1.7	2.8	3.3	3.6	3.7	4.5	3.9	2.9
68 Paynes Ferry	7.4	6.6	5.2	5.1	5.2	4.2	5	3.8	7.0	7.9	7.8	7.2	8.3	6.6	6
69 Pilgrim Stage Station	3.7	3.3	2.6	2.5	2.6	2.1	2.5	1.9	3.5	4.0	3.9	3.6	4.1	3.3	3
70 Rattlesnake Road Wind Farm	44	30	24	20	14	7.1	17	7.5	29	36	35	34	38	30	24
71 Rock River I Wind	9	8.8	12	16	23	23	23	24	22	18	15	13	11	7.6	17
72 Salmon Falls	7.4	6.6	5.2	5.1	5.2	4.2	5	3.8	7.0	7.9	7.8	7.2	8.3	6.6	6
73 Stalene Wind Project	7.7	8.3	7	7.8	9.0	7.1	7.9	5.9	12	0	0	0	0	0	5.4
74 Thousand Spring	3.7	3.3	2.6	2.5	2.6	2.1	2.5	1.9	3.5	4.0	3.9	3.6	4.1	3.3	3
75 Threemile Canyon Wind	4.7	3.1	2.4	2.1	1.5	0.8	0.9	0.5	2.5	3.8	3.6	3.5	4.1	3.2	2.4
76 Tuana Gulch	3.7	3.3	2.6	2.5	2.6	2.1	2.5	1.9	3.5	4.0	3.9	3.6	4.1	3.3	3
77 Tuana Springs Wind	5.9	5.3	4.2	4.1	4.1	3.4	4	3	5.6	6.4	6.2	5.8	6.6	5.3	4.8
78 Vansycle Wind	7.5	7.8	6.5	6.9	8.8	8.3	9.1	7.4	11	10	8.1	8.7	8.4	7.5	8.3
79 Vantage Wind	32	28	22	22	22	18	21	16	30	34	33	31	35	28	26
80 Wild Horse I	81	72	57	55	56	46	55	41	76	86	85	79	90	72	66
81 Wild Horse II	16	14	11	11	11	8.8	11	7.9	15	17	16	15	17	14	13
82 Wolverine Creek	23	20	16	16	16	13	15	12	21	24	24	22	25	20	19
83 Yahoo Creek	7.4	6.6	5.2	5.1	5.2	4.2	5	3.8	7.0	7.9	7.8	7.2	8.3	6.6	6
84 Total Investor-Owned Entities	1111	1013	819	767	755	640	768	589	1006	1142	1186	1077	1196	970	902
-Other Entities-															
85 Juniper Canyon I	48	44	37	42	43	37	41	35	57	66	60	52	57	42	46
86 Kittitas Valley Wind	36	32	25	24	25	20	24	18	33	38	37	35	40	32	29
87 Klondike III	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
88 Klondike IIIa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
89 Leaning Juniper 2a	0	0	25	22	18	15	21	17	30	36	38	36	41	35	25
90 Stalene Wind Project	0	0	0	0	0	0	0	0	0	11	8.8	9.3	10	8	3.1
91 White Creek	1.2	1.1	0.8	0.8	0.9	0.8	0.9	0.7	1.2	1.4	1.3	1.1	1.3	1.0	1.0
92 Willow Creek Wind	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
93 Total Other Entities	85	77	88	89	87	74	87	70	122	152	145	132	150	118	104
-Renewable Resources-															
94 Federal System	68	64	57	59	66	59	65	56	83	80	72	73	80	65	67
95 Public Entities	701	626	482	464	484	369	372	276	598	734	776	675	768	614	544
96 Investor-Owned Entities	1111	1013	819	767	755	640	768	589	1006	1142	1186	1077	1196	970	902
97 Other Entities	85	77	88	89	87	74	87	70	122	152	145	132	150	118	104
98 Total Renewable Resources	1965	1780	1446	1380	1391	1141	1292	992	1809	2107	2179	1957	2194	1767	1617

**Table A-8: Regional Renewable Resources
PNW Loads and Resource Study
2012 - 2013 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Federal System-															
1 Condon Wind Project	7.4	7.6	7.8	9.7	13	12	13	11	14	12	9.8	9.7	9.4	7.1	10
2 Foote Creek 1	2.8	2.7	3.5	5	7	7.1	7.1	7.3	6.6	5.6	4.6	4.1	3.4	2.3	5.1
3 Foote Creek 2	0.3	0.3	0.4	0.6	0.8	0.8	0.8	0.9	0.8	0.7	0.5	0.5	0.4	0.3	0.6
4 Foote Creek 4	3	3.0	3.9	5.5	7.7	7.8	7.7	8.0	7.2	6.1	5	4.5	3.8	2.6	5.6
5 Klondike I	11	9.5	7.7	6	4.8	4.2	5.2	4.6	7.4	8.9	9.6	9.8	12	10	7.7
6 Klondike III	23	20	16	13	10.0	8.7	11	9.7	15	18	20	20	25	22	16
7 Stateline Wind Project	20	21	18	20	23	18	20	15	31	28	23	24	26	20	22
8 Total Federal System	68	64	57	59	66	59	65	56	83	80	72	73	81	65	67
-Public Entities-															
9 Big Horn	67	56	49	58	58	51	54	46	80	84	74	66	77	56	61
10 Big Horn II	16	15	12	12	14	13	14	12	19	22	20	17	19	14	15
11 Coffin Butte	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.3	2.3	2.4	2.3	2.3	2.4
12 Coffin Butte II	2.9	2.9	2.9	3.0	3	2.7	3.1	3.1	3.2	3.2	3.2	3	3.0	2.8	3.0
13 Columbia Ridge Landfill	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
14 Eurus Combine Hills II	16	22	14	17	18	18	13	8.5	19	29	29	18	24	18	18
15 Flathead County Landfill	0.9	0.9	0.7	0.8	0.9	0.8	0.8	0.8	0.9	0.8	0.8	0.8	0.9	0.8	0.8
16 Foote Creek 1	1.6	1.5	2	2.9	4	4	4	4.2	3.8	3.2	2.6	2.3	2.0	1.3	2.9
17 Grayland Wind (Coastal)	2.1	1.9	1.7	1.7	1.7	2.4	1.5	1.1	2	2.3	2.3	2.1	2.4	1.9	1.9
18 Harvest Wind	33	38	26	22	27	19	15	10	31	48	49	39	40	33	29
19 Hay Canyon Wind	42	29	24	21	20	14	12	5.8	23	36	35	30	39	30	24
20 Klondike III	12	9.9	8.0	6.3	5.0	4.3	5.4	4.8	7.7	9.2	10	10	13	11	8.0
21 Linden Wind Project	19	20	14	13	14	8.8	8.6	4.8	14	19	26	21	25	20	16
22 Nine Canyon Wind Project	25	23	21	25	29	25	27	23	37	40	32	28	30	19	27
23 Pebble Springs Wind Project	46	31	24	21	15	7.7	9	5	25	38	36	35	41	32	24
24 River Bend Landfill	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
25 Roosevelt Landfill (H.W. Hill)	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
26 Short Mountain	2.1	2.1	1.9	1.9	1.8	2.0	1.9	2.0	2.0	2	2	2.1	2	2.0	2.0
27 Star Point (100%)	34	38	22	20	21	17	12	4.9	23	32	46	37	41	38	26
28 Stateline Wind Project	38	41	35	39	45	35	40	29	61	54	44	46	51	40	43
29 Wheatfield Wind	41	28	22	19	14	8	9.3	5	21	33	32	28	37	29	22
30 White Creek	77	69	51	53	58	54	57	44	77	93	86	75	86	65	65
31 Willow Creek Wind	37	17	21	17	15	14	17	13	26	31	21	22	31	21	21
32 Windy Flats I	78	85	52	41	48	22	20	13	48	64	103	88	96	82	57
33 Windy Flats II	23	25	15	12	14	6.5	6	3.7	14	19	31	26	28	24	17
34 Windy Point - Tuolumne Wind	67	48	44	37	39	20	24	13	39	52	72	56	62	50	42
35 Total Public Entities	701	626	483	462	484	370	373	276	597	733	776	675	771	610	545
-Investor-Owned Entities-															
36 (Goshen North) Ridgeline	44	39	31	30	31	25	30	22	41	47	46	43	49	39	36
37 Bennett Creek Wind	7.0	6.3	4.9	4.8	4.9	4.0	4.7	3.6	6.6	7.5	7.4	6.8	7.8	6.2	5.7
38 Biglow Canyon Phase I	58	50	35	31	25	19	24	20	40	51	56	53	66	50	39
39 Biglow Canyon Phase II	70	70	49	38	25	14	17	9.1	32	43	76	62	74	65	43
40 Biglow Canyon Phase III	82	82	58	45	29	16	20	11	38	50	89	73	86	76	50
41 Burley Butte Wind	6.9	6.2	4.9	4.7	4.8	3.9	4.7	3.5	6.5	7.4	7.2	6.7	7.7	6.1	5.6
42 Camp Reed	7.9	7.1	5.6	5.4	5.5	4.5	5.4	4	7.5	8.5	8.4	7.8	8.9	7	6.5
43 Cassia Farms Wind	3.7	3.3	2.6	2.5	2.6	2.1	2.5	1.9	3.5	4.0	3.9	3.6	4.2	3.3	3
44 Cassia Gulch Wind	6.7	6.0	4.7	4.6	4.7	3.8	4.5	3.4	6.3	7.1	7	6.5	7.5	5.9	5.4
45 Elkhorn Valley Wind Farm	35	32	25	24	25	20	24	18	33	38	37	35	40	31	29
46 Eurus Combine Hills	10	14	9.1	11	11	11	8.6	5.5	12	19	19	12	16	12	12
47 Foote Creek 1	3.1	3.1	4	5.7	8.0	8.0	8.0	8.2	7.5	6.3	5.2	4.6	3.9	2.6	5.7
48 Fossil Gulch Wind Project	3.7	3.3	2.6	2.5	2.6	2.1	2.5	1.9	3.5	4.0	3.9	3.6	4.2	3.3	3
49 Golden Valley Wind	4.2	3.8	3.0	2.9	3.0	2.4	2.9	2.2	4.0	4.5	4.5	4.1	4.7	3.7	3.5
50 Goodnoe Hills	34	31	23	22	24	18	21	9.3	32	40	35	33	36	28	26
51 Hopkins Ridge I	40	39	36	36	42	41	50	39	55	60	55	48	52	32	44
52 Hopkins Ridge II	2.0	1.9	1.6	1.7	2.1	1.9	1.9	1.0	2.6	3.1	2.7	2.6	2.4	1.3	2.0
53 Horseshoe Bend Wind Park	3.2	2.8	2.2	2.2	2.2	1.8	2.2	1.6	3.0	3.4	3.3	3.1	3.6	2.8	2.6
54 Hot Springs Wind	7.0	6.3	4.9	4.8	4.9	4.0	4.7	3.6	6.6	7.5	7.4	6.8	7.8	6.2	5.7
55 Kettle Falls (biomass)	47	47	47	47	47	47	47	47	47	47	47	47	36	14	47
56 Klondike II	35	30	24	19	15	13	16	14	23	28	30	31	38	32	24
57 Klondike III	70	59	48	37	30	26	32	29	46	55	59	61	74	64	47
58 Klondike IIIa	39	27	21	17	14	8.8	13	6.3	22	29	29	27	36	29	21

**Table A-8: Regional Renewable Resources
PNW Loads and Resource Study
2012 - 2013 Operating Year
[76] 2011 White Book (Final)**

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
59 Leaning Juniper	40	34	28	24	20	17	23	19	34	40	42	40	46	39	31
60 Lower Snake River Wind	93	90	82	83	97	94	116	89	126	137	126	110	120	74	101
61 Marengo I Wind Project	38	37	34	34	40	38	47	37	52	56	52	45	49	30	41
62 Marengo II Wind Project	19	18	17	17	20	19	24	18	26	28	26	22	25	15	21
63 Milner Dam	6.9	6.2	4.9	4.7	4.8	3.9	4.7	3.5	6.5	7.4	7.2	6.7	7.7	6.1	5.6
64 Oregon Trail	4.8	4.3	3.4	3.3	3.3	2.7	3.2	2.4	4.5	5.1	5	4.7	5.3	4.2	3.9
65 Oregon Wind Farm I (Echo I)	16	14	11	11	11	9.0	11	8.0	15	17	17	15	18	14	13
66 Oregon Wind Farm II (Echo II)	7.1	6.3	5.0	4.8	4.9	4	4.8	3.6	6.6	7.6	7.4	6.9	7.9	6.2	5.8
67 PaTu Wind	4.2	3.6	2.9	2.3	1.8	1.6	1.9	1.7	2.8	3.3	3.6	3.7	4.5	3.9	2.9
68 Paynes Ferry	7.4	6.6	5.2	5.1	5.2	4.2	5	3.8	7.0	7.9	7.8	7.2	8.3	6.5	6
69 Pilgrim Stage Station	3.7	3.3	2.6	2.5	2.6	2.1	2.5	1.9	3.5	4.0	3.9	3.6	4.2	3.3	3
70 Rattlesnake Road Wind Farm	44	30	24	20	14	7.1	17	7.5	29	36	35	34	38	30	24
71 Rock River I Wind	9	8.8	12	16	23	23	23	24	22	18	15	13	11	7.6	17
72 Salmon Falls	7.4	6.6	5.2	5.1	5.2	4.2	5	3.8	7.0	7.9	7.8	7.2	8.3	6.5	6
73 Stalene Wind Project	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
74 Thousand Spring	3.7	3.3	2.6	2.5	2.6	2.1	2.5	1.9	3.5	4.0	3.9	3.6	4.2	3.3	3
75 Threemile Canyon Wind	4.7	3.1	2.4	2.1	1.5	0.8	0.9	0.5	2.5	3.8	3.6	3.5	4.1	3.2	2.4
76 Tuana Gulch	3.7	3.3	2.6	2.5	2.6	2.1	2.5	1.9	3.5	4.0	3.9	3.6	4.2	3.3	3
77 Tuana Springs Wind	5.9	5.3	4.2	4	4.1	3.4	4	3	5.6	6.4	6.2	5.8	6.6	5.2	4.8
78 Vansycle Wind	7.5	7.8	6.5	6.9	8.8	8.3	9.1	7.4	11	10	8.1	8.7	8.5	7.5	8.3
79 Vantage Wind	32	28	22	22	22	18	22	16	30	34	33	31	36	28	26
80 Wild Horse I	81	72	57	55	56	46	55	41	76	86	85	79	90	71	66
81 Wild Horse II	16	14	11	11	11	8.9	11	7.9	15	17	16	15	17	14	13
82 Wolverine Creek	23	20	16	16	16	13	15	12	21	24	24	22	26	20	19
83 Yahoo Creek	7.4	6.6	5.2	5.1	5.2	4.2	5	3.8	7.0	7.9	7.8	7.2	8.3	6.5	6
84 Total Investor-Owned Entities	1104	1004	814	758	746	635	762	583	994	1144	1186	1066	1202	964	897
-Other Entities-															
85 Juniper Canyon I	48	44	37	42	43	37	41	35	57	66	60	52	57	42	46
86 Kittitas Valley Wind	36	32	25	24	25	20	24	18	33	38	37	35	40	31	29
87 Klondike III	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
88 Klondike IIIa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
89 Leaning Juniper 2a	36	30	25	22	18	15	21	17	30	36	38	36	42	35	28
90 Stalene Wind Project	7.7	8.3	7.1	7.7	9.0	7.1	7.9	5.9	12	11	8.8	9.3	10	8.0	8.5
91 White Creek	1.2	1.1	0.8	0.8	0.9	0.8	0.9	0.7	1.2	1.4	1.3	1.1	1.3	1.0	1.0
92 Willow Creek Wind	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
93 Total Other Entities	128	116	95	96	96	81	95	76	134	152	145	132	150	117	112
-Renewable Resources-															
94 Federal System	68	64	57	59	66	59	65	56	83	80	72	73	81	65	67
95 Public Entities	701	626	483	462	484	370	373	276	597	733	776	675	771	610	545
96 Investor-Owned Entities	1104	1004	814	758	746	635	762	583	994	1144	1186	1066	1202	964	897
97 Other Entities	128	116	95	96	96	81	95	76	134	152	145	132	150	117	112
98 Total Renewable Resources	2001	1811	1449	1376	1391	1145	1294	992	1808	2109	2179	1946	2204	1755	1621

**Table A-8: Regional Renewable Resources
PNW Loads and Resource Study
2013 - 2014 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Federal System-															
1 Condon Wind Project	7.4	7.6	7.8	9.7	13	12	13	11	14	12	9.8	9.7	9.4	7.1	10
2 Foote Creek 1	2.8	2.7	3.5	5	7	7.1	7.1	7.3	6.6	5.6	4.6	4.1	3.4	2.3	5.1
3 Foote Creek 2	0.3	0.3	0.4	0.6	0.8	0.8	0.8	0.9	0.8	0.7	0.5	0.5	0.4	0.3	0.6
4 Foote Creek 4	3	3.0	3.9	5.5	7.7	7.8	7.7	8.0	7.2	6.1	5	4.5	3.8	2.6	5.6
5 Klondike I	11	9.5	7.7	6	4.8	4.2	5.2	4.6	7.4	8.9	9.6	9.8	12	10	7.7
6 Klondike III	23	20	16	13	10.0	8.7	11	9.7	15	18	20	20	25	22	16
7 Stateline Wind Project	20	21	18	20	23	18	20	15	31	28	23	24	26	20	22
8 Total Federal System	68	64	57	59	66	59	65	56	83	80	72	73	81	65	67
-Public Entities-															
9 Big Horn	67	56	49	58	58	51	54	46	80	84	74	66	77	56	61
10 Big Horn II	16	15	12	12	14	13	14	12	19	22	20	17	19	14	15
11 Coffin Butte	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.3	2.3	2.4	2.3	2.3	2.4
12 Coffin Butte II	2.9	2.9	2.9	3.0	3	2.7	3.1	3.1	3.2	3.2	3.2	3	3.0	2.8	3.0
13 Columbia Ridge Landfill	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
14 Eurus Combine Hills II	16	22	14	17	18	18	13	8.5	19	29	29	18	24	18	18
15 Flathead County Landfill	0.8	0.8	0.8	0.8	0.9	0.8	0.8	0.8	0.9	0.8	0.8	0.8	0.9	0.8	0.8
16 Foote Creek 1	1.6	1.5	2	2.9	4	4	4	4.2	3.8	3.2	2.6	2.3	2.0	1.3	2.9
17 Grayland Wind (Coastal)	2.1	1.9	1.7	1.7	1.7	2.4	1.5	1.1	2	2.3	2.3	2.1	2.4	1.9	1.9
18 Harvest Wind	33	38	26	22	27	19	15	10	31	48	49	39	40	33	29
19 Hay Canyon Wind	42	29	24	21	20	14	12	5.8	23	36	35	30	39	30	24
20 Klondike III	12	9.9	8.0	6.3	5.0	4.3	5.4	4.8	7.7	9.2	10	10	13	11	8.0
21 Linden Wind Project	19	20	14	13	14	8.8	8.6	4.8	14	19	26	21	25	20	16
22 Nine Canyon Wind Project	25	23	21	25	29	25	27	23	37	40	32	28	30	19	27
23 Pebble Springs Wind Project	46	31	24	21	15	7.7	9	5	25	38	36	35	41	32	24
24 River Bend Landfill	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
25 Roosevelt Landfill (H.W. Hill)	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
26 Short Mountain	2.1	2.1	1.9	1.9	1.8	2.0	1.9	2.0	2.0	2	2	2.1	2	2.0	2.0
27 Star Point (100%)	34	38	22	20	21	17	12	4.9	23	32	46	37	41	38	26
28 Stateline Wind Project	38	41	35	39	45	35	40	29	61	54	44	46	51	40	43
29 Wheatfield Wind	41	28	22	19	14	8	9.3	5	21	33	32	28	37	29	22
30 White Creek	77	69	51	53	58	54	57	44	77	93	86	75	86	65	65
31 Willow Creek Wind	37	17	21	17	15	14	17	13	26	31	21	22	31	21	21
32 Windy Flats I	78	85	52	41	48	22	20	13	48	64	103	88	96	82	57
33 Windy Flats II	23	25	15	12	14	6.5	6	3.7	14	19	31	26	28	24	17
34 Windy Point - Tuolumne Wind	67	48	44	37	39	20	24	13	39	52	72	56	62	50	42
35 Total Public Entities	701	626	483	462	484	370	373	276	597	733	776	675	771	610	545
-Investor-Owned Entities-															
36 (Goshen North) Ridgeline	44	39	31	30	31	25	30	22	41	47	46	43	49	39	36
37 Bennett Creek Wind	7.0	6.3	4.9	4.8	4.9	4.0	4.7	3.6	6.6	7.5	7.4	6.8	7.8	6.2	5.7
38 Biglow Canyon Phase I	58	50	35	31	25	19	24	20	40	51	56	53	66	50	39
39 Biglow Canyon Phase II	70	70	49	38	25	14	17	9.1	32	43	76	62	74	65	43
40 Biglow Canyon Phase III	82	82	58	45	29	16	20	11	38	50	89	73	86	76	50
41 Burley Butte Wind	6.9	6.2	4.9	4.7	4.8	3.9	4.7	3.5	6.5	7.4	7.2	6.7	7.7	6.1	5.6
42 Camp Reed	7.9	7.1	5.6	5.4	5.5	4.5	5.4	4	7.5	8.5	8.4	7.8	8.9	7	6.5
43 Cassia Farms Wind	3.7	3.3	2.6	2.5	2.6	2.1	2.5	1.9	3.5	4.0	3.9	3.6	4.2	3.3	3
44 Cassia Gulch Wind	6.7	6.0	4.7	4.6	4.7	3.8	4.5	3.4	6.3	7.1	7	6.5	7.5	5.9	5.4
45 Elkhorn Valley Wind Farm	35	32	25	24	25	20	24	18	33	38	37	35	40	31	29
46 Eurus Combine Hills	10	14	9.1	11	11	11	8.6	5.5	12	19	19	12	16	12	12
47 Foote Creek 1	3.1	3.1	4	5.7	8.0	8.0	8.0	8.2	7.5	6.3	5.2	4.6	3.9	2.6	5.7
48 Fossil Gulch Wind Project	3.7	3.3	2.6	2.5	2.6	2.1	2.5	1.9	3.5	4.0	3.9	3.6	4.2	3.3	3
49 Golden Valley Wind	4.2	3.8	3.0	2.9	3.0	2.4	2.9	2.2	4.0	4.5	4.5	4.1	4.7	3.7	3.5
50 Goodnoe Hills	34	31	23	22	24	18	21	9.3	32	40	35	33	36	28	26
51 Hopkins Ridge I	40	39	36	36	42	41	50	39	55	60	55	48	52	32	44
52 Hopkins Ridge II	2.0	1.9	1.6	1.7	2.1	1.9	1.9	1.0	2.6	3.1	2.7	2.6	2.4	1.3	2.0
53 Horseshoe Bend Wind Park	3.2	2.8	2.2	2.2	2.2	1.8	2.2	1.6	3.0	3.4	3.3	3.1	3.6	2.8	2.6
54 Hot Springs Wind	7.0	6.3	4.9	4.8	4.9	4.0	4.7	3.6	6.6	7.5	7.4	6.8	7.8	6.2	5.7
55 Kettle Falls (biomass)	47	47	47	47	47	47	47	47	47	47	47	47	47	47	45
56 Klondike II	35	30	24	19	15	13	16	14	23	28	30	31	38	32	24
57 Klondike III	70	59	48	37	30	26	32	29	46	55	59	61	74	64	47
58 Klondike IIIa	39	27	21	17	14	8.8	13	6.3	22	29	29	27	36	29	21

**Table A-8: Regional Renewable Resources
PNW Loads and Resource Study
2013 - 2014 Operating Year
[76] 2011 White Book (Final)**

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
59 Leaning Juniper	40	34	28	24	20	17	23	19	34	40	42	40	46	39	31
60 Lower Snake River Wind	93	90	82	83	97	94	116	89	126	137	126	110	120	74	101
61 Marengo I Wind Project	38	37	34	34	40	38	47	37	52	56	52	45	49	30	41
62 Marengo II Wind Project	19	18	17	17	20	19	24	18	26	28	26	22	25	15	21
63 Milner Dam	6.9	6.2	4.9	4.7	4.8	3.9	4.7	3.5	6.5	7.4	7.2	6.7	7.7	6.1	5.6
64 Oregon Trail	4.8	4.3	3.4	3.3	3.3	2.7	3.2	2.4	4.5	5.1	5	4.7	5.3	4.2	3.9
65 Oregon Wind Farm I (Echo I)	16	14	11	11	11	9.0	11	8.0	15	17	17	15	18	14	13
66 Oregon Wind Farm II (Echo II)	7.1	6.3	5.0	4.8	4.9	4	4.8	3.6	6.6	7.6	7.4	6.9	7.9	6.2	5.8
67 PaTu Wind	4.2	3.6	2.9	2.3	1.8	1.6	1.9	1.7	2.8	3.3	3.6	3.7	4.5	3.9	2.9
68 Paynes Ferry	7.4	6.6	5.2	5.1	5.2	4.2	5	3.8	7.0	7.9	7.8	7.2	8.3	6.5	6
69 Pilgrim Stage Station	3.7	3.3	2.6	2.5	2.6	2.1	2.5	1.9	3.5	4.0	3.9	3.6	4.2	3.3	3
70 Rattlesnake Road Wind Farm	44	30	24	20	14	7.1	17	7.5	29	36	35	34	38	30	24
71 Rock River I Wind	9	8.8	12	16	23	23	23	24	22	18	15	13	11	7.6	17
72 Salmon Falls	7.4	6.6	5.2	5.1	5.2	4.2	5	3.8	7.0	7.9	7.8	7.2	8.3	6.5	6
73 Stateline Wind Project	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
74 Thousand Spring	3.7	3.3	2.6	2.5	2.6	2.1	2.5	1.9	3.5	4.0	3.9	3.6	4.2	3.3	3
75 Threemile Canyon Wind	4.7	3.1	2.4	2.1	1.5	0.8	0.9	0.5	2.5	3.8	3.6	3.5	4.1	3.2	2.4
76 Tuana Gulch	3.7	3.3	2.6	2.5	2.6	2.1	2.5	1.9	3.5	4.0	3.9	3.6	4.2	3.3	3
77 Tuana Springs Wind	5.9	5.3	4.2	4	4.1	3.4	4	3	5.6	6.4	6.2	5.8	6.6	5.2	4.8
78 Vansycle Wind	7.5	7.8	6.5	6.9	8.8	8.3	9.1	7.4	11	10	8.1	8.7	8.5	7.5	8.3
79 Vantage Wind	32	28	22	22	22	18	22	16	30	34	33	31	36	28	26
80 Wild Horse I	81	72	57	55	56	46	55	41	76	86	85	79	90	71	66
81 Wild Horse II	16	14	11	11	11	8.9	11	7.9	15	17	16	15	17	14	13
82 Wolverine Creek	23	20	16	16	16	13	15	12	21	24	24	22	26	20	19
83 Yahoo Creek	7.4	6.6	5.2	5.1	5.2	4.2	5	3.8	7.0	7.9	7.8	7.2	8.3	6.5	6
84 Total Investor-Owned Entities	1104	1004	814	758	746	635	762	583	994	1144	1186	1066	1224	964	898
-Other Entities-															
85 Juniper Canyon I	48	44	37	42	43	37	41	35	57	66	60	52	57	42	46
86 Kittitas Valley Wind	36	32	25	24	25	20	24	18	33	38	37	35	40	31	29
87 Klondike III	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
88 Klondike IIIa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
89 Leaning Juniper 2a	36	30	25	22	18	15	21	17	30	36	38	36	42	35	28
90 Leaning Juniper 2b	0	0	31	27	22	19	26	21	37	44	47	44	51	43	30
91 Stateline Wind Project	7.7	8.3	7.1	7.7	9.0	7.1	7.9	5.9	12	11	8.8	9.3	10	8.0	8.5
92 White Creek	1.2	1.1	0.8	0.8	0.9	0.8	0.9	0.7	1.2	1.4	1.3	1.1	1.3	1.0	1.0
93 Willow Creek Wind	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
94 Total Other Entities	128	116	127	123	118	100	120	97	172	196	192	176	201	160	143
-Renewable Resources-															
95 Federal System	68	64	57	59	66	59	65	56	83	80	72	73	81	65	67
96 Public Entities	701	626	483	462	484	370	373	276	597	733	776	675	771	610	545
97 Investor-Owned Entities	1104	1004	814	758	746	635	762	583	994	1144	1186	1066	1224	964	898
98 Other Entities	128	116	127	123	118	100	120	97	172	196	192	176	201	160	143
99 Total Renewable Resources	2001	1811	1481	1403	1413	1164	1320	1013	1845	2153	2226	1990	2277	1799	1653

**Table A-8: Regional Renewable Resources
PNW Loads and Resource Study
2014 - 2015 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Federal System-															
1 Condon Wind Project	7.4	7.5	7.8	9.7	13	12	13	11	14	12	9.8	9.7	9.4	7.1	10
2 Foote Creek 1	2.8	2.7	3.5	5	7	7.1	7.1	7.3	6.6	5.6	4.6	4.1	3.5	2.3	5.1
3 Foote Creek 2	0.3	0.3	0.4	0.6	0.8	0.8	0.8	0.9	0.8	0.7	0.5	0.5	0.4	0.3	0.6
4 Foote Creek 4	3	2.9	3.9	5.5	7.7	7.8	7.7	8.0	7.2	6.1	5	4.5	3.8	2.6	5.6
5 Klondike I	11	9.5	7.7	6	4.8	4.1	5.2	4.6	7.4	8.9	9.6	9.8	12	10	7.7
6 Klondike III	23	20	16	13	10.0	8.6	11	9.7	15	18	20	20	25	22	16
7 Stateline Wind Project	20	22	18	20	23	18	20	15	31	28	23	24	26	20	22
8 Total Federal System	68	64	57	59	66	59	65	56	83	80	72	73	80	65	67
-Public Entities-															
9 Big Horn	67	56	49	58	58	51	54	46	80	84	74	67	77	56	61
10 Big Horn II	16	15	12	12	14	13	14	12	19	22	20	17	19	14	15
11 Coffin Butte	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.3	2.3	2.4	2.3	2.3	2.4
12 Coffin Butte II	2.9	2.9	2.9	3.0	3	2.7	3.1	3.1	3.2	3.2	3.2	3	3.0	2.8	3.0
13 Columbia Ridge Landfill	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
14 Eurus Combine Hills II	16	23	14	17	18	18	13	8.5	19	29	29	18	24	18	18
15 Flathead County Landfill	0.8	0.8	0.8	0.8	0.9	0.8	0.8	0.8	0.9	0.8	0.8	0.8	0.9	0.8	0.8
16 Foote Creek 1	1.6	1.5	2	2.9	4	4	4	4.2	3.8	3.2	2.6	2.3	2.0	1.3	2.9
17 Grayland Wind (Coastal)	2.1	1.9	1.7	1.7	1.7	2.4	1.5	1.1	2	2.3	2.3	2.1	2.4	1.9	1.9
18 Harvest Wind	33	39	26	22	27	19	15	10	31	48	49	39	40	33	29
19 Hay Canyon Wind	42	29	24	21	20	14	12	5.8	23	36	35	30	39	30	24
20 Klondike III	12	10.0	8.0	6.3	5.0	4.3	5.4	4.8	7.7	9.2	10	10	12	11	8.0
21 Linden Wind Project	19	19	14	13	14	8.8	8.6	4.8	14	19	26	21	25	20	16
22 Nine Canyon Wind Project	25	23	20	25	29	25	27	23	37	40	32	28	30	19	27
23 Pebble Springs Wind Project	46	32	24	21	15	7.6	9	5	25	38	36	35	41	32	24
24 River Bend Landfill	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
25 Roosevelt Landfill (H.W. Hill)	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
26 Short Mountain	2.1	2.1	1.9	1.9	1.8	2.0	1.9	2.0	2.0	2	2	2.1	2	2.0	2.0
27 Star Point (100%)	34	39	22	20	21	17	12	4.9	23	32	46	37	41	38	26
28 Stateline Wind Project	38	42	35	39	45	35	40	29	61	54	44	47	51	40	43
29 Wheatfield Wind	41	29	22	19	14	8	9.3	5	21	33	32	28	37	29	22
30 White Creek	77	70	51	53	58	54	57	44	77	93	86	75	85	65	65
31 Willow Creek Wind	37	18	21	17	15	14	17	13	26	31	21	22	31	21	21
32 Windy Flats I	78	87	51	41	48	22	20	13	48	64	103	88	96	82	57
33 Windy Flats II	23	26	15	12	14	6.4	6	3.7	14	19	31	26	28	24	17
34 Windy Point - Tuolumne Wind	67	49	44	37	39	20	24	13	39	52	72	57	61	50	42
35 Total Public Entities	701	634	482	462	485	369	373	276	597	733	776	676	768	610	545
-Investor-Owned Entities-															
36 (Goshen North) Ridgeline	44	40	31	30	31	25	30	22	41	47	46	43	49	39	36
37 Bennett Creek Wind	7.0	6.3	4.9	4.8	4.9	4.0	4.7	3.6	6.6	7.5	7.4	6.8	7.8	6.2	5.7
38 Biglow Canyon Phase I	58	50	35	31	25	19	24	20	40	51	56	53	66	50	39
39 Biglow Canyon Phase II	70	72	49	38	25	14	17	9.1	32	43	76	62	73	65	43
40 Biglow Canyon Phase III	82	84	58	45	29	16	20	11	38	50	89	73	86	76	51
41 Burley Butte Wind	6.9	6.2	4.9	4.7	4.8	3.9	4.7	3.5	6.5	7.4	7.2	6.7	7.7	6.1	5.6
42 Camp Reed	7.9	7.2	5.6	5.4	5.5	4.5	5.4	4	7.5	8.5	8.4	7.8	8.9	7	6.5
43 Cassia Farms Wind	3.7	3.4	2.6	2.5	2.6	2.1	2.5	1.9	3.5	4.0	3.9	3.6	4.1	3.3	3
44 Cassia Gulch Wind	6.7	6	4.7	4.6	4.7	3.8	4.5	3.4	6.3	7.1	7	6.5	7.4	5.9	5.4
45 Elkhorn Valley Wind Farm	35	32	25	24	25	20	24	18	33	38	37	35	40	31	29
46 Eurus Combine Hills	10	15	8.9	11	11	11	8.6	5.5	12	19	19	12	15	12	12
47 Foote Creek 1	3.1	3	4	5.7	8.0	8.0	8.0	8.2	7.5	6.3	5.2	4.6	3.9	2.6	5.7
48 Fossil Gulch Wind Project	3.7	3.4	2.6	2.5	2.6	2.1	2.5	1.9	3.5	4.0	3.9	3.6	4.1	3.3	3
49 Golden Valley Wind	4.2	3.8	3.0	2.9	3.0	2.4	2.9	2.2	4.0	4.5	4.5	4.1	4.7	3.7	3.5
50 Goodnoe Hills	34	31	23	22	24	18	21	9.3	32	40	35	33	36	28	26
51 Hopkins Ridge I	40	40	36	36	42	41	50	39	55	60	55	48	52	32	44
52 Hopkins Ridge II	2.0	1.9	1.6	1.7	2.1	1.9	1.9	1.0	2.6	3.1	2.7	2.6	2.4	1.3	2.0
53 Horseshoe Bend Wind Park	3.2	2.9	2.2	2.2	2.2	1.8	2.2	1.6	3.0	3.4	3.3	3.1	3.5	2.8	2.6
54 Hot Springs Wind	7.0	6.3	4.9	4.8	4.9	4.0	4.7	3.6	6.6	7.5	7.4	6.8	7.8	6.2	5.7
55 Kettle Falls (biomass)	47	47	47	47	47	47	47	47	47	47	47	47	47	47	43
56 Klondike II	35	30	24	19	15	13	16	14	23	28	30	31	37	32	24
57 Klondike III	70	59	48	37	30	26	32	29	46	55	59	61	74	64	47
58 Klondike IIIa	39	27	21	17	14	8.7	13	6.3	22	29	29	27	36	29	21

**Table A-8: Regional Renewable Resources
PNW Loads and Resource Study
2014 - 2015 Operating Year
[76] 2011 White Book (Final)**

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
59 Leaning Juniper	40	34	28	24	20	17	23	19	34	40	42	40	46	39	31
60 Lower Snake River Wind	93	92	82	83	97	93	116	89	126	137	126	110	119	74	101
61 Marengo I Wind Project	38	38	33	34	40	38	47	37	52	56	52	45	49	30	41
62 Marengo II Wind Project	19	19	17	17	20	19	24	18	26	28	26	23	24	15	21
63 Milner Dam	6.9	6.2	4.9	4.7	4.8	3.9	4.7	3.5	6.5	7.4	7.2	6.7	7.7	6.1	5.6
64 Oregon Trail	4.8	4.3	3.4	3.3	3.3	2.7	3.2	2.4	4.5	5.1	5	4.7	5.3	4.2	3.9
65 Oregon Wind Farm I (Echo I)	16	14	11	11	11	8.9	11	8.0	15	17	17	15	18	14	13
66 Oregon Wind Farm II (Echo II)	7.1	6.4	5.0	4.8	4.9	4	4.8	3.6	6.6	7.6	7.4	6.9	7.9	6.2	5.8
67 PaTu Wind	4.2	3.6	2.9	2.3	1.8	1.6	1.9	1.7	2.8	3.3	3.6	3.7	4.5	3.9	2.9
68 Paynes Ferry	7.4	6.7	5.2	5.1	5.2	4.2	5	3.8	7.0	7.9	7.8	7.3	8.3	6.5	6
69 Pilgrim Stage Station	3.7	3.4	2.6	2.5	2.6	2.1	2.5	1.9	3.5	4.0	3.9	3.6	4.1	3.3	3
70 Rattlesnake Road Wind Farm	44	30	24	20	14	7.1	17	7.5	29	36	35	34	38	30	24
71 Rock River I Wind	9	8.8	12	16	23	23	23	24	22	18	15	13	11	7.6	17
72 Salmon Falls	7.4	6.7	5.2	5.1	5.2	4.2	5	3.8	7.0	7.9	7.8	7.3	8.3	6.5	6
73 Stateline Wind Project	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
74 Thousand Spring	3.7	3.4	2.6	2.5	2.6	2.1	2.5	1.9	3.5	4.0	3.9	3.6	4.1	3.3	3
75 Threemile Canyon Wind	4.7	3.2	2.4	2.1	1.5	0.8	0.9	0.5	2.5	3.8	3.6	3.5	4.1	3.2	2.4
76 Tuana Gulch	3.7	3.4	2.6	2.5	2.6	2.1	2.5	1.9	3.5	4.0	3.9	3.6	4.1	3.3	3
77 Tuana Springs Wind	5.9	5.4	4.2	4	4.1	3.4	4	3	5.6	6.4	6.2	5.8	6.6	5.2	4.8
78 Vansycle Wind	7.5	7.9	6.5	6.9	8.9	8.3	9.1	7.4	11	10	8.1	8.7	8.4	7.5	8.3
79 Vantage Wind	32	29	22	22	22	18	22	16	30	34	33	31	35	28	26
80 Wild Horse I	81	73	57	55	56	46	55	41	76	86	85	79	90	71	66
81 Wild Horse II	16	14	11	11	11	8.8	11	7.9	15	17	16	15	17	14	13
82 Wolverine Creek	23	21	16	16	16	13	15	12	21	24	24	22	25	20	19
83 Yahoo Creek	7.4	6.7	5.2	5.1	5.2	4.2	5	3.8	7.0	7.9	7.8	7.3	8.3	6.5	6
84 Total Investor-Owned Entities	1104	1016	812	758	746	633	762	583	994	1144	1186	1071	1193	964	896
-Other Entities-															
85 Juniper Canyon I	48	44	37	42	43	37	41	35	57	66	60	52	57	42	46
86 Kittitas Valley Wind	36	32	25	24	25	20	24	18	33	38	37	35	40	31	29
87 Klondike III	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
88 Klondike IIIa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
89 Leaning Juniper 2a	36	31	25	22	18	15	21	17	30	36	38	36	41	35	28
90 Leaning Juniper 2b	44	38	31	27	22	19	26	21	37	44	47	44	51	43	34
91 Stateline Wind Project	7.7	8.4	7	7.7	9.0	7.1	7.9	5.9	12	11	8.8	9.4	10	8.0	8.5
92 White Creek	1.2	1.1	0.8	0.8	0.9	0.8	0.9	0.7	1.2	1.4	1.3	1.1	1.3	1.0	1.0
93 Willow Creek Wind	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
94 Total Other Entities	172	154	126	123	118	100	120	97	172	196	192	176	201	160	146
-Renewable Resources-															
95 Federal System	68	64	57	59	66	59	65	56	83	80	72	73	80	65	67
96 Public Entities	701	634	482	462	485	369	373	276	597	733	776	676	768	610	545
97 Investor-Owned Entities	1104	1016	812	758	746	633	762	583	994	1144	1186	1071	1193	964	896
98 Other Entities	172	154	126	123	118	100	120	97	172	196	192	176	201	160	146
99 Total Renewable Resources	2045	1868	1478	1403	1415	1160	1320	1013	1845	2153	2226	1996	2242	1799	1654

**Table A-8: Regional Renewable Resources
PNW Loads and Resource Study
2015 - 2016 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Federal System-															
1 Condon Wind Project	7.4	7.5	7.8	9.7	13	12	13	11	14	12	9.8	9.7	9.4	7.1	10
2 Foote Creek 1	2.8	2.7	3.5	5	7	7.1	7.1	7.3	6.6	5.6	4.6	4.1	3.5	2.3	5.1
3 Foote Creek 2	0.3	0.3	0.4	0.6	0.8	0.8	0.8	0.9	0.8	0.7	0.5	0.5	0.4	0.3	0.6
4 Foote Creek 4	3	2.9	3.9	5.5	7.7	7.8	7.7	8.0	7.2	6.1	5	4.5	3.8	2.5	5.6
5 Klondike I	11	9.5	7.7	6	4.8	4.1	5.2	4.6	7.4	8.9	9.6	9.8	12	10	7.6
6 Klondike III	23	20	16	13	10.0	8.6	11	9.7	15	18	20	20	25	22	16
7 Stateline Wind Project	20	22	18	20	23	18	20	15	31	28	23	24	26	21	22
8 Total Federal System	68	64	57	59	66	59	65	56	83	80	72	73	80	65	67
-Public Entities-															
9 Big Horn	67	56	49	58	58	51	54	46	79	84	74	67	77	56	61
10 Big Horn II	16	15	12	12	14	13	14	12	19	22	20	17	19	14	15
11 Coffin Butte	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.3	2.3	2.4	2.3	2.3	2.4
12 Coffin Butte II	2.9	2.9	2.9	3.0	3	2.7	3.1	3.1	3.2	3.2	3.2	3	3.0	2.8	3.0
13 Columbia Ridge Landfill	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
14 Eurus Combine Hills II	16	23	14	17	18	18	13	8.5	19	29	29	18	24	18	18
15 Flathead County Landfill	0.8	0.8	0.8	0.8	0.9	0.8	0.8	0.8	0.9	0.8	0.8	0.8	0.9	0.8	0.8
16 Foote Creek 1	1.6	1.5	2	2.9	4	4	4	4.2	3.8	3.2	2.6	2.3	2.0	1.3	2.9
17 Grayland Wind (Coastal)	2.1	1.9	1.7	1.7	1.7	2.4	1.5	1.1	2	2.3	2.3	2.1	2.4	1.9	1.9
18 Harvest Wind	33	39	26	22	27	19	15	10	31	48	49	39	40	33	29
19 Hay Canyon Wind	42	29	24	21	20	14	12	5.9	23	36	35	30	39	30	24
20 Klondike III	12	10.0	8.0	6.3	5.0	4.3	5.4	4.8	7.7	9.2	10	10	12	11	8.0
21 Linden Wind Project	19	19	14	13	14	8.8	8.6	4.8	14	19	26	21	25	20	15
22 Nine Canyon Wind Project	25	23	20	25	29	25	27	23	37	40	32	28	30	19	27
23 Pebble Springs Wind Project	46	32	24	21	15	7.6	9.0	5	25	38	36	35	41	32	24
24 River Bend Landfill	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
25 Roosevelt Landfill (H.W. Hill)	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
26 Short Mountain	2.1	2.1	1.9	1.9	1.8	2.0	1.9	2.0	2.0	2	2	2.1	2	2.0	2.0
27 Star Point (100%)	34	39	22	20	21	17	12	4.9	23	32	46	37	41	38	26
28 Stateline Wind Project	38	42	35	39	45	35	40	29	61	54	44	47	51	40	43
29 Wheatfield Wind	41	29	22	19	14	8	9.2	5	21	33	32	28	37	30	22
30 White Creek	77	70	51	53	58	54	57	44	77	93	86	75	85	65	65
31 Willow Creek Wind	37	18	21	17	15	14	17	13	26	31	21	22	31	21	21
32 Windy Flats I	78	87	51	41	48	22	20	13	49	64	103	88	96	83	57
33 Windy Flats II	23	26	15	12	14	6.4	6	3.7	14	19	31	26	28	25	17
34 Windy Point - Tuolumne Wind	67	49	44	37	39	20	24	13	39	52	72	57	61	50	42
35 Total Public Entities	701	634	482	462	485	369	372	276	598	733	776	676	768	614	544
-Investor-Owned Entities-															
36 (Goshen North) Ridgeline	44	40	31	30	31	25	30	22	41	47	46	43	49	39	36
37 Bennett Creek Wind	7.0	6.3	4.9	4.8	4.9	4.0	4.7	3.6	6.6	7.5	7.4	6.8	7.8	6.2	5.7
38 Biglow Canyon Phase I	58	50	35	31	25	19	24	20	40	51	56	53	66	50	39
39 Biglow Canyon Phase II	70	72	49	38	25	14	17	9.1	33	43	76	62	73	66	43
40 Biglow Canyon Phase III	82	84	58	45	29	16	20	11	38	50	89	73	86	77	50
41 Burley Butte Wind	6.9	6.2	4.9	4.7	4.8	3.9	4.7	3.5	6.5	7.4	7.2	6.7	7.7	6.1	5.6
42 Camp Reed	7.9	7.2	5.6	5.4	5.5	4.5	5.4	4	7.5	8.5	8.4	7.8	8.9	7.1	6.5
43 Cassia Farms Wind	3.7	3.4	2.6	2.5	2.6	2.1	2.5	1.9	3.5	4.0	3.9	3.6	4.1	3.3	3
44 Cassia Gulch Wind	6.7	6	4.7	4.6	4.7	3.8	4.5	3.4	6.3	7.1	7	6.5	7.4	5.9	5.4
45 Elkhorn Valley Wind Farm	35	32	25	24	25	20	24	18	33	38	37	35	40	31	29
46 Eurus Combine Hills	10	15	8.9	11	11	11	8.6	5.5	12	19	19	12	15	12	12
47 Foote Creek 1	3.1	3	4	5.7	8.0	8.0	8.0	8.2	7.5	6.3	5.2	4.6	3.9	2.6	5.8
48 Fossil Gulch Wind Project	3.7	3.4	2.6	2.5	2.6	2.1	2.5	1.9	3.5	4.0	3.9	3.6	4.1	3.3	3
49 Golden Valley Wind	4.2	3.8	3.0	2.9	3.0	2.4	2.9	2.2	4.0	4.5	4.5	4.1	4.7	3.8	3.5
50 Goodnoe Hills	34	31	23	22	24	18	21	9.3	32	40	35	33	36	28	26
51 Hopkins Ridge I	40	40	36	36	42	41	50	39	55	60	55	48	52	33	44
52 Hopkins Ridge II	2.0	1.9	1.6	1.7	2.1	1.9	1.9	1.0	2.6	3.1	2.7	2.6	2.4	1.3	2.0
53 Horseshoe Bend Wind Park	3.2	2.9	2.2	2.2	2.2	1.8	2.1	1.6	3.0	3.4	3.3	3.1	3.5	2.8	2.6
54 Hot Springs Wind	7.0	6.3	4.9	4.8	4.9	4.0	4.7	3.6	6.6	7.5	7.4	6.8	7.8	6.2	5.7
55 Kettle Falls (biomass)	47	47	47	47	47	47	47	47	47	47	47	47	47	47	43
56 Klondike II	35	30	24	19	15	13	16	15	23	28	30	31	37	33	24
57 Klondike III	70	59	48	37	30	26	32	29	46	55	59	61	74	65	47
58 Klondike IIIa	39	27	21	17	14	8.7	13	6.3	22	29	29	27	36	29	21

**Table A-8: Regional Renewable Resources
PNW Loads and Resource Study
2015 - 2016 Operating Year
[76] 2011 White Book (Final)**

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
59 Leaning Juniper	40	34	28	24	20	17	23	19	34	40	42	40	46	39	31
60 Lower Snake River Wind	93	92	82	83	97	93	116	89	126	137	126	110	119	75	101
61 Marengo I Wind Project	38	38	33	34	40	38	47	37	51	56	52	45	49	31	41
62 Marengo II Wind Project	19	19	17	17	20	19	24	18	26	28	26	23	24	15	21
63 Milner Dam	6.9	6.2	4.9	4.7	4.8	3.9	4.7	3.5	6.5	7.4	7.2	6.7	7.7	6.1	5.6
64 Oregon Trail	4.8	4.3	3.4	3.3	3.3	2.7	3.2	2.4	4.5	5.1	5	4.7	5.3	4.2	3.9
65 Oregon Wind Farm I (Echo I)	16	14	11	11	11	8.9	11	8.0	15	17	17	15	18	14	13
66 Oregon Wind Farm II (Echo II)	7.1	6.4	5.0	4.8	4.9	4	4.8	3.6	6.6	7.6	7.4	6.9	7.9	6.3	5.8
67 PaTu Wind	4.2	3.6	2.9	2.3	1.8	1.6	1.9	1.7	2.8	3.3	3.6	3.7	4.5	3.9	2.9
68 Paynes Ferry	7.4	6.7	5.2	5.1	5.2	4.2	5	3.8	7.0	7.9	7.8	7.3	8.3	6.6	6
69 Pilgrim Stage Station	3.7	3.4	2.6	2.5	2.6	2.1	2.5	1.9	3.5	4.0	3.9	3.6	4.1	3.3	3
70 Rattlesnake Road Wind Farm	44	30	24	20	14	7.1	17	7.5	29	36	35	34	38	30	24
71 Rock River I Wind	9	8.8	12	16	23	23	23	24	22	18	15	13	11	7.6	17
72 Salmon Falls	7.4	6.7	5.2	5.1	5.2	4.2	5	3.8	7.0	7.9	7.8	7.3	8.3	6.6	6
73 Stalene Wind Project	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
74 Thousand Spring	3.7	3.4	2.6	2.5	2.6	2.1	2.5	1.9	3.5	4.0	3.9	3.6	4.1	3.3	3
75 Threemile Canyon Wind	4.7	3.2	2.4	2.1	1.5	0.8	0.9	0.5	2.5	3.8	3.6	3.5	4.1	3.2	2.4
76 Tuana Gulch	3.7	3.4	2.6	2.5	2.6	2.1	2.5	1.9	3.5	4.0	3.9	3.6	4.1	3.3	3
77 Tuana Springs Wind	5.9	5.4	4.2	4	4.1	3.4	4	3	5.6	6.4	6.2	5.8	6.6	5.3	4.8
78 Vansycle Wind	7.5	7.9	6.5	6.9	8.9	8.3	9.1	7.4	11	10	8.1	8.7	8.4	7.5	8.3
79 Vantage Wind	32	29	22	22	22	18	21	16	30	34	33	31	35	28	26
80 Wild Horse I	81	73	57	55	56	46	55	41	76	86	85	79	90	72	66
81 Wild Horse II	16	14	11	11	11	8.8	11	7.9	15	17	16	15	17	14	13
82 Wolverine Creek	23	21	16	16	16	13	15	12	21	24	24	22	25	20	19
83 Yahoo Creek	7.4	6.7	5.2	5.1	5.2	4.2	5	3.8	7.0	7.9	7.8	7.3	8.3	6.6	6
84 Total Investor-Owned Entities	1104	1016	812	758	746	633	760	583	994	1144	1186	1063	1193	970	895
-Other Entities-															
85 Juniper Canyon I	48	44	37	42	43	37	41	35	57	66	60	52	57	42	46
86 Kittitas Valley Wind	36	32	25	24	25	20	24	18	33	38	37	35	40	32	29
87 Klondike III	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
88 Klondike IIIa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
89 Leaning Juniper 2a	36	31	25	22	18	15	21	17	30	36	38	36	41	35	28
90 Leaning Juniper 2b	44	38	31	27	22	19	26	21	37	44	47	44	51	44	34
91 Stalene Wind Project	7.7	8.4	7	7.7	9.0	7.1	7.9	5.9	12	11	8.8	9.4	10	8	8.5
92 White Creek	1.2	1.1	0.8	0.8	0.9	0.8	0.9	0.7	1.2	1.4	1.3	1.1	1.3	1.0	1.0
93 Willow Creek Wind	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
94 Total Other Entities	172	154	126	123	118	100	120	97	172	196	192	176	201	161	146
-Renewable Resources-															
95 Federal System	68	64	57	59	66	59	65	56	83	80	72	73	80	65	67
96 Public Entities	701	634	482	462	485	369	372	276	598	733	776	676	768	614	544
97 Investor-Owned Entities	1104	1016	812	758	746	633	760	583	994	1144	1186	1063	1193	970	895
98 Other Entities	172	154	126	123	118	100	120	97	172	196	192	176	201	161	146
99 Total Renewable Resources	2045	1868	1478	1403	1415	1160	1317	1013	1846	2153	2226	1989	2242	1810	1653

**Table A-8: Regional Renewable Resources
PNW Loads and Resource Study
2016 - 2017 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Federal System-															
1 Condon Wind Project	7.4	7.6	7.8	9.7	13	12	13	11	14	12	9.7	9.7	9.4	7.1	10
2 Foote Creek 1	2.8	2.7	3.5	5	7	7.1	7.1	7.3	6.6	5.6	4.6	4.1	3.5	2.3	5.1
3 Foote Creek 2	0.3	0.3	0.4	0.6	0.8	0.8	0.8	0.9	0.8	0.7	0.5	0.5	0.4	0.3	0.6
4 Foote Creek 4	3	3.0	3.9	5.5	7.7	7.8	7.7	8.0	7.2	6.1	5	4.5	3.8	2.5	5.6
5 Klondike I	11	9.5	7.7	6	4.8	4.1	5.2	4.6	7.4	8.9	9.6	9.8	12	10	7.7
6 Klondike III	23	20	16	13	10.0	8.6	11	9.7	15	18	20	20	25	22	16
7 Stateline Wind Project	20	21	18	20	23	18	20	15	31	28	23	24	26	21	22
8 Total Federal System	68	64	57	59	66	59	65	56	83	80	72	73	80	65	67
-Public Entities-															
9 Big Horn	67	56	49	58	58	51	54	46	79	84	74	66	77	56	61
10 Big Horn II	16	15	12	12	14	13	14	12	19	22	20	17	19	14	15
11 Coffin Butte	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.3	2.3	2.4	2.3	2.3	2.4
12 Coffin Butte II	2.9	2.9	2.9	3.0	3	2.7	3.1	3.1	3.2	3.2	3.2	3	3.0	2.8	3.0
13 Columbia Ridge Landfill	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
14 Eurus Combine Hills II	16	22	14	17	18	18	13	8.5	19	29	29	18	24	18	18
15 Flathead County Landfill	0.8	0.8	0.8	0.8	0.9	0.8	0.8	0.8	0.9	0.8	0.8	0.8	0.9	0.8	0.8
16 Foote Creek 1	1.6	1.5	2	2.9	4	4	4	4.2	3.8	3.2	2.6	2.3	2.0	1.3	2.9
17 Grayland Wind (Coastal)	2.1	1.9	1.7	1.7	1.7	2.4	1.5	1.1	2	2.3	2.3	2.1	2.4	1.9	1.9
18 Harvest Wind	33	38	26	23	27	19	15	10	31	48	49	39	40	33	29
19 Hay Canyon Wind	42	29	24	21	20	14	12	5.8	23	36	34	30	39	30	24
20 Klondike III	12	9.9	8.0	6.3	5.0	4.3	5.4	4.8	7.7	9.2	10	10	12	11	8.0
21 Linden Wind Project	19	20	14	13	14	8.8	8.6	4.8	14	19	26	21	25	20	16
22 Nine Canyon Wind Project	25	23	20	25	29	25	27	23	37	40	32	28	30	19	27
23 Pebble Springs Wind Project	46	31	24	21	15	7.6	9.0	5	25	38	36	35	41	32	24
24 River Bend Landfill	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
25 Roosevelt Landfill (H.W. Hill)	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
26 Short Mountain	2.1	2.1	1.9	1.9	1.8	2.0	1.9	2.0	2.0	2	2	2.1	2	2.0	2.0
27 Star Point (100%)	34	38	22	21	21	17	12	4.9	23	32	46	37	41	38	26
28 Stateline Wind Project	38	41	35	39	45	35	40	29	61	54	44	46	51	40	43
29 Wheatfield Wind	41	28	22	19	14	8	9.2	5	21	33	32	28	37	30	22
30 White Creek	77	69	51	53	58	54	57	44	77	93	86	75	85	65	65
31 Willow Creek Wind	37	17	21	17	15	14	17	13	26	31	21	22	31	21	21
32 Windy Flats I	78	85	51	42	48	22	20	13	49	64	102	88	96	83	57
33 Windy Flats II	23	25	15	12	14	6.4	6	3.7	14	19	30	26	28	25	17
34 Windy Point - Tuolumne Wind	67	48	44	37	39	20	24	13	39	52	71	56	61	50	42
35 Total Public Entities	701	626	482	464	484	369	372	276	598	733	773	675	768	614	544
-Investor-Owned Entities-															
36 (Goshen North) Ridgeline	44	39	31	30	31	25	30	22	41	47	46	43	49	39	36
37 Bennett Creek Wind	7.0	6.3	4.9	4.8	4.9	4.0	4.7	3.6	6.6	7.5	7.3	6.8	7.8	6.2	5.7
38 Biglow Canyon Phase I	58	50	35	31	25	19	24	20	40	51	56	53	66	50	39
39 Biglow Canyon Phase II	70	70	49	38	25	14	17	9.1	33	43	75	62	73	66	43
40 Biglow Canyon Phase III	82	82	58	45	29	16	20	11	38	50	88	73	86	77	50
41 Burley Butte Wind	6.9	6.2	4.9	4.7	4.8	3.9	4.7	3.5	6.5	7.4	7.2	6.7	7.7	6.1	5.6
42 Camp Reed	7.9	7.1	5.6	5.4	5.5	4.5	5.4	4	7.5	8.5	8.3	7.8	8.9	7.1	6.5
43 Cassia Farms Wind	3.7	3.3	2.6	2.5	2.6	2.1	2.5	1.9	3.5	4.0	3.9	3.6	4.1	3.3	3
44 Cassia Gulch Wind	6.7	6.0	4.7	4.6	4.7	3.8	4.5	3.4	6.3	7.1	7	6.5	7.4	5.9	5.4
45 Elkhorn Valley Wind Farm	35	32	25	24	25	20	24	18	33	38	37	35	40	31	29
46 Eurus Combine Hills	10	14	8.9	11	11	11	8.6	5.5	12	19	19	12	15	12	12
47 Foote Creek 1	3.1	3.1	4	5.7	8.0	8.0	8.0	8.2	7.5	6.3	5.2	4.6	3.9	2.6	5.7
48 Fossil Gulch Wind Project	3.7	3.3	2.6	2.5	2.6	2.1	2.5	1.9	3.5	4.0	3.9	3.6	4.1	3.3	3
49 Golden Valley Wind	4.2	3.8	3.0	2.9	3.0	2.4	2.9	2.2	4.0	4.5	4.4	4.1	4.7	3.8	3.5
50 Goodnoe Hills	34	31	23	22	24	18	21	9.3	32	40	35	33	36	28	26
51 Hopkins Ridge I	40	39	36	36	42	41	50	39	55	60	55	48	52	33	44
52 Hopkins Ridge II	2.0	1.9	1.6	1.7	2.1	1.9	1.9	1.0	2.6	3.1	2.7	2.6	2.4	1.3	2.0
53 Horseshoe Bend Wind Park	3.2	2.8	2.2	2.2	2.2	1.8	2.1	1.6	3.0	3.4	3.3	3.1	3.5	2.8	2.6
54 Hot Springs Wind	7.0	6.3	4.9	4.8	4.9	4.0	4.7	3.6	6.6	7.5	7.3	6.8	7.8	6.2	5.7
55 Kettle Falls (biomass)	47	47	47	47	47	47	47	47	47	47	47	26	47	47	45
56 Klondike II	35	30	24	19	15	13	16	14	23	28	30	31	37	33	24
57 Klondike III	70	59	48	37	30	26	32	29	46	55	60	61	74	65	47
58 Klondike IIIa	39	27	21	17	14	8.7	13	6.3	22	29	29	27	36	29	21

**Table A-8: Regional Renewable Resources
PNW Loads and Resource Study
2016 - 2017 Operating Year
[76] 2011 White Book (Final)**

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
59 Leaning Juniper	40	34	28	24	20	17	23	19	34	40	42	40	46	39	31
60 Lower Snake River Wind	93	90	82	84	97	93	116	89	126	137	126	110	119	75	101
61 Marengo I Wind Project	38	37	33	34	40	38	47	37	51	56	52	45	49	31	41
62 Marengo II Wind Project	19	18	17	17	20	19	24	18	26	28	26	22	24	15	21
63 Milner Dam	6.9	6.2	4.9	4.7	4.8	3.9	4.7	3.5	6.5	7.4	7.2	6.7	7.7	6.1	5.6
64 Oregon Trail	4.8	4.3	3.4	3.3	3.3	2.7	3.2	2.4	4.5	5.1	5	4.7	5.3	4.2	3.9
65 Oregon Wind Farm I (Echo I)	16	14	11	11	11	8.9	11	8.0	15	17	17	15	18	14	13
66 Oregon Wind Farm II (Echo II)	7.1	6.3	5.0	4.8	4.9	4	4.8	3.6	6.6	7.6	7.4	6.9	7.9	6.3	5.8
67 PaTu Wind	4.2	3.6	2.9	2.3	1.8	1.6	1.9	1.7	2.8	3.3	3.6	3.7	4.5	3.9	2.9
68 Paynes Ferry	7.4	6.6	5.2	5.1	5.2	4.2	5	3.8	7.0	7.9	7.8	7.2	8.3	6.6	6
69 Pilgrim Stage Station	3.7	3.3	2.6	2.5	2.6	2.1	2.5	1.9	3.5	4.0	3.9	3.6	4.1	3.3	3
70 Rattlesnake Road Wind Farm	44	30	24	20	14	7.1	17	7.5	29	36	34	34	38	30	24
71 Rock River I Wind	9	8.8	12	16	23	23	23	24	22	18	15	13	11	7.6	17
72 Salmon Falls	7.4	6.6	5.2	5.1	5.2	4.2	5	3.8	7.0	7.9	7.8	7.2	8.3	6.6	6
73 Stalene Wind Project	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
74 Thousand Spring	3.7	3.3	2.6	2.5	2.6	2.1	2.5	1.9	3.5	4.0	3.9	3.6	4.1	3.3	3
75 Threemile Canyon Wind	4.7	3.1	2.4	2.1	1.5	0.8	0.9	0.5	2.5	3.8	3.6	3.5	4.1	3.2	2.4
76 Tuana Gulch	3.7	3.3	2.6	2.5	2.6	2.1	2.5	1.9	3.5	4.0	3.9	3.6	4.1	3.3	3
77 Tuana Springs Wind	5.9	5.3	4.2	4.1	4.1	3.4	4	3	5.6	6.4	6.2	5.8	6.6	5.3	4.8
78 Vansycle Wind	7.5	7.8	6.5	6.9	8.8	8.3	9.1	7.4	11	10	8.2	8.7	8.4	7.5	8.3
79 Vantage Wind	32	28	22	22	22	18	21	16	30	34	33	31	35	28	26
80 Wild Horse I	81	72	57	55	56	46	55	41	76	86	85	79	90	72	66
81 Wild Horse II	16	14	11	11	11	8.8	11	7.9	15	17	16	15	17	14	13
82 Wolverine Creek	23	20	16	16	16	13	15	12	21	24	24	22	25	20	19
83 Yahoo Creek	7.4	6.6	5.2	5.1	5.2	4.2	5	3.8	7.0	7.9	7.8	7.2	8.3	6.6	6
84 Total Investor-Owned Entities	1104	1004	812	760	746	633	760	583	994	1144	1183	1056	1229	970	898
-Other Entities-															
85 Juniper Canyon I	48	44	37	42	43	37	41	35	57	66	59	52	57	42	46
86 Kittitas Valley Wind	36	32	25	24	25	20	24	18	33	38	37	35	40	32	29
87 Klondike III	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
88 Klondike IIIa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
89 Leaning Juniper 2a	36	30	25	22	18	15	21	17	30	36	38	36	41	35	28
90 Leaning Juniper 2b	44	37	31	27	22	19	26	21	37	44	46	44	51	44	34
91 Stalene Wind Project	7.7	8.3	7	7.8	9.0	7.1	7.9	5.9	12	11	8.9	9.3	10	8	8.5
92 White Creek	1.2	1.1	0.8	0.8	0.9	0.8	0.9	0.7	1.2	1.4	1.3	1.1	1.3	1.0	1.0
93 Willow Creek Wind	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
94 Total Other Entities	172	153	126	123	118	100	120	97	172	196	191	176	201	161	146
-Renewable Resources-															
95 Federal System	68	64	57	59	66	59	65	56	83	80	72	73	80	65	67
96 Public Entities	701	626	482	464	484	369	372	276	598	733	773	675	768	614	544
97 Investor-Owned Entities	1104	1004	812	760	746	633	760	583	994	1144	1183	1056	1229	970	898
98 Other Entities	172	153	126	123	118	100	120	97	172	196	191	176	201	161	146
99 Total Renewable Resources	2045	1848	1478	1406	1413	1160	1317	1013	1846	2153	2220	1979	2278	1810	1656

**Table A-8: Regional Renewable Resources
PNW Loads and Resource Study
2017 - 2018 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Federal System-															
1 Condon Wind Project	7.4	7.6	7.8	9.7	13	12	13	11	14	12	9.8	9.7	9.4	7.1	10
2 Foote Creek 1	2.8	2.7	3.5	5	7	7.1	7.1	7.3	6.6	5.5	4.6	4.1	3.5	2.3	5.1
3 Foote Creek 2	0.3	0.3	0.4	0.6	0.8	0.8	0.8	0.9	0.8	0.7	0.5	0.5	0.4	0.3	0.6
4 Foote Creek 4	3	3.0	3.9	5.5	7.7	7.8	7.7	8.0	7.2	6.1	5	4.5	3.8	2.5	5.6
5 Klondike I	11	9.5	7.7	6	4.8	4.2	5.2	4.6	7.4	8.8	9.6	9.8	12	10	7.7
6 Klondike III	23	20	16	13	10.0	8.7	11	9.7	15	18	20	20	25	22	16
7 Stateline Wind Project	20	21	18	20	23	18	20	15	31	28	23	24	26	21	22
8 Total Federal System	68	64	57	59	66	59	65	56	83	80	72	73	80	65	67
-Public Entities-															
9 Big Horn	67	56	49	58	58	51	54	46	79	85	74	66	77	56	61
10 Big Horn II	16	15	12	12	14	13	14	12	19	22	20	17	19	14	15
11 Coffin Butte	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.3	2.3	2.4	2.3	2.3	2.4
12 Coffin Butte II	2.9	2.9	2.9	3.0	3	2.7	3.1	3.1	3.2	3.2	3.2	3	3.0	2.8	3.0
13 Columbia Ridge Landfill	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
14 Eurus Combine Hills II	16	22	14	17	18	18	13	8.5	19	30	29	18	24	18	18
15 Flathead County Landfill	0.8	0.8	0.8	0.8	0.9	0.8	0.8	0.8	0.9	0.8	0.8	0.8	0.9	0.8	0.8
16 Foote Creek 1	1.6	1.5	2	2.9	4	4	4	4.2	3.8	3.2	2.6	2.3	2.0	1.3	2.9
17 Grayland Wind (Coastal)	2.1	1.9	1.7	1.7	1.7	2.4	1.5	1.1	2	2.3	2.3	2.1	2.4	1.9	1.9
18 Harvest Wind	33	38	26	23	27	19	15	10	31	48	49	39	40	33	29
19 Hay Canyon Wind	42	29	24	21	20	14	12	5.8	23	35	35	30	39	30	24
20 Klondike III	12	9.9	8.0	6.3	5.0	4.3	5.4	4.8	7.7	9.2	10	10	12	11	8.0
21 Linden Wind Project	19	20	14	13	14	8.8	8.6	4.8	14	19	26	21	25	20	16
22 Nine Canyon Wind Project	25	23	20	25	29	25	27	23	37	40	32	28	30	19	27
23 Pebble Springs Wind Project	46	31	24	21	15	7.7	9	5	25	38	36	35	41	32	24
24 River Bend Landfill	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
25 Roosevelt Landfill (H.W. Hill)	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
26 Short Mountain	2.1	2.1	1.9	1.9	1.8	2.0	1.9	2.0	2.0	2	2	2.1	2	2.0	2.0
27 Star Point (100%)	34	38	22	21	21	17	12	4.9	23	32	46	37	41	38	26
28 Stateline Wind Project	38	41	35	39	45	35	40	29	61	55	44	46	51	40	43
29 Wheatfield Wind	41	28	22	19	14	8	9.3	5	21	32	32	28	37	30	22
30 White Creek	77	69	51	53	58	54	57	44	77	94	86	75	85	65	65
31 Willow Creek Wind	37	17	21	17	15	14	17	13	26	31	21	22	31	21	21
32 Windy Flats I	78	85	51	42	48	22	20	13	49	64	103	88	96	83	57
33 Windy Flats II	23	25	15	12	14	6.5	6	3.7	14	19	31	26	28	25	17
34 Windy Point - Tuolumne Wind	67	48	44	37	39	20	24	13	39	52	72	56	61	50	42
35 Total Public Entities	701	626	482	464	484	370	373	276	598	734	776	675	768	614	545
-Investor-Owned Entities-															
36 (Goshen North) Ridgeline	44	39	31	30	31	25	30	22	41	47	46	43	49	39	36
37 Bennett Creek Wind	7.0	6.3	4.9	4.8	4.9	4.0	4.7	3.6	6.6	7.5	7.4	6.8	7.8	6.2	5.7
38 Biglow Canyon Phase I	58	50	35	31	25	19	24	20	40	51	56	53	66	50	39
39 Biglow Canyon Phase II	70	70	49	38	25	14	17	9.1	33	42	76	62	73	66	43
40 Biglow Canyon Phase III	82	82	58	45	29	16	20	11	38	49	89	73	86	77	51
41 Burley Butte Wind	6.9	6.2	4.9	4.7	4.8	3.9	4.7	3.5	6.5	7.4	7.2	6.7	7.7	6.1	5.6
42 Camp Reed	7.9	7.1	5.6	5.4	5.5	4.5	5.4	4	7.5	8.5	8.4	7.8	8.9	7.1	6.5
43 Cassia Farms Wind	3.7	3.3	2.6	2.5	2.6	2.1	2.5	1.9	3.5	4.0	3.9	3.6	4.1	3.3	3
44 Cassia Gulch Wind	6.7	6.0	4.7	4.6	4.7	3.8	4.5	3.4	6.3	7.1	7	6.5	7.4	5.9	5.4
45 Elkhorn Valley Wind Farm	35	32	25	24	25	20	24	18	33	38	37	35	40	31	29
46 Eurus Combine Hills	10	14	8.9	11	11	11	8.6	5.5	12	19	19	12	15	12	12
47 Foote Creek 1	3.1	3.1	4	5.7	8.0	8.0	8.0	8.2	7.5	6.3	5.2	4.6	3.9	2.6	5.7
48 Fossil Gulch Wind Project	3.7	3.3	2.6	2.5	2.6	2.1	2.5	1.9	3.5	4.0	3.9	3.6	4.1	3.3	3
49 Golden Valley Wind	4.2	3.8	3.0	2.9	3.0	2.4	2.9	2.2	4.0	4.5	4.5	4.1	4.7	3.8	3.5
50 Goodnoe Hills	34	31	23	22	24	18	21	9.3	32	40	35	33	36	28	26
51 Hopkins Ridge I	40	39	36	36	42	41	50	39	55	60	55	48	52	33	44
52 Hopkins Ridge II	2.0	1.9	1.6	1.7	2.1	1.9	1.9	1.0	2.6	3.1	2.7	2.6	2.4	1.3	2.0
53 Horseshoe Bend Wind Park	3.2	2.8	2.2	2.2	2.2	1.8	2.2	1.6	3.0	3.4	3.3	3.1	3.5	2.8	2.6
54 Hot Springs Wind	7.0	6.3	4.9	4.8	4.9	4.0	4.7	3.6	6.6	7.5	7.4	6.8	7.8	6.2	5.7
55 Kettle Falls (biomass)	47	47	47	47	47	47	47	47	47	47	47	47	42	30	47
56 Klondike II	35	30	24	19	15	13	16	14	23	28	30	31	37	33	24
57 Klondike III	70	59	48	37	30	26	32	29	46	55	59	61	74	65	47
58 Klondike IIIa	39	27	21	17	14	8.8	13	6.3	22	29	29	27	36	29	21

**Table A-8: Regional Renewable Resources
PNW Loads and Resource Study
2017 - 2018 Operating Year
[76] 2011 White Book (Final)**

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
59 Leaning Juniper	40	34	28	24	20	17	23	19	34	40	42	40	46	39	31
60 Lower Snake River Wind	93	90	82	84	97	94	116	89	126	138	126	110	119	75	101
61 Marengo I Wind Project	38	37	33	34	40	38	47	37	51	56	52	45	49	31	41
62 Marengo II Wind Project	19	18	17	17	20	19	24	18	26	28	26	22	24	15	21
63 Milner Dam	6.9	6.2	4.9	4.7	4.8	3.9	4.7	3.5	6.5	7.4	7.2	6.7	7.7	6.1	5.6
64 Oregon Trail	4.8	4.3	3.4	3.3	3.3	2.7	3.2	2.4	4.5	5.1	5	4.7	5.3	4.2	3.9
65 Oregon Wind Farm I (Echo I)	16	14	11	11	11	9.0	11	8.0	15	17	17	15	18	14	13
66 Oregon Wind Farm II (Echo II)	7.1	6.3	5.0	4.8	4.9	4	4.8	3.6	6.6	7.6	7.4	6.9	7.9	6.3	5.8
67 PaTu Wind	4.2	3.6	2.9	2.3	1.8	1.6	1.9	1.7	2.8	3.3	3.6	3.7	4.5	3.9	2.9
68 Paynes Ferry	7.4	6.6	5.2	5.1	5.2	4.2	5	3.8	7.0	7.9	7.8	7.2	8.3	6.6	6
69 Pilgrim Stage Station	3.7	3.3	2.6	2.5	2.6	2.1	2.5	1.9	3.5	4.0	3.9	3.6	4.1	3.3	3
70 Rattlesnake Road Wind Farm	44	30	24	20	14	7.1	17	7.5	29	36	35	34	38	30	24
71 Rock River I Wind	9	8.8	12	16	23	23	23	24	22	18	15	13	11	7.6	17
72 Salmon Falls	7.4	6.6	5.2	5.1	5.2	4.2	5	3.8	7.0	7.9	7.8	7.2	8.3	6.6	6
73 Stateline Wind Project	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
74 Thousand Spring	3.7	3.3	2.6	2.5	2.6	2.1	2.5	1.9	3.5	4.0	3.9	3.6	4.1	3.3	3
75 Threemile Canyon Wind	4.7	3.1	2.4	2.1	1.5	0.8	0.9	0.5	2.5	3.8	3.6	3.5	4.1	3.2	2.4
76 Tuana Gulch	3.7	3.3	2.6	2.5	2.6	2.1	2.5	1.9	3.5	4.0	3.9	3.6	4.1	3.3	3
77 Tuana Springs Wind	5.9	5.3	4.2	4.1	4.1	3.4	4	3	5.6	6.4	6.2	5.8	6.6	5.3	4.8
78 Vansycle Wind	7.5	7.8	6.5	6.9	8.8	8.3	9.1	7.4	11	10	8.1	8.7	8.4	7.5	8.3
79 Vantage Wind	32	28	22	22	22	18	22	16	30	34	33	31	35	28	26
80 Wild Horse I	81	72	57	55	56	46	55	41	76	86	85	79	90	72	66
81 Wild Horse II	16	14	11	11	11	8.9	11	7.9	15	17	16	15	17	14	13
82 Wolverine Creek	23	20	16	16	16	13	15	12	21	24	24	22	25	20	19
83 Yahoo Creek	7.4	6.6	5.2	5.1	5.2	4.2	5	3.8	7.0	7.9	7.8	7.2	8.3	6.6	6
84 Total Investor-Owned Entities	1104	1004	812	760	746	635	762	583	994	1142	1186	1073	1212	970	898
-Other Entities-															
85 Juniper Canyon I	48	44	37	42	43	37	41	35	57	66	60	52	57	42	46
86 Kittitas Valley Wind	36	32	25	24	25	20	24	18	33	38	37	35	40	32	29
87 Klondike III	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
88 Klondike IIIa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
89 Leaning Juniper 2a	36	30	25	22	18	15	21	17	30	36	38	36	41	35	28
90 Leaning Juniper 2b	44	37	31	27	22	19	26	21	37	44	47	44	51	44	34
91 Stateline Wind Project	7.7	8.3	7	7.8	9.0	7.1	7.9	5.9	12	11	8.8	9.3	10	8	8.5
92 White Creek	1.2	1.1	0.8	0.8	0.9	0.8	0.9	0.7	1.2	1.4	1.3	1.1	1.3	1.0	1.0
93 Willow Creek Wind	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
94 Total Other Entities	172	153	126	123	118	100	120	97	172	196	192	176	201	161	146
-Renewable Resources-															
95 Federal System	68	64	57	59	66	59	65	56	83	80	72	73	80	65	67
96 Public Entities	701	626	482	464	484	370	373	276	598	734	776	675	768	614	545
97 Investor-Owned Entities	1104	1004	812	760	746	635	762	583	994	1142	1186	1073	1212	970	898
98 Other Entities	172	153	126	123	118	100	120	97	172	196	192	176	201	161	146
99 Total Renewable Resources	2045	1848	1478	1406	1413	1164	1320	1013	1846	2151	2226	1996	2261	1810	1656

**Table A-8: Regional Renewable Resources
PNW Loads and Resource Study
2018 - 2019 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Federal System-															
1 Condon Wind Project	7.4	7.6	7.8	9.7	13	12	13	11	14	12	9.8	9.7	9.4	7.1	10
2 Foote Creek 1	2.8	2.7	3.5	5	7	7.1	7.1	7.3	6.6	5.6	4.6	4.1	3.4	2.3	5.1
3 Foote Creek 2	0.3	0.3	0.4	0.6	0.8	0.8	0.8	0.9	0.8	0.7	0.5	0.5	0.4	0.3	0.6
4 Foote Creek 4	3	3.0	3.9	5.5	7.7	7.8	7.7	8.0	7.2	6.1	5	4.5	3.8	2.6	5.6
5 Klondike I	11	9.5	7.7	6	4.8	4.2	5.2	4.6	7.4	8.9	9.6	9.8	12	10	7.7
6 Klondike III	23	20	16	13	10.0	8.7	11	9.7	15	18	20	20	25	22	16
7 Stateline Wind Project	20	21	18	20	23	18	20	15	31	28	23	24	26	20	22
8 Total Federal System	68	64	57	59	66	59	65	56	83	80	72	73	81	65	67
-Public Entities-															
9 Big Horn	67	56	49	58	58	51	54	46	80	84	74	66	77	56	61
10 Big Horn II	16	15	12	12	14	13	14	12	19	22	20	17	19	14	15
11 Coffin Butte	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.3	2.3	2.4	2.3	2.3	2.4
12 Coffin Butte II	2.9	2.9	2.9	3.0	3	2.7	3.1	3.1	3.2	3.2	3.2	3	3.0	2.8	3.0
13 Columbia Ridge Landfill	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
14 Eurus Combine Hills II	16	22	14	17	18	18	13	8.5	19	29	29	18	24	18	18
15 Flathead County Landfill	0.8	0.8	0.8	0.8	0.9	0.8	0.8	0.8	0.9	0.8	0.8	0.8	0.9	0.8	0.8
16 Foote Creek 1	1.6	1.5	2	2.9	4	4	4	4.2	3.8	3.2	2.6	2.3	2.0	1.3	2.9
17 Grayland Wind (Coastal)	2.1	1.9	1.7	1.7	1.7	2.4	1.5	1.1	2	2.3	2.3	2.1	2.4	1.9	1.9
18 Harvest Wind	33	38	26	22	27	19	15	10	31	48	49	39	40	33	29
19 Hay Canyon Wind	42	29	24	21	20	14	12	5.8	23	36	35	30	39	30	24
20 Klondike III	12	9.9	8.0	6.3	5.0	4.3	5.4	4.8	7.7	9.2	10	10	13	11	8.0
21 Linden Wind Project	19	20	14	13	14	8.8	8.6	4.8	14	19	26	21	25	20	16
22 Nine Canyon Wind Project	25	23	21	25	29	25	27	23	37	40	32	28	30	19	27
23 Pebble Springs Wind Project	46	31	24	21	15	7.7	9	5	25	38	36	35	41	32	24
24 River Bend Landfill	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
25 Roosevelt Landfill (H.W. Hill)	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
26 Short Mountain	2.1	2.1	1.9	1.9	1.8	2.0	1.9	2.0	2.0	2	2	2.1	2	2.0	2.0
27 Star Point (100%)	34	38	22	20	21	17	12	4.9	23	32	46	37	41	38	26
28 Stateline Wind Project	38	41	35	39	45	35	40	29	61	54	44	46	51	40	43
29 Wheatfield Wind	41	28	22	19	14	8	9.3	5	21	33	32	28	37	29	22
30 White Creek	77	69	51	53	58	54	57	44	77	93	86	75	86	65	65
31 Willow Creek Wind	37	17	21	17	15	14	17	13	26	31	21	22	31	21	21
32 Windy Flats I	78	85	52	41	48	22	20	13	48	64	103	88	96	82	57
33 Windy Flats II	23	25	15	12	14	6.5	6	3.7	14	19	31	26	28	24	17
34 Windy Point - Tuolumne Wind	67	48	44	37	39	20	24	13	39	52	72	56	62	50	42
35 Total Public Entities	701	626	483	462	484	370	373	276	597	733	776	675	771	610	545
-Investor-Owned Entities-															
36 (Goshen North) Ridgeline	44	39	31	30	31	25	30	22	41	47	46	43	49	39	36
37 Bennett Creek Wind	7.0	6.3	4.9	4.8	4.9	4.0	4.7	3.6	6.6	7.5	7.4	6.8	7.8	6.2	5.7
38 Biglow Canyon Phase I	58	50	35	31	25	19	24	20	40	51	56	53	66	50	39
39 Biglow Canyon Phase II	70	70	49	38	25	14	17	9.1	32	43	76	62	74	65	43
40 Biglow Canyon Phase III	82	82	58	45	29	16	20	11	38	50	89	73	86	76	50
41 Burley Butte Wind	6.9	6.2	4.9	4.7	4.8	3.9	4.7	3.5	6.5	7.4	7.2	6.7	7.7	6.1	5.6
42 Camp Reed	7.9	7.1	5.6	5.4	5.5	4.5	5.4	4	7.5	8.5	8.4	7.8	8.9	7	6.5
43 Cassia Farms Wind	3.7	3.3	2.6	2.5	2.6	2.1	2.5	1.9	3.5	4.0	3.9	3.6	4.2	3.3	3
44 Cassia Gulch Wind	6.7	6.0	4.7	4.6	4.7	3.8	4.5	3.4	6.3	7.1	7	6.5	7.5	5.9	5.4
45 Elkhorn Valley Wind Farm	35	32	25	24	25	20	24	18	33	38	37	35	40	31	29
46 Eurus Combine Hills	10	14	9.1	11	11	11	8.6	5.5	12	19	19	12	16	12	12
47 Foote Creek 1	3.1	3.1	4	5.7	8.0	8.0	8.0	8.2	7.5	6.3	5.2	4.6	3.9	2.6	5.7
48 Fossil Gulch Wind Project	3.7	3.3	2.6	2.5	2.6	2.1	2.5	1.9	3.5	4.0	3.9	3.6	4.2	3.3	3
49 Golden Valley Wind	4.2	3.8	3.0	2.9	3.0	2.4	2.9	2.2	4.0	4.5	4.5	4.1	4.7	3.7	3.5
50 Goodnoe Hills	34	31	23	22	24	18	21	9.3	32	40	35	33	36	28	26
51 Hopkins Ridge I	40	39	36	36	42	41	50	39	55	60	55	48	52	32	44
52 Hopkins Ridge II	2.0	1.9	1.6	1.7	2.1	1.9	1.9	1.0	2.6	3.1	2.7	2.6	2.4	1.3	2.0
53 Horseshoe Bend Wind Park	3.2	2.8	2.2	2.2	2.2	1.8	2.2	1.6	3.0	3.4	3.3	3.1	3.6	2.8	2.6
54 Hot Springs Wind	7.0	6.3	4.9	4.8	4.9	4.0	4.7	3.6	6.6	7.5	7.4	6.8	7.8	6.2	5.7
55 Kettle Falls (biomass)	47	47	47	47	47	47	47	47	47	47	47	47	47	47	45
56 Klondike II	35	30	24	19	15	13	16	14	23	28	30	31	38	32	24
57 Klondike III	70	59	48	37	30	26	32	29	46	55	59	61	74	64	47
58 Klondike IIIa	39	27	21	17	14	8.8	13	6.3	22	29	29	27	36	29	21

