

Appendix B
Assessment Results by State

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Assessment Results by State

This appendix contains the results of feasibility assessments of the 50 states of the United States. The state results are summarized in tables, Tables B-1 and B-2, to facilitate lookup of power potential values and comparison of these values among the states. Table B-1 presents power potentials in three groups. The first group includes the gross power potential and its subdivisions by power categories: developed, excluded, and available. The second group includes the total hydropower potential of feasible projects and its subdivisions into low power and small hydro power classes. The third group includes subdivisions of the low power hydropower potential into power classes corresponding to classes of low power technologies.

Table B-2 presents information corresponding to that presented in Table B-1 but as percentages of total values. In the first group of data, total gross power potential for the state is presented as a percentage of the total gross power potential for the country. This percentage is followed by values for developed, excluded, and available power categories as percentages of the state total gross power potential. In the second group of data, the first value is the total hydropower potential of feasible projects as a percentage of the gross available power potential. This value is followed by values for low power and small hydro feasible projects as percentages of the total hydropower potential of all feasible projects. The third group includes values for the three power classes of low power feasible projects as percentages of the total, low power, hydropower potential. Bolded values in this table indicate values higher than the national average, and values highlighted in blue indicate the largest subdivision.

The summary information in Tables B-1 and B-2 is followed by 50 sections, each devoted to a particular state. Each section has the same format, which includes the following tables and figures:

- Pie charts showing the developed, excluded, and available fractions of the water energy resource site population and the corresponding fractions of the total gross power potential
 - Table of gross power potential of available sites, gross power potential of feasible sites, and hydropower potential of feasible sites by power class
 - Pie charts showing fractions of the feasible project population and the corresponding fractions of the total hydropower potential by power class
 - Bar charts showing the distribution of the low power feasible project population and corresponding hydropower potential by hydropower ranges
 - Bar charts showing the distribution of the small hydro feasible project population and corresponding hydropower potential by hydropower ranges
 - Feasible project distribution map showing the locations of existing hydroelectric power plants and feasible project sites differentiated by power class.
- The term “available” used in the tables and figures in this appendix only denotes the net amount of power potential after subtracting the amounts of developed and excluded power potential from the gross amount of power potential. The term “feasible” used in the tables and figures in this appendix refers to water energy resource sites and their corresponding gross power potential or hydropower potential as determined using the feasibility criteria and assessment methodology as described in Section 3, Technical Approach.
- Table of total, developed, federally excluded, environmentally excluded and other excluded, and available gross power potential by power class

Table B-1. Summary of power potentials (annual mean power) of state water energy resources by category and power class.

