
Exhibits 2 - 4

***Federal System Monthly Energy Analysis Under The 2002 White Book Load
Forecast for 1937-Water Conditions***

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Exhibit 2: OY 2003-04 Monthly Energy

*Loads and Resources - Federal System
PNW Loads and Resource Study
2003 - 2004 Operating Year
1937 Water Year
2002 White Book*

9/9/2003

Average Energy in Megawatts	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
Non-Utility Obligations															
Federal Agencies 1981 PSC Sale	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USBR 1981 PSC Sale	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DSI 1981 PSC Sale	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Federal Agencies 2002 PSC Sale	103	103	96	103	124	139	141	130	123	110	109	107	113	111	117
USBR 2002 PSC Sale	278	278	193	97	24	15	15	13	37	214	214	271	288	329	148
DSI 2002 PSC Sale	31	31	31	762	762	762	762	762	762	762	762	762	762	762	640
Total Firm Non-Utility Obligations	412	412	320	962	911	916	918	905	922	1086	1086	1140	1163	1202	905
Transfers Out															
NGP 1981 PSC Sale	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GPU 1981 PSC Sale	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IOU 1981 PSC Sale	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NGP 2002 PSC Sale	2494	2493	2306	2433	2775	3134	3218	3049	2699	2609	2603	2514	2570	2625	2702
GPU 2002 PSC Sale	1785	1785	1857	1950	2315	2616	2631	2557	2396	2138	2132	2036	1781	1792	2154
NGP Slice Sale	838	644	498	604	660	665	544	519	566	538	520	605	706	719	613
GPU Slice Sale	1396	1072	830	1006	1099	1108	906	864	943	895	867	1008	1175	1197	1021
IOU 2002 PSC Sale	382	382	382	382	382	382	382	382	382	382	382	382	382	382	382
Exports	1234	1228	1179	1049	1035	1068	988	983	946	971	971	990	1067	1082	1049
Intra-Regional Transfers (Out)	1653	1649	1038	602	946	947	752	683	518	435	435	223	285	282	697
Supp & Entitlement Capacity (Out)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CSPE To West Group Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Federal Diversity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Transfers Out	9783	9253	8090	8025	9212	9920	9422	9038	8451	7968	7910	7758	7967	8078	8618
Total Firm Obligations	10195	9665	8410	8986	10123	10836	10340	9943	9373	9054	8996	8898	9129	9280	9523
Hydro Resources															
Regulated Hydro	9230	6871	5125	6307	7004	7127	5720	5396	5906	5551	5261	6124	7311	7791	6439
Independent Hydro	437	435	370	385	305	236	176	196	274	433	515	710	746	451	397
Sustained Peaking Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non-Fed CER (CSPE)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non-Fed CER (Canada)	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142
Restoration	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Hydro Resources	9809	7448	5636	6835	7451	7505	6037	5735	6322	6126	5917	6977	8199	8384	6978
Other Resources															
Small Thermal & Misc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Combustion Turbines	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Renewables	27	27	27	28	29	31	32	31	31	30	30	27	27	27	29
Cogeneration	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Imports	213	213	247	294	365	422	371	327	294	275	237	100	122	203	268
Intra-Regional Transfers (In)	1767	1767	1968	1891	1950	1840	1692	1667	1648	1392	992	756	893	1447	1559
Supp & Entitlement Capacity (In)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Large Thermal	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Non-Utility Generation	83	82	59	77	102	104	107	97	91	113	113	107	94	75	92
Resource Acquisition	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Other Resources	3091	3089	3301	3290	3445	3398	3202	3123	3064	2810	2372	1989	2137	2752	2948
Total Resources	12900	10538	8937	10125	10897	10903	9239	8857	9386	8936	8289	8966	10336	11136	9926
Reserves & Maintenance															
Hydro Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small Thermal & Misc. Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Contract Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Large Thermal Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Federal Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Spinning Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Federal Transmission Losses	-364	-297	-252	-286	-307	-307	-261	-250	-265	-252	-234	-253	-291	-314	-280
Total Reserves, Maintenance & Losses	-364	-297	-252	-286	-307	-307	-261	-250	-265	-252	-234	-253	-291	-314	-280
Total Net Resources	12536	10240	8685	9839	10589	10596	8979	8607	9121	8684	8056	8714	10044	10822	9646
Total Firm Surplus/Deficit	2341	575	275	853	467	-241	-1361	-1335	-252	-370	-940	-184	915	1542	123