**Table A-8: Regional Renewable Resources
PNW Loads and Resource Study
2018 - 2019 Operating Year
[76] 2011 White Book (Final)**

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
59 Leaning Juniper	40	34	28	24	20	17	23	19	34	40	42	40	46	39	31
60 Lower Snake River Wind	93	90	82	83	97	94	116	89	126	137	126	110	120	74	101
61 Marengo I Wind Project	38	37	34	34	40	38	47	37	52	56	52	45	49	30	41
62 Marengo II Wind Project	19	18	17	17	20	19	24	18	26	28	26	22	25	15	21
63 Milner Dam	6.9	6.2	4.9	4.7	4.8	3.9	4.7	3.5	6.5	7.4	7.2	6.7	7.7	6.1	5.6
64 Oregon Trail	4.8	4.3	3.4	3.3	3.3	2.7	3.2	2.4	4.5	5.1	5	4.7	5.3	4.2	3.9
65 Oregon Wind Farm I (Echo I)	16	14	11	11	11	9.0	11	8.0	15	17	17	15	18	14	13
66 Oregon Wind Farm II (Echo II)	7.1	6.3	5.0	4.8	4.9	4	4.8	3.6	6.6	7.6	7.4	6.9	7.9	6.2	5.8
67 PaTu Wind	4.2	3.6	2.9	2.3	1.8	1.6	1.9	1.7	2.8	3.3	3.6	3.7	4.5	3.9	2.9
68 Paynes Ferry	7.4	6.6	5.2	5.1	5.2	4.2	5	3.8	7.0	7.9	7.8	7.2	8.3	6.5	6
69 Pilgrim Stage Station	3.7	3.3	2.6	2.5	2.6	2.1	2.5	1.9	3.5	4.0	3.9	3.6	4.2	3.3	3
70 Rattlesnake Road Wind Farm	44	30	24	20	14	7.1	17	7.5	29	36	35	34	38	30	24
71 Rock River I Wind	9	8.8	12	16	23	23	23	24	22	18	15	13	11	7.6	17
72 Salmon Falls	7.4	6.6	5.2	5.1	5.2	4.2	5	3.8	7.0	7.9	7.8	7.2	8.3	6.5	6
73 Stalene Wind Project	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
74 Thousand Spring	3.7	3.3	2.6	2.5	2.6	2.1	2.5	1.9	3.5	4.0	3.9	3.6	4.2	3.3	3
75 Threemile Canyon Wind	4.7	3.1	2.4	2.1	1.5	0.8	0.9	0.5	2.5	3.8	3.6	3.5	4.1	3.2	2.4
76 Tuana Gulch	3.7	3.3	2.6	2.5	2.6	2.1	2.5	1.9	3.5	4.0	3.9	3.6	4.2	3.3	3
77 Tuana Springs Wind	5.9	5.3	4.2	4	4.1	3.4	4	3	5.6	6.4	6.2	5.8	6.6	5.2	4.8
78 Vansycle Wind	7.5	7.8	6.5	6.9	8.8	8.3	9.1	7.4	11	10	8.1	8.7	8.5	7.5	8.3
79 Vantage Wind	32	28	22	22	22	18	22	16	30	34	33	31	36	28	26
80 Wild Horse I	81	72	57	55	56	46	55	41	76	86	85	79	90	71	66
81 Wild Horse II	16	14	11	11	11	8.9	11	7.9	15	17	16	15	17	14	13
82 Wolverine Creek	23	20	16	16	16	13	15	12	21	24	24	22	26	20	19
83 Yahoo Creek	7.4	6.6	5.2	5.1	5.2	4.2	5	3.8	7.0	7.9	7.8	7.2	8.3	6.5	6
84 Total Investor-Owned Entities	1104	1004	814	758	746	635	762	583	994	1144	1186	1071	1219	964	898
-Other Entities-															
85 Juniper Canyon I	48	44	37	42	43	37	41	35	57	66	60	52	57	42	46
86 Kittitas Valley Wind	36	32	25	24	25	20	24	18	33	38	37	35	40	31	29
87 Klondike III	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
88 Klondike IIIa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
89 Leaning Juniper 2a	36	30	25	22	18	15	21	17	30	36	38	36	42	35	28
90 Leaning Juniper 2b	44	37	31	27	22	19	26	21	37	44	47	44	51	43	34
91 Stalene Wind Project	7.7	8.3	7.1	7.7	9.0	7.1	7.9	5.9	12	11	8.8	9.3	10	8.0	8.5
92 White Creek	1.2	1.1	0.8	0.8	0.9	0.8	0.9	0.7	1.2	1.4	1.3	1.1	1.3	1.0	1.0
93 Willow Creek Wind	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
94 Total Other Entities	172	153	127	123	118	100	120	97	172	196	192	176	201	160	146
-Renewable Resources-															
95 Federal System	68	64	57	59	66	59	65	56	83	80	72	73	81	65	67
96 Public Entities	701	626	483	462	484	370	373	276	597	733	776	675	771	610	545
97 Investor-Owned Entities	1104	1004	814	758	746	635	762	583	994	1144	1186	1071	1219	964	898
98 Other Entities	172	153	127	123	118	100	120	97	172	196	192	176	201	160	146
99 Total Renewable Resources	2045	1848	1481	1403	1413	1164	1320	1013	1845	2153	2226	1995	2272	1799	1656

**Table A-8: Regional Renewable Resources
PNW Loads and Resource Study
2019 - 2020 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Federal System-															
1 Condon Wind Project	7.4	7.6	7.8	9.7	13	12	13	11	14	12	9.8	9.7	9.4	7.1	10
2 Foote Creek 1	2.8	2.7	3.5	5	7	7.1	7.1	7.3	6.6	5.6	4.6	4.1	3.5	2.3	5.1
3 Foote Creek 2	0.3	0.3	0.4	0.6	0.8	0.8	0.8	0.9	0.8	0.7	0.5	0.5	0.4	0.3	0.6
4 Foote Creek 4	3	3.0	3.9	5.5	7.7	7.8	7.7	8.0	7.2	6.1	5	4.5	3.8	2.6	5.6
5 Klondike I	11	9.5	7.7	6	4.8	4.2	5.2	4.6	7.4	8.9	9.6	9.8	12	10	7.6
6 Klondike III	23	20	16	13	10.0	8.7	11	9.7	15	18	20	20	25	22	16
7 Stateline Wind Project	20	21	18	20	23	18	20	15	31	28	23	24	26	20	22
8 Total Federal System	68	64	57	59	66	59	65	56	83	80	72	73	80	65	67
-Public Entities-															
9 Big Horn	67	56	49	58	58	51	54	46	80	84	74	67	77	56	61
10 Big Horn II	16	15	12	12	14	13	14	12	19	22	20	17	19	14	15
11 Coffin Butte	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.3	2.3	2.4	2.3	2.3	2.4
12 Coffin Butte II	2.9	2.9	2.9	3.0	3	2.7	3.1	3.1	3.2	3.2	3.2	3	3.0	2.8	3.0
13 Columbia Ridge Landfill	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
14 Eurus Combine Hills II	16	22	14	17	18	18	13	8.5	19	29	29	18	24	18	18
15 Flathead County Landfill	0.8	0.8	0.8	0.8	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
16 Foote Creek 1	1.6	1.5	2	2.9	4	4	4	4.2	3.8	3.2	2.6	2.3	2.0	1.3	2.9
17 Grayland Wind (Coastal)	2.1	1.9	1.7	1.7	1.7	2.4	1.5	1.1	2	2.3	2.3	2.1	2.4	1.9	1.9
18 Harvest Wind	33	38	26	22	27	19	15	10	31	48	49	39	40	33	29
19 Hay Canyon Wind	42	29	24	21	20	14	12	5.9	23	36	35	30	39	30	24
20 Klondike III	12	9.9	8.0	6.3	5.0	4.3	5.4	4.8	7.7	9.2	10	10	12	11	8.0
21 Linden Wind Project	19	20	14	13	14	8.8	8.6	4.8	14	19	26	21	25	20	15
22 Nine Canyon Wind Project	25	23	21	25	29	25	27	23	37	40	32	28	30	19	27
23 Pebble Springs Wind Project	46	31	24	21	15	7.7	9	5	25	38	36	35	41	32	24
24 River Bend Landfill	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
25 Roosevelt Landfill (H.W. Hill)	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
26 Short Mountain	2.1	2.1	1.9	1.9	1.8	2.0	1.9	2.0	2.0	2	2	2.1	2	2.0	2.0
27 Star Point (100%)	34	38	22	20	21	17	12	4.9	23	32	46	37	41	38	26
28 Stateline Wind Project	38	41	35	39	45	35	40	29	61	54	44	47	51	40	43
29 Wheatfield Wind	41	28	22	19	14	8	9.3	5	21	33	32	28	37	29	22
30 White Creek	77	69	51	53	58	54	57	44	77	93	86	75	85	65	65
31 Willow Creek Wind	37	17	21	17	15	14	17	13	26	31	21	22	31	21	21
32 Windy Flats I	78	85	52	41	48	22	20	13	48	64	103	88	96	82	56
33 Windy Flats II	23	25	15	12	14	6.5	6	3.7	14	19	31	26	28	24	17
34 Windy Point - Tuolumne Wind	67	48	44	37	39	20	24	13	39	52	72	57	61	50	42
35 Total Public Entities	701	626	483	462	484	370	373	276	597	733	776	676	768	610	544
-Investor-Owned Entities-															
36 (Goshen North) Ridgeline	44	39	31	30	31	25	30	22	41	47	46	43	49	39	36
37 Bennett Creek Wind	7.0	6.3	4.9	4.8	4.9	4.0	4.7	3.6	6.6	7.5	7.4	6.8	7.8	6.2	5.7
38 Biglow Canyon Phase I	58	50	35	31	25	19	24	20	40	51	56	53	66	50	39
39 Biglow Canyon Phase II	70	70	49	38	25	14	17	9.1	32	43	76	62	73	65	43
40 Biglow Canyon Phase III	82	82	58	45	29	16	20	11	38	50	89	73	86	76	50
41 Burley Butte Wind	6.9	6.2	4.9	4.7	4.8	3.9	4.7	3.5	6.5	7.4	7.2	6.7	7.7	6.1	5.6
42 Camp Reed	7.9	7.1	5.6	5.4	5.5	4.5	5.4	4	7.5	8.5	8.4	7.8	8.9	7	6.5
43 Cassia Farms Wind	3.7	3.3	2.6	2.5	2.6	2.1	2.5	1.9	3.5	4.0	3.9	3.6	4.1	3.3	3
44 Cassia Gulch Wind	6.7	6.0	4.7	4.6	4.7	3.8	4.5	3.4	6.3	7.1	7	6.5	7.4	5.9	5.4
45 Elkhorn Valley Wind Farm	35	32	25	24	25	20	24	18	33	38	37	35	40	31	29
46 Eurus Combine Hills	10	14	9.1	11	11	11	8.6	5.5	12	19	19	12	15	12	12
47 Foote Creek 1	3.1	3.1	4	5.7	8.0	8.0	8.0	8.2	7.5	6.3	5.2	4.6	3.9	2.6	5.8
48 Fossil Gulch Wind Project	3.7	3.3	2.6	2.5	2.6	2.1	2.5	1.9	3.5	4.0	3.9	3.6	4.1	3.3	3
49 Golden Valley Wind	4.2	3.8	3.0	2.9	3.0	2.4	2.9	2.2	4.0	4.5	4.5	4.1	4.7	3.7	3.5
50 Goodnoe Hills	34	31	23	22	24	18	21	9.3	32	40	35	33	36	28	26
51 Hopkins Ridge I	40	39	36	36	42	41	50	39	55	60	55	48	52	32	44
52 Hopkins Ridge II	2.0	1.9	1.6	1.7	2.1	1.9	1.9	1.0	2.6	3.1	2.7	2.6	2.4	1.3	2.0
53 Horseshoe Bend Wind Park	3.2	2.8	2.2	2.2	2.2	1.8	2.2	1.6	3.0	3.4	3.3	3.1	3.5	2.8	2.6
54 Hot Springs Wind	7.0	6.3	4.9	4.8	4.9	4.0	4.7	3.6	6.6	7.5	7.4	6.8	7.8	6.2	5.7
55 Kettle Falls (biomass)	47	47	47	47	47	47	47	47	47	47	47	47	47	47	45
56 Klondike II	35	30	24	19	15	13	16	15	23	28	30	31	37	32	24
57 Klondike III	70	59	48	37	30	26	32	29	46	55	59	61	74	64	47
58 Klondike IIIa	39	27	21	17	14	8.8	13	6.3	22	29	29	27	36	29	21

**Table A-8: Regional Renewable Resources
PNW Loads and Resource Study
2019 - 2020 Operating Year
[76] 2011 White Book (Final)**

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
59 Leaning Juniper	40	34	28	24	20	17	23	19	34	40	42	40	46	39	31
60 Lower Snake River Wind	93	90	82	83	97	94	116	89	126	137	126	110	119	74	101
61 Marengo I Wind Project	38	37	34	34	40	38	47	37	52	56	52	45	49	30	41
62 Marengo II Wind Project	19	18	17	17	20	19	24	18	26	28	26	23	24	15	21
63 Milner Dam	6.9	6.2	4.9	4.7	4.8	3.9	4.7	3.5	6.5	7.4	7.2	6.7	7.7	6.1	5.6
64 Oregon Trail	4.8	4.3	3.4	3.3	3.3	2.7	3.2	2.4	4.5	5.1	5	4.7	5.3	4.2	3.9
65 Oregon Wind Farm I (Echo I)	16	14	11	11	11	9.0	11	8.0	15	17	17	15	18	14	13
66 Oregon Wind Farm II (Echo II)	7.1	6.3	5.0	4.8	4.9	4	4.8	3.6	6.6	7.6	7.4	6.9	7.9	6.2	5.8
67 PaTu Wind	4.2	3.6	2.9	2.3	1.8	1.6	1.9	1.7	2.8	3.3	3.6	3.7	4.5	3.9	2.9
68 Paynes Ferry	7.4	6.6	5.2	5.1	5.2	4.2	5	3.8	7.0	7.9	7.8	7.3	8.3	6.5	6
69 Pilgrim Stage Station	3.7	3.3	2.6	2.5	2.6	2.1	2.5	1.9	3.5	4.0	3.9	3.6	4.1	3.3	3
70 Rattlesnake Road Wind Farm	44	30	24	20	14	7.1	17	7.5	29	36	35	34	38	30	24
71 Rock River I Wind	9	8.8	12	16	23	23	23	24	22	18	15	13	11	7.6	17
72 Salmon Falls	7.4	6.6	5.2	5.1	5.2	4.2	5	3.8	7.0	7.9	7.8	7.3	8.3	6.5	6
73 Stateline Wind Project	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
74 Thousand Spring	3.7	3.3	2.6	2.5	2.6	2.1	2.5	1.9	3.5	4.0	3.9	3.6	4.1	3.3	3
75 Threemile Canyon Wind	4.7	3.1	2.4	2.1	1.5	0.8	0.9	0.5	2.5	3.8	3.6	3.5	4.1	3.2	2.4
76 Tuana Gulch	3.7	3.3	2.6	2.5	2.6	2.1	2.5	1.9	3.5	4.0	3.9	3.6	4.1	3.3	3
77 Tuana Springs Wind	5.9	5.3	4.2	4	4.1	3.4	4	3	5.6	6.4	6.2	5.8	6.6	5.2	4.8
78 Vansycle Wind	7.5	7.8	6.5	6.9	8.8	8.3	9.1	7.4	11	10	8.1	8.7	8.4	7.5	8.3
79 Vantage Wind	32	28	22	22	22	18	22	16	30	34	33	31	35	28	26
80 Wild Horse I	81	72	57	55	56	46	55	41	76	86	85	79	90	71	66
81 Wild Horse II	16	14	11	11	11	8.9	11	7.9	15	17	16	15	17	14	13
82 Wolverine Creek	23	20	16	16	16	13	15	12	21	24	24	22	25	20	19
83 Yahoo Creek	7.4	6.6	5.2	5.1	5.2	4.2	5	3.8	7.0	7.9	7.8	7.3	8.3	6.5	6
84 Total Investor-Owned Entities	1104	1004	814	758	746	635	762	583	994	1144	1186	1074	1214	964	897
-Other Entities-															
85 Juniper Canyon I	48	44	37	42	43	37	41	35	57	66	60	52	57	42	46
86 Kittitas Valley Wind	36	32	25	24	25	20	24	18	33	38	37	35	40	31	29
87 Klondike III	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
88 Klondike IIIa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
89 Leaning Juniper 2a	36	30	25	22	18	15	21	17	30	36	38	36	41	35	28
90 Leaning Juniper 2b	44	37	31	27	22	19	26	21	37	44	47	44	51	43	34
91 Stateline Wind Project	7.7	8.3	7.1	7.7	9.0	7.1	7.9	5.9	12	11	8.8	9.4	10	8.0	8.5
92 White Creek	1.2	1.1	0.8	0.8	0.9	0.8	0.9	0.7	1.2	1.4	1.3	1.1	1.3	1.0	1.0
93 Willow Creek Wind	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
94 Total Other Entities	172	153	127	123	118	100	120	97	172	196	192	176	201	160	146
-Renewable Resources-															
95 Federal System	68	64	57	59	66	59	65	56	83	80	72	73	80	65	67
96 Public Entities	701	626	483	462	484	370	373	276	597	733	776	676	768	610	544
97 Investor-Owned Entities	1104	1004	814	758	746	635	762	583	994	1144	1186	1074	1214	964	897
98 Other Entities	172	153	127	123	118	100	120	97	172	196	192	176	201	160	146
99 Total Renewable Resources	2045	1848	1481	1403	1413	1164	1320	1013	1845	2153	2226	1999	2262	1799	1654

**Table A-8: Regional Renewable Resources
PNW Loads and Resource Study
2020 - 2021 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Federal System-															
1 Condon Wind Project	7.4	7.5	7.8	9.7	13	12	13	11	14	12	9.8	9.7	9.4	7.1	10
2 Foote Creek 1	2.8	2.7	3.5	5	7	7.1	7.1	7.3	6.6	5.6	4.6	4.1	3.5	2.3	5.1
3 Foote Creek 2	0.3	0.3	0.4	0.6	0.8	0.8	0.8	0.9	0.8	0.7	0.5	0.5	0.4	0.3	0.6
4 Foote Creek 4	3	2.9	3.9	5.5	7.7	7.8	7.7	8.0	7.2	6.1	5	4.5	3.8	2.6	5.6
5 Klondike I	11	9.5	7.7	6	4.8	4.1	5.2	4.6	7.4	8.9	9.6	9.8	12	10	7.7
6 Klondike III	23	20	16	13	10.0	8.6	11	9.7	15	18	20	20	25	22	16
7 Stateline Wind Project	20	22	18	20	23	18	20	15	31	28	23	24	26	20	22
8 Total Federal System	68	64	57	59	66	59	65	56	83	80	72	73	80	65	67
-Public Entities-															
9 Big Horn	67	56	49	58	58	51	54	46	79	84	74	67	77	56	61
10 Big Horn II	16	15	12	12	14	13	14	12	19	22	20	17	19	14	15
11 Coffin Butte	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.3	2.3	2.4	2.3	2.3	2.4
12 Coffin Butte II	2.9	2.9	2.9	3.0	3	2.7	3.1	3.1	3.2	3.2	3.2	3	3.0	2.8	3.0
13 Columbia Ridge Landfill	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
14 Eurus Combine Hills II	16	23	14	17	18	18	13	8.5	19	29	29	18	24	18	18
15 Flathead County Landfill	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
16 Foote Creek 1	1.6	1.5	2	2.9	4	4	4	4.2	3.8	3.2	2.6	2.3	2.0	1.3	2.9
17 Grayland Wind (Coastal)	2.1	1.9	1.7	1.7	1.7	2.4	1.5	1.1	2	2.3	2.3	2.1	2.4	1.9	1.9
18 Harvest Wind	33	39	26	22	27	19	15	10	31	48	49	39	40	33	29
19 Hay Canyon Wind	42	29	24	21	20	14	12	5.8	23	36	35	30	39	30	24
20 Klondike III	12	10.0	8.0	6.3	5.0	4.3	5.4	4.8	7.7	9.2	10	10	12	11	8.0
21 Linden Wind Project	19	19	14	13	14	8.8	8.6	4.8	14	19	26	21	25	20	16
22 Nine Canyon Wind Project	25	23	20	25	29	25	27	23	37	40	32	28	30	19	27
23 Pebble Springs Wind Project	46	32	24	21	15	7.6	9.0	5	25	38	36	35	41	32	24
24 River Bend Landfill	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
25 Roosevelt Landfill (H.W. Hill)	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
26 Short Mountain	2.1	2.1	1.9	1.9	1.8	2.0	1.9	2.0	2.0	2	2	2.1	2	2.0	2.0
27 Star Point (100%)	34	39	22	20	21	17	12	4.9	23	32	46	37	41	38	26
28 Stateline Wind Project	38	42	35	39	45	35	40	29	61	54	44	47	51	40	43
29 Wheatfield Wind	41	29	22	19	14	8	9.2	5	21	33	32	28	37	29	22
30 White Creek	77	70	51	53	58	54	57	44	77	93	86	75	85	65	65
31 Willow Creek Wind	37	18	21	17	15	14	17	13	26	31	21	22	31	21	21
32 Windy Flats I	78	87	51	41	48	22	20	13	49	64	103	88	96	82	57
33 Windy Flats II	23	26	15	12	14	6.4	6	3.7	14	19	31	26	28	24	17
34 Windy Point - Tuolumne Wind	67	49	44	37	39	20	24	13	39	52	72	57	61	50	42
35 Total Public Entities	701	634	482	462	485	369	372	276	598	733	776	676	768	610	545
-Investor-Owned Entities-															
36 (Goshen North) Ridgeline	44	40	31	30	31	25	30	22	41	47	46	43	49	39	36
37 Bennett Creek Wind	7.0	6.3	4.9	4.8	4.9	4.0	4.7	3.6	6.6	7.5	7.4	6.8	7.8	6.2	5.7
38 Biglow Canyon Phase I	58	50	35	31	25	19	24	20	40	51	56	53	66	50	39
39 Biglow Canyon Phase II	70	72	49	38	25	14	17	9.1	33	43	76	62	73	65	43
40 Biglow Canyon Phase III	82	84	58	45	29	16	20	11	38	50	89	73	86	76	51
41 Burley Butte Wind	6.9	6.2	4.9	4.7	4.8	3.9	4.7	3.5	6.5	7.4	7.2	6.7	7.7	6.1	5.6
42 Camp Reed	7.9	7.2	5.6	5.4	5.5	4.5	5.4	4	7.5	8.5	8.4	7.8	8.9	7	6.5
43 Cassia Farms Wind	3.7	3.4	2.6	2.5	2.6	2.1	2.5	1.9	3.5	4.0	3.9	3.6	4.1	3.3	3
44 Cassia Gulch Wind	6.7	6	4.7	4.6	4.7	3.8	4.5	3.4	6.3	7.1	7	6.5	7.4	5.9	5.4
45 Elkhorn Valley Wind Farm	35	32	25	24	25	20	24	18	33	38	37	35	40	31	29
46 Eurus Combine Hills	10	15	8.9	11	11	11	8.6	5.5	12	19	19	12	15	12	12
47 Foote Creek 1	3.1	3	4	5.7	8.0	8.0	8.0	8.2	7.5	6.3	5.2	4.6	3.9	2.6	5.7
48 Fossil Gulch Wind Project	3.7	3.4	2.6	2.5	2.6	2.1	2.5	1.9	3.5	4.0	3.9	3.6	4.1	3.3	3
49 Golden Valley Wind	4.2	3.8	3.0	2.9	3.0	2.4	2.9	2.2	4.0	4.5	4.5	4.1	4.7	3.7	3.5
50 Goodnoe Hills	34	31	23	22	24	18	21	9.3	32	40	35	33	36	28	26
51 Hopkins Ridge I	40	40	36	36	42	41	50	39	55	60	55	48	52	32	44
52 Hopkins Ridge II	2.0	1.9	1.6	1.7	2.1	1.9	1.9	1.0	2.6	3.1	2.7	2.6	2.4	1.3	2.0
53 Horseshoe Bend Wind Park	3.2	2.9	2.2	2.2	2.2	1.8	2.1	1.6	3.0	3.4	3.3	3.1	3.5	2.8	2.6
54 Hot Springs Wind	7.0	6.3	4.9	4.8	4.9	4.0	4.7	3.6	6.6	7.5	7.4	6.8	7.8	6.2	5.7
55 Kettle Falls (biomass)	47	47	47	47	47	47	47	47	47	47	47	39	33	47	45
56 Klondike II	35	30	24	19	15	13	16	14	23	28	30	31	37	32	24
57 Klondike III	70	59	48	37	30	26	32	29	46	55	59	61	74	64	47
58 Klondike IIIa	39	27	21	17	14	8.7	13	6.3	22	29	29	27	36	29	21

**Table A-8: Regional Renewable Resources
PNW Loads and Resource Study
2020 - 2021 Operating Year
[76] 2011 White Book (Final)**

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
59 Leaning Juniper	40	34	28	24	20	17	23	19	34	40	42	40	46	39	31
60 Lower Snake River Wind	93	92	82	83	97	93	116	89	126	137	126	110	119	74	101
61 Marengo I Wind Project	38	38	33	34	40	38	47	37	51	56	52	45	49	30	41
62 Marengo II Wind Project	19	19	17	17	20	19	24	18	26	28	26	23	24	15	21
63 Milner Dam	6.9	6.2	4.9	4.7	4.8	3.9	4.7	3.5	6.5	7.4	7.2	6.7	7.7	6.1	5.6
64 Oregon Trail	4.8	4.3	3.4	3.3	3.3	2.7	3.2	2.4	4.5	5.1	5	4.7	5.3	4.2	3.9
65 Oregon Wind Farm I (Echo I)	16	14	11	11	11	8.9	11	8.0	15	17	17	15	18	14	13
66 Oregon Wind Farm II (Echo II)	7.1	6.4	5.0	4.8	4.9	4	4.8	3.6	6.6	7.6	7.4	6.9	7.9	6.2	5.8
67 PaTu Wind	4.2	3.6	2.9	2.3	1.8	1.6	1.9	1.7	2.8	3.3	3.6	3.7	4.5	3.9	2.9
68 Paynes Ferry	7.4	6.7	5.2	5.1	5.2	4.2	5	3.8	7.0	7.9	7.8	7.3	8.3	6.5	6
69 Pilgrim Stage Station	3.7	3.4	2.6	2.5	2.6	2.1	2.5	1.9	3.5	4.0	3.9	3.6	4.1	3.3	3
70 Rattlesnake Road Wind Farm	44	30	24	20	14	7.1	17	7.5	29	36	35	34	38	30	24
71 Rock River I Wind	9	8.8	12	16	23	23	23	24	22	18	15	13	11	7.6	17
72 Salmon Falls	7.4	6.7	5.2	5.1	5.2	4.2	5	3.8	7.0	7.9	7.8	7.3	8.3	6.5	6
73 Stateline Wind Project	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
74 Thousand Spring	3.7	3.4	2.6	2.5	2.6	2.1	2.5	1.9	3.5	4.0	3.9	3.6	4.1	3.3	3
75 Threemile Canyon Wind	4.7	3.2	2.4	2.1	1.5	0.8	0.9	0.5	2.5	3.8	3.6	3.5	4.1	3.2	2.4
76 Tuana Gulch	3.7	3.4	2.6	2.5	2.6	2.1	2.5	1.9	3.5	4.0	3.9	3.6	4.1	3.3	3
77 Tuana Springs Wind	5.9	5.4	4.2	4	4.1	3.4	4	3	5.6	6.4	6.2	5.8	6.6	5.2	4.8
78 Vansycle Wind	7.5	7.9	6.5	6.9	8.9	8.3	9.1	7.4	11	10	8.1	8.7	8.4	7.5	8.3
79 Vantage Wind	32	29	22	22	22	18	21	16	30	34	33	31	35	28	26
80 Wild Horse I	81	73	57	55	56	46	55	41	76	86	85	79	90	71	66
81 Wild Horse II	16	14	11	11	11	8.8	11	7.9	15	17	16	15	17	14	13
82 Wolverine Creek	23	21	16	16	16	13	15	12	21	24	24	22	25	20	19
83 Yahoo Creek	7.4	6.7	5.2	5.1	5.2	4.2	5	3.8	7.0	7.9	7.8	7.3	8.3	6.5	6
84 Total Investor-Owned Entities	1104	1016	812	758	746	633	760	583	994	1144	1186	1073	1215	964	898
-Other Entities-															
85 Juniper Canyon I	48	44	37	42	43	37	41	35	57	66	60	52	57	42	46
86 Kittitas Valley Wind	36	32	25	24	25	20	24	18	33	38	37	35	40	31	29
87 Klondike III	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
88 Klondike IIIa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
89 Leaning Juniper 2a	36	31	25	22	18	15	21	17	30	36	38	36	41	35	28
90 Leaning Juniper 2b	44	38	31	27	22	19	26	21	37	44	47	44	51	43	34
91 Stateline Wind Project	7.7	8.4	7	7.7	9.0	7.1	7.9	5.9	12	11	8.8	9.4	10	8.0	8.5
92 White Creek	1.2	1.1	0.8	0.8	0.9	0.8	0.9	0.7	1.2	1.4	1.3	1.1	1.3	1.0	1.0
93 Willow Creek Wind	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
94 Total Other Entities	172	154	126	123	118	100	120	97	172	196	192	176	201	160	146
-Renewable Resources-															
95 Federal System	68	64	57	59	66	59	65	56	83	80	72	73	80	65	67
96 Public Entities	701	634	482	462	485	369	372	276	598	733	776	676	768	610	545
97 Investor-Owned Entities	1104	1016	812	758	746	633	760	583	994	1144	1186	1073	1215	964	898
98 Other Entities	172	154	126	123	118	100	120	97	172	196	192	176	201	160	146
99 Total Renewable Resources	2045	1868	1478	1403	1415	1160	1317	1013	1846	2153	2226	1998	2264	1799	1656

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Table A-9
Cogeneration
Monthly OY 2012 – 2021
Average Energy in Megawatts

Power Services

Reports Powered by:



Loads and Resources Information System

**Table A-9: Regional Cogeneration
PNW Loads and Resource Study
2011 - 2012 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Federal System-															
1 Georgia-Pacific Paper (Wauna)	12	12	14	18	20	23	24	23	23	22	22	19	14	18	19
2 Total Federal System	12	12	14	18	20	23	24	23	23	22	22	19	14	18	19
-Public Entities-															
3 Georgia Pacific Toledo	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
4 Georgia-Pacific Paper (Wauna)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5 Grays Harbor Paper (Grays Harbor Paper)	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
6 Hampton Lumber Mill (Darrington)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
7 IP Energy Center (formerly WEYCO)	22	22	16	22	22	22	22	22	22	22	22	22	22	22	22
8 Klamath Cogeneration Project	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9 Longview Fibre Cogen 1-7	30	30	30	0	0	0	0	0	0	0	0	0	0	0	5
10 Seneca Sawmill Cogen	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17
11 Sierra Pacific Burlington	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26
12 Simpson Tacoma CoGen	45	45	44	41	47	49	50	49	40	41	41	36	43	48	44
13 Total Public Entities	175	175	168	141	147	148	149	149	140	141	141	135	142	147	148
-Investor Owned Entities-															
14 Coyote Springs #1	209	209	209	209	209	209	209	209	209	209	209	209	209	209	209
15 Coyote Springs #2	253	253	261	286	291	295	294	293	289	286	286	0	148	251	245
16 Georgia-Pacific Paper (Camas)	10	10	10	10	10	10	10	10	10	10	10	6.8	10	10	9.7
17 Hermiston Cogeneration	435	435	441	449	419	431	457	425	365	449	449	286	300	433	407
18 Sumas Energy	125	125	127	129	131	133	133	132	131	130	130	83	127	125	126
19 Tenaska Gas Cogen	244	244	244	244	244	244	244	244	244	244	244	0	244	244	224
20 Thompson River Co-Gen	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21 Total Investor-Owned Entities	1277	1277	1292	1327	1305	1322	1348	1313	1248	1328	1328	584	1038	1273	1221
-Other Entities-															
22 Coyote Springs #2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23 Georgia-Pacific Paper (Wauna)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 Hermiston Power Project	620	620	620	620	620	620	620	620	0	620	620	620	620	620	567
25 IP Energy Center (formerly WEYCO)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 Klamath Cogeneration Project	455	455	455	455	455	455	455	455	455	455	455	227	455	455	435
27 Lakeview Biomass	20	20	20	19	19	18	16	18	13	19	19	20	17	20	18
28 Longview Fibre Cogen 1-7	0	0	0	35	35	35	35	35	35	35	35	35	35	35	29
29 SDS Lumber	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.2
30 Sierra Pacific Aberdeen (Sierra Pacific)	14	14	14	15	15	15	14	14	11	14	16	15	15	13	14
31 Simpson Tacoma CoGen	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32 SP Newsprint Cogen	104	104	104	104	104	104	104	104	104	104	104	104	104	104	104
33 Wah Chang (Albany, OR)	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
34 Weyerhaeuser Longview (Weyerhaeuser)	36	36	35	33	38	39	40	39	32	33	33	28	34	38	35
35 Total Other Entities	1262	1261	1260	1291	1296	1296	1295	1295	662	1291	1292	1060	1291	1296	1215
-Cogeneration-															
36 Federal System	12	12	14	18	20	23	24	23	23	22	22	19	14	18	19
37 Public Entities	175	175	168	141	147	148	149	149	140	141	141	135	142	147	148
38 Investor-Owned Entities	1277	1277	1292	1327	1305	1322	1348	1313	1248	1328	1328	584	1038	1273	1221
39 Other Entities	1262	1261	1260	1291	1296	1296	1295	1295	662	1291	1292	1060	1291	1296	1215
40 Total Cogeneration	2726	2725	2734	2777	2768	2789	2816	2780	2073	2781	2783	1799	2485	2734	2603

**Table A-9: Regional Cogeneration
PNW Loads and Resource Study
2012 - 2013 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Federal System-															
1 Georgia-Pacific Paper (Wauna)	12	12	14	18	20	23	24	23	23	22	22	19	14	18	19
2 Total Federal System	12	12	14	18	20	23	24	23	23	22	22	19	14	18	19
-Public Entities-															
3 Georgia Pacific Toledo	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
4 Georgia-Pacific Paper (Wauna)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5 Grays Harbor Paper (Grays Harbor Paper)	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
6 Hampton Lumber Mill (Darrington)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
7 IP Energy Center (formerly WEYCO)	22	22	16	22	22	22	22	22	22	22	22	22	22	22	22
8 Klamath Cogeneration Project	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9 Longview Fibre Cogen 1-7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10 Seneca Sawmill Cogen	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17
11 Sierra Pacific Burlington	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26
12 Simpson Tacoma CoGen	45	45	44	41	47	49	50	49	40	41	41	36	43	48	44
13 Total Public Entities	145	145	138	141	147	148	149	149	140	141	141	135	142	147	143
-Investor Owned Entities-															
14 Coyote Springs #1	209	209	209	209	209	209	209	209	209	209	209	209	209	209	209
15 Coyote Springs #2	253	253	261	286	291	295	294	293	289	286	286	91	258	251	262
16 Georgia-Pacific Paper (Camas)	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
17 Hermiston Cogeneration	435	435	404	420	458	465	426	460	454	45	0	402	408	431	399
18 Sumas Energy	125	125	127	129	131	133	133	132	131	130	130	83	127	125	126
19 Tenaska Gas Cogen	244	244	244	244	244	244	244	244	244	244	244	0	244	244	223
20 Thompson River Co-Gen	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21 Total Investor-Owned Entities	1277	1277	1255	1298	1343	1357	1317	1348	1337	924	879	795	1256	1270	1229
-Other Entities-															
22 Coyote Springs #2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23 Georgia-Pacific Paper (Wauna)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 Hermiston Power Project	620	620	620	620	620	620	620	620	0	620	620	620	620	620	567
25 IP Energy Center (formerly WEYCO)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 Klamath Cogeneration Project	455	455	455	455	455	455	455	455	455	455	455	227	455	455	435
27 Lakeview Biomass	20	20	20	19	19	18	16	18	13	19	19	20	17	20	18
28 Longview Fibre Cogen 1-7	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
29 Sierra Pacific Aberdeen (Sierra Pacific)	14	14	14	15	15	15	14	14	11	14	16	15	15	13	14
30 Simpson Tacoma CoGen	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31 SP Newsprint Cogen	104	104	104	104	104	104	104	104	104	104	104	104	104	104	104
32 Wah Chang (Albany, OR)	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
33 Weyerhaeuser Longview (Weyerhaeuser)	36	36	35	33	38	39	40	39	32	33	33	28	34	38	35
34 Total Other Entities	1296	1295	1294	1291	1296	1296	1295	1295	662	1291	1292	1060	1291	1296	1221
-Cogeneration-															
35 Federal System	12	12	14	18	20	23	24	23	23	22	22	19	14	18	19
36 Public Entities	145	145	138	141	147	148	149	149	140	141	141	135	142	147	143
37 Investor-Owned Entities	1277	1277	1255	1298	1343	1357	1317	1348	1337	924	879	795	1256	1270	1229
38 Other Entities	1296	1295	1294	1291	1296	1296	1295	1295	662	1291	1292	1060	1291	1296	1221
39 Total Cogeneration	2730	2729	2701	2748	2806	2824	2785	2815	2162	2378	2334	2010	2704	2732	2612

**Table A-9: Regional Cogeneration
PNW Loads and Resource Study
2013 - 2014 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Federal System-															
1 Georgia-Pacific Paper (Wauna)	12	12	14	18	20	23	24	23	23	22	22	19	14	18	19
2 Total Federal System	12	12	14	18	20	23	24	23	23	22	22	19	14	18	19
-Public Entities-															
3 Georgia Pacific Toledo	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
4 Georgia-Pacific Paper (Wauna)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5 Grays Harbor Paper (Grays Harbor Paper)	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
6 Hampton Lumber Mill (Darrington)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
7 IP Energy Center (formerly WEYCO)	22	22	16	22	22	22	22	22	22	22	22	22	22	22	22
8 Klamath Cogeneration Project	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9 Longview Fibre Cogen 1-7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10 Seneca Sawmill Cogen	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17
11 Sierra Pacific Burlington	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26
12 Simpson Tacoma CoGen	45	45	44	41	47	49	50	49	40	41	41	36	43	48	44
13 Total Public Entities	145	145	138	141	147	148	149	149	140	141	141	135	142	147	143
-Investor Owned Entities-															
14 Coyote Springs #1	209	209	209	209	209	209	209	209	209	209	209	209	209	209	209
15 Coyote Springs #2	253	253	261	286	291	295	294	293	289	286	286	154	258	251	267
16 Georgia-Pacific Paper (Camas)	10	10	10	10	10	10	10	10	10	10	10	6.8	10	10	9.7
17 Hermiston Cogeneration	436	436	442	413	421	467	429	461	337	418	0	395	406	399	401
18 Sumas Energy	125	125	127	129	131	133	133	132	131	130	130	83	127	125	126
19 Tenaska Gas Cogen	244	244	244	244	244	244	244	244	244	244	244	0	244	244	223
20 Thompson River Co-Gen	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21 Total Investor-Owned Entities	1278	1278	1293	1292	1306	1358	1320	1349	1220	1297	879	848	1254	1238	1236
-Other Entities-															
22 Coyote Springs #2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23 Georgia-Pacific Paper (Wauna)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 Hermiston Power Project	620	620	620	620	620	620	620	620	0	620	620	620	620	620	567
25 IP Energy Center (formerly WEYCO)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 Klamath Cogeneration Project	455	455	455	455	455	455	455	455	455	455	455	227	455	455	435
27 Lakeview Biomass	20	20	20	19	19	18	16	18	13	19	19	20	17	20	18
28 Longview Fibre Cogen 1-7	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
29 Sierra Pacific Aberdeen (Sierra Pacific)	14	14	14	15	15	15	14	14	11	14	16	15	15	13	14
30 Simpson Tacoma CoGen	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31 SP Newsprint Cogen	104	104	104	104	104	104	104	104	104	104	104	104	104	104	104
32 Wah Chang (Albany, OR)	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
33 Weyerhaeuser Longview (Weyerhaeuser)	36	36	35	33	38	39	40	39	32	33	33	28	34	38	35
34 Total Other Entities	1296	1295	1294	1291	1296	1296	1295	1295	662	1291	1292	1060	1291	1296	1221
-Cogeneration-															
35 Federal System	12	12	14	18	20	23	24	23	23	22	22	19	14	18	19
36 Public Entities	145	145	138	141	147	148	149	149	140	141	141	135	142	147	143
37 Investor-Owned Entities	1278	1278	1293	1292	1306	1358	1320	1349	1220	1297	879	848	1254	1238	1236
38 Other Entities	1296	1295	1294	1291	1296	1296	1295	1295	662	1291	1292	1060	1291	1296	1221
39 Total Cogeneration	2731	2730	2739	2742	2769	2825	2787	2816	2045	2751	2334	2063	2702	2700	2619

**Table A-9: Regional Cogeneration
PNW Loads and Resource Study
2014 - 2015 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Federal System-															
1 Georgia-Pacific Paper (Wauna)	12	12	14	18	20	23	24	23	23	22	22	19	14	18	19
2 Total Federal System	12	12	14	18	20	23	24	23	23	22	22	19	14	18	19
-Public Entities-															
3 Georgia Pacific Toledo	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
4 Georgia-Pacific Paper (Wauna)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5 Grays Harbor Paper (Grays Harbor Paper)	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
6 Hampton Lumber Mill (Darrington)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
7 IP Energy Center (formerly WEYCO)	22	22	16	22	22	22	22	22	22	0	0	0	0	0	14
8 Klamath Cogeneration Project	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9 Longview Fibre Cogen 1-7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10 Seneca Sawmill Cogen	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17
11 Sierra Pacific Burlington	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26
12 Simpson Tacoma CoGen	45	45	44	41	47	49	50	49	40	41	41	36	43	48	44
13 Total Public Entities	145	145	138	141	147	148	149	149	140	119	119	113	120	125	136
-Investor Owned Entities-															
14 Coyote Springs #1	209	209	209	209	209	209	209	209	209	209	209	209	209	209	209
15 Coyote Springs #2	253	253	261	286	291	295	294	293	289	286	286	154	258	251	267
16 Georgia-Pacific Paper (Camas)	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
17 Hermiston Cogeneration	436	436	442	413	458	466	427	461	335	412	0	412	409	431	408
18 Sumas Energy	125	125	127	129	131	133	133	132	131	130	130	83	127	125	126
19 Tenaska Gas Cogen	244	244	244	244	244	244	244	244	244	244	244	0	244	244	223
20 Thompson River Co-Gen	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21 Total Investor-Owned Entities	1278	1278	1293	1292	1344	1358	1317	1349	1218	1291	879	868	1257	1271	1243
-Other Entities-															
22 Coyote Springs #2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23 Georgia-Pacific Paper (Wauna)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 Hermiston Power Project	620	620	620	620	620	620	620	620	0	620	620	620	620	620	567
25 IP Energy Center (formerly WEYCO)	0	0	0	0	0	0	0	0	0	22	22	22	22	22	7.4
26 Klamath Cogeneration Project	455	455	455	455	455	455	455	455	455	455	455	227	455	455	435
27 Lakeview Biomass	20	20	20	19	19	18	16	18	13	19	19	20	17	20	18
28 Longview Fibre Cogen 1-7	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
29 Sierra Pacific Aberdeen (Sierra Pacific)	14	14	14	15	15	15	14	14	11	14	16	15	15	13	14
30 Simpson Tacoma CoGen	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31 SP Newsprint Cogen	104	104	104	104	104	104	104	104	104	104	104	104	104	104	104
32 Wah Chang (Albany, OR)	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
33 Weyerhaeuser Longview (Weyerhaeuser)	36	36	35	33	38	39	40	39	32	33	33	28	34	38	35
34 Total Other Entities	1296	1295	1294	1291	1296	1296	1295	1295	662	1313	1314	1082	1313	1318	1228
-Cogeneration-															
35 Federal System	12	12	14	18	20	23	24	23	23	22	22	19	14	18	19
36 Public Entities	145	145	138	141	147	148	149	149	140	119	119	113	120	125	136
37 Investor-Owned Entities	1278	1278	1293	1292	1344	1358	1317	1349	1218	1291	879	868	1257	1271	1243
38 Other Entities	1296	1295	1294	1291	1296	1296	1295	1295	662	1313	1314	1082	1313	1318	1228
39 Total Cogeneration	2731	2730	2739	2742	2807	2825	2785	2816	2043	2745	2334	2083	2705	2733	2627

**Table A-9: Regional Cogeneration
PNW Loads and Resource Study
2015 - 2016 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Federal System-															
1 Georgia-Pacific Paper (Wauna)	12	12	14	18	20	23	24	23	23	0	0	0	0	0	13
2 Total Federal System	12	12	14	18	20	23	24	23	23	0	0	0	0	0	13
-Public Entities-															
3 Georgia Pacific Toledo	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
4 Georgia-Pacific Paper (Wauna)	0	0	0	0	0	0	0	0	0	22	22	19	14	18	6.1
5 Grays Harbor Paper (Grays Harbor Paper)	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
6 Hampton Lumber Mill (Darrington)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
7 IP Energy Center (formerly WEYCO)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 Klamath Cogeneration Project	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9 Longview Fibre Cogen 1-7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10 Seneca Sawmill Cogen	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17
11 Sierra Pacific Burlington	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26
12 Simpson Tacoma CoGen	45	45	44	41	47	49	50	49	40	41	41	36	43	48	44
13 Total Public Entities	123	123	122	119	125	126	127	127	118	141	141	132	134	143	128
-Investor Owned Entities-															
14 Coyote Springs #1	209	209	209	209	209	209	209	209	209	209	209	209	209	209	209
15 Coyote Springs #2	253	253	261	286	291	295	294	293	289	286	286	154	258	251	267
16 Georgia-Pacific Paper (Camas)	10	10	10	10	10	10	10	10	10	10	10	2.6	8.3	10	9.2
17 Hermiston Cogeneration	435	435	404	420	458	465	426	460	454	45	0	402	408	431	399
18 Sumas Energy	125	125	127	129	131	133	133	132	131	130	130	83	127	125	126
19 Tenaska Gas Cogen	244	244	244	244	244	244	244	244	244	244	244	0	244	244	224
20 Thompson River Co-Gen	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21 Total Investor-Owned Entities	1277	1277	1255	1298	1343	1357	1317	1348	1337	924	879	851	1254	1270	1234
-Other Entities-															
22 Coyote Springs #2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23 Georgia-Pacific Paper (Wauna)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 Hermiston Power Project	620	620	620	620	620	620	620	620	0	620	620	620	620	620	567
25 IP Energy Center (formerly WEYCO)	22	16	22	22	22	22	22	22	22	22	22	22	22	22	22
26 Klamath Cogeneration Project	455	455	455	455	455	455	455	455	455	455	455	227	455	455	435
27 Lakeview Biomass	20	20	20	19	19	18	16	18	13	19	19	20	17	20	18
28 Longview Fibre Cogen 1-7	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
29 Sierra Pacific Aberdeen (Sierra Pacific)	14	14	15	15	15	14	14	11	14	16	15	15	13	14	14
30 Simpson Tacoma CoGen	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31 SP Newsprint Cogen	104	104	104	104	104	104	104	104	104	104	104	104	104	104	104
32 Wah Chang (Albany, OR)	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
33 Weyerhaeuser Longview (Weyerhaeuser)	36	35	33	38	39	40	39	32	33	33	28	34	38	35	35
34 Total Other Entities	1318	1317	1310	1313	1318	1318	1317	1317	684	1313	1314	1082	1313	1318	1242
-Cogeneration-															
35 Federal System	12	12	14	18	20	23	24	23	23	0	0	0	0	0	13
36 Public Entities	123	123	122	119	125	126	127	127	118	141	141	132	134	143	128
37 Investor-Owned Entities	1277	1277	1255	1298	1343	1357	1317	1348	1337	924	879	851	1254	1270	1234
38 Other Entities	1318	1317	1310	1313	1318	1318	1317	1317	684	1313	1314	1082	1313	1318	1242
39 Total Cogeneration	2730	2729	2701	2748	2806	2824	2785	2815	2162	2378	2334	2065	2702	2732	2618

**Table A-9: Regional Cogeneration
PNW Loads and Resource Study
2016 - 2017 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Federal System-															
1 Georgia-Pacific Paper (Wauna)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2 Total Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Public Entities-															
3 Georgia Pacific Toledo	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
4 Georgia-Pacific Paper (Wauna)	12	12	14	18	20	23	24	23	23	22	22	19	14	18	19
5 Grays Harbor Paper (Grays Harbor Paper)	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
6 Hampton Lumber Mill (Darrington)	3.5	3.5	3.5	3.5	3.5	3.5	0	0	0	0	0	0	0	0	1.5
7 IP Energy Center (formerly WEYCO)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 Klamath Cogeneration Project	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9 Longview Fibre Cogen 1-7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10 Seneca Sawmill Cogen	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17
11 Sierra Pacific Burlington	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26
12 Simpson Tacoma CoGen	45	45	44	41	47	49	50	49	40	41	41	36	43	48	44
13 Total Public Entities	135	135	136	137	144	149	148	146	137	137	137	129	131	140	139
-Investor Owned Entities-															
14 Coyote Springs #1	209	209	209	209	209	209	209	209	209	209	209	209	209	209	209
15 Coyote Springs #2	253	253	261	286	291	295	294	293	289	286	286	263	175	251	270
16 Georgia-Pacific Paper (Camas)	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
17 Hermiston Cogeneration	436	436	442	413	421	467	429	461	337	418	0	395	406	399	401
18 Sumas Energy	125	125	127	129	131	133	133	132	131	130	130	83	127	125	126
19 Tenaska Gas Cogen	244	244	244	244	244	244	244	244	244	244	244	0	244	244	223
20 Thompson River Co-Gen	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21 Total Investor-Owned Entities	1278	1278	1293	1292	1306	1358	1320	1349	1220	1297	879	960	1171	1238	1239
-Other Entities-															
22 Coyote Springs #2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23 Georgia-Pacific Paper (Wauna)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 Hermiston Power Project	620	620	620	620	620	620	620	620	0	620	620	620	620	620	567
25 IP Energy Center (formerly WEYCO)	22	22	16	22	22	22	22	22	22	22	22	22	22	22	22
26 Klamath Cogeneration Project	455	455	455	455	455	455	455	455	455	455	455	227	455	455	435
27 Lakeview Biomass	20	20	20	19	19	18	16	18	13	19	19	20	17	20	18
28 Longview Fibre Cogen 1-7	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
29 Sierra Pacific Aberdeen (Sierra Pacific)	14	14	14	15	15	15	14	14	11	14	16	15	15	13	14
30 Simpson Tacoma CoGen	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31 SP Newsprint Cogen	104	104	104	104	104	104	104	104	104	104	104	104	104	104	104
32 Wah Chang (Albany, OR)	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
33 Weyerhaeuser Longview (Weyerhaeuser)	36	36	35	33	38	39	40	39	32	33	33	28	34	38	35
34 Total Other Entities	1318	1317	1310	1313	1318	1318	1317	1317	684	1313	1314	1082	1313	1318	1242
-Cogeneration-															
35 Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36 Public Entities	135	135	136	137	144	149	148	146	137	137	137	129	131	140	139
37 Investor-Owned Entities	1278	1278	1293	1292	1306	1358	1320	1349	1220	1297	879	960	1171	1238	1239
38 Other Entities	1318	1317	1310	1313	1318	1318	1317	1317	684	1313	1314	1082	1313	1318	1242
39 Total Cogeneration	2731	2730	2739	2742	2769	2825	2784	2812	2042	2747	2331	2171	2615	2696	2620

**Table A-9: Regional Cogeneration
PNW Loads and Resource Study
2017 - 2018 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Federal System-															
1 Georgia-Pacific Paper (Wauna)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2 Total Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Public Entities-															
3 Georgia Pacific Toledo	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
4 Georgia-Pacific Paper (Wauna)	12	12	14	18	20	23	24	23	23	22	22	19	14	18	19
5 Grays Harbor Paper (Grays Harbor Paper)	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
6 IP Energy Center (formerly WEYCO)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7 Klamath Cogeneration Project	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 Longview Fibre Cogen 1-7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9 Seneca Sawmill Cogen	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17
10 Sierra Pacific Burlington	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26
11 Simpson Tacoma CoGen	45	45	44	41	47	49	50	49	40	41	41	36	43	48	44
12 Total Public Entities	131	131	133	133	141	145	148	146	137	137	137	129	131	140	138
-Investor Owned Entities-															
13 Coyote Springs #1	209	209	209	209	209	209	209	209	209	209	209	209	209	209	209
14 Coyote Springs #2	253	253	261	286	291	295	294	293	289	286	286	194	258	251	271
15 Georgia-Pacific Paper (Camas)	10	10	10	10	10	10	10	10	10	10	10	6.8	10	10	9.7
16 Hermiston Cogeneration	436	436	442	413	458	466	427	461	335	412	0	412	409	431	408
17 Sumas Energy	125	125	127	129	131	133	133	132	131	130	130	83	127	125	126
18 Tenaska Gas Cogen	244	244	244	244	244	244	244	244	244	244	244	0	244	244	223
19 Thompson River Co-Gen	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20 Total Investor-Owned Entities	1278	1278	1293	1292	1344	1358	1317	1349	1218	1291	879	905	1257	1271	1246
-Other Entities-															
21 Coyote Springs #2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22 Georgia-Pacific Paper (Wauna)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23 Hermiston Power Project	620	620	620	620	620	620	620	620	0	620	620	620	620	620	567
24 IP Energy Center (formerly WEYCO)	22	16	22	22	22	22	22	22	22	22	22	22	22	22	22
25 Klamath Cogeneration Project	455	455	455	455	455	455	455	455	455	455	455	227	455	455	435
26 Lakeview Biomass	20	20	20	19	19	18	16	18	13	19	19	20	17	20	18
27 Longview Fibre Cogen 1-7	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
28 Sierra Pacific Aberdeen (Sierra Pacific)	14	14	15	15	15	14	14	11	14	16	15	15	13	14	14
29 Simpson Tacoma CoGen	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30 SP Newsprint Cogen	104	104	104	104	104	104	104	104	104	104	104	104	104	104	104
31 Wah Chang (Albany, OR)	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
32 Weyerhaeuser Longview (Weyerhaeuser)	36	35	33	38	39	40	39	32	33	33	28	34	38	35	35
33 Total Other Entities	1318	1317	1310	1313	1318	1318	1317	1317	684	1313	1314	1082	1313	1318	1242
-Cogeneration-															
34 Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
35 Public Entities	131	131	133	133	141	145	148	146	137	137	137	129	131	140	138
36 Investor-Owned Entities	1278	1278	1293	1292	1344	1358	1317	1349	1218	1291	879	905	1257	1271	1246
37 Other Entities	1318	1317	1310	1313	1318	1318	1317	1317	684	1313	1314	1082	1313	1318	1242
38 Total Cogeneration	2727	2726	2735	2738	2804	2822	2782	2813	2040	2741	2331	2116	2701	2729	2626

**Table A-9: Regional Cogeneration
PNW Loads and Resource Study
2018 - 2019 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Federal System-															
1 Georgia-Pacific Paper (Wauna)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2 Total Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Public Entities-															
3 Georgia Pacific Toledo	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
4 Georgia-Pacific Paper (Wauna)	12	12	14	18	20	23	24	23	23	22	22	19	14	18	19
5 Grays Harbor Paper (Grays Harbor Paper)	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
6 IP Energy Center (formerly WEYCO)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7 Klamath Cogeneration Project	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 Longview Fibre Cogen 1-7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9 Seneca Sawmill Cogen	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17
10 Sierra Pacific Burlington	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26
11 Simpson Tacoma CoGen	45	45	44	41	47	49	50	49	40	41	41	36	43	48	44
12 Total Public Entities	131	131	133	133	141	145	148	146	137	137	137	129	131	140	138
-Investor Owned Entities-															
13 Coyote Springs #1	209	209	209	209	209	209	209	209	209	209	209	209	209	209	209
14 Coyote Springs #2	253	253	261	286	291	295	294	293	289	286	286	91	258	251	262
15 Georgia-Pacific Paper (Camas)	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
16 Hermiston Cogeneration	435	435	404	420	458	465	426	460	454	45	0	402	408	431	399
17 Sumas Energy	125	125	127	129	131	133	133	132	131	130	130	83	127	125	126
18 Tenaska Gas Cogen	244	244	244	244	244	244	244	244	244	244	244	0	244	244	223
19 Thompson River Co-Gen	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20 Total Investor-Owned Entities	1277	1277	1255	1298	1343	1357	1317	1348	1337	924	879	795	1256	1270	1229
-Other Entities-															
21 Coyote Springs #2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22 Georgia-Pacific Paper (Wauna)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23 Hermiston Power Project	620	620	620	620	620	620	620	620	0	620	620	620	620	620	567
24 IP Energy Center (formerly WEYCO)	22	16	22	22	22	22	22	22	22	22	22	22	22	22	22
25 Klamath Cogeneration Project	455	455	455	455	455	455	455	455	455	455	455	455	455	455	455
26 Lakeview Biomass	20	20	20	19	19	18	16	18	13	19	19	20	17	20	18
27 Longview Fibre Cogen 1-7	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
28 Sierra Pacific Aberdeen (Sierra Pacific)	14	14	15	15	15	14	14	11	14	16	15	15	13	14	14
29 Simpson Tacoma CoGen	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30 SP Newsprint Cogen	104	104	104	104	104	104	104	104	104	104	104	104	104	104	104
31 Wah Chang (Albany, OR)	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
32 Weyerhaeuser Longview (Weyerhaeuser)	36	35	33	38	39	40	39	32	33	33	28	34	38	35	35
33 Total Other Entities	1318	1317	1310	1313	1318	1318	1317	1317	684	1313	1314	1310	1313	1318	1262
-Cogeneration-															
34 Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
35 Public Entities	131	131	133	133	141	145	148	146	137	137	137	129	131	140	138
36 Investor-Owned Entities	1277	1277	1255	1298	1343	1357	1317	1348	1337	924	879	795	1256	1270	1229
37 Other Entities	1318	1317	1310	1313	1318	1318	1317	1317	684	1313	1314	1310	1313	1318	1262
38 Total Cogeneration	2726	2725	2698	2744	2803	2821	2781	2812	2159	2374	2331	2234	2700	2728	2628

**Table A-9: Regional Cogeneration
PNW Loads and Resource Study
2019 - 2020 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Federal System-															
1 Georgia-Pacific Paper (Wauna)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2 Total Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Public Entities-															
3 Georgia Pacific Toledo	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
4 Georgia-Pacific Paper (Wauna)	12	12	14	18	20	23	24	23	23	22	22	19	14	18	19
5 Grays Harbor Paper (Grays Harbor Paper)	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
6 IP Energy Center (formerly WEYCO)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7 Klamath Cogeneration Project	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 Longview Fibre Cogen 1-7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9 Seneca Sawmill Cogen	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17
10 Sierra Pacific Burlington	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26
11 Simpson Tacoma CoGen	45	45	44	41	47	49	50	49	40	41	41	36	43	48	44
12 Total Public Entities	131	131	133	133	141	145	148	146	137	137	137	129	131	140	138
-Investor Owned Entities-															
13 Coyote Springs #1	209	209	209	209	209	209	209	209	209	209	209	209	209	209	209
14 Coyote Springs #2	253	253	261	286	291	295	294	293	289	286	286	154	258	251	267
15 Georgia-Pacific Paper (Camas)	10	10	10	10	10	10	10	10	10	10	10	6.8	10	10	9.7
16 Hermiston Cogeneration	436	436	442	413	421	467	429	461	337	418	0	395	406	399	401
17 Sumas Energy	125	125	127	129	131	133	133	132	131	130	130	83	127	125	126
18 Tenaska Gas Cogen	244	244	244	244	244	244	244	244	244	244	244	0	244	244	224
19 Thompson River Co-Gen	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20 Total Investor-Owned Entities	1278	1278	1293	1292	1306	1358	1320	1349	1220	1297	879	848	1254	1238	1236
-Other Entities-															
21 Coyote Springs #2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22 Georgia-Pacific Paper (Wauna)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23 Hermiston Power Project	620	620	620	620	620	620	620	620	0	620	620	620	620	620	567
24 IP Energy Center (formerly WEYCO)	22	16	22	22	22	22	22	22	22	22	22	22	22	22	22
25 Klamath Cogeneration Project	455	455	455	455	455	455	455	455	455	455	455	455	455	455	455
26 Lakeview Biomass	20	20	20	19	19	18	16	18	13	19	19	20	17	20	18
27 Longview Fibre Cogen 1-7	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
28 Sierra Pacific Aberdeen (Sierra Pacific)	14	14	15	15	15	14	14	11	14	16	15	15	13	14	14
29 Simpson Tacoma CoGen	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30 SP Newsprint Cogen	104	104	104	104	104	104	104	104	104	104	104	104	104	104	104
31 Wah Chang (Albany, OR)	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
32 Weyerhaeuser Longview (Weyerhaeuser)	36	35	33	38	39	40	39	32	33	33	28	34	38	35	35
33 Total Other Entities	1318	1317	1310	1313	1318	1318	1317	1317	684	1313	1314	1310	1313	1318	1262
-Cogeneration-															
34 Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
35 Public Entities	131	131	133	133	141	145	148	146	137	137	137	129	131	140	138
36 Investor-Owned Entities	1278	1278	1293	1292	1306	1358	1320	1349	1220	1297	879	848	1254	1238	1236
37 Other Entities	1318	1317	1310	1313	1318	1318	1317	1317	684	1313	1314	1310	1313	1318	1262
38 Total Cogeneration	2727	2726	2735	2738	2766	2822	2784	2812	2042	2747	2331	2287	2698	2696	2636

**Table A-9: Regional Cogeneration
PNW Loads and Resource Study
2020 - 2021 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Federal System-															
1 Georgia-Pacific Paper (Wauna)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2 Total Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Public Entities-															
3 Georgia Pacific Toledo	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
4 Georgia-Pacific Paper (Wauna)	12	12	14	18	20	23	24	23	23	22	22	19	14	18	19
5 Grays Harbor Paper (Grays Harbor Paper)	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
6 IP Energy Center (formerly WEYCO)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7 Klamath Cogeneration Project	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 Longview Fibre Cogen 1-7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9 Seneca Sawmill Cogen	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17
10 Sierra Pacific Burlington	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26
11 Simpson Tacoma CoGen	45	45	44	41	47	49	50	49	40	41	41	36	43	48	44
12 Total Public Entities	131	131	133	133	141	145	148	146	137	137	137	129	131	140	138
-Investor Owned Entities-															
13 Coyote Springs #1	209	209	209	209	209	209	209	209	209	209	209	209	209	209	209
14 Coyote Springs #2	253	253	261	286	291	295	294	293	289	286	286	54	129	251	248
15 Georgia-Pacific Paper (Camas)	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
16 Hermiston Cogeneration	436	436	442	413	458	466	427	461	335	412	0	412	409	431	408
17 Sumas Energy	125	125	127	129	131	133	133	132	131	130	130	83	127	125	126
18 Tenaska Gas Cogen	244	244	244	244	244	244	244	244	244	244	244	0	244	244	223
19 Thompson River Co-Gen	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20 Total Investor-Owned Entities	1278	1278	1293	1292	1344	1358	1317	1349	1218	1291	879	768	1128	1271	1224
-Other Entities-															
21 Coyote Springs #2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22 Georgia-Pacific Paper (Wauna)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23 Hermiston Power Project	620	620	620	620	620	620	620	620	0	620	620	620	620	620	567
24 IP Energy Center (formerly WEYCO)	22	16	22	22	22	22	22	22	22	22	22	22	22	22	22
25 Klamath Cogeneration Project	455	455	455	455	455	455	455	455	455	455	455	455	455	455	455
26 Lakeview Biomass	20	20	20	19	19	18	16	18	13	19	19	20	17	20	18
27 Longview Fibre Cogen 1-7	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
28 Sierra Pacific Aberdeen (Sierra Pacific)	14	14	15	15	15	14	14	11	14	16	15	15	13	14	14
29 Simpson Tacoma CoGen	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30 SP Newsprint Cogen	104	104	104	104	104	104	104	104	104	104	104	104	104	104	104
31 Wah Chang (Albany, OR)	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
32 Weyerhaeuser Longview (Weyerhaeuser)	36	35	33	38	39	40	39	32	33	33	28	34	38	35	35
33 Total Other Entities	1318	1317	1310	1313	1318	1318	1317	1317	684	1313	1314	1310	1313	1318	1262
-Cogeneration-															
34 Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
35 Public Entities	131	131	133	133	141	145	148	146	137	137	137	129	131	140	138
36 Investor-Owned Entities	1278	1278	1293	1292	1344	1358	1317	1349	1218	1291	879	768	1128	1271	1224
37 Other Entities	1318	1317	1310	1313	1318	1318	1317	1317	684	1313	1314	1310	1313	1318	1262
38 Total Cogeneration	2727	2726	2735	2738	2804	2822	2782	2813	2040	2741	2331	2207	2572	2729	2623

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Table A-10
Large Thermal
Monthly OY 2012 – 2021
Average Energy in Megawatts

Power Services

Reports Powered by:



Loads and Resources Information System

Table A-10: Regional Large Thermal
PNW Loads and Resource Study
2011 - 2012 Operating Year
[76] 2011 White Book (Final)

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Boardman: Coal-															
1 Idaho Power Company	53	53	53	53	53	53	53	53	53	53	53	0	53	53	49
2 Portland General Electric	348	348	348	348	348	348	348	348	348	348	348	0	348	348	319
3 San Diego Gas & Electric	79	79	79	79	79	79	79	79	79	79	79	0	79	79	72
4 Turlock Irrigation District	53	53	53	53	53	53	53	53	53	53	53	0	53	53	49
5 Boardman: Regional Total	534	534	534	534	534	534	534	534	534	534	534	0	534	534	489
-Centralia #1: Coal-															
6 TransAlta Energy Marketing	626	626	626	626	626	626	626	626	626	626	626	40	626	626	577
7 Centralia #1: Regional Total	626	626	626	626	626	626	626	626	626	626	626	40	626	626	577
-Centralia #2: Coal-															
8 TransAlta Energy Marketing	626	626	626	626	626	626	626	626	626	626	626	626	626	626	626
9 Centralia #2: Regional Total	626	626	626	626	626	626	626	626	626	626	626	626	626	626	626
-Colstrip #1: Coal-															
10 Northwestern Energy LLC (MPC)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 Puget Sound Energy	140	140	140	140	140	140	140	140	140	140	140	93	0	140	125
12 Colstrip #1: Regional Total	140	140	140	140	140	140	140	140	140	140	140	93	0	140	125
-Colstrip #2: Coal-															
13 Northwestern Energy LLC (MPC)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14 Puget Sound Energy	140	140	140	140	140	140	140	140	140	140	140	93	72	140	131
15 Colstrip #2: Regional Total	140	140	140	140	140	140	140	140	140	140	140	93	72	140	131
-Colstrip #3: Coal-															
16 Avista Corp (WWP Division)	103	103	103	103	103	103	103	103	103	103	103	103	103	103	103
17 Northwestern Energy LLC (MPC)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18 Pacific Power	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69
19 Portland General Electric	137	137	137	137	137	137	137	137	137	137	137	137	137	137	137
20 Puget Sound Energy	172	172	172	172	172	172	172	172	172	172	172	172	172	172	172
21 Colstrip #3: Regional Total	481	481	481	481	481	481	481	481	481	481	481	481	481	481	481
-Colstrip #4: Coal-															
22 Avista Corp (WWP Division)	102	102	102	102	102	102	102	102	102	102	102	102	102	102	102
23 Northwestern Energy LLC (MPC)	204	204	204	204	204	204	204	204	204	204	204	204	204	204	204
24 Pacific Power	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68
25 Portland General Electric	136	136	136	136	136	136	136	136	136	136	136	136	136	136	136
26 Puget Sound Energy	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170
27 Colstrip #4: Regional Total	679	679	679	679	679	679	679	679	679	679	679	679	679	679	679
-Columbia Generating Station: Uranium-															
28 BPA - Power Business	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030
29 Columbia Generating Station: Regional Total	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030
-Jim Bridger #1: Coal-															
30 Idaho Power Company	161	161	161	161	161	161	161	161	161	161	139	140	161	161	158
31 Pacific Power	322	322	322	322	322	322	322	322	322	322	279	280	322	322	317
32 Jim Bridger #1: Regional Total	483	483	483	483	483	483	483	483	483	483	418	420	483	483	475
-Jim Bridger #2: Coal-															
33 Idaho Power Company	163	163	163	163	163	163	163	163	168	168	168	168	168	163	164
34 Pacific Power	325	325	325	325	325	325	325	325	335	335	335	335	335	325	328
35 Jim Bridger #2: Regional Total	488	488	488	488	488	488	488	488	503	503	503	503	503	488	493
-Jim Bridger #3: Coal-															
36 Idaho Power Company	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159
37 Pacific Power	318	318	318	318	318	318	318	318	318	318	318	318	318	318	318

**Table A-10: Regional Large Thermal
PNW Loads and Resource Study
2011 - 2012 Operating Year
[76] 2011 White Book (Final)**

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
38 Jim Bridger #3: Regional Total	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477
<i>-Jim Bridger #4: Coal-</i>															
39 Idaho Power Company	154	154	154	154	154	154	154	154	154	154	116	51	126	154	141
40 Pacific Power	307	307	307	307	307	307	307	307	307	307	232	103	253	307	282
41 Jim Bridger #4: Regional Total	461	461	461	461	461	461	461	461	461	461	348	154	379	461	424
<i>-Valmy #1: Coal-</i>															
42 Idaho Power Company	114	114	114	114	114	114	114	114	74	114	114	102	114	114	110
43 Valmy #1: Regional Total	114	114	114	114	114	114	114	114	74	114	114	102	114	114	110
<i>-Valmy #2: Coal-</i>															
44 Idaho Power Company	120	120	120	120	120	120	120	120	78	120	120	107	120	120	116
45 Valmy #2: Regional Total	120	120	120	120	120	120	120	120	78	120	120	107	120	120	116
<i>-Total Large Thermal-</i>															
46 Federal System	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030
47 Public Entities	53	53	53	53	53	53	53	53	53	53	53	0	53	53	49
48 Investor-Owned Entities	4064	4064	4064	4064	4064	4064	4064	4064	3997	4080	3901	3109	3790	4064	3949
49 Other Entities	1253	1253	1253	1253	1253	1253	1253	1253	1253	1253	1253	667	1253	1253	1203
50 Non-NW Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
51 Total Large Thermal	6400	6400	6400	6400	6400	6400	6400	6400	6333	6416	6237	4806	6126	6400	6231

**Table A-10: Regional Large Thermal
PNW Loads and Resource Study
2012 - 2013 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Boardman: Coal-															
1 Idaho Power Company	53	53	53	53	53	53	53	53	53	53	53	0	53	53	49
2 Portland General Electric	348	348	348	348	348	348	348	348	348	348	348	0	348	348	318
3 San Diego Gas & Electric	79	79	79	79	79	79	79	79	79	79	79	0	79	79	72
4 Turlock Irrigation District	53	53	53	53	53	53	53	53	53	53	53	0	53	53	49
5 Boardman: Regional Total	534	534	534	534	534	534	534	534	534	534	534	0	534	534	488
-Centralia #1: Coal-															
6 TransAlta Energy Marketing	626	626	626	626	626	626	626	626	626	626	626	626	626	626	626
7 Centralia #1: Regional Total	626	626	626	626	626	626	626	626	626	626	626	626	626	626	626
-Centralia #2: Coal-															
8 TransAlta Energy Marketing	626	626	626	626	626	626	626	626	626	626	626	40	626	626	577
9 Centralia #2: Regional Total	626	626	626	626	626	626	626	626	626	626	626	40	626	626	577
-Colstrip #1: Coal-															
10 Northwestern Energy LLC (MPC)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 Puget Sound Energy	140	140	140	140	140	140	140	140	140	140	112	114	140	140	137
12 Colstrip #1: Regional Total	140	140	140	140	140	140	140	140	140	140	112	114	140	140	137
-Colstrip #2: Coal-															
13 Northwestern Energy LLC (MPC)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14 Puget Sound Energy	140	140	140	140	140	140	140	140	140	140	112	114	140	140	137
15 Colstrip #2: Regional Total	140	140	140	140	140	140	140	140	140	140	112	114	140	140	137
-Colstrip #3: Coal-															
16 Avista Corp (WWP Division)	103	103	103	103	103	103	103	103	103	103	103	103	103	103	103
17 Northwestern Energy LLC (MPC)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18 Pacific Power	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69
19 Portland General Electric	137	137	137	137	137	137	137	137	137	137	137	137	137	137	137
20 Puget Sound Energy	172	172	172	172	172	172	172	172	172	172	172	172	172	172	172
21 Colstrip #3: Regional Total	481	481	481	481	481	481	481	481	481	481	481	481	481	481	481
-Colstrip #4: Coal-															
22 Avista Corp (WWP Division)	102	102	102	102	102	102	102	102	102	0	0	51	102	102	89
23 Northwestern Energy LLC (MPC)	204	204	204	204	204	204	204	204	204	0	0	102	204	204	178
24 Pacific Power	68	68	68	68	68	68	68	68	68	0	0	34	68	68	59
25 Portland General Electric	136	136	136	136	136	136	136	136	136	0	0	68	136	136	119
26 Puget Sound Energy	170	170	170	170	170	170	170	170	170	0	0	85	170	170	149
27 Colstrip #4: Regional Total	679	679	679	679	679	679	679	679	679	0	0	340	679	679	594
-Columbia Generating Station: Uranium-															
28 BPA - Power Business	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	332	0	930	878
29 Columbia Generating Station: Regional Total	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	332	0	930	878
-Jim Bridger #1: Coal-															
30 Idaho Power Company	161	161	161	161	161	161	161	161	161	161	129	161	161	161	160
31 Pacific Power	322	322	322	322	322	322	322	322	322	322	257	322	322	322	319
32 Jim Bridger #1: Regional Total	483	483	483	483	483	483	483	483	483	483	386	483	483	483	479
-Jim Bridger #2: Coal-															
33 Idaho Power Company	163	163	163	163	163	163	163	163	135	40	127	168	168	163	155
34 Pacific Power	325	325	325	325	325	325	325	325	271	81	254	335	335	325	309
35 Jim Bridger #2: Regional Total	488	488	488	488	488	488	488	488	406	121	382	503	503	488	464
-Jim Bridger #3: Coal-															
36 Idaho Power Company	159	159	159	159	159	159	159	159	159	159	159	63	159	159	151
37 Pacific Power	318	318	318	318	318	318	318	318	318	318	318	127	318	318	302

**Table A-10: Regional Large Thermal
PNW Loads and Resource Study
2012 - 2013 Operating Year
[76] 2011 White Book (Final)**

Continued

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Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
38 Jim Bridger #3: Regional Total	477	477	477	477	477	477	477	477	477	477	477	190	477	477	453
<i>-Jim Bridger #4: Coal-</i>															
39 Idaho Power Company	154	154	154	154	154	154	154	154	154	154	154	154	154	154	154
40 Pacific Power	307	307	307	307	307	307	307	307	307	307	307	307	307	307	307
41 Jim Bridger #4: Regional Total	461	461	461	461	461	461	461	461	461	461	461	461	461	461	461
<i>-Valmy #1: Coal-</i>															
42 Idaho Power Company	114	114	114	114	114	114	114	114	74	114	114	102	114	114	110
43 Valmy #1: Regional Total	114	114	114	114	114	114	114	114	74	114	114	102	114	114	110
<i>-Valmy #2: Coal-</i>															
44 Idaho Power Company	120	120	120	120	120	120	120	120	78	120	120	107	120	120	116
45 Valmy #2: Regional Total	120	120	120	120	120	120	120	120	78	120	120	107	120	120	116
<i>-Total Large Thermal-</i>															
46 Federal System	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	332	0	930	878
47 Public Entities	53	53	53	53	53	53	53	53	53	53	53	0	53	53	49
48 Investor-Owned Entities	4064	4064	4064	4064	4064	4064	4064	4064	3900	3019	3126	2893	4080	4064	3871
49 Other Entities	1253	1253	1253	1253	1253	1253	1253	1253	1253	1253	1253	667	1253	1253	1203
50 Non-NW Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
51 Total Large Thermal	6400	6400	6400	6400	6400	6400	6400	6400	6236	5355	5462	3892	5386	6300	6000

Table A-10: Regional Large Thermal
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Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Boardman: Coal-															
1 Idaho Power Company	53	53	53	53	53	53	53	53	53	53	53	0	53	53	49
2 Portland General Electric	348	348	348	348	348	348	348	348	348	348	348	0	348	348	318
3 San Diego Gas & Electric	79	79	79	79	79	79	79	79	79	79	79	0	79	79	72
4 Turlock Irrigation District	53	53	53	53	53	53	53	53	53	53	53	0	53	53	49
5 Boardman: Regional Total	534	534	534	534	534	534	534	534	534	534	534	0	534	534	488
-Centralia #1: Coal-															
6 TransAlta Energy Marketing	626	626	626	626	626	626	626	626	626	626	626	40	626	626	577
7 Centralia #1: Regional Total	626	626	626	626	626	626	626	626	626	626	626	40	626	626	577
-Centralia #2: Coal-															
8 TransAlta Energy Marketing	626	626	626	626	626	626	626	626	626	626	626	626	626	626	626
9 Centralia #2: Regional Total	626	626	626	626	626	626	626	626	626	626	626	626	626	626	626
-Colstrip #1: Coal-															
10 Northwestern Energy LLC (MPC)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 Puget Sound Energy	140	140	140	140	140	140	140	140	140	140	136	68	70	140	128
12 Colstrip #1: Regional Total	140	140	140	140	140	140	140	140	140	140	136	68	70	140	128
-Colstrip #2: Coal-															
13 Northwestern Energy LLC (MPC)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14 Puget Sound Energy	140	140	140	140	140	140	140	140	140	140	136	0	0	140	117
15 Colstrip #2: Regional Total	140	140	140	140	140	140	140	140	140	140	136	0	0	140	117
-Colstrip #3: Coal-															
16 Avista Corp (WWP Division)	103	103	103	103	103	103	103	103	103	0	0	51	103	103	90
17 Northwestern Energy LLC (MPC)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18 Pacific Power	69	69	69	69	69	69	69	69	69	0	0	34	69	69	60
19 Portland General Electric	137	137	137	137	137	137	137	137	137	0	0	69	137	137	120
20 Puget Sound Energy	172	172	172	172	172	172	172	172	172	0	0	86	172	172	150
21 Colstrip #3: Regional Total	481	481	481	481	481	481	481	481	481	0	0	240	481	481	421
-Colstrip #4: Coal-															
22 Avista Corp (WWP Division)	102	102	102	102	102	102	102	102	102	102	102	102	102	102	102
23 Northwestern Energy LLC (MPC)	204	204	204	204	204	204	204	204	204	204	204	204	204	204	204
24 Pacific Power	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68
25 Portland General Electric	136	136	136	136	136	136	136	136	136	136	136	136	136	136	136
26 Puget Sound Energy	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170
27 Colstrip #4: Regional Total	679	679	679	679	679	679	679	679	679	679	679	679	679	679	679
-Columbia Generating Station: Uranium-															
28 BPA - Power Business	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030
29 Columbia Generating Station: Regional Total	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030
-Jim Bridger #1: Coal-															
30 Idaho Power Company	161	161	161	161	161	161	161	161	150	107	0	54	161	161	142
31 Pacific Power	322	322	322	322	322	322	322	322	301	215	0	107	322	322	284
32 Jim Bridger #1: Regional Total	483	483	483	483	483	483	483	483	451	322	0	161	483	483	427
-Jim Bridger #2: Coal-															
33 Idaho Power Company	163	163	163	163	163	163	163	163	168	168	168	168	168	163	164
34 Pacific Power	325	325	325	325	325	325	325	325	335	335	335	335	335	325	328
35 Jim Bridger #2: Regional Total	488	488	488	488	488	488	488	488	503	503	503	503	503	488	493
-Jim Bridger #3: Coal-															
36 Idaho Power Company	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159
37 Pacific Power	318	318	318	318	318	318	318	318	318	318	318	318	318	318	318

**Table A-10: Regional Large Thermal
PNW Loads and Resource Study
2013 - 2014 Operating Year
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Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
38 Jim Bridger #3: Regional Total	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477
<i>-Jim Bridger #4: Coal-</i>															
39 Idaho Power Company	154	154	154	154	154	154	154	154	97	154	154	154	154	154	149
40 Pacific Power	307	307	307	307	307	307	307	307	195	307	307	307	307	307	298
41 Jim Bridger #4: Regional Total	461	461	461	461	461	461	461	461	292	461	461	461	461	461	447
<i>-Valmy #1: Coal-</i>															
42 Idaho Power Company	114	114	114	114	114	114	114	114	74	114	114	102	114	114	110
43 Valmy #1: Regional Total	114	114	114	114	114	114	114	114	74	114	114	102	114	114	110
<i>-Valmy #2: Coal-</i>															
44 Idaho Power Company	120	120	120	120	120	120	120	120	78	120	120	107	120	120	116
45 Valmy #2: Regional Total	120	120	120	120	120	120	120	120	78	120	120	107	120	120	116
<i>-Total Large Thermal-</i>															
46 Federal System	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030
47 Public Entities	53	53	53	53	53	53	53	53	53	53	53	0	53	53	49
48 Investor-Owned Entities	4064	4064	4064	4064	4064	4064	4064	4064	3797	3438	3106	2799	3869	4064	3853
49 Other Entities	1253	1253	1253	1253	1253	1253	1253	1253	1253	1253	1253	667	1253	1253	1203
50 Non-NW Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
51 Total Large Thermal	6400	6400	6400	6400	6400	6400	6400	6400	6133	5774	5442	4495	6205	6400	6135

**Table A-10: Regional Large Thermal
PNW Loads and Resource Study
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Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Boardman: Coal-															
1 Idaho Power Company	53	53	53	53	53	53	53	53	53	53	53	0	53	53	49
2 Portland General Electric	348	348	348	348	348	348	348	348	348	348	348	0	348	348	318
3 San Diego Gas & Electric	79	79	79	79	79	79	79	79	79	79	79	0	79	79	72
4 Turlock Irrigation District	53	53	53	53	53	53	53	53	53	53	53	0	53	53	49
5 Boardman: Regional Total	534	534	534	534	534	534	534	534	534	534	534	0	534	534	488
-Centralia #1: Coal-															
6 TransAlta Energy Marketing	626	626	626	626	626	626	626	626	626	626	626	626	626	626	626
7 Centralia #1: Regional Total	626	626	626	626	626	626	626	626	626	626	626	626	626	626	626
-Centralia #2: Coal-															
8 TransAlta Energy Marketing	626	626	626	626	626	626	626	626	626	626	626	40	626	626	577
9 Centralia #2: Regional Total	626	626	626	626	626	626	626	626	626	626	626	40	626	626	577
-Colstrip #1: Coal-															
10 Northwestern Energy LLC (MPC)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 Puget Sound Energy	140	140	140	140	140	140	140	140	140	140	140	93	0	140	125
12 Colstrip #1: Regional Total	140	140	140	140	140	140	140	140	140	140	140	93	0	140	125
-Colstrip #2: Coal-															
13 Northwestern Energy LLC (MPC)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14 Puget Sound Energy	140	140	140	140	140	140	140	140	140	140	140	93	72	140	131
15 Colstrip #2: Regional Total	140	140	140	140	140	140	140	140	140	140	140	93	72	140	131
-Colstrip #3: Coal-															
16 Avista Corp (WWP Division)	103	103	103	103	103	103	103	103	103	103	103	103	103	103	103
17 Northwestern Energy LLC (MPC)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18 Pacific Power	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69
19 Portland General Electric	137	137	137	137	137	137	137	137	137	137	137	137	137	137	137
20 Puget Sound Energy	172	172	172	172	172	172	172	172	172	172	172	172	172	172	172
21 Colstrip #3: Regional Total	481	481	481	481	481	481	481	481	481	481	481	481	481	481	481
-Colstrip #4: Coal-															
22 Avista Corp (WWP Division)	102	102	102	102	102	102	102	102	102	102	102	102	102	102	102
23 Northwestern Energy LLC (MPC)	204	204	204	204	204	204	204	204	204	204	204	204	204	204	204
24 Pacific Power	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68
25 Portland General Electric	136	136	136	136	136	136	136	136	136	136	136	136	136	136	136
26 Puget Sound Energy	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170
27 Colstrip #4: Regional Total	679	679	679	679	679	679	679	679	679	679	679	679	679	679	679
-Columbia Generating Station: Uranium-															
28 BPA - Power Business	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	498	0	764	878
29 Columbia Generating Station: Regional Total	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	498	0	764	878
-Jim Bridger #1: Coal-															
30 Idaho Power Company	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161
31 Pacific Power	322	322	322	322	322	322	322	322	322	322	322	322	322	322	322
32 Jim Bridger #1: Regional Total	483	483	483	483	483	483	483	483	483	483	483	483	483	483	483
-Jim Bridger #2: Coal-															
33 Idaho Power Company	163	163	163	163	163	163	163	163	103	168	168	168	168	163	159
34 Pacific Power	325	325	325	325	325	325	325	325	206	335	335	335	335	325	317
35 Jim Bridger #2: Regional Total	488	488	488	488	488	488	488	488	308	503	503	503	503	488	476
-Jim Bridger #3: Coal-															
36 Idaho Power Company	159	159	159	159	159	159	159	159	145	53	53	53	92	159	135
37 Pacific Power	318	318	318	318	318	318	318	318	290	106	106	106	184	318	269