Name	Gross Potential				Feasible Hydropower Potential			Low Power Hydropower Potential			Name
	Total (MWa)	Developed (MWa)	Excluded (MWa)	Available (MWa)	Total (MWa)	Small Hydro (MWa)	Low Power (MWa)	Conventional Turbines (MWa)	Unconventional Systems (MWa)	Microhydro (MWa)	
Alabama	3,171	1,036	66	2,070	462	311	150	40	48	62	Alabama
Alaska	88,885	66	40,905	47,915	2,694	2,284	410	329	25	55	Alaska
Arizona	3,260	469	1,468	1,324	150	10	140	65	25	50	Arizona
Arkansas	5,697	347	464	4,886	590	405	185	58	47	80	Arkansas
California	26,611	2,074	12,211	12,325	3,425	2,283	1,141	880	44	217	California
Colorado	7,370	159	2,207	5,003	891	245	646	497	31	118	Colorado
Connecticut	430	42	38	350	105	61	44	25	3	16	Connecticut
Delaware	22	0	6	15	6	4	2	0	2	0	Delaware
Florida	464	0	104	359	79	51	27	0	15	12	Florida
Georgia	2,061	281	423	1,357	230	101	129	27	51	51	Georgia
Hawaii	2,259	17	12	2,230	280	214	66	60	0	6	Hawaii
Idaho	19,088	1,442	7,540	10,105	2,122	1,515	607	390	44	173	Idaho
Illinois	2,440	7	189	2,244	568	477	91	10	51	30	Illinois
Indiana	1,383	13	42	1,328	305	216	88	19	43	26	Indiana
Iowa	1,171	2	93	1,076	329	176	153	32	62	59	Iowa
Kansas	932	1	6	925	295	98	197	72	54	71	Kansas
Kentucky	3,754	305	170	3,278	518	441	77	25	18	33	Kentucky
Louisiana	3,088	25	335	2,728	306	248	58	7	28	22	Louisiana
Maine	2,780	311	341	2,129	432	332	100	46	22	32	Maine
Maryland	761	5	233	523	91	57	34	20	2	12	Maryland
Massachusetts	673	35	127	511	136	104	33	18	1	14	Massachusetts
Michigan	1,101	89	228	784	133	23	110	40	21	49	Michigan
Minnesota	1,433	153	484	797	140	56	84	18	31	35	Minnesota
Mississippi	2,823	0	281	2,542	298	194	104	9	59	36	Mississippi
Missouri	3,499	109	228	3,162	798	556	241	67	54	120	Missouri
Montana	12,456	1,091	4,460	6,904	1,669	876	793	541	92	160	Montana
Nebraska	1,177	34	101	1,041	354	81	273	161	42	70	Nebraska
Nevada	1,325	261	292	771	95	8	87	47	1	40	Nevada
New Hampshire	1,066	106	163	797	174	105	69	40	10	19	New Hampshire
New Jersey	261	6	55	200	63	44	20	7	2	10	New Jersey
New Mexico	1,674	5	532	1,136	156	13	143	83	14	46	New Mexico
New York	4,851	378	864	3,609	757	428	329	166	41	122	New York
North Carolina	2,731	402	384	1,944	348	199	150	69	28	53	North Carolina
North Dakota	261	78	6	178	40	16	24	3	7	13	North Dakota
Ohio	1,397	2	102	1,292	319	197	122	39	38	45	Ohio
Oklahoma	1,416	101	90	1,226	345	126	220	70	81	69	Oklahoma
Oregon	17,048	1,050	6,542	9,455	2,072	1,220	852	585	75	192	Oregon
Pennsylvania	4,764	198	1,276	3,290	953	659	295	140	47	108	Pennsylvania
Rhode Island	36	1	4	30	7	0	7	5	0	2	Rhode Island
South Carolina	1,378	328	86	964	211	153	58	11	25	22	South Carolina
South Dakota	791	219	67	505	119	23	96	44	8	45	South Dakota
Tennessee	5,295	848	444	4,003	655	481	174	64	49	61	Tennessee
Texas	2,304	104	160	2,040	328	75	253	64	85	104	Texas
Utah	3,906	123	856	2,927	401	36	365	258	22	86	Utah
Vermont	1,202	104	76	1,022	217	112	105	65	6	34	Vermont
Virginia	2,274	153	268	1,853	418	224	194	101	30	62	Virginia
Washington	33,620	11,006	9,088	13,526	3,106	2,263	843	601	87	155	Washington
West Virginia	3,533	193	879	2,461	484	339	146	90	17	39	West Virginia
Wisconsin	1,515	245	101	1,170	259	148	111	34	31	46	Wisconsin
Wyoming	5,999	59	2,746	3,195	507	160	347	256	20	71	Wyoming
U.S. Total	297,436	24,084	97,845	175,507	29,438	18,450	10,988	6,297	1,640	3,052	

Table B-2. Summary of power potentials of state water energy resources by category and power class as percentages of totals.