Exhibit 3: OY 2007-08 Monthly Energy

*Loads and Resources - Federal System
PNW Loads and Resource Study
2007 - 2008 Operating Year
1937 Water Year
2002 White Book*

9/9/2003

Average Energy in Megawatts	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
Non-Utility Obligations															
Federal Agencies 1981 PSC Sale	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USBR 1981 PSC Sale	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DSI 1981 PSC Sale	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Federal Agencies 2002 PSC Sale	110	110	103	105	127	142	144	133	126	112	111	109	115	114	120
USBR 2002 PSC Sale	278	278	193	97	24	15	15	13	37	214	214	271	288	329	148
DSI 2002 PSC Sale	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Firm Non-Utility Obligations	389	389	296	202	151	157	159	146	162	326	326	380	403	442	268
Transfers Out															
NGP 1981 PSC Sale	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GPU 1981 PSC Sale	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IOU 1981 PSC Sale	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NGP 2002 PSC Sale	2919	2919	2669	2711	3100	3433	3565	3387	2986	2904	2896	2821	2903	2959	3030
GPU 2002 PSC Sale	2072	2072	2213	2331	2723	3041	3042	2962	2759	2397	2390	2196	1920	2013	2472
NGP Slice Sale	853	656	509	617	675	680	556	531	577	549	528	611	717	732	625
GPU Slice Sale	1421	1093	848	1027	1124	1132	927	884	961	914	879	1018	1194	1218	1040
IOU 2002 PSC Sale	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exports	718	718	711	678	682	699	697	692	684	707	699	713	718	713	701
Intra-Regional Transfers (Out)	197	197	236	291	621	634	632	569	409	377	377	167	567	226	411
Supp & Entitlement Capacity (Out)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CSPE To West Group Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Federal Diversity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Transfers Out	8181	7656	7186	7654	8925	9620	9419	9025	8376	7848	7769	7526	8020	7861	8278
Total Firm Obligations	8569	8045	7482	7857	9076	9777	9577	9171	8538	8174	8095	7906	8422	8304	8546
Hydro Resources															
Regulated Hydro	9358	6971	5203	6407	7131	7252	5812	5483	5984	5633	5296	6136	7392	7894	6527
Independent Hydro	438	436	371	386	306	237	176	197	275	434	516	712	748	452	398
Sustained Peaking Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non-Fed CER (CSPE)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non-Fed CER (Canada)	138	138	138	138	138	138	138	138	138	137	137	137	137	137	138
Restoration	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Hydro Resources	9934	7545	5712	6931	7575	7627	6126	5818	6397	6205	5949	6986	8277	8484	7062
Other Resources															
Small Thermal & Misc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Combustion Turbines	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Renewables	27	27	27	28	29	31	32	31	31	30	30	27	27	27	29
Cogeneration	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Imports	132	132	165	199	267	324	298	254	224	225	172	82	100	131	198
Intra-Regional Transfers (In)	184	184	345	334	380	316	340	321	306	301	301	167	302	159	288
Supp & Entitlement Capacity (In)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Large Thermal	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Non-Utility Generation	109	109	102	116	127	127	130	125	119	121	121	118	120	109	119
Resource Acquisition	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Other Resources	1451	1452	1639	1677	1803	1798	1800	1731	1679	1677	1625	1394	1550	1426	1633
Total Resources	11385	8997	7351	8608	9377	9425	7926	7549	8077	7882	7574	8380	9827	9910	8696
Reserves & Maintenance															
Hydro Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small Thermal & Misc. Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Contract Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Large Thermal Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Federal Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Spinning Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Federal Transmission Losses	-321	-254	-207	-243	-264	-266	-224	-213	-228	-222	-214	-236	-277	-279	-245
Total Reserves, Maintenance & Losses	-321	-254	-207	-243	-264	-266	-224	-213	-228	-222	-214	-236	-277	-279	-245
Total Net Resources	11064	8744	7144	8365	9113	9159	7703	7336	7849	7660	7360	8143	9550	9630	8450
Total Firm Surplus/Deficit	2495	699	-338	508	37	-617	-1875	-1835	-690	-515	-735	237	1127	1327	-96