**Table A-10: Regional Large Thermal
PNW Loads and Resource Study
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Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
38 Jim Bridger #3: Regional Total	477	477	477	477	477	477	477	477	436	159	159	159	275	477	404
<i>-Jim Bridger #4: Coal-</i>															
39 Idaho Power Company	154	154	154	154	154	154	154	154	154	154	154	154	154	154	154
40 Pacific Power	307	307	307	307	307	307	307	307	307	307	307	307	307	307	307
41 Jim Bridger #4: Regional Total	461	461	461	461	461	461	461	461	461	461	461	461	461	461	461
<i>-Valmy #1: Coal-</i>															
42 Idaho Power Company	114	114	114	114	114	114	114	114	74	114	114	102	114	114	110
43 Valmy #1: Regional Total	114	114	114	114	114	114	114	114	74	114	114	102	114	114	110
<i>-Valmy #2: Coal-</i>															
44 Idaho Power Company	120	120	120	120	120	120	120	120	78	120	120	107	120	120	116
45 Valmy #2: Regional Total	120	120	120	120	120	120	120	120	78	120	120	107	120	120	116
<i>-Total Large Thermal-</i>															
46 Federal System	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	498	0	764	878
47 Public Entities	53	53	53	53	53	53	53	53	53	53	53	0	53	53	49
48 Investor-Owned Entities	4064	4064	4064	4064	4064	4064	4064	4064	3761	3762	3762	3161	3670	4064	3905
49 Other Entities	1253	1253	1253	1253	1253	1253	1253	1253	1253	1253	1253	667	1253	1253	1203
50 Non-NW Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
51 Total Large Thermal	6400	6400	6400	6400	6400	6400	6400	6400	6097	6098	6098	4326	4976	6134	6034

**Table A-10: Regional Large Thermal
PNW Loads and Resource Study
2015 - 2016 Operating Year
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Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Boardman: Coal-															
1 Idaho Power Company	53	53	53	53	53	53	53	53	53	53	53	0	53	53	49
2 Portland General Electric	348	348	348	348	348	348	348	348	348	348	348	0	348	348	319
3 San Diego Gas & Electric	79	79	79	79	79	79	79	79	79	79	79	0	79	79	72
4 Turlock Irrigation District	53	53	53	53	53	53	53	53	53	53	53	0	53	53	49
5 Boardman: Regional Total	534	534	534	534	534	534	534	534	534	534	534	0	534	534	489
-Centralia #1: Coal-															
6 TransAlta Energy Marketing	626	626	626	626	626	626	626	626	566	0	0	445	626	626	554
7 Centralia #1: Regional Total	626	626	626	626	626	626	626	626	566	0	0	445	626	626	554
-Centralia #2: Coal-															
8 TransAlta Energy Marketing	626	626	626	626	626	626	626	626	626	626	626	626	626	626	626
9 Centralia #2: Regional Total	626	626	626	626	626	626	626	626	626	626	626	626	626	626	626
-Colstrip #1: Coal-															
10 Northwestern Energy LLC (MPC)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 Puget Sound Energy	140	140	140	140	140	140	140	140	140	140	112	114	140	140	137
12 Colstrip #1: Regional Total	140	140	140	140	140	140	140	140	140	140	112	114	140	140	137
-Colstrip #2: Coal-															
13 Northwestern Energy LLC (MPC)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14 Puget Sound Energy	140	140	140	140	140	140	140	140	140	140	112	114	140	140	137
15 Colstrip #2: Regional Total	140	140	140	140	140	140	140	140	140	140	112	114	140	140	137
-Colstrip #3: Coal-															
16 Avista Corp (WWP Division)	103	103	103	103	103	103	103	103	103	103	103	103	103	103	103
17 Northwestern Energy LLC (MPC)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18 Pacific Power	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69
19 Portland General Electric	137	137	137	137	137	137	137	137	137	137	137	137	137	137	137
20 Puget Sound Energy	172	172	172	172	172	172	172	172	172	172	172	172	172	172	172
21 Colstrip #3: Regional Total	481	481	481	481	481	481	481	481	481	481	481	481	481	481	481
-Colstrip #4: Coal-															
22 Avista Corp (WWP Division)	102	102	102	102	102	102	102	102	102	0	0	51	102	102	89
23 Northwestern Energy LLC (MPC)	204	204	204	204	204	204	204	204	204	0	0	102	204	204	178
24 Pacific Power	68	68	68	68	68	68	68	68	68	0	0	34	68	68	59
25 Portland General Electric	136	136	136	136	136	136	136	136	136	0	0	68	136	136	119
26 Puget Sound Energy	170	170	170	170	170	170	170	170	170	0	0	85	170	170	149
27 Colstrip #4: Regional Total	679	679	679	679	679	679	679	679	679	0	0	340	679	679	595
-Columbia Generating Station: Uranium-															
28 BPA - Power Business	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030
29 Columbia Generating Station: Regional Total	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030
-Jim Bridger #1: Coal-															
30 Idaho Power Company	161	161	161	161	161	161	161	161	161	115	0	161	161	161	153
31 Pacific Power	322	322	322	322	322	322	322	322	322	229	0	322	322	322	305
32 Jim Bridger #1: Regional Total	483	483	483	483	483	483	483	483	483	344	0	483	483	483	458
-Jim Bridger #2: Coal-															
33 Idaho Power Company	163	163	163	163	163	163	163	163	168	168	168	168	168	163	164
34 Pacific Power	325	325	325	325	325	325	325	325	335	335	335	335	335	325	328
35 Jim Bridger #2: Regional Total	488	488	488	488	488	488	488	488	503	503	503	503	503	488	493
-Jim Bridger #3: Coal-															
36 Idaho Power Company	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159
37 Pacific Power	318	318	318	318	318	318	318	318	318	318	318	318	318	318	318

**Table A-10: Regional Large Thermal
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Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
38 Jim Bridger #3: Regional Total	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477
<i>-Jim Bridger #4: Coal-</i>															
39 Idaho Power Company	154	154	154	154	154	154	154	154	154	154	103	81	154	154	145
40 Pacific Power	307	307	307	307	307	307	307	307	307	307	205	162	307	307	291
41 Jim Bridger #4: Regional Total	461	461	461	461	461	461	461	461	461	461	308	243	461	461	436
<i>-Valmy #1: Coal-</i>															
42 Idaho Power Company	114	114	114	114	114	114	114	114	74	114	114	102	114	114	110
43 Valmy #1: Regional Total	114	114	114	114	114	114	114	114	74	114	114	102	114	114	110
<i>-Valmy #2: Coal-</i>															
44 Idaho Power Company	120	120	120	120	120	120	120	120	78	120	120	107	120	120	116
45 Valmy #2: Regional Total	120	120	120	120	120	120	120	120	78	120	120	107	120	120	116
<i>-Total Large Thermal-</i>															
46 Federal System	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030
47 Public Entities	53	53	53	53	53	53	53	53	53	53	53	0	53	53	49
48 Investor-Owned Entities	4064	4064	4064	4064	4064	4064	4064	4064	3997	3262	2709	2962	4080	4064	3878
49 Other Entities	1253	1253	1253	1253	1253	1253	1253	1253	1192	626	626	1071	1253	1253	1181
50 Non-NW Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
51 Total Large Thermal	6400	6400	6400	6400	6400	6400	6400	6400	6273	4971	4418	5063	6416	6400	6138

Table A-10: Regional Large Thermal
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Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Boardman: Coal-															
1 Idaho Power Company	53	53	53	53	53	53	53	53	53	53	53	0	53	53	49
2 Portland General Electric	348	348	348	348	348	348	348	348	348	348	348	0	348	348	318
3 San Diego Gas & Electric	79	79	79	79	79	79	79	79	79	79	79	0	79	79	72
4 Turlock Irrigation District	53	53	53	53	53	53	53	53	53	53	53	0	53	53	49
5 Boardman: Regional Total	534	534	534	534	534	534	534	534	534	534	534	0	534	534	488
-Centralia #1: Coal-															
6 TransAlta Energy Marketing	626	626	626	626	626	626	626	626	626	626	626	626	626	626	626
7 Centralia #1: Regional Total	626	626	626	626	626	626	626	626	626	626	626	626	626	626	626
-Centralia #2: Coal-															
8 TransAlta Energy Marketing	626	626	626	626	626	626	626	626	566	0	0	445	626	626	554
9 Centralia #2: Regional Total	626	626	626	626	626	626	626	626	566	0	0	445	626	626	554
-Colstrip #1: Coal-															
10 Northwestern Energy LLC (MPC)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 Puget Sound Energy	140	140	140	140	140	140	140	140	140	140	136	68	70	140	128
12 Colstrip #1: Regional Total	140	140	140	140	140	140	140	140	140	140	136	68	70	140	128
-Colstrip #2: Coal-															
13 Northwestern Energy LLC (MPC)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14 Puget Sound Energy	140	140	140	140	140	140	140	140	140	140	136	0	0	140	117
15 Colstrip #2: Regional Total	140	140	140	140	140	140	140	140	140	140	136	0	0	140	117
-Colstrip #3: Coal-															
16 Avista Corp (WWP Division)	103	103	103	103	103	103	103	103	103	0	0	51	103	103	90
17 Northwestern Energy LLC (MPC)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18 Pacific Power	69	69	69	69	69	69	69	69	69	0	0	34	69	69	60
19 Portland General Electric	137	137	137	137	137	137	137	137	137	0	0	69	137	137	120
20 Puget Sound Energy	172	172	172	172	172	172	172	172	172	0	0	86	172	172	150
21 Colstrip #3: Regional Total	481	481	481	481	481	481	481	481	481	0	0	240	481	481	421
-Colstrip #4: Coal-															
22 Avista Corp (WWP Division)	102	102	102	102	102	102	102	102	102	102	102	102	102	102	102
23 Northwestern Energy LLC (MPC)	204	204	204	204	204	204	204	204	204	204	204	204	204	204	204
24 Pacific Power	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68
25 Portland General Electric	136	136	136	136	136	136	136	136	136	136	136	136	136	136	136
26 Puget Sound Energy	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170
27 Colstrip #4: Regional Total	679	679	679	679	679	679	679	679	679	679	679	679	679	679	679
-Columbia Generating Station: Uranium-															
28 BPA - Power Business	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	399	0	864	878
29 Columbia Generating Station: Regional Total	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	399	0	864	878
-Jim Bridger #1: Coal-															
30 Idaho Power Company	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161
31 Pacific Power	322	322	322	322	322	322	322	322	322	322	322	322	322	322	322
32 Jim Bridger #1: Regional Total	483	483	483	483	483	483	483	483	483	483	483	483	483	483	483
-Jim Bridger #2: Coal-															
33 Idaho Power Company	163	163	163	163	163	163	163	163	168	168	67	67	168	163	152
34 Pacific Power	325	325	325	325	325	325	325	325	335	335	134	134	335	325	303
35 Jim Bridger #2: Regional Total	488	488	488	488	488	488	488	488	503	503	201	200	503	488	455
-Jim Bridger #3: Coal-															
36 Idaho Power Company	159	159	159	159	159	159	159	159	53	159	159	159	159	159	150
37 Pacific Power	318	318	318	318	318	318	318	318	106	318	318	318	318	318	300

**Table A-10: Regional Large Thermal
PNW Loads and Resource Study
2016 - 2017 Operating Year
[76] 2011 White Book (Final)**

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
38 Jim Bridger #3: Regional Total	477	477	477	477	477	477	477	477	159	477	477	477	477	477	450
<i>-Jim Bridger #4: Coal-</i>															
39 Idaho Power Company	154	154	154	154	154	154	154	154	154	154	154	154	154	154	154
40 Pacific Power	307	307	307	307	307	307	307	307	307	307	307	307	307	307	307
41 Jim Bridger #4: Regional Total	461	461	461	461	461	461	461	461	461	461	461	461	461	461	461
<i>-Valmy #1: Coal-</i>															
42 Idaho Power Company	114	114	114	114	114	114	114	114	74	114	114	102	114	114	110
43 Valmy #1: Regional Total	114	114	114	114	114	114	114	114	74	114	114	102	114	114	110
<i>-Valmy #2: Coal-</i>															
44 Idaho Power Company	120	120	120	120	120	120	120	120	78	120	120	107	120	120	116
45 Valmy #2: Regional Total	120	120	120	120	120	120	120	120	78	120	120	107	120	120	116
<i>-Total Large Thermal-</i>															
46 Federal System	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	399	0	864	878
47 Public Entities	53	53	53	53	53	53	53	53	53	53	53	0	53	53	49
48 Investor-Owned Entities	4064	4064	4064	4064	4064	4064	4064	4064	3680	3599	3287	2818	3869	4064	3859
49 Other Entities	1253	1253	1253	1253	1253	1253	1253	1253	1192	626	626	1071	1253	1253	1181
50 Non-NW Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
51 Total Large Thermal	6400	6400	6400	6400	6400	6400	6400	6400	5955	5309	4997	4288	5175	6234	5966

**Table A-10: Regional Large Thermal
PNW Loads and Resource Study
2017 - 2018 Operating Year
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5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Boardman: Coal-															
1 Idaho Power Company	53	53	53	53	53	53	53	53	53	53	53	0	53	53	49
2 Portland General Electric	348	348	348	348	348	348	348	348	348	348	348	0	348	348	318
3 San Diego Gas & Electric	79	79	79	79	79	79	79	79	79	79	79	0	79	79	72
4 Turlock Irrigation District	53	53	53	53	53	53	53	53	53	53	53	0	53	53	49
5 Boardman: Regional Total	534	534	534	534	534	534	534	534	534	534	534	0	534	534	488
-Centralia #1: Coal-															
6 TransAlta Energy Marketing	626	626	626	626	626	626	626	626	626	626	626	40	626	626	577
7 Centralia #1: Regional Total	626	626	626	626	626	626	626	626	626	626	626	40	626	626	577
-Centralia #2: Coal-															
8 TransAlta Energy Marketing	626	626	626	626	626	626	626	626	626	626	626	626	626	626	626
9 Centralia #2: Regional Total	626	626	626	626	626	626	626	626	626	626	626	626	626	626	626
-Colstrip #1: Coal-															
10 Northwestern Energy LLC (MPC)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 Puget Sound Energy	140	140	140	140	140	140	140	140	140	140	140	93	0	140	125
12 Colstrip #1: Regional Total	140	140	140	140	140	140	140	140	140	140	140	93	0	140	125
-Colstrip #2: Coal-															
13 Northwestern Energy LLC (MPC)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14 Puget Sound Energy	140	140	140	140	140	140	140	140	140	140	140	93	72	140	131
15 Colstrip #2: Regional Total	140	140	140	140	140	140	140	140	140	140	140	93	72	140	131
-Colstrip #3: Coal-															
16 Avista Corp (WWP Division)	103	103	103	103	103	103	103	103	103	103	103	103	103	103	103
17 Northwestern Energy LLC (MPC)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18 Pacific Power	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69
19 Portland General Electric	137	137	137	137	137	137	137	137	137	137	137	137	137	137	137
20 Puget Sound Energy	172	172	172	172	172	172	172	172	172	172	172	172	172	172	172
21 Colstrip #3: Regional Total	481	481	481	481	481	481	481	481	481	481	481	481	481	481	481
-Colstrip #4: Coal-															
22 Avista Corp (WWP Division)	102	102	102	102	102	102	102	102	102	102	102	102	102	102	102
23 Northwestern Energy LLC (MPC)	204	204	204	204	204	204	204	204	204	204	204	204	204	204	204
24 Pacific Power	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68
25 Portland General Electric	136	136	136	136	136	136	136	136	136	136	136	136	136	136	136
26 Puget Sound Energy	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170
27 Colstrip #4: Regional Total	679	679	679	679	679	679	679	679	679	679	679	679	679	679	679
-Columbia Generating Station: Uranium-															
28 BPA - Power Business	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030
29 Columbia Generating Station: Regional Total	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030
-Jim Bridger #1: Coal-															
30 Idaho Power Company	161	161	161	161	161	161	161	161	161	161	125	54	161	161	150
31 Pacific Power	322	322	322	322	322	322	322	322	322	322	249	107	322	322	301
32 Jim Bridger #1: Regional Total	483	483	483	483	483	483	483	483	483	483	374	161	483	483	451
-Jim Bridger #2: Coal-															
33 Idaho Power Company	163	163	163	163	163	163	163	163	168	168	168	168	168	163	164
34 Pacific Power	325	325	325	325	325	325	325	325	335	335	335	335	335	325	328
35 Jim Bridger #2: Regional Total	488	488	488	488	488	488	488	488	503	503	503	503	503	488	493
-Jim Bridger #3: Coal-															
36 Idaho Power Company	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159
37 Pacific Power	318	318	318	318	318	318	318	318	318	318	318	318	318	318	318

**Table A-10: Regional Large Thermal
PNW Loads and Resource Study
2017 - 2018 Operating Year
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Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
38 Jim Bridger #3: Regional Total	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477
<i>-Jim Bridger #4: Coal-</i>															
39 Idaho Power Company	154	154	154	154	154	154	154	154	154	110	44	154	154	154	147
40 Pacific Power	307	307	307	307	307	307	307	307	307	219	88	307	307	307	295
41 Jim Bridger #4: Regional Total	461	461	461	461	461	461	461	461	461	329	132	461	461	461	442
<i>-Valmy #1: Coal-</i>															
42 Idaho Power Company	114	114	114	114	114	114	114	114	74	114	114	102	114	114	110
43 Valmy #1: Regional Total	114	114	114	114	114	114	114	114	74	114	114	102	114	114	110
<i>-Valmy #2: Coal-</i>															
44 Idaho Power Company	120	120	120	120	120	120	120	120	78	120	120	107	120	120	116
45 Valmy #2: Regional Total	120	120	120	120	120	120	120	120	78	120	120	107	120	120	116
<i>-Total Large Thermal-</i>															
46 Federal System	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030
47 Public Entities	53	53	53	53	53	53	53	53	53	53	53	0	53	53	49
48 Investor-Owned Entities	4064	4064	4064	4064	4064	4064	4064	4064	3997	3948	3642	3157	3871	4064	3944
49 Other Entities	1253	1253	1253	1253	1253	1253	1253	1253	1253	1253	1253	667	1253	1253	1203
50 Non-NW Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
51 Total Large Thermal	6400	6400	6400	6400	6400	6400	6400	6400	6333	6284	5978	4854	6207	6400	6225

**Table A-10: Regional Large Thermal
PNW Loads and Resource Study
2018 - 2019 Operating Year
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5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Boardman: Coal-															
1 Idaho Power Company	53	53	53	53	53	53	53	53	53	53	53	0	53	53	49
2 Portland General Electric	348	348	348	348	348	348	348	348	348	348	348	0	348	348	318
3 San Diego Gas & Electric	79	79	79	79	79	79	79	79	79	79	79	0	79	79	72
4 Turlock Irrigation District	53	53	53	53	53	53	53	53	53	53	53	0	53	53	49
5 Boardman: Regional Total	534	534	534	534	534	534	534	534	534	534	534	0	534	534	488
-Centralia #1: Coal-															
6 TransAlta Energy Marketing	626	626	626	626	626	626	626	626	626	626	626	626	626	626	626
7 Centralia #1: Regional Total	626	626	626	626	626	626	626	626	626	626	626	626	626	626	626
-Centralia #2: Coal-															
8 TransAlta Energy Marketing	626	626	626	626	626	626	626	626	626	626	626	40	626	626	577
9 Centralia #2: Regional Total	626	626	626	626	626	626	626	626	626	626	626	40	626	626	577
-Colstrip #1: Coal-															
10 Northwestern Energy LLC (MPC)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 Puget Sound Energy	140	140	140	140	140	140	140	140	140	140	112	114	140	140	137
12 Colstrip #1: Regional Total	140	140	140	140	140	140	140	140	140	140	112	114	140	140	137
-Colstrip #2: Coal-															
13 Northwestern Energy LLC (MPC)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14 Puget Sound Energy	140	140	140	140	140	140	140	140	140	140	112	114	140	140	137
15 Colstrip #2: Regional Total	140	140	140	140	140	140	140	140	140	140	112	114	140	140	137
-Colstrip #3: Coal-															
16 Avista Corp (WWP Division)	103	103	103	103	103	103	103	103	103	103	103	103	103	103	103
17 Northwestern Energy LLC (MPC)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18 Pacific Power	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69
19 Portland General Electric	137	137	137	137	137	137	137	137	137	137	137	137	137	137	137
20 Puget Sound Energy	172	172	172	172	172	172	172	172	172	172	172	172	172	172	172
21 Colstrip #3: Regional Total	481	481	481	481	481	481	481	481	481	481	481	481	481	481	481
-Colstrip #4: Coal-															
22 Avista Corp (WWP Division)	102	102	102	102	102	102	102	102	102	0	0	51	102	102	89
23 Northwestern Energy LLC (MPC)	204	204	204	204	204	204	204	204	204	0	0	102	204	204	178
24 Pacific Power	68	68	68	68	68	68	68	68	68	0	0	34	68	68	59
25 Portland General Electric	136	136	136	136	136	136	136	136	136	0	0	68	136	136	119
26 Puget Sound Energy	170	170	170	170	170	170	170	170	170	0	0	85	170	170	149
27 Colstrip #4: Regional Total	679	679	679	679	679	679	679	679	679	0	0	340	679	679	594
-Columbia Generating Station: Uranium-															
28 BPA - Power Business	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	332	0	930	878
29 Columbia Generating Station: Regional Total	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	332	0	930	878
-Jim Bridger #1: Coal-															
30 Idaho Power Company	161	161	161	161	161	161	161	161	161	161	129	161	161	161	160
31 Pacific Power	322	322	322	322	322	322	322	322	322	322	257	322	322	322	319
32 Jim Bridger #1: Regional Total	483	483	483	483	483	483	483	483	483	483	386	483	483	483	479
-Jim Bridger #2: Coal-															
33 Idaho Power Company	163	163	163	163	163	163	163	163	103	168	168	168	168	163	159
34 Pacific Power	325	325	325	325	325	325	325	325	206	335	335	335	335	325	317
35 Jim Bridger #2: Regional Total	488	488	488	488	488	488	488	488	308	503	503	503	503	488	476
-Jim Bridger #3: Coal-															
36 Idaho Power Company	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159
37 Pacific Power	318	318	318	318	318	318	318	318	318	318	318	318	318	318	318

**Table A-10: Regional Large Thermal
PNW Loads and Resource Study
2018 - 2019 Operating Year
[76] 2011 White Book (Final)**

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
38 Jim Bridger #3: Regional Total	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477
<i>-Jim Bridger #4: Coal-</i>															
39 Idaho Power Company	154	154	154	154	154	154	154	154	154	110	44	154	154	154	147
40 Pacific Power	307	307	307	307	307	307	307	307	307	219	88	307	307	307	295
41 Jim Bridger #4: Regional Total	461	461	461	461	461	461	461	461	461	329	132	461	461	461	442
<i>-Valmy #1: Coal-</i>															
42 Idaho Power Company	114	114	114	114	114	114	114	114	74	114	114	102	114	114	110
43 Valmy #1: Regional Total	114	114	114	114	114	114	114	114	74	114	114	102	114	114	110
<i>-Valmy #2: Coal-</i>															
44 Idaho Power Company	120	120	120	120	120	120	120	120	78	120	120	107	120	120	116
45 Valmy #2: Regional Total	120	120	120	120	120	120	120	120	78	120	120	107	120	120	116
<i>-Total Large Thermal-</i>															
46 Federal System	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	332	0	930	878
47 Public Entities	53	53	53	53	53	53	53	53	53	53	53	0	53	53	49
48 Investor-Owned Entities	4064	4064	4064	4064	4064	4064	4064	4064	3803	3269	2919	3181	4080	4064	3889
49 Other Entities	1253	1253	1253	1253	1253	1253	1253	1253	1253	1253	1253	667	1253	1253	1203
50 Non-NW Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
51 Total Large Thermal	6400	6400	6400	6400	6400	6400	6400	6400	6139	5605	5255	4179	5386	6300	6018

**Table A-10: Regional Large Thermal
PNW Loads and Resource Study
2019 - 2020 Operating Year
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5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Boardman: Coal-															
1 Idaho Power Company	53	53	53	53	53	53	53	53	53	53	53	0	53	53	49
2 Portland General Electric	348	348	348	348	348	348	348	348	348	348	348	0	348	348	319
3 San Diego Gas & Electric	79	79	79	79	79	79	79	79	79	79	79	0	79	79	72
4 Turlock Irrigation District	53	53	53	53	53	53	53	53	53	53	53	0	53	53	49
5 Boardman: Regional Total	534	534	534	534	534	534	534	534	534	534	534	0	534	534	489
-Centralia #1: Coal-															
6 TransAlta Energy Marketing	626	626	626	626	626	626	626	626	626	626	626	40	626	626	577
7 Centralia #1: Regional Total	626	626	626	626	626	626	626	626	626	626	626	40	626	626	577
-Centralia #2: Coal-															
8 TransAlta Energy Marketing	626	626	626	626	626	626	626	626	626	626	626	626	626	626	626
9 Centralia #2: Regional Total	626	626	626	626	626	626	626	626	626	626	626	626	626	626	626
-Colstrip #1: Coal-															
10 Northwestern Energy LLC (MPC)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 Puget Sound Energy	140	140	140	140	140	140	140	140	140	140	136	68	70	140	128
12 Colstrip #1: Regional Total	140	140	140	140	140	140	140	140	140	140	136	68	70	140	128
-Colstrip #2: Coal-															
13 Northwestern Energy LLC (MPC)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14 Puget Sound Energy	140	140	140	140	140	140	140	140	140	140	136	0	0	140	117
15 Colstrip #2: Regional Total	140	140	140	140	140	140	140	140	140	140	136	0	0	140	117
-Colstrip #3: Coal-															
16 Avista Corp (WWP Division)	103	103	103	103	103	103	103	103	103	0	0	51	103	103	90
17 Northwestern Energy LLC (MPC)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18 Pacific Power	69	69	69	69	69	69	69	69	69	0	0	34	69	69	60
19 Portland General Electric	137	137	137	137	137	137	137	137	137	0	0	69	137	137	120
20 Puget Sound Energy	172	172	172	172	172	172	172	172	172	0	0	86	172	172	150
21 Colstrip #3: Regional Total	481	481	481	481	481	481	481	481	481	0	0	240	481	481	421
-Colstrip #4: Coal-															
22 Avista Corp (WWP Division)	102	102	102	102	102	102	102	102	102	102	102	102	102	102	102
23 Northwestern Energy LLC (MPC)	204	204	204	204	204	204	204	204	204	204	204	204	204	204	204
24 Pacific Power	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68
25 Portland General Electric	136	136	136	136	136	136	136	136	136	136	136	136	136	136	136
26 Puget Sound Energy	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170
27 Colstrip #4: Regional Total	679	679	679	679	679	679	679	679	679	679	679	679	679	679	679
-Columbia Generating Station: Uranium-															
28 BPA - Power Business	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030
29 Columbia Generating Station: Regional Total	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030
-Jim Bridger #1: Coal-															
30 Idaho Power Company	161	161	161	161	161	161	161	161	150	107	0	54	161	161	142
31 Pacific Power	322	322	322	322	322	322	322	322	301	215	0	107	322	322	285
32 Jim Bridger #1: Regional Total	483	483	483	483	483	483	483	483	451	322	0	161	483	483	427
-Jim Bridger #2: Coal-															
33 Idaho Power Company	163	163	163	163	163	163	163	163	168	168	168	168	168	163	164
34 Pacific Power	325	325	325	325	325	325	325	325	335	335	335	335	335	325	328
35 Jim Bridger #2: Regional Total	488	488	488	488	488	488	488	488	503	503	503	503	503	488	493
-Jim Bridger #3: Coal-															
36 Idaho Power Company	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159
37 Pacific Power	318	318	318	318	318	318	318	318	318	318	318	318	318	318	318

**Table A-10: Regional Large Thermal
PNW Loads and Resource Study
2019 - 2020 Operating Year
[76] 2011 White Book (Final)**

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
38 Jim Bridger #3: Regional Total	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477
<i>-Jim Bridger #4: Coal-</i>															
39 Idaho Power Company	154	154	154	154	154	154	154	154	154	110	44	154	154	154	147
40 Pacific Power	307	307	307	307	307	307	307	307	307	219	88	307	307	307	295
41 Jim Bridger #4: Regional Total	461	461	461	461	461	461	461	461	461	329	132	461	461	461	442
<i>-Valmy #1: Coal-</i>															
42 Idaho Power Company	114	114	114	114	114	114	114	114	74	114	114	102	114	114	110
43 Valmy #1: Regional Total	114	114	114	114	114	114	114	114	74	114	114	102	114	114	110
<i>-Valmy #2: Coal-</i>															
44 Idaho Power Company	120	120	120	120	120	120	120	120	78	120	120	107	120	120	116
45 Valmy #2: Regional Total	120	120	120	120	120	120	120	120	78	120	120	107	120	120	116
<i>-Total Large Thermal-</i>															
46 Federal System	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030
47 Public Entities	53	53	53	53	53	53	53	53	53	53	53	0	53	53	49
48 Investor-Owned Entities	4064	4064	4064	4064	4064	4064	4064	4064	3965	3306	2777	2799	3869	4064	3849
49 Other Entities	1253	1253	1253	1253	1253	1253	1253	1253	1253	1253	1253	667	1253	1253	1203
50 Non-NW Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
51 Total Large Thermal	6400	6400	6400	6400	6400	6400	6400	6400	6301	5642	5113	4495	6205	6400	6131

Table A-10: Regional Large Thermal
PNW Loads and Resource Study
2020 - 2021 Operating Year
[76] 2011 White Book (Final)

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Boardman: Coal-															
1 Idaho Power Company	53	53	53	53	53	53	0	0	0	0	0	0	0	0	22
2 Portland General Electric	348	348	348	348	348	348	0	0	0	0	0	0	0	0	146
3 San Diego Gas & Electric	79	79	79	79	79	79	0	0	0	0	0	0	0	0	33
4 Turlock Irrigation District	53	53	53	53	53	53	0	0	0	0	0	0	0	0	22
5 Boardman: Regional Total	534	534	534	534	534	534	0	0	0	0	0	0	0	0	224
-Centralia #1: Coal-															
6 TransAlta Energy Marketing	626	626	626	626	626	0	0	0	0	0	0	0	0	0	209
7 Centralia #1: Regional Total	626	626	626	626	626	0	0	0	0	0	0	0	0	0	209
-Centralia #2: Coal-															
8 TransAlta Energy Marketing	626	626	626	626	626	626	626	626	626	626	626	40	626	626	577
9 Centralia #2: Regional Total	626	626	626	626	626	626	626	626	626	626	626	40	626	626	577
-Colstrip #1: Coal-															
10 Northwestern Energy LLC (MPC)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 Puget Sound Energy	140	140	140	140	140	140	140	140	140	140	140	93	0	140	125
12 Colstrip #1: Regional Total	140	140	140	140	140	140	140	140	140	140	140	93	0	140	125
-Colstrip #2: Coal-															
13 Northwestern Energy LLC (MPC)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14 Puget Sound Energy	140	140	140	140	140	140	140	140	140	140	140	93	72	140	131
15 Colstrip #2: Regional Total	140	140	140	140	140	140	140	140	140	140	140	93	72	140	131
-Colstrip #3: Coal-															
16 Avista Corp (WWP Division)	103	103	103	103	103	103	103	103	103	103	103	103	103	103	103
17 Northwestern Energy LLC (MPC)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18 Pacific Power	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69
19 Portland General Electric	137	137	137	137	137	137	137	137	137	137	137	137	137	137	137
20 Puget Sound Energy	172	172	172	172	172	172	172	172	172	172	172	172	172	172	172
21 Colstrip #3: Regional Total	481	481	481	481	481	481	481	481	481	481	481	481	481	481	481
-Colstrip #4: Coal-															
22 Avista Corp (WWP Division)	102	102	102	102	102	102	102	102	102	102	102	102	102	102	102
23 Northwestern Energy LLC (MPC)	204	204	204	204	204	204	204	204	204	204	204	204	204	204	204
24 Pacific Power	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68
25 Portland General Electric	136	136	136	136	136	136	136	136	136	136	136	136	136	136	136
26 Puget Sound Energy	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170
27 Colstrip #4: Regional Total	679	679	679	679	679	679	679	679	679	679	679	679	679	679	679
-Columbia Generating Station: Uranium-															
28 BPA - Power Business	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	465	0	797	878
29 Columbia Generating Station: Regional Total	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	465	0	797	878
-Jim Bridger #1: Coal-															
30 Idaho Power Company	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161
31 Pacific Power	322	322	322	322	322	322	322	322	322	322	322	322	322	322	322
32 Jim Bridger #1: Regional Total	483	483	483	483	483	483	483	483	483	483	483	483	483	483	483
-Jim Bridger #2: Coal-															
33 Idaho Power Company	163	163	163	163	163	163	163	163	103	168	168	168	168	163	159
34 Pacific Power	325	325	325	325	325	325	325	325	206	335	335	335	335	325	317
35 Jim Bridger #2: Regional Total	488	488	488	488	488	488	488	488	308	503	503	503	503	488	476
-Jim Bridger #3: Coal-															
36 Idaho Power Company	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159
37 Pacific Power	318	318	318	318	318	318	318	318	318	318	318	318	318	318	318

**Table A-10: Regional Large Thermal
PNW Loads and Resource Study
2020 - 2021 Operating Year
[76] 2011 White Book (Final)**

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
38 Jim Bridger #3: Regional Total	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477
<i>-Jim Bridger #4: Coal-</i>															
39 Idaho Power Company	154	154	154	154	154	154	154	154	154	110	44	154	154	154	147
40 Pacific Power	307	307	307	307	307	307	307	307	307	219	88	307	307	307	295
41 Jim Bridger #4: Regional Total	461	461	461	461	461	461	461	461	461	329	132	461	461	461	442
<i>-Valmy #1: Coal-</i>															
42 Idaho Power Company	114	114	114	114	114	114	114	114	74	114	114	102	114	114	110
43 Valmy #1: Regional Total	114	114	114	114	114	114	114	114	74	114	114	102	114	114	110
<i>-Valmy #2: Coal-</i>															
44 Idaho Power Company	120	120	120	120	120	120	120	120	78	120	120	107	120	120	116
45 Valmy #2: Regional Total	120	120	120	120	120	120	120	120	78	120	120	107	120	120	116
<i>-Total Large Thermal-</i>															
46 Federal System	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	465	0	797	878
47 Public Entities	53	53	53	53	53	53	0	0	0	0	0	0	0	0	22
48 Investor-Owned Entities	4064	4064	4064	4064	4064	4064	3584	3584	3322	3467	3271	3479	3391	3584	3721
49 Other Entities	1253	1253	1253	1253	1253	626	626	626	626	626	626	40	626	626	786
50 Non-NW Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
51 Total Large Thermal	6400	6400	6400	6400	6400	5774	5240	5240	4979	5124	4927	3984	4017	5007	5407

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Table A-15
Canadian Entitlement Return for Canada
Monthly OY 2012 – 2021
Average Energy in Megawatts

Power Services

Reports Powered by:



Loads and Resources Information System

**Table A-15: Canadian Entitlement Return For Canada
PNW Loads and Resource Study
2011 - 2012 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-BPA Canada-															
1 BPA: Regional Totals	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Priest Rapids CER for Canada-															
2 GCPD to BPA	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
3 Priest Rapids: Regional Totals	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
-Wanapum CER for Canada-															
4 GCPD to BPA	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29
5 Wanapum: Regional Totals	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29
-Rock Island P.H. #1 CER for Canada-															
6 CHPD to BPA	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
7 Rock Island P.H. #1: Regional Totals	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
-Rock Island P.H. #2 CER for Canada-															
8 CHPD to BPA	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.1	7.1	7.1	7.1	7.1	7.2
9 Rock Island P.H. #2: Regional Totals	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.1	7.1	7.1	7.1	7.1	7.2
-Rocky Reach CER for Canada-															
10 CHPD to BPA	39	39	39	39	39	39	39	39	39	38	38	38	38	38	39
11 Rocky Reach: Regional Totals	39	39	39	39	39	39	39	39	39	38	38	38	38	38	39
-Wells CER for Canada-															
12 DOPD to BPA	25	25	25	25	25	25	25	25	25	24	24	24	24	24	25
13 Wells: Regional Totals	25	25	25	25	25	25	25	25	25	24	24	24	24	24	25
-Total CER For Canada-															
14 Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15 Public Entities	142	142	142	142	142	142	142	142	142	139	139	139	139	139	141
16 Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18 Non-NW Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19 Total CER For Canada	142	142	142	142	142	142	142	142	142	139	139	139	139	139	141

**Table A-15: Canadian Entitlement Return For Canada
PNW Loads and Resource Study
2012 - 2013 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-BPA Canada-															
1 BPA: Regional Totals	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Priest Rapids CER for Canada-															
2 GCPD to BPA	30	30	30	30	30	30	30	30	30	29	29	29	29	29	29
3 Priest Rapids: Regional Totals	30	30	30	30	30	30	30	30	30	29	29	29	29	29	29
-Wanapum CER for Canada-															
4 GCPD to BPA	29	29	29	29	29	29	29	29	29	28	28	28	28	28	29
5 Wanapum: Regional Totals	29	29	29	29	29	29	29	29	29	28	28	28	28	28	29
-Rock Island P.H. #1 CER for Canada-															
6 CHPD to BPA	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
7 Rock Island P.H. #1: Regional Totals	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
-Rock Island P.H. #2 CER for Canada-															
8 CHPD to BPA	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7	7	7	7	7	7.1
9 Rock Island P.H. #2: Regional Totals	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7	7	7	7	7	7.1
-Rocky Reach CER for Canada-															
10 CHPD to BPA	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38
11 Rocky Reach: Regional Totals	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38
-Wells CER for Canada-															
12 DOPD to BPA	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
13 Wells: Regional Totals	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
-Total CER For Canada-															
14 Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15 Public Entities	139	139	139	139	139	139	139	139	139	137	137	137	137	137	138
16 Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18 Non-NW Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19 Total CER For Canada	139	139	139	139	139	139	139	139	139	137	137	137	137	137	138

**Table A-15: Canadian Entitlement Return For Canada
PNW Loads and Resource Study
2013 - 2014 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-BPA Canada-															
1 BPA: Regional Totals	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Priest Rapids CER for Canada-															
2 GCPD to BPA	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29
3 Priest Rapids: Regional Totals	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29
-Wanapum CER for Canada-															
4 GCPD to BPA	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
5 Wanapum: Regional Totals	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
-Rock Island P.H. #1 CER for Canada-															
6 CHPD to BPA	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
7 Rock Island P.H. #1: Regional Totals	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
-Rock Island P.H. #2 CER for Canada-															
8 CHPD to BPA	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
9 Rock Island P.H. #2: Regional Totals	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
-Rocky Reach CER for Canada-															
10 CHPD to BPA	38	38	38	38	38	38	38	38	38	37	37	37	37	37	37
11 Rocky Reach: Regional Totals	38	38	38	38	38	38	38	38	38	37	37	37	37	37	37
-Wells CER for Canada-															
12 DOPD to BPA	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
13 Wells: Regional Totals	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
-Total CER For Canada-															
14 Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15 Public Entities	137	137	137	137	137	137	137	137	137	136	136	136	136	136	137
16 Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18 Non-NW Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19 Total CER For Canada	137	137	137	137	137	137	137	137	137	136	136	136	136	136	137

**Table A-15: Canadian Entitlement Return For Canada
PNW Loads and Resource Study
2014 - 2015 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-BPA Canada-															
1 BPA: Regional Totals	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Priest Rapids CER for Canada-															
2 GCPD to BPA	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29
3 Priest Rapids: Regional Totals	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29
-Wanapum CER for Canada-															
4 GCPD to BPA	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
5 Wanapum: Regional Totals	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
-Rock Island P.H. #1 CER for Canada-															
6 CHPD to BPA	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
7 Rock Island P.H. #1: Regional Totals	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
-Rock Island P.H. #2 CER for Canada-															
8 CHPD to BPA	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
9 Rock Island P.H. #2: Regional Totals	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
-Rocky Reach CER for Canada-															
10 CHPD to BPA	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37
11 Rocky Reach: Regional Totals	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37
-Wells CER for Canada-															
12 DOPD to BPA	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
13 Wells: Regional Totals	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
-Total CER For Canada-															
14 Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15 Public Entities	136	136	136	136	136	136	136	136	136	136	136	136	136	136	136
16 Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18 Non-NW Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19 Total CER For Canada	136	136	136	136	136	136	136	136	136	136	136	136	136	136	136

**Table A-15: Canadian Entitlement Return For Canada
PNW Loads and Resource Study
2015 - 2016 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-BPA Canada-															
1 BPA: Regional Totals	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Priest Rapids CER for Canada-															
2 GCPD to BPA	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29
3 Priest Rapids: Regional Totals	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29
-Wanapum CER for Canada-															
4 GCPD to BPA	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
5 Wanapum: Regional Totals	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
-Rock Island P.H. #1 CER for Canada-															
6 CHPD to BPA	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
7 Rock Island P.H. #1: Regional Totals	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
-Rock Island P.H. #2 CER for Canada-															
8 CHPD to BPA	7	7	7	7	7	7	7	7	7	6.9	6.9	6.9	6.9	6.9	7.0
9 Rock Island P.H. #2: Regional Totals	7	7	7	7	7	7	7	7	7	6.9	6.9	6.9	6.9	6.9	7.0
-Rocky Reach CER for Canada-															
10 CHPD to BPA	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37
11 Rocky Reach: Regional Totals	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37
-Wells CER for Canada-															
12 DOPD to BPA	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
13 Wells: Regional Totals	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
-Total CER For Canada-															
14 Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15 Public Entities	136	136	136	136	136	136	136	136	136	135	135	135	135	135	135
16 Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18 Non-NW Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19 Total CER For Canada	136	136	136	136	136	136	136	136	136	135	135	135	135	135	135

**Table A-15: Canadian Entitlement Return For Canada
PNW Loads and Resource Study
2016 - 2017 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-BPA Canada-															
1 BPA: Regional Totals	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Priest Rapids CER for Canada-															
2 GCPD to BPA	29	29	29	29	29	29	29	29	29	28	28	28	28	28	29
3 Priest Rapids: Regional Totals	29	29	29	29	29	29	29	29	29	28	28	28	28	28	29
-Wanapum CER for Canada-															
4 GCPD to BPA	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
5 Wanapum: Regional Totals	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
-Rock Island P.H. #1 CER for Canada-															
6 CHPD to BPA	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
7 Rock Island P.H. #1: Regional Totals	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
-Rock Island P.H. #2 CER for Canada-															
8 CHPD to BPA	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.8	6.8	6.8	6.8	6.8	6.9
9 Rock Island P.H. #2: Regional Totals	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.8	6.8	6.8	6.8	6.8	6.9
-Rocky Reach CER for Canada-															
10 CHPD to BPA	37	37	37	37	37	37	37	37	37	36	36	36	36	36	37
11 Rocky Reach: Regional Totals	37	37	37	37	37	37	37	37	37	36	36	36	36	36	37
-Wells CER for Canada-															
12 DOPD to BPA	24	24	24	24	24	24	24	24	24	23	23	23	23	23	23
13 Wells: Regional Totals	24	24	24	24	24	24	24	24	24	23	23	23	23	23	23
-Total CER For Canada-															
14 Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15 Public Entities	135	135	135	135	135	135	135	135	135	133	133	133	133	133	134
16 Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18 Non-NW Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19 Total CER For Canada	135	135	135	135	135	135	135	135	135	133	133	133	133	133	134

**Table A-15: Canadian Entitlement Return For Canada
PNW Loads and Resource Study
2017 - 2018 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-BPA Canada-															
1 BPA: Regional Totals	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Priest Rapids CER for Canada-															
2 GCPD to BPA	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
3 Priest Rapids: Regional Totals	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
-Wanapum CER for Canada-															
4 GCPD to BPA	28	28	28	28	28	28	28	28	28	27	27	27	27	27	27
5 Wanapum: Regional Totals	28	28	28	28	28	28	28	28	28	27	27	27	27	27	27
-Rock Island P.H. #1 CER for Canada-															
6 CHPD to BPA	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
7 Rock Island P.H. #1: Regional Totals	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
-Rock Island P.H. #2 CER for Canada-															
8 CHPD to BPA	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
9 Rock Island P.H. #2: Regional Totals	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
-Rocky Reach CER for Canada-															
10 CHPD to BPA	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36
11 Rocky Reach: Regional Totals	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36
-Wells CER for Canada-															
12 DOPD to BPA	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23
13 Wells: Regional Totals	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23
-Total CER For Canada-															
14 Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15 Public Entities	133	133	133	133	133	133	133	133	133	132	132	132	132	132	133
16 Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18 Non-NW Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19 Total CER For Canada	133	133	133	133	133	133	133	133	133	132	132	132	132	132	133

**Table A-15: Canadian Entitlement Return For Canada
PNW Loads and Resource Study
2018 - 2019 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-BPA Canada-															
1 BPA: Regional Totals	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Priest Rapids CER for Canada-															
2 GCPD to BPA	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
3 Priest Rapids: Regional Totals	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
-Wanapum CER for Canada-															
4 GCPD to BPA	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27
5 Wanapum: Regional Totals	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27
-Rock Island P.H. #1 CER for Canada-															
6 CHPD to BPA	11	11	11	11	11	11	11	11	11	10	10	10	10	10	11
7 Rock Island P.H. #1: Regional Totals	11	11	11	11	11	11	11	11	11	10	10	10	10	10	11
-Rock Island P.H. #2 CER for Canada-															
8 CHPD to BPA	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.7	6.7	6.7	6.7	6.7	6.8
9 Rock Island P.H. #2: Regional Totals	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.7	6.7	6.7	6.7	6.7	6.8
-Rocky Reach CER for Canada-															
10 CHPD to BPA	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36
11 Rocky Reach: Regional Totals	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36
-Wells CER for Canada-															
12 DOPD to BPA	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23
13 Wells: Regional Totals	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23
-Total CER For Canada-															
14 Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15 Public Entities	132	132	132	132	132	132	132	132	132	130	130	130	130	130	131
16 Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18 Non-NW Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19 Total CER For Canada	132	132	132	132	132	132	132	132	132	130	130	130	130	130	131

**Table A-15: Canadian Entitlement Return For Canada
PNW Loads and Resource Study
2019 - 2020 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-BPA Canada-															
1 BPA: Regional Totals	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Priest Rapids CER for Canada-															
2 GCPD to BPA	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
3 Priest Rapids: Regional Totals	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
-Wanapum CER for Canada-															
4 GCPD to BPA	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27
5 Wanapum: Regional Totals	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27
-Rock Island P.H. #1 CER for Canada-															
6 CHPD to BPA	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
7 Rock Island P.H. #1: Regional Totals	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
-Rock Island P.H. #2 CER for Canada-															
8 CHPD to BPA	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.6	6.6	6.6	6.6	6.6	6.7
9 Rock Island P.H. #2: Regional Totals	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.6	6.6	6.6	6.6	6.6	6.7
-Rocky Reach CER for Canada-															
10 CHPD to BPA	36	36	36	36	36	36	36	36	36	35	35	35	35	35	35
11 Rocky Reach: Regional Totals	36	36	36	36	36	36	36	36	36	35	35	35	35	35	35
-Wells CER for Canada-															
12 DOPD to BPA	23	23	23	23	23	23	23	23	23	22	22	22	22	22	23
13 Wells: Regional Totals	23	23	23	23	23	23	23	23	23	22	22	22	22	22	23
-Total CER For Canada-															
14 Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15 Public Entities	130	130	130	130	130	130	130	130	130	129	129	129	129	129	130
16 Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18 Non-NW Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19 Total CER For Canada	130	130	130	130	130	130	130	130	130	129	129	129	129	129	130

**Table A-15: Canadian Entitlement Return For Canada
PNW Loads and Resource Study
2020 - 2021 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-BPA Canada-															
1 BPA: Regional Totals	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Priest Rapids CER for Canada-															
2 GCPD to BPA	28	28	28	28	28	28	28	28	28	27	27	27	27	27	27
3 Priest Rapids: Regional Totals	28	28	28	28	28	28	28	28	28	27	27	27	27	27	27
-Wanapum CER for Canada-															
4 GCPD to BPA	27	27	27	27	27	27	27	27	27	26	26	26	26	26	26
5 Wanapum: Regional Totals	27	27	27	27	27	27	27	27	27	26	26	26	26	26	26
-Rock Island P.H. #1 CER for Canada-															
6 CHPD to BPA	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
7 Rock Island P.H. #1: Regional Totals	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
-Rock Island P.H. #2 CER for Canada-															
8 CHPD to BPA	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.5	6.5	6.5	6.5	6.5	6.6
9 Rock Island P.H. #2: Regional Totals	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.5	6.5	6.5	6.5	6.5	6.6
-Rocky Reach CER for Canada-															
10 CHPD to BPA	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
11 Rocky Reach: Regional Totals	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
-Wells CER for Canada-															
12 DOPD to BPA	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22
13 Wells: Regional Totals	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22
-Total CER For Canada-															
14 Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15 Public Entities	129	129	129	129	129	129	129	129	129	127	127	127	127	127	128
16 Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18 Non-NW Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19 Total CER For Canada	129	129	129	129	129	129	129	129	129	127	127	127	127	127	128

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Table A-16
Intra-Regional Transfers
Monthly OY 2012 – 2021
Average Energy in Megawatts

Power Services

Reports Powered by:



Loads and Resources Information System

**Table A-16: Regional Intra-Regional Transfers
PNW Loads and Resource Study
2011 - 2012 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Intra-Regional Transfers-															
1 AVWP To BPA WP3Set	0	0	55	58	55	55	58	56	55	61	55	0	55	0	42
2 AVWP To PGE CapS	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45
3 BPA To AVWP WP3Set	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 BPA To AVWP WP3Set	0	0	0	0	101	101	101	101	50	50	49	0	0	0	42
5 BPA To CCPD SFIBlk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6 BPA To COPD PwrS	23	23	18	17	18	17	18	15	22	28	29	25	27	22	21
7 BPA To EMPD PwrS	5.4	5.3	4.2	3.9	4.2	4	4.2	3.6	5	6.4	6.7	5.8	6.2	5.2	4.9
8 BPA To Other Entities	340	342	214	131	130	131	121	129	131	417	406	410	406	0	213
9 BPA To PPL PwrS	79	65	59	0	0	0	0	0	0	0	0	0	0	0	11
10 BPA To PPL PwrS	0	0	0	145	206	277	277	256	246	216	187	54	58	74	149
11 BPA To PPL S/Pwr/X	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12 BPA To PPL S/Pwr/X	0	0	0	0	0	0	0	0	0	0	0	0	35	34	5.7
13 BPA To PPL S/N/X	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14 BPA To PPL S/N/X	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15 BPA To PPL CapS	184	184	0	0	0	0	0	0	0	0	0	0	0	0	16
16 BPA To PSE WP3Set	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17 BPA To PSE WP3Set	0	0	0	0	101	101	101	101	50	50	49	0	0	0	42
18 BPA To PSE PwrS	0	0	0	0	2.4	2.4	2.4	2.5	0	0	0	0	0	0	0.8
19 BPA To SHPD PwrS	7.1	7	5.6	5.2	5.6	5.4	5.5	4.8	6.7	8.6	8.9	7.7	8.3	6.9	6.5
20 BPA To TBL PwrS	9.1	9.1	9.1	0	0	0	0	0	0	0	0	0	0	0	1.5
21 BPA To TBL PwrS	0	0	0	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	7.6
22 CCPD To Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23 CIDF To UPL PwrS	14	14	0.5	0	0	0	0	0	0	0	0	12	18	20	5.5
24 COPD To BPA PwrS	25	22	16	17	19	17	18	14	25	30	28	24	27	21	21
25 DOPD To Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 EMPD To BPA PwrS	5.7	5.2	3.8	3.9	4.3	4.0	4.2	3.3	5.7	7.0	6.4	5.6	6.3	4.8	4.8
27 EWEB To PGE CapS	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
28 GCPD To AVWP PwrS	20	20	19	0	0	0	0	0	0	0	0	0	0	0	3.2
29 GCPD To EWEB PwrS	5.5	5.5	5.3	0	0	0	0	0	0	0	0	0	0	0	0.9
30 GCPD To FGRV PwrS	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0.3
31 GCPD To FREC PwrS	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.2
32 GCPD To KITT PwrS	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.1
33 GCPD To KOOT PwrS	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.2
34 GCPD To LVE PwrS	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.2
35 GCPD To LVE PwrS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36 GCPD To MCMN PwrS	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0.3
37 GCPD To MTRF PwrS	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0.3
38 GCPD To PGE PwrS	45	45	43	0	0	0	0	0	0	0	0	0	0	0	7.3
39 GCPD To PPL PwrS	45	45	43	0	0	0	0	0	0	0	0	0	0	0	7.3
40 GCPD To PPL PwrS	13	13	9.9	7.9	6.6	8.2	8.6	7.4	7.8	10	10	13	14	14	10.0
41 GCPD To PSE PwrS	26	26	25	0	0	0	0	0	0	0	0	0	0	0	4.2
42 GCPD To TPU PwrS	11	11	11	0	0	0	0	0	0	0	0	0	0	0	1.8
43 GHPD To GHP PwrS	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
44 NWCP To PSE PwrS	2.4	2.4	4.7	2.4	2.4	4.7	4.9	4.9	4.5	3.7	3.4	4.8	2.3	2.3	3.7
45 NWE To MVP PwrS	11	11	11	11	7.5	7.5	7.5	7.5	7.5	11	11	11	11	11	9.6
46 Other Entities To BPA	632	617	231	42	205	200	199	203	224	217	229	55	65	56	194
47 Other Entities To COPD	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
48 Other Entities To DOPD	12	12	12	19	19	20	19	18	19	12	12	12	12	12	16
49 Other Entities To PGE	117	117	117	92	92	92	92	92	92	92	92	92	92	92	96
50 PGE To AVWP PkRepl	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45
51 PGE To PPL Cove Repl	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
52 PPL To BPA S/Pwr/X	0	0	57	0	0	0	0	0	0	0	0	0	0	0	4.7
53 PPL To BPA S/Pwr/X	0	0	0	57	57	0	0	0	0	0	0	0	0	0	9.5
54 PPL To BPA S/N/X	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
55 PPL To BPA S/N/X	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
56 PPL To BPA PkRepl	184	184	0	0	0	0	0	0	0	0	0	0	0	0	16
57 PSE To AVWP PwrS	0	0	0	2.4	0	0	0	0	0	0	0	0	0	0	0.2
58 PSE To BPA WP3Set	0	0	55	58	55	55	58	56	55	61	55	0	55	0	42
59 SCL To POPD PwrS	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42
60 SHPD To BPA PwrS	7.6	6.9	5.1	5.3	5.7	5.3	5.6	4.3	7.6	9.3	8.6	7.5	8.5	6.5	6.5
61 SPN To PGE PwrS	104	104	104	104	104	104	104	104	104	104	104	104	104	104	104
62 TAUC To AVWP PwrS	188	188	188	188	188	188	188	188	188	188	188	100	188	188	180

**Table A-16: Regional Intra-Regional Transfers
PNW Loads and Resource Study
2011 - 2012 Operating Year
[76] 2011 White Book (Final)**

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
63 Total Contracts	2299	2269	1508	1154	1574	1584	1581	1555	1487	1766	1723	1127	1383	858	1486
-Total Contracts Out-															
64 Federal System	647	635	310	311	578	649	639	623	519	784	744	511	548	151	520
65 Public Entities	306	302	267	97	98	99	102	94	110	120	117	127	137	128	140
66 Investor-Owned Entities	621	608	574	576	590	526	535	526	543	564	555	326	534	416	526
67 Other Entities	725	724	358	170	309	311	304	313	315	296	307	163	163	163	300
68 Total Contracts Out	2299	2269	1508	1154	1574	1584	1581	1555	1487	1766	1723	1127	1383	858	1486
-Total Contracts In-															
69 Federal System	874	857	444	261	418	353	359	352	387	405	403	112	238	109	358
70 Public Entities	160	160	129	112	114	114	114	109	120	122	124	118	121	114	121
71 Investor-Owned Entities	987	974	720	635	897	972	972	950	835	807	776	472	604	621	787
72 Other Entities	277	279	215	146	145	146	136	144	146	431	420	425	420	15	220
73 Total Contracts In	2299	2269	1508	1154	1574	1584	1581	1555	1487	1766	1723	1127	1383	858	1486

**Table A-16: Regional Intra-Regional Transfers
PNW Loads and Resource Study
2012 - 2013 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Intra-Regional Transfers-															
1 AVWP To BPA WP3Set	0	0	57	54	55	57	54	55	57	55	55	0	57	0	42
2 AVWP To PGE CapS	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45
3 BPA To AVWP WP3Set	0	0	0	0	101	101	101	101	50	50	50	0	0	0	42
4 BPA To COPD PwrS	23	23	18	17	18	18	18	16	22	28	29	25	27	22	21
5 BPA To EMPD PwrS	5.4	5.3	4.2	3.9	4.2	4	4.2	3.6	5	6.4	6.7	5.8	6.2	5.1	4.8
6 BPA To PPL PwrS	79	65	59	145	206	277	277	256	246	216	187	54	58	74	160
7 BPA To PPL S/Pwr/X	0	0	0	0	0	0	0	0	0	0	0	0	35	34	5.7
8 BPA To PPL S/N/X	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9 BPA To PSE WP3Set	0	0	0	0	101	101	101	101	50	50	50	0	0	0	42
10 BPA To PSE PwrS	0	0	0	0	2.4	2.4	2.4	2.6	0	0	0	0	0	0	0.8
11 BPA To SHPD PwrS	7.1	7	5.6	5.2	5.6	5.4	5.6	4.8	6.7	8.5	8.9	7.7	8.3	6.9	6.5
12 BPA To TBL PwrS	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1
13 CIDF To UPL PwrS	14	14	0.5	0	0	0	0	0	0	0	0	12	18	20	5.5
14 COPD To BPA PwrS	25	22	17	17	19	17	18	14	25	30	28	24	28	21	21
15 DOPD To Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16 EMPD To BPA PwrS	5.7	5.2	3.8	3.9	4.3	4	4.2	3.2	5.7	6.9	6.4	5.6	6.4	4.8	4.8
17 EWEB To PGE CapS	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
18 GCPD To PPL PwrS	13	13	9.9	7.9	6.6	8.2	8.6	7.4	7.8	10	10	13	14	14	10
19 GHPD To GHP PwrS	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
20 NWCP To PSE PwrS	2.4	2.4	4.7	2.4	2.4	4.7	0	0	0	0	0	0	0	0	1.4
21 NWE To MVP PwrS	11	11	11	11	7.5	7.5	7.5	7.5	7.5	11	11	11	11	11	9.7
22 Other Entities To BPA	67	54	47	78	241	230	242	238	253	266	265	91	101	92	161
23 Other Entities To COPD	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
24 Other Entities To DOPD	14	14	14	22	23	23	23	21	22	14	14	14	14	14	18
25 Other Entities To PGE	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92
26 PGE To AVWP PkRepl	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45
27 PGE To PPL Cove Repl	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
28 PPL To BPA S/N/X	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29 PPL To BPA S/Pwr/X	0	0	23	23	23	0	0	0	0	0	0	0	0	0	5.7
30 PSE To AVWP PwrS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31 PSE To BPA WP3Set	0	0	57	54	55	57	54	55	57	55	55	0	57	0	42
32 SCL To POPD PwrS	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42
33 SHPD To BPA PwrS	7.6	6.9	5.1	5.2	5.7	5.3	5.6	4.3	7.6	9.2	8.6	7.5	8.5	6.4	6.5
34 SPN To PGE PwrS	104	104	104	104	104	104	104	104	104	104	104	104	104	104	104
35 TAUC To AVWP PwrS	188	188	188	188	188	188	188	188	188	188	188	188	100	188	181
36 Total Contracts	843	811	906	1019	1448	1491	1495	1459	1389	1383	1352	838	930	893	1170
-Total Contracts Out-															
37 Federal System	124	109	97	180	448	518	519	494	388	367	340	101	143	151	291
38 Public Entities	128	124	100	96	98	100	97	89	106	117	113	122	135	126	109
39 Investor-Owned Entities	427	413	544	533	554	529	530	525	546	554	553	414	451	415	501
40 Other Entities	165	165	165	209	348	344	350	351	349	345	345	201	201	201	268
41 Total Contracts Out	843	811	906	1019	1448	1491	1495	1459	1389	1383	1352	838	930	893	1170
-Total Contracts In-															
42 Federal System	126	109	230	256	418	387	395	387	421	442	438	148	279	144	301
43 Public Entities	117	116	109	115	118	117	119	112	123	124	126	120	123	116	118
44 Investor-Owned Entities	586	571	551	633	897	972	967	945	830	802	774	555	514	618	736
45 Other Entities	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
46 Total Contracts In	843	811	906	1019	1448	1491	1495	1459	1389	1383	1352	838	930	893	1170

**Table A-16: Regional Intra-Regional Transfers
PNW Loads and Resource Study
2013 - 2014 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Intra-Regional Transfers-															
1 AVWP To BPA WP3Set	0	0	57	54	55	57	54	55	57	55	55	0	57	0	42
2 AVWP To PGE CapS	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45
3 BPA To AVWP WP3Set	0	0	0	0	101	101	101	101	50	50	50	0	0	0	42
4 BPA To COPD PwrS	23	23	18	17	18	18	18	16	22	28	29	25	27	22	21
5 BPA To EMPD PwrS	5.3	5.3	4.2	3.9	4.2	4	4.2	3.6	5	6.4	6.7	5.8	6.2	5.1	4.8
6 BPA To PPL PwrS	79	65	59	145	206	277	277	256	246	216	187	54	58	74	160
7 BPA To PPL S/Pwr/X	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 BPA To PPL S/N/X	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9 BPA To PSE WP3Set	0	0	0	0	101	101	101	101	50	50	50	0	0	0	42
10 BPA To PSE PwrS	0	0	0	0	2.4	2.4	2.4	2.6	0	0	0	0	0	0	0.8
11 BPA To SHPD PwrS	7.1	7	5.6	5.2	5.6	5.4	5.6	4.8	6.7	8.5	8.9	7.7	8.3	6.9	6.5
12 BPA To TBL PwrS	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1
13 CIDF To UPL PwrS	15	15	0.3	0	0	0	0	0	0	0	0	12	18	20	5.5
14 COPD To BPA PwrS	25	22	17	17	19	17	18	14	25	30	28	24	28	21	21
15 DOPD To Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16 EMPD To BPA PwrS	5.7	5.2	3.8	3.9	4.3	4	4.2	3.2	5.7	6.9	6.4	5.6	6.4	4.8	4.8
17 EWEB To PGE CapS	3	3	3	3	3	3	3	3	3	3	3	3	0	0	2.5
18 GCPD To PPL PwrS	13	13	9.9	7.9	6.6	8.2	8.6	7.2	7.8	10	10	13	14	14	10.0
19 GHPD To GHP PwrS	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
20 NWE To MVP PwrS	11	11	11	11	7.5	7.5	7.5	7.5	7.5	11	11	11	11	11	9.7
21 Other Entities To BPA	103	90	83	20	155	145	156	151	167	179	179	33	43	34	105
22 Other Entities To COPD	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
23 Other Entities To DOPD	16	16	16	24	24	24	25	22	24	16	16	16	16	16	20
24 Other Entities To PGE	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92
25 PGE To AVWP PkRepl	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45
26 PGE To PPL Cove Repl	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
27 PPL To BPA S/N/X	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28 PPL To BPA S/Pwr/X	0	0	23	23	23	0	0	0	0	0	0	0	0	0	5.7
29 PSE To AVWP PwrS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30 PSE To BPA WP3Set	0	0	57	54	55	57	54	55	57	55	55	0	57	0	42
31 SCL To POPD PwrS	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42
32 SHPD To BPA PwrS	7.6	6.9	5.1	5.2	5.7	5.3	5.6	4.3	7.6	9.2	8.6	7.5	8.5	6.4	6.5
33 SPN To PGE PwrS	104	104	104	104	104	104	104	104	104	104	104	104	104	104	104
34 TAUC To AVWP PwrS	188	188	188	188	188	188	188	188	188	188	188	100	188	188	180
35 Total Contracts	879	847	939	960	1361	1403	1411	1373	1305	1298	1267	694	924	801	1107
-Total Contracts Out-															
36 Federal System	124	109	97	180	448	518	519	494	388	367	340	101	108	117	285
37 Public Entities	125	122	96	94	95	95	97	89	106	117	113	122	132	123	107
38 Investor-Owned Entities	427	413	544	533	554	529	530	525	546	554	553	326	539	415	501
39 Other Entities	203	203	203	153	264	261	266	266	265	261	261	145	145	145	214
40 Total Contracts Out	879	847	939	960	1361	1403	1411	1373	1305	1298	1267	694	924	801	1107
-Total Contracts In-															
41 Federal System	162	145	266	198	333	302	309	300	335	355	351	90	221	86	245
42 Public Entities	119	118	111	117	120	118	120	114	125	126	128	122	125	118	120
43 Investor-Owned Entities	584	569	547	630	894	967	967	945	830	802	774	468	564	582	728
44 Other Entities	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
45 Total Contracts In	879	847	939	960	1361	1403	1411	1373	1305	1298	1267	694	924	801	1107

Table A-16: Regional Intra-Regional Transfers
PNW Loads and Resource Study
2014 - 2015 Operating Year
[76] 2011 White Book (Final)

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Intra-Regional Transfers-															
1 AVWP To BPA WP3Set	0	0	55	55	58	55	55	56	58	55	55	0	55	0	42
2 AVWP To PGE CapS	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45
3 BPA To AVWP WP3Set	0	0	0	0	101	101	101	101	50	50	50	0	0	0	42
4 BPA To COPD PwrS	23	23	18	17	18	18	18	16	22	28	29	25	27	22	21
5 BPA To EMPD PwrS	5.3	5.3	4.2	3.9	4.2	4	4.2	3.6	5	6.4	6.7	5.8	6.2	5.1	4.8
6 BPA To PPL PwrS	79	65	59	145	206	277	277	256	246	216	187	54	58	74	160
7 BPA To PSE WP3Set	0	0	0	0	101	101	101	101	50	50	50	0	0	0	42
8 BPA To PSE PwrS	0	0	0	0	2.4	2.4	2.4	2.6	0	0	0	0	0	0	0.8
9 BPA To SHPD PwrS	7.1	7	5.6	5.1	5.6	5.4	5.6	4.8	6.7	8.5	8.9	7.7	8.3	6.9	6.5
10 BPA To TBL PwrS	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1
11 CIDF To UPL PwrS	15	15	0	0	0	0	0	0	0	0	0	12	19	20	5.5
12 COPD To BPA PwrS	25	23	16	17	19	17	18	14	25	30	28	24	27	21	21
13 DOPD To Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14 EMPD To BPA PwrS	5.7	5.2	3.8	3.9	4.3	4.0	4.2	3.2	5.7	6.9	6.4	5.6	6.3	4.8	4.8
15 GCPD To PPL PwrS	13	13	9.9	7.9	6.6	8.2	8.6	7.4	7.8	10	10	13	14	14	10
16 GHPD To GHP PwrS	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
17 NWE To MVP PwrS	11	11	11	11	7.5	7.5	7.5	7.5	7.5	11	11	11	11	11	9.7
18 Other Entities To BPA	45	32	25	20	17	11	16	8.3	27	35	34	33	43	34	26
19 Other Entities To COPD	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
20 Other Entities To DOPD	18	18	18	27	26	28	28	25	27	18	18	18	18	18	22
21 Other Entities To PGE	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92
22 PGE To AVWP PkRepl	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45
23 PGE To PPL Cove Repl	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
24 PSE To AVWP PwrS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 PSE To BPA WP3Set	0	0	55	55	58	55	55	56	58	55	55	0	55	0	42
26 SCL To POPD PwrS	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42
27 SHPD To BPA PwrS	7.6	6.9	5.1	5.2	5.7	5.3	5.6	4.3	7.6	9.2	8.6	7.5	8.5	6.4	6.5
28 SPN To PGE PwrS	104	104	104	104	104	104	104	104	104	104	104	104	104	104	104
29 TAUC To AVWP PwrS	188	188	188	188	188	188	188	188	188	188	188	188	188	188	181
30 Total Contracts	820	789	852	939	1206	1265	1273	1232	1166	1154	1123	781	834	802	1023
-Total Contracts Out-															
31 Federal System	124	109	97	180	448	518	519	494	388	367	340	101	108	117	285
32 Public Entities	123	119	92	91	92	92	94	86	103	114	110	119	132	123	105
33 Investor-Owned Entities	427	413	517	511	511	498	503	498	520	527	526	414	447	415	481
34 Other Entities	147	147	147	156	155	157	157	154	156	147	147	147	147	147	151
35 Total Contracts Out	820	789	852	939	1206	1265	1273	1232	1166	1154	1123	781	834	802	1023
-Total Contracts In-															
36 Federal System	104	87	181	177	178	163	170	159	197	212	208	90	216	86	160
37 Public Entities	121	120	113	120	122	122	123	116	128	128	130	124	127	120	122
38 Investor-Owned Entities	581	566	543	627	891	964	964	942	827	799	771	552	476	582	726
39 Other Entities	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
40 Total Contracts In	820	789	852	939	1206	1265	1273	1232	1166	1154	1123	781	834	802	1023

**Table A-16: Regional Intra-Regional Transfers
PNW Loads and Resource Study
2015 - 2016 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Intra-Regional Transfers-															
1 AVWP To BPA WP3Set	0	0	55	55	58	55	58	56	55	55	55	0	55	0	42
2 AVWP To PGE CapS	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45
3 BPA To AVWP WP3Set	0	0	0	0	101	101	101	101	50	50	50	0	0	0	42
4 BPA To COPD PwrS	23	23	18	17	18	18	18	15	22	28	29	25	27	22	21
5 BPA To EMPD PwrS	5.3	5.3	4.2	3.9	4.2	4	4.2	3.6	5	6.4	6.7	5.8	6.2	5.2	4.8
6 BPA To PPL PwrS	79	65	59	145	206	277	277	256	246	216	187	54	58	74	160
7 BPA To PSE WP3Set	0	0	0	0	101	101	101	101	50	50	50	0	0	0	42
8 BPA To PSE PwrS	0	0	0	0	2.4	2.4	2.4	2.5	0	0	0	0	0	0	0.8
9 BPA To SHPD PwrS	7.1	7	5.6	5.1	5.6	5.4	5.5	4.8	6.7	8.5	8.9	7.7	8.3	6.9	6.4
10 BPA To TBL PwrS	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1
11 CIDF To UPL PwrS	15	15	0.3	0	0	0	0	0	0	0	0	12	19	20	5.5
12 COPD To BPA PwrS	25	23	16	17	19	17	18	14	25	30	28	24	27	21	21
13 DOPD To Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14 EMPD To BPA PwrS	5.7	5.2	3.8	3.9	4.3	4.0	4.2	3.3	5.7	6.9	6.4	5.6	6.3	4.8	4.8
15 GCPD To PPL PwrS	13	13	9.9	7.9	6.6	8.2	8.6	7.4	7.8	10	10	13	14	14	10.0
16 GHPD To GHP PwrS	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
17 NWE To MVP PwrS	11	11	11	11	7.5	7.5	7.5	7.5	7.5	11	11	11	11	11	9.6
18 Other Entities To BPA	45	32	25	20	17	11	16	8.3	27	35	34	33	43	34	26
19 Other Entities To COPD	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
20 Other Entities To DOPD	20	20	20	30	29	32	31	29	30	20	20	20	20	20	25
21 Other Entities To PGE	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92
22 PGE To AVWP PkRepl	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45
23 PGE To PPL Cove Repl	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
24 PSE To AVWP PwrS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 PSE To BPA WP3Set	0	0	55	55	58	55	58	56	55	55	55	0	55	0	42
26 SCL To POPD PwrS	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42
27 SHPD To BPA PwrS	7.6	6.9	5.1	5.2	5.7	5.3	5.6	4.3	7.6	9.2	8.6	7.5	8.5	6.5	6.5
28 SPN To PGE PwrS	104	104	104	104	104	104	104	104	104	104	104	104	104	104	104
29 TAUC To AVWP PwrS	188	188	188	188	188	188	188	188	179	94	94	161	188	188	177
30 Total Contracts	822	790	855	942	1210	1269	1281	1235	1155	1062	1031	756	924	805	1023
-Total Contracts Out-															
31 Federal System	124	109	97	180	448	518	518	493	388	367	340	101	108	118	286
32 Public Entities	123	119	92	91	92	92	94	86	103	114	110	119	132	123	105
33 Investor-Owned Entities	427	413	517	512	511	498	509	498	505	433	432	387	535	416	478
34 Other Entities	149	149	149	159	158	161	160	158	159	149	149	149	149	149	154
35 Total Contracts Out	822	790	855	942	1210	1269	1281	1235	1155	1062	1031	756	924	805	1023
-Total Contracts In-															
36 Federal System	104	87	181	177	179	164	176	158	192	212	208	90	216	87	160
37 Public Entities	123	122	115	123	125	126	126	121	131	130	132	126	129	122	125
38 Investor-Owned Entities	581	566	544	627	891	964	964	942	818	705	677	525	564	582	723
39 Other Entities	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
40 Total Contracts In	822	790	855	942	1210	1269	1281	1235	1155	1062	1031	756	924	805	1023

**Table A-16: Regional Intra-Regional Transfers
PNW Loads and Resource Study
2016 - 2017 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Intra-Regional Transfers-															
1 AVWP To BPA WP3Set	0	0	55	57	55	55	57	56	54	55	61	0	55	0	42
2 AVWP To PGE CapS	45	45	45	45	45	45	0	0	0	0	0	0	0	0	19
3 BPA To AVWP WP3Set	0	0	0	0	101	101	101	101	50	49	50	0	0	0	42
4 BPA To COPD PwrS	23	23	18	4	0	0	0	0	0	0	0	0	0	0	3.8
5 BPA To EMPD PwrS	5.4	5.3	4.2	0.9	0	0	0	0	0	0	0	0	0	0	0.9
6 BPA To PPL PwrS	79	65	59	145	206	277	277	256	246	216	187	54	58	74	160
7 BPA To PSE WP3Set	0	0	0	0	101	101	101	101	50	49	50	0	0	0	42
8 BPA To PSE PwrS	0	0	0	0	2.4	2.4	2.4	2.6	0	0	0	0	0	0	0.8
9 BPA To SHPD PwrS	7.1	7	5.6	1.2	0	0	0	0	0	0	0	0	0	0	1.2
10 BPA To TBL PwrS	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1
11 CIDF To UPL PwrS	15	15	0.3	0	0	0	0	0	0	0	0	12	19	20	5.5
12 COPD To BPA PwrS	25	22	16	0	0	0	0	0	0	0	0	0	0	0	3.4
13 DOPD To Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14 EMPD To BPA PwrS	5.7	5.2	3.8	0	0	0	0	0	0	0	0	0	0	0	0.8
15 GCPD To PPL PwrS	13	13	9.9	7.9	6.6	8.2	8.6	7.4	7.8	10	10	13	14	14	10
16 GHPD To GHP PwrS	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
17 NWE To MVP PwrS	11	11	11	11	7.5	7.5	7.5	7.5	7.5	11	11	11	11	11	9.7
18 Other Entities To BPA	45	32	25	20	17	11	16	8.3	27	35	34	33	43	34	26
19 Other Entities To COPD	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
20 Other Entities To DOPD	7	7	7	11	11	11	11	10	11	7	7	7	7	7	9.0
21 Other Entities To PGE	92	92	92	0	0	0	0	0	0	0	0	0	0	0	15
22 PGE To AVWP PkRepl	45	45	45	45	45	45	0	0	0	0	0	0	0	0	19
23 PGE To PPL Cove Repl	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
24 PSE To AVWP PwrS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 PSE To BPA WP3Set	0	0	55	57	55	55	57	56	54	55	61	0	55	0	42
26 SCL To POPD PwrS	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42
27 SHPD To BPA PwrS	7.6	6.9	5.1	0	0	0	0	0	0	0	0	0	0	0	1
28 SPN To PGE PwrS	104	104	104	104	104	104	104	104	104	104	104	104	104	104	104
29 TAUC To AVWP PwrS	188	188	188	188	188	188	188	188	188	188	188	188	188	188	188
30 Total Contracts	809	777	841	790	1035	1102	1023	989	891	871	855	513	645	544	834
-Total Contracts Out-															
31 Federal System	124	109	97	160	420	491	491	470	354	323	296	63	67	83	259
32 Public Entities	123	119	92	65	64	65	66	64	65	67	67	82	89	91	78
33 Investor-Owned Entities	427	413	516	424	412	405	327	316	332	345	355	233	353	234	360
34 Other Entities	136	136	136	140	140	140	140	139	140	136	136	136	136	136	138
35 Total Contracts Out	809	777	841	790	1035	1102	1023	989	891	871	855	513	645	544	834
-Total Contracts In-															
36 Federal System	104	87	180	155	143	136	147	136	152	165	176	53	173	55	133
37 Public Entities	110	109	102	84	78	79	78	77	78	74	74	74	74	74	82
38 Investor-Owned Entities	581	566	544	535	799	872	783	761	646	617	590	371	383	400	605
39 Other Entities	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
40 Total Contracts In	809	777	841	790	1035	1102	1023	989	891	871	855	513	645	544	834

**Table A-16: Regional Intra-Regional Transfers
PNW Loads and Resource Study
2017 - 2018 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
<i>-Intra-Regional Transfers-</i>															
1 BPA To PPL PwrS	79	65	59	145	206	277	277	256	246	216	187	54	58	74	160
2 BPA To PSE WP3Set	0	0	0	0	101	101	101	101	50	49	50	0	0	0	42
3 BPA To PSE PwrS	0	0	0	0	2.4	2.4	2.4	2.6	0	0	0	0	0	0	0.8
4 BPA To TBL PwrS	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1
5 CIDF To UPL PwrS	15	15	0.3	0	0	0	0	0	0	0	0	12	19	20	5.5
6 GCPD To PPL PwrS	13	13	9.9	7.9	6.6	8.2	8.6	7.2	7.8	10	10	13	14	14	10.0
7 GHPD To GHP PwrS	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
8 NWE To MVP PwrS	11	11	11	11	7.5	7.5	7.5	7.5	7.5	11	11	11	11	11	9.7
9 Other Entities To BPA	45	32	25	20	17	11	16	8.3	27	35	34	33	43	34	26
10 Other Entities To COPD	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
11 PGE To PPL Cove Repl	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
12 PSE To AVWP PwrS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13 PSE To BPA WP3Set	0	0	55	57	55	57	55	56	54	61	55	0	55	0	42
14 SCL To POPD PwrS	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42
15 SPN To PGE PwrS	104	104	104	104	104	104	104	104	104	104	104	104	104	104	104
16 TAUC To AVWP PwrS	188	188	188	188	188	188	188	188	188	188	188	188	188	188	188
17 Total Contracts	547	519	544	626	779	848	851	822	776	766	731	506	583	537	678
<i>-Total Contracts Out-</i>															
18 Federal System	88	74	68	154	319	390	390	369	305	274	246	63	67	83	211
19 Public Entities	84	84	67	65	64	65	66	64	65	67	67	82	89	91	72
20 Investor-Owned Entities	245	232	280	278	268	264	267	260	278	295	289	233	298	234	266
21 Other Entities	129	129	129	129	129	129	129	129	129	129	129	129	129	129	129
22 Total Contracts Out	547	519	544	626	779	848	851	822	776	766	731	506	583	537	678
<i>-Total Contracts In-</i>															
23 Federal System	66	52	100	98	88	85	87	81	98	116	109	53	118	55	86
24 Public Entities	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67
25 Investor-Owned Entities	399	385	362	446	609	682	682	659	596	568	540	371	383	400	511
26 Other Entities	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
27 Total Contracts In	547	519	544	626	779	848	851	822	776	766	731	506	583	537	678

**Table A-16: Regional Intra-Regional Transfers
PNW Loads and Resource Study
2018 - 2019 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Intra-Regional Transfers-															
1 BPA To PPL PwrS	79	65	59	145	206	277	277	256	246	216	187	54	58	74	160
2 BPA To PSE WP3Set	0	0	0	0	101	101	101	101	50	49	50	0	0	0	42
3 BPA To PSE PwrS	0	0	0	0	2.4	2.4	2.4	2.6	0	0	0	0	0	0	0.8
4 BPA To TBL PwrS	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1
5 CIDF To UPL PwrS	15	15	0.3	0	0	0	0	0	0	0	0	12	19	20	5.5
6 GCPD To PPL PwrS	13	13	9.9	7.9	6.6	8.2	8.6	7.4	7.8	10	10	13	14	14	10
7 GHPD To GHP PwrS	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
8 NWE To MVP PwrS	11	11	11	11	7.5	7.5	7.5	7.5	7.5	11	11	11	11	11	9.7
9 Other Entities To BPA	45	32	25	20	17	11	16	0	0	0	0	0	0	0	11
10 Other Entities To COPD	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
11 PGE To PPL Cove Repl	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
12 PSE To AVWP PwrS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13 PSE To BPA WP3Set	0	0	57	54	55	57	54	55	57	55	55	0	57	0	42
14 SCL To POPD PwrS	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42
15 SPN To PGE PwrS	104	104	104	104	104	104	104	104	104	104	104	104	104	104	104
16 TAUC To AVWP PwrS	188	188	188	188	188	188	0	0	0	0	0	0	0	0	79
17 Total Contracts	547	519	547	623	779	848	663	626	564	537	509	285	355	315	554
-Total Contracts Out-															
18 Federal System	88	74	68	154	319	390	390	369	305	274	246	63	67	83	211
19 Public Entities	84	84	67	65	64	65	66	64	65	67	67	82	89	91	72
20 Investor-Owned Entities	245	232	282	275	268	264	78	64	65	67	67	12	70	12	142
21 Other Entities	129	129	129	129	129	129	129	129	129	129	129	129	129	129	129
22 Total Contracts Out	547	519	547	623	779	848	663	626	564	537	509	285	355	315	554
-Total Contracts In-															
23 Federal System	66	52	103	95	88	84	87	72	73	75	75	20	78	20	71
24 Public Entities	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67
25 Investor-Owned Entities	399	385	362	446	609	682	494	472	408	380	352	183	195	212	401
26 Other Entities	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
27 Total Contracts In	547	519	547	623	779	848	663	626	564	537	509	285	355	315	554

**Table A-16: Regional Intra-Regional Transfers
PNW Loads and Resource Study
2019 - 2020 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
<i>-Intra-Regional Transfers-</i>															
1 BPA To PPL PwrS	79	65	59	145	206	277	277	256	246	216	187	54	58	74	160
2 BPA To PSE PwrS	0	0	0	0	2.4	2.4	2.4	2.5	0	0	0	0	0	0	0.8
3 BPA To TBL PwrS	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1
4 CIDF To UPL PwrS	15	15	0.3	0	0	0	0	0	0	0	0	12	19	20	5.5
5 GCPD To PPL PwrS	13	13	9.9	7.9	6.6	8.2	8.6	7.4	7.8	10	10	13	14	14	10.0
6 GHPD To GHP PwrS	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
7 NWE To MVP PwrS	11	11	11	11	7.5	7.5	7.5	7.5	7.5	11	11	11	11	11	9.6
8 Other Entities To COPD	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
9 PGE To PPL Cove Repl	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
10 PSE To AVWP PwrS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 SCL To POPD PwrS	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42
12 SPN To PGE PwrS	104	104	104	104	104	104	104	104	104	104	104	104	104	104	104
13 Total Contracts	314	299	277	360	418	491	491	469	457	433	404	285	297	315	382
<i>-Total Contracts Out-</i>															
14 Federal System	88	74	68	154	217	289	288	267	255	225	196	63	67	83	170
15 Public Entities	84	84	67	65	64	65	66	64	65	67	67	82	89	91	72
16 Investor-Owned Entities	12	12	12	12	8.4	8.4	8.4	8.4	8.4	12	12	12	12	12	11
17 Other Entities	129	129	129	129	129	129	129	129	129	129	129	129	129	129	129
18 Total Contracts Out	314	299	277	360	418	491	491	469	457	433	404	285	297	315	382
<i>-Total Contracts In-</i>															
19 Federal System	20	20	20	20	17	17	17	17	17	20	20	20	20	20	19
20 Public Entities	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67
21 Investor-Owned Entities	211	197	174	258	320	393	393	371	358	331	302	183	195	212	281
22 Other Entities	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
23 Total Contracts In	314	299	277	360	418	491	491	469	457	433	404	285	297	315	382

**Table A-16: Regional Intra-Regional Transfers
PNW Loads and Resource Study
2020 - 2021 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
<i>-Intra-Regional Transfers-</i>															
1 BPA To PPL PwrS	79	65	59	145	206	277	277	256	246	216	187	54	58	74	160
2 BPA To PSE PwrS	0	0	0	0	2.4	2.4	2.4	2.6	0	0	0	0	0	0	0.8
3 BPA To TBL PwrS	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1
4 CIDF To UPL PwrS	15	15	0.3	0	0	0	0	0	0	0	0	12	19	20	5.5
5 GCPD To PPL PwrS	13	13	9.9	7.9	6.6	8.2	8.6	7.4	7.8	10	10	13	14	14	10
6 GHPD To GHP PwrS	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
7 NWE To MVP PwrS	11	11	11	11	7.5	7.5	7.5	7.5	7.5	11	11	11	11	11	9.7
8 Other Entities To COPD	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
9 PGE To PPL Cove Repl	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
10 PSE To AVWP PwrS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 SCL To POPD PwrS	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42
12 SPN To PGE PwrS	104	104	104	104	104	104	104	104	104	104	104	104	104	104	104
13 Total Contracts	314	299	277	360	418	491	491	469	457	433	404	285	297	315	382
<i>-Total Contracts Out-</i>															
14 Federal System	88	74	68	154	217	289	288	267	255	225	196	63	67	83	170
15 Public Entities	84	84	67	65	64	65	66	64	65	67	67	82	89	91	72
16 Investor-Owned Entities	12	12	12	12	8.4	8.4	8.4	8.4	8.4	12	12	12	12	12	11
17 Other Entities	129	129	129	129	129	129	129	129	129	129	129	129	129	129	129
18 Total Contracts Out	314	299	277	360	418	491	491	469	457	433	404	285	297	315	382
<i>-Total Contracts In-</i>															
19 Federal System	20	20	20	20	17	17	17	17	17	20	20	20	20	20	19
20 Public Entities	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67
21 Investor-Owned Entities	211	197	174	258	320	393	393	371	358	331	302	183	195	212	281
22 Other Entities	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
23 Total Contracts In	314	299	277	360	418	491	491	469	457	433	404	285	297	315	382

Table A-17
Capacity Reserves
Monthly OY 2012 – 2021
Average Energy in Megawatts

Power Services

Capacity Reserves are not applicable to energy.