Name	Gross Potential				Feasible Hydropower Potential			Low Power Hydropower Potential			Name
	Total ^a	Developed ^b	Excluded ^b	Available ^b	Total ^c	Small Hydro ^d	Low Power ^d	Conventional Turbines ^e	Unconventional Systems ^e	Microhydro ^e	
Alabama	1%	33%	2%	65%	22%	67%	33%	27%	32%	41%	Alabama
Alaska	30%	0%	46%	54%	6%	85%	15%	80%	6%	14%	Alaska
Arizona	1%	14%	45%	41%	11%	7%	93%	46%	18%	36%	Arizona
Arkansas	2%	6%	8%	86%	12%	69%	31%	31%	25%	43%	Arkansas
California	9%	8%	46%	46%	28%	67%	33%	77%	4%	19%	California
Colorado	2%	2%	30%	68%	18%	27%	73%	77%	5%	18%	Colorado
Connecticut	0%	10%	9%	81%	30%	58%	42%	57%	8%	36%	Connecticut
Delaware	0%	0%	30%	70%	37%	65%	35%	0%	80%	20%	Delaware
Florida	0%	0%	22%	77%	22%	65%	35%	0%	57%	43%	Florida
Georgia	1%	14%	21%	66%	17%	44%	56%	21%	39%	39%	Georgia
Hawaii	1%	1%	1%	99%	13%	76%	24%	91%	0%	9%	Hawaii
Idaho	6%	8%	40%	53%	21%	71%	29%	64%	7%	28%	Idaho
Illinois	1%	0%	8%	92%	25%	84%	16%	11%	57%	33%	Illinois
Indiana	0%	1%	3%	96%	23%	71%	29%	21%	49%	30%	Indiana
Iowa	0%	0%	8%	92%	31%	53%	47%	21%	41%	38%	Iowa
Kansas	0%	0%	1%	99%	32%	33%	67%	37%	27%	36%	Kansas
Kentucky	1%	8%	5%	87%	16%	85%	15%	33%	24%	43%	Kentucky
Louisiana	1%	1%	11%	88%	11%	81%	19%	13%	50%	38%	Louisiana
Maine	1%	11%	12%	77%	20%	77%	23%	46%	22%	32%	Maine
Maryland	0%	1%	31%	69%	17%	63%	37%	59%	6%	35%	Maryland
Massachusetts	0%	5%	19%	76%	27%	76%	24%	54%	4%	42%	Massachusetts
Michigan	0%	8%	21%	71%	17%	17%	83%	36%	19%	44%	Michigan
Minnesota	0%	11%	34%	56%	18%	40%	60%	22%	37%	41%	Minnesota
Mississippi	1%	0%	10%	90%	12%	65%	35%	8%	57%	35%	Mississippi
Missouri	1%	3%	7%	90%	25%	70%	30%	20%	22%	50%	Missouri
Montana	4%	9%	36%	55%	24%	52%	48%	68%	12%	20%	Montana
Nebraska	0%	3%	9%	88%	34%	23%	77%	59%	15%	26%	Nebraska
Nevada	0%	20%	22%	58%	12%	8%	92%	53%	1%	46%	Nevada
New Hampshire	0%	10%	15%	75%	22%	60%	40%	58%	14%	28%	New Hampshire
New Jersey	0%	2%	21%	77%	32%	69%	31%	38%	12%	50%	New Jersey
New Mexico	1%	0%	32%	68%	14%	8%	92%	58%	10%	32%	New Mexico
New York	2%	8%	18%	74%	21%	57%	43%	50%	13%	37%	New York
North Carolina	1%	15%	14%	71%	18%	57%	43%	46%	19%	35%	North Carolina
North Dakota	0%	30%	2%	68%	22%	41%	59%	13%	30%	57%	North Dakota
Ohio	0%	0%	7%	92%	25%	62%	38%	32%	31%	37%	Ohio
Oklahoma	0%	7%	6%	87%	28%	36%	64%	32%	37%	32%	Oklahoma
Oregon	6%	6%	38%	55%	22%	59%	41%	69%	9%	22%	Oregon
Pennsylvania	2%	4%	27%	69%	29%	69%	31%	48%	16%	37%	Pennsylvania
Rhode Island	0%	3%	11%	86%	22%	0%	100%	72%	3%	25%	Rhode Island
South Carolina	0%	24%	6%	70%	22%	73%	27%	19%	43%	38%	South Carolina
South Dakota	0%	28%	8%	64%	24%	20%	80%	45%	8%	47%	South Dakota
Tennessee	2%	16%	8%	76%	16%	73%	27%	37%	28%	35%	Tennessee
Texas	1%	5%	7%	89%	16%	23%	77%	25%	34%	41%	Texas
Utah	1%	3%	22%	75%	14%	9%	91%	71%	6%	23%	Utah
Vermont	0%	9%	6%	85%	21%	52%	48%	62%	5%	32%	Vermont
Virginia	1%	7%	12%	81%	23%	54%	46%	52%	16%	32%	Virginia
Washington	11%	33%	27%	40%	23%	73%	27%	71%	10%	18%	Washington
West Virginia	1%	5%	25%	70%	20%	70%	30%	62%	12%	27%	West Virginia
Wisconsin	1%	16%	7%	77%	22%	57%	43%	30%	28%	42%	Wisconsin
Wyoming	2%	1%	46%	53%	16%	32%	68%	74%	6%	20%	Wyoming
U.S. Average		8%	33%	59%	17%	63%	37%	57%	15%	28%	

- a. Regional percentage of U.S. total gross power potential
- b. Percentage of state total gross power potential
- c. Percentage of state available gross power potential
- d. Percentage of state total hydropower potential
- e. Percentage of state low power hydropower potential

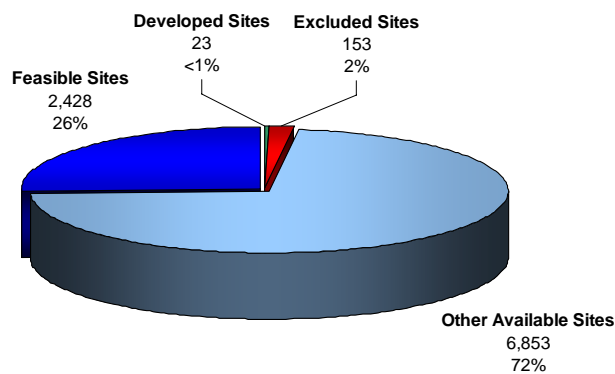
Note 1: Bolded figures indicate values greater than or equal to the U.S. average.
 Note 2: Blue background indicates constituent with the largest percentage.