Exhibit 4: OY 2012-13 Monthly Energy

*Loads and Resources - Federal System
PNW Loads and Resource Study
2012 - 2013 Operating Year
1937 Water Year
2002 White Book*

9/9/2003

Average Energy in Megawatts	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul	Avg
Non-Utility Obligations															
Federal Agencies 1981 PSC Sale	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
USBR 1981 PSC Sale	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DSI 1981 PSC Sale	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Federal Agencies 2002 PSC Sale	113	113	105	107	129	144	146	138	128	114	113	111	117	116	122
USBR 2002 PSC Sale	278	278	193	97	24	15	15	13	37	214	214	271	288	329	148
DSI 2002 PSC Sale	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Firm Non-Utility Obligations	392	392	298	205	154	159	161	151	165	328	328	382	405	445	270
Transfers Out															
NGP 1981 PSC Sale	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GPU 1981 PSC Sale	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IOU 1981 PSC Sale	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NGP 2002 PSC Sale	3151	3151	2874	2908	3314	3698	3803	3688	3202	3096	3088	3030	3131	3193	3257
GPU 2002 PSC Sale	2130	2130	2270	2397	2804	3140	3142	3090	2850	2476	2469	2272	1992	2074	2553
NGP Slice Sale	862	664	514	623	682	687	562	536	583	555	533	557	660	740	621
GPU Slice Sale	1436	1105	857	1037	1135	1145	937	893	971	925	887	928	1099	1233	1034
IOU 2002 PSC Sale	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exports	707	707	699	670	685	705	702	697	687	708	708	717	723	719	702
Intra-Regional Transfers (Out)	13	13	42	108	392	447	420	377	231	204	204	0.1	393	67	225
Supp & Entitlement Capacity (Out)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CSPE To West Group Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Federal Diversity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Transfers Out	8300	7770	7255	7743	9012	9821	9567	9280	8525	7964	7888	7503	7997	8027	8391
Total Firm Obligations	8691	8162	7553	7947	9166	9981	9728	9431	8690	8292	8216	7885	8402	8472	8661
Hydro Resources															
Regulated Hydro	9465	7058	5265	6481	7216	7340	5883	5549	6056	5710	5354	6191	7465	7997	6603
Independent Hydro	438	436	371	386	306	237	176	197	275	435	516	713	748	452	398
Sustained Peaking Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non-Fed CER (CSPE)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non-Fed CER (Canada)	134	134	134	134	134	134	134	134	134	134	134	134	134	134	134
Restoration	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Hydro Resources	10037	7629	5770	7002	7656	7711	6194	5880	6466	6278	6003	7037	8347	8583	7135
Other Resources															
Small Thermal & Misc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Combustion Turbines	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Renewables	27	27	27	28	29	31	32	31	31	30	30	27	27	27	29
Cogeneration	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Imports	103	103	136	168	238	292	266	222	192	193	167	75	93	124	174
Intra-Regional Transfers (In)	0	0	151	151	151	128	128	128	128	128	128	0	128	0	102
Supp & Entitlement Capacity (In)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Large Thermal	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	290	233	1000	877
Non-Utility Generation	109	109	102	116	127	127	130	125	119	121	121	118	120	109	119
Resource Acquisition	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Other Resources	1239	1239	1416	1463	1545	1579	1556	1506	1470	1472	1447	510	602	1260	1301
Total Resources	11276	8867	7187	8465	9202	9290	7750	7386	7936	7750	7450	7548	8949	9843	8436
Reserves & Maintenance															
Hydro Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small Thermal & Misc. Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Contract Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Large Thermal Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Federal Hydro Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Spinning Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Federal Transmission Losses	-318	-250	-203	-239	-259	-262	-219	-208	-224	-219	-210	-213	-252	-278	-238
Total Reserves, Maintenance & Losses	-318	-250	-203	-239	-259	-262	-219	-208	-224	-219	-210	-213	-252	-278	-238
Total Net Resources	10958	8617	6984	8226	8942	9028	7531	7178	7712	7532	7240	7335	8696	9566	8198
Total Firm Surplus/Deficit	2267	456	-569	279	-224	-952	-2197	-2253	-978	-761	-976	-551	295	1094	-464

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