Reports Powered by:



Loads and Resources Information System

Table A-17: Regional Capacity Reserves
 PNW Loads and Resource Study
 2011 - 2012 Operating Year
 1937 Water Year
 [76] 2011 White Book (Final)

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
Spinning Reserves															
-Federal Entities-															
1 Federal Agencies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2 Total Federal Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Generating Public Entities-															
3 Generating Publics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Total Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Non-Generating Public Entities-															
5 Non-Generating Publics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6 Total Non-Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Investor-Owned Entities-															
7 Investor-Owned Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Other Entities-															
9 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non-Spinning Reserves															
-Federal Entities-															
11 Federal Agencies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12 Total Federal Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Generating Public Entities-															
13 Generating Publics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14 Total Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Non-Generating Public Entities-															
15 Non-Generating Publics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16 Total Non-Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Investor-Owned Entities-															
17 Investor-Owned Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Other Entities-															
19 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Load Following Reserves															
-Federal Entities-															
21 Federal Agencies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22 Total Federal Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Generating Public Entities-															
23 Generating Publics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 Total Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Non-Generating Public Entities-															
25 Non-Generating Publics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 Total Non-Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Investor-Owned Entities-															

Table A-17: Regional Capacity Reserves
 PNW Loads and Resource Study
 2011 - 2012 Operating Year
 1937 Water Year
 [76] 2011 White Book (Final)

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
27 Investor-Owned Utility	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Other Entities-															
29 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Generation Imbalance Reserves															
-Federal Entities-															
31 Federal Agencies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32 Total Federal Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Generating Public Entities-															
33 Generating Publics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34 Total Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Non-Generating Public Entities-															
35 Non-Generating Publics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36 Total Non-Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Investor-Owned Entities-															
37 Investor-Owned Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
38 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Other Entities-															
39 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Total Capacity Reserves-															
41 Total Spinning Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42 Total Non-Spinning Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43 Total Load Following Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44 Total Generation Imbalance Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45 Total Capacity Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table A-17: Regional Capacity Reserves
 PNW Loads and Resource Study
 2012 - 2013 Operating Year
 1937 Water Year
 [76] 2011 White Book (Final)

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
Spinning Reserves															
<i>-Federal Entities-</i>															
1 Federal Agencies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2 Total Federal Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Generating Public Entities-</i>															
3 Generating Publics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Total Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Non-Generating Public Entities-</i>															
5 Non-Generating Publics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6 Total Non-Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Investor-Owned Entities-</i>															
7 Investor-Owned Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Other Entities-</i>															
9 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non-Spinning Reserves															
<i>-Federal Entities-</i>															
11 Federal Agencies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12 Total Federal Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Generating Public Entities-</i>															
13 Generating Publics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14 Total Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Non-Generating Public Entities-</i>															
15 Non-Generating Publics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16 Total Non-Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Investor-Owned Entities-</i>															
17 Investor-Owned Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Other Entities-</i>															
19 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Load Following Reserves															
<i>-Federal Entities-</i>															
21 Federal Agencies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22 Total Federal Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Generating Public Entities-</i>															
23 Generating Publics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 Total Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Non-Generating Public Entities-</i>															
25 Non-Generating Publics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 Total Non-Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Investor-Owned Entities-</i>															

Table A-17: Regional Capacity Reserves
 PNW Loads and Resource Study
 2012 - 2013 Operating Year
 1937 Water Year
 [76] 2011 White Book (Final)

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
27 Investor-Owned Utility	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Other Entities-															
29 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Generation Imbalance Reserves															
-Federal Entities-															
31 Federal Agencies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32 Total Federal Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Generating Public Entities-															
33 Generating Publics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34 Total Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Non-Generating Public Entities-															
35 Non-Generating Publics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36 Total Non-Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Investor-Owned Entities-															
37 Investor-Owned Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
38 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Other Entities-															
39 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Total Capacity Reserves-															
41 Total Spinning Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42 Total Non-Spinning Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43 Total Load Following Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44 Total Generation Imbalance Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45 Total Capacity Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table A-17: Regional Capacity Reserves
 PNW Loads and Resource Study
 2013 - 2014 Operating Year
 1937 Water Year
 [76] 2011 White Book (Final)

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
Spinning Reserves															
-Federal Entities-															
1 Federal Agencies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2 Total Federal Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Generating Public Entities-															
3 Generating Publics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Total Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Non-Generating Public Entities-															
5 Non-Generating Publics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6 Total Non-Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Investor-Owned Entities-															
7 Investor-Owned Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Other Entities-															
9 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non-Spinning Reserves															
-Federal Entities-															
11 Federal Agencies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12 Total Federal Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Generating Public Entities-															
13 Generating Publics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14 Total Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Non-Generating Public Entities-															
15 Non-Generating Publics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16 Total Non-Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Investor-Owned Entities-															
17 Investor-Owned Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Other Entities-															
19 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Load Following Reserves															
-Federal Entities-															
21 Federal Agencies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22 Total Federal Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Generating Public Entities-															
23 Generating Publics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 Total Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Non-Generating Public Entities-															
25 Non-Generating Publics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 Total Non-Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Investor-Owned Entities-															

Table A-17: Regional Capacity Reserves
 PNW Loads and Resource Study
 2013 - 2014 Operating Year
 1937 Water Year
 [76] 2011 White Book (Final)

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
27 Investor-Owned Utility	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Other Entities-															
29 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Generation Imbalance Reserves															
-Federal Entities-															
31 Federal Agencies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32 Total Federal Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Generating Public Entities-															
33 Generating Publics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34 Total Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Non-Generating Public Entities-															
35 Non-Generating Publics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36 Total Non-Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Investor-Owned Entities-															
37 Investor-Owned Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
38 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Other Entities-															
39 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Total Capacity Reserves-															
41 Total Spinning Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42 Total Non-Spinning Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43 Total Load Following Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44 Total Generation Imbalance Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45 Total Capacity Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table A-17: Regional Capacity Reserves
 PNW Loads and Resource Study
 2014 - 2015 Operating Year
 1937 Water Year
 [76] 2011 White Book (Final)

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
Spinning Reserves															
-Federal Entities-															
1 Federal Agencies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2 Total Federal Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Generating Public Entities-															
3 Generating Publics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Total Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Non-Generating Public Entities-															
5 Non-Generating Publics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6 Total Non-Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Investor-Owned Entities-															
7 Investor-Owned Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Other Entities-															
9 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non-Spinning Reserves															
-Federal Entities-															
11 Federal Agencies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12 Total Federal Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Generating Public Entities-															
13 Generating Publics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14 Total Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Non-Generating Public Entities-															
15 Non-Generating Publics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16 Total Non-Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Investor-Owned Entities-															
17 Investor-Owned Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Other Entities-															
19 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Load Following Reserves															
-Federal Entities-															
21 Federal Agencies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22 Total Federal Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Generating Public Entities-															
23 Generating Publics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 Total Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Non-Generating Public Entities-															
25 Non-Generating Publics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 Total Non-Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Investor-Owned Entities-															

Table A-17: Regional Capacity Reserves
 PNW Loads and Resource Study
 2014 - 2015 Operating Year
 1937 Water Year
 [76] 2011 White Book (Final)

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
27 Investor-Owned Utility	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Other Entities-															
29 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Generation Imbalance Reserves															
-Federal Entities-															
31 Federal Agencies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32 Total Federal Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Generating Public Entities-															
33 Generating Publics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34 Total Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Non-Generating Public Entities-															
35 Non-Generating Publics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36 Total Non-Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Investor-Owned Entities-															
37 Investor-Owned Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
38 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Other Entities-															
39 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Total Capacity Reserves-															
41 Total Spinning Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42 Total Non-Spinning Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43 Total Load Following Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44 Total Generation Imbalance Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45 Total Capacity Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table A-17: Regional Capacity Reserves
 PNW Loads and Resource Study
 2015 - 2016 Operating Year
 1937 Water Year
 [76] 2011 White Book (Final)

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
Spinning Reserves															
-Federal Entities-															
1 Federal Agencies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2 Total Federal Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Generating Public Entities-															
3 Generating Publics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Total Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Non-Generating Public Entities-															
5 Non-Generating Publics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6 Total Non-Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Investor-Owned Entities-															
7 Investor-Owned Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Other Entities-															
9 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non-Spinning Reserves															
-Federal Entities-															
11 Federal Agencies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12 Total Federal Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Generating Public Entities-															
13 Generating Publics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14 Total Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Non-Generating Public Entities-															
15 Non-Generating Publics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16 Total Non-Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Investor-Owned Entities-															
17 Investor-Owned Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Other Entities-															
19 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Load Following Reserves															
-Federal Entities-															
21 Federal Agencies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22 Total Federal Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Generating Public Entities-															
23 Generating Publics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 Total Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Non-Generating Public Entities-															
25 Non-Generating Publics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 Total Non-Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Investor-Owned Entities-															

Table A-17: Regional Capacity Reserves
 PNW Loads and Resource Study
 2015 - 2016 Operating Year
 1937 Water Year
 [76] 2011 White Book (Final)

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
27 Investor-Owned Utility	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Other Entities-															
29 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Generation Imbalance Reserves															
-Federal Entities-															
31 Federal Agencies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32 Total Federal Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Generating Public Entities-															
33 Generating Publics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34 Total Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Non-Generating Public Entities-															
35 Non-Generating Publics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36 Total Non-Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Investor-Owned Entities-															
37 Investor-Owned Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
38 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Other Entities-															
39 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Total Capacity Reserves-															
41 Total Spinning Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42 Total Non-Spinning Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43 Total Load Following Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44 Total Generation Imbalance Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45 Total Capacity Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table A-17: Regional Capacity Reserves
 PNW Loads and Resource Study
 2016 - 2017 Operating Year
 1937 Water Year
 [76] 2011 White Book (Final)

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
Spinning Reserves															
-Federal Entities-															
1 Federal Agencies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2 Total Federal Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Generating Public Entities-															
3 Generating Publics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Total Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Non-Generating Public Entities-															
5 Non-Generating Publics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6 Total Non-Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Investor-Owned Entities-															
7 Investor-Owned Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Other Entities-															
9 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non-Spinning Reserves															
-Federal Entities-															
11 Federal Agencies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12 Total Federal Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Generating Public Entities-															
13 Generating Publics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14 Total Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Non-Generating Public Entities-															
15 Non-Generating Publics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16 Total Non-Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Investor-Owned Entities-															
17 Investor-Owned Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Other Entities-															
19 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Load Following Reserves															
-Federal Entities-															
21 Federal Agencies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22 Total Federal Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Generating Public Entities-															
23 Generating Publics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 Total Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Non-Generating Public Entities-															
25 Non-Generating Publics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 Total Non-Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Investor-Owned Entities-															

Table A-17: Regional Capacity Reserves
 PNW Loads and Resource Study
 2016 - 2017 Operating Year
 1937 Water Year
 [76] 2011 White Book (Final)

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
27 Investor-Owned Utility	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Other Entities-															
29 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Generation Imbalance Reserves															
-Federal Entities-															
31 Federal Agencies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32 Total Federal Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Generating Public Entities-															
33 Generating Publics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34 Total Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Non-Generating Public Entities-															
35 Non-Generating Publics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36 Total Non-Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Investor-Owned Entities-															
37 Investor-Owned Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
38 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Other Entities-															
39 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Total Capacity Reserves-															
41 Total Spinning Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42 Total Non-Spinning Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43 Total Load Following Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44 Total Generation Imbalance Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45 Total Capacity Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table A-17: Regional Capacity Reserves
 PNW Loads and Resource Study
 2017 - 2018 Operating Year
 1937 Water Year
 [76] 2011 White Book (Final)

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
Spinning Reserves															
-Federal Entities-															
1 Federal Agencies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2 Total Federal Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Generating Public Entities-															
3 Generating Publics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Total Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Non-Generating Public Entities-															
5 Non-Generating Publics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6 Total Non-Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Investor-Owned Entities-															
7 Investor-Owned Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Other Entities-															
9 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non-Spinning Reserves															
-Federal Entities-															
11 Federal Agencies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12 Total Federal Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Generating Public Entities-															
13 Generating Publics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14 Total Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Non-Generating Public Entities-															
15 Non-Generating Publics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16 Total Non-Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Investor-Owned Entities-															
17 Investor-Owned Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Other Entities-															
19 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Load Following Reserves															
-Federal Entities-															
21 Federal Agencies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22 Total Federal Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Generating Public Entities-															
23 Generating Publics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 Total Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Non-Generating Public Entities-															
25 Non-Generating Publics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 Total Non-Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Investor-Owned Entities-															

Table A-17: Regional Capacity Reserves
 PNW Loads and Resource Study
 2017 - 2018 Operating Year
 1937 Water Year
 [76] 2011 White Book (Final)

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
27 Investor-Owned Utility	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Other Entities-															
29 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Generation Imbalance Reserves															
-Federal Entities-															
31 Federal Agencies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32 Total Federal Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Generating Public Entities-															
33 Generating Publics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34 Total Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Non-Generating Public Entities-															
35 Non-Generating Publics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36 Total Non-Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Investor-Owned Entities-															
37 Investor-Owned Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
38 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Other Entities-															
39 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Total Capacity Reserves-															
41 Total Spinning Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42 Total Non-Spinning Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43 Total Load Following Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44 Total Generation Imbalance Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45 Total Capacity Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table A-17: Regional Capacity Reserves
 PNW Loads and Resource Study
 2018 - 2019 Operating Year
 1937 Water Year
 [76] 2011 White Book (Final)

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
Spinning Reserves															
-Federal Entities-															
1 Federal Agencies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2 Total Federal Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Generating Public Entities-															
3 Generating Publics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Total Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Non-Generating Public Entities-															
5 Non-Generating Publics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6 Total Non-Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Investor-Owned Entities-															
7 Investor-Owned Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Other Entities-															
9 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non-Spinning Reserves															
-Federal Entities-															
11 Federal Agencies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12 Total Federal Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Generating Public Entities-															
13 Generating Publics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14 Total Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Non-Generating Public Entities-															
15 Non-Generating Publics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16 Total Non-Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Investor-Owned Entities-															
17 Investor-Owned Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Other Entities-															
19 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Load Following Reserves															
-Federal Entities-															
21 Federal Agencies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22 Total Federal Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Generating Public Entities-															
23 Generating Publics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 Total Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Non-Generating Public Entities-															
25 Non-Generating Publics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 Total Non-Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Investor-Owned Entities-															

Table A-17: Regional Capacity Reserves
 PNW Loads and Resource Study
 2018 - 2019 Operating Year
 1937 Water Year
 [76] 2011 White Book (Final)

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
27 Investor-Owned Utility	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Other Entities-															
29 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Generation Imbalance Reserves															
-Federal Entities-															
31 Federal Agencies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32 Total Federal Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Generating Public Entities-															
33 Generating Publics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34 Total Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Non-Generating Public Entities-															
35 Non-Generating Publics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36 Total Non-Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Investor-Owned Entities-															
37 Investor-Owned Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
38 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Other Entities-															
39 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Total Capacity Reserves-															
41 Total Spinning Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42 Total Non-Spinning Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43 Total Load Following Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44 Total Generation Imbalance Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45 Total Capacity Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table A-17: Regional Capacity Reserves
 PNW Loads and Resource Study
 2019 - 2020 Operating Year
 1937 Water Year
 [76] 2011 White Book (Final)

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
Spinning Reserves															
-Federal Entities-															
1 Federal Agencies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2 Total Federal Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Generating Public Entities-															
3 Generating Publics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Total Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Non-Generating Public Entities-															
5 Non-Generating Publics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6 Total Non-Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Investor-Owned Entities-															
7 Investor-Owned Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Other Entities-															
9 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non-Spinning Reserves															
-Federal Entities-															
11 Federal Agencies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12 Total Federal Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Generating Public Entities-															
13 Generating Publics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14 Total Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Non-Generating Public Entities-															
15 Non-Generating Publics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16 Total Non-Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Investor-Owned Entities-															
17 Investor-Owned Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Other Entities-															
19 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Load Following Reserves															
-Federal Entities-															
21 Federal Agencies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22 Total Federal Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Generating Public Entities-															
23 Generating Publics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 Total Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Non-Generating Public Entities-															
25 Non-Generating Publics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 Total Non-Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Investor-Owned Entities-															

Table A-17: Regional Capacity Reserves
 PNW Loads and Resource Study
 2019 - 2020 Operating Year
 1937 Water Year
 [76] 2011 White Book (Final)

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
27 Investor-Owned Utility	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Other Entities-															
29 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Generation Imbalance Reserves															
-Federal Entities-															
31 Federal Agencies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32 Total Federal Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Generating Public Entities-															
33 Generating Publics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34 Total Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Non-Generating Public Entities-															
35 Non-Generating Publics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36 Total Non-Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Investor-Owned Entities-															
37 Investor-Owned Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
38 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Other Entities-															
39 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Total Capacity Reserves-															
41 Total Spinning Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42 Total Non-Spinning Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43 Total Load Following Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44 Total Generation Imbalance Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45 Total Capacity Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table A-17: Regional Capacity Reserves
 PNW Loads and Resource Study
 2020 - 2021 Operating Year
 1937 Water Year
 [76] 2011 White Book (Final)

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
Spinning Reserves															
-Federal Entities-															
1 Federal Agencies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2 Total Federal Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Generating Public Entities-															
3 Generating Publics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Total Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Non-Generating Public Entities-															
5 Non-Generating Publics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6 Total Non-Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Investor-Owned Entities-															
7 Investor-Owned Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Other Entities-															
9 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non-Spinning Reserves															
-Federal Entities-															
11 Federal Agencies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12 Total Federal Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Generating Public Entities-															
13 Generating Publics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14 Total Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Non-Generating Public Entities-															
15 Non-Generating Publics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16 Total Non-Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Investor-Owned Entities-															
17 Investor-Owned Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Other Entities-															
19 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Load Following Reserves															
-Federal Entities-															
21 Federal Agencies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22 Total Federal Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Generating Public Entities-															
23 Generating Publics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 Total Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Non-Generating Public Entities-															
25 Non-Generating Publics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 Total Non-Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Investor-Owned Entities-															

Table A-17: Regional Capacity Reserves
 PNW Loads and Resource Study
 2020 - 2021 Operating Year
 1937 Water Year
 [76] 2011 White Book (Final)

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
27 Investor-Owned Utility	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Other Entities-</i>															
29 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Generation Imbalance Reserves															
<i>-Federal Entities-</i>															
31 Federal Agencies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32 Total Federal Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Generating Public Entities-</i>															
33 Generating Publics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34 Total Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Non-Generating Public Entities-</i>															
35 Non-Generating Publics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36 Total Non-Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Investor-Owned Entities-</i>															
37 Investor-Owned Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
38 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Other Entities-</i>															
39 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Total Capacity Reserves-</i>															
41 Total Spinning Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42 Total Non-Spinning Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43 Total Load Following Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44 Total Generation Imbalance Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45 Total Capacity Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Table A-18
Wells & Chelan Allocation
Monthly OY 2012 – 2021
Capacity in Megawatts

Power Services

Reports Powered by:



Loads and Resources Information System

Table A-18: Wells and Chelan Allocation
PNW Loads and Resource Study
2011 - 2012 Operating Year
1937 Water Year
[76] 2011 White Book (Final)

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Credit for Wells-															
1 Credit for Wells	25	25	25	25	25	25	25	25	25	24	24	24	24	24	25
2 Credit for Wells	-25	-25	-25	-25	-25	-25	-25	-25	-25	-24	-24	-24	-24	-24	-25
3 Credit for Wells	477	377	310	332	472	444	476	399	347	231	243	450	434	492	402
4 Credit for Wells Before Enc	477	377	310	332	472	444	476	399	347	231	243	450	434	492	402
-Debit for Wells-															
5 AVWP Share	14	10	8.1	8.8	13	12	13	11	9.3	5.6	6	13	12	14	11
6 COLV Share	18	14	11	12	18	17	18	15	13	7.6	8.1	17	16	19	15
7 DOPD Share	141	113	95	101	139	132	141	119	105	73	76	133	129	145	120
8 OKPD Share	31	23	19	20	31	28	31	25	21	13	14	29	28	32	25
9 PGE Share	78	60	47	51	77	72	78	64	54	33	35	73	71	81	64
10 PPL Share	27	20	16	17	26	25	27	22	18	11	12	25	24	28	22
11 PSE Share	121	92	73	79	119	111	121	98	83	51	54	113	109	125	99
12 Debit for Wells After Enc	429	332	269	290	424	398	428	354	304	193	204	403	388	444	357
-Chelan-															
13 Chelan	54	49	13	53	42	6.4	52	51	1.2	25	1.2	26	26	27	30
14 Chelan Before Enc	54	49	13	53	42	6.4	52	51	1.2	25	1.2	26	26	27	30
-Chelan-															
15 CHPD Share	58	52	16	56	45	9.4	54	53	4.2	28	5.2	30	30	31	33
16 Chelan After Enc	58	52	16	56	45	9.4	54	53	4.2	28	5.2	30	30	31	33

**Table A-18: Wells and Chelan Allocation
PNW Loads and Resource Study
2012 - 2013 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Credit for Wells-															
1 Credit for Wells	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
2 Credit for Wells	-24	-24	-24	-24	-24	-24	-24	-24	-24	-24	-24	-24	-24	-24	-24
3 Credit for Wells	477	404	324	332	472	444	476	399	347	231	243	450	434	492	404
4 Credit for Wells Before Enc	477	404	324	332	472	444	476	399	347	231	243	450	434	492	404
-Debit for Wells-															
5 AVWP Share	14	11	8.6	8.9	13	12	13	11	9.3	5.7	6	13	12	14	11
6 COLV Share	18	15	12	12	18	17	18	15	13	7.6	8.1	17	16	19	15
7 DOPD Share	140	120	98	100	139	131	140	119	104	73	76	132	128	144	120
8 OKPD Share	31	26	20	20	31	29	31	25	21	13	14	29	28	32	26
9 PGE Share	78	65	50	51	78	72	78	64	54	33	35	73	71	81	65
10 PPL Share	27	22	17	17	26	25	27	22	18	11	12	25	24	28	22
11 PSE Share	121	100	77	79	120	112	121	99	84	51	54	113	109	126	100
12 Debit for Wells After Enc	429	358	282	290	424	398	428	354	304	193	204	403	388	444	359
-Chelan-															
13 Chelan	27	27	38	53	42	6.4	52	51	1.2	25	1.2	26	26	27	30
14 Chelan Before Enc	27	27	38	53	42	6.4	52	51	1.2	25	1.2	26	26	27	30
-Chelan-															
15 CHPD Share	31	30	41	56	45	9.4	54	53	4.2	28	5.2	30	30	31	33
16 Chelan After Enc	31	30	41	56	45	9.4	54	53	4.2	28	5.2	30	30	31	33

Table A-18: Wells and Chelan Allocation
PNW Loads and Resource Study
2013 - 2014 Operating Year
1937 Water Year
[76] 2011 White Book (Final)

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Credit for Wells-															
1 Credit for Wells	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
2 Credit for Wells	-24	-24	-24	-24	-24	-24	-24	-24	-24	-24	-24	-24	-24	-24	-24
3 Credit for Wells	477	404	324	332	472	444	476	399	347	231	243	450	434	492	404
4 Credit for Wells Before Enc	477	404	324	332	472	444	476	399	347	231	243	450	434	492	404
-Debit for Wells-															
5 AVWP Share	14	11	8.6	8.9	13	12	14	11	9.4	5.7	6	13	12	14	11
6 COLV Share	18	15	12	12	18	17	18	15	13	7.6	8.1	17	16	19	15
7 DOPD Share	140	120	98	100	139	131	140	119	104	72	75	132	128	144	120
8 OKPD Share	31	26	20	20	31	29	31	25	21	13	14	29	28	32	26
9 PGE Share	79	65	50	52	78	72	78	64	54	33	35	73	71	81	65
10 PPL Share	27	22	17	18	26	25	27	22	18	11	12	25	24	28	22
11 PSE Share	121	100	77	79	120	112	121	99	84	51	54	113	109	126	100
12 Debit for Wells After Enc	429	358	282	290	424	398	428	354	304	193	204	403	388	444	359
-Chelan-															
13 Chelan	27	27	38	53	42	6.4	52	51	1.2	25	1.2	26	26	27	30
14 Chelan Before Enc	27	27	38	53	42	6.4	52	51	1.2	25	1.2	26	26	27	30
-Chelan-															
15 CHPD Share	31	30	41	56	45	9.4	54	53	4.2	28	5.2	30	30	31	33
16 Chelan After Enc	31	30	41	56	45	9.4	54	53	4.2	28	5.2	30	30	31	33

Table A-18: Wells and Chelan Allocation
PNW Loads and Resource Study
2014 - 2015 Operating Year
1937 Water Year
[76] 2011 White Book (Final)

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Credit for Wells-															
1 Credit for Wells	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
2 Credit for Wells	-24	-24	-24	-24	-24	-24	-24	-24	-24	-24	-24	-24	-24	-24	-24
3 Credit for Wells	477	404	324	332	472	444	476	399	347	231	243	450	434	492	404
4 Credit for Wells Before Enc	477	404	324	332	472	444	476	399	347	231	243	450	434	492	404
-Debit for Wells-															
5 AVWP Share	14	11	8.6	8.9	13	12	14	11	9.4	5.7	6	13	12	14	11
6 COLV Share	18	15	12	12	18	17	18	15	13	7.6	8.1	17	16	19	15
7 DOPD Share	140	120	98	100	139	131	140	119	104	72	75	132	128	144	120
8 OKPD Share	31	26	20	20	31	29	31	25	21	13	14	29	28	32	26
9 PGE Share	79	65	50	52	78	72	78	64	54	33	35	73	71	81	65
10 PPL Share	27	22	17	18	26	25	27	22	18	11	12	25	24	28	22
11 PSE Share	121	100	77	79	120	112	121	99	84	51	54	113	109	126	100
12 Debit for Wells After Enc	429	358	282	290	424	398	428	354	304	193	204	403	388	444	359
-Chelan-															
13 Chelan	27	27	38	53	42	6.4	52	51	1.2	25	1.2	26	26	27	30
14 Chelan Before Enc	27	27	38	53	42	6.4	52	51	1.2	25	1.2	26	26	27	30
-Chelan-															
15 CHPD Share	31	30	41	56	45	9.4	54	53	4.2	28	5.2	30	30	31	33
16 Chelan After Enc	31	30	41	56	45	9.4	54	53	4.2	28	5.2	30	30	31	33

**Table A-18: Wells and Chelan Allocation
PNW Loads and Resource Study
2015 - 2016 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Credit for Wells-															
1 Credit for Wells	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
2 Credit for Wells	-24	-24	-24	-24	-24	-24	-24	-24	-24	-24	-24	-24	-24	-24	-24
3 Credit for Wells	477	404	324	332	472	444	476	399	347	231	243	450	434	492	404
4 Credit for Wells Before Enc	477	404	324	332	472	444	476	399	347	231	243	450	434	492	404
-Debit for Wells-															
5 AVWP Share	14	11	8.6	8.9	13	12	14	11	9.4	5.7	6	13	12	14	11
6 COLV Share	18	15	12	12	18	17	18	15	13	7.6	8.1	17	16	19	15
7 DOPD Share	140	120	98	100	139	131	140	118	104	72	75	132	128	144	120
8 OKPD Share	31	26	20	20	31	29	31	25	21	13	14	29	28	32	26
9 PGE Share	79	65	50	52	78	73	78	64	54	33	35	73	71	82	65
10 PPL Share	27	22	17	18	26	25	27	22	18	11	12	25	24	28	22
11 PSE Share	121	100	77	80	120	112	121	99	84	51	54	113	109	126	100
12 Debit for Wells After Enc	429	358	282	290	424	398	428	354	304	193	204	403	388	444	359
-Chelan-															
13 Chelan	27	27	38	53	42	6.4	52	51	1.2	25	1.2	26	26	27	30
14 Chelan Before Enc	27	27	38	53	42	6.4	52	51	1.2	25	1.2	26	26	27	30
-Chelan-															
15 CHPD Share	31	30	41	56	45	9.4	54	53	4.2	28	5.2	30	30	31	33
16 Chelan After Enc	31	30	41	56	45	9.4	54	53	4.2	28	5.2	30	30	31	33

**Table A-18: Wells and Chelan Allocation
PNW Loads and Resource Study
2016 - 2017 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Credit for Wells-															
1 Credit for Wells	24	24	24	24	24	24	24	24	24	23	23	23	23	23	23
2 Credit for Wells	-24	-24	-24	-24	-24	-24	-24	-24	-24	-23	-23	-23	-23	-23	-23
3 Credit for Wells	477	404	324	332	472	444	476	399	347	231	243	450	434	492	404
4 Credit for Wells Before Enc	477	404	324	332	472	444	476	399	347	231	243	450	434	492	404
-Debit for Wells-															
5 AVWP Share	14	11	8.6	8.9	13	12	14	11	9.4	5.7	6	13	12	14	11
6 COLV Share	18	15	12	12	18	17	18	15	13	7.7	8.1	17	16	19	15
7 DOPD Share	140	120	98	100	138	131	140	118	104	72	75	132	128	144	120
8 OKPD Share	31	26	20	20	31	29	31	25	21	13	14	29	28	32	26
9 PGE Share	79	65	50	52	78	73	78	64	54	33	35	74	71	82	65
10 PPL Share	27	22	17	18	26	25	27	22	18	11	12	25	24	28	22
11 PSE Share	121	100	77	80	120	112	121	99	84	51	54	113	109	126	100
12 Debit for Wells After Enc	429	358	282	290	424	398	428	354	304	193	204	403	388	444	359
-Chelan-															
13 Chelan	27	27	38	53	42	6.4	52	51	1.2	25	1.2	26	26	27	30
14 Chelan Before Enc	27	27	38	53	42	6.4	52	51	1.2	25	1.2	26	26	27	30
-Chelan-															
15 CHPD Share	31	30	41	56	45	9.4	54	53	4.2	28	5.2	30	30	31	33
16 Chelan After Enc	31	30	41	56	45	9.4	54	53	4.2	28	5.2	30	30	31	33

**Table A-18: Wells and Chelan Allocation
PNW Loads and Resource Study
2017 - 2018 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Credit for Wells-															
1 Credit for Wells	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23
2 Credit for Wells	-23	-23	-23	-23	-23	-23	-23	-23	-23	-23	-23	-23	-23	-23	-23
3 Credit for Wells	477	404	324	332	472	444	476	399	347	231	243	450	434	492	404
4 Credit for Wells Before Enc	477	404	324	332	472	444	476	399	347	231	243	450	434	492	404
-Debit for Wells-															
5 AVWP Share	14	11	8.6	8.9	13	13	14	11	9.4	5.7	6	13	12	14	11
6 COLV Share	18	15	12	12	18	17	18	15	13	7.7	8.1	17	16	19	15
7 DOPD Share	140	119	97	100	138	131	139	118	104	72	75	132	128	144	120
8 OKPD Share	31	26	20	20	31	29	31	25	21	13	14	29	28	32	26
9 PGE Share	79	65	50	52	78	73	79	64	54	33	35	74	71	82	65
10 PPL Share	27	22	17	18	26	25	27	22	18	11	12	25	24	28	22
11 PSE Share	121	100	77	80	120	112	121	99	84	51	54	113	109	126	100
12 Debit for Wells After Enc	429	358	282	290	424	398	428	354	304	193	204	403	388	444	359
-Chelan-															
13 Chelan	27	27	38	53	42	6.4	52	51	1.2	25	1.2	26	26	27	30
14 Chelan Before Enc	27	27	38	53	42	6.4	52	51	1.2	25	1.2	26	26	27	30
-Chelan-															
15 CHPD Share	31	30	41	56	45	9.4	54	53	4.2	28	5.2	30	30	31	33
16 Chelan After Enc	31	30	41	56	45	9.4	54	53	4.2	28	5.2	30	30	31	33

**Table A-18: Wells and Chelan Allocation
PNW Loads and Resource Study
2018 - 2019 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Credit for Wells-															
1 Credit for Wells	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23
2 Credit for Wells	-23	-23	-23	-23	-23	-23	-23	-23	-23	-23	-23	-23	-23	-23	-23
3 Credit for Wells	477	404	324	332	472	444	476	399	347	231	243	450	434	492	404
4 Credit for Wells Before Enc	477	404	324	332	472	444	476	399	347	231	243	450	434	492	404
-Debit for Wells-															
5 AVWP Share	14	11	0	0	0	0	0	0	0	0	0	0	0	0	1
6 COLV Share	18	15	14	15	22	21	22	18	15	9.4	10.0	21	20	23	18
7 DOPD Share	139	119	248	255	372	349	375	311	267	171	180	353	340	389	297
8 OKPD Share	31	26	20	20	30	28	31	25	21	13	14	29	28	32	25
9 PGE Share	79	65	0	0	0	0	0	0	0	0	0	0	0	0	6.1
10 PPL Share	27	22	0	0	0	0	0	0	0	0	0	0	0	0	2.1
11 PSE Share	121	100	0	0	0	0	0	0	0	0	0	0	0	0	9.4
12 Debit for Wells After Enc	429	358	282	290	424	398	428	354	304	193	204	403	388	444	359
-Chelan-															
13 Chelan	27	27	38	53	42	6.4	52	51	1.2	25	1.2	26	26	27	30
14 Chelan Before Enc	27	27	38	53	42	6.4	52	51	1.2	25	1.2	26	26	27	30
-Chelan-															
15 CHPD Share	31	30	41	56	45	9.4	54	53	4.2	28	5.2	30	30	31	33
16 Chelan After Enc	31	30	41	56	45	9.4	54	53	4.2	28	5.2	30	30	31	33

**Table A-18: Wells and Chelan Allocation
PNW Loads and Resource Study
2019 - 2020 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Credit for Wells-															
1 Credit for Wells	23	23	23	23	23	23	23	23	23	22	22	22	22	22	23
2 Credit for Wells	-23	-23	-23	-23	-23	-23	-23	-23	-23	-22	-22	-22	-22	-22	-23
3 Credit for Wells	477	404	324	332	472	444	476	399	347	231	243	450	434	492	404
4 Credit for Wells Before Enc	477	404	324	332	472	444	476	399	347	231	243	450	434	492	404
-Debit for Wells-															
5 AVWP Share	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6 COLV Share	22	18	14	15	22	21	22	18	15	9.4	10.0	21	20	23	19
7 DOPD Share	376	315	248	255	372	349	375	311	267	171	180	353	340	389	315
8 OKPD Share	31	25	20	20	30	28	31	25	21	13	14	29	28	32	25
9 PGE Share	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10 PPL Share	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 PSE Share	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12 Debit for Wells After Enc	429	358	282	290	424	398	428	354	304	193	204	403	388	444	359
-Chelan-															
13 Chelan	27	27	38	53	42	6.4	52	51	1.2	25	1.2	26	26	27	30
14 Chelan Before Enc	27	27	38	53	42	6.4	52	51	1.2	25	1.2	26	26	27	30
-Chelan-															
15 CHPD Share	31	30	41	56	45	9.4	54	53	4.2	28	5.2	30	30	31	33
16 Chelan After Enc	31	30	41	56	45	9.4	54	53	4.2	28	5.2	30	30	31	33

**Table A-18: Wells and Chelan Allocation
PNW Loads and Resource Study
2020 - 2021 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Credit for Wells-															
1 Credit for Wells	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22
2 Credit for Wells	-22	-22	-22	-22	-22	-22	-22	-22	-22	-22	-22	-22	-22	-22	-22
3 Credit for Wells	477	404	324	332	472	444	476	399	347	231	243	450	434	492	404
4 Credit for Wells Before Enc	477	404	324	332	472	444	476	399	347	231	243	450	434	492	404
-Debit for Wells-															
5 AVWP Share	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6 COLV Share	22	18	14	15	22	21	22	18	15	9.4	10.0	21	20	23	19
7 DOPD Share	376	315	248	255	372	349	375	311	267	171	180	353	340	389	315
8 OKPD Share	31	25	20	20	30	28	31	25	21	13	14	29	28	32	25
9 PGE Share	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10 PPL Share	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 PSE Share	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12 Debit for Wells After Enc	429	358	282	290	424	398	428	354	304	193	204	403	388	444	359
-Chelan-															
13 Chelan	27	27	38	53	42	6.4	52	51	1.2	25	1.2	26	26	27	30
14 Chelan Before Enc	27	27	38	53	42	6.4	52	51	1.2	25	1.2	26	26	27	30
-Chelan-															
15 CHPD Share	31	30	41	56	45	9.4	54	53	4.2	28	5.2	30	30	31	33
16 Chelan After Enc	31	30	41	56	45	9.4	54	53	4.2	28	5.2	30	30	31	33

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Table A-19
Rocky Reach & Rock Island Allocation
Monthly OY 2012 – 2021
Average Energy in Megawatts

Power Services

Reports Powered by:



Loads and Resources Information System

**Table A-19: Rocky Reach and Rock Island Allocation
PNW Loads and Resource Study
2011 - 2012 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Credit for Rocky Reach-															
1 Credit for Rocky Reach	39	39	39	39	39	39	39	39	39	38	38	38	38	38	39
2 Credit for Rocky Reach	-39	-39	-39	-39	-39	-39	-39	-39	-39	-38	-38	-38	-38	-38	-39
3 Credit for Rocky Reach	634	529	400	442	640	594	652	543	458	308	332	530	598	666	536
4 Credit for Rocky Reach Before Enc	634	529	400	442	640	594	652	543	458	308	332	530	598	666	536
-Debit for Rocky Reach-															
5 APGI Share	141	117	87	97	170	158	174	144	120	79	85	140	159	168	136
6 AVWP Share	18	15	11	12	0	0	0	0	0	0	0	0	0	0	3.3
7 CHPD Share	132	116	96	103	299	279	304	258	222	158	168	252	280	319	225
8 DOPD Share	17	14	10	12	34	32	35	29	24	16	17	28	32	36	25
9 PGE Share	74	61	45	50	0	0	0	0	0	0	0	0	0	0	14
10 PPL Share	32	27	20	22	0	0	0	0	0	0	0	0	0	0	6
11 PSE Share	238	197	147	164	155	143	158	131	109	71	77	127	144	161	144
12 Debit for Rocky Reach After Enc	652	546	417	459	658	612	672	562	475	324	347	547	615	684	553
-Credit for Rock Island #1-															
13 Credit for Rock Island #1	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
14 Credit for Rock Island #1	-11	-11	-11	-11	-11	-11	-11	-11	-11	-11	-11	-11	-11	-11	-11
15 Credit for Rock Island #1	147	132	107	116	149	142	149	134	119	82	90	148	146	146	132
16 Credit for Rock Island #1 Before Enc	147	132	107	116	149	142	149	134	119	82	90	148	146	146	132
-Debit for Rock Island #1-															
17 APGI Share	0	0	0	0	0	0	0	0	0	0	0	0	0	45	3.8
18 CHPD Share	100	90	77	82	98	95	98	92	83	61	67	98	97	95	90
19 PSE Share	88	79	65	70	87	84	86	80	72	50	56	87	86	43	75
20 Debit for Rock Island #1 After Enc	88	169	142	152	184	179	184	172	155	110	124	185	184	183	168
-Credit for Rock Island #2-															
21 Credit for Rock Island #2	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.1	7.1	7.1	7.1	7.1	7.2
22 Credit for Rock Island #2	-7.3	-7.3	-7.3	-7.3	-7.3	-7.3	-7.3	-7.3	-7.3	-7.1	-7.1	-7.1	-7.1	-7.1	-7.2
23 Credit for Rock Island #2	103	108	82	90	140	127	145	113	92	65	54	124	120	121	110
24 Credit for Rock Island #2 Before Enc	103	108	82	90	140	127	145	113	92	65	54	124	120	121	110
-Debit for Rock Island #2-															
25 APGI Share	0	0	0	0	0	0	0	0	0	0	0	0	0	38	3.2
26 CHPD Share	69	73	58	62	90	84	93	76	64	47	41	82	79	78	73
27 PSE Share	62	66	51	55	83	76	86	69	57	40	34	74	72	36	63
28 Debit for Rock Island #2 After Enc	62	139	109	117	173	160	179	144	120	87	74	156	151	152	140

**Table A-19: Rocky Reach and Rock Island Allocation
PNW Loads and Resource Study
2012 - 2013 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Credit for Rocky Reach-															
1 Credit for Rocky Reach	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38
2 Credit for Rocky Reach	-38	-38	-38	-38	-38	-38	-38	-38	-38	-38	-38	-38	-38	-38	-38
3 Credit for Rocky Reach	629	565	427	442	640	594	652	543	458	308	332	530	598	666	539
4 Credit for Rocky Reach Before Enc	629	565	427	442	640	594	652	543	458	308	332	530	598	666	539
-Debit for Rocky Reach-															
5 APGI Share	158	142	106	110	161	149	165	136	114	74	80	133	150	168	135
6 AVWP Share	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7 CHPD Share	302	275	214	221	308	287	313	266	228	162	172	259	289	318	263
8 DOPD Share	34	30	22	23	34	32	35	29	24	16	17	28	32	36	29
9 PGE Share	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10 PPL Share	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 PSE Share	152	136	101	105	155	143	158	131	109	72	77	127	144	162	130
12 Debit for Rocky Reach After Enc	646	582	444	459	658	612	672	562	475	324	347	547	615	684	557
-Credit for Rock Island #1-															
13 Credit for Rock Island #1	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
14 Credit for Rock Island #1	-11	-11	-11	-11	-11	-11	-11	-11	-11	-11	-11	-11	-11	-11	-11
15 Credit for Rock Island #1	147	137	113	116	149	142	149	134	119	82	90	148	146	146	133
16 Credit for Rock Island #1 Before Enc	147	137	113	116	149	142	149	134	119	82	90	148	146	146	133
-Debit for Rock Island #1-															
17 APGI Share	46	42	36	37	45	44	45	42	37	26	29	45	45	45	41
18 CHPD Share	98	91	79	80	96	93	96	90	82	60	66	96	96	95	88
19 PSE Share	44	41	34	35	43	42	43	40	36	25	28	44	43	43	39
20 Debit for Rock Island #1 After Enc	166	174	149	152	184	179	184	172	155	110	124	185	184	183	169
-Credit for Rock Island #2-															
21 Credit for Rock Island #2	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7	7	7	7	7	7.1
22 Credit for Rock Island #2	-7.1	-7.1	-7.1	-7.1	-7.1	-7.1	-7.1	-7.1	-7.1	-7	-7	-7	-7	-7	-7.1
23 Credit for Rock Island #2	100	118	87	90	140	127	145	113	92	65	54	124	120	121	111
24 Credit for Rock Island #2 Before Enc	100	118	87	90	140	127	145	113	92	65	54	124	120	121	111
-Debit for Rock Island #2-															
25 APGI Share	32	37	28	29	43	40	45	36	29	21	18	39	37	38	35
26 CHPD Share	67	77	60	61	89	82	91	74	63	46	40	80	77	78	73
27 PSE Share	30	36	27	28	42	38	43	34	28	20	17	37	36	36	33
28 Debit for Rock Island #2 After Enc	126	150	114	117	173	160	179	144	120	87	74	156	151	152	141

**Table A-19: Rocky Reach and Rock Island Allocation
PNW Loads and Resource Study
2013 - 2014 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Credit for Rocky Reach-															
1 Credit for Rocky Reach	38	38	38	38	38	38	38	38	38	37	37	37	37	37	37
2 Credit for Rocky Reach	-38	-38	-38	-38	-38	-38	-38	-38	-38	-37	-37	-37	-37	-37	-37
3 Credit for Rocky Reach	629	565	427	442	640	594	652	543	458	308	332	530	598	666	539
4 Credit for Rocky Reach Before Enc	629	565	427	442	640	594	652	543	458	308	332	530	598	666	539
-Debit for Rocky Reach-															
5 APGI Share	158	142	106	110	161	149	165	136	114	74	81	133	150	168	135
6 AVWP Share	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7 CHPD Share	302	274	214	221	307	287	313	265	228	162	172	259	288	318	263
8 DOPD Share	34	30	23	23	34	32	35	29	24	16	17	28	32	36	29
9 PGE Share	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10 PPL Share	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 PSE Share	152	136	102	105	155	144	159	131	109	72	77	128	144	162	130
12 Debit for Rocky Reach After Enc	646	582	444	459	658	612	672	562	475	324	347	547	615	684	557
-Credit for Rock Island #1-															
13 Credit for Rock Island #1	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
14 Credit for Rock Island #1	-11	-11	-11	-11	-11	-11	-11	-11	-11	-11	-11	-11	-11	-11	-11
15 Credit for Rock Island #1	147	137	113	116	149	142	149	134	119	82	90	148	146	146	133
16 Credit for Rock Island #1 Before Enc	147	137	113	116	149	142	149	134	119	82	90	148	146	146	133
-Debit for Rock Island #1-															
17 APGI Share	46	42	36	37	45	44	45	42	37	26	29	45	45	45	41
18 CHPD Share	98	91	78	80	96	93	96	90	82	60	66	96	96	95	88
19 PSE Share	44	41	34	35	43	42	43	40	36	25	28	44	43	43	39
20 Debit for Rock Island #1 After Enc	166	174	149	152	184	179	184	172	155	110	124	185	184	183	169
-Credit for Rock Island #2-															
21 Credit for Rock Island #2	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
22 Credit for Rock Island #2	-7	-7	-7	-7	-7	-7	-7	-7	-7	-7	-7	-7	-7	-7	-7
23 Credit for Rock Island #2	100	118	87	90	140	127	145	113	92	65	54	124	120	121	111
24 Credit for Rock Island #2 Before Enc	100	118	87	90	140	127	145	113	92	65	54	124	120	121	111
-Debit for Rock Island #2-															
25 APGI Share	32	37	28	29	43	40	45	36	29	21	18	39	37	38	35
26 CHPD Share	66	77	60	61	88	82	91	74	63	46	40	80	77	78	73
27 PSE Share	30	36	27	28	42	38	43	34	28	20	17	37	36	36	33
28 Debit for Rock Island #2 After Enc	128	150	114	117	173	160	179	144	120	87	74	156	151	152	141

**Table A-19: Rocky Reach and Rock Island Allocation
PNW Loads and Resource Study
2014 - 2015 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Credit for Rocky Reach-															
1 Credit for Rocky Reach	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37
2 Credit for Rocky Reach	-37	-37	-37	-37	-37	-37	-37	-37	-37	-37	-37	-37	-37	-37	-37
3 Credit for Rocky Reach	629	565	427	442	640	594	652	543	458	308	332	530	598	666	539
4 Credit for Rocky Reach Before Error	629	565	427	442	640	594	652	543	458	308	332	530	598	666	539
-Debit for Rocky Reach-															
5 APGI Share	158	142	106	110	161	149	165	136	114	74	81	133	150	168	135
6 AVWP Share	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7 CHPD Share	302	274	214	221	307	287	313	265	228	162	172	259	288	318	263
8 DOPD Share	34	30	23	23	34	32	35	29	24	16	17	28	32	36	29
9 PGE Share	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10 PPL Share	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 PSE Share	152	136	102	106	155	144	159	131	110	72	77	128	145	162	130
12 Debit for Rocky Reach After Error	646	582	444	459	658	612	672	562	475	324	347	547	615	684	557
-Credit for Rock Island #1-															
13 Credit for Rock Island #1	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
14 Credit for Rock Island #1	-11	-11	-11	-11	-11	-11	-11	-11	-11	-11	-11	-11	-11	-11	-11
15 Credit for Rock Island #1	147	137	113	116	149	142	149	134	119	82	90	148	146	146	133
16 Credit for Rock Island #1 Before Error	147	137	113	116	149	142	149	134	119	82	90	148	146	146	133
-Debit for Rock Island #1-															
17 APGI Share	46	43	36	37	45	44	45	42	38	26	29	45	45	45	41
18 CHPD Share	98	91	78	80	96	93	96	90	82	60	66	96	96	95	88
19 PSE Share	44	41	34	35	43	42	43	40	36	25	28	44	43	43	39
20 Debit for Rock Island #1 After Error	166	174	149	152	184	179	184	172	155	110	124	185	184	183	169
-Credit for Rock Island #2-															
21 Credit for Rock Island #2	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
22 Credit for Rock Island #2	-7	-7	-7	-7	-7	-7	-7	-7	-7	-7	-7	-7	-7	-7	-7
23 Credit for Rock Island #2	100	118	87	90	140	127	145	113	92	65	54	124	120	121	111
24 Credit for Rock Island #2 Before Error	100	118	87	90	140	127	145	113	92	65	54	124	120	121	111
-Debit for Rock Island #2-															
25 APGI Share	32	37	28	29	43	40	45	36	29	21	18	39	37	38	35
26 CHPD Share	66	77	60	61	88	82	91	74	63	46	40	80	77	78	73
27 PSE Share	30	36	27	28	42	38	43	34	28	20	17	37	36	36	33
28 Debit for Rock Island #2 After Error	128	150	114	117	173	160	179	144	120	87	74	156	151	152	141

**Table A-19: Rocky Reach and Rock Island Allocation
PNW Loads and Resource Study
2015 - 2016 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Credit for Rocky Reach-															
1 Credit for Rocky Reach	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37
2 Credit for Rocky Reach	-37	-37	-37	-37	-37	-37	-37	-37	-37	-37	-37	-37	-37	-37	-37
3 Credit for Rocky Reach	629	565	427	442	640	594	652	543	458	308	332	530	598	666	539
4 Credit for Rocky Reach Before Enc	629	565	427	442	640	594	652	543	458	308	332	530	598	666	539
-Debit for Rocky Reach-															
5 APGI Share	158	142	106	110	161	149	165	136	114	75	81	133	150	168	135
6 AVWP Share	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7 CHPD Share	302	274	214	221	307	287	313	265	228	161	172	259	288	318	263
8 DOPD Share	34	30	23	23	34	32	35	29	24	16	17	28	32	36	29
9 PGE Share	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10 PPL Share	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 PSE Share	152	136	102	106	155	144	159	131	110	72	78	128	145	162	130
12 Debit for Rocky Reach After Enc	646	582	444	459	658	612	672	562	475	324	347	547	615	684	557
-Credit for Rock Island #1-															
13 Credit for Rock Island #1	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
14 Credit for Rock Island #1	-11	-11	-11	-11	-11	-11	-11	-11	-11	-11	-11	-11	-11	-11	-11
15 Credit for Rock Island #1	147	137	113	116	149	142	149	134	119	82	90	148	146	146	133
16 Credit for Rock Island #1 Before Enc	147	137	113	116	149	142	149	134	119	82	90	148	146	146	133
-Debit for Rock Island #1-															
17 APGI Share	46	43	36	37	45	44	45	42	38	26	29	45	45	45	41
18 CHPD Share	98	91	78	80	96	93	96	90	82	60	66	96	96	95	88
19 PSE Share	44	41	34	35	43	42	43	40	36	25	28	44	43	43	39
20 Debit for Rock Island #1 After Enc	166	174	149	152	184	179	184	172	155	110	124	185	184	183	169
-Credit for Rock Island #2-															
21 Credit for Rock Island #2	7	7	7	7	7	7	7	7	7	6.9	6.9	6.9	6.9	6.9	7.0
22 Credit for Rock Island #2	-7	-7	-7	-7	-7	-7	-7	-7	-7	-6.9	-6.9	-6.9	-6.9	-6.9	-7.0
23 Credit for Rock Island #2	100	118	87	90	140	127	145	113	92	65	54	124	120	121	111
24 Credit for Rock Island #2 Before Enc	100	118	87	90	140	127	145	113	92	65	54	124	120	121	111
-Debit for Rock Island #2-															
25 APGI Share	32	37	28	29	43	40	45	36	29	21	18	39	37	38	35
26 CHPD Share	66	77	60	61	88	82	91	74	63	46	40	80	77	78	73
27 PSE Share	30	36	27	28	42	38	43	34	28	20	17	37	36	36	33
28 Debit for Rock Island #2 After Enc	128	150	114	117	173	160	179	144	120	87	74	156	151	152	141

**Table A-19: Rocky Reach and Rock Island Allocation
PNW Loads and Resource Study
2016 - 2017 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Credit for Rocky Reach-															
1 Credit for Rocky Reach	37	37	37	37	37	37	37	37	37	36	36	36	36	36	37
2 Credit for Rocky Reach	-37	-37	-37	-37	-37	-37	-37	-37	-37	-36	-36	-36	-36	-36	-37
3 Credit for Rocky Reach	629	565	427	442	640	594	652	543	458	308	332	530	598	666	539
4 Credit for Rocky Reach Before Enc	629	565	427	442	640	594	652	543	458	308	332	530	598	666	539
-Debit for Rocky Reach-															
5 APGI Share	158	142	106	110	162	149	165	136	114	75	81	133	150	168	135
6 AVWP Share	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7 CHPD Share	302	274	214	221	307	287	313	265	227	161	171	258	288	318	263
8 DOPD Share	34	30	23	23	34	32	35	29	24	16	17	28	32	36	29
9 PGE Share	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10 PPL Share	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 PSE Share	152	136	102	106	155	144	159	131	110	72	78	128	145	162	130
12 Debit for Rocky Reach After Enc	646	582	444	459	658	612	672	562	475	324	347	547	615	684	557
-Credit for Rock Island #1-															
13 Credit for Rock Island #1	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
14 Credit for Rock Island #1	-11	-11	-11	-11	-11	-11	-11	-11	-11	-11	-11	-11	-11	-11	-11
15 Credit for Rock Island #1	147	137	113	116	149	142	149	134	119	82	90	148	146	146	133
16 Credit for Rock Island #1 Before Enc	147	137	113	116	149	142	149	134	119	82	90	148	146	146	133
-Debit for Rock Island #1-															
17 APGI Share	46	43	36	37	45	44	45	42	38	26	29	45	45	45	41
18 CHPD Share	98	91	78	80	96	93	95	90	82	60	66	96	95	95	88
19 PSE Share	44	41	34	35	43	42	43	40	36	25	28	44	43	43	40
20 Debit for Rock Island #1 After Enc	166	174	149	152	184	179	184	172	155	110	124	185	184	183	169
-Credit for Rock Island #2-															
21 Credit for Rock Island #2	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.8	6.8	6.8	6.8	6.8	6.9
22 Credit for Rock Island #2	-6.9	-6.9	-6.9	-6.9	-6.9	-6.9	-6.9	-6.9	-6.9	-6.8	-6.8	-6.8	-6.8	-6.8	-6.9
23 Credit for Rock Island #2	100	118	87	90	140	127	145	113	92	65	54	124	120	121	111
24 Credit for Rock Island #2 Before Enc	100	118	87	90	140	127	145	113	92	65	54	124	120	121	111
-Debit for Rock Island #2-															
25 APGI Share	32	37	28	29	43	40	45	36	29	21	18	39	37	38	35
26 CHPD Share	66	77	60	61	88	82	91	74	62	46	40	80	77	78	72
27 PSE Share	30	36	27	28	42	38	43	34	28	20	17	37	36	36	33
28 Debit for Rock Island #2 After Enc	128	150	114	117	173	160	179	144	120	87	74	156	151	152	141

**Table A-19: Rocky Reach and Rock Island Allocation
PNW Loads and Resource Study
2017 - 2018 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Credit for Rocky Reach-															
1 Credit for Rocky Reach	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36
2 Credit for Rocky Reach	-36	-36	-36	-36	-36	-36	-36	-36	-36	-36	-36	-36	-36	-36	-36
3 Credit for Rocky Reach	629	565	427	442	640	594	652	543	458	308	332	530	598	666	539
4 Credit for Rocky Reach Before Enc	629	565	427	442	640	594	652	543	458	308	332	530	598	666	539
-Debit for Rocky Reach-															
5 APGI Share	159	142	106	110	162	150	165	137	114	75	81	133	151	168	135
6 AVWP Share	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7 CHPD Share	301	274	213	220	307	286	312	265	227	161	171	258	288	318	263
8 DOPD Share	34	30	23	23	34	32	35	29	24	16	17	28	32	36	29
9 PGE Share	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10 PPL Share	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 PSE Share	152	136	102	106	155	144	159	131	110	72	78	128	145	162	130
12 Debit for Rocky Reach After Enc	646	582	444	459	658	612	672	562	475	324	347	547	615	684	557
-Credit for Rock Island #1-															
13 Credit for Rock Island #1	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
14 Credit for Rock Island #1	-11	-11	-11	-11	-11	-11	-11	-11	-11	-11	-11	-11	-11	-11	-11
15 Credit for Rock Island #1	147	137	113	116	149	142	149	134	119	82	90	148	146	146	133
16 Credit for Rock Island #1 Before Enc	147	137	113	116	149	142	149	134	119	82	90	148	146	146	133
-Debit for Rock Island #1-															
17 APGI Share	46	43	36	37	45	44	45	42	38	26	29	45	45	45	41
18 CHPD Share	98	91	78	80	96	93	95	90	82	59	66	96	95	95	88
19 PSE Share	44	41	34	35	43	42	43	40	36	25	28	44	43	43	40
20 Debit for Rock Island #1 After Enc	166	174	149	152	184	179	184	172	155	110	124	185	184	183	169
-Credit for Rock Island #2-															
21 Credit for Rock Island #2	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
22 Credit for Rock Island #2	-6.8	-6.8	-6.8	-6.8	-6.8	-6.8	-6.8	-6.8	-6.8	-6.8	-6.8	-6.8	-6.8	-6.8	-6.8
23 Credit for Rock Island #2	100	118	87	90	140	127	145	113	92	65	54	124	120	121	111
24 Credit for Rock Island #2 Before Enc	100	118	87	90	140	127	145	113	92	65	54	124	120	121	111
-Debit for Rock Island #2-															
25 APGI Share	32	37	28	29	43	40	45	36	30	21	18	39	37	38	35
26 CHPD Share	66	77	59	61	88	82	91	74	62	46	40	80	77	78	72
27 PSE Share	30	36	27	28	42	38	43	34	28	20	17	37	36	36	33
28 Debit for Rock Island #2 After Enc	128	150	114	117	173	160	179	144	120	87	74	156	151	152	141

**Table A-19: Rocky Reach and Rock Island Allocation
PNW Loads and Resource Study
2018 - 2019 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Credit for Rocky Reach-															
1 Credit for Rocky Reach	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36
2 Credit for Rocky Reach	-36	-36	-36	-36	-36	-36	-36	-36	-36	-36	-36	-36	-36	-36	-36
3 Credit for Rocky Reach	629	565	427	442	640	594	652	543	458	308	332	530	598	666	539
4 Credit for Rocky Reach Before Enc	629	565	427	442	640	594	652	543	458	308	332	530	598	666	539
-Debit for Rocky Reach-															
5 APGI Share	159	142	106	110	162	150	165	137	114	75	81	133	151	169	135
6 AVWP Share	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7 CHPD Share	301	273	213	220	306	286	312	264	227	161	171	258	287	317	262
8 DOPD Share	34	30	23	23	34	32	35	29	24	16	17	28	32	36	29
9 PGE Share	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10 PPL Share	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 PSE Share	153	137	102	106	156	144	159	131	110	72	78	128	145	162	130
12 Debit for Rocky Reach After Enc	646	582	444	459	658	612	672	562	475	324	347	547	615	684	557
-Credit for Rock Island #1-															
13 Credit for Rock Island #1	11	11	11	11	11	11	11	11	11	10	10	10	10	10	11
14 Credit for Rock Island #1	-11	-11	-11	-11	-11	-11	-11	-11	-11	-10	-10	-10	-10	-10	-11
15 Credit for Rock Island #1	147	137	113	116	149	142	149	134	119	82	90	148	146	146	133
16 Credit for Rock Island #1 Before Enc	147	137	113	116	149	142	149	134	119	82	90	148	146	146	133
-Debit for Rock Island #1-															
17 APGI Share	46	43	36	37	45	44	45	42	38	26	29	45	45	45	41
18 CHPD Share	98	91	78	80	96	93	95	90	81	59	66	96	95	95	88
19 PSE Share	44	41	35	35	43	42	43	40	36	25	28	44	43	43	40
20 Debit for Rock Island #1 After Enc	166	174	149	152	184	179	184	172	155	110	124	185	184	183	169
-Credit for Rock Island #2-															
21 Credit for Rock Island #2	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.7	6.7	6.7	6.7	6.7	6.8
22 Credit for Rock Island #2	-6.8	-6.8	-6.8	-6.8	-6.8	-6.8	-6.8	-6.8	-6.8	-6.7	-6.7	-6.7	-6.7	-6.7	-6.8
23 Credit for Rock Island #2	100	118	87	90	140	127	145	113	92	65	54	124	120	121	111
24 Credit for Rock Island #2 Before Enc	100	118	87	90	140	127	145	113	92	65	54	124	120	121	111
-Debit for Rock Island #2-															
25 APGI Share	32	37	28	29	43	40	45	36	30	21	18	39	37	38	35
26 CHPD Share	66	77	59	61	88	82	91	74	62	46	40	80	77	78	72
27 PSE Share	30	36	27	28	42	38	43	34	28	20	17	37	36	36	33
28 Debit for Rock Island #2 After Enc	128	150	114	117	173	160	179	144	120	87	74	156	151	152	141

**Table A-19: Rocky Reach and Rock Island Allocation
PNW Loads and Resource Study
2019 - 2020 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Credit for Rocky Reach-															
1 Credit for Rocky Reach	36	36	36	36	36	36	36	36	36	35	35	35	35	35	35
2 Credit for Rocky Reach	-36	-36	-36	-36	-36	-36	-36	-36	-36	-35	-35	-35	-35	-35	-35
3 Credit for Rocky Reach	629	565	427	442	640	594	652	543	458	308	332	530	598	666	539
4 Credit for Rocky Reach Before Enc	629	565	427	442	640	594	652	543	458	308	332	530	598	666	539
-Debit for Rocky Reach-															
5 APGI Share	159	142	106	110	162	150	165	137	114	75	81	133	151	169	136
6 AVWP Share	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7 CHPD Share	301	273	213	220	306	286	312	264	227	160	171	258	287	317	262
8 DOPD Share	34	30	23	23	34	32	35	29	24	16	17	28	32	36	29
9 PGE Share	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10 PPL Share	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 PSE Share	153	137	102	106	156	144	159	132	110	72	78	128	145	162	130
12 Debit for Rocky Reach After Enc	646	582	444	459	658	612	672	562	475	324	347	547	615	684	557
-Credit for Rock Island #1-															
13 Credit for Rock Island #1	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
14 Credit for Rock Island #1	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10
15 Credit for Rock Island #1	147	137	113	116	149	142	149	134	119	82	90	148	146	146	133
16 Credit for Rock Island #1 Before Enc	147	137	113	116	149	142	149	134	119	82	90	148	146	146	133
-Debit for Rock Island #1-															
17 APGI Share	46	43	36	37	45	44	45	42	38	26	29	45	45	45	41
18 CHPD Share	98	91	78	80	96	93	95	89	81	59	66	96	95	95	88
19 PSE Share	44	41	35	35	43	42	43	40	36	25	28	44	43	43	40
20 Debit for Rock Island #1 After Enc	166	174	149	152	184	179	184	172	155	110	124	185	184	183	169
-Credit for Rock Island #2-															
21 Credit for Rock Island #2	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.6	6.6	6.6	6.6	6.6	6.7
22 Credit for Rock Island #2	-6.7	-6.7	-6.7	-6.7	-6.7	-6.7	-6.7	-6.7	-6.7	-6.6	-6.6	-6.6	-6.6	-6.6	-6.7
23 Credit for Rock Island #2	100	118	87	90	140	127	145	113	92	65	54	124	120	121	111
24 Credit for Rock Island #2 Before Enc	100	118	87	90	140	127	145	113	92	65	54	124	120	121	111
-Debit for Rock Island #2-															
25 APGI Share	32	37	28	29	43	40	45	36	30	21	18	39	37	38	35
26 CHPD Share	66	77	59	61	88	82	91	74	62	46	40	80	77	78	72
27 PSE Share	30	36	27	28	42	38	43	34	28	20	17	37	36	36	34
28 Debit for Rock Island #2 After Enc	128	150	114	117	173	160	179	144	120	87	74	156	151	152	141

**Table A-19: Rocky Reach and Rock Island Allocation
PNW Loads and Resource Study
2020 - 2021 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Credit for Rocky Reach-															
1 Credit for Rocky Reach	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
2 Credit for Rocky Reach	-35	-35	-35	-35	-35	-35	-35	-35	-35	-35	-35	-35	-35	-35	-35
3 Credit for Rocky Reach	629	565	427	442	640	594	652	543	458	308	332	530	598	666	539
4 Credit for Rocky Reach Before Error	629	565	427	442	640	594	652	543	458	308	332	530	598	666	539
-Debit for Rocky Reach-															
5 APGI Share	159	142	106	110	162	150	165	137	114	75	81	133	151	169	136
6 AVWP Share	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7 CHPD Share	301	273	213	220	306	286	312	264	227	160	170	258	287	317	262
8 DOPD Share	34	30	23	24	35	32	35	29	24	16	17	28	32	36	29
9 PGE Share	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10 PPL Share	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 PSE Share	153	137	102	106	156	144	159	132	110	72	78	128	145	162	130
12 Debit for Rocky Reach After Error	646	582	444	459	658	612	672	562	475	324	347	547	615	684	557
-Credit for Rock Island #1-															
13 Credit for Rock Island #1	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
14 Credit for Rock Island #1	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10
15 Credit for Rock Island #1	147	137	113	116	149	142	149	134	119	82	90	148	146	146	133
16 Credit for Rock Island #1 Before Error	147	137	113	116	149	142	149	134	119	82	90	148	146	146	133
-Debit for Rock Island #1-															
17 APGI Share	46	43	36	37	45	44	45	42	38	26	29	46	45	45	41
18 CHPD Share	98	91	78	80	96	93	95	89	81	59	66	96	95	95	88
19 PSE Share	44	41	35	35	44	42	43	40	36	25	28	44	43	43	40
20 Debit for Rock Island #1 After Error	166	174	149	152	184	179	184	172	155	110	124	185	184	183	169
-Credit for Rock Island #2-															
21 Credit for Rock Island #2	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.5	6.5	6.5	6.5	6.5	6.6
22 Credit for Rock Island #2	-6.6	-6.6	-6.6	-6.6	-6.6	-6.6	-6.6	-6.6	-6.6	-6.5	-6.5	-6.5	-6.5	-6.5	-6.6
23 Credit for Rock Island #2	100	118	87	90	140	127	145	113	92	65	54	124	120	121	111
24 Credit for Rock Island #2 Before Error	100	118	87	90	140	127	145	113	92	65	54	124	120	121	111
-Debit for Rock Island #2-															
25 APGI Share	32	37	28	29	43	40	45	36	30	21	18	39	37	38	35
26 CHPD Share	66	77	59	61	88	82	91	74	62	46	40	80	77	78	72
27 PSE Share	30	36	27	28	42	38	43	34	28	20	17	37	36	36	34
28 Debit for Rock Island #2 After Error	126	150	114	117	173	160	179	144	120	87	74	156	151	152	141

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Table A-20
Wanapum & Priest Rapids Allocation
Monthly OY 2012 – 2021
Average Energy in Megawatts

Power Services

Reports Powered by:



Loads and Resources Information System

**Table A-20: Wanapum and Priest Rapids Allocation
PNW Loads and Resource Study
2011 - 2012 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Credit for Wanapum-															
1 Credit for Wanapum	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29
2 Credit for Wanapum	-29	-29	-29	-29	-29	-29	-29	-29	-29	-29	-29	-29	-29	-29	-29
3 Credit for Wanapum	484	384	334	369	552	523	575	472	393	259	169	472	530	540	451
4 Credit for Wanapum Before Enc	484	384	334	369	552	523	575	472	393	259	169	472	530	540	451
-Debit for Wanapum-															
5 AVWP Share	15	11	9.5	11	17	16	18	14	11	6.7	3.1	14	16	17	14
6 COPD Share	6.8	5.1	4.3	4.9	2.0	1.8	2.1	1.6	1.3	0.8	0.4	1.6	1.9	1.9	2.5
7 EWEB Share	0.7	0.5	0.5	0.5	0.7	0.6	0.7	0.6	0.4	0.3	0.1	0.6	0.6	0.7	0.6
8 FGRV Share	1.6	1.2	1	1.1	1.9	1.8	2.0	1.6	1.2	0.7	0.3	1.6	1.8	1.8	1.5
9 GCPD Share	259	199	173	193	311	293	326	261	214	138	80	261	297	304	248
10 KITT Share	0.5	0.4	0.3	0.4	0.6	0.6	0.7	0.5	0.4	0.2	0.1	0.5	0.6	0.6	0.5
11 MCMN Share	1.6	1.2	1	1.1	1.9	1.8	2.0	1.6	1.2	0.7	0.3	1.6	1.8	1.8	1.5
12 MTFR Share	1.6	1.2	1	1.1	1.9	1.8	2.0	1.6	1.2	0.7	0.3	1.6	1.8	1.8	1.5
13 PGE Share	34	26	22	25	39	36	41	32	26	15	7.1	32	37	38	31
14 PNWMktr Share	61	45	38	43	91	85	96	75	60	35	17	75	87	89	68
15 PPL Share	15	11	9.6	11	5.4	5.0	5.6	4.4	3.5	2.1	1.0	4.4	5.1	5.2	6.2
16 PSE Share	3.4	2.5	2.1	2.4	3.1	2.9	3.3	2.5	2	1.2	0.6	2.6	2.9	3	2.6
17 SCL Share	8.4	6.2	5.3	6.0	1.3	1.2	1.4	1.1	0.9	0.5	0.2	1.1	1.2	1.3	2.4
18 TPU Share	1.5	1.1	0.9	1.1	1.4	1.3	1.5	1.1	0.9	0.5	0.3	1.1	1.3	1.4	1.1
19 Debit for Wanapum After Enc	411	312	268	301	479	449	502	399	324	203	110	399	456	467	380
-Credit for Priest Rapids-															
20 Credit for Priest Rapids	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
21 Credit for Priest Rapids	-30	-30	-30	-30	-30	-30	-30	-30	-30	-30	-30	-30	-30	-30	-30
22 Credit for Priest Rapids	353	353	338	372	536	511	558	463	390	268	107	439	431	377	413
23 Credit for Priest Rapids Before Enc	353	353	338	372	536	511	558	463	390	268	107	439	431	377	413
-Debit for Priest Rapids-															
24 AVWP Share	12	12	12	13	19	18	20	16	13	8.6	2.4	15	15	13	14
25 COPD Share	5.5	5.5	5.2	5.8	2.2	2	2.2	1.8	1.5	1.0	0.3	1.7	1.7	1.5	2.7
26 EWEB Share	0.6	0.6	0.6	0.6	0.7	0.7	0.8	0.6	0.5	0.3	0.1	0.6	0.6	0.5	0.6
27 FGRV Share	1.3	1.3	1.2	1.4	2.1	2.0	2.1	1.7	1.4	0.9	0.3	1.6	1.6	1.4	1.5
28 GCPD Share	214	215	207	226	337	322	351	292	247	170	69	276	271	237	258
29 KITT Share	0.4	0.4	0.4	0.5	0.7	0.7	0.7	0.6	0.5	0.3	0.1	0.5	0.5	0.5	0.5
30 MCMN Share	1.3	1.3	1.2	1.4	2.1	2.0	2.1	1.7	1.4	0.9	0.3	1.6	1.6	1.4	1.5
31 MTFR Share	1.3	1.3	1.2	1.4	2.1	2.0	2.1	1.7	1.4	0.9	0.3	1.6	1.6	1.4	1.5
32 PGE Share	28	28	26	29	43	40	44	36	30	20	5.5	34	33	29	32
33 PNWMktr Share	49	49	47	52	99	94	104	84	70	46	13	79	78	67	71
34 PPL Share	12	12	12	13	5.8	5.5	6.1	5.0	4.1	2.7	0.8	4.7	4.6	3.9	6.6
35 PSE Share	2.7	2.7	2.6	2.9	3.4	3.2	3.5	2.9	2.4	1.5	0.4	2.7	2.7	2.3	2.7
36 SCL Share	6.8	6.8	6.5	7.2	1.4	1.3	1.5	1.2	1.0	0.7	0.2	1.1	1.1	1.0	2.6
37 TPU Share	1.2	1.2	1.1	1.3	1.5	1.4	1.6	1.3	1.1	0.7	0.2	1.2	1.2	1	1.2
38 Debit for Priest Rapids After Enc	336	337	323	356	520	495	542	447	375	254	93	422	414	360	397

**Table A-20: Wanapum and Priest Rapids Allocation
PNW Loads and Resource Study
2012 - 2013 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Credit for Wanapum-															
1 Credit for Wanapum	29	29	29	29	29	29	29	29	29	28	28	28	28	28	29
2 Credit for Wanapum	-29	-29	-29	-29	-29	-29	-29	-29	-29	-28	-28	-28	-28	-28	-29
3 Credit for Wanapum	490	423	357	369	552	523	576	472	393	259	169	472	530	540	455
4 Credit for Wanapum Before Enc	490	423	357	369	552	523	576	472	393	259	169	472	530	540	455
-Debit for Wanapum-															
5 AVWP Share	15	12	9.9	10	17	16	18	14	11	6.6	3.1	14	16	17	13
6 COPD Share	1.7	1.4	1.1	1.2	0.7	0.7	0.8	0.6	0.5	0.3	0.1	0.6	0.7	0.7	0.8
7 EWEB Share	0.6	0.5	0.4	0.4	0.6	0.6	0.7	0.5	0.4	0.2	0.1	0.5	0.6	0.6	0.5
8 FGRV Share	1.6	1.3	1.1	1.1	1.9	1.8	2.0	1.6	1.2	0.7	0.3	1.6	1.8	1.8	1.5
9 GCPD Share	272	230	192	199	314	295	328	263	215	139	80	263	299	306	253
10 KITT Share	0.5	0.4	0.4	0.4	0.6	0.6	0.7	0.5	0.4	0.2	0.1	0.5	0.6	0.6	0.5
11 MCMN Share	1.6	1.3	1.1	1.1	1.9	1.8	2.0	1.6	1.2	0.7	0.3	1.6	1.8	1.8	1.5
12 MTFR Share	1.6	1.3	1.1	1.1	1.9	1.8	2.0	1.6	1.2	0.7	0.3	1.6	1.8	1.8	1.5
13 PGE Share	34	28	23	24	39	36	41	32	25	15	7.1	32	37	38	31
14 PNWMktr Share	79	65	53	55	91	85	96	75	60	35	17	75	87	89	72
15 PPL Share	4.6	3.8	3.1	3.2	5.0	4.7	5.3	4.1	3.3	1.9	0.9	4.1	4.7	4.9	4
16 PSE Share	2.7	2.2	1.8	1.9	2.9	2.7	3	2.4	1.9	1.1	0.5	2.4	2.7	2.8	2.3
17 SCL Share	1.1	0.9	0.8	0.8	1.2	1.1	1.3	1.0	0.8	0.5	0.2	1	1.2	1.2	1.0
18 TPU Share	1.2	1.0	0.8	0.8	1.3	1.2	1.4	1.1	0.9	0.5	0.2	1.1	1.2	1.3	1
19 Debit for Wanapum After Enc	417	349	289	301	479	449	502	399	324	203	110	399	456	467	384
-Credit for Priest Rapids-															
20 Credit for Priest Rapids	30	30	30	30	30	30	30	30	30	29	29	29	29	29	29
21 Credit for Priest Rapids	-30	-30	-30	-30	-30	-30	-30	-30	-30	-29	-29	-29	-29	-29	-29
22 Credit for Priest Rapids	350	377	360	372	536	511	558	463	390	268	107	438	431	377	416
23 Credit for Priest Rapids Before Enc	350	377	360	372	536	511	558	463	390	268	107	438	431	377	416
-Debit for Priest Rapids-															
24 AVWP Share	12	13	12	12	19	18	19	16	13	8.5	2.4	15	15	13	14
25 COPD Share	1.3	1.5	1.4	1.4	0.8	0.7	0.8	0.7	0.6	0.4	0.1	0.6	0.6	0.5	0.8
26 EWEB Share	0.5	0.5	0.5	0.5	0.7	0.7	0.7	0.6	0.5	0.3	0.1	0.5	0.5	0.5	0.5
27 FGRV Share	1.3	1.4	1.3	1.4	2.1	2.0	2.1	1.8	1.5	0.9	0.3	1.6	1.6	1.4	1.6
28 GCPD Share	220	237	227	235	340	324	354	294	248	172	70	278	273	239	263
29 KITT Share	0.4	0.5	0.4	0.5	0.7	0.7	0.7	0.6	0.5	0.3	0.1	0.5	0.5	0.5	0.5
30 MCMN Share	1.3	1.4	1.3	1.4	2.1	2.0	2.1	1.8	1.5	0.9	0.3	1.6	1.6	1.4	1.6
31 MTFR Share	1.3	1.4	1.3	1.4	2.1	2.0	2.1	1.8	1.5	0.9	0.3	1.6	1.6	1.4	1.6
32 PGE Share	26	29	27	28	42	40	44	36	30	19	5.5	34	33	29	32
33 PNWMktr Share	62	67	64	66	99	94	104	85	70	46	13	80	78	67	75
34 PPL Share	3.6	3.9	3.7	3.9	5.4	5.2	5.7	4.6	3.8	2.5	0.7	4.4	4.3	3.7	4.2
35 PSE Share	2.1	2.3	2.2	2.3	3.1	3.0	3.3	2.7	2.2	1.4	0.4	2.5	2.5	2.1	2.4
36 SCL Share	0.9	1.0	0.9	0.9	1.3	1.3	1.4	1.1	0.9	0.6	0.2	1.1	1	0.9	1
37 TPU Share	0.9	1	1.0	1	1.4	1.3	1.5	1.2	1	0.7	0.2	1.1	1.1	1.0	1.1
38 Debit for Priest Rapids After Enc	463	361	344	356	520	495	542	447	375	254	93	422	414	360	400

**Table A-20: Wanapum and Priest Rapids Allocation
PNW Loads and Resource Study
2013 - 2014 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Credit for Wanapum-															
1 Credit for Wanapum	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
2 Credit for Wanapum	-28	-28	-28	-28	-28	-28	-28	-28	-28	-28	-28	-28	-28	-28	-28
3 Credit for Wanapum	490	423	357	369	552	523	576	472	393	259	169	472	530	540	455
4 Credit for Wanapum Before Enc	490	423	357	369	552	523	576	472	393	259	169	472	530	540	455
-Debit for Wanapum-															
5 AVWP Share	15	12	9.9	10	17	16	18	14	11	6.6	3.1	14	16	17	13
6 COPD Share	0.6	0.5	0.4	0.4	0.7	0.7	0.8	0.6	0.5	0.3	0.1	0.6	0.7	0.7	0.6
7 EWEB Share	0.5	0.4	0.4	0.4	0.6	0.6	0.7	0.5	0.4	0.2	0.1	0.5	0.6	0.6	0.5
8 FGRV Share	1.6	1.3	1.1	1.1	1.9	1.8	2.0	1.6	1.2	0.7	0.3	1.6	1.8	1.8	1.5
9 GCPD Share	274	231	193	201	314	295	328	263	215	139	80	263	299	306	253
10 KITT Share	0.5	0.4	0.4	0.4	0.6	0.6	0.7	0.5	0.4	0.2	0.1	0.5	0.6	0.6	0.5
11 MCMN Share	1.6	1.3	1.1	1.1	1.9	1.8	2.0	1.6	1.2	0.7	0.3	1.6	1.8	1.8	1.5
12 MTFR Share	1.6	1.3	1.1	1.1	1.9	1.8	2.0	1.6	1.2	0.7	0.3	1.6	1.8	1.8	1.5
13 PGE Share	33	28	22	23	39	36	41	32	25	15	7.1	32	37	38	31
14 PNWMktr Share	79	65	53	55	91	85	96	75	60	35	17	75	87	89	72
15 PPL Share	4.3	3.6	2.9	3	5	4.7	5.3	4.1	3.3	1.9	0.9	4.1	4.8	4.9	3.9
16 PSE Share	2.5	2.1	1.7	1.7	2.9	2.7	3	2.4	1.9	1.1	0.5	2.4	2.7	2.8	2.3
17 SCL Share	1	0.9	0.7	0.7	1.2	1.1	1.3	1	0.8	0.5	0.2	1	1.2	1.2	1.0
18 TPU Share	1.1	0.9	0.8	0.8	1.3	1.2	1.4	1.1	0.9	0.5	0.2	1.1	1.2	1.3	1
19 Debit for Wanapum After Enc	417	349	289	301	479	449	502	399	324	203	110	399	456	467	384
-Credit for Priest Rapids-															
20 Credit for Priest Rapids	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29
21 Credit for Priest Rapids	-29	-29	-29	-29	-29	-29	-29	-29	-29	-29	-29	-29	-29	-29	-29
22 Credit for Priest Rapids	350	377	360	372	536	511	558	463	390	268	107	438	431	377	416
23 Credit for Priest Rapids Before Enc	350	377	360	372	536	511	558	463	390	268	107	438	431	377	416
-Debit for Priest Rapids-															
24 AVWP Share	12	13	12	12	19	18	19	16	13	8.5	2.4	15	15	13	14
25 COPD Share	0.5	0.5	0.5	0.5	0.8	0.7	0.8	0.7	0.6	0.4	0.1	0.6	0.6	0.5	0.6
26 EWEB Share	0.4	0.5	0.4	0.5	0.7	0.7	0.7	0.6	0.5	0.3	0.1	0.5	0.5	0.5	0.5
27 FGRV Share	1.3	1.4	1.3	1.4	2.1	2.0	2.2	1.8	1.5	0.9	0.3	1.6	1.6	1.4	1.6
28 GCPD Share	222	239	229	236	340	324	354	294	248	172	69	278	273	239	264
29 KITT Share	0.4	0.5	0.4	0.5	0.7	0.7	0.7	0.6	0.5	0.3	0.1	0.5	0.5	0.5	0.5
30 MCMN Share	1.3	1.4	1.3	1.4	2.1	2.0	2.2	1.8	1.5	0.9	0.3	1.6	1.6	1.4	1.6
31 MTFR Share	1.3	1.4	1.3	1.4	2.1	2.0	2.2	1.8	1.5	0.9	0.3	1.6	1.6	1.4	1.6
32 PGE Share	26	29	27	28	42	40	44	36	30	19	5.5	34	33	29	32
33 PNWMktr Share	62	67	64	66	99	94	104	85	70	46	13	80	78	67	75
34 PPL Share	3.4	3.7	3.5	3.6	5.4	5.2	5.7	4.6	3.8	2.5	0.7	4.4	4.3	3.7	4.1
35 PSE Share	1.9	2.1	2	2.1	3.1	3.0	3.3	2.7	2.2	1.4	0.4	2.5	2.5	2.1	2.4
36 SCL Share	0.8	0.9	0.9	0.9	1.3	1.3	1.4	1.1	0.9	0.6	0.2	1.1	1	0.9	1
37 TPU Share	0.9	1.0	0.9	0.9	1.4	1.4	1.5	1.2	1	0.7	0.2	1.1	1.1	1.0	1.1
38 Debit for Priest Rapids After Enc	363	361	344	356	520	495	542	447	375	254	93	422	414	360	400