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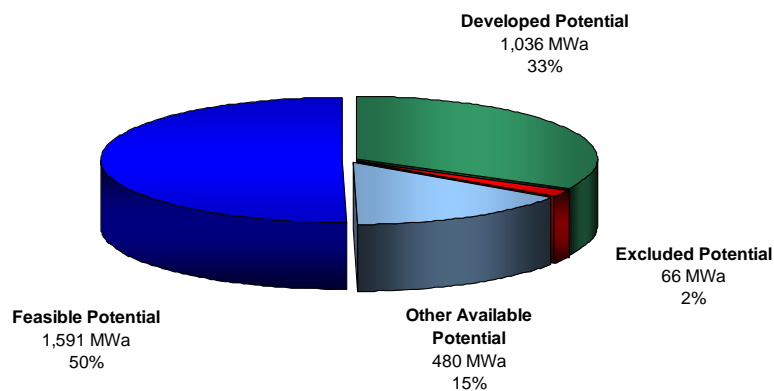
B.1 Alabama

Table B-3. Summary of results of water energy resource assessment of Alabama.

Power Class	Total (MWa)	Developed (MWa)	Federally Excluded (MWa)	Other Excluded (MWa)	Available (MWa)
Total Power	3,171	1,036	42	24	2,070
Total High Power	2,332	1,032	31	18	1,250
Large Hydro	1,404	957	0	0	446
Small Hydro	929	75	31	18	804
Total Low Power	839	3	10	6	820
Conventional Turbines	490	2	7	4	478
Unconventional Systems	93	1	1	0	90
Microhydro	256	0	2	2	252



(a) Total Resource Sites
9,457

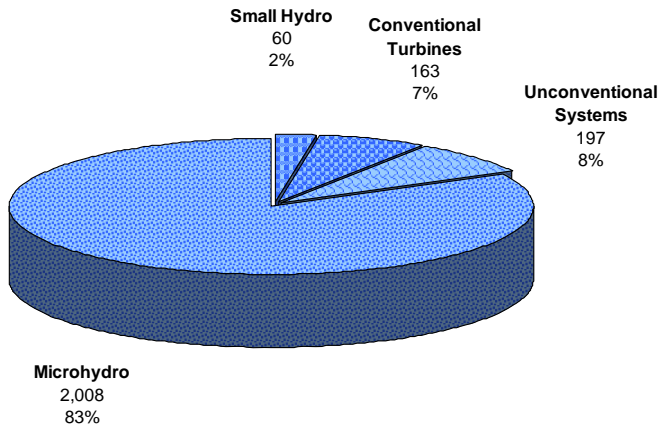


(b) Total Resource Potential
3,171 MWa

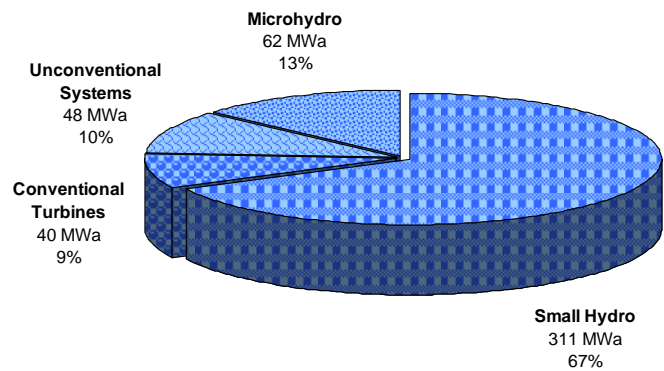
Figure B-1. Power category distribution of the (a) number and (b) total power potential of the water energy resource sites in Alabama.

Table B-4. Summary of results of feasibility assessment of water energy resources in Alabama.