**Table A-20: Wanapum and Priest Rapids Allocation
PNW Loads and Resource Study
2014 - 2015 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Credit for Wanapum-															
1 Credit for Wanapum	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
2 Credit for Wanapum	-28	-28	-28	-28	-28	-28	-28	-28	-28	-28	-28	-28	-28	-28	-28
3 Credit for Wanapum	490	423	357	369	552	523	576	472	393	259	169	472	530	540	455
4 Credit for Wanapum Before Enc	490	423	357	369	552	523	576	472	393	259	169	472	530	540	455
-Debit for Wanapum-															
5 AVWP Share	15	12	9.9	10	17	16	18	14	11	6.6	3.1	14	16	17	13
6 COPD Share	0.6	0.5	0.4	0.4	0.7	0.7	0.8	0.6	0.5	0.3	0.1	0.6	0.7	0.7	0.6
7 EWEB Share	0.5	0.4	0.4	0.4	0.6	0.6	0.7	0.5	0.4	0.2	0.1	0.5	0.6	0.6	0.5
8 FGRV Share	1.6	1.3	1.1	1.1	1.9	1.8	2.0	1.6	1.2	0.7	0.3	1.6	1.8	1.8	1.5
9 GCPD Share	274	231	193	201	314	295	328	263	215	139	80	263	299	306	253
10 KITT Share	0.5	0.4	0.4	0.4	0.6	0.6	0.7	0.5	0.4	0.2	0.1	0.5	0.6	0.6	0.5
11 MCMN Share	1.6	1.3	1.1	1.1	1.9	1.8	2.0	1.6	1.2	0.7	0.3	1.6	1.8	1.8	1.5
12 MTFR Share	1.6	1.3	1.1	1.1	1.9	1.8	2.0	1.6	1.2	0.7	0.3	1.6	1.8	1.8	1.5
13 PGE Share	33	28	22	23	39	36	41	32	25	15	7.1	32	37	38	31
14 PNWMktr Share	79	65	53	55	91	85	96	75	60	35	17	75	87	89	72
15 PPL Share	4.3	3.6	2.9	3	5	4.7	5.3	4.1	3.3	1.9	0.9	4.1	4.8	4.9	3.9
16 PSE Share	2.5	2.1	1.7	1.7	2.9	2.7	3	2.4	1.9	1.1	0.5	2.4	2.7	2.8	2.3
17 SCL Share	1	0.9	0.7	0.7	1.2	1.1	1.3	1	0.8	0.5	0.2	1	1.2	1.2	1.0
18 TPU Share	1.1	0.9	0.8	0.8	1.3	1.2	1.4	1.1	0.9	0.5	0.2	1.1	1.2	1.3	1
19 Debit for Wanapum After Enc	417	349	289	301	479	449	502	399	324	203	110	399	456	467	384
-Credit for Priest Rapids-															
20 Credit for Priest Rapids	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29
21 Credit for Priest Rapids	-29	-29	-29	-29	-29	-29	-29	-29	-29	-29	-29	-29	-29	-29	-29
22 Credit for Priest Rapids	350	377	360	372	536	511	558	463	390	268	107	438	431	377	416
23 Credit for Priest Rapids Before Enc	350	377	360	372	536	511	558	463	390	268	107	438	431	377	416
-Debit for Priest Rapids-															
24 AVWP Share	12	13	12	12	19	18	19	16	13	8.5	2.4	15	15	13	14
25 COPD Share	0.5	0.5	0.5	0.5	0.8	0.7	0.8	0.7	0.6	0.4	0.1	0.6	0.6	0.5	0.6
26 EWEB Share	0.4	0.5	0.4	0.5	0.7	0.7	0.7	0.6	0.5	0.3	0.1	0.5	0.5	0.5	0.5
27 FGRV Share	1.3	1.4	1.3	1.4	2.1	2.0	2.2	1.8	1.5	0.9	0.3	1.6	1.6	1.4	1.6
28 GCPD Share	222	239	229	236	340	324	354	294	248	172	69	278	273	239	264
29 KITT Share	0.4	0.5	0.4	0.5	0.7	0.7	0.7	0.6	0.5	0.3	0.1	0.5	0.5	0.5	0.5
30 MCMN Share	1.3	1.4	1.3	1.4	2.1	2.0	2.2	1.8	1.5	0.9	0.3	1.6	1.6	1.4	1.6
31 MTFR Share	1.3	1.4	1.3	1.4	2.1	2.0	2.2	1.8	1.5	0.9	0.3	1.6	1.6	1.4	1.6
32 PGE Share	26	29	27	28	42	40	44	36	30	19	5.5	34	33	29	32
33 PNWMktr Share	62	67	64	66	99	94	104	85	70	46	13	80	78	67	75
34 PPL Share	3.4	3.7	3.5	3.6	5.4	5.2	5.7	4.6	3.8	2.5	0.7	4.4	4.3	3.7	4.1
35 PSE Share	1.9	2.1	2	2.1	3.1	3.0	3.3	2.7	2.2	1.4	0.4	2.5	2.5	2.1	2.4
36 SCL Share	0.8	0.9	0.9	0.9	1.3	1.3	1.4	1.1	0.9	0.6	0.2	1.1	1	0.9	1
37 TPU Share	0.9	1.0	0.9	0.9	1.4	1.4	1.5	1.2	1	0.7	0.2	1.1	1.1	1.0	1.1
38 Debit for Priest Rapids After Enc	463	361	344	356	520	495	542	447	375	254	93	422	414	360	400

**Table A-20: Wanapum and Priest Rapids Allocation
PNW Loads and Resource Study
2015 - 2016 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Credit for Wanapum-															
1 Credit for Wanapum	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
2 Credit for Wanapum	-28	-28	-28	-28	-28	-28	-28	-28	-28	-28	-28	-28	-28	-28	-28
3 Credit for Wanapum	490	423	357	369	552	523	576	472	393	259	169	472	530	540	455
4 Credit for Wanapum Before Enc	490	423	357	369	552	523	576	472	393	259	169	472	530	540	455
-Debit for Wanapum-															
5 AVWP Share	15	12	9.9	10	17	16	18	14	11	6.6	3.1	14	16	17	13
6 COPD Share	0.6	0.5	0.4	0.4	0.7	0.7	0.8	0.6	0.5	0.3	0.1	0.6	0.7	0.7	0.6
7 EWEB Share	0.5	0.4	0.4	0.4	0.6	0.6	0.7	0.5	0.4	0.2	0.1	0.5	0.6	0.6	0.5
8 FGRV Share	1.6	1.3	1.1	1.1	1.9	1.8	2.0	1.6	1.2	0.7	0.3	1.6	1.8	1.8	1.5
9 GCPD Share	274	231	193	201	314	294	328	263	215	139	80	263	299	306	253
10 KITT Share	0.5	0.4	0.4	0.4	0.6	0.6	0.7	0.5	0.4	0.2	0.1	0.5	0.6	0.6	0.5
11 MCMN Share	1.6	1.3	1.1	1.1	1.9	1.8	2.0	1.6	1.2	0.7	0.3	1.6	1.8	1.8	1.5
12 MTFR Share	1.6	1.3	1.1	1.1	1.9	1.8	2.0	1.6	1.2	0.7	0.3	1.6	1.8	1.8	1.5
13 PGE Share	33	28	23	24	39	36	41	32	25	15	7.1	32	37	38	31
14 PNWMktr Share	79	65	53	55	91	85	96	75	60	36	17	75	87	89	72
15 PPL Share	4.3	3.6	2.9	3	5	4.7	5.3	4.1	3.3	1.9	0.9	4.1	4.8	4.9	4.0
16 PSE Share	2.5	2.1	1.7	1.7	2.9	2.7	3	2.4	1.9	1.1	0.5	2.4	2.7	2.8	2.3
17 SCL Share	1	0.9	0.7	0.7	1.2	1.1	1.3	1	0.8	0.5	0.2	1	1.2	1.2	1.0
18 TPU Share	1.1	0.9	0.8	0.8	1.3	1.2	1.4	1.1	0.9	0.5	0.2	1.1	1.2	1.3	1
19 Debit for Wanapum After Enc	417	349	289	301	479	449	502	399	324	203	110	399	456	467	384
-Credit for Priest Rapids-															
20 Credit for Priest Rapids	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29
21 Credit for Priest Rapids	-29	-29	-29	-29	-29	-29	-29	-29	-29	-29	-29	-29	-29	-29	-29
22 Credit for Priest Rapids	350	377	360	372	536	511	558	463	390	268	107	438	431	377	416
23 Credit for Priest Rapids Before Enc	350	377	360	372	536	511	558	463	390	268	107	438	431	377	416
-Debit for Priest Rapids-															
24 AVWP Share	12	13	12	12	19	18	19	16	13	8.5	2.4	15	15	13	14
25 COPD Share	0.5	0.5	0.5	0.5	0.8	0.7	0.8	0.7	0.6	0.4	0.1	0.6	0.6	0.5	0.6
26 EWEB Share	0.4	0.5	0.4	0.5	0.7	0.7	0.7	0.6	0.5	0.3	0.1	0.5	0.5	0.5	0.5
27 FGRV Share	1.3	1.4	1.3	1.4	2.1	2.0	2.2	1.8	1.5	0.9	0.3	1.6	1.6	1.4	1.6
28 GCPD Share	222	239	229	236	340	324	353	294	248	171	69	277	273	239	264
29 KITT Share	0.4	0.5	0.4	0.5	0.7	0.7	0.7	0.6	0.5	0.3	0.1	0.5	0.5	0.5	0.5
30 MCMN Share	1.3	1.4	1.3	1.4	2.1	2.0	2.2	1.8	1.5	0.9	0.3	1.6	1.6	1.4	1.6
31 MTFR Share	1.3	1.4	1.3	1.4	2.1	2.0	2.2	1.8	1.5	0.9	0.3	1.6	1.6	1.4	1.6
32 PGE Share	26	29	27	28	42	40	44	36	30	19	5.5	34	33	29	32
33 PNWMktr Share	62	67	64	66	99	94	104	85	70	46	13	80	78	67	75
34 PPL Share	3.4	3.7	3.5	3.6	5.4	5.2	5.7	4.6	3.8	2.5	0.7	4.4	4.3	3.7	4.1
35 PSE Share	1.9	2.1	2	2.1	3.1	3.0	3.3	2.7	2.2	1.4	0.4	2.5	2.5	2.1	2.4
36 SCL Share	0.8	0.9	0.9	0.9	1.3	1.3	1.4	1.1	0.9	0.6	0.2	1.1	1	0.9	1
37 TPU Share	0.9	1.0	0.9	0.9	1.4	1.4	1.5	1.2	1	0.7	0.2	1.1	1.1	1.0	1.1
38 Debit for Priest Rapids After Enc	363	361	344	356	520	495	542	447	375	254	93	422	414	360	400

**Table A-20: Wanapum and Priest Rapids Allocation
PNW Loads and Resource Study
2016 - 2017 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Credit for Wanapum-															
1 Credit for Wanapum	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
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-Debit for Wanapum-															
5 AVWP Share	15	12	9.9	10	17	16	18	14	11	6.7	3.1	14	16	17	13
6 COPD Share	0.6	0.5	0.4	0.4	0.7	0.7	0.8	0.6	0.5	0.3	0.1	0.6	0.7	0.7	0.6
7 EWEB Share	0.5	0.4	0.4	0.4	0.6	0.6	0.7	0.5	0.4	0.2	0.1	0.5	0.6	0.6	0.5
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9 GCPD Share	274	231	193	201	313	294	328	263	215	139	80	263	299	306	253
10 KITT Share	0.5	0.4	0.4	0.4	0.6	0.6	0.7	0.5	0.4	0.2	0.1	0.5	0.6	0.6	0.5
11 MCMN Share	1.6	1.3	1.1	1.1	1.9	1.8	2.0	1.6	1.2	0.7	0.3	1.6	1.8	1.8	1.5
12 MTFR Share	1.6	1.3	1.1	1.1	1.9	1.8	2.0	1.6	1.2	0.7	0.3	1.6	1.8	1.8	1.5
13 PGE Share	34	28	23	24	39	36	41	32	25	15	7.1	32	37	38	31
14 PNWMktr Share	79	65	53	55	91	85	96	75	60	36	17	75	87	89	72
15 PPL Share	4.3	3.6	2.9	3	5	4.7	5.3	4.1	3.3	1.9	0.9	4.1	4.8	4.9	4.0
16 PSE Share	2.5	2.1	1.7	1.7	2.9	2.7	3	2.4	1.9	1.1	0.5	2.4	2.7	2.8	2.3
17 SCL Share	1	0.9	0.7	0.7	1.2	1.1	1.3	1	0.8	0.5	0.2	1	1.2	1.2	1.0
18 TPU Share	1.1	0.9	0.8	0.8	1.3	1.2	1.4	1.1	0.9	0.5	0.2	1.1	1.2	1.3	1
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20 Credit for Priest Rapids	29	29	29	29	29	29	29	29	29	28	28	28	28	28	29
21 Credit for Priest Rapids	-29	-29	-29	-29	-29	-29	-29	-29	-29	-28	-28	-28	-28	-28	-29
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23 Credit for Priest Rapids Before Enc	350	377	360	372	536	511	558	463	390	268	107	438	431	377	416
-Debit for Priest Rapids-															
24 AVWP Share	12	13	12	12	19	18	19	16	13	8.6	2.4	15	15	13	14
25 COPD Share	0.5	0.5	0.5	0.5	0.8	0.7	0.8	0.7	0.6	0.4	0.1	0.6	0.6	0.5	0.6
26 EWEB Share	0.4	0.5	0.4	0.5	0.7	0.7	0.7	0.6	0.5	0.3	0.1	0.6	0.5	0.5	0.5
27 FGRV Share	1.3	1.4	1.3	1.4	2.1	2.0	2.2	1.8	1.5	0.9	0.3	1.7	1.6	1.4	1.6
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29 KITT Share	0.4	0.5	0.4	0.5	0.7	0.7	0.7	0.6	0.5	0.3	0.1	0.6	0.5	0.5	0.5
30 MCMN Share	1.3	1.4	1.3	1.4	2.1	2.0	2.2	1.8	1.5	0.9	0.3	1.7	1.6	1.4	1.6
31 MTFR Share	1.3	1.4	1.3	1.4	2.1	2.0	2.2	1.8	1.5	0.9	0.3	1.7	1.6	1.4	1.6
32 PGE Share	26	29	27	28	42	40	44	36	30	19	5.6	34	33	29	32
33 PNWMktr Share	62	67	64	66	100	94	104	85	70	46	13	80	78	67	75
34 PPL Share	3.4	3.7	3.5	3.6	5.5	5.2	5.7	4.6	3.8	2.5	0.7	4.4	4.3	3.7	4.1
35 PSE Share	1.9	2.1	2	2.1	3.1	3.0	3.3	2.7	2.2	1.4	0.4	2.5	2.5	2.1	2.4
36 SCL Share	0.8	0.9	0.9	0.9	1.3	1.3	1.4	1.1	0.9	0.6	0.2	1.1	1	0.9	1
37 TPU Share	0.9	1.0	0.9	0.9	1.4	1.4	1.5	1.2	1	0.7	0.2	1.1	1.1	1.0	1.1
38 Debit for Priest Rapids After Enc	403	361	344	356	520	495	542	447	375	254	93	422	414	360	400

**Table A-20: Wanapum and Priest Rapids Allocation
PNW Loads and Resource Study
2017 - 2018 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Credit for Wanapum-															
1 Credit for Wanapum	28	28	28	28	28	28	28	28	28	27	27	27	27	27	27
2 Credit for Wanapum	-28	-28	-28	-28	-28	-28	-28	-28	-28	-27	-27	-27	-27	-27	-27
3 Credit for Wanapum	490	423	357	369	552	523	576	472	393	259	169	472	530	540	455
4 Credit for Wanapum Before Enc	490	423	357	369	552	523	576	472	393	259	169	472	530	540	455
-Debit for Wanapum-															
5 AVWP Share	15	12	9.9	10	17	16	18	14	11	6.7	3.2	14	16	17	14
6 COPD Share	0.6	0.5	0.4	0.4	0.7	0.7	0.8	0.6	0.5	0.3	0.1	0.6	0.7	0.7	0.6
7 EWEB Share	0.5	0.5	0.4	0.4	0.6	0.6	0.7	0.5	0.4	0.2	0.1	0.5	0.6	0.6	0.5
8 FGRV Share	1.6	1.4	1.1	1.1	1.9	1.8	2.0	1.6	1.2	0.7	0.3	1.6	1.8	1.8	1.5
9 GCPD Share	274	231	193	200	313	294	328	263	215	138	80	263	299	305	253
10 KITT Share	0.5	0.5	0.4	0.4	0.6	0.6	0.7	0.5	0.4	0.2	0.1	0.5	0.6	0.6	0.5
11 MCMN Share	1.6	1.4	1.1	1.1	1.9	1.8	2.0	1.6	1.2	0.7	0.3	1.6	1.8	1.8	1.5
12 MTFR Share	1.6	1.4	1.1	1.1	1.9	1.8	2.0	1.6	1.2	0.7	0.3	1.6	1.8	1.8	1.5
13 PGE Share	34	28	23	24	39	36	41	32	26	15	7.2	32	37	38	31
14 PNWMktr Share	79	65	53	55	92	85	96	75	60	36	17	75	87	89	72
15 PPL Share	4.3	3.6	2.9	3	5	4.7	5.3	4.1	3.3	2.0	0.9	4.1	4.8	4.9	4.0
16 PSE Share	2.5	2.1	1.7	1.7	2.9	2.7	3	2.4	1.9	1.1	0.5	2.4	2.7	2.8	2.3
17 SCL Share	1.1	0.9	0.7	0.7	1.2	1.1	1.3	1	0.8	0.5	0.2	1	1.2	1.2	1.0
18 TPU Share	1.1	0.9	0.8	0.8	1.3	1.2	1.4	1.1	0.9	0.5	0.2	1.1	1.2	1.3	1
19 Debit for Wanapum After Enc	417	349	289	301	479	449	502	399	324	203	110	399	456	467	384
-Credit for Priest Rapids-															
20 Credit for Priest Rapids	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
21 Credit for Priest Rapids	-28	-28	-28	-28	-28	-28	-28	-28	-28	-28	-28	-28	-28	-28	-28
22 Credit for Priest Rapids	350	377	360	372	536	511	558	463	390	268	107	438	431	377	416
23 Credit for Priest Rapids Before Enc	350	377	360	372	536	511	558	463	390	268	107	438	431	377	416
-Debit for Priest Rapids-															
24 AVWP Share	12	13	12	12	19	18	19	16	13	8.6	2.5	15	15	13	14
25 COPD Share	0.5	0.5	0.5	0.5	0.8	0.7	0.8	0.7	0.6	0.4	0.1	0.6	0.6	0.5	0.6
26 EWEB Share	0.4	0.5	0.4	0.5	0.7	0.7	0.7	0.6	0.5	0.3	0.1	0.6	0.5	0.5	0.5
27 FGRV Share	1.3	1.4	1.3	1.4	2.1	2.0	2.2	1.8	1.5	0.9	0.3	1.7	1.6	1.4	1.6
28 GCPD Share	221	239	228	236	340	324	353	293	248	171	69	277	273	238	263
29 KITT Share	0.4	0.5	0.4	0.5	0.7	0.7	0.7	0.6	0.5	0.3	0.1	0.6	0.5	0.5	0.5
30 MCMN Share	1.3	1.4	1.3	1.4	2.1	2.0	2.2	1.8	1.5	0.9	0.3	1.7	1.6	1.4	1.6
31 MTFR Share	1.3	1.4	1.3	1.4	2.1	2.0	2.2	1.8	1.5	0.9	0.3	1.7	1.6	1.4	1.6
32 PGE Share	26	29	27	28	42	40	44	36	30	19	5.6	34	33	29	32
33 PNWMktr Share	62	67	64	66	100	95	104	85	70	46	13	80	78	67	75
34 PPL Share	3.4	3.7	3.5	3.6	5.5	5.2	5.7	4.6	3.8	2.5	0.7	4.4	4.3	3.7	4.1
35 PSE Share	2.0	2.1	2	2.1	3.1	3.0	3.3	2.7	2.2	1.4	0.4	2.5	2.5	2.1	2.4
36 SCL Share	0.8	0.9	0.9	0.9	1.3	1.3	1.4	1.1	0.9	0.6	0.2	1.1	1	0.9	1
37 TPU Share	0.9	1.0	0.9	1.0	1.4	1.4	1.5	1.2	1	0.7	0.2	1.1	1.1	1.0	1.1
38 Debit for Priest Rapids After Enc	363	361	344	356	520	495	542	447	375	254	93	422	414	360	400

**Table A-20: Wanapum and Priest Rapids Allocation
PNW Loads and Resource Study
2018 - 2019 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Credit for Wanapum-															
1 Credit for Wanapum	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27
2 Credit for Wanapum	-27	-27	-27	-27	-27	-27	-27	-27	-27	-27	-27	-27	-27	-27	-27
3 Credit for Wanapum	490	423	357	369	552	523	576	472	393	259	169	472	530	540	455
4 Credit for Wanapum Before Enc	490	423	357	369	552	523	576	472	393	259	169	472	530	540	455
-Debit for Wanapum-															
5 AVWP Share	15	12	9.9	10	17	16	18	14	11	6.7	3.2	14	16	17	14
6 COPD Share	0.6	0.5	0.4	0.4	0.7	0.7	0.8	0.6	0.5	0.3	0.1	0.6	0.7	0.7	0.6
7 EWEB Share	0.5	0.5	0.4	0.4	0.6	0.6	0.7	0.5	0.4	0.2	0.1	0.5	0.6	0.6	0.5
8 FGRV Share	1.6	1.4	1.1	1.1	1.9	1.8	2.0	1.6	1.2	0.7	0.4	1.6	1.8	1.8	1.5
9 GCPD Share	274	231	193	200	313	294	328	263	215	138	80	263	299	305	253
10 KITT Share	0.5	0.5	0.4	0.4	0.6	0.6	0.7	0.5	0.4	0.2	0.1	0.5	0.6	0.6	0.5
11 MCMN Share	1.6	1.4	1.1	1.1	1.9	1.8	2.0	1.6	1.2	0.7	0.4	1.6	1.8	1.8	1.5
12 MTFR Share	1.6	1.4	1.1	1.1	1.9	1.8	2.0	1.6	1.2	0.7	0.4	1.6	1.8	1.8	1.5
13 PGE Share	34	28	23	24	39	36	41	32	26	15	7.2	32	37	38	31
14 PNWMktr Share	79	65	53	55	92	85	96	75	60	36	17	75	87	89	72
15 PPL Share	4.3	3.6	2.9	3	5	4.7	5.3	4.1	3.3	2.0	0.9	4.1	4.8	4.9	4.0
16 PSE Share	2.5	2.1	1.7	1.8	2.9	2.7	3	2.4	1.9	1.1	0.5	2.4	2.7	2.8	2.3
17 SCL Share	1.1	0.9	0.7	0.7	1.2	1.1	1.3	1	0.8	0.5	0.2	1	1.2	1.2	1.0
18 TPU Share	1.1	0.9	0.8	0.8	1.3	1.2	1.4	1.1	0.9	0.5	0.2	1.1	1.2	1.3	1
19 Debit for Wanapum After Enc	417	349	289	301	479	449	502	399	324	203	110	399	456	467	384
-Credit for Priest Rapids-															
20 Credit for Priest Rapids	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
21 Credit for Priest Rapids	-28	-28	-28	-28	-28	-28	-28	-28	-28	-28	-28	-28	-28	-28	-28
22 Credit for Priest Rapids	350	377	360	372	536	511	558	463	390	268	107	438	431	377	416
23 Credit for Priest Rapids Before Enc	350	377	360	372	536	511	558	463	390	268	107	438	431	377	416
-Debit for Priest Rapids-															
24 AVWP Share	12	13	12	12	19	18	19	16	13	8.6	2.5	15	15	13	14
25 COPD Share	0.5	0.5	0.5	0.5	0.8	0.7	0.8	0.7	0.6	0.4	0.1	0.6	0.6	0.5	0.6
26 EWEB Share	0.4	0.5	0.4	0.5	0.7	0.7	0.7	0.6	0.5	0.3	0.1	0.6	0.5	0.5	0.5
27 FGRV Share	1.3	1.4	1.3	1.4	2.1	2.0	2.2	1.8	1.5	1.0	0.3	1.7	1.6	1.4	1.6
28 GCPD Share	221	239	228	236	339	324	353	293	248	171	69	277	272	238	263
29 KITT Share	0.4	0.5	0.4	0.5	0.7	0.7	0.7	0.6	0.5	0.3	0.1	0.6	0.5	0.5	0.5
30 MCMN Share	1.3	1.4	1.3	1.4	2.1	2.0	2.2	1.8	1.5	1.0	0.3	1.7	1.6	1.4	1.6
31 MTFR Share	1.3	1.4	1.3	1.4	2.1	2.0	2.2	1.8	1.5	1.0	0.3	1.7	1.6	1.4	1.6
32 PGE Share	26	29	27	28	42	40	44	36	30	20	5.6	34	33	29	32
33 PNWMktr Share	62	67	64	67	100	95	104	85	70	46	13	80	78	67	75
34 PPL Share	3.4	3.7	3.5	3.6	5.5	5.2	5.7	4.6	3.8	2.5	0.7	4.4	4.3	3.7	4.1
35 PSE Share	2.0	2.1	2	2.1	3.1	3.0	3.3	2.7	2.2	1.4	0.4	2.5	2.5	2.1	2.4
36 SCL Share	0.8	0.9	0.9	0.9	1.3	1.3	1.4	1.1	0.9	0.6	0.2	1.1	1	0.9	1
37 TPU Share	0.9	1.0	0.9	1.0	1.4	1.4	1.5	1.2	1	0.7	0.2	1.1	1.1	1.0	1.1
38 Debit for Priest Rapids After Enc	463	361	344	356	520	495	542	447	375	254	93	422	414	360	400

**Table A-20: Wanapum and Priest Rapids Allocation
PNW Loads and Resource Study
2019 - 2020 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Credit for Wanapum-															
1 Credit for Wanapum	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27
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6 COPD Share	0.6	0.5	0.4	0.4	0.7	0.7	0.8	0.6	0.5	0.3	0.1	0.6	0.7	0.7	0.6
7 EWEB Share	0.5	0.5	0.4	0.4	0.6	0.6	0.7	0.5	0.4	0.2	0.1	0.5	0.6	0.6	0.5
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10 KITT Share	0.5	0.5	0.4	0.4	0.6	0.6	0.7	0.5	0.4	0.2	0.1	0.5	0.6	0.6	0.5
11 MCMN Share	1.6	1.4	1.1	1.1	1.9	1.8	2.0	1.6	1.2	0.7	0.4	1.6	1.8	1.8	1.5
12 MTFR Share	1.6	1.4	1.1	1.1	1.9	1.8	2.0	1.6	1.2	0.7	0.4	1.6	1.8	1.8	1.5
13 PGE Share	34	28	23	24	39	36	41	32	26	15	7.2	32	37	38	31
14 PNWMktr Share	79	65	53	55	92	86	96	75	60	36	17	76	87	89	72
15 PPL Share	4.3	3.6	2.9	3	5	4.7	5.3	4.1	3.3	2.0	0.9	4.1	4.8	4.9	4.0
16 PSE Share	2.5	2.1	1.7	1.8	2.9	2.7	3	2.4	1.9	1.1	0.5	2.4	2.7	2.8	2.3
17 SCL Share	1.1	0.9	0.7	0.7	1.2	1.1	1.3	1	0.8	0.5	0.2	1	1.2	1.2	1.0
18 TPU Share	1.1	0.9	0.8	0.8	1.3	1.2	1.4	1.1	0.9	0.5	0.2	1.1	1.2	1.3	1
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-Debit for Priest Rapids-															
24 AVWP Share	12	13	12	12	19	18	19	16	13	8.6	2.5	15	15	13	14
25 COPD Share	0.5	0.5	0.5	0.5	0.8	0.7	0.8	0.7	0.6	0.4	0.1	0.6	0.6	0.5	0.6
26 EWEB Share	0.4	0.5	0.4	0.5	0.7	0.7	0.7	0.6	0.5	0.3	0.1	0.6	0.5	0.5	0.5
27 FGRV Share	1.3	1.4	1.3	1.4	2.1	2.0	2.2	1.8	1.5	1.0	0.3	1.7	1.6	1.4	1.6
28 GCPD Share	221	238	228	236	339	324	353	293	248	171	69	277	272	238	263
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30 MCMN Share	1.3	1.4	1.3	1.4	2.1	2.0	2.2	1.8	1.5	1.0	0.3	1.7	1.6	1.4	1.6
31 MTFR Share	1.3	1.4	1.3	1.4	2.1	2.0	2.2	1.8	1.5	1.0	0.3	1.7	1.6	1.4	1.6
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34 PPL Share	3.4	3.7	3.5	3.6	5.5	5.2	5.7	4.7	3.9	2.5	0.7	4.4	4.3	3.7	4.1
35 PSE Share	2.0	2.1	2	2.1	3.1	3.0	3.3	2.7	2.2	1.5	0.4	2.5	2.5	2.1	2.4
36 SCL Share	0.8	0.9	0.9	0.9	1.3	1.3	1.4	1.1	0.9	0.6	0.2	1.1	1	0.9	1
37 TPU Share	0.9	1.0	0.9	1.0	1.4	1.4	1.5	1.2	1	0.7	0.2	1.1	1.1	1.0	1.1
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2020 - 2021 Operating Year
1937 Water Year
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5/27/2011

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11 MCMN Share	1.6	1.4	1.1	1.2	1.9	1.8	2.0	1.6	1.2	0.7	0.4	1.6	1.8	1.8	1.5
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16 PSE Share	2.5	2.1	1.7	1.8	2.9	2.7	3	2.4	1.9	1.1	0.5	2.4	2.8	2.8	2.3
17 SCL Share	1.1	0.9	0.7	0.7	1.2	1.1	1.3	1	0.8	0.5	0.2	1	1.2	1.2	1.0
18 TPU Share	1.1	0.9	0.8	0.8	1.3	1.2	1.4	1.1	0.9	0.5	0.2	1.1	1.2	1.3	1
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26 EWEB Share	0.4	0.5	0.4	0.5	0.7	0.7	0.7	0.6	0.5	0.3	0.1	0.6	0.5	0.5	0.5
27 FGRV Share	1.3	1.4	1.3	1.4	2.1	2.0	2.2	1.8	1.5	1.0	0.3	1.7	1.6	1.4	1.6
28 GCPD Share	221	238	228	236	339	323	353	293	247	171	69	277	272	238	263
29 KITT Share	0.4	0.5	0.4	0.5	0.7	0.7	0.7	0.6	0.5	0.3	0.1	0.6	0.5	0.5	0.5
30 MCMN Share	1.3	1.4	1.3	1.4	2.1	2.0	2.2	1.8	1.5	1.0	0.3	1.7	1.6	1.4	1.6
31 MTRF Share	1.3	1.4	1.3	1.4	2.1	2.0	2.2	1.8	1.5	1.0	0.3	1.7	1.6	1.4	1.6
32 PGE Share	26	29	27	28	42	40	44	36	30	20	5.7	34	33	29	32
33 PNWMktr Share	62	68	64	67	100	95	104	85	70	46	13	80	78	67	75
34 PPL Share	3.4	3.7	3.5	3.6	5.5	5.2	5.7	4.7	3.9	2.5	0.7	4.4	4.3	3.7	4.1
35 PSE Share	2.0	2.1	2	2.1	3.2	3.0	3.3	2.7	2.2	1.5	0.4	2.5	2.5	2.1	2.4
36 SCL Share	0.8	0.9	0.9	0.9	1.3	1.3	1.4	1.1	0.9	0.6	0.2	1.1	1	0.9	1
37 TPU Share	0.9	1.0	0.9	1.0	1.4	1.4	1.5	1.2	1	0.7	0.2	1.1	1.1	1.0	1.1
38 Debit for Priest Rapids After Enc	463	361	344	356	520	495	542	447	375	254	93	422	414	360	400

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Table A-21
Swift #1 and Swift #2 Allocation
Monthly OY 2012 – 2021
Average Energy in Megawatts

Power Services

Reports Powered by:



Loads and Resources Information System

**Table A-21: Swift #1 and Swift #2 Allocation
 PNW Loads and Resource Study
 2011 - 2012 Operating Year
 1937 Water Year
 [76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Swift 1-															
1 Swift 1	52	26	30	0	0	54	31	75	45	154	0	27	143	58	48
2 Swift 1 Before Enc	52	26	30	0	0	54	31	75	45	154	0	27	143	58	48
-Swift 1-															
3 COPD Share	14	6.8	7.9	0	0	14	8.1	20	12	40	0	7.1	37	15	12
4 PPL Share	39	19	22	0	0	40	23	56	33	114	0	20	106	43	36
5 Swift 1 After Enc	52	26	30	0	0	54	31	75	45	154	0	27	143	58	48
-Swift 2-															
6 Swift 2	15	7.7	9	0	0	22	13	33	20	69	0	9.8	42	16	17
7 Swift 2 Before Enc	15	7.7	9	0	0	22	13	33	20	69	0	9.8	42	16	17
-Swift 2-															
8 COPD Share	3.8	2	2.3	0	0	5.9	3.3	8.6	5.3	18	0	2.5	11	4.1	4.5
9 PPL Share	11	5.7	6.7	0	0	17	9.5	25	15	51	0	7.3	31	12	13
10 Swift 2 After Enc	15	7.7	9	0	0	22	13	33	20	69	0	9.8	42	16	17

**Table A-21: Swift #1 and Swift #2 Allocation
PNW Loads and Resource Study
2012 - 2013 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Swift 1-															
1 Swift 1	52	26	188	0	0	54	31	75	45	154	0	27	143	58	61
2 Swift 1 Before Enc	52	26	188	0	0	54	31	75	45	154	0	27	143	58	61
-Swift 1-															
3 COPD Share	14	6.8	49	0	0	14	8.1	20	12	40	0	7.1	37	15	16
4 PPL Share	39	19	139	0	0	40	23	56	33	114	0	20	106	43	45
5 Swift 1 After Enc	52	26	188	0	0	54	31	75	45	154	0	27	143	58	61
-Swift 2-															
6 Swift 2	15	7.7	61	0	0	22	13	33	20	69	0	9.8	42	16	22
7 Swift 2 Before Enc	15	7.7	61	0	0	22	13	33	20	69	0	9.8	42	16	22
-Swift 2-															
8 COPD Share	3.8	2	16	0	0	5.9	3.3	8.6	5.3	18	0	2.5	11	4.1	5.6
9 PPL Share	11	5.7	45	0	0	17	9.5	25	15	51	0	7.3	31	12	16
10 Swift 2 After Enc	15	7.7	61	0	0	22	13	33	20	69	0	9.8	42	16	22

**Table A-21: Swift #1 and Swift #2 Allocation
PNW Loads and Resource Study
2013 - 2014 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Swift 1-															
1 Swift 1	52	26	188	0	0	54	31	75	45	154	0	27	143	58	61
2 Swift 1 Before Enc	52	26	188	0	0	54	31	75	45	154	0	27	143	58	61
-Swift 1-															
3 COPD Share	14	6.8	49	0	0	14	8.1	20	12	40	0	7.1	37	15	16
4 PPL Share	39	19	139	0	0	40	23	56	33	114	0	20	106	43	45
5 Swift 1 After Enc	52	26	188	0	0	54	31	75	45	154	0	27	143	58	61
-Swift 2-															
6 Swift 2	15	7.7	61	0	0	22	13	33	20	69	0	9.8	42	16	22
7 Swift 2 Before Enc	15	7.7	61	0	0	22	13	33	20	69	0	9.8	42	16	22
-Swift 2-															
8 COPD Share	3.8	2	16	0	0	5.9	3.3	8.6	5.3	18	0	2.5	11	4.1	5.6
9 PPL Share	11	5.7	45	0	0	17	9.5	25	15	51	0	7.3	31	12	16
10 Swift 2 After Enc	15	7.7	61	0	0	22	13	33	20	69	0	9.8	42	16	22

**Table A-21: Swift #1 and Swift #2 Allocation
PNW Loads and Resource Study
2014 - 2015 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Swift 1-															
1 Swift 1	52	26	188	0	0	54	31	75	45	154	0	27	143	58	61
2 Swift 1 Before Enc	52	26	188	0	0	54	31	75	45	154	0	27	143	58	61
-Swift 1-															
3 COPD Share	14	6.8	49	0	0	14	8.1	20	12	40	0	7.1	37	15	16
4 PPL Share	39	19	139	0	0	40	23	56	33	114	0	20	106	43	45
5 Swift 1 After Enc	52	26	188	0	0	54	31	75	45	154	0	27	143	58	61
-Swift 2-															
6 Swift 2	15	7.7	61	0	0	22	13	33	20	69	0	9.8	42	16	22
7 Swift 2 Before Enc	15	7.7	61	0	0	22	13	33	20	69	0	9.8	42	16	22
-Swift 2-															
8 COPD Share	3.8	2	16	0	0	5.9	3.3	8.6	5.3	18	0	2.5	11	4.1	5.6
9 PPL Share	11	5.7	45	0	0	17	9.5	25	15	51	0	7.3	31	12	16
10 Swift 2 After Enc	15	7.7	61	0	0	22	13	33	20	69	0	9.8	42	16	22

**Table A-21: Swift #1 and Swift #2 Allocation
 PNW Loads and Resource Study
 2015 - 2016 Operating Year
 1937 Water Year
 [76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Swift 1-															
1 Swift 1	52	26	188	0	0	54	31	75	45	154	0	27	143	58	61
2 Swift 1 Before Enc	52	26	188	0	0	54	31	75	45	154	0	27	143	58	61
-Swift 1-															
3 COPD Share	14	6.8	49	0	0	14	8.1	20	12	40	0	7.1	37	15	16
4 PPL Share	39	19	139	0	0	40	23	56	33	114	0	20	106	43	45
5 Swift 1 After Enc	52	26	188	0	0	54	31	75	45	154	0	27	143	58	61
-Swift 2-															
6 Swift 2	15	7.7	61	0	0	22	13	33	20	69	0	9.8	42	16	22
7 Swift 2 Before Enc	15	7.7	61	0	0	22	13	33	20	69	0	9.8	42	16	22
-Swift 2-															
8 COPD Share	3.8	2	16	0	0	5.9	3.3	8.6	5.3	18	0	2.5	11	4.1	5.6
9 PPL Share	11	5.7	45	0	0	17	9.5	25	15	51	0	7.3	31	12	16
10 Swift 2 After Enc	15	7.7	61	0	0	22	13	33	20	69	0	9.8	42	16	22

**Table A-21: Swift #1 and Swift #2 Allocation
PNW Loads and Resource Study
2016 - 2017 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Swift 1-															
1 Swift 1	52	26	188	0	0	54	31	75	45	154	0	27	143	58	61
2 Swift 1 Before Enc	52	26	188	0	0	54	31	75	45	154	0	27	143	58	61
-Swift 1-															
3 COPD Share	14	6.8	49	0	0	14	8.1	20	12	40	0	7.1	37	15	16
4 PPL Share	39	19	139	0	0	40	23	56	33	114	0	20	106	43	45
5 Swift 1 After Enc	52	26	188	0	0	54	31	75	45	154	0	27	143	58	61
-Swift 2-															
6 Swift 2	15	7.7	61	0	0	22	13	33	20	69	0	9.8	42	16	22
7 Swift 2 Before Enc	15	7.7	61	0	0	22	13	33	20	69	0	9.8	42	16	22
-Swift 2-															
8 COPD Share	3.8	2	16	0	0	5.9	3.3	8.6	5.3	18	0	2.5	11	4.1	5.6
9 PPL Share	11	5.7	45	0	0	17	9.5	25	15	51	0	7.3	31	12	16
10 Swift 2 After Enc	15	7.7	61	0	0	22	13	33	20	69	0	9.8	42	16	22

**Table A-21: Swift #1 and Swift #2 Allocation
PNW Loads and Resource Study
2017 - 2018 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Swift 1-															
1 Swift 1	52	26	188	0	0	54	31	75	45	154	0	27	143	58	61
2 Swift 1 Before Enc	52	26	188	0	0	54	31	75	45	154	0	27	143	58	61
-Swift 1-															
3 COPD Share	14	6.8	49	0	0	14	8.1	20	12	40	0	7.1	37	15	16
4 PPL Share	39	19	139	0	0	40	23	56	33	114	0	20	106	43	45
5 Swift 1 After Enc	52	26	188	0	0	54	31	75	45	154	0	27	143	58	61
-Swift 2-															
6 Swift 2	15	7.7	61	0	0	22	13	33	20	69	0	9.8	42	16	22
7 Swift 2 Before Enc	15	7.7	61	0	0	22	13	33	20	69	0	9.8	42	16	22
-Swift 2-															
8 COPD Share	3.8	2	16	0	0	5.9	3.3	8.6	5.3	18	0	2.5	11	4.1	5.6
9 PPL Share	11	5.7	45	0	0	17	9.5	25	15	51	0	7.3	31	12	16
10 Swift 2 After Enc	15	7.7	61	0	0	22	13	33	20	69	0	9.8	42	16	22

**Table A-21: Swift #1 and Swift #2 Allocation
PNW Loads and Resource Study
2018 - 2019 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Swift 1-															
1 Swift 1	52	26	188	0	0	54	31	75	45	154	0	27	143	58	61
2 Swift 1 Before Enc	52	26	188	0	0	54	31	75	45	154	0	27	143	58	61
-Swift 1-															
3 COPD Share	14	6.8	49	0	0	14	8.1	20	12	40	0	7.1	37	15	16
4 PPL Share	39	19	139	0	0	40	23	56	33	114	0	20	106	43	45
5 Swift 1 After Enc	52	26	188	0	0	54	31	75	45	154	0	27	143	58	61
-Swift 2-															
6 Swift 2	15	7.7	61	0	0	22	13	33	20	69	0	9.8	42	16	22
7 Swift 2 Before Enc	15	7.7	61	0	0	22	13	33	20	69	0	9.8	42	16	22
-Swift 2-															
8 COPD Share	3.8	2	16	0	0	5.9	3.3	8.6	5.3	18	0	2.5	11	4.1	5.6
9 PPL Share	11	5.7	45	0	0	17	9.5	25	15	51	0	7.3	31	12	16
10 Swift 2 After Enc	15	7.7	61	0	0	22	13	33	20	69	0	9.8	42	16	22

**Table A-21: Swift #1 and Swift #2 Allocation
 PNW Loads and Resource Study
 2019 - 2020 Operating Year
 1937 Water Year
 [76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Swift 1-															
1 Swift 1	52	26	188	0	0	54	31	75	45	154	0	27	143	58	61
2 Swift 1 Before Enc	52	26	188	0	0	54	31	75	45	154	0	27	143	58	61
-Swift 1-															
3 COPD Share	14	6.8	49	0	0	14	8.1	20	12	40	0	7.1	37	15	16
4 PPL Share	39	19	139	0	0	40	23	56	33	114	0	20	106	43	45
5 Swift 1 After Enc	52	26	188	0	0	54	31	75	45	154	0	27	143	58	61
-Swift 2-															
6 Swift 2	15	7.7	61	0	0	22	13	33	20	69	0	9.8	42	16	22
7 Swift 2 Before Enc	15	7.7	61	0	0	22	13	33	20	69	0	9.8	42	16	22
-Swift 2-															
8 COPD Share	3.8	2	16	0	0	5.9	3.3	8.6	5.3	18	0	2.5	11	4.1	5.6
9 PPL Share	11	5.7	45	0	0	17	9.5	25	15	51	0	7.3	31	12	16
10 Swift 2 After Enc	15	7.7	61	0	0	22	13	33	20	69	0	9.8	42	16	22

**Table A-21: Swift #1 and Swift #2 Allocation
PNW Loads and Resource Study
2020 - 2021 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Swift 1-															
1 Swift 1	52	26	188	0	0	54	31	75	45	154	0	27	143	58	61
2 Swift 1 Before Enc	52	26	188	0	0	54	31	75	45	154	0	27	143	58	61
-Swift 1-															
3 COPD Share	14	6.8	49	0	0	14	8.1	20	12	40	0	7.1	37	15	16
4 PPL Share	39	19	139	0	0	40	23	56	33	114	0	20	106	43	45
5 Swift 1 After Enc	52	26	188	0	0	54	31	75	45	154	0	27	143	58	61
-Swift 2-															
6 Swift 2	15	7.7	61	0	0	22	13	33	20	69	0	9.8	42	16	22
7 Swift 2 Before Enc	15	7.7	61	0	0	22	13	33	20	69	0	9.8	42	16	22
-Swift 2-															
8 COPD Share	3.8	2	16	0	0	5.9	3.3	8.6	5.3	18	0	2.5	11	4.1	5.6
9 PPL Share	11	5.7	45	0	0	17	9.5	25	15	51	0	7.3	31	12	16
10 Swift 2 After Enc	15	7.7	61	0	0	22	13	33	20	69	0	9.8	42	16	22

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Table A-22
BPA Power Sale Contracts
Monthly OY 2012 – 2021
Average Energy in Megawatts

Power Services

Reports Powered by:



Loads and Resources Information System

**Table A-22: BPA Power Sale Contracts
PNW Loads and Resource Study
2011 - 2012 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Federal Entities-															
1 Federal Entities	107	108	94	100	124	149	144	131	129	108	109	97	101	111	116
2 Total Federal Entities	107	108	94	100	124	149	144	131	129	108	109	97	101	111	116
-U.S. Bureau of Reclamation-															
3 U.S. Bureau of Reclamation	310	308	293	96	17	18	2.5	7.1	57	228	218	322	314	416	173
4 Total U.S. Bureau of Reclamation	310	308	293	96	17	18	2.5	7.1	57	228	218	322	314	416	173
-Direct Service Industry-															
5 Direct Service Industry	340	340	340	340	340	340	340	340	340	340	340	340	340	340	340
6 Total Direct Service Industry	340	340	340	340	340	340	340	340	340	340	340	340	340	340	340
-Generating Public Entities-															
7 Generating Public Entities	1991	1992	2103	1413	1792	1981	2005	1806	1736	1407	1409	1196	1063	1253	1645
8 Total Generating Public Entities	1991	1992	2103	1413	1792	1981	2005	1806	1736	1407	1409	1196	1063	1253	1645
-Generating Public Entities (Slice)-															
9 Generating Public Entities (Slice)	460	890	838	1333	1687	1630	1637	1453	1372	1114	1095	1983	1773	1726	1460
10 Total Generating Public Entities (Slice)	460	890	838	1333	1687	1630	1637	1453	1372	1114	1095	1983	1773	1726	1460
-Non-Generating Public Entities-															
11 Non-Generating Public Entities	3061	3064	2809	2916	3335	3854	3783	3488	3176	3057	3081	3023	3163	3415	3258
12 Total Non-Generating Public Entities	3061	3064	2809	2916	3335	3854	3783	3488	3176	3057	3081	3023	3163	3415	3258
-Non-Generating Public Entities (Slice)-															
13 Non-Generating Public Entities (Slice)	534	534	503	327	414	400	401	356	336	273	268	486	435	423	412
14 Total Non-Generating Public Entities (Slice)	534	534	503	327	414	400	401	356	336	273	268	486	435	423	412
-Investor-Owned Entities-															
15 Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Other Entities-															
17 Other PNW Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Power Sales Contracts-															
19 Federal Entities	107	108	94	100	124	149	144	131	129	108	109	97	101	111	116
20 U.S. Bureau of Reclamation	310	308	293	96	17	18	2.5	7.1	57	228	218	322	314	416	173
21 Direct Service Industry	340	340	340	340	340	340	340	340	340	340	340	340	340	340	340
22 Generating Public Entities	3051	2882	2941	2746	3480	3611	3642	3259	3108	2522	2503	3180	2836	2979	3106
23 Non-Generating Public Entities	3698	3598	3313	3243	3748	4254	4184	3845	3513	3330	3349	3509	3598	3838	3670
24 Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 Total Power Sales Contracts	7507	7236	6981	6525	7710	8372	8313	7583	7147	6528	6520	7448	7190	7685	7406

**Table A-22: BPA Power Sale Contracts
PNW Loads and Resource Study
2012 - 2013 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Federal Entities-															
1 Federal Entities	107	107	94	103	129	156	146	136	130	109	109	98	102	112	119
2 Total Federal Entities	107	107	94	103	129	156	146	136	130	109	109	98	102	112	119
-U.S. Bureau of Reclamation-															
3 U.S. Bureau of Reclamation	310	308	293	96	17	18	2.5	7.1	57	223	223	322	314	416	174
4 Total U.S. Bureau of Reclamation	310	308	293	96	17	18	2.5	7.1	57	223	223	322	314	416	174
-Direct Service Industry-															
5 Direct Service Industry	340	340	340	340	340	340	340	340	340	340	340	340	340	340	340
6 Total Direct Service Industry	340	340	340	340	340	340	340	340	340	340	340	340	340	340	340
-Generating Public Entities-															
7 Generating Public Entities	1273	1273	1407	1454	1847	2042	2068	1929	1790	1448	1448	1232	1095	1290	1571
8 Total Generating Public Entities	1273	1273	1407	1454	1847	2042	2068	1929	1790	1448	1448	1232	1095	1290	1571
-Generating Public Entities (Slice)-															
9 Generating Public Entities (Slice)	646	1432	1337	1337	1691	1634	1641	1457	1376	1119	1098	1840	1555	1709	1520
10 Total Generating Public Entities (Slice)	646	1432	1337	1337	1691	1634	1641	1457	1376	1119	1098	1840	1555	1709	1520
-Non-Generating Public Entities-															
11 Non-Generating Public Entities	3306	3309	3019	2974	3393	3918	3842	3633	3244	3125	3125	3084	3224	3513	3356
12 Total Non-Generating Public Entities	3306	3309	3019	2974	3393	3918	3842	3633	3244	3125	3125	3084	3224	3513	3356
-Non-Generating Public Entities (Slice)-															
13 Non-Generating Public Entities (Slice)	351	351	328	328	415	401	402	357	337	274	269	451	381	419	373
14 Total Non-Generating Public Entities (Slice)	351	351	328	328	415	401	402	357	337	274	269	451	381	419	373
-Investor-Owned Entities-															
15 Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Other Entities-															
17 Other PNW Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Power Sales Contracts-															
19 Federal Entities	107	107	94	103	129	156	146	136	130	109	109	98	102	112	119
20 U.S. Bureau of Reclamation	310	308	293	96	17	18	2.5	7.1	57	223	223	322	314	416	174
21 Direct Service Industry	340	340	340	340	340	340	340	340	340	340	340	340	340	340	340
22 Generating Public Entities	2919	2706	2745	2791	3538	3677	3709	3386	3166	2568	2546	3072	2650	2999	3092
23 Non-Generating Public Entities	3710	3660	3347	3301	3807	4318	4244	3990	3581	3399	3394	3535	3605	3932	3728
24 Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 Total Power Sales Contracts	7386	7121	6818	6632	7833	8509	8442	7859	7274	6640	6613	7367	7013	7800	7453

**Table A-22: BPA Power Sale Contracts
PNW Loads and Resource Study
2013 - 2014 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Federal Entities-															
1 Federal Entities	108	108	95	105	130	157	159	148	141	118	118	107	111	122	125
2 Total Federal Entities	108	108	95	105	130	157	159	148	141	118	118	107	111	122	125
-U.S. Bureau of Reclamation-															
3 U.S. Bureau of Reclamation	310	308	293	96	17	18	2.5	7.1	57	223	223	322	314	416	174
4 Total U.S. Bureau of Reclamation	310	308	293	96	17	18	2.5	7.1	57	223	223	322	314	416	174
-Direct Service Industry-															
5 Direct Service Industry	340	340	340	340	340	340	340	340	340	340	340	340	340	340	340
6 Total Direct Service Industry	340	340	340	340	340	340	340	340	340	340	340	340	340	340	340
-Generating Public Entities-															
7 Generating Public Entities	1310	1310	1448	1438	1830	2023	2049	1911	1773	1433	1433	1220	1085	1277	1565
8 Total Generating Public Entities	1310	1310	1448	1438	1830	2023	2049	1911	1773	1433	1433	1220	1085	1277	1565
-Generating Public Entities (Slice)-															
9 Generating Public Entities (Slice)	646	1432	1337	1333	1687	1630	1636	1453	1372	1116	1095	1966	1769	1720	1547
10 Total Generating Public Entities (Slice)	646	1432	1337	1333	1687	1630	1636	1453	1372	1116	1095	1966	1769	1720	1547
-Non-Generating Public Entities-															
11 Non-Generating Public Entities	3401	3404	3108	3039	3468	4008	3925	3713	3313	3189	3189	3142	3285	3545	3428
12 Total Non-Generating Public Entities	3401	3404	3108	3039	3468	4008	3925	3713	3313	3189	3189	3142	3285	3545	3428
-Non-Generating Public Entities (Slice)-															
13 Non-Generating Public Entities (Slice)	351	351	328	327	413	399	401	356	336	274	268	482	434	422	379
14 Total Non-Generating Public Entities (Slice)	351	351	328	327	413	399	401	356	336	274	268	482	434	422	379
-Investor-Owned Entities-															
15 Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Other Entities-															
17 Other PNW Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Power Sales Contracts-															
19 Federal Entities	108	108	95	105	130	157	159	148	141	118	118	107	111	122	125
20 U.S. Bureau of Reclamation	310	308	293	96	17	18	2.5	7.1	57	223	223	322	314	416	174
21 Direct Service Industry	340	340	340	340	340	340	340	340	340	340	340	340	340	340	340
22 Generating Public Entities	2955	2742	2785	2772	3517	3653	3685	3364	3146	2550	2528	3186	2854	2997	3112
23 Non-Generating Public Entities	3805	3755	3436	3366	3881	4407	4326	4069	3649	3463	3458	3624	3719	3967	3807
24 Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 Total Power Sales Contracts	7518	7253	6949	6679	7886	8576	8513	7929	7333	6694	6667	7579	7339	7842	7558

**Table A-22: BPA Power Sale Contracts
PNW Loads and Resource Study
2014 - 2015 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Federal Entities-															
1 Federal Entities	118	117	103	113	142	172	172	160	152	128	128	116	120	131	136
2 Total Federal Entities	118	117	103	113	142	172	172	160	152	128	128	116	120	131	136
-U.S. Bureau of Reclamation-															
3 U.S. Bureau of Reclamation	303	314	293	96	17	18	2.5	7.1	57	223	223	322	314	416	174
4 Total U.S. Bureau of Reclamation	303	314	293	96	17	18	2.5	7.1	57	223	223	322	314	416	174
-Direct Service Industry-															
5 Direct Service Industry	340	340	340	340	340	340	340	340	340	340	340	340	340	340	340
6 Total Direct Service Industry	340	340	340	340	340	340	340	340	340	340	340	340	340	340	340
-Generating Public Entities-															
7 Generating Public Entities	1298	1296	1434	1475	1877	2075	2102	1960	1819	1470	1470	1254	1115	1311	1597
8 Total Generating Public Entities	1298	1296	1434	1475	1877	2075	2102	1960	1819	1470	1470	1254	1115	1311	1597
-Generating Public Entities (Slice)-															
9 Generating Public Entities (Slice)	650	1435	1336	1336	1690	1637	1644	1460	1380	1124	1102	1874	1551	1685	1522
10 Total Generating Public Entities (Slice)	650	1435	1336	1336	1690	1637	1644	1460	1380	1124	1102	1874	1551	1685	1522
-Non-Generating Public Entities-															
11 Non-Generating Public Entities	3445	3421	3140	3070	3500	4045	3962	3749	3345	3222	3222	3178	3324	3588	3462
12 Total Non-Generating Public Entities	3445	3421	3140	3070	3500	4045	3962	3749	3345	3222	3222	3178	3324	3588	3462
-Non-Generating Public Entities (Slice)-															
13 Non-Generating Public Entities (Slice)	352	352	328	327	414	401	403	358	338	275	270	459	380	413	373
14 Total Non-Generating Public Entities (Slice)	352	352	328	327	414	401	403	358	338	275	270	459	380	413	373
-Investor-Owned Entities-															
15 Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Other Entities-															
17 Other PNW Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Power Sales Contracts-															
19 Federal Entities	118	117	103	113	142	172	172	160	152	128	128	116	120	131	136
20 U.S. Bureau of Reclamation	303	314	293	96	17	18	2.5	7.1	57	223	223	322	314	416	174
21 Direct Service Industry	340	340	340	340	340	340	340	340	340	340	340	340	340	340	340
22 Generating Public Entities	2948	2731	2770	2811	3566	3712	3745	3420	3199	2594	2573	3128	2666	2996	3119
23 Non-Generating Public Entities	3849	3772	3467	3397	3915	4447	4365	4107	3683	3498	3492	3637	3704	4001	3835
24 Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 Total Power Sales Contracts	7559	7275	6973	6758	7981	8689	8626	8036	7431	6783	6756	7543	7146	7884	7605

**Table A-22: BPA Power Sale Contracts
PNW Loads and Resource Study
2015 - 2016 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Federal Entities-															
1 Federal Entities	127	126	111	123	155	188	179	162	158	132	132	120	125	136	143
2 Total Federal Entities	127	126	111	123	155	188	179	162	158	132	132	120	125	136	143
-U.S. Bureau of Reclamation-															
3 U.S. Bureau of Reclamation	303	314	293	96	17	18	2.5	7.1	57	223	223	322	314	416	173
4 Total U.S. Bureau of Reclamation	303	314	293	96	17	18	2.5	7.1	57	223	223	322	314	416	173
-Direct Service Industry-															
5 Direct Service Industry	340	340	340	340	340	340	340	340	340	340	340	340	340	340	340
6 Total Direct Service Industry	340	340	340	340	340	340	340	340	340	340	340	340	340	340	340
-Generating Public Entities-															
7 Generating Public Entities	1332	1331	1471	1461	1859	2055	2082	1875	1801	1456	1456	1245	1106	1299	1586
8 Total Generating Public Entities	1332	1331	1471	1461	1859	2055	2082	1875	1801	1456	1456	1245	1106	1299	1586
-Generating Public Entities (Slice)-															
9 Generating Public Entities (Slice)	645	1429	1329	1324	1677	1624	1631	1448	1368	1109	1088	1975	1756	1726	1542
10 Total Generating Public Entities (Slice)	645	1429	1329	1324	1677	1624	1631	1448	1368	1109	1088	1975	1756	1726	1542
-Non-Generating Public Entities-															
11 Non-Generating Public Entities	3484	3459	3173	3095	3530	4077	3993	3685	3370	3248	3248	3205	3352	3616	3485
12 Total Non-Generating Public Entities	3484	3459	3173	3095	3530	4077	3993	3685	3370	3248	3248	3205	3352	3616	3485
-Non-Generating Public Entities (Slice)-															
13 Non-Generating Public Entities (Slice)	318	350	326	325	411	398	400	355	335	272	267	484	430	423	378
14 Total Non-Generating Public Entities (Slice)	318	350	326	325	411	398	400	355	335	272	267	484	430	423	378
-Investor-Owned Entities-															
15 Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Other Entities-															
17 Other PNW Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Power Sales Contracts-															
19 Federal Entities	127	126	111	123	155	188	179	162	158	132	132	120	125	136	143
20 U.S. Bureau of Reclamation	303	314	293	96	17	18	2.5	7.1	57	223	223	322	314	416	173
21 Direct Service Industry	340	340	340	340	340	340	340	340	340	340	340	340	340	340	340
22 Generating Public Entities	2977	2760	2800	2785	3536	3679	3714	3323	3169	2565	2543	3219	2862	3026	3129
23 Non-Generating Public Entities	3887	3810	3498	3419	3941	4475	4392	4040	3705	3519	3514	3689	3783	4039	3863
24 Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 Total Power Sales Contracts	7635	7350	7043	6764	7990	8702	8628	7873	7429	6780	6753	7690	7424	7958	7649

**Table A-22: BPA Power Sale Contracts
PNW Loads and Resource Study
2016 - 2017 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Federal Entities-															
1 Federal Entities	131	131	115	127	161	196	212	197	186	156	155	142	147	160	161
2 Total Federal Entities	131	131	115	127	161	196	212	197	186	156	155	142	147	160	161
-U.S. Bureau of Reclamation-															
3 U.S. Bureau of Reclamation	310	308	293	96	17	18	2.5	7.1	57	218	228	322	314	416	174
4 Total U.S. Bureau of Reclamation	310	308	293	96	17	18	2.5	7.1	57	218	228	322	314	416	174
-Direct Service Industry-															
5 Direct Service Industry	340	340	340	340	340	340	340	340	340	340	340	340	340	340	340
6 Total Direct Service Industry	340	340	340	340	340	340	340	340	340	340	340	340	340	340	340
-Generating Public Entities-															
7 Generating Public Entities	1319	1319	1456	1497	1904	2104	2133	1988	1845	1492	1491	1276	1134	1332	1622
8 Total Generating Public Entities	1319	1319	1456	1497	1904	2104	2133	1988	1845	1492	1491	1276	1134	1332	1622
-Generating Public Entities (Slice)-															
9 Generating Public Entities (Slice)	637	1425	1324	1323	1669	1617	1623	1440	1360	1107	1088	1832	1557	1693	1507
10 Total Generating Public Entities (Slice)	637	1425	1324	1323	1669	1617	1623	1440	1360	1107	1088	1832	1557	1693	1507
-Non-Generating Public Entities-															
11 Non-Generating Public Entities	3498	3500	3200	3125	3558	4109	4025	3811	3398	3289	3263	3234	3384	3652	3522
12 Total Non-Generating Public Entities	3498	3500	3200	3125	3558	4109	4025	3811	3398	3289	3263	3234	3384	3652	3522
-Non-Generating Public Entities (Slice)-															
13 Non-Generating Public Entities (Slice)	349	349	324	324	409	396	398	353	333	271	267	449	382	415	369
14 Total Non-Generating Public Entities (Slice)	349	349	324	324	409	396	398	353	333	271	267	449	382	415	369
-Investor-Owned Entities-															
15 Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Other Entities-															
17 Other PNW Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Power Sales Contracts-															
19 Federal Entities	131	131	115	127	161	196	212	197	186	156	155	142	147	160	161
20 U.S. Bureau of Reclamation	310	308	293	96	17	18	2.5	7.1	57	218	228	322	314	416	174
21 Direct Service Industry	340	340	340	340	340	340	340	340	340	340	340	340	340	340	340
22 Generating Public Entities	2956	2744	2780	2819	3574	3721	3756	3429	3205	2599	2579	3108	2692	3025	3129
23 Non-Generating Public Entities	3899	3850	3524	3450	3968	4505	4422	4164	3731	3561	3530	3683	3766	4067	3891
24 Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 Total Power Sales Contracts	7637	7373	7053	6833	8060	8781	8733	8137	7520	6874	6832	7595	7260	8007	7695

**Table A-22: BPA Power Sale Contracts
PNW Loads and Resource Study
2017 - 2018 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Federal Entities-															
1 Federal Entities	155	155	136	150	192	235	216	200	189	158	159	144	150	162	174
2 Total Federal Entities	155	155	136	150	192	235	216	200	189	158	159	144	150	162	174
-U.S. Bureau of Reclamation-															
3 U.S. Bureau of Reclamation	310	308	293	96	17	18	2.5	7.1	57	228	218	322	314	416	174
4 Total U.S. Bureau of Reclamation	310	308	293	96	17	18	2.5	7.1	57	228	218	322	314	416	174
-Direct Service Industry-															
5 Direct Service Industry	340	340	340	0	0	0	0	0	0	0	0	0	0	0	57
6 Total Direct Service Industry	340	340	340	0	0	0	0	0	0	0	0	0	0	0	57
-Generating Public Entities-															
7 Generating Public Entities	1352	1352	1492	1473	1874	2070	2128	1987	1845	1497	1498	1286	1147	1341	1623
8 Total Generating Public Entities	1352	1352	1492	1473	1874	2070	2128	1987	1845	1497	1498	1286	1147	1341	1623
-Generating Public Entities (Slice)-															
9 Generating Public Entities (Slice)	638	1426	1325	1322	1690	1637	1643	1461	1370	1115	1101	1975	1757	1726	1547
10 Total Generating Public Entities (Slice)	638	1426	1325	1322	1690	1637	1643	1461	1370	1115	1101	1975	1757	1726	1547
-Non-Generating Public Entities-															
11 Non-Generating Public Entities	3532	3534	3229	3137	3571	4123	4059	3846	3431	3296	3322	3269	3425	3695	3552
12 Total Non-Generating Public Entities	3532	3534	3229	3137	3571	4123	4059	3846	3431	3296	3322	3269	3425	3695	3552
-Non-Generating Public Entities (Slice)-															
13 Non-Generating Public Entities (Slice)	312	349	325	324	414	401	403	358	336	273	270	484	431	423	379
14 Total Non-Generating Public Entities (Slice)	312	349	325	324	414	401	403	358	336	273	270	484	431	423	379
-Investor-Owned Entities-															
15 Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Other Entities-															
17 Other PNW Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Power Sales Contracts-															
19 Federal Entities	155	155	136	150	192	235	216	200	189	158	159	144	150	162	174
20 U.S. Bureau of Reclamation	310	308	293	96	17	18	2.5	7.1	57	228	218	322	314	416	174
21 Direct Service Industry	340	340	340	0	0	0	0	0	0	0	0	0	0	0	57
22 Generating Public Entities	2990	2778	2817	2795	3564	3708	3772	3448	3215	2612	2599	3262	2904	3068	3170
23 Non-Generating Public Entities	3933	3884	3553	3461	3985	4525	4462	4204	3767	3570	3592	3754	3856	4118	3931
24 Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 Total Power Sales Contracts	7728	7465	7140	6502	7758	8485	8452	7859	7228	6567	6568	7481	7224	7764	7505

**Table A-22: BPA Power Sale Contracts
PNW Loads and Resource Study
2018 - 2019 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Federal Entities-															
1 Federal Entities	157	157	139	153	195	238	218	202	191	159	159	145	151	164	176
2 Total Federal Entities	157	157	139	153	195	238	218	202	191	159	159	145	151	164	176
-U.S. Bureau of Reclamation-															
3 U.S. Bureau of Reclamation	310	308	293	96	17	18	2.5	7.1	57	223	223	322	314	416	174
4 Total U.S. Bureau of Reclamation	310	308	293	96	17	18	2.5	7.1	57	223	223	322	314	416	174
-Direct Service Industry-															
5 Direct Service Industry	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6 Total Direct Service Industry	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Generating Public Entities-															
7 Generating Public Entities	1361	1361	1499	1537	1946	2146	2174	2030	1886	1532	1532	1316	1174	1372	1663
8 Total Generating Public Entities	1361	1361	1499	1537	1946	2146	2174	2030	1886	1532	1532	1316	1174	1372	1663
-Generating Public Entities (Slice)-															
9 Generating Public Entities (Slice)	637	1425	1324	1323	1691	1638	1645	1462	1371	1117	1101	1817	1558	1706	1516
10 Total Generating Public Entities (Slice)	637	1425	1324	1323	1691	1638	1645	1462	1371	1117	1101	1817	1558	1706	1516
-Non-Generating Public Entities-															
11 Non-Generating Public Entities	3576	3578	3275	3191	3629	4187	4106	3891	3471	3347	3347	3306	3465	3738	3598
12 Total Non-Generating Public Entities	3576	3578	3275	3191	3629	4187	4106	3891	3471	3347	3347	3306	3465	3738	3598
-Non-Generating Public Entities (Slice)-															
13 Non-Generating Public Entities (Slice)	349	325	324	414	402	403	358	336	274	270	445	382	418	372	
14 Total Non-Generating Public Entities (Slice)	349	325	324	414	402	403	358	336	274	270	445	382	418	372	
-Investor-Owned Entities-															
15 Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Other Entities-															
17 Other PNW Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Power Sales Contracts-															
19 Federal Entities	157	157	139	153	195	238	218	202	191	159	159	145	151	164	176
20 U.S. Bureau of Reclamation	310	308	293	96	17	18	2.5	7.1	57	223	223	322	314	416	174
21 Direct Service Industry	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22 Generating Public Entities	2998	2786	2823	2860	3637	3784	3819	3492	3257	2649	2632	3133	2731	3078	3178
23 Non-Generating Public Entities	3977	3927	3600	3515	4043	4589	4509	4249	3807	3621	3617	3752	3847	4156	3970
24 Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 Total Power Sales Contracts	7442	7179	6854	6623	7892	8629	8548	7950	7311	6652	6631	7352	7044	7814	7498

**Table A-22: BPA Power Sale Contracts
PNW Loads and Resource Study
2019 - 2020 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Federal Entities-															
1 Federal Entities	158	158	140	154	196	240	219	197	192	160	160	146	152	165	177
2 Total Federal Entities	158	158	140	154	196	240	219	197	192	160	160	146	152	165	177
-U.S. Bureau of Reclamation-															
3 U.S. Bureau of Reclamation	310	308	294	96	17	18	2.6	7.1	57	223	223	322	314	416	173
4 Total U.S. Bureau of Reclamation	310	308	294	96	17	18	2.6	7.1	57	223	223	322	314	416	173
-Direct Service Industry-															
5 Direct Service Industry	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6 Total Direct Service Industry	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Generating Public Entities-															
7 Generating Public Entities	1392	1392	1533	1517	1920	2117	2145	1935	1861	1512	1512	1300	1160	1355	1645
8 Total Generating Public Entities	1392	1392	1533	1517	1920	2117	2145	1935	1861	1512	1512	1300	1160	1355	1645
-Generating Public Entities (Slice)-															
9 Generating Public Entities (Slice)	638	1426	1325	1324	1713	1661	1667	1485	1382	1128	1112	1977	1759	1728	1557
10 Total Generating Public Entities (Slice)	638	1426	1325	1324	1713	1661	1667	1485	1382	1128	1112	1977	1759	1728	1557
-Non-Generating Public Entities-															
11 Non-Generating Public Entities	3616	3618	3312	3208	3647	4205	4124	3813	3485	3360	3360	3320	3481	3753	3611
12 Total Non-Generating Public Entities	3616	3618	3312	3208	3647	4205	4124	3813	3485	3360	3360	3320	3481	3753	3611
-Non-Generating Public Entities (Slice)-															
13 Non-Generating Public Entities (Slice)	349	325	324	420	407	409	364	339	277	273	485	431	424	382	
14 Total Non-Generating Public Entities (Slice)	349	325	324	420	407	409	364	339	277	273	485	431	424	382	
-Investor-Owned Entities-															
15 Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Other Entities-															
17 Other PNW Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Power Sales Contracts-															
19 Federal Entities	158	158	140	154	196	240	219	197	192	160	160	146	152	165	177
20 U.S. Bureau of Reclamation	310	308	294	96	17	18	2.6	7.1	57	223	223	322	314	416	173
21 Direct Service Industry	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22 Generating Public Entities	3030	2818	2857	2841	3633	3778	3812	3420	3243	2641	2624	3277	2919	3083	3202
23 Non-Generating Public Entities	4017	3968	3636	3533	4067	4613	4532	4176	3824	3636	3632	3804	3912	4176	3993
24 Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 Total Power Sales Contracts	7516	7253	6927	6624	7914	8649	8566	7801	7316	6660	6640	7549	7297	7840	7545

**Table A-22: BPA Power Sale Contracts
PNW Loads and Resource Study
2020 - 2021 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Federal Entities-															
1 Federal Entities	160	159	140	155	197	242	220	204	193	161	161	147	153	166	178
2 Total Federal Entities	160	159	140	155	197	242	220	204	193	161	161	147	153	166	178
-U.S. Bureau of Reclamation-															
3 U.S. Bureau of Reclamation	303	314	293	96	17	18	2.5	7.1	57	223	223	322	314	416	174
4 Total U.S. Bureau of Reclamation	303	314	293	96	17	18	2.5	7.1	57	223	223	322	314	416	174
-Direct Service Industry-															
5 Direct Service Industry	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6 Total Direct Service Industry	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Generating Public Entities-															
7 Generating Public Entities	1375	1374	1513	1546	1955	2155	2184	2039	1895	1541	1541	1325	1182	1381	1673
8 Total Generating Public Entities	1375	1374	1513	1546	1955	2155	2184	2039	1895	1541	1541	1325	1182	1381	1673
-Generating Public Entities (Slice)-															
9 Generating Public Entities (Slice)	640	1425	1326	1325	1714	1662	1668	1485	1383	1129	1113	1847	1559	1680	1526
10 Total Generating Public Entities (Slice)	640	1425	1326	1325	1714	1662	1668	1485	1383	1129	1113	1847	1559	1680	1526
-Non-Generating Public Entities-															
11 Non-Generating Public Entities	3644	3618	3324	3233	3674	4235	4152	3937	3509	3383	3383	3345	3508	3782	3642
12 Total Non-Generating Public Entities	3644	3618	3324	3233	3674	4235	4152	3937	3509	3383	3383	3345	3508	3782	3642
-Non-Generating Public Entities (Slice)-															
13 Non-Generating Public Entities (Slice)	349	349	325	325	420	407	409	364	339	277	273	453	382	412	374
14 Total Non-Generating Public Entities (Slice)	349	349	325	325	420	407	409	364	339	277	273	453	382	412	374
-Investor-Owned Entities-															
15 Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Other Entities-															
17 Other PNW Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Power Sales Contracts-															
19 Federal Entities	160	159	140	155	197	242	220	204	193	161	161	147	153	166	178
20 U.S. Bureau of Reclamation	303	314	293	96	17	18	2.5	7.1	57	223	223	322	314	416	174
21 Direct Service Industry	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22 Generating Public Entities	3015	2799	2839	2870	3669	3817	3852	3525	3278	2670	2654	3171	2742	3061	3199
23 Non-Generating Public Entities	4046	3967	3649	3558	4094	4642	4560	4301	3848	3660	3656	3797	3890	4194	4016
24 Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 Total Power Sales Contracts	7524	7239	6921	6678	7978	8719	8635	8037	7375	6714	6694	7437	7099	7836	7567

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Table A-23
Non-Utility Generating Resources by Owner
Monthly OY 2012 – 2021
Average Energy in Megawatts

Power Services

Reports Powered by:



Loads and Resources Information System

**Table A-23: Regional NUG Resources By Owner
PNW Loads and Resource Study
2011 - 2012 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Federal Entities-															
1 Federal Entities	2.8	2.8	2.8	2.9	3	3.4	3.4	3.2	3.3	3.3	3.3	3	2.9	2.8	3.1
2 Total Federal Entities	2.8	2.8	2.8	2.9	3	3.4	3.4	3.2	3.3	3.3	3.3	3	2.9	2.8	3.1
-Generating Public Entities-															
3 Generating Public Entities	186	184	131	76	36	35	31	36	30	127	127	217	233	244	115
4 Total Generating Public Entities	186	184	131	76	36	35	31	36	30	127	127	217	233	244	115
-Non-Generating Public Entities-															
5 Non-Generating Public Entities	2.2	2.2	2.2	2.2	2.2	2.2	17	17	17	17	17	17	17	17	11
6 Total Non-Generating Public Entities	2.2	2.2	2.2	2.2	2.2	2.2	17	17	17	17	17	17	17	17	11
-Investor-Owned Entities-															
7 Investor-Owned Entities	471	471	464	441	445	438	410	412	434	480	474	525	535	493	462
8 Total Investor-owned Entities	471	471	464	441	445	438	410	412	434	480	474	525	535	493	462
-Other Entities-															
9 Other Entities	7.8	7.8	7.8	7.8	0	0	0	0	0	0	7.8	7.8	7.8	7.8	4.2
10 Total Other Entities	7.8	7.8	7.8	7.8	0	0	0	0	0	0	7.8	7.8	7.8	7.8	4.2
-Total Non-Utility Generating Resources-															
11 Federal Entities	2.8	2.8	2.8	2.9	3	3.4	3.4	3.2	3.3	3.3	3.3	3	2.9	2.8	3.1
12 Public Entities	188	186	134	78	38	37	48	53	48	145	145	234	250	261	126
13 Investor-Owned Entities	471	471	464	441	445	438	410	412	434	480	474	525	535	493	462
14 Other Entities	7.8	7.8	7.8	7.8	0	0	0	0	0	7.8	7.8	7.8	7.8	7.8	4.2
15 Total Non-Utility Generation	669	668	608	529	486	478	462	469	485	627	630	770	796	765	596

**Table A-23: Regional NUG Resources By Owner
PNW Loads and Resource Study
2012 - 2013 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Federal Entities-															
1 Federal Entities	2.8	2.8	2.8	2.9	3	3.4	3.4	3.3	3.3	3.3	3.3	3	2.9	2.8	3.1
2 Total Federal Entities	2.8	2.8	2.8	2.9	3	3.4	3.4	3.3	3.3	3.3	3.3	3	2.9	2.8	3.1
-Generating Public Entities-															
3 Generating Public Entities	186	184	131	76	36	35	34	38	33	130	130	219	236	246	117
4 Total Generating Public Entities	186	184	131	76	36	35	34	38	33	130	130	219	236	246	117
-Non-Generating Public Entities-															
5 Non-Generating Public Entities	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17
6 Total Non-Generating Public Entities	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17
-Investor-Owned Entities-															
7 Investor-Owned Entities	460	460	452	430	433	428	414	415	437	483	477	527	546	497	460
8 Total Investor-owned Entities	460	460	452	430	433	428	414	415	437	483	477	527	546	497	460
-Other Entities-															
9 Other Entities	7.8	7.8	7.8	7.8	0	0	0	0	0	0	7.8	7.8	7.8	7.8	4.3
10 Total Other Entities	7.8	7.8	7.8	7.8	0	0	0	0	0	0	7.8	7.8	7.8	7.8	4.3
-Total Non-Utility Generating Resources-															
11 Federal Entities	2.8	2.8	2.8	2.9	3	3.4	3.4	3.3	3.3	3.3	3.3	3	2.9	2.8	3.1
12 Public Entities	203	201	149	93	53	52	51	55	50	147	147	236	253	264	134
13 Investor-Owned Entities	460	460	452	430	433	428	414	415	437	483	477	527	546	497	460
14 Other Entities	7.8	7.8	7.8	7.8	0	0	0	0	0	7.8	7.8	7.8	7.8	7.8	4.3
15 Total Non-Utility Generation	673	672	612	533	489	483	468	474	491	634	635	774	809	771	601

**Table A-23: Regional NUG Resources By Owner
PNW Loads and Resource Study
2013 - 2014 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Federal Entities-															
1 Federal Entities	2.8	2.8	2.8	2.9	3	3.4	3.4	3.3	3.3	3.3	3.3	3	2.9	2.8	3.1
2 Total Federal Entities	2.8	2.8	2.8	2.9	3	3.4	3.4	3.3	3.3	3.3	3.3	3	2.9	2.8	3.1
-Generating Public Entities-															
3 Generating Public Entities	188	186	134	78	39	37	34	38	33	130	130	219	236	246	118
4 Total Generating Public Entities	188	186	134	78	39	37	34	38	33	130	130	219	236	246	118
-Non-Generating Public Entities-															
5 Non-Generating Public Entities	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17
6 Total Non-Generating Public Entities	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17
-Investor-Owned Entities-															
7 Investor-Owned Entities	460	460	453	430	434	428	415	416	439	484	477	527	538	486	459
8 Total Investor-owned Entities	460	460	453	430	434	428	415	416	439	484	477	527	538	486	459
-Other Entities-															
9 Other Entities	7.8	7.8	7.8	7.8	0	0	0	0	0	0	7.8	7.8	7.8	18	5.1
10 Total Other Entities	7.8	7.8	7.8	7.8	0	0	0	0	0	0	7.8	7.8	7.8	18	5.1
-Total Non-Utility Generating Resources-															
11 Federal Entities	2.8	2.8	2.8	2.9	3	3.4	3.4	3.3	3.3	3.3	3.3	3	2.9	2.8	3.1
12 Public Entities	205	204	151	95	56	55	51	55	50	147	147	236	253	264	135
13 Investor-Owned Entities	460	460	453	430	434	428	415	416	439	484	477	527	538	486	459
14 Other Entities	7.8	7.8	7.8	7.8	0	0	0	0	0	7.8	7.8	7.8	7.8	18	5.1
15 Total Non-Utility Generation	676	675	614	536	493	486	469	474	492	634	635	774	801	770	602

**Table A-23: Regional NUG Resources By Owner
PNW Loads and Resource Study
2014 - 2015 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Federal Entities-															
1 Federal Entities	2.8	2.8	2.8	2.9	3	3.4	3.4	3.3	3.3	3.3	3.3	3	2.9	2.8	3.1
2 Total Federal Entities	2.8	2.8	2.8	2.9	3	3.4	3.4	3.3	3.3	3.3	3.3	3	2.9	2.8	3.1
-Generating Public Entities-															
3 Generating Public Entities	188	186	134	78	39	37	34	38	33	130	130	219	236	246	118
4 Total Generating Public Entities	188	186	134	78	39	37	34	38	33	130	130	219	236	246	118
-Non-Generating Public Entities-															
5 Non-Generating Public Entities	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17
6 Total Non-Generating Public Entities	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17
-Investor-Owned Entities-															
7 Investor-Owned Entities	449	450	444	421	425	419	406	407	430	475	468	519	529	487	451
8 Total Investor-owned Entities	449	450	444	421	425	419	406	407	430	475	468	519	529	487	451
-Other Entities-															
9 Other Entities	18	18	18	18	9.7	9.7	9.7	9.7	9.7	9.7	18	18	18	18	14
10 Total Other Entities	18	18	18	18	9.7	9.7	9.7	9.7	9.7	9.7	18	18	18	18	14
-Total Non-Utility Generating Resources-															
11 Federal Entities	2.8	2.8	2.8	2.9	3	3.4	3.4	3.3	3.3	3.3	3.3	3	2.9	2.8	3.1
12 Public Entities	205	204	151	95	56	55	51	55	50	147	147	236	253	264	135
13 Investor-Owned Entities	449	450	444	421	425	419	406	407	430	475	468	519	529	487	451
14 Other Entities	18	18	18	18	9.7	9.7	9.7	9.7	9.7	9.7	18	18	18	18	14
15 Total Non-Utility Generation	675	674	615	537	493	486	470	475	493	635	636	776	803	771	603

**Table A-23: Regional NUG Resources By Owner
PNW Loads and Resource Study
2015 - 2016 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Federal Entities-															
1 Federal Entities	2.8	2.8	2.8	2.9	3	3.4	3.4	3.2	3.3	3.3	3.3	3	2.9	2.8	3.1
2 Total Federal Entities	2.8	2.8	2.8	2.9	3	3.4	3.4	3.2	3.3	3.3	3.3	3	2.9	2.8	3.1
-Generating Public Entities-															
3 Generating Public Entities	188	186	134	78	39	37	34	38	33	130	130	219	236	246	118
4 Total Generating Public Entities	188	186	134	78	39	37	34	38	33	130	130	219	236	246	118
-Non-Generating Public Entities-															
5 Non-Generating Public Entities	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17
6 Total Non-Generating Public Entities	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17
-Investor-Owned Entities-															
7 Investor-Owned Entities	449	451	443	419	424	419	406	408	430	476	469	519	529	487	451
8 Total Investor-owned Entities	449	451	443	419	424	419	406	408	430	476	469	519	529	487	451
-Other Entities-															
9 Other Entities	18	18	18	18	9.7	9.7	9.7	9.7	9.7	9.7	18	18	18	18	14
10 Total Other Entities	18	18	18	18	9.7	9.7	9.7	9.7	9.7	9.7	18	18	18	18	14
-Total Non-Utility Generating Resources-															
11 Federal Entities	2.8	2.8	2.8	2.9	3	3.4	3.4	3.2	3.3	3.3	3.3	3	2.9	2.8	3.1
12 Public Entities	205	204	151	95	56	55	51	55	50	147	147	236	253	264	135
13 Investor-Owned Entities	449	451	443	419	424	419	406	408	430	476	469	519	529	487	451
14 Other Entities	18	18	18	18	9.7	9.7	9.7	9.7	9.7	18	18	18	18	18	14
15 Total Non-Utility Generation	675	675	615	535	492	487	470	476	493	636	637	776	803	771	603

**Table A-23: Regional NUG Resources By Owner
PNW Loads and Resource Study
2016 - 2017 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Federal Entities-															
1 Federal Entities	2.8	2.8	2.8	2.9	3	3.4	3.4	3.3	3.3	3.3	3.3	3	2.9	2.8	3.1
2 Total Federal Entities	2.8	2.8	2.8	2.9	3	3.4	3.4	3.3	3.3	3.3	3.3	3	2.9	2.8	3.1
-Generating Public Entities-															
3 Generating Public Entities	188	186	134	78	39	37	34	38	33	130	130	219	236	246	118
4 Total Generating Public Entities	188	186	134	78	39	37	34	38	33	130	130	219	236	246	118
-Non-Generating Public Entities-															
5 Non-Generating Public Entities	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17
6 Total Non-Generating Public Entities	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17
-Investor-Owned Entities-															
7 Investor-Owned Entities	450	451	443	419	424	418	406	407	430	476	469	519	529	487	451
8 Total Investor-owned Entities	450	451	443	419	424	418	406	407	430	476	469	519	529	487	451
-Other Entities-															
9 Other Entities	18	18	18	18	9.7	9.7	9.7	9.7	9.7	9.7	18	18	18	18	14
10 Total Other Entities	18	18	18	18	9.7	9.7	9.7	9.7	9.7	9.7	18	18	18	18	14
-Total Non-Utility Generating Resources-															
11 Federal Entities	2.8	2.8	2.8	2.9	3	3.4	3.4	3.3	3.3	3.3	3.3	3	2.9	2.8	3.1
12 Public Entities	205	204	151	95	56	55	51	55	50	147	147	236	253	264	135
13 Investor-Owned Entities	450	451	443	419	424	418	406	407	430	476	469	519	529	487	451
14 Other Entities	18	18	18	18	9.7	9.7	9.7	9.7	9.7	18	18	18	18	18	14
15 Total Non-Utility Generation	676	675	615	535	492	486	470	475	493	636	637	776	803	771	603

**Table A-23: Regional NUG Resources By Owner
PNW Loads and Resource Study
2017 - 2018 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Federal Entities-															
1 Federal Entities	2.8	2.8	2.8	2.9	3	3.4	3.4	3.3	3.3	3.3	3.3	3	2.9	2.8	3.1
2 Total Federal Entities	2.8	2.8	2.8	2.9	3	3.4	3.4	3.3	3.3	3.3	3.3	3	2.9	2.8	3.1
-Generating Public Entities-															
3 Generating Public Entities	188	186	134	78	39	37	34	38	33	130	130	219	236	246	118
4 Total Generating Public Entities	188	186	134	78	39	37	34	38	33	130	130	219	236	246	118
-Non-Generating Public Entities-															
5 Non-Generating Public Entities	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17
6 Total Non-Generating Public Entities	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17
-Investor-Owned Entities-															
7 Investor-Owned Entities	450	451	443	419	424	418	406	407	430	476	469	519	529	487	451
8 Total Investor-owned Entities	450	451	443	419	424	418	406	407	430	476	469	519	529	487	451
-Other Entities-															
9 Other Entities	18	18	18	18	9.7	9.7	9.7	9.7	9.7	9.7	18	18	18	18	14
10 Total Other Entities	18	18	18	18	9.7	9.7	9.7	9.7	9.7	9.7	18	18	18	18	14
-Total Non-Utility Generating Resources-															
11 Federal Entities	2.8	2.8	2.8	2.9	3	3.4	3.4	3.3	3.3	3.3	3.3	3	2.9	2.8	3.1
12 Public Entities	205	204	151	95	56	55	51	55	50	147	147	236	253	264	135
13 Investor-Owned Entities	450	451	443	419	424	418	406	407	430	476	469	519	529	487	451
14 Other Entities	18	18	18	18	9.7	9.7	9.7	9.7	9.7	9.7	18	18	18	18	14
15 Total Non-Utility Generation	676	675	615	535	492	486	470	475	493	636	637	776	803	771	603

**Table A-23: Regional NUG Resources By Owner
PNW Loads and Resource Study
2018 - 2019 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Federal Entities-															
1 Federal Entities	2.8	2.8	2.8	2.9	3	3.4	3.4	3.3	3.3	3.3	3.3	3	2.9	2.8	3.1
2 Total Federal Entities	2.8	2.8	2.8	2.9	3	3.4	3.4	3.3	3.3	3.3	3.3	3	2.9	2.8	3.1
-Generating Public Entities-															
3 Generating Public Entities	188	186	134	78	39	37	34	38	33	130	130	219	236	246	118
4 Total Generating Public Entities	188	186	134	78	39	37	34	38	33	130	130	219	236	246	118
-Non-Generating Public Entities-															
5 Non-Generating Public Entities	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17
6 Total Non-Generating Public Entities	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17
-Investor-Owned Entities-															
7 Investor-Owned Entities	450	451	443	419	424	419	409	411	433	469	467	517	513	485	449
8 Total Investor-owned Entities	450	451	443	419	424	419	409	411	433	469	467	517	513	485	449
-Other Entities-															
9 Other Entities	18	18	18	18	9.7	9.7	9.7	9.7	9.7	9.7	18	18	18	18	14
10 Total Other Entities	18	18	18	18	9.7	9.7	9.7	9.7	9.7	9.7	18	18	18	18	14
-Total Non-Utility Generating Resources-															
11 Federal Entities	2.8	2.8	2.8	2.9	3	3.4	3.4	3.3	3.3	3.3	3.3	3	2.9	2.8	3.1
12 Public Entities	205	204	151	95	56	55	51	55	50	147	147	236	253	264	135
13 Investor-Owned Entities	450	451	443	419	424	419	409	411	433	469	467	517	513	485	449
14 Other Entities	18	18	18	18	9.7	9.7	9.7	9.7	9.7	18	18	18	18	18	14
15 Total Non-Utility Generation	676	675	615	535	492	486	473	479	496	629	634	774	786	769	602

**Table A-23: Regional NUG Resources By Owner
PNW Loads and Resource Study
2019 - 2020 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Federal Entities-															
1 Federal Entities	2.8	2.8	2.8	2.9	3	3.4	3.4	3.2	3.3	3.3	3.3	3	2.9	2.8	3.1
2 Total Federal Entities	2.8	2.8	2.8	2.9	3	3.4	3.4	3.2	3.3	3.3	3.3	3	2.9	2.8	3.1
-Generating Public Entities-															
3 Generating Public Entities	188	186	134	78	39	37	34	38	33	130	130	219	236	246	118
4 Total Generating Public Entities	188	186	134	78	39	37	34	38	33	130	130	219	236	246	118
-Non-Generating Public Entities-															
5 Non-Generating Public Entities	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17
6 Total Non-Generating Public Entities	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17
-Investor-Owned Entities-															
7 Investor-Owned Entities	450	449	439	417	423	418	408	408	430	475	468	519	529	487	450
8 Total Investor-owned Entities	450	449	439	417	423	418	408	408	430	475	468	519	529	487	450
-Other Entities-															
9 Other Entities	18	18	18	18	9.7	9.7	9.7	9.7	9.7	9.7	18	18	18	18	14
10 Total Other Entities	18	18	18	18	9.7	9.7	9.7	9.7	9.7	9.7	18	18	18	18	14
-Total Non-Utility Generating Resources-															
11 Federal Entities	2.8	2.8	2.8	2.9	3	3.4	3.4	3.2	3.3	3.3	3.3	3	2.9	2.8	3.1
12 Public Entities	205	204	151	95	56	55	51	55	50	147	147	236	253	264	135
13 Investor-Owned Entities	450	449	439	417	423	418	408	408	430	475	468	519	529	487	450
14 Other Entities	18	18	18	18	9.7	9.7	9.7	9.7	9.7	18	18	18	18	18	14
15 Total Non-Utility Generation	676	673	610	533	491	486	472	476	493	635	636	776	802	770	602

**Table A-23: Regional NUG Resources By Owner
PNW Loads and Resource Study
2020 - 2021 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Federal Entities-															
1 Federal Entities	2.8	2.8	2.8	2.9	3	3.4	3.4	3.3	3.3	3.3	3.3	3	2.9	2.8	3.1
2 Total Federal Entities	2.8	2.8	2.8	2.9	3	3.4	3.4	3.3	3.3	3.3	3.3	3	2.9	2.8	3.1
-Generating Public Entities-															
3 Generating Public Entities	188	186	134	78	39	37	34	38	33	130	130	219	236	246	118
4 Total Generating Public Entities	188	186	134	78	39	37	34	38	33	130	130	219	236	246	118
-Non-Generating Public Entities-															
5 Non-Generating Public Entities	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17
6 Total Non-Generating Public Entities	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17
-Investor-Owned Entities-															
7 Investor-Owned Entities	450	451	443	419	424	418	408	407	430	475	468	519	529	487	451
8 Total Investor-owned Entities	450	451	443	419	424	418	408	407	430	475	468	519	529	487	451
-Other Entities-															
9 Other Entities	18	18	18	18	9.7	9.7	9.7	9.7	9.7	9.7	18	18	18	18	14
10 Total Other Entities	18	18	18	18	9.7	9.7	9.7	9.7	9.7	9.7	18	18	18	18	14
-Total Non-Utility Generating Resources-															
11 Federal Entities	2.8	2.8	2.8	2.9	3	3.4	3.4	3.3	3.3	3.3	3.3	3	2.9	2.8	3.1
12 Public Entities	205	204	151	95	56	55	51	55	50	147	147	236	253	264	135
13 Investor-Owned Entities	450	451	443	419	424	418	408	407	430	475	468	519	529	487	451
14 Other Entities	18	18	18	18	9.7	9.7	9.7	9.7	9.7	18	18	18	18	18	14
15 Total Non-Utility Generation	676	675	614	535	492	486	472	475	493	635	636	776	802	770	603

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Table A-24
Non-Utility Generating Resources by Project
and Project Type
Monthly OY 2012 – 2021
Average Energy in Megawatts

Power Services

Reports Powered by:



Loads and Resources Information System

**Table A-24: Regional NUG Resources By Project And Project Type
PNW Loads and Resource Study
2011 - 2012 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-NUG: Hydro-															
1 Albany	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
2 Barber Dam	2.4	2.4	1.9	0.8	0.3	1.0	2.2	2.6	3.3	3.2	3.2	3.1	3.2	3.3	2.3
3 Barney Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Beaverton	0	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0
5 Bell Mountain	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1
6 Big Sheep Creek	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
7 Bingham Engineering	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
8 Birch Creek (Clark County)	0	0	0.1	0.1	0.1	0.1	0	0	0	0	0	0	0	0	0
9 Birch Creek (Gooding County)	1.3	1.3	1.1	1.0	1.1	1.1	0.3	1.2	1.7	1.6	1.6	1.6	1.3	1.2	1.2
10 Black Canyon #3	0.1	0.1	0.1	0.1	0.1	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
11 Black Creek	3.1	2.8	3.1	3.1	2.8	1.9	2.8	2.8	1.9	2.5	3.4	3.4	3.4	3.1	2.8
12 Blind Canyon Hydro	0.7	0.7	1.1	0.9	0.2	0	0	0	0	0.6	0.6	1.6	1.0	0.7	0.6
13 Boulder Creek	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
14 Box Canyon	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4
15 Boyd James	0	0	0	0	0	0.4	0.3	0.6	0.7	0.8	0.8	0.5	0	0	0.3
16 Briggs Creek	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6
17 Broadwater Dam	1.1	1.1	1.5	1.9	2	1.6	1.5	1.7	1.7	2.7	2.6	3.1	2.7	2.0	2.0
18 Buffalo Hydro	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
19 Burr & Bouchard	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20 Bypass	8.3	8.3	6.5	2.8	1.0	0	0	0	0.1	2.9	2.9	7	8.2	8.7	3.8
21 Canyon Springs	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
22 Carlton	0	0	0	0	0	0	0.1	0.1	0.1	0.1	0.1	0	0	0	0
23 Cascade Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 CDM-Felt Hydroelectric Plant	2.9	2.9	3.1	2.8	2.9	2.4	1.8	2	2.7	2.7	2.7	4.4	5.8	4.1	3.1
25 Cedar Draw	0.3	0.3	0.9	0.9	0.9	1.2	1.2	1.3	0.4	0.4	0.4	0.4	0.3	0.3	0.7
26 Central OR Irrigation District (Siphon)	3.1	3.1	3.7	3.5	0	0.7	0	0.4	0.9	0.8	0.8	4.5	3.8	4.1	2.1
27 Clear Springs Trout	0.4	0.4	0.4	0.5	0.6	0.6	0.4	0.5	0.4	0.3	0.3	0.4	0.4	0.4	0.4
28 Cornelius	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29 Cowiche	0.8	0.8	0.8	0.8	0	0	0	0	0	0	0.8	0.8	0.8	0.8	0.4
30 Crystal Springs	1.3	1.3	1.6	1.5	1.6	0.5	0.5	0.6	0.8	0.9	0.9	0.8	1.4	1.3	1.1
31 Curry Cattle Co.	0.2	0.2	0.2	0.1	0.1	0	0	0	0.1	0.1	0.1	0.2	0.2	0.2	0.1
32 Curtiss Livestock	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33 D. Wiggins	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34 Dairy Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
35 Deep Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36 Derr Creek	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.2	0.2	0.1
37 Dietrich Drop	4.7	4.7	3.6	3.1	1.4	0	0	0	0	3.1	3.1	4.7	4.7	4.5	2.5
38 Don Steffen	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39 Donald Jenni	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
40 Dworshak/Clearwater Small Hydro Power	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
41 Eagle Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42 Elk Creek	1.2	1.2	0	0	0	0.1	0.1	0.1	1	1	1	1	1.2	1.2	0.6
43 Eltopia Br Canal 4.6	1.8	1.8	1.2	0.6	0	0	0	0	0	1.4	1.4	2	2	2.2	0.9
44 Elwha Hydro	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45 Estacada	0.1	0.1	0.1	0.1	0.1	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
46 Fall Creek (OR) (Frontier Technologies)	0	0	0	0	1.9	3.1	0.9	2.7	2.7	4.4	4.4	4.1	3.8	0	2.0
47 Falls Creek (WA)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
48 Falls River	6.5	6.5	6.3	5.7	5.6	5.0	4.2	3.8	3.8	6.2	6.2	7.9	8.5	7.1	5.9
49 Farmers Irrig.	0.6	0.6	0.7	1.2	3.2	3.2	2.1	4.6	3.3	3.5	3.5	4.7	0.8	0.7	2.4
50 Faulkner Ranch	0.8	0.8	0.7	0.7	0.7	0.3	0.3	0.3	0.5	0.6	0.6	0.5	0.8	0.8	0.6
51 Fisheries Development Co	0.2	0.2	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.3
52 Galesville Dam	0.6	0.6	0.4	0.2	0.2	0.3	0	0.2	0.3	0.4	0.4	0.3	0.4	0.5	0.3
53 Geobon 2	1.0	1.0	0.3	0.3	0.3	0.2	0.2	0.3	0.6	0.6	0.6	0.6	1.0	1.0	0.5
54 Georgetown Power	0	0	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0	0.2
55 Glines Canyon Hydro	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
56 Hailey Csp	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
57 Hazelton A	7	7	5.4	2.5	0.9	0	0	0	0.1	2.6	2.6	6	6.7	7.4	3.2
58 Hazelton B	6.6	6.6	5.2	2.4	0.7	0	0	0	0.1	2.2	2.2	5.6	6.4	7.0	3
59 Horseshoe Bend Hydro	8.8	8.8	7.5	3.9	2.8	3.5	3.9	4.6	5.9	8.8	8.8	9.9	9.8	9.2	6.6
60 Hutchinson Creek	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
61 Ingram Warm Springs	0.2	0.2	0.3	0.3	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.4
62 Jim Ford Creek	0	0	0	0	0.3	0.5	0.9	0.9	1.1	1.1	1.1	0.7	0.3	0.1	0.5
63 Jim Knight	0.4	0.4	0.3	0.2	0.3	0.1	0.1	0.1	0.2	0.3	0.3	0.2	0.4	0.4	0.2

Table A-24: Regional NUG Resources By Project And Project Type
PNW Loads and Resource Study
2011 - 2012 Operating Year
[76] 2011 White Book (Final)

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
64 John Day Creek	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
65 Joseph Hydro	1.5	1.5	0.9	0.4	0.1	0.1	0.1	0	0	0.1	0.1	0.2	1.2	2.7	0.6
66 Juniper Ridge Hydro	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
67 Kasel & Witherspoon	0.9	0.9	0.9	0.6	0.4	0.2	0.2	0.2	0.3	0.4	0.4	0.8	0.9	0.8	0.5
68 Kevin Duncan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
69 Koma Kulshan	4.6	4.6	4.3	6.4	8	6.1	3.9	3.8	4.4	6.9	6.9	9.4	10	8.2	6.4
70 Koyle	1.1	1.1	1.1	1.0	1	0.2	0.1	0.1	0.3	0.8	0.8	1.2	0.8	0.9	0.7
71 L. Fery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
72 Lacombe Irrig.	0	0	0	0	0.2	1.0	0.2	0.9	0.9	1	1	0.9	0.9	0.4	0.5
73 Lake Oswego	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
74 Lateral #10	1.2	1.2	1.3	1.6	1.7	1.2	1.2	1.3	1.4	1.5	1.5	1.4	1.3	1.2	1.4
75 Lee Tavenner	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
76 Lemoyne	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
77 Little Mac	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
78 Little Wood River Res.	1.9	1.9	0.2	0.2	0.2	0	0	0	1.6	1.7	1.7	1.6	2	1.9	1.0
79 Littlewood/Arkoosh	0.7	0.7	0.4	0.4	0.4	0.2	0.2	0.2	0.4	0.5	0.5	0.4	0.8	0.7	0.5
80 Low Line Canal Drop	7.8	7.8	7.5	7.3	7.5	0.6	0.6	0.7	5.3	5.5	5.5	5.3	8.1	7.8	5.3
81 Low Line Midway	2	2	0	0	0	0	0	0	0	0	0	0	2	2	0.5
82 Lower Low Line #2	2.7	2.7	2.5	1.8	1.4	0	0	0.7	1.9	2.5	2.5	2.7	2.7	2.7	1.8
83 Lucky Peak	29	27	20	4.5	0	0.7	0	1.5	1.6	11	11	68	75	73	24
84 Magic Reservoir	6.8	6.8	4.4	0.5	0.2	0.1	0.3	0.1	0.9	3.0	3.0	8.3	9.1	9.0	3.6
85 Main Canal Headworks	20	20	12	5.2	0	0	0	0	2.8	14	14	18	21	24	9.8
86 Malad River	0.5	0.5	0.6	0.5	0.5	0.1	0.1	0	0.2	0.4	0.4	0.6	0.4	0.5	0.4
87 Marco Ranches	1.1	1.1	1.2	1.1	1.2	0	0	0	1.1	1.2	1.2	1.1	1.2	1.1	0.9
88 Marsh Valley	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
89 Meyers Falls	1	1	0.9	0.6	0.9	0.9	0.6	0.8	1.1	1.1	1.1	1	1.2	1.1	0.9
90 Middle Fork Irrig.	1.8	1.8	0.8	1.2	1.3	1.7	2.7	3.1	3.1	2.9	2.9	2.8	2.4	2.0	2.2
91 Mile 28	1.3	1.3	1.2	0.7	0.2	0	0	0	0	0.6	0.6	1.2	1.3	1.4	0.7
92 Mill Creek (OR) - City of Cove	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
93 Minikahda	0	0	0	0	0	0.1	0.1	0.1	0	0.1	0.1	0.1	0	0	0
94 Mink Creek	1.2	1.2	0.8	0.6	0.6	0.5	0.4	0.4	0.3	0.4	0.4	1.6	2.7	1.6	0.9
95 Mitchell Butte	1	1	1.1	0.4	0	0	0	0	0.3	0.8	0.8	1.2	1.3	1.1	0.6
96 Mora Canal Drop	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
97 Mountain Energy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
98 Mt. Tabor	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
99 Mud Creek/S&S	0.4	0.4	0.5	0.5	0.5	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.4	0.4
100 Mud Creek/White	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1
101 Nichols Gap	0	0	0	0	0.4	0.6	0.2	0.5	0.6	0.4	0.4	0	0	0	0.2
102 Nicholson Sunnybar	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
103 North Fork Sprague	0	0	0.1	0	0	0	0.1	0.3	0.2	0.3	0.3	0.9	0.4	0.1	0.2
104 O.J. Power	0	0	0.1	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
105 Odell Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
106 Opal Springs	2.6	2.6	3.0	3.6	3.2	2.9	2.9	3.5	2.6	2.7	2.7	4.5	1.6	2.2	2.9
107 Orchard Avenue	0.8	0.8	0.8	0.8	0	0	0	0	0	0	0.8	0.8	0.8	0.8	0.4
108 Owyhee Dam	2.8	2.8	2.0	0.6	0	0	0.2	0.6	1.8	3.3	3.3	3.9	3.3	3.2	1.8
109 PEC Headworks	4.5	4.5	3.1	2.2	0	0	0	0	0.4	5.1	5.1	6.5	6.2	5.8	2.8
110 Phillips Ranch	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111 Phillipsburg	0	0	0	0	0	0.1	0.1	0.1	0	0	0	0	0	0	0
112 Pickering Micro Hydro	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
113 Pigeon Cove	2.0	2.0	2.1	1.3	0.8	0.4	0.3	0.4	0.6	0.8	0.8	1.7	1.9	1.7	1.2
114 Pine Creek	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
115 Portland	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
116 Portland Hydro Project	2.3	2.3	2.9	6.7	16	20	18	17	16	17	17	15	8.4	3.2	12
117 Portneuf River	0.2	0.2	0.1	0	0.1	0.1	0	0	0	0	0	0.2	0.6	0.4	0.1
118 Potholes E Canal 66.0	1.8	1.8	1.8	1.6	0	0	0	0	0.6	1.8	1.8	1.8	1.8	1.8	1.1
119 Preston City	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4
120 Pristine Springs	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
121 Pristine Springs #3	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
122 Quincy Chute	7.7	7.7	4	2.3	0	0	0	0	0.8	5.5	5.5	7.1	8.4	8.5	3.7
123 Reynolds Irrigation	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2
124 Rim View	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
125 Rock Creek #1	1.1	1.1	1.6	1.7	1.2	1.3	1.1	1.0	1.1	1.4	1.4	1.5	1.3	1.1	1.3
126 Rock Creek #2	1.8	1.8	1.8	1.9	1.9	1.9	0.6	0.4	1.6	1.9	1.9	1.9	1.9	1.6	1.6
127 Rocky Brook	0	0	0	0	0.2	0.6	0.6	0.4	0.5	0.5	0.5	0.2	0.1	0	0.3
128 Russel D. Smith	4	4	2.6	1.4	0	0	0	0	0.2	2.4	2.4	3.8	4.2	3.4	1.8

Table A-24: Regional NUG Resources By Project And Project Type
PNW Loads and Resource Study
2011 - 2012 Operating Year
[76] 2011 White Book (Final)

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
129 Sagebrush	0.4	0.4	0.3	0.3	0.3	0.1	0.1	0.1	0.3	0.3	0.3	0.3	0.4	0.4	0.3
130 Sahko	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
131 Salem	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
132 Schaffner	0.4	0.4	0.3	0.2	0.3	0.1	0.1	0.2	0.3	0.3	0.3	0.3	0.4	0.4	0.3
133 Sheep Creek	0.4	0.4	0.3	0.3	0.4	0.5	0.5	0.5	0.9	1.6	1.6	0.8	1.5	1.1	0.7
134 Shingle Creek	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
135 Shoshone	0.3	0.3	0.3	0.3	0.3	0	0	0	0.1	0.2	0.2	0.4	0.2	0.3	0.2
136 Shoshone II	0.6	0.6	0.6	0	0	0	0	0	0	0.3	0.3	0.5	0.6	0.6	0.3
137 Snake River Pottery	0	0	0	0	0	0.1	0.1	0.1	0	0	0	0	0	0	0
138 Snedigar Ranch	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2
139 Solar Research	0.1	0.1	0.1	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0	0.1	0
140 South Dry Creek	0.5	0.5	0.5	0.5	0	0	0	0	0.5	0.5	0.5	0.6	0.5	0.5	0.3
141 Spokane Upriver	3.4	3.4	3.4	4.7	6.7	13	14	13	14	13	13	11	12	8.4	9.7
142 Stauffer Dry Creek	0.9	0.9	1	0.8	0.4	0	0.3	0.3	0.4	0.4	0.4	0.9	2.7	2.1	0.8
143 Strawberry Creek	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
144 Summer Falls	79	79	48	22	0	0	0	0	4.8	50	50	71	81	87	37
145 Sunshine Power #2	0.1	0.1	0.1	0.1	0.1	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
146 Sygitowicz Creek Small Hydro	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
147 TGS/Briggs	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.1	0.1	0.2	0.2	0.1	0.2
148 Thomas Burnside	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
149 Thompson Mill (Boston Power)	0	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0	0
150 Tiber Dam Liberty Montana	7	7	5.4	2.5	0.9	0	0	0	0.1	2.6	2.6	6	6.7	7.4	3.2
151 Tieton (Yakima)	7.8	7.8	7.8	7.8	0	0	0	0	0	7.8	7.8	7.8	7.8	7.8	4.2
152 Trout Co.	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
153 Tunnel #1	4.3	4.3	2.6	0.5	0	0	0	0	2.4	5.1	5.1	5.8	5.8	5.9	2.7
154 Twin Falls	5	5	0	1.2	9.6	7.9	7.4	4.8	7.8	15	15	13	24	19	9.6
155 Walla Walla	1.5	1.5	1.4	1.3	1.2	1.3	1.2	1.5	1.8	1.8	1.8	1.5	1.5	1.8	1.5
156 Water Street / Santiam	0	0	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1
157 Weeks Falls	0.8	0.8	0	0.2	1.7	1.8	1.2	0.6	1.2	2.6	2.6	2.4	4.4	3.5	1.7
158 White Water Ranch	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
159 Wilson Lake Hydro	7.1	7.1	5.3	2.0	0.2	0	0	0	2.3	2.3	6.1	6.8	7.6	3.1	3.1
160 Wisconsin Creek	0	0	0	0.1	0	0.1	0.1	0.1	0.1	0.1	0.1	0	0	0	0.1
161 Woods Creek	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
162 Total NUG: Hydro	325	323	244	167	125	115	105	112	145	273	283	409	445	424	241
-NUG: Small Thermal & Misc.-															
163 Covanta Marion Solid Waste	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7
164 Methane Energy Agricultural D. (Booley)	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
165 Montana One (Colstrip Energy Limited)	6.5	10	11	8.6	12	13	12	11	9.9	9.7	13	11	9.2	11	11
166 Pocatello Waste	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
167 Spokane MSW	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
168 Treasure Valley	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
169 West Boise Waste	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
170 Total NUG: Small Thermal & Misc.	36	33	37	38	35	39	39	38	37	37	36	40	38	36	37
-NUG: Co-Generation-															
171 Billings Generation	8.4	8.6	15	16	17	19	19	19	18	17	16	20	17	8.7	16
172 Biomass One	15	15	14	15	14	15	15	14	15	14	14	15	14	15	15
173 Boise Cascade Medford	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
174 Champion	3.3	3.3	3.3	3.3	3.3	3.3	1	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.1
175 Cogen Co	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
176 DR Johnson - Co-Gen II	6.0	6.0	5.8	6.0	5.8	6.0	6.0	5.6	6.0	7.2	0	6.0	5.8	6.0	5.7
177 Everett Cogen Project (Kimberly Clark)	38	38	38	36	36	34	31	34	19	36	36	38	33	38	34
178 Evergreen Biopower Cogen (Fraser)	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
179 Glenns Ferry Cogen Facility (Magic West)	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5
180 March Point #1	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76
181 March Point #2	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45
182 Potlatch Contract Renewal	43	43	53	52	51	50	50	44	46	46	46	46	49	38	47
183 Rough & Ready Lumber	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
184 Rupert Cogen Facility (Magic Valley)	7.5	8	9.4	9.4	8.6	8.2	9.1	9.1	7.7	7.7	7.5	8.0	8	8.4	8.4
185 Simplot Pocatello	9.7	9.7	9.3	8.9	8.1	8.1	7.8	9.2	8.6	8.3	8.3	7.5	4.1	8.6	8.2
186 Stimson Lumber (formerly Haley West)	4.4	4.3	4.0	4.5	4.1	4.0	4.1	4.3	4.1	4.1	4.1	4.1	4.2	3.9	4.2
187 Tamarack	4.5	4.5	4.5	3.6	4.1	4	3.9	3.9	3.5	3.4	3.4	3.1	4.0	4.4	3.9
188 TASC0 Nampa ID	0.2	0.2	0.2	0.1	0	0	0	0	0	0	0	0	0.1	0.2	0.1

**Table A-24: Regional NUG Resources By Project And Project Type
PNW Loads and Resource Study
2011 - 2012 Operating Year
[76] 2011 White Book (Final)**

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
189 TASC0 Twin Falls ID	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
190 Vaagen Bros.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
191 Warm Springs	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
192 West Point	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
193 Total NUG: Co-Generation	285	285	300	298	298	297	291	291	277	292	285	295	288	278	291
-NUG: Renewables-															
194 Ashland Solar Project	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
195 Bellevue Solar (Amity, OR)	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2
196 Bettencourt B6 anaerobic digester	0.5	1.0	1.0	1.0	1.0	1.2	1.3	1.2	0	0.2	0.2	0.2	0.2	0.4	0.7
197 Bettencourt Dairy (Cargill)	1.4	1.4	1.4	1.4	1.3	1.3	1.2	1.4	1.4	1.3	1.0	1.2	1.2	1.1	1.3
198 Big Sky Dairy	1	1	1.1	1.1	1.1	1.1	1	1.0	1.1	1.1	1.1	1.1	1.1	1	1.1
199 Chinook Wind	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
200 DeRuyter & Son's Dairy	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
201 Dry Creek Landfill (NUG Renewable)	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
202 Emmett Biomass Project	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
203 Farm Power Lynden	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
204 Farm Power Rexville	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
205 Finley Buttes BioEnergy	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
206 Fourmile Hill Geothermal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
207 Healow #2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
208 Hidden Hollow Landfill	2.2	2.2	2.3	2.4	2.6	2.5	2.2	2.4	2.3	2.5	2.5	2.2	2.3	2	2.3
209 Josef Staufer	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
210 Lewandowski Farms	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
211 Livingston	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
212 Pine Products Corp	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
213 Portland Waste Water	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
214 Puyallup Energy Recovery (PERC)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
215 Qualco Dairy Digester	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
216 Raft River Geothermal Phase 1	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
217 VanderHaak Dairy	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
218 White Bluffs Solar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
219 Wild Horse Solar	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
220 Windmill	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
221 Yamhill Solar (Amity, OR)	0.3	0.3	0.3	0.2	0.1	0.1	0.1	0.1	0.2	0.3	0.3	0.3	0.3	0.4	0.2
222 Total NUG: Renewables	26	27	27	27	27	27	27	27	26	26	26	26	26	26	26
-Total Non-Utility Generating Resources-															
223 Federal Entities	2.8	2.8	2.8	2.9	3	3.4	3.4	3.2	3.3	3.3	3.3	3	2.9	2.8	3.1
224 Public Entities	188	186	134	78	38	37	48	53	48	145	145	234	250	261	126
225 Investor-Owned Entities	471	471	464	441	445	438	410	412	434	480	474	525	535	493	462
226 Other Entities	7.8	7.8	7.8	7.8	0	0	0	0	0	0	7.8	7.8	7.8	7.8	4.2
227 Total Non-Utility Generation	669	668	608	529	486	478	462	469	485	627	630	770	796	765	596

**Table A-24: Regional NUG Resources By Project And Project Type
PNW Loads and Resource Study
2012 - 2013 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-NUG: Hydro-															
1 Albany	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
2 Barber Dam	2.4	2.4	1.9	0.8	0.3	1.0	2.2	2.6	3.3	3.2	3.2	3.1	3.2	3.3	2.3
3 Barney Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Beaverton	0	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0
5 Bell Mountain	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1
6 Big Sheep Creek	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
7 Bingham Engineering	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
8 Birch Creek (Clark County)	0	0	0.1	0.1	0.1	0.1	0	0	0	0	0	0	0	0	0
9 Birch Creek (Gooding County)	1.3	1.3	1.1	1.0	1.1	1.1	0.3	1.2	1.7	1.6	1.6	1.6	1.3	1.2	1.2
10 Black Canyon #3	0.1	0.1	0.1	0.1	0.1	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
11 Black Creek	3.7	3.4	3.1	3.1	2.8	3.1	3.1	2.8	1.9	2.8	2.8	1.9	2.5	3.4	2.8
12 Blind Canyon Hydro	0.7	0.7	1.1	0.9	0.2	0	0	0	0	0.6	0.6	1.6	1.0	0.7	0.6
13 Boulder Creek	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
14 Box Canyon	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4
15 Boyd James	0	0	0	0	0	0.4	0.3	0.6	0.7	0.8	0.8	0.5	0	0	0.3
16 Briggs Creek	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6
17 Broadwater Dam	1.1	1.1	1.5	1.9	2	1.6	1.6	1.7	1.8	2.7	2.6	3.2	3.4	2.0	2
18 Buffalo Hydro	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
19 Burr & Bouchard	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20 Bypass	8.3	8.3	6.5	2.8	1.0	0	0	0	0.1	2.9	2.9	7	8.2	8.7	3.8
21 Canyon Springs	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
22 Carlton	0	0	0	0	0	0	0.1	0.1	0.1	0.1	0.1	0	0	0	0
23 Cascade Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 CDM-Felt Hydroelectric Plant	2.9	2.9	3.1	2.8	2.9	2.4	1.8	2	2.7	2.7	2.7	4.4	5.8	4.1	3.1
25 Cedar Draw	0.3	0.3	0.9	0.9	0.9	1.2	1.2	1.3	0.4	0.4	0.4	0.4	0.3	0.3	0.7
26 Central OR Irrigation District (Siphon)	3.1	3.1	3.7	3.5	0	0.7	0	0.4	0.9	0.8	0.8	4.5	3.8	4.1	2.1
27 Clear Springs Trout	0.4	0.4	0.4	0.5	0.6	0.6	0.4	0.5	0.4	0.3	0.3	0.4	0.4	0.4	0.4
28 Cornelius	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29 Cowiche	0.8	0.8	0.8	0.8	0	0	0	0	0	0	0.8	0.8	0.8	0.8	0.4
30 Crystal Springs	1.3	1.3	1.6	1.5	1.6	0.5	0.5	0.6	0.8	0.9	0.9	0.8	1.4	1.3	1.1
31 Curry Cattle Co.	0.2	0.2	0.2	0.1	0.1	0	0	0	0.1	0.1	0.1	0.2	0.2	0.2	0.1
32 Curtiss Livestock	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33 D. Wiggins	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34 Dairy Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
35 Deep Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36 Derr Creek	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.2	0.2	0.1
37 Dietrich Drop	4.7	4.7	3.6	3.1	1.4	0	0	0	0	3.1	3.1	4.7	4.7	4.5	2.5
38 Don Steffen	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39 Donald Jenni	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
40 Dworshak/Clearwater Small Hydro Power	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
41 Eagle Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42 Elk Creek	1.2	1.2	0	0	0	0.1	0.1	0.1	1	1	1	1	1.2	1.2	0.6
43 Eltopia Br Canal 4.6	1.8	1.8	1.2	0.6	0	0	0	0	0	1.4	1.4	2	2	2.2	0.9
44 Estacada	0.1	0.1	0.1	0.1	0.1	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
45 Fall Creek (OR) (Frontier Technologies)	0	0	0	0	1.9	3.1	0.9	2.7	2.7	4.4	4.4	4.1	3.8	0	1.9
46 Falls Creek (WA)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47 Falls River	6.5	6.5	6.3	5.7	5.6	5.0	4.2	3.8	3.8	6.2	6.2	7.9	8.5	7.1	5.9
48 Farmers Irrig.	0.6	0.6	0.7	1.2	3.2	3.2	2.1	4.6	3.3	3.5	3.5	4.7	0.8	0.7	2.4
49 Faulkner Ranch	0.8	0.8	0.7	0.7	0.7	0.3	0.3	0.3	0.5	0.6	0.6	0.5	0.8	0.8	0.6
50 Fisheries Development Co	0.2	0.2	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.3
51 Galesville Dam	0.6	0.6	0.4	0.2	0.2	0.3	0	0.2	0.3	0.4	0.4	0.3	0.4	0.5	0.3
52 Geobon 2	1.0	1.0	0.3	0.3	0.3	0.2	0.2	0.3	0.6	0.6	0.6	0.6	1.0	1.0	0.5
53 Georgetown Power	0	0	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0	0.2
54 Hailey Cspp	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
55 Hazelton A	7	7	5.4	2.5	0.9	0	0	0	0.1	2.6	2.6	6	6.7	7.4	3.2
56 Hazelton B	6.6	6.6	5.2	2.4	0.7	0	0	0	0.1	2.2	2.2	5.6	6.4	7.0	3
57 Horseshoe Bend Hydro	8.8	8.8	7.5	3.9	2.8	3.5	3.9	4.6	5.9	8.8	8.8	9.9	9.8	9.2	6.6
58 Hutchinson Creek	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
59 Ingram Warm Springs	0.2	0.2	0.3	0.3	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.4
60 Jim Ford Creek	0	0	0	0	0.3	0.5	0.9	0.9	1.1	1.1	1.1	0.7	0.3	0.1	0.5
61 Jim Knight	0.4	0.4	0.3	0.2	0.3	0.1	0.1	0.1	0.2	0.3	0.3	0.2	0.4	0.4	0.2
62 John Day Creek	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
63 Joseph Hydro	1.5	1.5	0.9	0.4	0.1	0.1	0.1	0	0	0.1	0.1	0.2	1.2	2.7	0.6

Table A-24: Regional NUG Resources By Project And Project Type
PNW Loads and Resource Study
2012 - 2013 Operating Year
[76] 2011 White Book (Final)

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
64 Juniper Ridge Hydro	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
65 Kasel & Witherspoon	0.9	0.9	0.9	0.6	0.4	0.2	0.2	0.2	0.3	0.4	0.4	0.8	0.9	0.8	0.5
66 Kevin Duncan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
67 Koma Kulshan	4.6	4.6	4.3	6.4	8	6.1	3.9	3.8	4.4	6.9	6.9	9.4	10	8.2	6.4
68 Koyle	1.1	1.1	1.1	1.0	1	0.2	0.1	0.1	0.3	0.8	0.8	1.2	0.8	0.9	0.7
69 L. Fery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
70 Lacombe Irrig.	0	0	0	0	0.2	1.0	0.2	0.9	0.9	1	1	0.9	0.9	0.4	0.5
71 Lake Oswego	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
72 Lateral #10	1.2	1.2	1.3	1.6	1.7	1.2	1.2	1.3	1.4	1.5	1.5	1.4	1.3	1.2	1.4
73 Lee Tavenner	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
74 Lemoyne	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
75 Little Mac	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
76 Little Wood River Res.	1.9	1.9	0.2	0.2	0.2	0	0	0	1.6	1.7	1.7	1.6	2	1.9	1.0
77 Littlewood/Arkoosh	0.7	0.7	0.4	0.4	0.4	0.2	0.2	0.2	0.4	0.5	0.5	0.4	0.8	0.7	0.5
78 Low Line Canal Drop	7.8	7.8	7.5	7.3	7.5	0.6	0.6	0.7	5.3	5.5	5.5	5.3	8.1	7.8	5.3
79 Low Line Midway	2	2	0	0	0	0	0	0	0	0	0	0	2	2	0.5
80 Lower Low Line #2	2.7	2.7	2.5	1.8	1.4	0	0	0.7	1.9	2.5	2.5	2.7	2.7	2.7	1.8
81 Lucky Peak	29	27	20	4.5	0	0.7	0	1.5	1.6	11	11	68	75	73	24
82 Magic Reservoir	6.8	6.8	4.4	0.5	0.2	0.1	0.3	0.1	0.9	3.0	3.0	8.3	9.1	9.0	3.6
83 Main Canal Headworks	20	20	12	5.2	0	0	0	0	2.8	14	14	18	21	24	9.8
84 Malad River	0.5	0.5	0.6	0.5	0.5	0.1	0.1	0	0.2	0.4	0.4	0.6	0.4	0.5	0.4
85 Marco Ranches	1.1	1.1	1.2	1.1	1.2	0	0	0	1.1	1.2	1.2	1.1	1.2	1.1	0.9
86 Marsh Valley	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
87 Meyers Falls	1	1	0.9	0.6	0.9	0.9	0.6	0.8	1.1	1.1	1.1	1	1.2	1.1	0.9
88 Middle Fork Irrig.	1.8	1.8	0.8	1.2	1.3	1.7	2.7	3.1	3.1	2.9	2.9	2.8	2.4	2.0	2.2
89 Mile 28	1.3	1.3	1.2	0.7	0.2	0	0	0	0	0.6	0.6	1.2	1.3	1.4	0.7
90 Mill Creek (OR) - City of Cove	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
91 Minikahda	0	0	0	0	0	0.1	0.1	0.1	0	0.1	0.1	0.1	0	0	0
92 Mink Creek	1.2	1.2	0.8	0.6	0.6	0.5	0.4	0.4	0.3	0.4	0.4	1.6	2.7	1.6	0.9
93 Mitchell Butte	1	1	1.1	0.4	0	0	0	0	0.3	0.8	0.8	1.2	1.3	1.1	0.6
94 Mora Canal Drop	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
95 Mountain Energy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96 Mt. Tabor	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
97 Mud Creek/S&S	0.4	0.4	0.5	0.5	0.5	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.4	0.4
98 Mud Creek/White	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1
99 Nichols Gap	0	0	0	0	0.4	0.6	0.2	0.5	0.6	0.4	0.4	0	0	0	0.2
100 Nicholson Sunnybar	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
101 North Fork Sprague	0	0	0.1	0	0	0	0.1	0.3	0.2	0.3	0.3	0.9	0.4	0.1	0.2
102 O.J. Power	0	0	0.1	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
103 Odell Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
104 Opal Springs	2.6	2.6	3.0	3.6	3.2	2.9	2.9	3.5	2.6	2.7	2.7	4.5	1.6	2.2	2.9
105 Orchard Avenue	0.8	0.8	0.8	0.8	0	0	0	0	0	0	0.8	0.8	0.8	0.8	0.4
106 Owyhee Dam	2.8	2.8	2.0	0.6	0	0	0.2	0.6	1.8	3.3	3.3	3.9	3.3	3.2	1.8
107 PEC Headworks	4.5	4.5	3.1	2.2	0	0	0	0	0.4	5.1	5.1	6.5	6.2	5.8	2.8
108 Phillips Ranch	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
109 Phillipsburg	0	0	0	0	0	0.1	0.1	0.1	0	0	0	0	0	0	0
110 Pickering Micro Hydro	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111 Pigeon Cove	2.0	2.0	2.1	1.3	0.8	0.4	0.3	0.4	0.6	0.8	0.8	1.7	1.9	1.7	1.2
112 Pine Creek	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
113 Portland	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
114 Portland Hydro Project	2.3	2.3	2.9	6.7	16	20	18	17	16	17	17	15	8.4	3.2	12
115 Portneuf River	0.2	0.2	0.1	0	0.1	0.1	0	0	0	0	0	0.2	0.6	0.4	0.2
116 Potholes E Canal 66.0	1.8	1.8	1.8	1.6	0	0	0	0	0.6	1.8	1.8	1.8	1.8	1.8	1.1
117 Preston City	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4
118 Pristine Springs	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
119 Pristine Springs #3	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
120 Quincy Chute	7.7	7.7	4	2.3	0	0	0	0	0.8	5.5	5.5	7.1	8.4	8.5	3.7
121 Reynolds Irrigation	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2
122 Rim View	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
123 Rock Creek #1	1.1	1.1	1.6	1.7	1.2	1.3	1.1	1.0	1.1	1.4	1.4	1.5	1.3	1.1	1.3
124 Rock Creek #2	1.8	1.8	1.8	1.9	1.9	1.9	0.6	0.4	1.6	1.9	1.9	1.9	1.9	1.6	1.6
125 Rocky Brook	0	0	0	0	0.2	0.6	0.6	0.4	0.5	0.5	0.5	0.2	0.1	0	0.3
126 Russel D. Smith	4	4	2.6	1.4	0	0	0	0	0.2	2.4	2.4	3.8	4.2	3.4	1.8
127 Sagebrush	0.4	0.4	0.3	0.3	0.3	0.1	0.1	0.1	0.3	0.3	0.3	0.3	0.4	0.4	0.3
128 Sahko	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5

**Table A-24: Regional NUG Resources By Project And Project Type
PNW Loads and Resource Study
2012 - 2013 Operating Year
[76] 2011 White Book (Final)**

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
129 Salem	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
130 Schaffner	0.4	0.4	0.3	0.2	0.3	0.1	0.1	0.2	0.3	0.3	0.3	0.3	0.4	0.4	0.3
131 Sheep Creek	0.4	0.4	0.3	0.3	0.4	0.5	0.5	0.5	0.9	1.6	1.6	0.8	1.5	1.1	0.7
132 Shingle Creek	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
133 Shoshone	0.3	0.3	0.3	0.3	0.3	0	0	0	0.1	0.2	0.2	0.4	0.2	0.3	0.2
134 Shoshone II	0.6	0.6	0.6	0	0	0	0	0	0	0.3	0.3	0.5	0.6	0.6	0.3
135 Snake River Pottery	0	0	0	0	0	0.1	0.1	0.1	0	0	0	0	0	0	0
136 Snedigar Ranch	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2
137 Solar Research	0.1	0.1	0.1	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0	0.1	0
138 South Dry Creek	0.5	0.5	0.5	0.5	0	0	0	0	0.5	0.5	0.5	0.6	0.6	0.5	0.3
139 Spokane Upriver	3.4	3.4	3.4	4.7	6.7	13	14	13	14	13	13	11	12	8.4	9.7
140 Stauffer Dry Creek	0.9	0.9	1	0.8	0.4	0	0.3	0.3	0.4	0.4	0.4	0.9	2.7	2.1	0.9
141 Strawberry Creek	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
142 Summer Falls	79	79	48	22	0	0	0	0	4.8	50	50	71	81	87	37
143 Sunshine Power #2	0.1	0.1	0.1	0.1	0.1	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
144 Sygitowicz Creek Small Hydro	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
145 TGS/Briggs	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.1	0.1	0.2	0.2	0.1	0.2
146 Thomas Burnside	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
147 Thompson Mill (Boston Power)	0	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0	0
148 Tiber Dam Liberty Montana	7	7	5.4	2.5	0.9	0	0	0	0.1	2.6	2.6	6	6.7	7.4	3.2
149 Tieton (Yakima)	7.8	7.8	7.8	7.8	0	0	0	0	0	0	7.8	7.8	7.8	7.8	4.3
150 Trout Co.	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
151 Tunnel #1	4.3	4.3	2.6	0.5	0	0	0	0	2.4	5.1	5.1	5.8	5.8	5.9	2.7
152 Twin Falls	5	5	0	1.2	9.6	7.9	7.4	4.8	7.8	15	15	13	24	19	9.6
153 Walla Walla	1.5	1.5	1.4	1.3	1.2	1.3	1.2	1.5	1.8	1.8	1.8	1.5	1.5	1.8	1.5
154 Water Street / Santiam	0	0	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1
155 Weeks Falls	0.8	0.8	0	0.2	1.7	1.8	1.2	0.6	1.2	2.6	2.6	2.4	4.4	3.5	1.7
156 White Water Ranch	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
157 Wilson Lake Hydro	7.1	7.1	5.3	2.0	0.2	0	0	0	0	2.3	2.3	6.1	6.8	7.6	3.1
158 Wisconsin Creek	0	0	0	0.1	0	0.1	0.1	0.1	0.1	0.1	0.1	0	0.1	0	0.1
159 Woods Creek	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
160 Total NUG: Hydro	326	324	245	167	125	117	106	112	145	273	282	407	445	425	242
-NUG: Small Thermal & Misc.-															
161 Covanta Marion Solid Waste	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7
162 Methane Energy Agricultural D. (Booley)	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
163 Montana One (Colstrip Energy Limited)	6.5	10	11	8.7	13	13	12	11	10	9.8	13	14	9.3	11	
164 Pocatello Waste	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
165 Spokane MSW	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
166 Treasure Valley	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
167 West Boise Waste	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
168 Total NUG: Small Thermal & Misc.	36	33	37	38	35	39	40	39	37	37	36	40	41	36	38
-NUG: Co-Generation-															
169 Billings Generation	8.5	8.7	15	16	18	19	19	20	18	17	17	20	21	8.8	17
170 Biomass One	15	15	14	15	14	15	15	13	15	14	14	15	14	15	15
171 Boise Cascade Medford	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
172 Champion	3.3	3.3	3.3	3.3	3.3	3.3	1	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.1
173 Cogen Co	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
174 DR Johnson - Co-Gen II	6.0	6.0	5.8	6.0	5.8	6.0	6.0	5.4	6.0	7.2	0	6.0	5.8	6.0	5.7
175 Everett Cogen Project (Kimberly Clark)	38	38	36	36	34	31	34	19	36	36	38	33	38	34	
176 Evergreen Biopower Cogen (Fres)	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
177 Glenns Ferry Cogen Facility (Magic West)	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5
178 March Point #1	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76
179 March Point #2	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48
180 Potlatch Contract Renewal	43	43	53	52	51	50	50	44	46	46	46	46	49	38	47
181 Rough & Ready Lumber	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
182 Rupert Cogen Facility (Magic Valley)	7.5	8	9.4	9.4	8.6	8.2	9.1	9.1	7.7	7.7	7.5	8.0	8	8.4	
183 Simplot Pocatello	9.7	9.7	9.3	8.9	8.1	8.1	7.8	9.2	8.6	8.3	8.3	7.5	4.1	8.6	8.2
184 Tamson Lumber (formerly Haley West)	4.7	4.3	4.4	4.5	4.3	4.0	4.1	4.3	4.1	4.1	4.1	4.1	4.2	3.9	4.2
185 Tamarack	4.5	4.5	4.5	3.6	4.1	4	3.9	3.9	3.5	3.4	3.4	3.1	4.0	4.4	3.9
186 TASCO Nampa ID	0.2	0.2	0.2	0.1	0	0	0	0	0	0	0	0	0.1	0.2	0.1
187 TASCO Twin Falls ID	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
188 Vaagen Bros.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

**Table A-24: Regional NUG Resources By Project And Project Type
PNW Loads and Resource Study
2012 - 2013 Operating Year
[76] 2011 White Book (Final)**

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
189 Warm Springs	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
190 West Point	0	0	0	0	0	0	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	1.5
191 Total NUG: Co-Generation	288	288	303	302	302	300	296	296	283	298	290	301	298	284	296
-NUG: Renewables-															
192 Ashland Solar Project	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
193 Bellevue Solar (Amity, OR)	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2
194 Bettencourt B6 anaerobic digester	1.5	1.0	1.0	1.0	1.0	1.2	1.3	1.2	0	0.2	0.2	0.2	0.2	0.4	0.7
195 Bettencourt Dairy (Cargill)	1.4	1.4	1.4	1.4	1.3	1.3	1.2	1.4	1.4	1.3	1.0	1.2	1.2	1.1	1.3
196 Big Sky Dairy	1	1	1.1	1.1	1.1	1.1	1	1.0	1.1	1.1	1.1	1.1	1.1	1	1.1
197 Chinook Wind	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
198 DeRuyter & Son's Dairy	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
199 Dry Creek Landfill (NUG Renewable)	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
200 Emmett Biomass Project	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
201 Farm Power Lynden	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
202 Farm Power Rexville	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
203 Finley Buttes BioEnergy	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
204 Fourmile Hill Geothermal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
205 Healow #2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
206 Hidden Hollow Landfill	2.2	2.2	2.3	2.4	2.6	2.5	2.2	2.4	2.3	2.5	2.5	2.2	2.3	2	2.3
207 Josef Staufer	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
208 Lewandowski Farms	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
209 Livingston	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
210 Pine Products Corp	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
211 Portland Waste Water	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
212 Puyallup Energy Recovery (PERC)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
213 Qualco Dairy Digester	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
214 Raft River Geothermal Phase 1	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
215 VanderHaak Dairy	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
216 White Bluffs Solar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
217 Wild Horse Solar	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
218 Windmill	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
219 Yamhill Solar (Amity, OR)	0.3	0.3	0.3	0.2	0.1	0.1	0.1	0.1	0.2	0.3	0.3	0.3	0.3	0.4	0.2
220 Total NUG: Renewables	26	27	27	27	27	27	27	27	26	26	26	26	26	26	26
-Total Non-Utility Generating Resources-															
221 Federal Entities	2.8	2.8	2.8	2.9	3	3.4	3.4	3.3	3.3	3.3	3.3	3	2.9	2.8	3.1
222 Public Entities	203	201	149	93	53	52	51	55	50	147	147	236	253	264	134
223 Investor-Owned Entities	460	460	452	430	433	428	414	415	437	483	477	527	546	497	460
224 Other Entities	7.8	7.8	7.8	7.8	0	0	0	0	0	7.8	7.8	7.8	7.8	7.8	4.3
225 Total Non-Utility Generation	673	672	612	533	489	483	468	474	491	634	635	774	809	771	601

**Table A-24: Regional NUG Resources By Project And Project Type
PNW Loads and Resource Study
2013 - 2014 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-NUG: Hydro-															
1 Albany	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
2 Barber Dam	2.4	2.4	1.9	0.8	0.3	1.0	2.2	2.6	3.3	3.2	3.2	3.1	3.2	3.3	2.3
3 Barney Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Beaverton	0	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0
5 Bell Mountain	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1
6 Big Sheep Creek	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
7 Bingham Engineering	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
8 Birch Creek (Clark County)	0	0	0.1	0.1	0.1	0.1	0	0	0	0	0	0	0	0	0
9 Birch Creek (Gooding County)	1.3	1.3	1.1	1.0	1.1	1.1	0.3	1.2	1.7	1.6	1.6	1.6	1.3	1.2	1.2
10 Black Canyon #3	0.1	0.1	0.1	0.1	0.1	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
11 Black Creek	3.4	3.4	3.1	3.7	3.4	3.1	3.1	2.8	3.1	3.1	2.8	1.9	2.8	2.8	3.0
12 Blind Canyon Hydro	0.7	0.7	1.1	0.9	0.2	0	0	0	0	0.6	0.6	1.6	1.0	0.7	0.6
13 Boulder Creek	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
14 Box Canyon	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4
15 Boyd James	0	0	0	0	0	0.4	0.3	0.6	0.7	0.8	0.8	0.5	0	0	0.3
16 Briggs Creek	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6
17 Broadwater Dam	1.1	1.1	1.6	1.9	2.1	1.6	1.6	1.7	1.8	2.8	2.7	3.2	2.7	2.0	2
18 Buffalo Hydro	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
19 Burr & Bouchard	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20 Bypass	8.3	8.3	6.5	2.8	1.0	0	0	0	0.1	2.9	2.9	7	8.2	8.7	3.8
21 Canyon Springs	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
22 Carlton	0	0	0	0	0	0	0.1	0.1	0.1	0.1	0.1	0	0	0	0
23 Cascade Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 CDM-Felt Hydroelectric Plant	2.9	2.9	3.1	2.8	2.9	2.4	1.8	2	2.7	2.7	2.7	4.4	5.8	4.1	3.1
25 Cedar Draw	0.3	0.3	0.9	0.9	0.9	1.2	1.2	1.3	0.4	0.4	0.4	0.4	0.3	0.3	0.7
26 Central OR Irrigation District (Siphon)	3.1	3.1	3.7	3.5	0	0.7	0	0.4	0.9	0.8	0.8	4.5	3.8	4.1	2.1
27 Clear Springs Trout	0.4	0.4	0.4	0.5	0.6	0.6	0.4	0.5	0.4	0.3	0.3	0.4	0.4	0.4	0.4
28 Cornelius	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29 Cowiche	0.8	0.8	0.8	0.8	0	0	0	0	0	0	0.8	0.8	0.8	0.8	0.4
30 Crystal Springs	1.3	1.3	1.6	1.5	1.6	0.5	0.5	0.6	0.8	0.9	0.9	0.8	1.4	1.3	1.1
31 Curry Cattle Co.	0.2	0.2	0.2	0.1	0.1	0	0	0	0.1	0.1	0.1	0.2	0.2	0.2	0.1
32 Curtiss Livestock	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33 D. Wiggins	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34 Dairy Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
35 Deep Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36 Derr Creek	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.2	0.2	0.1
37 Dietrich Drop	4.7	4.7	3.6	3.1	1.4	0	0	0	0	3.1	3.1	4.7	4.7	4.5	2.5
38 Don Steffen	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39 Donald Jenni	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
40 Dworshak/Clearwater Small Hydro Power	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
41 Eagle Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42 Elk Creek	1.2	1.2	0	0	0	0.1	0.1	0.1	1	1	1	1	1.2	1.2	0.6
43 Eltopia Br Canal 4.6	1.8	1.8	1.2	0.6	0	0	0	0	0	1.4	1.4	2	2	2.2	0.9
44 Estacada	0.1	0.1	0.1	0.1	0.1	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
45 Fall Creek (OR) (Frontier Technologies)	0	0	0	1.9	3.1	0.9	2.7	2.7	4.4	4.4	4.1	3.8	0	1.9	0
46 Falls Creek (WA)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47 Falls River	6.5	6.5	6.3	5.7	5.6	5.0	4.2	3.8	3.8	6.2	6.2	7.9	8.5	7.1	5.9
48 Farmers Irrig.	0.6	0.6	0.7	1.2	3.2	3.2	2.1	4.6	3.3	3.5	3.5	4.7	0.8	0.7	2.4
49 Faulkner Ranch	0.8	0.8	0.7	0.7	0.7	0.3	0.3	0.3	0.5	0.6	0.6	0.5	0.8	0.8	0.6
50 Fisheries Development Co	0.2	0.2	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.3
51 Galesville Dam	0.6	0.6	0.4	0.2	0.2	0.3	0	0.2	0.3	0.4	0.4	0.3	0.4	0.5	0.3
52 Geobon 2	1.0	1.0	0.3	0.3	0.3	0.2	0.2	0.3	0.6	0.6	0.6	0.6	1.0	1.0	0.5
53 Georgetown Power	0	0	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0	0.2
54 Hailey Cspp	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
55 Hazelton A	7	7	5.4	2.5	0.9	0	0	0	0.1	2.6	2.6	6	6.7	7.4	3.2
56 Hazelton B	6.6	6.6	5.2	2.4	0.7	0	0	0	0.1	2.2	2.2	5.6	6.4	7.0	3
57 Horseshoe Bend Hydro	8.8	8.8	7.5	3.9	2.8	3.5	3.9	4.6	5.9	8.8	8.8	9.9	9.8	9.2	6.6
58 Hutchinson Creek	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
59 Ingram Warm Springs	0.2	0.2	0.3	0.3	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.4
60 Jim Ford Creek	0	0	0	0	0.3	0.5	0.9	0.9	1.1	1.1	1.1	0.7	0.3	0.1	0.5
61 Jim Knight	0.4	0.4	0.3	0.2	0.3	0.1	0.1	0.1	0.2	0.3	0.3	0.2	0.4	0.4	0.2
62 John Day Creek	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
63 Joseph Hydro	1.5	1.5	0.9	0.4	0.1	0.1	0.1	0	0	0.1	0.1	0.2	1.2	2.7	0.6

Table A-24: Regional NUG Resources By Project And Project Type
PNW Loads and Resource Study
2013 - 2014 Operating Year
[76] 2011 White Book (Final)

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
64 Juniper Ridge Hydro	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
65 Kasel & Witherspoon	0.9	0.9	0.9	0.6	0.4	0.2	0.2	0.2	0.3	0.4	0.4	0.8	0.9	0.8	0.5
66 Kevin Duncan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
67 Koma Kulshan	4.6	4.6	4.3	6.4	8	6.1	3.9	3.8	4.4	6.9	6.9	9.4	10	8.2	6.4
68 Koyle	1.1	1.1	1.1	1.0	1	0.2	0.1	0.1	0.3	0.8	0.8	1.2	0.8	0.9	0.7
69 L. Fery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
70 Lacombe Irrig.	0	0	0	0	0.2	1.0	0.2	0.9	0.9	1	1	0.9	0.9	0.4	0.5
71 Lake Oswego	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
72 Lateral #10	1.2	1.2	1.3	1.6	1.7	1.2	1.2	1.3	1.4	1.5	1.5	1.4	1.3	1.2	1.4
73 Lee Tavenner	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
74 Lemoyne	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
75 Little Mac	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
76 Little Wood River Res.	1.9	1.9	0.2	0.2	0.2	0	0	0	1.6	1.7	1.7	1.6	2	1.9	1.0
77 Littlewood/Arkoosh	0.7	0.7	0.4	0.4	0.4	0.2	0.2	0.2	0.4	0.5	0.5	0.4	0.8	0.7	0.5
78 Low Line Canal Drop	7.8	7.8	7.5	7.3	7.5	0.6	0.6	0.7	5.3	5.5	5.5	5.3	8.1	7.8	5.3
79 Low Line Midway	2	2	0	0	0	0	0	0	0	0	0	0	2	2	0.5
80 Lower Low Line #2	2.7	2.7	2.5	1.8	1.4	0	0	0.7	1.9	2.5	2.5	2.7	2.7	2.7	1.8
81 Lucky Peak	29	27	20	4.5	0	0.7	0	1.5	1.6	11	11	68	75	73	24
82 Magic Reservoir	6.8	6.8	4.4	0.5	0.2	0.1	0.3	0.1	0.9	3.0	3.0	8.3	9.1	9.0	3.6
83 Main Canal Headworks	20	20	12	5.2	0	0	0	0	2.8	14	14	18	21	24	9.8
84 Malad River	0.5	0.5	0.6	0.5	0.5	0.1	0.1	0	0.2	0.4	0.4	0.6	0.4	0.5	0.4
85 Marco Ranches	1.1	1.1	1.2	1.1	1.2	0	0	0	1.1	1.2	1.2	1.1	1.2	1.1	0.9
86 Marsh Valley	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
87 Meyers Falls	1	1	0.9	0.6	0.9	0.9	0.6	0.8	1.1	1.1	1.1	1	1.2	1.1	0.9
88 Middle Fork Irrig.	1.8	1.8	0.8	1.2	1.3	1.7	2.7	3.1	3.1	2.9	2.9	2.8	2.4	2.0	2.2
89 Mile 28	1.3	1.3	1.2	0.7	0.2	0	0	0	0	0.6	0.6	1.2	1.3	1.4	0.7
90 Mill Creek (OR) - City of Cove	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
91 Minikahda	0	0	0	0	0	0.1	0.1	0.1	0	0.1	0.1	0.1	0	0	0
92 Mink Creek	1.2	1.2	0.8	0.6	0.6	0.5	0.4	0.4	0.3	0.4	0.4	1.6	2.7	1.6	0.9
93 Mitchell Butte	1	1	1.1	0.4	0	0	0	0	0.3	0.8	0.8	1.2	1.3	1.1	0.6
94 Mora Canal Drop	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
95 Mountain Energy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96 Mt. Tabor	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
97 Mud Creek/S&S	0.4	0.4	0.5	0.5	0.5	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.4	0.4
98 Mud Creek/White	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1
99 Nichols Gap	0	0	0	0	0.4	0.6	0.2	0.5	0.6	0.4	0.4	0	0	0	0.2
100 Nicholson Sunnybar	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
101 North Fork Sprague	0	0	0.1	0	0	0	0.1	0.3	0.2	0.3	0.3	0.9	0.4	0.1	0.2
102 O.J. Power	0	0	0.1	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
103 Odell Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
104 Opal Springs	2.6	2.6	3.0	3.6	3.2	2.9	2.9	3.5	2.6	2.7	2.7	4.5	1.6	2.2	2.9
105 Orchard Avenue	0.8	0.8	0.8	0.8	0	0	0	0	0	0	0.8	0.8	0.8	0.8	0.4
106 Owyhee Dam	2.8	2.8	2.0	0.6	0	0	0.2	0.6	1.8	3.3	3.3	3.9	3.3	3.2	1.8
107 PEC Headworks	4.5	4.5	3.1	2.2	0	0	0	0	0.4	5.1	5.1	6.5	6.2	5.8	2.8
108 Phillips Ranch	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
109 Phillipsburg	0	0	0	0	0	0.1	0.1	0.1	0	0	0	0	0	0	0
110 Pickering Micro Hydro	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111 Pigeon Cove	2.0	2.0	2.1	1.3	0.8	0.4	0.3	0.4	0.6	0.8	0.8	1.7	1.9	1.7	1.2
112 Pine Creek	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
113 Portland	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
114 Portland Hydro Project	2.3	2.3	2.9	6.7	16	20	18	17	16	17	17	15	8.4	3.2	12
115 Portneuf River	0.2	0.2	0.1	0	0.1	0.1	0	0	0	0	0	0.2	0.6	0.4	0.2
116 Potholes E Canal 66.0	1.8	1.8	1.8	1.6	0	0	0	0	0.6	1.8	1.8	1.8	1.8	1.8	1.1
117 Preston City	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4
118 Pristine Springs	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
119 Pristine Springs #3	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
120 Quincy Chute	7.7	7.7	4	2.3	0	0	0	0	0.8	5.5	5.5	7.1	8.4	8.5	3.7
121 Reynolds Irrigation	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2
122 Rim View	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
123 Rock Creek #1	1.1	1.1	1.6	1.7	1.2	1.3	1.1	1.0	1.1	1.4	1.4	1.5	1.3	1.1	1.3
124 Rock Creek #2	1.8	1.8	1.8	1.9	1.9	1.9	0.6	0.4	1.6	1.9	1.9	1.9	1.9	1.6	1.6
125 Rocky Brook	0	0	0	0	0.2	0.6	0.6	0.4	0.5	0.5	0.5	0.2	0.1	0	0.3
126 Russel D. Smith	4	4	2.6	1.4	0	0	0	0	0.2	2.4	2.4	3.8	4.2	3.4	1.8
127 Sagebrush	0.4	0.4	0.3	0.3	0.3	0.1	0.1	0.1	0.3	0.3	0.3	0.3	0.4	0.4	0.3
128 Sahko	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5

**Table A-24: Regional NUG Resources By Project And Project Type
PNW Loads and Resource Study
2013 - 2014 Operating Year
[76] 2011 White Book (Final)**

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
129 Salem	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
130 Schaffner	0.4	0.4	0.3	0.2	0.3	0.1	0.1	0.2	0.3	0.3	0.3	0.3	0.4	0.4	0.3
131 Sheep Creek	0.4	0.4	0.3	0.3	0.4	0.5	0.5	0.5	0.9	1.6	1.6	0.8	1.5	1.1	0.7
132 Shingle Creek	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
133 Shoshone	0.3	0.3	0.3	0.3	0.3	0	0	0	0.1	0.2	0.2	0.4	0.2	0.3	0.2
134 Shoshone II	0.6	0.6	0.6	0	0	0	0	0	0	0.3	0.3	0.5	0.6	0.6	0.3
135 Snake River Pottery	0	0	0	0	0	0.1	0.1	0.1	0	0	0	0	0	0	0
136 Snedigar Ranch	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2
137 Solar Research	0.1	0.1	0.1	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0	0.1	0
138 South Dry Creek	0.5	0.5	0.5	0.5	0	0	0	0	0.5	0.5	0.5	0.6	0.5	0.5	0.3
139 Spokane Upriver	3.4	3.4	3.4	4.7	6.7	13	14	13	14	13	13	11	12	8.4	9.7
140 Stauffer Dry Creek	0.9	0.9	1	0.8	0.4	0	0.3	0.3	0.4	0.4	0.4	0.9	2.7	2.1	0.9
141 Strawberry Creek	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
142 Summer Falls	79	79	48	22	0	0	0	0	4.8	50	50	71	81	87	37
143 Sunshine Power #2	0.1	0.1	0.1	0.1	0.1	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
144 Sygitowicz Creek Small Hydro	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0	0	0	0	0	0	0.3
145 TGS/Briggs	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.1	0.1	0.2	0.2	0.1	0.2
146 Thomas Burnside	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
147 Thompson Mill (Boston Power)	0	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0	0
148 Tiber Dam Liberty Montana	7	7	5.4	2.5	0.9	0	0	0	0.1	2.6	2.6	6	6.7	7.4	3.2
149 Tieton (Yakima)	7.8	7.8	7.8	7.8	0	0	0	0	0	0	7.8	7.8	7.8	7.8	4.3
150 Trout Co.	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
151 Tunnel #1	4.3	4.3	2.6	0.5	0	0	0	0	2.4	5.1	5.1	5.8	5.8	5.9	2.7
152 Twin Falls	5	5	0	1.2	9.6	7.9	7.4	4.8	7.8	15	15	13	24	19	9.6
153 Walla Walla	1.5	1.5	1.4	1.3	1.2	1.3	1.2	1.5	1.8	1.8	1.8	1.5	1.5	1.8	1.5
154 Water Street / Santiam	0	0	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1
155 Weeks Falls	0.8	0.8	0	0.2	1.7	1.8	1.2	0.6	1.2	2.6	2.6	2.4	4.4	3.5	1.7
156 White Water Ranch	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
157 Wilson Lake Hydro	7.1	7.1	5.3	2.0	0.2	0	0	0	0	2.3	2.3	6.1	6.8	7.6	3.1
158 Wisconsin Creek	0	0	0.1	0.1	0	0.1	0.1	0.1	0.1	0.1	0.1	0	0	0	0.1
159 Woods Creek	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
160 Total NUG: Hydro	326	324	245	167	126	117	106	112	145	273	282	407	444	424	242
-NUG: Small Thermal & Misc.-															
161 Covanta Marion Solid Waste	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7
162 Methane Energy Agricultural D. (Booley)	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
163 Montana One (Colstrip Energy Limited)	6.6	10	11	8.8	13	13	12	11	10	10	13	11	9.3	11	
164 Pocatello Waste	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
165 Spokane MSW	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
166 Treasure Valley	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
167 West Boise Waste	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
168 Total NUG: Small Thermal & Misc.	36	33	37	38	35	39	40	39	37	37	37	40	38	36	37
-NUG: Co-Generation-															
169 Billings Generation	8.6	8.8	15	16	18	19	19	20	18	17	17	20	17	8.8	16
170 Biomass One	15	15	14	15	14	15	15	13	15	14	14	15	14	15	15
171 Boise Cascade Medford	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
172 Champion	3.3	3.3	3.3	3.3	3.3	3.3	1	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.1
173 Cogen Co	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
174 DR Johnson - Co-Gen II	6.0	6.0	5.8	6.0	5.8	6.0	6.0	5.4	6.0	7.2	0	6.0	5.8	6.0	5.7
175 Everett Cogen Project (Kimberly Clark)	38	38	36	36	34	31	34	19	36	36	38	33	38	34	
176 Evergreen Biopower Cogen (Fres)	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
177 Glenns Ferry Cogen Facility (Magic West)	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5
178 March Point #1	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76
179 March Point #2	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48
180 Potlatch Contract Renewal	43	43	53	52	51	50	50	44	46	46	46	46	49	38	47
181 Rough & Ready Lumber	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
182 Rupert Cogen Facility (Magic Valley)	7.5	8	9.4	9.4	8.6	8.2	9.1	9.1	7.7	7.7	7.5	8.0	8	8.4	
183 Simplot Pocatello	9.7	9.7	9.3	8.9	8.1	8.1	7.8	9.2	8.6	8.3	8.3	7.5	4.1	8.6	8.2
184 Tamson Lumber (formerly Haley West)	4.7	4.3	4.4	4.5	4.3	4.0	4.1	4.3	4.1	4.1	4.1	4.1	4.2	3.9	4.2
185 Tamarack	4.5	4.5	4.5	3.6	4.1	4	3.9	3.9	3.5	3.4	3.4	3.1	4.0	4.4	3.9
186 TASCO Nampa ID	0.2	0.2	0.2	0.1	0	0	0	0	0	0	0	0	0.1	0.2	0.1
187 TASCO Twin Falls ID	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
188 Vaagen Bros.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

**Table A-24: Regional NUG Resources By Project And Project Type
PNW Loads and Resource Study
2013 - 2014 Operating Year
[76] 2011 White Book (Final)**

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
189 Warm Springs	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
190 West Point	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
191 Total NUG: Co-Generation	290	291	306	304	304	303	297	297	283	298	291	302	294	284	296
-NUG: Renewables-															
192 Ashland Solar Project	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
193 Bellevue Solar (Amity, OR)	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2
194 Bettencourt B6 anaerobic digester	0.5	1.0	1.0	1.0	1.0	1.2	1.3	1.2	0	0.2	0.2	0.2	0.2	0.4	0.7
195 Bettencourt Dairy (Cargill)	1.4	1.4	1.4	1.4	1.3	1.3	1.2	1.4	1.4	1.3	1.0	1.2	1.2	1.1	1.3
196 Big Sky Dairy	1	1	1.1	1.1	1.1	1.1	1	1.0	1.1	1.1	1.1	1.1	1.1	1	1.1
197 Chinook Wind	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
198 DeRuyter & Son's Dairy	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
199 Dry Creek Landfill (NUG Renewable)	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
200 Emmett Biomass Project	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
201 Farm Power Lynden	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
202 Farm Power Rexville	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
203 Finley Buttes BioEnergy	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
204 Fourmile Hill Geothermal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
205 Healow #2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
206 Hidden Hollow Landfill	2.2	2.2	2.3	2.4	2.6	2.5	2.2	2.4	2.3	2.5	2.5	2.2	2.3	2	2.3
207 Josef Staufer	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
208 Lewandowski Farms	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
209 Livingston	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
210 Pine Products Corp	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
211 Portland Waste Water	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
212 Puyallup Energy Recovery (PERC)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
213 Qualco Dairy Digester	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
214 Raft River Geothermal Phase 1	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
215 VanderHaak Dairy	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
216 White Bluffs Solar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
217 Wild Horse Solar	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
218 Windmill	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
219 Yamhill Solar (Amity, OR)	0.3	0.3	0.3	0.2	0.1	0.1	0.1	0.1	0.2	0.3	0.3	0.3	0.3	0.4	0.2
220 Total NUG: Renewables	26	27	27	27	27	27	27	27	26	26	26	26	26	26	26
-Total Non-Utility Generating Resources-															
221 Federal Entities	2.8	2.8	2.8	2.9	3	3.4	3.4	3.3	3.3	3.3	3.3	3	2.9	2.8	3.1
222 Public Entities	205	204	151	95	56	55	51	55	50	147	147	236	253	264	135
223 Investor-Owned Entities	460	460	453	430	434	428	415	416	439	484	477	527	538	486	459
224 Other Entities	7.8	7.8	7.8	7.8	0	0	0	0	0	0	7.8	7.8	7.8	18	5.1
225 Total Non-Utility Generation	676	675	614	536	493	486	469	474	492	634	635	774	801	770	602

**Table A-24: Regional NUG Resources By Project And Project Type
PNW Loads and Resource Study
2014 - 2015 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-NUG: Hydro-															
1 Albany	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
2 Barber Dam	2.4	2.4	1.9	0.8	0.3	1.0	2.2	2.6	3.3	3.2	3.2	3.1	3.2	3.3	2.3
3 Barney Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Beaverton	0	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0
5 Bell Mountain	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1
6 Big Sheep Creek	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
7 Bingham Engineering	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
8 Birch Creek (Clark County)	0	0	0.1	0.1	0.1	0.1	0	0	0	0	0	0	0	0	0
9 Birch Creek (Gooding County)	1.3	1.3	1.1	1.0	1.1	1.1	0.3	1.2	1.7	1.6	1.6	1.6	1.3	1.2	1.2
10 Black Canyon #3	0.1	0.1	0.1	0.1	0.1	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
11 Black Creek	1.9	2.5	3.4	3.4	3.4	3.1	3.7	3.4	3.1	3.1	2.8	3.1	3.1	2.8	3.1
12 Blind Canyon Hydro	0.7	0.7	1.1	0.9	0.2	0	0	0	0	0.6	0.6	1.6	1.0	0.7	0.6
13 Boulder Creek	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
14 Box Canyon	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4
15 Boyd James	0	0	0	0	0	0.4	0.3	0.6	0.7	0.8	0.8	0.5	0	0	0.3
16 Briggs Creek	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6
17 Broadwater Dam	1.1	1.1	1.6	1.9	2.1	1.6	1.6	1.7	1.8	2.8	2.7	3.2	2.7	2.0	2
18 Buffalo Hydro	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
19 Burr & Bouchard	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20 Bypass	8.3	8.3	6.5	2.8	1.0	0	0	0	0.1	2.9	2.9	7	8.2	8.7	3.8
21 Canyon Springs	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
22 Carlton	0	0	0	0	0	0	0.1	0.1	0.1	0.1	0.1	0	0	0	0
23 Cascade Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 CDM-Felt Hydroelectric Plant	2.9	2.9	3.1	2.8	2.9	2.4	1.8	2	2.7	2.7	2.7	4.4	5.8	4.1	3.1
25 Cedar Draw	0.3	0.3	0.9	0.9	0.9	1.2	1.2	1.3	0.4	0.4	0.4	0.4	0.3	0.3	0.7
26 Central OR Irrigation District (Siphon)	3.1	3.7	3.5	0	0.7	0	0.4	0.9	0.8	0.8	4.5	3.8	4.1	2.1	
27 Clear Springs Trout	0.4	0.4	0.4	0.5	0.6	0.6	0.4	0.5	0.4	0.3	0.3	0.4	0.4	0.4	0.4
28 Cornelius	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29 Cowiche	0.8	0.8	0.8	0.8	0	0	0	0	0	0	0.8	0.8	0.8	0.8	0.4
30 Crystal Springs	1.3	1.3	1.6	1.5	1.6	0.5	0.5	0.6	0.8	0.9	0.9	0.8	1.4	1.3	1.1
31 Curry Cattle Co.	0.2	0.2	0.2	0.1	0.1	0	0	0	0.1	0.1	0.1	0.2	0.2	0.2	0.1
32 Curtiss Livestock	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33 D. Wiggins	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34 Dairy Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
35 Deep Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36 Derr Creek	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.2	0.2	0.1
37 Dietrich Drop	4.7	4.7	3.6	3.1	1.4	0	0	0	0	3.1	3.1	4.7	4.7	4.5	2.5
38 Don Steffen	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39 Donald Jenni	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
40 Dworshak/Clearwater Small Hydro Power	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
41 Eagle Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42 Elk Creek	1.2	1.2	0	0	0	0.1	0.1	0.1	1	1	1	1	1.2	1.2	0.6
43 Eltopia Br Canal 4.6	1.8	1.8	1.2	0.6	0	0	0	0	0	1.4	1.4	2	2	2.2	0.9
44 Estacada	0.1	0.1	0.1	0.1	0.1	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
45 Fall Creek (OR) (Frontier Technologies)	0	0	0	1.9	3.1	0.9	2.7	2.7	4.4	4.4	4.1	3.8	0	1.9	
46 Falls Creek (WA)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47 Falls River	6.5	6.5	6.3	5.7	5.6	5.0	4.2	3.8	3.8	6.2	6.2	7.9	8.5	7.1	5.9
48 Farmers Irrig.	0.6	0.6	0.7	1.2	3.2	3.2	2.1	4.6	3.3	3.5	3.5	4.7	0.8	0.7	2.4
49 Faulkner Ranch	0.8	0.8	0.7	0.7	0.7	0.3	0.3	0.3	0.5	0.6	0.6	0.5	0.8	0.8	0.6
50 Fisheries Development Co	0.2	0.2	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.3
51 Galesville Dam	0.6	0.6	0.4	0.2	0.2	0.3	0	0.2	0.3	0.4	0.4	0.3	0.4	0.5	0.3
52 Geobon 2	1.0	1.0	0.3	0.3	0.3	0.2	0.2	0.3	0.6	0.6	0.6	0.6	1.0	1.0	0.5
53 Georgetown Power	0	0	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0	0.2
54 Hailey Cspp	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
55 Hazelton A	7	7	5.4	2.5	0.9	0	0	0	0.1	2.6	2.6	6	6.7	7.4	3.2
56 Hazelton B	6.6	6.6	5.2	2.4	0.7	0	0	0	0.1	2.2	2.2	5.6	6.4	7.0	3
57 Horseshoe Bend Hydro	8.8	8.8	7.5	3.9	2.8	3.5	3.9	4.6	5.9	8.8	8.8	9.9	9.8	9.2	6.6
58 Hutchinson Creek	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
59 Ingram Warm Springs	0.2	0.2	0.3	0.3	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.4
60 Jim Ford Creek	0	0	0	0	0.3	0.5	0.9	0.9	1.1	1.1	1.1	0.7	0.3	0.1	0.5
61 Jim Knight	0.4	0.4	0.3	0.2	0.3	0.1	0.1	0.1	0.2	0.3	0.3	0.2	0.4	0.4	0.2
62 John Day Creek	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
63 Joseph Hydro	1.5	1.5	0.9	0.4	0.1	0.1	0.1	0	0	0.1	0.1	0.2	1.2	2.7	0.6

Table A-24: Regional NUG Resources By Project And Project Type
PNW Loads and Resource Study
2014 - 2015 Operating Year
[76] 2011 White Book (Final)

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
64 Juniper Ridge Hydro	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
65 Kasel & Witherspoon	0.9	0.9	0.9	0.6	0.4	0.2	0.2	0.2	0.3	0.4	0.4	0.8	0.9	0.8	0.5
66 Kevin Duncan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
67 Koma Kulshan	4.6	4.6	4.3	6.4	8	6.1	3.9	3.8	4.4	6.9	6.9	9.4	10	8.2	6.4
68 Koyle	1.1	1.1	1.1	1.0	1	0.2	0.1	0.1	0.3	0.8	0.8	1.2	0.8	0.9	0.7
69 L. Fery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
70 Lacombe Irrig.	0	0	0	0	0.2	1.0	0.2	0.9	0.9	1	1	0.9	0.9	0.4	0.5
71 Lake Oswego	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
72 Lateral #10	1.2	1.2	1.3	1.6	1.7	1.2	1.2	1.3	1.4	1.5	1.5	1.4	1.3	1.2	1.4
73 Lee Tavenner	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
74 Lemoyne	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
75 Little Mac	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
76 Little Wood River Res.	1.9	1.9	0.2	0.2	0.2	0	0	0	1.6	1.7	1.7	1.6	2	1.9	1.0
77 Littlewood/Arkoosh	0.7	0.7	0.4	0.4	0.4	0.2	0.2	0.2	0.4	0.5	0.5	0.4	0.8	0.7	0.5
78 Low Line Canal Drop	7.8	7.8	7.5	7.3	7.5	0.6	0.6	0.7	5.3	5.5	5.5	5.3	8.1	7.8	5.3
79 Low Line Midway	2	2	0	0	0	0	0	0	0	0	0	0	2	2	0.5
80 Lower Low Line #2	2.7	2.7	2.5	1.8	1.4	0	0	0.7	1.9	2.5	2.5	2.7	2.7	2.7	1.8
81 Lucky Peak	29	27	20	4.5	0	0.7	0	1.5	1.6	11	11	68	75	73	24
82 Magic Reservoir	6.8	6.8	4.4	0.5	0.2	0.1	0.3	0.1	0.9	3.0	3.0	8.3	9.1	9.0	3.6
83 Main Canal Headworks	20	20	12	5.2	0	0	0	0	2.8	14	14	18	21	24	9.8
84 Malad River	0.5	0.5	0.6	0.5	0.5	0.1	0.1	0	0.2	0.4	0.4	0.6	0.4	0.5	0.4
85 Marco Ranches	1.1	1.1	1.2	1.1	1.2	0	0	0	1.1	1.2	1.2	1.1	1.2	1.1	0.9
86 Marsh Valley	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
87 Meyers Falls	1	1	0.9	0.6	0.9	0.9	0.6	0.8	1.1	1.1	1.1	1	1.2	1.1	0.9
88 Middle Fork Irrig.	1.8	1.8	0.8	1.2	1.3	1.7	2.7	3.1	3.1	2.9	2.9	2.8	2.4	2.0	2.2
89 Mile 28	1.3	1.3	1.2	0.7	0.2	0	0	0	0	0.6	0.6	1.2	1.3	1.4	0.7
90 Mill Creek (OR) - City of Cove	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
91 Minikahda	0	0	0	0	0	0.1	0.1	0.1	0	0.1	0.1	0.1	0	0	0
92 Mink Creek	1.2	1.2	0.8	0.6	0.6	0.5	0.4	0.4	0.3	0.4	0.4	1.6	2.7	1.6	0.9
93 Mitchell Butte	1	1	1.1	0.4	0	0	0	0	0.3	0.8	0.8	1.2	1.3	1.1	0.6
94 Mora Canal Drop	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
95 Mountain Energy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96 Mt. Tabor	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
97 Mud Creek/S&S	0.4	0.4	0.5	0.5	0.5	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.4	0.4
98 Mud Creek/White	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1
99 Nichols Gap	0	0	0	0	0.4	0.6	0.2	0.5	0.6	0.4	0.4	0	0	0	0.2
100 Nicholson Sunnybar	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
101 North Fork Sprague	0	0	0.1	0	0	0	0.1	0.3	0.2	0.3	0.3	0.9	0.4	0.1	0.2
102 O.J. Power	0	0	0.1	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
103 Odell Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
104 Opal Springs	2.6	2.6	3.0	3.6	3.2	2.9	2.9	3.5	2.6	2.7	2.7	4.5	1.6	2.2	2.9
105 Orchard Avenue	0.8	0.8	0.8	0.8	0	0	0	0	0	0	0.8	0.8	0.8	0.8	0.4
106 Owyhee Dam	2.8	2.8	2.0	0.6	0	0	0.2	0.6	1.8	3.3	3.3	3.9	3.3	3.2	1.8
107 PEC Headworks	4.5	4.5	3.1	2.2	0	0	0	0	0.4	5.1	5.1	6.5	6.2	5.8	2.8
108 Phillips Ranch	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
109 Phillipsburg	0	0	0	0	0	0.1	0.1	0.1	0	0	0	0	0	0	0
110 Pickering Micro Hydro	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111 Pigeon Cove	2.0	2.0	2.1	1.3	0.8	0.4	0.3	0.4	0.6	0.8	0.8	1.7	1.9	1.7	1.2
112 Pine Creek	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
113 Portland	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
114 Portland Hydro Project	2.3	2.3	2.9	6.7	16	20	18	17	16	17	17	15	8.4	3.2	12
115 Portneuf River	0.2	0.2	0.1	0	0.1	0.1	0	0	0	0	0	0.2	0.6	0.4	0.2
116 Potholes E Canal 66.0	1.8	1.8	1.8	1.6	0	0	0	0	0.6	1.8	1.8	1.8	1.8	1.8	1.1
117 Preston City	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4
118 Pristine Springs	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
119 Pristine Springs #3	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
120 Quincy Chute	7.7	7.7	4	2.3	0	0	0	0	0.8	5.5	5.5	7.1	8.4	8.5	3.7
121 Reynolds Irrigation	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2
122 Rim View	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
123 Rock Creek #1	1.1	1.1	1.6	1.7	1.2	1.3	1.1	1.0	1.1	1.4	1.4	1.5	1.3	1.1	1.3
124 Rock Creek #2	1.8	1.8	1.8	1.9	1.9	1.9	0.6	0.4	1.6	1.9	1.9	1.9	1.9	1.6	1.6
125 Rocky Brook	0	0	0	0	0.2	0.6	0.6	0.4	0.5	0.5	0.5	0.2	0.1	0	0.3
126 Russel D. Smith	4	4	2.6	1.4	0	0	0	0	0.2	2.4	2.4	3.8	4.2	3.4	1.8
127 Sagebrush	0.4	0.4	0.3	0.3	0.3	0.1	0.1	0.1	0.3	0.3	0.3	0.3	0.4	0.4	0.3
128 Sahko	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5