Power Class	Available (MWa)	Feasible Sites (MWa)	Feasible Projects (MWa)
Total Power	2,070	1,591	462
Total High Power	1,250	1,097	311
Large Hydro	446	406	0
Small Hydro	804	690	311
Total Low Power	820	494	150
Conventional Turbines	478	374	40
Unconventional Systems	90	75	48
Microhydro	252	45	62

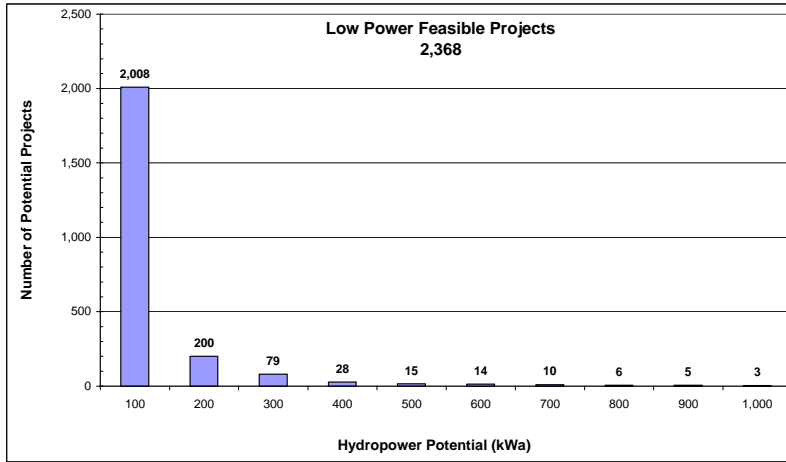


(a) Total Feasible Projects
2,428

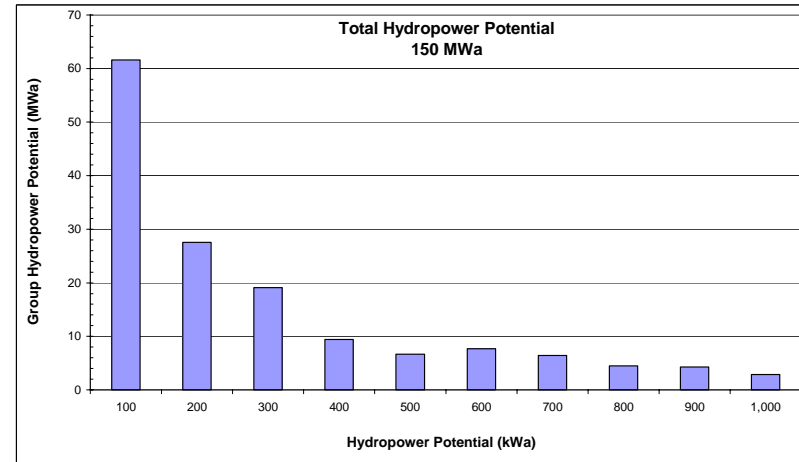


(b) Total Feasible Project Hydropower Potential
462 MWa

Figure B-2. Distribution of the (a) number and (b) total hydropower potential of the low power and small hydropower feasible projects in Alabama with the low power projects divided into technology classes.

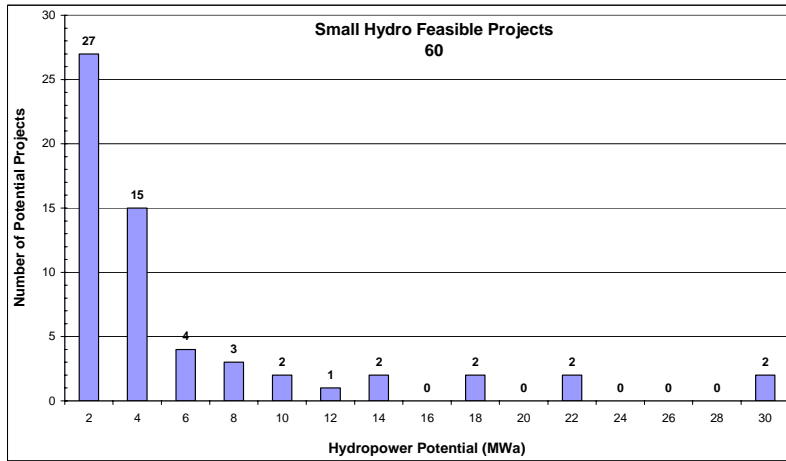


(a)

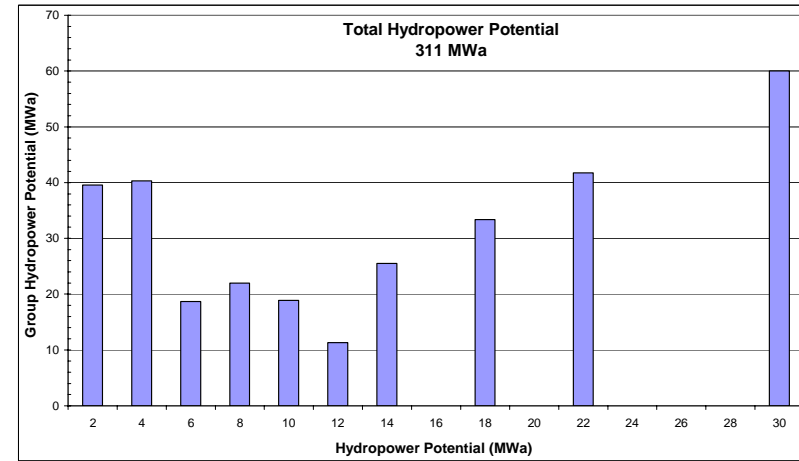


(b)

Figure B-3. Distributions of the (a) number and (b) group hydropower potential of low power feasible projects in Alabama.



(a)



(b)

Figure B-4. Distributions of the (a) number and (b) group hydropower potential of small hydropower feasible projects in Alabama.

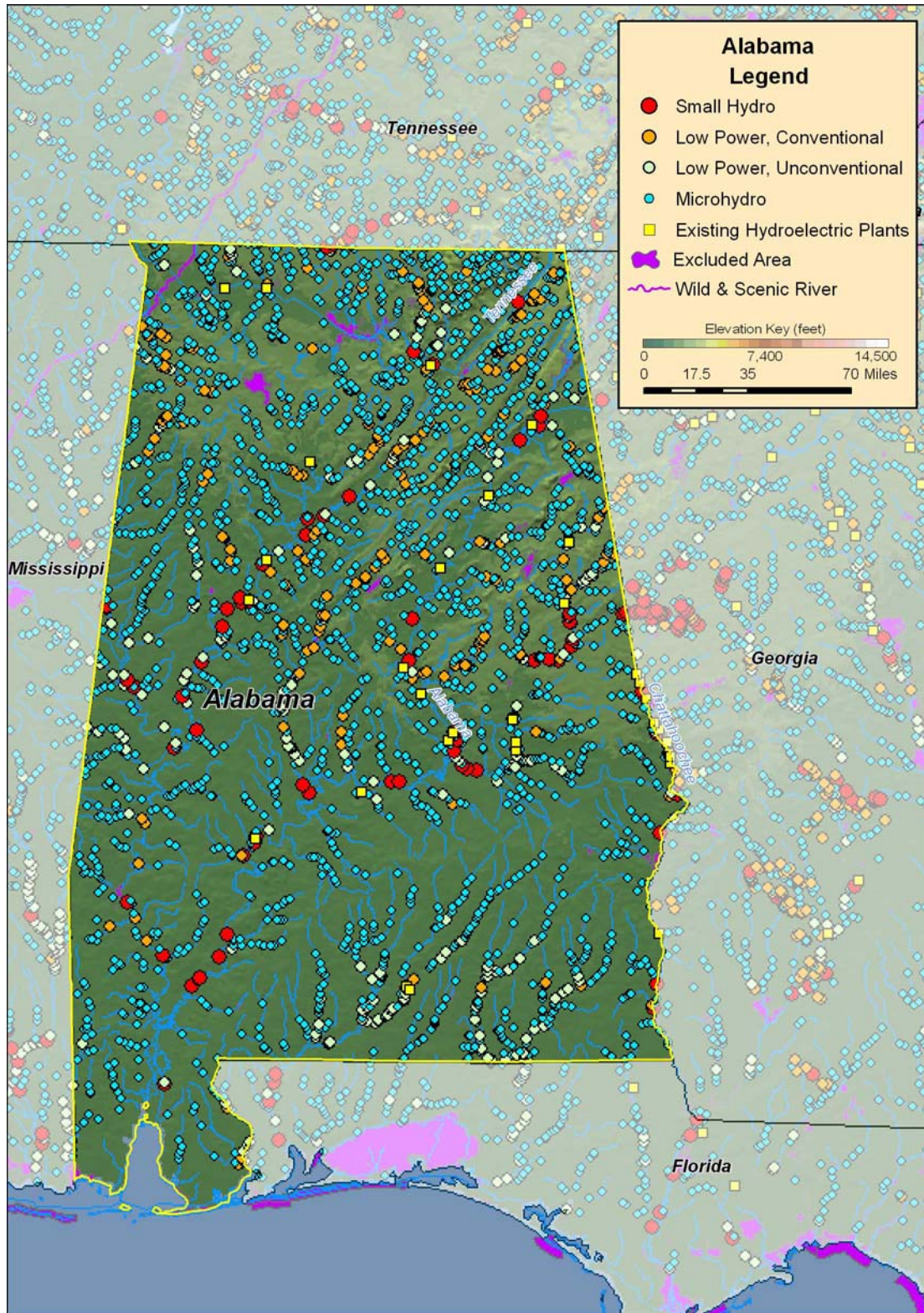
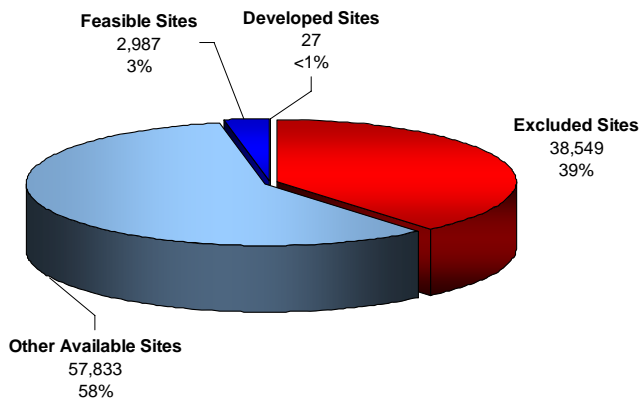