**Table A-24: Regional NUG Resources By Project And Project Type
PNW Loads and Resource Study
2014 - 2015 Operating Year
[76] 2011 White Book (Final)**

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
129 Salem	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
130 Schaffner	0.4	0.4	0.3	0.2	0.3	0.1	0.1	0.2	0.3	0.3	0.3	0.3	0.4	0.4	0.3
131 Sheep Creek	0.4	0.4	0.3	0.3	0.4	0.5	0.5	0.5	0.9	1.6	1.6	0.8	1.5	1.1	0.7
132 Shingle Creek	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
133 Shoshone	0.3	0.3	0.3	0.3	0.3	0	0	0	0.1	0.2	0.2	0.4	0.2	0.3	0.2
134 Shoshone II	0.6	0.6	0.6	0	0	0	0	0	0	0.3	0.3	0.5	0.6	0.6	0.3
135 Snake River Pottery	0	0	0	0	0	0.1	0.1	0.1	0	0	0	0	0	0	0
136 Snedigar Ranch	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2
137 Solar Research	0.1	0.1	0.1	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0	0.1	0
138 South Dry Creek	0.5	0.5	0.5	0.5	0	0	0	0	0.5	0.5	0.5	0.6	0.5	0.5	0.3
139 Spokane Upriver	3.4	3.4	3.4	4.7	6.7	13	14	13	14	13	13	11	12	8.4	9.7
140 Stauffer Dry Creek	0.9	0.9	1	0.8	0.4	0	0.3	0.3	0.4	0.4	0.4	0.9	2.7	2.1	0.9
141 Strawberry Creek	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
142 Summer Falls	79	79	48	22	0	0	0	0	4.8	50	50	71	81	87	37
143 Sunshine Power #2	0.1	0.1	0.1	0.1	0.1	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
144 TGS/Briggs	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.1	0.1	0.2	0.2	0.1	0.2
145 Thomas Burnside	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
146 Thompson Mill (Boston Power)	0	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0	0
147 Tiber Dam Liberty Montana	7	7	5.4	2.5	0.9	0	0	0	0.1	2.6	2.6	6	6.7	7.4	3.2
148 Tieton (Yakima)	7.8	7.8	7.8	7.8	0	0	0	0	0	0	7.8	7.8	7.8	7.8	4.3
149 Trout Co.	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
150 Tunnel #1	4.3	4.3	2.6	0.5	0	0	0	0	2.4	5.1	5.1	5.8	5.8	5.9	2.7
151 Twin Falls	5	5	0	1.2	9.6	7.9	7.4	4.8	7.8	15	15	13	24	19	9.6
152 Walla Walla	1.5	1.5	1.4	1.3	1.2	1.3	1.2	1.5	1.8	1.8	1.8	1.5	1.5	1.8	1.5
153 Water Street / Santiam	0	0	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1
154 Weeks Falls	0.8	0.8	0	0.2	1.7	1.8	1.2	0.6	1.2	2.6	2.6	2.4	4.4	3.5	1.7
155 White Water Ranch	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
156 Wilson Lake Hydro	7.1	7.1	5.3	2.0	0.2	0	0	0	0	2.3	2.3	6.1	6.8	7.6	3.1
157 Wisconsin Creek	0	0	0.1	0.1	0	0.1	0.1	0.1	0.1	0.1	0.1	0	0	0	0.1
158 Woods Creek	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
159 Total NUG: Hydro	324	323	244	167	125	116	106	112	145	273	282	408	444	424	242
-NUG: Small Thermal & Misc.-															
160 Covanta Marion Solid Waste	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7
161 Methane Energy Agricultural D. (Booley)	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
162 Montana One (Colstrip Energy Limited)	6.6	10	11	8.8	13	13	12	11	10	10	13	11	9.3	11	
163 Pocatello Waste	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
164 Spokane MSW	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
165 Treasure Valley	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
166 West Boise Waste	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
167 Total NUG: Small Thermal & Misc.	36	33	37	38	35	39	40	39	37	37	37	40	38	36	37
-NUG: Co-Generation-															
168 Billings Generation	8.6	8.8	15	16	18	19	19	20	18	17	17	20	17	8.8	16
169 Biomass One	15	15	14	15	14	15	15	13	15	14	14	15	14	15	15
170 Boise Cascade Medford	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
171 Champion	3.3	3.3	3.3	3.3	3.3	3.3	1	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.1
172 Cogen Co	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
173 DR Johnson - Co-Gen II	6.0	6.0	5.8	6.0	5.8	6.0	6.0	5.4	6.0	7.2	0	6.0	5.8	6.0	5.7
174 Everett Cogen Project (Kimberly Clark)	38	38	38	36	36	34	31	34	19	36	36	38	33	38	34
175 Evergreen Biopower Cogen (Fores)	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
176 Glenns Ferry Cogen Facility (Magic West)	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
177 March Point #1	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76
178 March Point #2	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48
179 Potlatch Contract Renewal	43	43	53	52	51	50	50	44	46	46	46	46	49	38	47
180 Rough & Ready Lumber	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
181 Rupert Cogen Facility (Magic Valley)	7.5	8	9.4	9.4	8.6	8.2	9.1	9.1	7.7	7.7	7.5	8.0	8	8.4	
182 Simplot Pocatello	9.7	9.7	9.3	8.9	8.1	8.1	7.8	9.2	8.6	8.3	8.3	7.5	4.1	8.6	8.2
183 Stimson Lumber (formerly Haley West)	4.7	4.3	4.4	4.5	4.3	4.0	4.1	4.3	4.1	4.1	4.1	4.1	4.2	3.9	4.2
184 Tamarack	4.5	4.5	4.5	3.6	4.1	4	3.9	3.9	3.5	3.4	3.4	3.1	4.0	4.4	3.9
185 TASC0 Nampa ID	0.2	0.2	0.2	0.1	0	0	0	0	0	0	0	0	0.1	0.2	0.1
186 TASC0 Twin Falls ID	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
187 Vaagen Bros.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
188 Warm Springs	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2

**Table A-24: Regional NUG Resources By Project And Project Type
PNW Loads and Resource Study
2014 - 2015 Operating Year
[76] 2011 White Book (Final)**

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
189 West Point	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
190 Total NUG: Co-Generation	291	292	307	305	305	304	298	298	284	299	292	303	295	285	297
-NUG: Renewables-															
191 Ashland Solar Project	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
192 Bellevue Solar (Amity, OR)	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2
193 Bettencourt B6 anaerobic digester	0.5	1.0	1.0	1.0	1.0	1.2	1.3	1.2	0	0.2	0.2	0.2	0.2	0.4	0.7
194 Bettencourt Dairy (Cargill)	1.4	1.4	1.4	1.4	1.3	1.3	1.2	1.4	1.4	1.3	1.0	1.2	1.2	1.1	1.3
195 Big Sky Dairy	1	1	1.1	1.1	1.1	1.1	1	1.0	1.1	1.1	1.1	1.1	1.1	1	1.1
196 Chinook Wind	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
197 DeRuyter & Son's Dairy	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
198 Dry Creek Landfill (NUG Renewable)	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
199 Emmett Biomass Project	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
200 Farm Power Lynden	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
201 Farm Power Rexville	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
202 Finley Buttes BioEnergy	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
203 Fourmile Hill Geothermal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
204 Healow #2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
205 Hidden Hollow Landfill	2.2	2.2	2.3	2.4	2.6	2.5	2.2	2.4	2.3	2.5	2.5	2.2	2.3	2	2.3
206 Josef Staufer	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
207 Lewandowski Farms	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
208 Livingston	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
209 Pine Products Corp	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
210 Portland Waste Water	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
211 Puyallup Energy Recovery (PERC)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
212 Qualco Dairy Digester	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
213 Raft River Geothermal Phase 1	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
214 VanderHaak Dairy	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
215 White Bluffs Solar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
216 Wild Horse Solar	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
217 Windmill	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
218 Yamhill Solar (Amity, OR)	0.3	0.3	0.3	0.2	0.1	0.1	0.1	0.1	0.2	0.3	0.3	0.3	0.3	0.4	0.2
219 Total NUG: Renewables	26	27	27	27	27	27	27	27	26	26	26	26	26	26	26
-Total Non-Utility Generating Resources-															
220 Federal Entities	2.8	2.8	2.8	2.9	3	3.4	3.4	3.3	3.3	3.3	3.3	3	2.9	2.8	3.1
221 Public Entities	205	204	151	95	56	55	51	55	50	147	147	236	253	264	135
222 Investor-Owned Entities	449	450	444	421	425	419	406	407	430	475	468	519	529	487	451
223 Other Entities	18	18	18	18	9.7	9.7	9.7	9.7	9.7	9.7	18	18	18	18	14
224 Total Non-Utility Generation	675	674	615	537	493	486	470	475	493	635	636	776	803	771	603

**Table A-24: Regional NUG Resources By Project And Project Type
PNW Loads and Resource Study
2015 - 2016 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-NUG: Hydro-															
1 Albany	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
2 Barber Dam	2.4	2.4	1.9	0.8	0.3	1.0	2.2	2.6	3.3	3.2	3.2	3.1	3.2	3.3	2.3
3 Barney Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Beaverton	0	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0
5 Bell Mountain	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1
6 Big Sheep Creek	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
7 Bingham Engineering	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
8 Birch Creek (Clark County)	0	0	0.1	0.1	0.1	0.1	0	0	0	0	0	0	0	0	0
9 Birch Creek (Gooding County)	1.3	1.3	1.1	1.0	1.1	1.1	0.3	1.2	1.7	1.6	1.6	1.6	1.3	1.2	1.2
10 Black Canyon #3	0.1	0.1	0.1	0.1	0.1	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
11 Black Creek	1.9	2.8	2.8	1.9	2.5	3.4	3.4	3.4	3.1	3.7	3.4	3.1	3.1	2.8	2.9
12 Blind Canyon Hydro	0.7	0.7	1.1	0.9	0.2	0	0	0	0	0.6	0.6	1.6	1.0	0.7	0.6
13 Boulder Creek	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
14 Box Canyon	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4
15 Boyd James	0	0	0	0	0	0.4	0.3	0.6	0.7	0.8	0.8	0.5	0	0	0.3
16 Briggs Creek	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6
17 Broadwater Dam	1.1	1.1	1.6	1.9	2.1	1.6	1.6	1.7	1.8	2.8	2.7	3.2	2.7	2.0	2
18 Buffalo Hydro	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
19 Burr & Bouchard	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20 Bypass	8.3	8.3	6.5	2.8	1.0	0	0	0	0.1	2.9	2.9	7	8.2	8.7	3.8
21 Canyon Springs	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
22 Carlton	0	0	0	0	0	0	0.1	0.1	0.1	0.1	0.1	0	0	0	0
23 Cascade Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 CDM-Felt Hydroelectric Plant	2.9	2.9	3.1	2.8	2.9	2.4	1.8	2	2.7	2.7	2.7	4.4	5.8	4.1	3.1
25 Cedar Draw	0.3	0.3	0.9	0.9	0.9	1.2	1.2	1.3	0.4	0.4	0.4	0.4	0.3	0.3	0.7
26 Central OR Irrigation District (Siphon)	3.1	3.7	3.5	0	0.7	0	0.4	0.9	0.8	0.8	4.5	3.8	4.1	2.1	
27 Clear Springs Trout	0.4	0.4	0.4	0.5	0.6	0.6	0.4	0.5	0.4	0.3	0.3	0.4	0.4	0.4	0.4
28 Cornelius	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29 Cowiche	0.8	0.8	0.8	0.8	0	0	0	0	0	0.8	0.8	0.8	0.8	0.8	0.4
30 Crystal Springs	1.3	1.3	1.6	1.5	1.6	0.5	0.5	0.6	0.8	0.9	0.9	0.8	1.4	1.3	1.1
31 Curry Cattle Co.	0.2	0.2	0.2	0.1	0.1	0	0	0	0.1	0.1	0.1	0.2	0.2	0.2	0.1
32 Curtiss Livestock	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33 D. Wiggins	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34 Dairy Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
35 Deep Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36 Derr Creek	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.2	0.2	0.1
37 Dietrich Drop	4.7	4.7	3.6	3.1	1.4	0	0	0	0	3.1	3.1	4.7	4.7	4.5	2.5
38 Don Steffen	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39 Donald Jenni	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
40 Dworshak/Clearwater Small Hydro Power	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
41 Eagle Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42 Elk Creek	1.2	1.2	0	0	0	0.1	0.1	0.1	1	1	1	1	1.2	1.2	0.6
43 Eltopia Br Canal 4.6	1.8	1.8	1.2	0.6	0	0	0	0	0	1.4	1.4	2	2	2.2	0.9
44 Estacada	0.1	0.1	0.1	0.1	0.1	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
45 Fall Creek (OR) (Frontier Technologies)	0	0	0	1.9	3.1	0.9	2.7	2.7	4.4	4.4	4.1	3.8	0	2.0	
46 Falls Creek (WA)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47 Falls River	6.5	6.5	6.3	5.7	5.6	5.0	4.2	3.8	3.8	6.2	6.2	7.9	8.5	7.1	5.9
48 Farmers Irrig.	0.6	0.6	0.7	1.2	3.2	3.2	2.1	4.6	3.3	3.5	3.5	4.7	0.8	0.7	2.4
49 Faulkner Ranch	0.8	0.8	0.7	0.7	0.7	0.3	0.3	0.3	0.5	0.6	0.6	0.5	0.8	0.8	0.6
50 Fisheries Development Co	0.2	0.2	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.3
51 Galesville Dam	0.6	0.6	0.4	0.2	0.2	0.3	0	0.2	0.3	0.4	0.4	0.3	0.4	0.5	0.3
52 Geobon 2	1.0	1.0	0.3	0.3	0.3	0.2	0.2	0.3	0.6	0.6	0.6	0.6	1.0	1.0	0.5
53 Georgetown Power	0	0	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0	0.2
54 Hailey Cspp	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
55 Hazelton A	7	7	5.4	2.5	0.9	0	0	0	0.1	2.6	2.6	6	6.7	7.4	3.2
56 Hazelton B	6.6	6.6	5.2	2.4	0.7	0	0	0	0.1	2.2	2.2	5.6	6.4	7.0	3
57 Horseshoe Bend Hydro	8.8	8.8	7.5	3.9	2.8	3.5	3.9	4.6	5.9	8.8	8.8	9.9	9.8	9.2	6.6
58 Hutchinson Creek	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
59 Ingram Warm Springs	0.2	0.2	0.3	0.3	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.4
60 Jim Ford Creek	0	0	0	0	0.3	0.5	0.9	0.9	1.1	1.1	1.1	0.7	0.3	0.1	0.5
61 Jim Knight	0.4	0.4	0.3	0.2	0.3	0.1	0.1	0.1	0.2	0.3	0.3	0.2	0.4	0.4	0.2
62 John Day Creek	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
63 Joseph Hydro	1.5	1.5	0.9	0.4	0.1	0.1	0.1	0	0	0.1	0.1	0.2	1.2	2.7	0.6

Table A-24: Regional NUG Resources By Project And Project Type
PNW Loads and Resource Study
2015 - 2016 Operating Year
[76] 2011 White Book (Final)

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
64 Juniper Ridge Hydro	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
65 Kasel & Witherspoon	0.9	0.9	0.9	0.6	0.4	0.2	0.2	0.2	0.3	0.4	0.4	0.8	0.9	0.8	0.5
66 Kevin Duncan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
67 Koma Kulshan	4.6	4.6	4.3	6.4	8	6.1	3.9	3.8	4.4	6.9	6.9	9.4	10	8.2	6.4
68 Koyle	1.1	1.1	1.1	1.0	1	0.2	0.1	0.1	0.3	0.8	0.8	1.2	0.8	0.9	0.7
69 L. Fery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
70 Lacombe Irrig.	0	0	0	0	0.2	1.0	0.2	0.9	0.9	1	1	0.9	0.9	0.4	0.5
71 Lake Oswego	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
72 Lateral #10	1.2	1.2	1.3	1.6	1.7	1.2	1.2	1.3	1.4	1.5	1.5	1.4	1.3	1.2	1.4
73 Lee Tavenner	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
74 Lemoyne	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
75 Little Mac	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
76 Little Wood River Res.	1.9	1.9	0.2	0.2	0.2	0	0	0	1.6	1.7	1.7	1.6	2	1.9	1.0
77 Littlewood/Arkoosh	0.7	0.7	0.4	0.4	0.4	0.2	0.2	0.2	0.4	0.5	0.5	0.4	0.8	0.7	0.5
78 Low Line Canal Drop	7.8	7.8	7.5	7.3	7.5	0.6	0.6	0.7	5.3	5.5	5.5	5.3	8.1	7.8	5.3
79 Low Line Midway	2	2	0	0	0	0	0	0	0	0	0	0	2	2	0.5
80 Lower Low Line #2	2.7	2.7	2.5	1.8	1.4	0	0	0.7	1.9	2.5	2.5	2.7	2.7	2.7	1.8
81 Lucky Peak	29	27	20	4.5	0	0.7	0	1.5	1.6	11	11	68	75	73	24
82 Magic Reservoir	6.8	6.8	4.4	0.5	0.2	0.1	0.3	0.1	0.9	3.0	3.0	8.3	9.1	9.0	3.6
83 Main Canal Headworks	20	20	12	5.2	0	0	0	0	2.8	14	14	18	21	24	9.8
84 Malad River	0.5	0.5	0.6	0.5	0.5	0.1	0.1	0	0.2	0.4	0.4	0.6	0.4	0.5	0.4
85 Marco Ranches	1.1	1.1	1.2	1.1	1.2	0	0	0	1.1	1.2	1.2	1.1	1.2	1.1	0.9
86 Marsh Valley	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
87 Meyers Falls	1	1	0.9	0.6	0.9	0.9	0.6	0.8	1.1	1.1	1.1	1	1.2	1.1	0.9
88 Middle Fork Irrig.	1.8	1.8	0.8	1.2	1.3	1.7	2.7	3.1	3.1	2.9	2.9	2.8	2.4	2.0	2.2
89 Mile 28	1.3	1.3	1.2	0.7	0.2	0	0	0	0	0.6	0.6	1.2	1.3	1.4	0.7
90 Mill Creek (OR) - City of Cove	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
91 Minikahda	0	0	0	0	0	0.1	0.1	0.1	0	0.1	0.1	0.1	0	0	0
92 Mink Creek	1.2	1.2	0.8	0.6	0.6	0.5	0.4	0.4	0.3	0.4	0.4	1.6	2.7	1.6	0.9
93 Mitchell Butte	1	1	1.1	0.4	0	0	0	0	0.3	0.8	0.8	1.2	1.3	1.1	0.6
94 Mora Canal Drop	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
95 Mountain Energy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96 Mt. Tabor	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
97 Mud Creek/S&S	0.4	0.4	0.5	0.5	0.5	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.4	0.4
98 Mud Creek/White	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1
99 Nichols Gap	0	0	0	0	0.4	0.6	0.2	0.5	0.6	0.4	0.4	0	0	0	0.2
100 Nicholson Sunnybar	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
101 North Fork Sprague	0	0	0.1	0	0	0	0.1	0.3	0.2	0.3	0.3	0.9	0.4	0.1	0.2
102 O.J. Power	0	0	0.1	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
103 Odell Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
104 Opal Springs	2.6	2.6	3.0	3.6	3.2	2.9	2.9	3.5	2.6	2.7	2.7	4.5	1.6	2.2	2.9
105 Orchard Avenue	0.8	0.8	0.8	0.8	0	0	0	0	0	0	0.8	0.8	0.8	0.8	0.4
106 Owyhee Dam	2.8	2.8	2.0	0.6	0	0	0.2	0.6	1.8	3.3	3.3	3.9	3.3	3.2	1.8
107 PEC Headworks	4.5	4.5	3.1	2.2	0	0	0	0	0.4	5.1	5.1	6.5	6.2	5.8	2.8
108 Phillips Ranch	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
109 Phillipsburg	0	0	0	0	0	0.1	0.1	0.1	0	0	0	0	0	0	0
110 Pickering Micro Hydro	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111 Pigeon Cove	2.0	2.0	2.1	1.3	0.8	0.4	0.3	0.4	0.6	0.8	0.8	1.7	1.9	1.7	1.2
112 Pine Creek	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
113 Portland	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
114 Portland Hydro Project	2.3	2.3	2.9	6.7	16	20	18	17	16	17	17	15	8.4	3.2	12
115 Portneuf River	0.2	0.2	0.1	0	0.1	0.1	0	0	0	0	0	0.2	0.6	0.4	0.1
116 Potholes E Canal 66.0	1.8	1.8	1.8	1.6	0	0	0	0	0.6	1.8	1.8	1.8	1.8	1.8	1.1
117 Preston City	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4
118 Pristine Springs	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
119 Pristine Springs #3	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
120 Quincy Chute	7.7	7.7	4	2.3	0	0	0	0	0.8	5.5	5.5	7.1	8.4	8.5	3.7
121 Reynolds Irrigation	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2
122 Rim View	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
123 Rock Creek #1	1.1	1.1	1.6	1.7	1.2	1.3	1.1	1.0	1.1	1.4	1.4	1.5	1.3	1.1	1.3
124 Rock Creek #2	1.8	1.8	1.8	1.9	1.9	1.9	0.6	0.4	1.6	1.9	1.9	1.9	1.9	1.6	1.6
125 Rocky Brook	0	0	0	0	0.2	0.6	0.6	0.4	0.5	0.5	0.5	0.2	0.1	0	0.3
126 Russel D. Smith	4	4	2.6	1.4	0	0	0	0	0.2	2.4	2.4	3.8	4.2	3.4	1.8
127 Sagebrush	0.4	0.4	0.3	0.3	0.3	0.1	0.1	0.1	0.3	0.3	0.3	0.3	0.4	0.4	0.3
128 Sahko	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5

Table A-24: Regional NUG Resources By Project And Project Type
PNW Loads and Resource Study
2015 - 2016 Operating Year
[76] 2011 White Book (Final)

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
129 Salem	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
130 Schaffner	0.4	0.4	0.3	0.2	0.3	0.1	0.1	0.2	0.3	0.3	0.3	0.3	0.4	0.4	0.3
131 Sheep Creek	0.4	0.4	0.3	0.3	0.4	0.5	0.5	0.5	0.9	1.6	1.6	0.8	1.5	1.1	0.7
132 Shingle Creek	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
133 Shoshone	0.3	0.3	0.3	0.3	0.3	0	0	0	0.1	0.2	0.2	0.4	0.2	0.3	0.2
134 Shoshone II	0.6	0.6	0.6	0	0	0	0	0	0	0.3	0.3	0.5	0.6	0.6	0.3
135 Snake River Pottery	0	0	0	0	0	0.1	0.1	0.1	0	0	0	0	0	0	0
136 Snedigar Ranch	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2
137 Solar Research	0.1	0.1	0.1	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0	0.1	0
138 South Dry Creek	0.5	0.5	0.5	0.5	0	0	0	0	0.5	0.5	0.5	0.6	0.5	0.5	0.3
139 Spokane Upriver	3.4	3.4	3.4	4.7	6.7	13	14	13	14	13	13	11	12	8.4	9.7
140 Stauffer Dry Creek	0.9	0.9	1	0.8	0.4	0	0.3	0.3	0.4	0.4	0.4	0.9	2.7	2.1	0.8
141 Strawberry Creek	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
142 Summer Falls	79	79	48	22	0	0	0	0	4.8	50	50	71	81	87	37
143 Sunshine Power #2	0.1	0.1	0.1	0.1	0.1	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
144 TGS/Briggs	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.1	0.1	0.2	0.2	0.1	0.2
145 Thomas Burnside	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
146 Thompson Mill (Boston Power)	0	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0	0
147 Tiber Dam Liberty Montana	7	7	5.4	2.5	0.9	0	0	0	0.1	2.6	2.6	6	6.7	7.4	3.2
148 Tieton (Yakima)	7.8	7.8	7.8	7.8	0	0	0	0	0	0	7.8	7.8	7.8	7.8	4.2
149 Trout Co.	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
150 Tunnel #1	4.3	4.3	2.6	0.5	0	0	0	0	2.4	5.1	5.1	5.8	5.8	5.9	2.7
151 Twin Falls	5	5	0	1.2	9.6	7.9	7.4	4.8	7.8	15	15	13	24	19	9.6
152 Walla Walla	1.5	1.5	1.4	1.3	1.2	1.3	1.2	1.5	1.8	1.8	1.8	1.5	1.5	1.8	1.5
153 Water Street / Santiam	0	0	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1
154 Weeks Falls	0.8	0.8	0	0.2	1.7	1.8	1.2	0.6	1.2	2.6	2.6	2.4	4.4	3.5	1.7
155 White Water Ranch	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
156 Wilson Lake Hydro	7.1	7.1	5.3	2.0	0.2	0	0	0	0	2.3	2.3	6.1	6.8	7.6	3.1
157 Wisconsin Creek	0	0	0.1	0.1	0	0.1	0.1	0.1	0.1	0.1	0.1	0	0	0	0.1
158 Woods Creek	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
159 Total NUG: Hydro	324	323	244	165	125	117	106	112	145	273	282	408	444	424	241
-NUG: Small Thermal & Misc.-															
160 Covanta Marion Solid Waste	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7
161 Methane Energy Agricultural D. (Booley)	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
162 Montana One (Colstrip Energy Limited)	6.6	10	11	8.8	13	13	12	11	10	10	13	11	9.3	11	
163 Pocatello Waste	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
164 Spokane MSW	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
165 Treasure Valley	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
166 West Boise Waste	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
167 Total NUG: Small Thermal & Misc.	33	33	37	38	35	39	40	39	37	37	37	40	38	36	37
-NUG: Co-Generation-															
168 Billings Generation	8.6	8.8	15	16	18	19	19	20	18	17	17	20	17	8.8	16
169 Biomass One	15	15	14	15	14	15	15	14	15	14	14	15	14	15	15
170 Boise Cascade Medford	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
171 Champion	3.3	3.3	3.3	3.3	3.3	3.3	1	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.1
172 Cogen Co	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
173 DR Johnson - Co-Gen II	6.0	6.0	5.8	6.0	5.8	6.0	6.0	5.6	6.0	7.2	0	6.0	5.8	6.0	5.7
174 Everett Cogen Project (Kimberly Clark)	38	38	38	36	36	34	31	34	19	36	36	38	33	38	34
175 Evergreen Biopower Cogen (Fres)	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
176 Glenns Ferry Cogen Facility (Magic West)	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
177 March Point #1	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76
178 March Point #2	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48
179 Potlatch Contract Renewal	43	43	53	52	51	50	50	44	46	46	46	46	49	38	47
180 Rough & Ready Lumber	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
181 Rupert Cogen Facility (Magic Valley)	7.5	8	9.4	9.4	8.6	8.2	9.1	9.1	7.7	7.7	7.5	8.0	8	8.4	
182 Simplot Pocatello	9.7	9.7	9.3	8.9	8.1	8.1	7.8	9.2	8.6	8.3	8.3	7.5	4.1	8.6	8.2
183 Stimson Lumber (formerly Haley West)	4.7	4.3	4.4	4.5	4.3	4.0	4.1	4.3	4.1	4.1	4.1	4.1	4.2	3.9	4.2
184 Tamarack	4.5	4.5	4.5	3.6	4.1	4	3.9	3.9	3.5	3.4	3.4	3.1	4.0	4.4	3.9
185 TASC0 Nampa ID	0.2	0.2	0.2	0.1	0	0	0	0	0	0	0	0	0.1	0.2	0.1
186 TASC0 Twin Falls ID	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
187 Vaagen Bros.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
188 Warm Springs	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2

**Table A-24: Regional NUG Resources By Project And Project Type
PNW Loads and Resource Study
2015 - 2016 Operating Year
[76] 2011 White Book (Final)**

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
189 West Point	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
190 Total NUG: Co-Generation	291	292	307	305	305	304	298	298	284	299	292	303	295	285	298
-NUG: Renewables-															
191 Ashland Solar Project	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
192 Bellevue Solar (Amity, OR)	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2
193 Bettencourt B6 anaerobic digester	0.5	1.0	1.0	1.0	1.0	1.2	1.3	1.2	0	0.2	0.2	0.2	0.2	0.4	0.7
194 Bettencourt Dairy (Cargill)	1.4	1.4	1.4	1.4	1.3	1.3	1.2	1.4	1.4	1.3	1.0	1.2	1.2	1.1	1.3
195 Big Sky Dairy	1	1	1.1	1.1	1.1	1.1	1	1.0	1.1	1.1	1.1	1.1	1.1	1	1.1
196 Chinook Wind	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
197 DeRuyter & Son's Dairy	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
198 Dry Creek Landfill (NUG Renewable)	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
199 Emmett Biomass Project	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
200 Farm Power Lynden	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
201 Farm Power Rexville	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
202 Finley Buttes BioEnergy	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
203 Fourmile Hill Geothermal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
204 Healow #2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
205 Hidden Hollow Landfill	2.2	2.2	2.3	2.4	2.6	2.5	2.2	2.4	2.3	2.5	2.5	2.2	2.3	2	2.3
206 Josef Staufer	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
207 Lewandowski Farms	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
208 Livingston	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
209 Pine Products Corp	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
210 Portland Waste Water	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
211 Puyallup Energy Recovery (PERC)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
212 Qualco Dairy Digester	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
213 Raft River Geothermal Phase 1	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
214 VanderHaak Dairy	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
215 White Bluffs Solar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
216 Wild Horse Solar	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
217 Windmill	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
218 Yamhill Solar (Amity, OR)	0.3	0.3	0.3	0.2	0.1	0.1	0.1	0.1	0.2	0.3	0.3	0.3	0.3	0.4	0.2
219 Total NUG: Renewables	26	27	27	27	27	27	27	27	26	26	26	26	26	26	26
-Total Non-Utility Generating Resources-															
220 Federal Entities	2.8	2.8	2.8	2.9	3	3.4	3.4	3.2	3.3	3.3	3.3	3	2.9	2.8	3.1
221 Public Entities	205	204	151	95	56	55	51	55	50	147	147	236	253	264	135
222 Investor-Owned Entities	449	451	443	419	424	419	406	408	430	476	469	519	529	487	451
223 Other Entities	18	18	18	18	9.7	9.7	9.7	9.7	9.7	9.7	18	18	18	18	14
224 Total Non-Utility Generation	675	675	615	535	492	487	470	476	493	636	637	776	803	771	603

**Table A-24: Regional NUG Resources By Project And Project Type
PNW Loads and Resource Study
2016 - 2017 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-NUG: Hydro-															
1 Albany	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
2 Barber Dam	2.4	2.4	1.9	0.8	0.3	1.0	2.2	2.6	3.3	3.2	3.2	3.1	3.2	3.3	2.3
3 Barney Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Beaverton	0	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0
5 Bell Mountain	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1
6 Big Sheep Creek	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
7 Bingham Engineering	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
8 Birch Creek (Clark County)	0	0	0.1	0.1	0.1	0.1	0	0	0	0	0	0	0	0	0
9 Birch Creek (Gooding County)	1.3	1.3	1.1	1.0	1.1	1.1	0.3	1.2	1.7	1.6	1.6	1.6	1.3	1.2	1.2
10 Black Canyon #3	0.1	0.1	0.1	0.1	0.1	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
11 Black Creek	3.1	3.1	2.8	1.9	2.8	2.8	3.4	3.4	3.1	3.7	3.4	3.1	3.1	2.8	3.0
12 Blind Canyon Hydro	0.7	0.7	1.1	0.9	0.2	0	0	0	0	0.6	0.6	1.6	1.0	0.7	0.6
13 Boulder Creek	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
14 Box Canyon	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4
15 Boyd James	0	0	0	0	0	0.4	0.3	0.6	0.7	0.8	0.8	0.5	0	0	0.3
16 Briggs Creek	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6
17 Broadwater Dam	1.1	1.1	1.6	1.9	2.1	1.6	1.6	1.7	1.8	2.8	2.7	3.2	2.7	2.0	2
18 Buffalo Hydro	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
19 Burr & Bouchard	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20 Bypass	8.3	8.3	6.5	2.8	1.0	0	0	0	0.1	2.9	2.9	7	8.2	8.7	3.8
21 Canyon Springs	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
22 Carlton	0	0	0	0	0	0	0.1	0.1	0.1	0.1	0.1	0	0	0	0
23 Cascade Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 CDM-Felt Hydroelectric Plant	2.9	2.9	3.1	2.8	2.9	2.4	1.8	2	2.7	2.7	2.7	4.4	5.8	4.1	3.1
25 Cedar Draw	0.3	0.3	0.9	0.9	0.9	1.2	1.2	1.3	0.4	0.4	0.4	0.4	0.3	0.3	0.7
26 Central OR Irrigation District (Siphon)	3.1	3.1	3.7	3.5	0	0.7	0	0.4	0.9	0.8	0.8	4.5	3.8	4.1	2.1
27 Clear Springs Trout	0.4	0.4	0.4	0.5	0.6	0.6	0.4	0.5	0.4	0.3	0.3	0.4	0.4	0.4	0.4
28 Cornelius	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29 Cowiche	0.8	0.8	0.8	0.8	0	0	0	0	0	0	0.8	0.8	0.8	0.8	0.4
30 Crystal Springs	1.3	1.3	1.6	1.5	1.6	0.5	0.5	0.6	0.8	0.9	0.9	0.8	1.4	1.3	1.1
31 Curry Cattle Co.	0.2	0.2	0.2	0.1	0.1	0	0	0	0.1	0.1	0.1	0.2	0.2	0.2	0.1
32 Curtiss Livestock	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33 D. Wiggins	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34 Dairy Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
35 Deep Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36 Derr Creek	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.2	0.2	0.1
37 Dietrich Drop	4.7	4.7	3.6	3.1	1.4	0	0	0	0	3.1	3.1	4.7	4.7	4.5	2.5
38 Don Steffen	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39 Donald Jenni	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
40 Dworshak/Clearwater Small Hydro Power	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
41 Eagle Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42 Elk Creek	1.2	1.2	0	0	0	0.1	0.1	0.1	1	1	1	1	1.2	1.2	0.6
43 Eltopia Br Canal 4.6	1.8	1.8	1.2	0.6	0	0	0	0	0	1.4	1.4	2	2	2.2	0.9
44 Estacada	0.1	0.1	0.1	0.1	0.1	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
45 Fall Creek (OR) (Frontier Technologies)	0	0	0	0	1.9	3.1	0.9	2.7	2.7	4.4	4.4	4.1	3.8	0	1.9
46 Falls Creek (WA)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47 Falls River	6.5	6.5	6.3	5.7	5.6	5.0	4.2	3.8	3.8	6.2	6.2	7.9	8.5	7.1	5.9
48 Farmers Irrig.	0.6	0.6	0.7	1.2	3.2	3.2	2.1	4.6	3.3	3.5	3.5	4.7	0.8	0.7	2.4
49 Faulkner Ranch	0.8	0.8	0.7	0.7	0.7	0.3	0.3	0.3	0.5	0.6	0.6	0.5	0.8	0.8	0.6
50 Fisheries Development Co	0.2	0.2	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.3
51 Galesville Dam	0.6	0.6	0.4	0.2	0.2	0.3	0	0.2	0.3	0.4	0.4	0.3	0.4	0.5	0.3
52 Geobon 2	1.0	1.0	0.3	0.3	0.3	0.2	0.2	0.3	0.6	0.6	0.6	0.6	1.0	1.0	0.5
53 Georgetown Power	0	0	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0	0.2
54 Hailey Cspp	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
55 Hazelton A	7	7	5.4	2.5	0.9	0	0	0	0.1	2.6	2.6	6	6.7	7.4	3.2
56 Hazelton B	6.6	6.6	5.2	2.4	0.7	0	0	0	0.1	2.2	2.2	5.6	6.4	7.0	3
57 Horseshoe Bend Hydro	8.8	8.8	7.5	3.9	2.8	3.5	3.9	4.6	5.9	8.8	8.8	9.9	9.8	9.2	6.6
58 Hutchinson Creek	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
59 Ingram Warm Springs	0.2	0.2	0.3	0.3	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.4
60 Jim Ford Creek	0	0	0	0	0.3	0.5	0.9	0.9	1.1	1.1	1.1	0.7	0.3	0.1	0.5
61 Jim Knight	0.4	0.4	0.3	0.2	0.3	0.1	0.1	0.1	0.2	0.3	0.3	0.2	0.4	0.4	0.2
62 John Day Creek	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
63 Joseph Hydro	1.5	1.5	0.9	0.4	0.1	0.1	0.1	0	0	0.1	0.1	0.2	1.2	2.7	0.6

Table A-24: Regional NUG Resources By Project And Project Type
PNW Loads and Resource Study
2016 - 2017 Operating Year
[76] 2011 White Book (Final)

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
64 Juniper Ridge Hydro	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
65 Kasel & Witherspoon	0.9	0.9	0.9	0.6	0.4	0.2	0.2	0.2	0.3	0.4	0.4	0.8	0.9	0.8	0.5
66 Kevin Duncan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
67 Koma Kulshan	4.6	4.6	4.3	6.4	8	6.1	3.9	3.8	4.4	6.9	6.9	9.4	10	8.2	6.4
68 Koyle	1.1	1.1	1.1	1.0	1	0.2	0.1	0.1	0.3	0.8	0.8	1.2	0.8	0.9	0.7
69 L. Fery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
70 Lacombe Irrig.	0	0	0	0	0.2	1.0	0.2	0.9	0.9	1	1	0.9	0.9	0.4	0.5
71 Lake Oswego	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
72 Lateral #10	1.2	1.2	1.3	1.6	1.7	1.2	1.2	1.3	1.4	1.5	1.5	1.4	1.3	1.2	1.4
73 Lee Tavenner	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
74 Lemoyne	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
75 Little Mac	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
76 Little Wood River Res.	1.9	1.9	0.2	0.2	0.2	0	0	0	1.6	1.7	1.7	1.6	2	1.9	1.0
77 Littlewood/Arkoosh	0.7	0.7	0.4	0.4	0.4	0.2	0.2	0.2	0.4	0.5	0.5	0.4	0.8	0.7	0.5
78 Low Line Canal Drop	7.8	7.8	7.5	7.3	7.5	0.6	0.6	0.7	5.3	5.5	5.5	5.3	8.1	7.8	5.3
79 Low Line Midway	2	2	0	0	0	0	0	0	0	0	0	0	2	2	0.5
80 Lower Low Line #2	2.7	2.7	2.5	1.8	1.4	0	0	0.7	1.9	2.5	2.5	2.7	2.7	2.7	1.8
81 Lucky Peak	29	27	20	4.5	0	0.7	0	1.5	1.6	11	11	68	75	73	24
82 Magic Reservoir	6.8	6.8	4.4	0.5	0.2	0.1	0.3	0.1	0.9	3.0	3.0	8.3	9.1	9.0	3.6
83 Main Canal Headworks	20	20	12	5.2	0	0	0	0	2.8	14	14	18	21	24	9.8
84 Malad River	0.5	0.5	0.6	0.5	0.5	0.1	0.1	0	0.2	0.4	0.4	0.6	0.4	0.5	0.4
85 Marco Ranches	1.1	1.1	1.2	1.1	1.2	0	0	0	1.1	1.2	1.2	1.1	1.2	1.1	0.9
86 Marsh Valley	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
87 Meyers Falls	1	1	0.9	0.6	0.9	0.9	0.6	0.8	1.1	1.1	1.1	1	1.2	1.1	0.9
88 Middle Fork Irrig.	1.8	1.8	0.8	1.2	1.3	1.7	2.7	3.1	3.1	2.9	2.9	2.8	2.4	2.0	2.2
89 Mile 28	1.3	1.3	1.2	0.7	0.2	0	0	0	0	0.6	0.6	1.2	1.3	1.4	0.7
90 Mill Creek (OR) - City of Cove	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
91 Minikahda	0	0	0	0	0	0.1	0.1	0.1	0	0.1	0.1	0.1	0	0	0
92 Mink Creek	1.2	1.2	0.8	0.6	0.6	0.5	0.4	0.4	0.3	0.4	0.4	1.6	2.7	1.6	0.9
93 Mitchell Butte	1	1	1.1	0.4	0	0	0	0	0.3	0.8	0.8	1.2	1.3	1.1	0.6
94 Mora Canal Drop	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
95 Mountain Energy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96 Mt. Tabor	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
97 Mud Creek/S&S	0.4	0.4	0.5	0.5	0.5	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.4	0.4
98 Mud Creek/White	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1
99 Nichols Gap	0	0	0	0	0.4	0.6	0.2	0.5	0.6	0.4	0.4	0	0	0	0.2
100 Nicholson Sunnybar	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
101 North Fork Sprague	0	0	0.1	0	0	0	0.1	0.3	0.2	0.3	0.3	0.9	0.4	0.1	0.2
102 O.J. Power	0	0	0.1	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
103 Odell Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
104 Opal Springs	2.6	2.6	3.0	3.6	3.2	2.9	2.9	3.5	2.6	2.7	2.7	4.5	1.6	2.2	2.9
105 Orchard Avenue	0.8	0.8	0.8	0.8	0	0	0	0	0	0	0.8	0.8	0.8	0.8	0.4
106 Owyhee Dam	2.8	2.8	2.0	0.6	0	0	0.2	0.6	1.8	3.3	3.3	3.9	3.3	3.2	1.8
107 PEC Headworks	4.5	4.5	3.1	2.2	0	0	0	0	0.4	5.1	5.1	6.5	6.2	5.8	2.8
108 Phillips Ranch	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
109 Phillipsburg	0	0	0	0	0	0.1	0.1	0.1	0	0	0	0	0	0	0
110 Pickering Micro Hydro	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111 Pigeon Cove	2.0	2.0	2.1	1.3	0.8	0.4	0.3	0.4	0.6	0.8	0.8	1.7	1.9	1.7	1.2
112 Pine Creek	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
113 Portland	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
114 Portland Hydro Project	2.3	2.3	2.9	6.7	16	20	18	17	16	17	17	15	8.4	3.2	12
115 Portneuf River	0.2	0.2	0.1	0	0.1	0.1	0	0	0	0	0	0.2	0.6	0.4	0.2
116 Potholes E Canal 66.0	1.8	1.8	1.8	1.6	0	0	0	0	0.6	1.8	1.8	1.8	1.8	1.8	1.1
117 Preston City	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4
118 Pristine Springs	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
119 Pristine Springs #3	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
120 Quincy Chute	7.7	7.7	4	2.3	0	0	0	0	0.8	5.5	5.5	7.1	8.4	8.5	3.7
121 Reynolds Irrigation	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2
122 Rim View	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
123 Rock Creek #1	1.1	1.1	1.6	1.7	1.2	1.3	1.1	1.0	1.1	1.4	1.4	1.5	1.3	1.1	1.3
124 Rock Creek #2	1.8	1.8	1.8	1.9	1.9	1.9	0.6	0.4	1.6	1.9	1.9	1.9	1.9	1.6	1.6
125 Rocky Brook	0	0	0	0	0.2	0.6	0.6	0.4	0.5	0.5	0.5	0.2	0.1	0	0.3
126 Russel D. Smith	4	4	2.6	1.4	0	0	0	0	0.2	2.4	2.4	3.8	4.2	3.4	1.8
127 Sagebrush	0.4	0.4	0.3	0.3	0.3	0.1	0.1	0.1	0.3	0.3	0.3	0.3	0.4	0.4	0.3
128 Sahko	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5

**Table A-24: Regional NUG Resources By Project And Project Type
PNW Loads and Resource Study
2016 - 2017 Operating Year
[76] 2011 White Book (Final)**

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
129 Salem	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
130 Schaffner	0.4	0.4	0.3	0.2	0.3	0.1	0.1	0.2	0.3	0.3	0.3	0.3	0.4	0.4	0.3
131 Sheep Creek	0.4	0.4	0.3	0.3	0.4	0.5	0.5	0.5	0.9	1.6	1.6	0.8	1.5	1.1	0.7
132 Shingle Creek	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
133 Shoshone	0.3	0.3	0.3	0.3	0.3	0	0	0	0.1	0.2	0.2	0.4	0.2	0.3	0.2
134 Shoshone II	0.6	0.6	0.6	0	0	0	0	0	0	0.3	0.3	0.5	0.6	0.6	0.3
135 Snake River Pottery	0	0	0	0	0	0.1	0.1	0.1	0	0	0	0	0	0	0
136 Snedigar Ranch	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2
137 Solar Research	0.1	0.1	0.1	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0	0.1	0
138 South Dry Creek	0.5	0.5	0.5	0.5	0	0	0	0	0.5	0.5	0.5	0.6	0.5	0.5	0.3
139 Spokane Upriver	3.4	3.4	3.4	4.7	6.7	13	14	13	14	13	13	11	12	8.4	9.7
140 Stauffer Dry Creek	0.9	0.9	1	0.8	0.4	0	0.3	0.3	0.4	0.4	0.4	0.9	2.7	2.1	0.9
141 Strawberry Creek	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
142 Summer Falls	79	79	48	22	0	0	0	0	4.8	50	50	71	81	87	37
143 Sunshine Power #2	0.1	0.1	0.1	0.1	0.1	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
144 TGS/Briggs	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.1	0.1	0.2	0.2	0.1	0.2
145 Thomas Burnside	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
146 Thompson Mill (Boston Power)	0	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0	0
147 Tiber Dam Liberty Montana	7	7	5.4	2.5	0.9	0	0	0	0.1	2.6	2.6	6	6.7	7.4	3.2
148 Tieton (Yakima)	7.8	7.8	7.8	7.8	0	0	0	0	0	0	7.8	7.8	7.8	7.8	4.3
149 Trout Co.	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
150 Tunnel #1	4.3	4.3	2.6	0.5	0	0	0	0	2.4	5.1	5.1	5.8	5.8	5.9	2.7
151 Twin Falls	5	5	0	1.2	9.6	7.9	7.4	4.8	7.8	15	15	13	24	19	9.6
152 Walla Walla	1.5	1.5	1.4	1.3	1.2	1.3	1.2	1.5	1.8	1.8	1.8	1.5	1.5	1.8	1.5
153 Water Street / Santiam	0	0	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1
154 Weeks Falls	0.8	0.8	0	0.2	1.7	1.8	1.2	0.6	1.2	2.6	2.6	2.4	4.4	3.5	1.7
155 White Water Ranch	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
156 Wilson Lake Hydro	7.1	7.1	5.3	2.0	0.2	0	0	0	0	2.3	2.3	6.1	6.8	7.6	3.1
157 Wisconsin Creek	0	0	0.1	0.1	0	0.1	0.1	0.1	0.1	0.1	0.1	0	0	0	0.1
158 Woods Creek	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
159 Total NUG: Hydro	325	323	244	165	125	116	106	112	145	273	282	408	444	424	242
-NUG: Small Thermal & Misc.-															
160 Covanta Marion Solid Waste	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7
161 Methane Energy Agricultural D. (Booley)	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
162 Montana One (Colstrip Energy Limited)	6.6	10	11	8.8	13	13	12	11	10	10	13	11	9.3	11	
163 Pocatello Waste	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
164 Spokane MSW	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
165 Treasure Valley	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
166 West Boise Waste	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
167 Total NUG: Small Thermal & Misc.	36	33	37	38	35	39	40	39	37	37	37	40	38	36	37
-NUG: Co-Generation-															
168 Billings Generation	8.6	8.8	15	16	18	19	19	20	18	17	17	20	17	8.8	16
169 Biomass One	15	15	14	15	14	15	15	13	15	14	14	15	14	15	15
170 Boise Cascade Medford	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
171 Champion	3.3	3.3	3.3	3.3	3.3	3.3	1	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.1
172 Cogen Co	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
173 DR Johnson - Co-Gen II	6.0	6.0	5.8	6.0	5.8	6.0	6.0	5.4	6.0	7.2	0	6.0	5.8	6.0	5.7
174 Everett Cogen Project (Kimberly Clark)	38	38	38	36	36	34	31	34	19	36	36	38	33	38	34
175 Evergreen Biopower Cogen (Fres)	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
176 Glenns Ferry Cogen Facility (Magic West)	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
177 March Point #1	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76
178 March Point #2	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48
179 Potlatch Contract Renewal	43	43	53	52	51	50	50	44	46	46	46	46	49	38	47
180 Rough & Ready Lumber	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
181 Rupert Cogen Facility (Magic Valley)	7.5	8	9.4	9.4	8.6	8.2	9.1	9.1	7.7	7.7	7.5	8.0	8	8.4	
182 Simplot Pocatello	9.7	9.7	9.3	8.9	8.1	8.1	7.8	9.2	8.6	8.3	8.3	7.5	4.1	8.6	8.2
183 Stimson Lumber (formerly Haley West)	4.7	4.3	4.4	4.5	4.3	4.0	4.1	4.3	4.1	4.1	4.1	4.1	4.2	3.9	4.2
184 Tamarack	4.5	4.5	4.5	3.6	4.1	4	3.9	3.9	3.5	3.4	3.4	3.1	4.0	4.4	3.9
185 TASC0 Nampa ID	0.2	0.2	0.2	0.1	0	0	0	0	0	0	0	0	0.1	0.2	0.1
186 TASC0 Twin Falls ID	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
187 Vaagen Bros.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
188 Warm Springs	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2

**Table A-24: Regional NUG Resources By Project And Project Type
PNW Loads and Resource Study
2016 - 2017 Operating Year
[76] 2011 White Book (Final)**

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
189 West Point	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
190 Total NUG: Co-Generation	291	292	307	305	305	304	298	298	284	299	292	303	295	285	297
-NUG: Renewables-															
191 Ashland Solar Project	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
192 Bellevue Solar (Amity, OR)	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2
193 Bettencourt B6 anaerobic digester	0.5	1.0	1.0	1.0	1.0	1.2	1.3	1.2	0	0.2	0.2	0.2	0.2	0.4	0.7
194 Bettencourt Dairy (Cargill)	1.4	1.4	1.4	1.4	1.3	1.3	1.2	1.4	1.4	1.3	1.0	1.2	1.2	1.1	1.3
195 Big Sky Dairy	1	1	1.1	1.1	1.1	1.1	1	1.0	1.1	1.1	1.1	1.1	1.1	1	1.1
196 Chinook Wind	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
197 DeRuyter & Son's Dairy	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
198 Dry Creek Landfill (NUG Renewable)	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
199 Emmett Biomass Project	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
200 Farm Power Lynden	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
201 Farm Power Rexville	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
202 Finley Buttes BioEnergy	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
203 Fourmile Hill Geothermal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
204 Healow #2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
205 Hidden Hollow Landfill	2.2	2.2	2.3	2.4	2.6	2.5	2.2	2.4	2.3	2.5	2.5	2.2	2.3	2	2.3
206 Josef Staufer	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
207 Lewandowski Farms	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
208 Livingston	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
209 Pine Products Corp	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
210 Portland Waste Water	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
211 Puyallup Energy Recovery (PERC)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
212 Qualco Dairy Digester	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
213 Raft River Geothermal Phase 1	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
214 VanderHaak Dairy	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
215 White Bluffs Solar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
216 Wild Horse Solar	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
217 Windmill	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
218 Yamhill Solar (Amity, OR)	0.3	0.3	0.3	0.2	0.1	0.1	0.1	0.1	0.2	0.3	0.3	0.3	0.3	0.4	0.2
219 Total NUG: Renewables	26	27	27	27	27	27	27	27	26	26	26	26	26	26	26
-Total Non-Utility Generating Resources-															
220 Federal Entities	2.8	2.8	2.8	2.9	3	3.4	3.4	3.3	3.3	3.3	3.3	3	2.9	2.8	3.1
221 Public Entities	205	204	151	95	56	55	51	55	50	147	147	236	253	264	135
222 Investor-Owned Entities	450	451	443	419	424	418	406	407	430	476	469	519	529	487	451
223 Other Entities	18	18	18	18	9.7	9.7	9.7	9.7	9.7	9.7	18	18	18	18	14
224 Total Non-Utility Generation	676	675	615	535	492	486	470	475	493	636	637	776	803	771	603

**Table A-24: Regional NUG Resources By Project And Project Type
PNW Loads and Resource Study
2017 - 2018 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-NUG: Hydro-															
1 Albany	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
2 Barber Dam	2.4	2.4	1.9	0.8	0.3	1.0	2.2	2.6	3.3	3.2	3.2	3.1	3.2	3.3	2.3
3 Barney Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Beaverton	0	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0
5 Bell Mountain	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1
6 Big Sheep Creek	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
7 Bingham Engineering	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
8 Birch Creek (Clark County)	0	0	0.1	0.1	0.1	0.1	0	0	0	0	0	0	0	0	0
9 Birch Creek (Gooding County)	1.3	1.3	1.1	1.0	1.1	1.1	0.3	1.2	1.7	1.6	1.6	1.6	1.3	1.2	1.2
10 Black Canyon #3	0.1	0.1	0.1	0.1	0.1	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
11 Black Creek	3.1	3.1	2.8	1.9	2.8	2.8	3.4	3.4	3.1	3.7	3.4	3.1	3.1	2.8	3.0
12 Blind Canyon Hydro	0.7	0.7	1.1	0.9	0.2	0	0	0	0	0.6	0.6	1.6	1.0	0.7	0.6
13 Boulder Creek	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
14 Box Canyon	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4
15 Boyd James	0	0	0	0	0	0.4	0.3	0.6	0.7	0.8	0.8	0.5	0	0	0.3
16 Briggs Creek	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6
17 Broadwater Dam	1.1	1.1	1.6	1.9	2.1	1.6	1.6	1.7	1.8	2.8	2.7	3.2	2.7	2.0	2
18 Buffalo Hydro	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
19 Burr & Bouchard	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20 Bypass	8.3	8.3	6.5	2.8	1.0	0	0	0	0.1	2.9	2.9	7	8.2	8.7	3.8
21 Canyon Springs	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
22 Carlton	0	0	0	0	0	0	0.1	0.1	0.1	0.1	0.1	0	0	0	0
23 Cascade Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 CDM-Felt Hydroelectric Plant	2.9	2.9	3.1	2.8	2.9	2.4	1.8	2	2.7	2.7	2.7	4.4	5.8	4.1	3.1
25 Cedar Draw	0.3	0.3	0.9	0.9	0.9	1.2	1.2	1.3	0.4	0.4	0.4	0.4	0.3	0.3	0.7
26 Central OR Irrigation District (Siphon)	3.1	3.1	3.7	3.5	0	0.7	0	0.4	0.9	0.8	0.8	4.5	3.8	4.1	2.1
27 Clear Springs Trout	0.4	0.4	0.4	0.5	0.6	0.6	0.4	0.5	0.4	0.3	0.3	0.4	0.4	0.4	0.4
28 Cornelius	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29 Cowiche	0.8	0.8	0.8	0.8	0	0	0	0	0	0	0.8	0.8	0.8	0.8	0.4
30 Crystal Springs	1.3	1.3	1.6	1.5	1.6	0.5	0.5	0.6	0.8	0.9	0.9	0.8	1.4	1.3	1.1
31 Curry Cattle Co.	0.2	0.2	0.2	0.1	0.1	0	0	0	0.1	0.1	0.1	0.2	0.2	0.2	0.1
32 Curtiss Livestock	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33 D. Wiggins	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34 Dairy Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
35 Deep Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36 Derr Creek	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.2	0.2	0.1
37 Dietrich Drop	4.7	4.7	3.6	3.1	1.4	0	0	0	0	3.1	3.1	4.7	4.7	4.5	2.5
38 Don Steffen	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39 Donald Jenni	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
40 Dworshak/Clearwater Small Hydro Power	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
41 Eagle Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42 Elk Creek	1.2	1.2	0	0	0	0.1	0.1	0.1	1	1	1	1	1.2	1.2	0.6
43 Eltopia Br Canal 4.6	1.8	1.8	1.2	0.6	0	0	0	0	0	1.4	1.4	2	2	2.2	0.9
44 Estacada	0.1	0.1	0.1	0.1	0.1	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
45 Fall Creek (OR) (Frontier Technologies)	0	0	0	0	1.9	3.1	0.9	2.7	2.7	4.4	4.4	4.1	3.8	0	1.9
46 Falls Creek (WA)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47 Falls River	6.5	6.5	6.3	5.7	5.6	5.0	4.2	3.8	3.8	6.2	6.2	7.9	8.5	7.1	5.9
48 Farmers Irrig.	0.6	0.6	0.7	1.2	3.2	3.2	2.1	4.6	3.3	3.5	3.5	4.7	0.8	0.7	2.4
49 Faulkner Ranch	0.8	0.8	0.7	0.7	0.7	0.3	0.3	0.3	0.5	0.6	0.6	0.5	0.8	0.8	0.6
50 Fisheries Development Co	0.2	0.2	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.3
51 Galesville Dam	0.6	0.6	0.4	0.2	0.2	0.3	0	0.2	0.3	0.4	0.4	0.3	0.4	0.5	0.3
52 Geobon 2	1.0	1.0	0.3	0.3	0.3	0.2	0.2	0.3	0.6	0.6	0.6	0.6	1.0	1.0	0.5
53 Georgetown Power	0	0	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0	0.2
54 Hailey Cspp	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
55 Hazelton A	7	7	5.4	2.5	0.9	0	0	0	0.1	2.6	2.6	6	6.7	7.4	3.2
56 Hazelton B	6.6	6.6	5.2	2.4	0.7	0	0	0	0.1	2.2	2.2	5.6	6.4	7.0	3
57 Horseshoe Bend Hydro	8.8	8.8	7.5	3.9	2.8	3.5	3.9	4.6	5.9	8.8	8.8	9.9	9.8	9.2	6.6
58 Hutchinson Creek	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
59 Ingram Warm Springs	0.2	0.2	0.3	0.3	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.4
60 Jim Ford Creek	0	0	0	0	0.3	0.5	0.9	0.9	1.1	1.1	1.1	0.7	0.3	0.1	0.5
61 Jim Knight	0.4	0.4	0.3	0.2	0.3	0.1	0.1	0.1	0.2	0.3	0.3	0.2	0.4	0.4	0.2
62 John Day Creek	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
63 Joseph Hydro	1.5	1.5	0.9	0.4	0.1	0.1	0.1	0	0	0.1	0.1	0.2	1.2	2.7	0.6

Table A-24: Regional NUG Resources By Project And Project Type
PNW Loads and Resource Study
2017 - 2018 Operating Year
[76] 2011 White Book (Final)

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
64 Juniper Ridge Hydro	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
65 Kasel & Witherspoon	0.9	0.9	0.9	0.6	0.4	0.2	0.2	0.2	0.3	0.4	0.4	0.8	0.9	0.8	0.5
66 Kevin Duncan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
67 Koma Kulshan	4.6	4.6	4.3	6.4	8	6.1	3.9	3.8	4.4	6.9	6.9	9.4	10	8.2	6.4
68 Koyle	1.1	1.1	1.1	1.0	1	0.2	0.1	0.1	0.3	0.8	0.8	1.2	0.8	0.9	0.7
69 L. Fery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
70 Lacombe Irrig.	0	0	0	0	0.2	1.0	0.2	0.9	0.9	1	1	0.9	0.9	0.4	0.5
71 Lake Oswego	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
72 Lateral #10	1.2	1.2	1.3	1.6	1.7	1.2	1.2	1.3	1.4	1.5	1.5	1.4	1.3	1.2	1.4
73 Lee Tavenner	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
74 Lemoyne	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
75 Little Mac	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
76 Little Wood River Res.	1.9	1.9	0.2	0.2	0.2	0	0	0	1.6	1.7	1.7	1.6	2	1.9	1.0
77 Littlewood/Arkoosh	0.7	0.7	0.4	0.4	0.4	0.2	0.2	0.2	0.4	0.5	0.5	0.4	0.8	0.7	0.5
78 Low Line Canal Drop	7.8	7.8	7.5	7.3	7.5	0.6	0.6	0.7	5.3	5.5	5.5	5.3	8.1	7.8	5.3
79 Low Line Midway	2	2	0	0	0	0	0	0	0	0	0	0	2	2	0.5
80 Lower Low Line #2	2.7	2.7	2.5	1.8	1.4	0	0	0.7	1.9	2.5	2.5	2.7	2.7	2.7	1.8
81 Lucky Peak	29	27	20	4.5	0	0.7	0	1.5	1.6	11	11	68	75	73	24
82 Magic Reservoir	6.8	6.8	4.4	0.5	0.2	0.1	0.3	0.1	0.9	3.0	3.0	8.3	9.1	9.0	3.6
83 Main Canal Headworks	20	20	12	5.2	0	0	0	0	2.8	14	14	18	21	24	9.8
84 Malad River	0.5	0.5	0.6	0.5	0.5	0.1	0.1	0	0.2	0.4	0.4	0.6	0.4	0.5	0.4
85 Marco Ranches	1.1	1.1	1.2	1.1	1.2	0	0	0	1.1	1.2	1.2	1.1	1.2	1.1	0.9
86 Marsh Valley	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
87 Meyers Falls	1	1	0.9	0.6	0.9	0.9	0.6	0.8	1.1	1.1	1.1	1	1.2	1.1	0.9
88 Middle Fork Irrig.	1.8	1.8	0.8	1.2	1.3	1.7	2.7	3.1	3.1	2.9	2.9	2.8	2.4	2.0	2.2
89 Mile 28	1.3	1.3	1.2	0.7	0.2	0	0	0	0	0.6	0.6	1.2	1.3	1.4	0.7
90 Mill Creek (OR) - City of Cove	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
91 Minikahda	0	0	0	0	0	0.1	0.1	0.1	0	0.1	0.1	0.1	0	0	0
92 Mink Creek	1.2	1.2	0.8	0.6	0.6	0.5	0.4	0.4	0.3	0.4	0.4	1.6	2.7	1.6	0.9
93 Mitchell Butte	1	1	1.1	0.4	0	0	0	0	0.3	0.8	0.8	1.2	1.3	1.1	0.6
94 Mora Canal Drop	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
95 Mountain Energy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96 Mt. Tabor	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
97 Mud Creek/S&S	0.4	0.4	0.5	0.5	0.5	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.4	0.4
98 Mud Creek/White	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1
99 Nichols Gap	0	0	0	0	0.4	0.6	0.2	0.5	0.6	0.4	0.4	0	0	0	0.2
100 Nicholson Sunnybar	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
101 North Fork Sprague	0	0	0.1	0	0	0	0.1	0.3	0.2	0.3	0.3	0.9	0.4	0.1	0.2
102 O.J. Power	0	0	0.1	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
103 Odell Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
104 Opal Springs	2.6	2.6	3.0	3.6	3.2	2.9	2.9	3.5	2.6	2.7	2.7	4.5	1.6	2.2	2.9
105 Orchard Avenue	0.8	0.8	0.8	0.8	0	0	0	0	0	0	0.8	0.8	0.8	0.8	0.4
106 Owyhee Dam	2.8	2.8	2.0	0.6	0	0	0.2	0.6	1.8	3.3	3.3	3.9	3.3	3.2	1.8
107 PEC Headworks	4.5	4.5	3.1	2.2	0	0	0	0	0.4	5.1	5.1	6.5	6.2	5.8	2.8
108 Phillips Ranch	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
109 Phillipsburg	0	0	0	0	0	0.1	0.1	0.1	0	0	0	0	0	0	0
110 Pickering Micro Hydro	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111 Pigeon Cove	2.0	2.0	2.1	1.3	0.8	0.4	0.3	0.4	0.6	0.8	0.8	1.7	1.9	1.7	1.2
112 Pine Creek	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
113 Portland	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
114 Portland Hydro Project	2.3	2.3	2.9	6.7	16	20	18	17	16	17	17	15	8.4	3.2	12
115 Portneuf River	0.2	0.2	0.1	0	0.1	0.1	0	0	0	0	0	0.2	0.6	0.4	0.2
116 Potholes E Canal 66.0	1.8	1.8	1.8	1.6	0	0	0	0	0.6	1.8	1.8	1.8	1.8	1.8	1.1
117 Preston City	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4
118 Pristine Springs	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
119 Pristine Springs #3	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
120 Quincy Chute	7.7	7.7	4	2.3	0	0	0	0	0.8	5.5	5.5	7.1	8.4	8.5	3.7
121 Reynolds Irrigation	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2
122 Rim View	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
123 Rock Creek #1	1.1	1.1	1.6	1.7	1.2	1.3	1.1	1.0	1.1	1.4	1.4	1.5	1.3	1.1	1.3
124 Rock Creek #2	1.8	1.8	1.8	1.9	1.9	1.9	0.6	0.4	1.6	1.9	1.9	1.9	1.9	1.6	1.6
125 Rocky Brook	0	0	0	0	0.2	0.6	0.6	0.4	0.5	0.5	0.5	0.2	0.1	0	0.3
126 Russel D. Smith	4	4	2.6	1.4	0	0	0	0	0.2	2.4	2.4	3.8	4.2	3.4	1.8
127 Sagebrush	0.4	0.4	0.3	0.3	0.3	0.1	0.1	0.1	0.3	0.3	0.3	0.3	0.4	0.4	0.3
128 Sahko	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5

**Table A-24: Regional NUG Resources By Project And Project Type
PNW Loads and Resource Study
2017 - 2018 Operating Year
[76] 2011 White Book (Final)**

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
129 Salem	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
130 Schaffner	0.4	0.4	0.3	0.2	0.3	0.1	0.1	0.2	0.3	0.3	0.3	0.3	0.4	0.4	0.3
131 Sheep Creek	0.4	0.4	0.3	0.3	0.4	0.5	0.5	0.5	0.9	1.6	1.6	0.8	1.5	1.1	0.7
132 Shingle Creek	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
133 Shoshone	0.3	0.3	0.3	0.3	0.3	0	0	0	0.1	0.2	0.2	0.4	0.2	0.3	0.2
134 Shoshone II	0.6	0.6	0.6	0	0	0	0	0	0	0.3	0.3	0.5	0.6	0.6	0.3
135 Snake River Pottery	0	0	0	0	0	0.1	0.1	0.1	0	0	0	0	0	0	0
136 Snedigar Ranch	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2
137 Solar Research	0.1	0.1	0.1	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0	0.1	0
138 South Dry Creek	0.5	0.5	0.5	0.5	0	0	0	0	0.5	0.5	0.5	0.6	0.5	0.5	0.3
139 Spokane Upriver	3.4	3.4	3.4	4.7	6.7	13	14	13	14	13	13	11	12	8.4	9.7
140 Stauffer Dry Creek	0.9	0.9	1	0.8	0.4	0	0.3	0.3	0.4	0.4	0.4	0.9	2.7	2.1	0.9
141 Strawberry Creek	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
142 Summer Falls	79	79	48	22	0	0	0	0	4.8	50	50	71	81	87	37
143 Sunshine Power #2	0.1	0.1	0.1	0.1	0.1	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
144 TGS/Briggs	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.1	0.1	0.2	0.2	0.1	0.2
145 Thomas Burnside	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
146 Thompson Mill (Boston Power)	0	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0	0
147 Tiber Dam Liberty Montana	7	7	5.4	2.5	0.9	0	0	0	0.1	2.6	2.6	6	6.7	7.4	3.2
148 Tieton (Yakima)	7.8	7.8	7.8	7.8	0	0	0	0	0	0	7.8	7.8	7.8	7.8	4.3
149 Trout Co.	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
150 Tunnel #1	4.3	4.3	2.6	0.5	0	0	0	0	2.4	5.1	5.1	5.8	5.8	5.9	2.7
151 Twin Falls	5	5	0	1.2	9.6	7.9	7.4	4.8	7.8	15	15	13	24	19	9.6
152 Walla Walla	1.5	1.5	1.4	1.3	1.2	1.3	1.2	1.5	1.8	1.8	1.8	1.5	1.5	1.8	1.5
153 Water Street / Santiam	0	0	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1
154 Weeks Falls	0.8	0.8	0	0.2	1.7	1.8	1.2	0.6	1.2	2.6	2.6	2.4	4.4	3.5	1.7
155 White Water Ranch	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
156 Wilson Lake Hydro	7.1	7.1	5.3	2.0	0.2	0	0	0	0	2.3	2.3	6.1	6.8	7.6	3.1
157 Wisconsin Creek	0	0	0.1	0.1	0	0.1	0.1	0.1	0.1	0.1	0.1	0	0	0	0.1
158 Woods Creek	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
159 Total NUG: Hydro	325	323	244	165	125	116	106	112	145	273	282	408	444	424	242
-NUG: Small Thermal & Misc.-															
160 Covanta Marion Solid Waste	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7
161 Methane Energy Agricultural D. (Booley)	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
162 Montana One (Colstrip Energy Limited)	6.6	10	11	8.8	13	13	12	11	10	10	13	11	9.3	11	
163 Pocatello Waste	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
164 Spokane MSW	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
165 Treasure Valley	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
166 West Boise Waste	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
167 Total NUG: Small Thermal & Misc.	33	33	37	38	35	39	40	39	37	37	37	40	38	36	37
-NUG: Co-Generation-															
168 Billings Generation	8.6	8.8	15	16	18	19	19	20	18	17	17	20	17	8.8	16
169 Biomass One	15	15	14	15	14	15	15	13	15	14	14	15	14	15	15
170 Boise Cascade Medford	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
171 Champion	3.3	3.3	3.3	3.3	3.3	3.3	1	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.1
172 Cogen Co	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
173 DR Johnson - Co-Gen II	6.0	6.0	5.8	6.0	5.8	6.0	6.0	5.4	6.0	7.2	0	6.0	5.8	6.0	5.7
174 Everett Cogen Project (Kimberly Clark)	38	38	38	36	36	34	31	34	19	36	36	38	33	38	34
175 Evergreen Biopower Cogen (Fres)	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
176 Glenns Ferry Cogen Facility (Magic West)	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
177 March Point #1	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76
178 March Point #2	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48
179 Potlatch Contract Renewal	43	43	53	52	51	50	50	44	46	46	46	46	49	38	47
180 Rough & Ready Lumber	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
181 Rupert Cogen Facility (Magic Valley)	7.5	8	9.4	9.4	8.6	8.2	9.1	9.1	7.7	7.7	7.5	8.0	8	8.4	
182 Simplot Pocatello	9.7	9.7	9.3	8.9	8.1	8.1	7.8	9.2	8.6	8.3	8.3	7.5	4.1	8.6	8.2
183 Stimson Lumber (formerly Haley West)	4.7	4.3	4.4	4.5	4.3	4.0	4.1	4.3	4.1	4.1	4.1	4.1	4.2	3.9	4.2
184 Tamarack	4.5	4.5	4.5	3.6	4.1	4	3.9	3.9	3.5	3.4	3.4	3.1	4.0	4.4	3.9
185 TASC0 Nampa ID	0.2	0.2	0.2	0.1	0	0	0	0	0	0	0	0	0.1	0.2	0.1
186 TASC0 Twin Falls ID	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
187 Vaagen Bros.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
188 Warm Springs	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2

**Table A-24: Regional NUG Resources By Project And Project Type
PNW Loads and Resource Study
2017 - 2018 Operating Year
[76] 2011 White Book (Final)**

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
189 West Point	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
190 Total NUG: Co-Generation	291	292	307	305	305	304	298	298	284	299	292	303	295	285	297
-NUG: Renewables-															
191 Ashland Solar Project	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
192 Bellevue Solar (Amity, OR)	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2
193 Bettencourt B6 anaerobic digester	0.5	1.0	1.0	1.0	1.0	1.2	1.3	1.2	0	0.2	0.2	0.2	0.2	0.4	0.7
194 Bettencourt Dairy (Cargill)	1.4	1.4	1.4	1.4	1.3	1.3	1.2	1.4	1.4	1.3	1.0	1.2	1.2	1.1	1.3
195 Big Sky Dairy	1	1	1.1	1.1	1.1	1.1	1	1.0	1.1	1.1	1.1	1.1	1.1	1	1.1
196 Chinook Wind	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
197 DeRuyter & Son's Dairy	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
198 Dry Creek Landfill (NUG Renewable)	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
199 Emmett Biomass Project	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
200 Farm Power Lynden	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
201 Farm Power Rexville	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
202 Finley Buttes BioEnergy	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
203 Fourmile Hill Geothermal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
204 Healow #2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
205 Hidden Hollow Landfill	2.2	2.2	2.3	2.4	2.6	2.5	2.2	2.4	2.3	2.5	2.5	2.2	2.3	2	2.3
206 Josef Staufer	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
207 Lewandowski Farms	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
208 Livingston	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
209 Pine Products Corp	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
210 Portland Waste Water	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
211 Puyallup Energy Recovery (PERC)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
212 Qualco Dairy Digester	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
213 Raft River Geothermal Phase 1	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
214 VanderHaak Dairy	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
215 White Bluffs Solar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
216 Wild Horse Solar	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
217 Windmill	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
218 Yamhill Solar (Amity, OR)	0.3	0.3	0.3	0.2	0.1	0.1	0.1	0.1	0.2	0.3	0.3	0.3	0.3	0.4	0.2
219 Total NUG: Renewables	26	27	27	27	27	27	27	27	26	26	26	26	26	26	26
-Total Non-Utility Generating Resources-															
220 Federal Entities	2.8	2.8	2.8	2.9	3	3.4	3.4	3.3	3.3	3.3	3.3	3	2.9	2.8	3.1
221 Public Entities	205	204	151	95	56	55	51	55	50	147	147	236	253	264	135
222 Investor-Owned Entities	450	451	443	419	424	418	406	407	430	476	469	519	529	487	451
223 Other Entities	18	18	18	18	9.7	9.7	9.7	9.7	9.7	9.7	18	18	18	18	14
224 Total Non-Utility Generation	676	675	615	535	492	486	470	475	493	636	637	776	803	771	603

**Table A-24: Regional NUG Resources By Project And Project Type
PNW Loads and Resource Study
2018 - 2019 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-NUG: Hydro-															
1 Albany	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
2 Barber Dam	2.4	2.4	1.9	0.8	0.3	1.0	2.2	2.6	3.3	3.2	3.2	3.1	3.2	3.3	2.3
3 Barney Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Beaverton	0	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0
5 Bell Mountain	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1
6 Big Sheep Creek	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
7 Bingham Engineering	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
8 Birch Creek (Clark County)	0	0	0.1	0.1	0.1	0.1	0	0	0	0	0	0	0	0	0
9 Birch Creek (Gooding County)	1.3	1.3	1.1	1.0	1.1	1.1	0.3	1.2	1.7	1.6	1.6	1.6	1.3	1.2	1.2
10 Black Canyon #3	0.1	0.1	0.1	0.1	0.1	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
11 Black Creek	3.1	3.1	2.8	1.9	2.8	2.8	3.4	3.4	3.1	3.7	3.4	3.1	3.1	2.8	3.0
12 Blind Canyon Hydro	0.7	0.7	1.1	0.9	0.2	0	0	0	0	0.6	0.6	1.6	1.0	0.7	0.6
13 Boulder Creek	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
14 Box Canyon	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4
15 Boyd James	0	0	0	0	0	0.4	0.3	0.6	0.7	0.8	0.8	0.5	0	0	0.3
16 Briggs Creek	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6
17 Broadwater Dam	1.1	1.1	1.6	1.9	2.1	1.6	1.6	1.7	1.8	2.8	2.7	3.2	2.7	2.0	2
18 Buffalo Hydro	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
19 Burr & Bouchard	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20 Bypass	8.3	8.3	6.5	2.8	1.0	0	0	0.1	2.9	2.9	7	8.2	8.7	8.3	4.3
21 Canyon Springs	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
22 Carlton	0	0	0	0	0	0	0.1	0.1	0.1	0.1	0.1	0	0	0	0
23 Cascade Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 CDM-Felt Hydroelectric Plant	2.9	2.9	3.1	2.8	2.9	2.4	1.8	2	2.7	2.7	2.7	4.4	5.8	4.1	3.1
25 Cedar Draw	0.3	0.3	0.9	0.9	0.9	1.2	1.2	1.3	0.4	0.4	0.4	0.4	0.3	0.3	0.7
26 Central OR Irrigation District (Siphon)	3.1	3.1	3.7	3.5	0	0.7	0	0.4	0.9	0.8	0.8	4.5	3.8	4.1	2.1
27 Clear Springs Trout	0.4	0.4	0.4	0.5	0.6	0.6	0.4	0.5	0.4	0.3	0.3	0.4	0.4	0.4	0.4
28 Cornelius	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29 Cowiche	0.8	0.8	0.8	0.8	0	0	0	0	0	0	0.8	0.8	0.8	0.8	0.4
30 Crystal Springs	1.3	1.3	1.6	1.5	1.6	0.5	0.5	0.6	0.8	0.9	0.9	0.8	1.4	1.3	1.1
31 Curry Cattle Co.	0.2	0.2	0.2	0.1	0.1	0	0	0	0.1	0.1	0.1	0.2	0.2	0.2	0.1
32 Curtiss Livestock	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33 D. Wiggins	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34 Dairy Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
35 Deep Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36 Derr Creek	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.2	0.2	0.1
37 Dietrich Drop	4.7	4.7	3.6	3.1	1.4	0	0	0	0	3.1	3.1	4.7	4.7	4.5	2.5
38 Don Steffen	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39 Donald Jenni	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
40 Dworshak/Clearwater Small Hydro Power	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
41 Eagle Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42 Elk Creek	1.2	1.2	0	0	0	0.1	0.1	0.1	1	1	1	1	1.2	1.2	0.6
43 Eltopia Br Canal 4.6	1.8	1.8	1.2	0.6	0	0	0	0	0	1.4	1.4	2	2	2.2	0.9
44 Estacada	0.1	0.1	0.1	0.1	0.1	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
45 Fall Creek (OR) (Frontier Technologies)	0	0	0	0	1.9	3.1	0.9	2.7	2.7	4.4	4.4	4.1	3.8	0	1.9
46 Falls Creek (WA)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47 Falls River	6.5	6.5	6.3	5.7	5.6	5.0	4.2	3.8	3.8	6.2	6.2	7.9	8.5	7.1	5.9
48 Farmers Irrig.	0.6	0.6	0.7	1.2	3.2	3.2	2.1	4.6	3.3	3.5	3.5	4.7	0.8	0.7	2.4
49 Faulkner Ranch	0.8	0.8	0.7	0.7	0.7	0.3	0.3	0.3	0.5	0.6	0.6	0.5	0.8	0.8	0.6
50 Fisheries Development Co	0.2	0.2	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.3
51 Galesville Dam	0.6	0.6	0.4	0.2	0.2	0.3	0	0.2	0.3	0.4	0.4	0.3	0.4	0.5	0.3
52 Geobon 2	1.0	1.0	0.3	0.3	0.3	0.2	0.2	0.3	0.6	0.6	0.6	0.6	1.0	1.0	0.5
53 Georgetown Power	0	0	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0	0.2
54 Hailey Cspp	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
55 Hazelton A	7	7	5.4	2.5	0.9	0	0	0	0.1	2.6	2.6	6	6.7	7.4	3.2
56 Hazelton B	6.6	6.6	5.2	2.4	0.7	0	0	0	0.1	2.2	2.2	5.6	6.4	7.0	3
57 Horseshoe Bend Hydro	8.8	8.8	7.5	3.9	2.8	3.5	3.9	4.6	5.9	8.8	8.8	9.9	9.8	9.2	6.6
58 Hutchinson Creek	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
59 Ingram Warm Springs	0.2	0.2	0.3	0.3	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.4
60 Jim Ford Creek	0	0	0	0	0.3	0.5	0.9	0.9	1.1	1.1	1.1	0.7	0.3	0.1	0.5
61 Jim Knight	0.4	0.4	0.3	0.2	0.3	0.1	0.1	0.1	0.2	0.3	0.3	0.2	0.4	0.4	0.2
62 John Day Creek	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
63 Joseph Hydro	1.5	1.5	0.9	0.4	0.1	0.1	0.1	0	0	0.1	0.1	0.2	1.2	2.7	0.6

Table A-24: Regional NUG Resources By Project And Project Type
PNW Loads and Resource Study
2018 - 2019 Operating Year
[76] 2011 White Book (Final)

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
64 Juniper Ridge Hydro	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
65 Kasel & Witherspoon	0.9	0.9	0.9	0.6	0.4	0.2	0.2	0.2	0.3	0.4	0.4	0.8	0.9	0.8	0.5
66 Kevin Duncan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
67 Koma Kulshan	4.6	4.6	4.3	6.4	8	6.1	3.9	3.8	4.4	6.9	6.9	9.4	10	8.2	6.4
68 Koyle	1.1	1.1	1.1	1.0	1	0.2	0.1	0.1	0.3	0.8	0.8	1.2	0.8	0.9	0.7
69 L. Fery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
70 Lacombe Irrig.	0	0	0	0	0.2	1.0	0.2	0.9	0.9	1	1	0.9	0.9	0.4	0.5
71 Lake Oswego	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
72 Lateral #10	1.2	1.2	1.3	1.6	1.7	1.2	1.2	1.3	1.4	1.5	1.5	1.4	1.3	1.2	1.4
73 Lee Tavenner	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
74 Lemoyne	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
75 Little Mac	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
76 Little Wood River Res.	1.9	1.9	0.2	0.2	0.2	0	0	0	1.6	1.7	1.7	1.6	2	1.9	1.0
77 Littlewood/Arkoosh	0.7	0.7	0.4	0.4	0.4	0.2	0.2	0.2	0.4	0.5	0.5	0.4	0.8	0.7	0.5
78 Low Line Canal Drop	7.8	7.8	7.5	7.3	7.5	0.6	0.6	0.7	5.3	5.5	5.5	5.3	8.1	7.8	5.3
79 Low Line Midway	2	2	0	0	0	0	0	0	0	0	0	0	2	2	0.5
80 Lower Low Line #2	2.7	2.7	2.5	1.8	1.4	0	0	0.7	1.9	2.5	2.5	2.7	2.7	2.7	1.8
81 Lucky Peak	29	27	20	4.5	0	0.7	0	1.5	1.6	11	11	68	75	73	24
82 Magic Reservoir	6.8	6.8	4.4	0.5	0.2	0.1	0.3	0.1	0.9	3.0	3.0	8.3	9.1	9.0	3.6
83 Main Canal Headworks	20	20	12	5.2	0	0	0	0	2.8	14	14	18	21	24	9.8
84 Malad River	0.5	0.5	0.6	0.5	0.5	0.1	0.1	0	0.2	0.4	0.4	0.6	0.4	0.5	0.4
85 Marco Ranches	1.1	1.1	1.2	1.1	1.2	0	0	0	1.1	1.2	1.2	1.1	1.2	1.1	0.9
86 Marsh Valley	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
87 Meyers Falls	1	1	0.9	0.6	0.9	0.9	0.6	0.8	1.1	1.1	1.1	1	1.2	1.1	0.9
88 Middle Fork Irrig.	1.8	1.8	0.8	1.2	1.3	1.7	2.7	3.1	3.1	2.9	2.9	2.8	2.4	2.0	2.2
89 Mile 28	1.3	1.3	1.2	0.7	0.2	0	0	0	0	0.6	0.6	1.2	1.3	1.4	0.7
90 Mill Creek (OR) - City of Cove	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
91 Minikahda	0	0	0	0	0	0.1	0.1	0.1	0	0.1	0.1	0.1	0	0	0
92 Mink Creek	1.2	1.2	0.8	0.6	0.6	0.5	0.4	0.4	0.3	0.4	0.4	1.6	2.7	1.6	0.9
93 Mitchell Butte	1	1	1.1	0.4	0	0	0	0	0.3	0.8	0.8	1.2	1.3	1.1	0.6
94 Mora Canal Drop	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
95 Mountain Energy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96 Mt. Tabor	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
97 Mud Creek/S&S	0.4	0.4	0.5	0.5	0.5	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.4	0.4
98 Mud Creek/White	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1
99 Nichols Gap	0	0	0	0	0.4	0.6	0.2	0.5	0.6	0.4	0.4	0	0	0	0.2
100 Nicholson Sunnybar	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
101 North Fork Sprague	0	0	0.1	0	0	0	0.1	0.3	0.2	0.3	0.3	0.9	0.4	0.1	0.2
102 O.J. Power	0	0	0.1	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
103 Odell Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
104 Opal Springs	2.6	2.6	3.0	3.6	3.2	2.9	2.9	3.5	2.6	2.7	2.7	4.5	1.6	2.2	2.9
105 Orchard Avenue	0.8	0.8	0.8	0.8	0	0	0	0	0	0	0.8	0.8	0.8	0.8	0.4
106 Owyhee Dam	2.8	2.8	2.0	0.6	0	0	0.2	0.6	1.8	3.3	3.3	3.9	3.3	3.2	1.8
107 PEC Headworks	4.5	4.5	3.1	2.2	0	0	0	0	0.4	5.1	5.1	6.5	6.2	5.8	2.8
108 Phillips Ranch	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
109 Phillipsburg	0	0	0	0	0	0.1	0.1	0.1	0	0	0	0	0	0	0
110 Pickering Micro Hydro	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111 Pigeon Cove	2.0	2.0	2.1	1.3	0.8	0.4	0.3	0.4	0.6	0.8	0.8	1.7	1.9	1.7	1.2
112 Pine Creek	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
113 Portland	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
114 Portland Hydro Project	2.3	2.3	2.9	6.7	16	20	18	17	16	17	17	15	8.4	3.2	12
115 Portneuf River	0.2	0.2	0.1	0	0.1	0.1	0	0	0	0	0	0.2	0.6	0.4	0.2
116 Potholes E Canal 66.0	1.8	1.8	1.8	1.6	0	0	0	0	0.6	1.8	1.8	1.8	1.8	1.8	1.1
117 Preston City	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4
118 Pristine Springs	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
119 Pristine Springs #3	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
120 Quincy Chute	7.7	7.7	4	2.3	0	0	0	0	0.8	5.5	5.5	7.1	8.4	8.5	3.7
121 Reynolds Irrigation	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2
122 Rim View	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
123 Rock Creek #1	1.1	1.1	1.6	1.7	1.2	1.3	1.1	1.0	1.1	1.4	1.4	1.5	1.3	1.1	1.3
124 Rock Creek #2	1.8	1.8	1.8	1.9	1.9	1.9	0.6	0.4	1.6	1.9	1.9	1.9	1.9	1.6	1.6
125 Rocky Brook	0	0	0	0	0.2	0.6	0.6	0.4	0.5	0.5	0.5	0.2	0.1	0	0.3
126 Russel D. Smith	4	4	2.6	1.4	0	0	0	0	0.2	2.4	2.4	3.8	4.2	3.4	1.8
127 Sagebrush	0.4	0.4	0.3	0.3	0.3	0.1	0.1	0.1	0.3	0.3	0.3	0.3	0.4	0.4	0.3
128 Sahko	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5