Figure B-5. Low power and small hydropower feasible projects, and existing hydroelectric plants in Alabama.

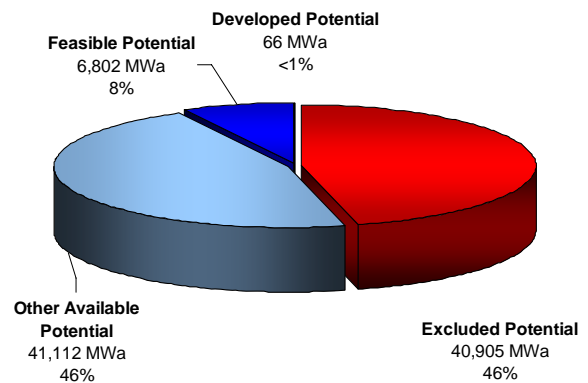
B.2 Alaska

Table B-5. Summary of results of water energy resource assessment of Alaska.

Power Class	Total (MWa)	Developed (MWa)	Federally Excluded (MWa)	Other Excluded (MWa)	Available (MWa)
Total Power	88,885	66	39,125	1,780	47,915
Total High Power	74,329	60	33,086	1,678	39,505
Large Hydro	25,131	0	11,860	1,006	12,266
Small Hydro	49,197	60	21,226	672	27,239
Total Low Power	14,556	5	6,039	102	8,410
Conventional Turbines	11,858	5	5,089	82	6,682
Unconventional Systems	694	0	269	4	420
Microhydro	2,005	0	681	16	1,307



**(a) Total Resource Sites
99,396**



**(b) Total Resource Potential
88,885 MWa**

Figure B-6. Power category distribution of the (a) number and (b) total power potential of the water energy resource sites in Alaska.

Table B-6. Summary of results of feasibility assessment of water energy resources in Alaska.

Power Class	Available (MWa)	Feasible Sites (MWa)	Feasible Projects (MWa)
Total Power	47,915	6,802	2,694
Total High Power	39,505	6,275	2,284
Large Hydro	12,266	2,331	0
Small Hydro	27,239	3,944	2,284
Total Low Power	8,410	527	410
Conventional Turbines	6,682	444	329
Unconventional Systems	420	34	25
Microhydro	1,307	49	55