**Table A-24: Regional NUG Resources By Project And Project Type
PNW Loads and Resource Study
2018 - 2019 Operating Year
[76] 2011 White Book (Final)**

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
129 Salem	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
130 Schaffner	0.4	0.4	0.3	0.2	0.3	0.1	0.1	0.2	0.3	0.3	0.3	0.3	0.4	0.4	0.3
131 Sheep Creek	0.4	0.4	0.3	0.3	0.4	0.5	0.5	0.5	0.9	1.6	1.6	0.8	1.5	1.1	0.7
132 Shingle Creek	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
133 Shoshone	0.3	0.3	0.3	0.3	0.3	0	0	0	0.1	0.2	0.2	0.4	0.2	0.3	0.2
134 Shoshone II	0.6	0.6	0.6	0	0	0	0	0	0	0.3	0.3	0.5	0.6	0.6	0.3
135 Snake River Pottery	0	0	0	0	0	0.1	0.1	0.1	0	0	0	0	0	0	0
136 Snedigar Ranch	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2
137 Solar Research	0.1	0.1	0.1	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0	0.1	0
138 South Dry Creek	0.5	0.5	0.5	0.5	0	0	0	0	0.5	0.5	0.5	0.6	0.5	0.5	0.3
139 Spokane Upriver	3.4	3.4	3.4	4.7	6.7	13	14	13	14	13	13	11	12	8.4	9.7
140 Stauffer Dry Creek	0.9	0.9	1	0.8	0.4	0.3	0.3	0.4	0.4	0.4	0.9	2.7	2.1	0.9	0.9
141 Strawberry Creek	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
142 Summer Falls	79	79	48	22	0	0	0	0	4.8	50	50	71	81	87	37
143 Sunshine Power #2	0.1	0.1	0.1	0.1	0.1	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
144 TGS/Briggs	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.1	0.1	0.2	0.2	0.1	0.2
145 Thomas Burnside	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
146 Thompson Mill (Boston Power)	0	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0	0
147 Tiber Dam Liberty Montana	7	7	5.4	2.5	0.9	0	0	0	0.1	2.6	2.6	6	6.7	7.4	3.2
148 Tieton (Yakima)	7.8	7.8	7.8	7.8	0	0	0	0	0	0	7.8	7.8	7.8	7.8	4.3
149 Trout Co.	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
150 Tunnel #1	4.3	4.3	2.6	0.5	0	0	0	0	2.4	5.1	5.1	5.8	5.8	5.9	2.7
151 Twin Falls	5	5	0	1.2	9.6	7.9	8.3	8.3	8.3	8.3	8.3	8.3	8.3	19	7.7
152 Walla Walla	1.5	1.5	1.4	1.3	1.2	1.3	1.2	1.5	1.8	1.8	1.8	1.5	1.5	1.8	1.5
153 Water Street / Santiam	0	0	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1
154 Weeks Falls	0.8	0.8	0	0.2	1.7	1.8	1.2	0.6	1.2	2.6	2.6	2.4	4.4	3.5	1.7
155 White Water Ranch	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
156 Wilson Lake Hydro	7.1	7.1	5.3	2.0	0.2	0	0	0	0	2.3	2.3	6.1	6.8	7.6	3.1
157 Wisconsin Creek	0	0	0.1	0.1	0	0.1	0.1	0.1	0.1	0.1	0.1	0	0	0	0.1
158 Woods Creek	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
159 Total NUG: Hydro	325	323	244	165	125	116	107	116	149	267	280	406	428	422	240
-NUG: Small Thermal & Misc.-															
160 Covanta Marion Solid Waste	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7
161 Methane Energy Agricultural D. (Booley)	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
162 Montana One (Colstrip Energy Limited)	6.6	10	11	8.8	13	13	12	11	10	10	13	11	9.3	11	
163 Pocatello Waste	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
164 Spokane MSW	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
165 Treasure Valley	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
166 West Boise Waste	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
167 Total NUG: Small Thermal & Misc.	36	33	37	38	35	39	40	39	37	37	37	40	38	36	37
-NUG: Co-Generation-															
168 Billings Generation	8.6	8.8	15	16	18	19	19	20	18	17	17	20	17	8.8	16
169 Biomass One	15	15	14	15	14	15	15	13	15	14	14	15	14	15	15
170 Boise Cascade Medford	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
171 Champion	3.3	3.3	3.3	3.3	3.3	3.3	3	3	3	3	3	3	3	3	3.1
172 Cogen Co	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
173 DR Johnson - Co-Gen II	6.0	6.0	5.8	6.0	5.8	6.0	6.0	5.4	6.0	7.2	0	6.0	5.8	6.0	5.7
174 Everett Cogen Project (Kimberly Clark)	38	38	38	36	36	34	31	34	19	36	36	38	33	38	34
175 Evergreen Biopower Cogen (Fores)	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
176 Glenns Ferry Cogen Facility (Magic West)	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
177 March Point #1	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76
178 March Point #2	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48
179 Potlatch Contract Renewal	43	43	53	52	51	50	50	44	46	46	46	46	49	38	47
180 Rough & Ready Lumber	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
181 Rupert Cogen Facility (Magic Valley)	7.5	8	9.4	9.4	8.6	8.2	9.1	9.1	7.7	7.7	7.5	8.0	8	8.4	
182 Simplot Pocatello	9.7	9.7	9.3	8.9	8.1	8.1	7.8	9.2	8.6	8.3	8.3	7.5	4.1	8.6	8.2
183 Stimson Lumber (formerly Haley West)	4.7	4.3	4.4	4.5	4.3	4.0	4.1	4.3	4.1	4.1	4.1	4.1	4.2	3.9	4.2
184 Tamarack	4.5	4.5	4.5	3.6	4.1	4	3.9	3.9	3.5	3.4	3.4	3.1	4.0	4.4	3.9
185 TASC0 Nampa ID	0.2	0.2	0.2	0.1	0	0	0	0	0	0	0	0	0.1	0.2	0.1
186 TASC0 Twin Falls ID	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
187 Vaagen Bros.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
188 Warm Springs	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2

**Table A-24: Regional NUG Resources By Project And Project Type
PNW Loads and Resource Study
2018 - 2019 Operating Year
[76] 2011 White Book (Final)**

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
189 West Point	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
190 Total NUG: Co-Generation	291	292	307	305	305	304	300	297	284	299	291	302	295	285	298
-NUG: Renewables-															
191 Ashland Solar Project	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
192 Bellevue Solar (Amity, OR)	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2
193 Bettencourt B6 anaerobic digester	0.5	1.0	1.0	1.0	1.0	1.2	1.3	1.2	0	0.2	0.2	0.2	0.2	0.4	0.7
194 Bettencourt Dairy (Cargill)	1.4	1.4	1.4	1.4	1.3	1.3	1.2	1.4	1.4	1.3	1.0	1.2	1.2	1.1	1.3
195 Big Sky Dairy	1	1	1.1	1.1	1.1	1.1	1	1.0	1.1	1.1	1.1	1.1	1.1	1	1.1
196 Chinook Wind	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
197 DeRuyter & Son's Dairy	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
198 Dry Creek Landfill (NUG Renewable)	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
199 Emmett Biomass Project	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
200 Farm Power Lynden	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
201 Farm Power Rexville	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
202 Finley Buttes BioEnergy	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
203 Fourmile Hill Geothermal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
204 Healow #2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
205 Hidden Hollow Landfill	2.2	2.2	2.3	2.4	2.6	2.5	2.2	2.4	2.3	2.5	2.5	2.2	2.3	2	2.3
206 Josef Staufer	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
207 Lewandowski Farms	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
208 Livingston	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
209 Pine Products Corp	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
210 Portland Waste Water	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
211 Puyallup Energy Recovery (PERC)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
212 Qualco Dairy Digester	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
213 Raft River Geothermal Phase 1	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
214 VanderHaak Dairy	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
215 White Bluffs Solar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
216 Wild Horse Solar	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
217 Windmill	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
218 Yamhill Solar (Amity, OR)	0.3	0.3	0.3	0.2	0.1	0.1	0.1	0.1	0.2	0.3	0.3	0.3	0.3	0.4	0.2
219 Total NUG: Renewables	26	27	27	27	27	27	27	27	26	26	26	26	26	26	26
-Total Non-Utility Generating Resources-															
220 Federal Entities	2.8	2.8	2.8	2.9	3	3.4	3.4	3.3	3.3	3.3	3.3	3	2.9	2.8	3.1
221 Public Entities	205	204	151	95	56	55	51	55	50	147	147	236	253	264	135
222 Investor-Owned Entities	450	451	443	419	424	419	409	411	433	469	467	517	513	485	449
223 Other Entities	18	18	18	18	9.7	9.7	9.7	9.7	9.7	9.7	18	18	18	18	14
224 Total Non-Utility Generation	676	675	615	535	492	486	473	479	496	629	634	774	786	769	602

**Table A-24: Regional NUG Resources By Project And Project Type
PNW Loads and Resource Study
2019 - 2020 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-NUG: Hydro-															
1 Albany	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
2 Barber Dam	2.4	2.4	1.9	0.8	0.3	1.0	2.2	2.6	3.3	3.2	3.2	3.1	3.2	3.3	2.3
3 Barney Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Beaverton	0	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0
5 Bell Mountain	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1
6 Big Sheep Creek	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
7 Bingham Engineering	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
8 Birch Creek (Clark County)	0	0	0.1	0.1	0.1	0.1	0	0	0	0	0	0	0	0	0
9 Birch Creek (Gooding County)	1.3	1.3	1.1	1.0	1.1	1.1	0.3	1.2	1.7	1.6	1.6	1.6	1.3	1.2	1.2
10 Black Canyon #3	0.1	0.1	0.1	0.1	0.1	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
11 Black Creek	3.1	3.1	2.8	1.9	2.8	2.8	3.4	3.4	3.1	3.7	3.4	3.1	3.1	2.8	3.0
12 Blind Canyon Hydro	0.7	0.7	1.1	0.9	0.2	0	0	0	0	0.6	0.6	1.6	1.0	0.7	0.6
13 Boulder Creek	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
14 Box Canyon	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4
15 Boyd James	0	0	0	0	0	0.4	0.3	0.6	0.7	0.8	0.8	0.5	0	0	0.3
16 Briggs Creek	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6
17 Broadwater Dam	1.1	1.1	1.6	1.9	2.1	1.6	1.6	1.7	1.8	2.8	2.7	3.2	2.7	2.0	2
18 Buffalo Hydro	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
19 Burr & Bouchard	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20 Bypass	8.3	6.5	2.8	1.0	0	0	0	0	0.1	2.9	2.9	7	8.2	8.7	3.2
21 Canyon Springs	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
22 Carlton	0	0	0	0	0	0	0.1	0.1	0.1	0.1	0.1	0	0	0	0
23 Cascade Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 CDM-Felt Hydroelectric Plant	2.9	2.9	3.1	2.8	2.9	2.4	1.8	2	2.7	2.7	2.7	4.4	5.8	4.1	3.1
25 Cedar Draw	0.3	0.3	0.9	0.9	0.9	1.2	1.2	1.3	0.4	0.4	0.4	0.4	0.3	0.3	0.7
26 Central OR Irrigation District (Siphon)	3.1	3.1	3.7	3.5	0	0.7	0	0.4	0.9	0.8	0.8	4.5	3.8	4.1	2.1
27 Clear Springs Trout	0.4	0.4	0.4	0.5	0.6	0.6	0.4	0.5	0.4	0.3	0.3	0.4	0.4	0.4	0.4
28 Cornelius	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29 Cowiche	0.8	0.8	0.8	0.8	0	0	0	0	0	0	0.8	0.8	0.8	0.8	0.4
30 Crystal Springs	1.3	1.3	1.6	1.5	1.6	0.5	0.5	0.6	0.8	0.9	0.9	0.8	1.4	1.3	1.1
31 Curry Cattle Co.	0.2	0.2	0.2	0.1	0.1	0	0	0	0.1	0.1	0.1	0.2	0.2	0.2	0.1
32 Curtiss Livestock	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33 D. Wiggins	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34 Dairy Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
35 Deep Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36 Derr Creek	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.2	0.2	0.1
37 Dietrich Drop	4.7	4.7	3.6	3.1	1.4	0	0	0	0	3.1	3.1	4.7	4.7	4.5	2.5
38 Don Steffen	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39 Donald Jenni	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
40 Dworshak/Clearwater Small Hydro Power	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
41 Eagle Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42 Elk Creek	1.2	1.2	0	0	0	0.1	0.1	0.1	1	1	1	1	1.2	1.2	0.6
43 Eltopia Br Canal 4.6	1.8	1.8	1.2	0.6	0	0	0	0	0	1.4	1.4	2	2	2.2	0.9
44 Estacada	0.1	0.1	0.1	0.1	0.1	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
45 Fall Creek (OR) (Frontier Technologies)	0	0	0	0	1.9	3.1	0.9	2.7	2.7	4.4	4.4	4.1	3.8	0	2.0
46 Falls Creek (WA)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47 Falls River	6.5	6.5	6.3	5.7	5.6	5.0	4.2	3.8	3.8	6.2	6.2	7.9	8.5	7.1	5.9
48 Farmers Irrig.	0.6	0.6	0.7	1.2	3.2	3.2	2.1	4.6	3.3	3.5	3.5	4.7	0.8	0.7	2.4
49 Faulkner Ranch	0.8	0.8	0.7	0.7	0.7	0.3	0.3	0.3	0.5	0.6	0.6	0.5	0.8	0.8	0.6
50 Fisheries Development Co	0.2	0.2	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.3
51 Galesville Dam	0.6	0.6	0.4	0.2	0.2	0.3	0	0.2	0.3	0.4	0.4	0.3	0.4	0.5	0.3
52 Geobon 2	1.0	1.0	0.3	0.3	0.3	0.2	0.2	0.3	0.6	0.6	0.6	0.6	1.0	1.0	0.5
53 Georgetown Power	0	0	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0	0.2
54 Hailey Cspp	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
55 Hazelton A	7	7	5.4	2.5	0.9	0	0	0	0.1	2.6	2.6	6	6.7	7.4	3.2
56 Hazelton B	6.6	6.6	5.2	2.4	0.7	0	0	0	0.1	2.2	2.2	5.6	6.4	7.0	3
57 Horseshoe Bend Hydro	8.8	8.8	7.5	3.9	2.8	3.5	3.9	4.6	5.9	8.8	8.8	9.9	9.8	9.2	6.6
58 Hutchinson Creek	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
59 Ingram Warm Springs	0.2	0.2	0.3	0.3	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.4
60 Jim Ford Creek	0	0	0	0	0.3	0.5	0.9	0.9	1.1	1.1	1.1	0.7	0.3	0.1	0.5
61 Jim Knight	0.4	0.4	0.3	0.2	0.3	0.1	0.1	0.1	0.2	0.3	0.3	0.2	0.4	0.4	0.2
62 John Day Creek	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
63 Joseph Hydro	1.5	1.5	0.9	0.4	0.1	0.1	0.1	0	0	0.1	0.1	0.2	1.2	2.7	0.6

Table A-24: Regional NUG Resources By Project And Project Type
PNW Loads and Resource Study
2019 - 2020 Operating Year
[76] 2011 White Book (Final)

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
64 Juniper Ridge Hydro	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
65 Kasel & Witherspoon	0.9	0.9	0.9	0.6	0.4	0.2	0.2	0.2	0.3	0.4	0.4	0.8	0.9	0.8	0.5
66 Kevin Duncan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
67 Koma Kulshan	4.6	4.6	4.3	6.4	8	6.1	3.9	3.8	4.4	6.9	6.9	9.4	10	8.2	6.4
68 Koyle	1.1	1.1	1.1	1.0	1	0.2	0.1	0.1	0.3	0.8	0.8	1.2	0.8	0.9	0.7
69 L. Fery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
70 Lacombe Irrig.	0	0	0	0	0.2	1.0	0.2	0.9	0.9	1	1	0.9	0.9	0.4	0.5
71 Lake Oswego	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
72 Lateral #10	1.2	1.2	1.3	1.6	1.7	1.2	1.2	1.3	1.4	1.5	1.5	1.4	1.3	1.2	1.4
73 Lee Tavenner	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
74 Lemoyne	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
75 Little Mac	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
76 Little Wood River Res.	1.9	1.9	0.2	0.2	0.2	0	0	0	1.6	1.7	1.7	1.6	2	1.9	1.0
77 Littlewood/Arkoosh	0.7	0.7	0.4	0.4	0.4	0.2	0.2	0.2	0.4	0.5	0.5	0.4	0.8	0.7	0.5
78 Low Line Canal Drop	7.8	7.8	7.5	7.3	7.5	0.6	0.6	0.7	5.3	5.5	5.5	5.3	8.1	7.8	5.3
79 Low Line Midway	2	2	0	0	0	0	0	0	0	0	0	0	2	2	0.5
80 Lower Low Line #2	2.7	2.7	2.5	1.8	1.4	0	0	0.7	1.9	2.5	2.5	2.7	2.7	2.7	1.8
81 Lucky Peak	29	27	20	4.5	0	0.7	0	1.5	1.6	11	11	68	75	73	24
82 Magic Reservoir	6.8	6.8	4.4	0.5	0.2	0.1	0.3	0.1	0.9	3.0	3.0	8.3	9.1	9.0	3.6
83 Main Canal Headworks	20	20	12	5.2	0	0	0	0	2.8	14	14	18	21	24	9.8
84 Malad River	0.5	0.5	0.6	0.5	0.5	0.1	0.1	0	0.2	0.4	0.4	0.6	0.4	0.5	0.4
85 Marco Ranches	1.1	1.1	1.2	1.1	1.2	0	0	0	1.1	1.2	1.2	1.1	1.2	1.1	0.9
86 Marsh Valley	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
87 Meyers Falls	1	1	0.9	0.6	0.9	0.9	0.6	0.8	1.1	1.1	1.1	1	1.2	1.1	0.9
88 Middle Fork Irrig.	1.8	1.8	0.8	1.2	1.3	1.7	2.7	3.1	3.1	2.9	2.9	2.8	2.4	2.0	2.2
89 Mile 28	1.3	1.3	1.2	0.7	0.2	0	0	0	0	0.6	0.6	1.2	1.3	1.4	0.7
90 Mill Creek (OR) - City of Cove	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
91 Minikahda	0	0	0	0	0	0.1	0.1	0.1	0	0.1	0.1	0.1	0	0	0
92 Mink Creek	1.2	1.2	0.8	0.6	0.6	0.5	0.4	0.4	0.3	0.4	0.4	1.6	2.7	1.6	0.9
93 Mitchell Butte	1	1	1.1	0.4	0	0	0	0	0.3	0.8	0.8	1.2	1.3	1.1	0.6
94 Mora Canal Drop	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
95 Mountain Energy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96 Mt. Tabor	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
97 Mud Creek/S&S	0.4	0.4	0.5	0.5	0.5	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.4	0.4
98 Mud Creek/White	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1
99 Nichols Gap	0	0	0	0	0.4	0.6	0.2	0.5	0.6	0.4	0.4	0	0	0	0.2
100 Nicholson Sunnybar	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
101 North Fork Sprague	0	0	0.1	0	0	0	0.1	0.3	0.2	0.3	0.3	0.9	0.4	0.1	0.2
102 O.J. Power	0	0	0.1	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
103 Odell Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
104 Opal Springs	2.6	2.6	3.0	3.6	3.2	2.9	2.9	3.5	2.6	2.7	2.7	4.5	1.6	2.2	2.9
105 Orchard Avenue	0.8	0.8	0.8	0.8	0	0	0	0	0	0	0.8	0.8	0.8	0.8	0.4
106 Owyhee Dam	2.8	2.8	2.0	0.6	0	0	0.2	0.6	1.8	3.3	3.3	3.9	3.3	3.2	1.8
107 PEC Headworks	4.5	4.5	3.1	2.2	0	0	0	0	0.4	5.1	5.1	6.5	6.2	5.8	2.8
108 Phillips Ranch	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
109 Phillipsburg	0	0	0	0	0	0.1	0.1	0.1	0	0	0	0	0	0	0
110 Pickering Micro Hydro	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111 Pigeon Cove	2.0	2.0	2.1	1.3	0.8	0.4	0.3	0.4	0.6	0.8	0.8	1.7	1.9	1.7	1.2
112 Pine Creek	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
113 Portland	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
114 Portland Hydro Project	2.3	2.3	2.9	6.7	16	20	18	17	16	17	17	15	8.4	3.2	12
115 Portneuf River	0.2	0.2	0.1	0	0.1	0.1	0	0	0	0	0	0.2	0.6	0.4	0.1
116 Potholes E Canal 66.0	1.8	1.8	1.8	1.6	0	0	0	0	0.6	1.8	1.8	1.8	1.8	1.8	1.1
117 Preston City	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4
118 Pristine Springs	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
119 Pristine Springs #3	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
120 Quincy Chute	7.7	7.7	4	2.3	0	0	0	0	0.8	5.5	5.5	7.1	8.4	8.5	3.7
121 Reynolds Irrigation	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2
122 Rim View	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
123 Rock Creek #1	1.1	1.1	1.6	1.7	1.2	1.3	1.1	1.0	1.1	1.4	1.4	1.5	1.3	1.1	1.3
124 Rock Creek #2	1.8	1.8	1.8	1.9	1.9	1.9	0.6	0.4	1.6	1.9	1.9	1.9	1.9	1.6	1.6
125 Rocky Brook	0	0	0	0	0.2	0.6	0.6	0.4	0.5	0.5	0.5	0.2	0.1	0	0.3
126 Russel D. Smith	4	4	2.6	1.4	0	0	0	0	0.2	2.4	2.4	3.8	4.2	3.4	1.8
127 Sagebrush	0.4	0.4	0.3	0.3	0.3	0.1	0.1	0.1	0.3	0.3	0.3	0.3	0.4	0.4	0.3
128 Sahko	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5

**Table A-24: Regional NUG Resources By Project And Project Type
PNW Loads and Resource Study
2019 - 2020 Operating Year
[76] 2011 White Book (Final)**

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
129 Salem	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
130 Schaffner	0.4	0.4	0.3	0.2	0.3	0.1	0.1	0.2	0.3	0.3	0.3	0.3	0.4	0.4	0.3
131 Sheep Creek	0.4	0.4	0.3	0.3	0.4	0.5	0.5	0.5	0.9	1.6	1.6	0.8	1.5	1.1	0.7
132 Shingle Creek	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
133 Shoshone	0.3	0.3	0.3	0.3	0.3	0	0	0	0.1	0.2	0.2	0.4	0.2	0.3	0.2
134 Shoshone II	0.6	0.6	0.6	0	0	0	0	0	0	0.3	0.3	0.5	0.6	0.6	0.3
135 Snake River Pottery	0	0	0	0	0	0.1	0.1	0.1	0	0	0	0	0	0	0
136 Snedigar Ranch	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2
137 Solar Research	0.1	0.1	0.1	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0	0.1	0
138 South Dry Creek	0.5	0.5	0.5	0.5	0	0	0	0	0.5	0.5	0.5	0.6	0.5	0.5	0.3
139 Spokane Upriver	3.4	3.4	3.4	4.7	6.7	13	14	13	14	13	13	11	12	8.4	9.7
140 Stauffer Dry Creek	0.9	1	0.8	0.4	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.9	2.7	2.1	0.8
141 Strawberry Creek	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
142 Summer Falls	79	79	48	22	0	0	0	0	4.8	50	50	71	81	87	37
143 Sunshine Power #2	0.1	0.1	0.1	0.1	0.1	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
144 TGS/Briggs	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.1	0.1	0.2	0.2	0.1	0.2
145 Thomas Burnside	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
146 Thompson Mill (Boston Power)	0	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0	0
147 Tiber Dam Liberty Montana	7	7	5.4	2.5	0.9	0	0	0	0.1	2.6	2.6	6	6.7	7.4	3.2
148 Tieton (Yakima)	7.8	7.8	7.8	7.8	0	0	0	0	0	0	7.8	7.8	7.8	7.8	4.2
149 Trout Co.	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
150 Tunnel #1	4.3	4.3	2.6	0.5	0	0	0	0	2.4	5.1	5.1	5.8	5.8	5.9	2.7
151 Twin Falls	5	5	0	1.2	9.6	7.9	7.4	4.8	7.8	15	15	13	24	19	9.6
152 Walla Walla	1.5	1.5	1.4	1.3	1.2	1.3	1.2	1.5	1.8	1.8	1.8	1.5	1.5	1.8	1.5
153 Water Street / Santiam	0	0	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1
154 Weeks Falls	0.8	0.8	0	0.2	1.7	1.8	1.2	0.6	1.2	2.6	2.6	2.4	4.4	3.5	1.7
155 White Water Ranch	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
156 Wilson Lake Hydro	7.1	7.1	5.3	2.0	0.2	0	0	0	0	2.3	2.3	6.1	6.8	7.6	3.1
157 Wisconsin Creek	0	0	0.1	0.1	0	0.1	0.1	0.1	0.1	0.1	0.1	0	0	0	0.1
158 Woods Creek	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
159 Total NUG: Hydro	325	322	240	163	124	116	106	112	145	273	282	408	444	424	241
-NUG: Small Thermal & Misc.-															
160 Covanta Marion Solid Waste	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7
161 Methane Energy Agricultural D. (Booley)	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
162 Montana One (Colstrip Energy Limited)	6.6	10	11	8.8	13	13	12	11	10	10	13	11	9.3	11	
163 Pocatello Waste	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
164 Spokane MSW	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
165 Treasure Valley	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
166 West Boise Waste	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
167 Total NUG: Small Thermal & Misc.	33	33	37	38	35	39	40	39	37	37	37	40	38	36	37
-NUG: Co-Generation-															
168 Billings Generation	8.6	8.8	15	16	18	19	19	20	18	17	17	20	17	8.8	16
169 Biomass One	15	15	14	15	14	15	15	14	15	14	14	15	14	15	15
170 Boise Cascade Medford	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
171 Champion	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
172 Cogen Co	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
173 DR Johnson - Co-Gen II	6.0	6.0	5.8	6.0	5.8	6.0	6.0	5.6	6.0	7.2	0	6.0	5.8	6.0	5.7
174 Everett Cogen Project (Kimberly Clark)	38	38	38	36	36	34	31	34	19	36	36	38	33	38	34
175 Evergreen Biopower Cogen (Fres)	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
176 Glenns Ferry Cogen Facility (Magic West)	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
177 March Point #1	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76
178 March Point #2	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48
179 Potlatch Contract Renewal	43	43	53	52	51	50	50	44	46	46	46	46	49	38	47
180 Rough & Ready Lumber	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
181 Rupert Cogen Facility (Magic Valley)	7.5	8	9.4	9.4	8.6	8.2	9.1	9.1	7.7	7.7	7.5	8.0	8	8.4	
182 Simplot Pocatello	9.7	9.7	9.3	8.9	8.1	8.1	7.8	9.2	8.6	8.3	8.3	7.5	4.1	8.6	8.2
183 Stimson Lumber (formerly Haley West)	4.7	4.3	4.4	4.5	4.3	4.0	4.1	4.3	4.1	4.1	4.1	4.1	4.2	3.9	4.2
184 Tamarack	4.5	4.5	4.5	3.6	4.1	4	3.9	3.9	3.5	3.4	3.4	3.1	4.0	4.4	3.9
185 TASC0 Nampa ID	0.2	0.2	0.2	0.1	0	0	0	0	0	0	0	0	0.1	0.2	0.1
186 TASC0 Twin Falls ID	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
187 Vaagen Bros.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
188 Warm Springs	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2

**Table A-24: Regional NUG Resources By Project And Project Type
PNW Loads and Resource Study
2019 - 2020 Operating Year
[76] 2011 White Book (Final)**

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
189 West Point	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
190 Total NUG: Co-Generation	291	291	307	305	305	304	300	298	284	299	291	302	295	285	297
-NUG: Renewables-															
191 Ashland Solar Project	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
192 Bellevue Solar (Amity, OR)	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2
193 Bettencourt B6 anaerobic digester	0.5	1.0	1.0	1.0	1.0	1.2	1.3	1.2	0	0.2	0.2	0.2	0.2	0.4	0.7
194 Bettencourt Dairy (Cargill)	1.4	1.4	1.4	1.4	1.3	1.3	1.2	1.4	1.4	1.3	1.0	1.2	1.2	1.1	1.3
195 Big Sky Dairy	1	1	1.1	1.1	1.1	1.1	1	1.0	1.1	1.1	1.1	1.1	1.1	1	1.1
196 Chinook Wind	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
197 DeRuyter & Son's Dairy	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
198 Dry Creek Landfill (NUG Renewable)	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
199 Emmett Biomass Project	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
200 Farm Power Lynden	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
201 Farm Power Rexville	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
202 Finley Buttes BioEnergy	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
203 Fourmile Hill Geothermal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
204 Healow #2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
205 Hidden Hollow Landfill	2.2	2.2	2.3	2.4	2.6	2.5	2.2	2.4	2.3	2.5	2.5	2.2	2.3	2	2.3
206 Josef Staufer	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
207 Lewandowski Farms	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
208 Livingston	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
209 Pine Products Corp	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
210 Portland Waste Water	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
211 Puyallup Energy Recovery (PERC)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
212 Qualco Dairy Digester	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
213 Raft River Geothermal Phase 1	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
214 VanderHaak Dairy	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
215 White Bluffs Solar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
216 Wild Horse Solar	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
217 Windmill	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
218 Yamhill Solar (Amity, OR)	0.3	0.3	0.3	0.2	0.1	0.1	0.1	0.1	0.2	0.3	0.3	0.3	0.3	0.4	0.2
219 Total NUG: Renewables	26	27	27	27	27	27	27	27	26	26	26	26	26	26	26
-Total Non-Utility Generating Resources-															
220 Federal Entities	2.8	2.8	2.8	2.9	3	3.4	3.4	3.2	3.3	3.3	3.3	3	2.9	2.8	3.1
221 Public Entities	205	204	151	95	56	55	51	55	50	147	147	236	253	264	135
222 Investor-Owned Entities	450	449	439	417	423	418	408	408	430	475	468	519	529	487	450
223 Other Entities	18	18	18	18	9.7	9.7	9.7	9.7	9.7	9.7	18	18	18	18	14
224 Total Non-Utility Generation	676	673	610	533	491	486	472	476	493	635	636	776	802	770	602

**Table A-24: Regional NUG Resources By Project And Project Type
PNW Loads and Resource Study
2020 - 2021 Operating Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-NUG: Hydro-															
1 Albany	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
2 Barber Dam	2.4	2.4	1.9	0.8	0.3	1.0	2.2	2.6	3.3	3.2	3.2	3.1	3.2	3.3	2.3
3 Barney Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Beaverton	0	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0
5 Bell Mountain	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1
6 Big Sheep Creek	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
7 Bingham Engineering	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
8 Birch Creek (Clark County)	0	0	0.1	0.1	0.1	0.1	0	0	0	0	0	0	0	0	0
9 Birch Creek (Gooding County)	1.3	1.3	1.1	1.0	1.1	1.1	0.3	1.2	1.7	1.6	1.6	1.6	1.3	1.2	1.2
10 Black Canyon #3	0.1	0.1	0.1	0.1	0.1	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
11 Black Creek	3.1	3.1	2.8	1.9	2.8	2.8	3.4	3.4	3.1	3.7	3.4	3.1	3.1	2.8	3.0
12 Blind Canyon Hydro	0.7	0.7	1.1	0.9	0.2	0	0	0	0	0.6	0.6	1.6	1.0	0.7	0.6
13 Boulder Creek	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
14 Box Canyon	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4
15 Boyd James	0	0	0	0	0	0.4	0.3	0.6	0.7	0.8	0.8	0.5	0	0	0.3
16 Briggs Creek	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6
17 Broadwater Dam	1.1	1.1	1.6	1.9	2.1	1.6	1.6	1.7	1.8	2.8	2.7	3.2	2.7	2.0	2
18 Buffalo Hydro	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
19 Burr & Bouchard	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20 Bypass	8.3	8.3	6.5	2.8	1.0	0	0	0	0.1	2.9	2.9	7	8.2	8.7	3.8
21 Canyon Springs	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
22 Carlton	0	0	0	0	0	0	0.1	0.1	0.1	0.1	0.1	0	0	0	0
23 Cascade Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 CDM-Felt Hydroelectric Plant	2.9	2.9	3.1	2.8	2.9	2.4	1.8	2	2.7	2.7	2.7	4.4	5.8	4.1	3.1
25 Cedar Draw	0.3	0.3	0.9	0.9	0.9	1.2	1.2	1.3	0.4	0.4	0.4	0.4	0.3	0.3	0.7
26 Central OR Irrigation District (Siphon)	3.1	3.7	3.5	0	0.7	0	0.4	0.9	0.8	0.8	4.5	3.8	4.1	2.1	
27 Clear Springs Trout	0.4	0.4	0.4	0.5	0.6	0.6	0.4	0.5	0.4	0.3	0.3	0.4	0.4	0.4	0.4
28 Cornelius	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29 Cowiche	0.8	0.8	0.8	0.8	0	0	0	0	0	0.8	0.8	0.8	0.8	0.8	0.4
30 Crystal Springs	1.3	1.3	1.6	1.5	1.6	0.5	0.5	0.6	0.8	0.9	0.9	0.8	1.4	1.3	1.1
31 Curry Cattle Co.	0.2	0.2	0.2	0.1	0.1	0	0	0	0.1	0.1	0.1	0.2	0.2	0.2	0.1
32 Curtiss Livestock	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33 D. Wiggins	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34 Dairy Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
35 Deep Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36 Derr Creek	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.2	0.2	0.1
37 Dietrich Drop	4.7	4.7	3.6	3.1	1.4	0	0	0	0	3.1	3.1	4.7	4.7	4.5	2.5
38 Don Steffen	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39 Donald Jenni	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
40 Dworshak/Clearwater Small Hydro Power	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
41 Eagle Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42 Elk Creek	1.2	1.2	0	0	0	0.1	0.1	0.1	1	1	1	1	1.2	1.2	0.6
43 Eltopia Br Canal 4.6	1.8	1.8	1.2	0.6	0	0	0	0	1.4	1.4	1.4	2	2	2.2	0.9
44 Estacada	0.1	0.1	0.1	0.1	0.1	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
45 Fall Creek (OR) (Frontier Technologies)	0	0	0	1.9	3.1	0.9	2.7	2.7	4.4	4.4	4.1	3.8	0	1.9	
46 Falls Creek (WA)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47 Falls River	6.5	6.5	6.3	5.7	5.6	5.0	4.2	3.8	3.8	6.2	6.2	7.9	8.5	7.1	5.9
48 Farmers Irrig.	0.6	0.6	0.7	1.2	3.2	3.2	2.1	4.6	3.3	3.5	3.5	4.7	0.8	0.7	2.4
49 Faulkner Ranch	0.8	0.8	0.7	0.7	0.7	0.3	0.3	0.3	0.5	0.6	0.6	0.5	0.8	0.8	0.6
50 Fisheries Development Co	0.2	0.2	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.3
51 Galesville Dam	0.6	0.6	0.4	0.2	0.2	0.3	0	0.2	0.3	0.4	0.4	0.3	0.4	0.5	0.3
52 Geobon 2	1.0	1.0	0.3	0.3	0.3	0.2	0.2	0.3	0.6	0.6	0.6	0.6	1.0	1.0	0.5
53 Georgetown Power	0	0	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0	0.2
54 Hailey Cspp	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
55 Hazelton A	7	7	5.4	2.5	0.9	0	0	0	0.1	2.6	2.6	6	6.7	7.4	3.2
56 Hazelton B	6.6	6.6	5.2	2.4	0.7	0	0	0	0.1	2.2	2.2	5.6	6.4	7.0	3
57 Horseshoe Bend Hydro	8.8	8.8	7.5	3.9	2.8	3.5	3.9	4.6	5.9	8.8	8.8	9.9	9.8	9.2	6.6
58 Hutchinson Creek	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
59 Ingram Warm Springs	0.2	0.2	0.3	0.3	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.4
60 Jim Ford Creek	0	0	0	0	0.3	0.5	0.9	0.9	1.1	1.1	1.1	0.7	0.3	0.1	0.5
61 Jim Knight	0.4	0.4	0.3	0.2	0.3	0.1	0.1	0.1	0.2	0.3	0.3	0.2	0.4	0.4	0.2
62 John Day Creek	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
63 Joseph Hydro	1.5	1.5	0.9	0.4	0.1	0.1	0.1	0	0	0.1	0.1	0.2	1.2	2.7	0.6

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[76] 2011 White Book (Final)

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
64 Juniper Ridge Hydro	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
65 Kasel & Witherspoon	0.9	0.9	0.9	0.6	0.4	0.2	0.2	0.2	0.3	0.4	0.4	0.8	0.9	0.8	0.5
66 Kevin Duncan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
67 Koma Kulshan	4.6	4.6	4.3	6.4	8	6.1	3.9	3.8	4.4	6.9	6.9	9.4	10	8.2	6.4
68 Koyle	1.1	1.1	1.1	1.0	1	0.2	0.1	0.1	0.3	0.8	0.8	1.2	0.8	0.9	0.7
69 L. Fery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
70 Lacombe Irrig.	0	0	0	0	0.2	1.0	0.2	0.9	0.9	1	1	0.9	0.9	0.4	0.5
71 Lake Oswego	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
72 Lateral #10	1.2	1.2	1.3	1.6	1.7	1.2	1.2	1.3	1.4	1.5	1.5	1.4	1.3	1.2	1.4
73 Lee Tavenner	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
74 Lemoyne	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
75 Little Mac	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
76 Little Wood River Res.	1.9	1.9	0.2	0.2	0.2	0	0	0	1.6	1.7	1.7	1.6	2	1.9	1.0
77 Littlewood/Arkoosh	0.7	0.7	0.4	0.4	0.4	0.2	0.2	0.2	0.4	0.5	0.5	0.4	0.8	0.7	0.5
78 Low Line Canal Drop	7.8	7.8	7.5	7.3	7.5	0.6	0.6	0.7	5.3	5.5	5.5	5.3	8.1	7.8	5.3
79 Low Line Midway	2	2	0	0	0	0	0	0	0	0	0	0	2	2	0.5
80 Lower Low Line #2	2.7	2.7	2.5	1.8	1.4	0	0	0.7	1.9	2.5	2.5	2.7	2.7	2.7	1.8
81 Lucky Peak	29	27	20	4.5	0	0.7	0	1.5	1.6	11	11	68	75	73	24
82 Magic Reservoir	6.8	6.8	4.4	0.5	0.2	0.1	0.3	0.1	0.9	3.0	3.0	8.3	9.1	9.0	3.6
83 Main Canal Headworks	20	20	12	5.2	0	0	0	0	2.8	14	14	18	21	24	9.8
84 Malad River	0.5	0.5	0.6	0.5	0.5	0.1	0.1	0	0.2	0.4	0.4	0.6	0.4	0.5	0.4
85 Marco Ranches	1.1	1.1	1.2	1.1	1.2	0	0	0	1.1	1.2	1.2	1.1	1.2	1.1	0.9
86 Marsh Valley	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
87 Meyers Falls	1	1	0.9	0.6	0.9	0.9	0.6	0.8	1.1	1.1	1.1	1	1.2	1.1	0.9
88 Middle Fork Irrig.	1.8	1.8	0.8	1.2	1.3	1.7	2.7	3.1	3.1	2.9	2.9	2.8	2.4	2.0	2.2
89 Mile 28	1.3	1.3	1.2	0.7	0.2	0	0	0	0	0.6	0.6	1.2	1.3	1.4	0.7
90 Mill Creek (OR) - City of Cove	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
91 Minikahda	0	0	0	0	0	0.1	0.1	0.1	0	0.1	0.1	0.1	0	0	0
92 Mink Creek	1.2	1.2	0.8	0.6	0.6	0.5	0.4	0.4	0.3	0.4	0.4	1.6	2.7	1.6	0.9
93 Mitchell Butte	1	1	1.1	0.4	0	0	0	0	0.3	0.8	0.8	1.2	1.3	1.1	0.6
94 Mora Canal Drop	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
95 Mountain Energy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96 Mt. Tabor	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
97 Mud Creek/S&S	0.4	0.4	0.5	0.5	0.5	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.4	0.4
98 Mud Creek/White	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1
99 Nichols Gap	0	0	0	0	0.4	0.6	0.2	0.5	0.6	0.4	0.4	0	0	0	0.2
100 Nicholson Sunnybar	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
101 North Fork Sprague	0	0	0.1	0	0	0	0.1	0.3	0.2	0.3	0.3	0.9	0.4	0.1	0.2
102 O.J. Power	0	0	0.1	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
103 Odell Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
104 Opal Springs	2.6	2.6	3.0	3.6	3.2	2.9	2.9	3.5	2.6	2.7	2.7	4.5	1.6	2.2	2.9
105 Orchard Avenue	0.8	0.8	0.8	0.8	0	0	0	0	0	0	0.8	0.8	0.8	0.8	0.4
106 Owyhee Dam	2.8	2.8	2.0	0.6	0	0	0.2	0.6	1.8	3.3	3.3	3.9	3.3	3.2	1.8
107 PEC Headworks	4.5	4.5	3.1	2.2	0	0	0	0	0.4	5.1	5.1	6.5	6.2	5.8	2.8
108 Phillips Ranch	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
109 Phillipsburg	0	0	0	0	0	0.1	0.1	0.1	0	0	0	0	0	0	0
110 Pickering Micro Hydro	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111 Pigeon Cove	2.0	2.0	2.1	1.3	0.8	0.4	0.3	0.4	0.6	0.8	0.8	1.7	1.9	1.7	1.2
112 Pine Creek	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
113 Portland	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
114 Portland Hydro Project	2.3	2.3	2.9	6.7	16	20	18	17	16	17	17	15	8.4	3.2	12
115 Portneuf River	0.2	0.2	0.1	0	0.1	0.1	0	0	0	0	0	0.2	0.6	0.4	0.2
116 Potholes E Canal 66.0	1.8	1.8	1.8	1.6	0	0	0	0	0.6	1.8	1.8	1.8	1.8	1.8	1.1
117 Preston City	0.3	0.3	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.4	0.4
118 Pristine Springs	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
119 Pristine Springs #3	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
120 Quincy Chute	7.7	7.7	4	2.3	0	0	0	0	0.8	5.5	5.5	7.1	8.4	8.5	3.7
121 Reynolds Irrigation	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2
122 Rim View	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
123 Rock Creek #1	1.1	1.1	1.6	1.7	1.2	1.3	1.1	1.0	1.1	1.4	1.4	1.5	1.3	1.1	1.3
124 Rock Creek #2	1.8	1.8	1.8	1.9	1.9	1.9	0.6	0.4	1.6	1.9	1.9	1.9	1.9	1.6	1.6
125 Rocky Brook	0	0	0	0	0.2	0.6	0.6	0.4	0.5	0.5	0.5	0.2	0.1	0	0.3
126 Russel D. Smith	4	4	2.6	1.4	0	0	0	0	0.2	2.4	2.4	3.8	4.2	3.4	1.8
127 Sagebrush	0.4	0.4	0.3	0.3	0.3	0.1	0.1	0.1	0.3	0.3	0.3	0.3	0.4	0.4	0.3
128 Sahko	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5

Table A-24: Regional NUG Resources By Project And Project Type
PNW Loads and Resource Study
2020 - 2021 Operating Year
[76] 2011 White Book (Final)

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
129 Salem	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
130 Schaffner	0.4	0.4	0.3	0.2	0.3	0.1	0.1	0.2	0.3	0.3	0.3	0.3	0.4	0.4	0.3
131 Sheep Creek	0.4	0.4	0.3	0.3	0.4	0.5	0.5	0.5	0.9	1.6	1.6	0.8	1.5	1.1	0.7
132 Shingle Creek	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
133 Shoshone	0.3	0.3	0.3	0.3	0.3	0	0	0	0.1	0.2	0.2	0.4	0.2	0.3	0.2
134 Shoshone II	0.6	0.6	0.6	0	0	0	0	0	0	0.3	0.3	0.5	0.6	0.6	0.3
135 Snake River Pottery	0	0	0	0	0	0.1	0.1	0.1	0	0	0	0	0	0	0
136 Snedigar Ranch	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2
137 Solar Research	0.1	0.1	0.1	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0	0.1	0
138 South Dry Creek	0.5	0.5	0.5	0.5	0	0	0	0	0.5	0.5	0.5	0.6	0.5	0.5	0.3
139 Spokane Upriver	3.4	3.4	3.4	4.7	6.7	13	14	13	14	13	13	11	12	8.4	9.7
140 Stauffer Dry Creek	0.9	0.9	1	0.8	0.4	0	0.3	0.3	0.4	0.4	0.4	0.9	2.7	2.1	0.9
141 Strawberry Creek	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
142 Summer Falls	79	79	48	22	0	0	0	0	4.8	50	50	71	81	87	37
143 Sunshine Power #2	0.1	0.1	0.1	0.1	0.1	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
144 TGS/Briggs	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.1	0.1	0.2	0.2	0.1	0.2
145 Thomas Burnside	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
146 Thompson Mill (Boston Power)	0	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0	0
147 Tiber Dam Liberty Montana	7	7	5.4	2.5	0.9	0	0	0	0.1	2.6	2.6	6	6.7	7.4	3.2
148 Tieton (Yakima)	7.8	7.8	7.8	7.8	0	0	0	0	0	0	7.8	7.8	7.8	7.8	4.3
149 Trout Co.	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
150 Tunnel #1	4.3	4.3	2.6	0.5	0	0	0	0	2.4	5.1	5.1	5.8	5.8	5.9	2.7
151 Twin Falls	5	5	0	1.2	9.6	7.9	7.4	4.8	7.8	15	15	13	24	19	9.6
152 Walla Walla	1.5	1.5	1.4	1.3	1.2	1.3	1.2	1.5	1.8	1.8	1.8	1.5	1.5	1.8	1.5
153 Water Street / Santiam	0	0	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1
154 Weeks Falls	0.8	0.8	0	0.2	1.7	1.8	1.2	0.6	1.2	2.6	2.6	2.4	4.4	3.5	1.7
155 White Water Ranch	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
156 Wilson Lake Hydro	7.1	7.1	5.3	2.0	0.2	0	0	0	0	2.3	2.3	6.1	6.8	7.6	3.1
157 Wisconsin Creek	0	0	0.1	0.1	0	0.1	0.1	0.1	0.1	0.1	0.1	0	0	0	0.1
158 Woods Creek	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
159 Total NUG: Hydro	325	323	244	165	125	116	106	112	145	273	282	408	444	424	242
-NUG: Small Thermal & Misc.-															
160 Covanta Marion Solid Waste	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7
161 Methane Energy Agricultural D. (Booley)	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
162 Montana One (Colstrip Energy Limited)	6.6	10	11	8.8	13	13	12	11	10	10	13	11	9.3	11	
163 Pocatello Waste	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
164 Spokane MSW	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
165 Treasure Valley	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
166 West Boise Waste	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
167 Total NUG: Small Thermal & Misc.	36	33	37	38	35	39	40	39	37	37	37	40	38	36	37
-NUG: Co-Generation-															
168 Billings Generation	8.6	8.8	15	16	18	19	19	20	18	17	17	20	17	8.8	16
169 Biomass One	15	15	14	15	14	15	15	13	15	14	14	15	14	15	15
170 Boise Cascade Medford	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
171 Champion	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
172 Cogen Co	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
173 DR Johnson - Co-Gen II	6.0	6.0	5.8	6.0	5.8	6.0	6.0	5.4	6.0	7.2	0	6.0	5.8	6.0	5.7
174 Everett Cogen Project (Kimberly Clark)	38	38	36	36	36	34	31	34	19	36	36	38	33	38	34
175 Evergreen Biopower Cogen (Fores)	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
176 Glenns Ferry Cogen Facility (Magic West)	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
177 March Point #1	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76
178 March Point #2	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48
179 Potlatch Contract Renewal	43	43	53	52	51	50	50	44	46	46	46	46	49	38	47
180 Rough & Ready Lumber	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
181 Rupert Cogen Facility (Magic Valley)	7.5	8	9.4	9.4	8.6	8.2	9.1	9.1	7.7	7.7	7.5	8.0	8	8.4	
182 Simplot Pocatello	9.7	9.7	9.3	8.9	8.1	8.1	7.8	9.2	8.6	8.3	8.3	7.5	4.1	8.6	8.2
183 Stimson Lumber (formerly Haley West)	4.7	4.3	4.4	4.5	4.3	4.0	4.1	4.3	4.1	4.1	4.1	4.1	4.2	3.9	4.2
184 Tamarack	4.5	4.5	4.5	3.6	4.1	4	3.9	3.9	3.5	3.4	3.4	3.1	4.0	4.4	3.9
185 TASC0 Nampa ID	0.2	0.2	0.2	0.1	0	0	0	0	0	0	0	0	0.1	0.2	0.1
186 TASC0 Twin Falls ID	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
187 Vaagen Bros.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
188 Warm Springs	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2

**Table A-24: Regional NUG Resources By Project And Project Type
PNW Loads and Resource Study
2020 - 2021 Operating Year
[76] 2011 White Book (Final)**

Continued

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
189 West Point	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
190 Total NUG: Co-Generation	291	291	307	305	305	304	300	297	284	299	291	302	295	285	297
-NUG: Renewables-															
191 Ashland Solar Project	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
192 Bellevue Solar (Amity, OR)	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2
193 Bettencourt B6 anaerobic digester	0.5	1.0	1.0	1.0	1.0	1.2	1.3	1.2	0	0.2	0.2	0.2	0.2	0.4	0.7
194 Bettencourt Dairy (Cargill)	1.4	1.4	1.4	1.4	1.3	1.3	1.2	1.4	1.4	1.3	1.0	1.2	1.2	1.1	1.3
195 Big Sky Dairy	1	1	1.1	1.1	1.1	1.1	1	1.0	1.1	1.1	1.1	1.1	1.1	1	1.1
196 Chinook Wind	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
197 DeRuyter & Son's Dairy	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
198 Dry Creek Landfill (NUG Renewable)	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
199 Emmett Biomass Project	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
200 Farm Power Lynden	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
201 Farm Power Rexville	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
202 Finley Buttes BioEnergy	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
203 Fourmile Hill Geothermal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
204 Healow #2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
205 Hidden Hollow Landfill	2.2	2.2	2.3	2.4	2.6	2.5	2.2	2.4	2.3	2.5	2.5	2.2	2.3	2	2.3
206 Josef Staufer	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
207 Lewandowski Farms	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
208 Livingston	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
209 Pine Products Corp	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
210 Portland Waste Water	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
211 Puyallup Energy Recovery (PERC)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
212 Qualco Dairy Digester	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
213 Raft River Geothermal Phase 1	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
214 VanderHaak Dairy	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
215 White Bluffs Solar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
216 Wild Horse Solar	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
217 Windmill	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
218 Yamhill Solar (Amity, OR)	0.3	0.3	0.3	0.2	0.1	0.1	0.1	0.1	0.2	0.3	0.3	0.3	0.3	0.4	0.2
219 Total NUG: Renewables	26	27	27	27	27	27	27	27	26	26	26	26	26	26	26
-Total Non-Utility Generating Resources-															
220 Federal Entities	2.8	2.8	2.8	2.9	3	3.4	3.4	3.3	3.3	3.3	3.3	3	2.9	2.8	3.1
221 Public Entities	205	204	151	95	56	55	51	55	50	147	147	236	253	264	135
222 Investor-Owned Entities	450	451	443	419	424	418	408	407	430	475	468	519	529	487	451
223 Other Entities	18	18	18	18	9.7	9.7	9.7	9.7	9.7	9.7	18	18	18	18	14
224 Total Non-Utility Generation	676	675	614	535	492	486	472	475	493	635	636	776	802	770	603

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Table A-26
Dedicated Resources
Monthly OY 2012 – 2021
Average Energy in Megawatts

Power Services

Reports Powered by:



Loads and Resources Information System

**Table A-26: Dedicated Resources
PNW Loads and Resource Study
2011 - 2012 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Generating Public Entities-															
1 Generating Public Entities	2574	2023	1475	1855	2097	2263	2568	2545	1918	2242	1858	2386	3386	2661	2290
2 Total Generating Public Entities	2574	2023	1475	1855	2097	2263	2568	2545	1918	2242	1858	2386	3386	2661	2290
-Non-Generating Public Entities-															
3 Non-Generating Public Entities	114	107	90	102	118	111	113	98	122	121	115	124	130	116	113
4 Total Non-Generating Public Entities	114	107	90	102	118	111	113	98	122	121	115	124	130	116	113
-Investor-Owned Entities-															
5 Investor-Owned Entities	7395	7045	6950	6784	6662	7217	6951	6864	6960	7841	7329	6957	7583	7279	7084
6 Total Investor-owned Entities	7395	7045	6950	6784	6662	7217	6951	6864	6960	7841	7329	6957	7583	7279	7084
-Total Dedicated Resources-															
7 Generating Public Entities	2574	2023	1475	1855	2097	2263	2568	2545	1918	2242	1858	2386	3386	2661	2290
8 Small & Non Generating Entities	114	107	90	102	118	111	113	98	122	121	115	124	130	116	113
9 Investor-Owned Entities	7395	7045	6950	6784	6662	7217	6951	6864	6960	7841	7329	6957	7583	7279	7084
10 Regional Total Dedicated Resources	10083	9175	8515	8742	8877	9590	9632	9507	9000	10203	9303	9467	11098	10056	9487

**Table A-26: Dedicated Resources
PNW Loads and Resource Study
2012 - 2013 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Generating Public Entities-															
1 Generating Public Entities	2818	2273	2083	1972	2107	2271	2581	2555	1928	2249	1866	2394	3396	2664	2377
2 Total Generating Public Entities	2818	2273	2083	1972	2107	2271	2581	2555	1928	2249	1866	2394	3396	2664	2377
-Non-Generating Public Entities-															
3 Non-Generating Public Entities	121	116	100	102	118	111	113	99	122	121	115	124	130	116	114
4 Total Non-Generating Public Entities	121	116	100	102	118	111	113	99	122	121	115	124	130	116	114
-Investor-Owned Entities-															
5 Investor-Owned Entities	6946	6674	7055	6546	6564	7126	6867	6792	6802	7329	7102	7044	7717	7280	6984
6 Total Investor-owned Entities	6946	6674	7055	6546	6564	7126	6867	6792	6802	7329	7102	7044	7717	7280	6984
-Total Dedicated Resources-															
7 Generating Public Entities	2818	2273	2083	1972	2107	2271	2581	2555	1928	2249	1866	2394	3396	2664	2377
8 Small & Non Generating Entities	121	116	100	102	118	111	113	99	122	121	115	124	130	116	114
9 Investor-Owned Entities	6946	6674	7055	6546	6564	7126	6867	6792	6802	7329	7102	7044	7717	7280	6984
10 Regional Total Dedicated Resources	9865	9063	9238	8620	8789	9508	9562	9446	8852	9698	9083	9562	11243	10060	9476

**Table A-26: Dedicated Resources
PNW Loads and Resource Study
2013 - 2014 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
<i>-Generating Public Entities-</i>															
1 Generating Public Entities	2823	2277	2088	1976	2112	2277	2584	2558	1931	2251	1869	2397	3399	2666	2381
2 Total Generating Public Entities	2823	2277	2088	1976	2112	2277	2584	2558	1931	2251	1869	2397	3399	2666	2381
<i>-Non-Generating Public Entities-</i>															
3 Non-Generating Public Entities	121	116	100	102	118	111	113	99	122	121	115	124	130	116	114
4 Total Non-Generating Public Entities	121	116	100	102	118	111	113	99	122	121	115	124	130	116	114
<i>-Investor-Owned Entities-</i>															
5 Investor-Owned Entities	6945	6673	7054	6546	6566	7126	6868	6793	6701	7549	6883	6809	7634	7306	6952
6 Total Investor-owned Entities	6945	6673	7054	6546	6566	7126	6868	6793	6701	7549	6883	6809	7634	7306	6952
<i>-Total Dedicated Resources-</i>															
7 Generating Public Entities	2823	2277	2088	1976	2112	2277	2584	2558	1931	2251	1869	2397	3399	2666	2381
8 Small & Non Generating Entities	121	116	100	102	118	111	113	99	122	121	115	124	130	116	114
9 Investor-Owned Entities	6945	6673	7054	6546	6566	7126	6868	6793	6701	7549	6883	6809	7634	7306	6952
10 Regional Total Dedicated Resources	9669	9066	9242	8624	8795	9514	9566	9450	8753	9921	8867	9330	11163	10089	9447

**Table A-26: Dedicated Resources
PNW Loads and Resource Study
2014 - 2015 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
<i>-Generating Public Entities-</i>															
1 Generating Public Entities	2825	2281	2090	1980	2115	2281	2588	2561	1934	2254	1871	2399	3400	2669	2383
2 Total Generating Public Entities	2825	2281	2090	1980	2115	2281	2588	2561	1934	2254	1871	2399	3400	2669	2383
<i>-Non-Generating Public Entities-</i>															
3 Non-Generating Public Entities	121	117	100	102	118	111	113	99	122	121	115	124	130	116	114
4 Total Non-Generating Public Entities	121	117	100	102	118	111	113	99	122	121	115	124	130	116	114
<i>-Investor-Owned Entities-</i>															
5 Investor-Owned Entities	6962	6692	7069	6557	6570	7156	6879	6812	6697	7517	7187	7058	7337	7308	6968
6 Total Investor-owned Entities	6962	6692	7069	6557	6570	7156	6879	6812	6697	7517	7187	7058	7337	7308	6968
<i>-Total Dedicated Resources-</i>															
7 Generating Public Entities	2825	2281	2090	1980	2115	2281	2588	2561	1934	2254	1871	2399	3400	2669	2383
8 Small & Non Generating Entities	121	117	100	102	118	111	113	99	122	121	115	124	130	116	114
9 Investor-Owned Entities	6962	6692	7069	6557	6570	7156	6879	6812	6697	7517	7187	7058	7337	7308	6968
10 Regional Total Dedicated Resources	9908	9090	9259	8639	8802	9548	9580	9472	8754	9891	9173	9581	10867	10092	9466

**Table A-26: Dedicated Resources
PNW Loads and Resource Study
2015 - 2016 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
<i>-Generating Public Entities-</i>															
1 Generating Public Entities	2827	2283	2092	1983	2118	2285	2590	2566	1921	2092	1709	2525	3410	2681	2384
2 Total Generating Public Entities	2827	2283	2092	1983	2118	2285	2590	2566	1921	2092	1709	2525	3410	2681	2384
<i>-Non-Generating Public Entities-</i>															
3 Non-Generating Public Entities	121	117	100	102	118	111	113	99	122	132	126	134	137	126	117
4 Total Non-Generating Public Entities	121	117	100	102	118	111	113	99	122	132	126	134	137	126	117
<i>-Investor-Owned Entities-</i>															
5 Investor-Owned Entities	6962	6692	7069	6555	6569	7156	6878	6812	6880	7062	6179	7418	7835	7309	6994
6 Total Investor-owned Entities	6962	6692	7069	6555	6569	7156	6878	6812	6880	7062	6179	7418	7835	7309	6994
<i>-Total Dedicated Resources-</i>															
7 Generating Public Entities	2827	2283	2092	1983	2118	2285	2590	2566	1921	2092	1709	2525	3410	2681	2384
8 Small & Non Generating Entities	121	117	100	102	118	111	113	99	122	132	126	134	137	126	117
9 Investor-Owned Entities	6962	6692	7069	6555	6569	7156	6878	6812	6880	7062	6179	7418	7835	7309	6994
10 Regional Total Dedicated Resources	9910	9093	9261	8640	8805	9552	9582	9476	8923	9285	8014	10076	11382	10116	9496

**Table A-26: Dedicated Resources
PNW Loads and Resource Study
2016 - 2017 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
<i>-Generating Public Entities-</i>															
1 Generating Public Entities	2821	2275	2087	1974	2110	2276	2583	2558	1914	2080	1697	2512	3398	2669	2374
2 Total Generating Public Entities	2821	2275	2087	1974	2110	2276	2583	2558	1914	2080	1697	2512	3398	2669	2374
<i>-Non-Generating Public Entities-</i>															
3 Non-Generating Public Entities	127	122	107	112	127	122	125	110	134	132	126	134	137	126	124
4 Total Non-Generating Public Entities	127	122	107	112	127	122	125	110	134	132	126	134	137	126	124
<i>-Investor-Owned Entities-</i>															
5 Investor-Owned Entities	6963	6690	7069	6556	6570	7156	6879	6812	6572	7295	6653	7201	7625	7310	6962
6 Total Investor-owned Entities	6963	6690	7069	6556	6570	7156	6879	6812	6572	7295	6653	7201	7625	7310	6962
<i>-Total Dedicated Resources-</i>															
7 Generating Public Entities	2821	2275	2087	1974	2110	2276	2583	2558	1914	2080	1697	2512	3398	2669	2374
8 Small & Non Generating Entities	127	122	107	112	127	122	125	110	134	132	126	134	137	126	124
9 Investor-Owned Entities	6963	6690	7069	6556	6570	7156	6879	6812	6572	7295	6653	7201	7625	7310	6962
10 Regional Total Dedicated Resources	9912	9088	9263	8642	8807	9554	9587	9481	8619	9506	8475	9847	11160	10104	9461

**Table A-26: Dedicated Resources
PNW Loads and Resource Study
2017 - 2018 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
<i>-Generating Public Entities-</i>															
1 Generating Public Entities	2815	2269	2081	1964	2100	2266	2573	2549	1921	2249	1866	2393	3391	2663	2372
2 Total Generating Public Entities	2815	2269	2081	1964	2100	2266	2573	2549	1921	2249	1866	2393	3391	2663	2372
<i>-Non-Generating Public Entities-</i>															
3 Non-Generating Public Entities	127	122	107	112	128	123	125	110	134	132	126	134	137	126	124
4 Total Non-Generating Public Entities	127	122	107	112	128	123	125	110	134	132	126	134	137	126	124
<i>-Investor-Owned Entities-</i>															
5 Investor-Owned Entities	6964	6691	7069	6556	6570	7157	6879	6813	6934	7704	7068	7054	7627	7310	7015
6 Total Investor-owned Entities	6964	6691	7069	6556	6570	7157	6879	6813	6934	7704	7068	7054	7627	7310	7015
<i>-Total Dedicated Resources-</i>															
7 Generating Public Entities	2815	2269	2081	1964	2100	2266	2573	2549	1921	2249	1866	2393	3391	2663	2372
8 Small & Non Generating Entities	127	122	107	112	128	123	125	110	134	132	126	134	137	126	124
9 Investor-Owned Entities	6964	6691	7069	6556	6570	7157	6879	6813	6934	7704	7068	7054	7627	7310	7015
10 Regional Total Dedicated Resources	9906	9083	9257	8632	8797	9545	9578	9472	8988	10085	9060	9580	11156	10098	9511

**Table A-26: Dedicated Resources
PNW Loads and Resource Study
2018 - 2019 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
<i>-Generating Public Entities-</i>															
1 Generating Public Entities	2816	2270	2233	2119	2334	2485	2810	2743	2085	2349	1973	2615	3605	2908	2551
2 Total Generating Public Entities	2816	2270	2233	2119	2334	2485	2810	2743	2085	2349	1973	2615	3605	2908	2551
<i>-Non-Generating Public Entities-</i>															
3 Non-Generating Public Entities	127	123	110	114	132	126	130	113	136	133	128	137	141	130	127
4 Total Non-Generating Public Entities	127	123	110	114	132	126	130	113	136	133	128	137	141	130	127
<i>-Investor-Owned Entities-</i>															
5 Investor-Owned Entities	6964	6691	6917	6399	6333	6936	6455	6433	6389	7320	6638	6958	7418	6870	6743
6 Total Investor-owned Entities	6964	6691	6917	6399	6333	6936	6455	6433	6389	7320	6638	6958	7418	6870	6743
<i>-Total Dedicated Resources-</i>															
7 Generating Public Entities	2816	2270	2233	2119	2334	2485	2810	2743	2085	2349	1973	2615	3605	2908	2551
8 Small & Non Generating Entities	127	123	110	114	132	126	130	113	136	133	128	137	141	130	127
9 Investor-Owned Entities	6964	6691	6917	6399	6333	6936	6455	6433	6389	7320	6638	6958	7418	6870	6743
10 Regional Total Dedicated Resources	9907	9084	9260	8632	8799	9547	9394	9289	8610	9802	8738	9710	11164	9908	9421

**Table A-26: Dedicated Resources
PNW Loads and Resource Study
2019 - 2020 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Generating Public Entities-															
1 Generating Public Entities	3053	2466	2234	2120	2335	2485	2811	2744	2086	2350	1974	2616	3606	2909	2570
2 Total Generating Public Entities	3053	2466	2234	2120	2335	2485	2811	2744	2086	2350	1974	2616	3606	2909	2570
-Non-Generating Public Entities-															
3 Non-Generating Public Entities	131	126	110	114	132	126	129	113	136	133	128	138	141	130	127
4 Total Non-Generating Public Entities	131	126	110	114	132	126	129	113	136	133	128	138	141	130	127
-Investor-Owned Entities-															
5 Investor-Owned Entities	6536	6303	6725	6208	6144	6748	6454	6429	6548	7164	6299	6479	7222	6872	6581
6 Total Investor-owned Entities	6536	6303	6725	6208	6144	6748	6454	6429	6548	7164	6299	6479	7222	6872	6581
-Total Dedicated Resources-															
7 Generating Public Entities	3053	2466	2234	2120	2335	2485	2811	2744	2086	2350	1974	2616	3606	2909	2570
8 Small & Non Generating Entities	131	126	110	114	132	126	129	113	136	133	128	138	141	130	127
9 Investor-Owned Entities	6536	6303	6725	6208	6144	6748	6454	6429	6548	7164	6299	6479	7222	6872	6581
10 Regional Total Dedicated Resources	9720	8895	9069	8443	8611	9360	9394	9286	8770	9648	8401	9233	10968	9910	9279

**Table A-26: Dedicated Resources
PNW Loads and Resource Study
2020 - 2021 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
<i>-Generating Public Entities-</i>															
1 Generating Public Entities	3054	2469	2234	2121	2336	2486	2811	2745	2087	2351	1974	2617	3607	2910	2571
2 Total Generating Public Entities	3054	2469	2234	2121	2336	2486	2811	2745	2087	2351	1974	2617	3607	2910	2571
<i>-Non-Generating Public Entities-</i>															
3 Non-Generating Public Entities	131	126	110	114	132	126	129	113	136	133	128	138	141	130	127
4 Total Non-Generating Public Entities	131	126	110	114	132	126	129	113	136	133	128	138	141	130	127
<i>-Investor-Owned Entities-</i>															
5 Investor-Owned Entities	6537	6308	6729	6211	6146	6747	6454	6429	6386	7416	6883	6965	7224	6872	6644
6 Total Investor-owned Entities	6537	6308	6729	6211	6146	6747	6454	6429	6386	7416	6883	6965	7224	6872	6644
<i>-Total Dedicated Resources-</i>															
7 Generating Public Entities	3054	2469	2234	2121	2336	2486	2811	2745	2087	2351	1974	2617	3607	2910	2571
8 Small & Non Generating Entities	131	126	110	114	132	126	129	113	136	133	128	138	141	130	127
9 Investor-Owned Entities	6537	6308	6729	6211	6146	6747	6454	6429	6386	7416	6883	6965	7224	6872	6644
10 Regional Total Dedicated Resources	9722	8903	9073	8447	8613	9360	9395	9288	8609	9900	8985	9719	10971	9911	9342

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Table A-27
Other Dedicated Resources
Monthly OY 2012 – 2021
Average Energy in Megawatts

Power Services

Reports Powered by:



Loads and Resources Information System

**Table A-27: Other Dedicated Resources
PNW Loads and Resource Study
2011 - 2012 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Generating Public Entities-															
1 Generating Public Entities	3724	3495	3464	582	746	708	757	649	627	576	428	728	734	703	1151
2 Total Generating Public Entities	3724	3495	3464	582	746	708	757	649	627	576	428	728	734	703	1151
-Non-Generating Public Entities-															
3 Small & Non Generating Public Entities	3796	3694	3413	108	109	107	106	104	112	92	90	122	141	115	690
4 Total Non-Generating Public Entities	3796	3694	3413	108	109	107	106	104	112	92	90	122	141	115	690
-Investor-Owned Entities-															
5 Investor-Owned Entities	5611	5555	4983	5272	5831	6308	6278	5864	5548	5589	5618	4011	5424	5888	5549
6 Total Investor-owned Entities	5611	5555	4983	5272	5831	6308	6278	5864	5548	5589	5618	4011	5424	5888	5549
-Total Dedicated Resources-															
7 Generating Public Entities	3724	3495	3464	582	746	708	757	649	627	576	428	728	734	703	1151
8 Non Generating Entities	3796	3694	3413	108	109	107	106	104	112	92	90	122	141	115	690
9 Investor-Owned Entities	5611	5555	4983	5272	5831	6308	6278	5864	5548	5589	5618	4011	5424	5888	5549
10 Regional Total Dedicated Resources	13131	12744	11860	5962	6685	7124	7140	6617	6287	6257	6136	4862	6299	6707	7390

**Table A-27: Other Dedicated Resources
PNW Loads and Resource Study
2012 - 2013 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Generating Public Entities-															
1 Generating Public Entities	659	623	550	593	749	712	760	652	630	578	429	731	738	705	664
2 Total Generating Public Entities	659	623	550	593	749	712	760	652	630	578	429	731	738	705	664
-Non-Generating Public Entities-															
3 Small & Non Generating Public Entities	106	117	105	108	109	107	110	109	117	95	93	127	143	118	113
4 Total Non-Generating Public Entities	106	117	105	108	109	107	110	109	117	95	93	127	143	118	113
-Investor-Owned Entities-															
5 Investor-Owned Entities	5796	5739	5197	5542	6152	6499	6419	6060	5881	4792	4766	4166	5779	5733	5663
6 Total Investor-owned Entities	5796	5739	5197	5542	6152	6499	6419	6060	5881	4792	4766	4166	5779	5733	5663
-Total Dedicated Resources-															
7 Generating Public Entities	659	623	550	593	749	712	760	652	630	578	429	731	738	705	664
8 Non Generating Entities	106	117	105	108	109	107	110	109	117	95	93	127	143	118	113
9 Investor-Owned Entities	5796	5739	5197	5542	6152	6499	6419	6060	5881	4792	4766	4166	5779	5733	5663
10 Regional Total Dedicated Resources	6565	6480	5851	6242	7010	7319	7290	6822	6628	5465	5288	5025	6660	6555	6441

**Table A-27: Other Dedicated Resources
PNW Loads and Resource Study
2013 - 2014 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Generating Public Entities-															
1 Generating Public Entities	661	626	552	595	749	712	760	652	630	578	429	731	741	708	665
2 Total Generating Public Entities	661	626	552	595	749	712	760	652	630	578	429	731	741	708	665
-Non-Generating Public Entities-															
3 Small & Non Generating Public Entities	109	119	109	110	111	112	110	109	117	95	93	127	143	118	115
4 Total Non-Generating Public Entities	109	119	109	110	111	112	110	109	117	95	93	127	143	118	115
-Investor-Owned Entities-															
5 Investor-Owned Entities	5644	5587	5127	5412	5991	6375	6301	5940	5642	5367	4968	4362	5643	5669	5602
6 Total Investor-owned Entities	5644	5587	5127	5412	5991	6375	6301	5940	5642	5367	4968	4362	5643	5669	5602
-Total Dedicated Resources-															
7 Generating Public Entities	661	626	552	595	749	712	760	652	630	578	429	731	741	708	665
8 Non Generating Entities	109	119	109	110	111	112	110	109	117	95	93	127	143	118	115
9 Investor-Owned Entities	5644	5587	5127	5412	5991	6375	6301	5940	5642	5367	4968	4362	5643	5669	5602
10 Regional Total Dedicated Resources	6332	6117	5788	6117	6852	7199	7172	6701	6389	6040	5490	5220	6527	6495	6382

**Table A-27: Other Dedicated Resources
PNW Loads and Resource Study
2014 - 2015 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
<i>-Generating Public Entities-</i>															
1 Generating Public Entities	664	630	555	598	752	714	760	651	629	555	406	709	714	682	658
2 Total Generating Public Entities	664	630	555	598	752	714	760	651	629	555	406	709	714	682	658
<i>-Non-Generating Public Entities-</i>															
3 Small & Non Generating Public Entities	108	119	110	110	111	112	114	113	121	99	97	131	147	121	117
4 Total Non-Generating Public Entities	108	119	110	110	111	112	114	113	121	99	97	131	147	121	117
<i>-Investor-Owned Entities-</i>															
5 Investor-Owned Entities	5636	5587	5151	5434	6047	6388	6372	6007	5714	5792	5399	4480	5799	5751	5694
6 Total Investor-owned Entities	5636	5587	5151	5434	6047	6388	6372	6007	5714	5792	5399	4480	5799	5751	5694
<i>-Total Dedicated Resources-</i>															
7 Generating Public Entities	664	630	555	598	752	714	760	651	629	555	406	709	714	682	658
8 Non Generating Entities	108	119	110	110	111	112	114	113	121	99	97	131	147	121	117
9 Investor-Owned Entities	5636	5587	5151	5434	6047	6388	6372	6007	5714	5792	5399	4480	5799	5751	5694
10 Regional Total Dedicated Resources	6408	6336	5816	6142	6911	7214	7246	6771	6464	6446	5902	5320	6661	6554	6469

**Table A-27: Other Dedicated Resources
PNW Loads and Resource Study
2015 - 2016 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
<i>-Generating Public Entities-</i>															
1 Generating Public Entities	639	604	535	573	727	688	738	629	607	555	406	709	714	683	642
2 Total Generating Public Entities	639	604	535	573	727	688	738	629	607	555	406	709	714	683	642
<i>-Non-Generating Public Entities-</i>															
3 Small & Non Generating Public Entities	123	113	114	115	116	114	113	121	99	97	131	147	122	119	
4 Total Non-Generating Public Entities	123	113	114	115	116	114	113	121	99	97	131	147	122	119	
<i>-Investor-Owned Entities-</i>															
5 Investor-Owned Entities	5714	5664	5161	5487	6014	6390	6284	5935	5843	4838	4812	4181	5821	5776	5617
6 Total Investor-owned Entities	5714	5664	5161	5487	6014	6390	6284	5935	5843	4838	4812	4181	5821	5776	5617
<i>-Total Dedicated Resources-</i>															
7 Generating Public Entities	639	604	535	573	727	688	738	629	607	555	406	709	714	683	642
8 Non Generating Entities	112	123	113	114	115	116	114	113	121	99	97	131	147	122	119
9 Investor-Owned Entities	5714	5664	5161	5487	6014	6390	6284	5935	5843	4838	4812	4181	5821	5776	5617
10 Regional Total Dedicated Resources	6465	6392	5810	6173	6856	7194	7136	6677	6570	5492	5315	5021	6682	6580	6378

**Table A-27: Other Dedicated Resources
PNW Loads and Resource Study
2016 - 2017 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
<i>-Generating Public Entities-</i>															
1 Generating Public Entities	639	603	535	573	726	688	734	626	603	551	403	705	711	680	640
2 Total Generating Public Entities	639	603	535	573	726	688	734	626	603	551	403	705	711	680	640
<i>-Non-Generating Public Entities-</i>															
3 Small & Non Generating Public Entities	123	113	114	115	116	114	113	121	99	97	131	147	122	119	
4 Total Non-Generating Public Entities	123	113	114	115	116	114	113	121	99	97	131	147	122	119	
<i>-Investor-Owned Entities-</i>															
5 Investor-Owned Entities	5755	5698	5226	5501	5988	6396	6292	5940	5730	5415	5003	4388	5783	5747	5660
6 Total Investor-owned Entities	5755	5698	5226	5501	5988	6396	6292	5940	5730	5415	5003	4388	5783	5747	5660
<i>-Total Dedicated Resources-</i>															
7 Generating Public Entities	639	603	535	573	726	688	734	626	603	551	403	705	711	680	640
8 Non Generating Entities	112	123	113	114	115	116	114	113	121	99	97	131	147	122	119
9 Investor-Owned Entities	5755	5698	5226	5501	5988	6396	6292	5940	5730	5415	5003	4388	5783	5747	5660
10 Regional Total Dedicated Resources	6506	6425	5875	6188	6830	7201	7141	6679	6454	6065	5503	5224	6641	6548	6418

**Table A-27: Other Dedicated Resources
PNW Loads and Resource Study
2017 - 2018 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Generating Public Entities-															
1 Generating Public Entities	657	622	554	592	745	705	754	645	626	574	425	727	733	702	661
2 Total Generating Public Entities	657	622	554	592	745	705	754	645	626	574	425	727	733	702	661
-Non-Generating Public Entities-															
3 Small & Non Generating Public Entities	123	113	114	115	116	114	113	121	99	97	131	147	122	119	
4 Total Non-Generating Public Entities	123	113	114	115	116	114	113	121	99	97	131	147	122	119	
-Investor-Owned Entities-															
5 Investor-Owned Entities	5760	5702	5285	5563	5984	6343	6263	5899	5737	5801	5415	4652	5808	5785	5720
6 Total Investor-owned Entities	5760	5702	5285	5563	5984	6343	6263	5899	5737	5801	5415	4652	5808	5785	5720
-Total Dedicated Resources-															
7 Generating Public Entities	657	622	554	592	745	705	754	645	626	574	425	727	733	702	661
8 Non Generating Entities	112	123	113	114	115	116	114	113	121	99	97	131	147	122	119
9 Investor-Owned Entities	5760	5702	5285	5563	5984	6343	6263	5899	5737	5801	5415	4652	5808	5785	5720
10 Regional Total Dedicated Resources	6529	6447	5952	6269	6844	7164	7131	6657	6483	6475	5937	5510	6688	6608	6500

**Table A-27: Other Dedicated Resources
PNW Loads and Resource Study
2018 - 2019 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
<i>-Generating Public Entities-</i>															
1 Generating Public Entities	657	622	554	592	745	705	754	645	626	574	425	727	734	701	661
2 Total Generating Public Entities	657	622	554	592	745	705	754	645	626	574	425	727	734	701	661
<i>-Non-Generating Public Entities-</i>															
3 Small & Non Generating Public Entities	123	113	114	115	116	114	113	121	99	97	131	147	122	119	
4 Total Non-Generating Public Entities	123	113	114	115	116	114	113	121	99	97	131	147	122	119	
<i>-Investor-Owned Entities-</i>															
5 Investor-Owned Entities	5763	5706	5250	5575	5987	6347	6266	5903	5856	4855	4829	4173	5838	5797	5630
6 Total Investor-owned Entities	5763	5706	5250	5575	5987	6347	6266	5903	5856	4855	4829	4173	5838	5797	5630
<i>-Total Dedicated Resources-</i>															
7 Generating Public Entities	657	622	554	592	745	705	754	645	626	574	425	727	734	701	661
8 Non Generating Entities	112	123	113	114	115	116	114	113	121	99	97	131	147	122	119
9 Investor-Owned Entities	5763	5706	5250	5575	5987	6347	6266	5903	5856	4855	4829	4173	5838	5797	5630
10 Regional Total Dedicated Resources	6532	6451	5917	6281	6847	7168	7134	6661	6602	5527	5351	5032	6719	6620	6409

**Table A-27: Other Dedicated Resources
PNW Loads and Resource Study
2019 - 2020 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
-Generating Public Entities-															
1 Generating Public Entities	657	622	554	592	745	705	754	645	626	574	425	728	733	701	660
2 Total Generating Public Entities	657	622	554	592	745	705	754	645	626	574	425	728	733	701	660
-Non-Generating Public Entities-															
3 Small & Non Generating Public Entities	123	113	114	115	116	114	113	121	99	97	131	147	122	119	
4 Total Non-Generating Public Entities	123	113	114	115	116	114	113	121	99	97	131	147	122	119	
-Investor-Owned Entities-															
5 Investor-Owned Entities	5768	5711	5349	5627	5908	6308	6226	5862	5750	5432	5032	4291	5871	5771	5661
6 Total Investor-owned Entities	5768	5711	5349	5627	5908	6308	6226	5862	5750	5432	5032	4291	5871	5771	5661
-Total Dedicated Resources-															
7 Generating Public Entities	657	622	554	592	745	705	754	645	626	574	425	728	733	701	660
8 Non Generating Entities	112	123	113	114	115	116	114	113	121	99	97	131	147	122	119
9 Investor-Owned Entities	5768	5711	5349	5627	5908	6308	6226	5862	5750	5432	5032	4291	5871	5771	5661
10 Regional Total Dedicated Resources	6589	6457	6016	6333	6768	7129	7094	6620	6496	6104	5554	5150	6752	6594	6440

**Table A-27: Other Dedicated Resources
PNW Loads and Resource Study
2020 - 2021 Operating Year
1937 Water Year
[76] 2011 White Book (Final)**

5/27/2011

Energy (aMW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
<i>-Generating Public Entities-</i>															
1 Generating Public Entities	657	623	554	592	745	704	754	645	626	574	425	728	733	701	661
2 Total Generating Public Entities	657	623	554	592	745	704	754	645	626	574	425	728	733	701	661
<i>-Non-Generating Public Entities-</i>															
3 Small & Non Generating Public Entities	123	113	114	115	116	114	113	121	99	97	131	147	122	119	
4 Total Non-Generating Public Entities	123	113	114	115	116	114	113	121	99	97	131	147	122	119	
<i>-Investor-Owned Entities-</i>															
5 Investor-Owned Entities	5764	5715	5352	5631	5949	6321	5817	5465	5351	5423	4768	4526	5452	5418	5511
6 Total Investor-owned Entities	5764	5715	5352	5631	5949	6321	5817	5465	5351	5423	4768	4526	5452	5418	5511
<i>-Total Dedicated Resources-</i>															
7 Generating Public Entities	657	623	554	592	745	704	754	645	626	574	425	728	733	701	661
8 Non Generating Entities	112	123	113	114	115	116	114	113	121	99	97	131	147	122	119
9 Investor-Owned Entities	5764	5715	5352	5631	5949	6321	5817	5465	5351	5423	4768	4526	5452	5418	5511
10 Regional Total Dedicated Resources	6532	6461	6019	6337	6810	7141	6685	6223	6097	6096	5290	5385	6332	6241	6290

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