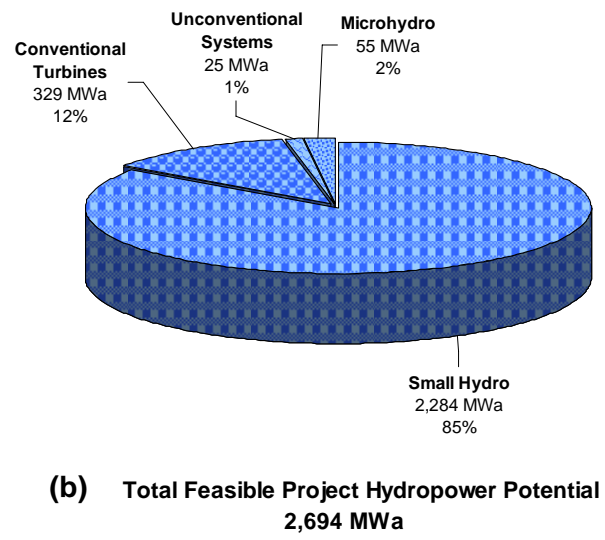
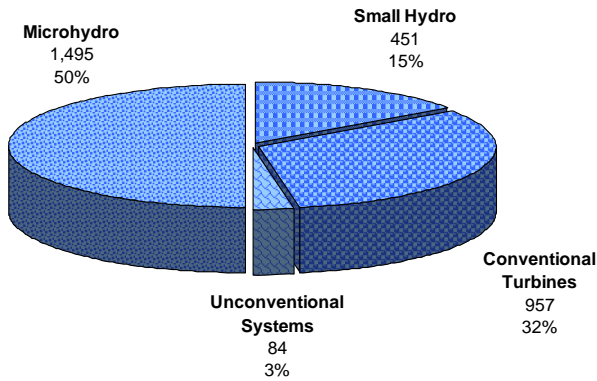
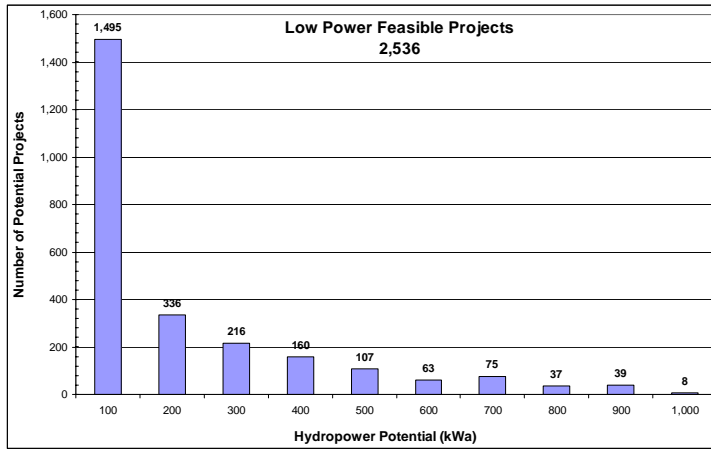
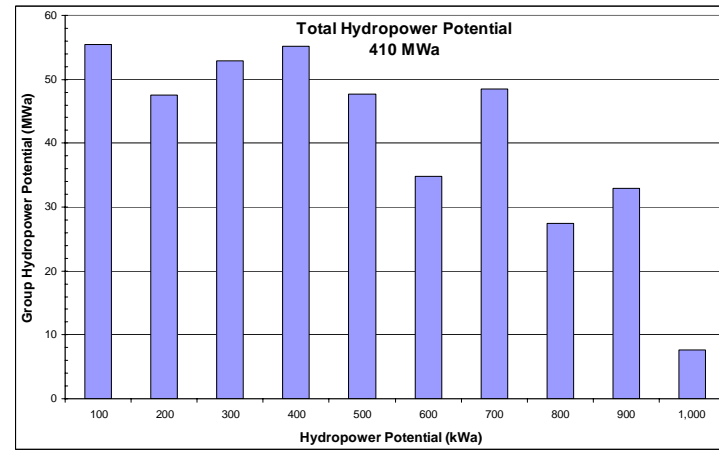


Figure B-7. Distribution of the (a) number and (b) total hydropower potential of the low power and small hydropower feasible projects in Alaska with the low power projects divided into technology classes.



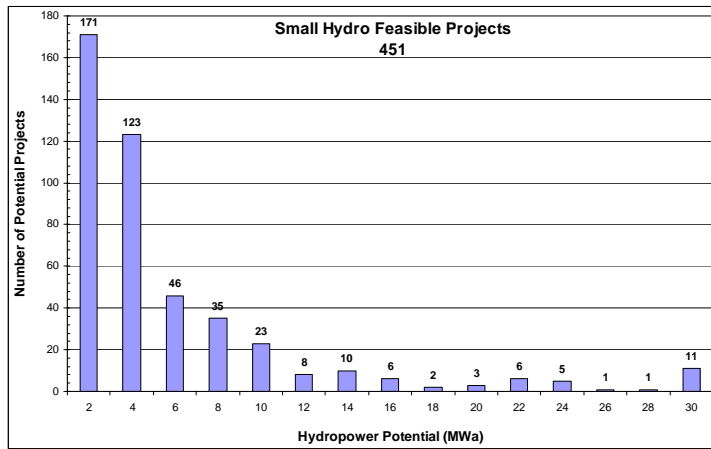
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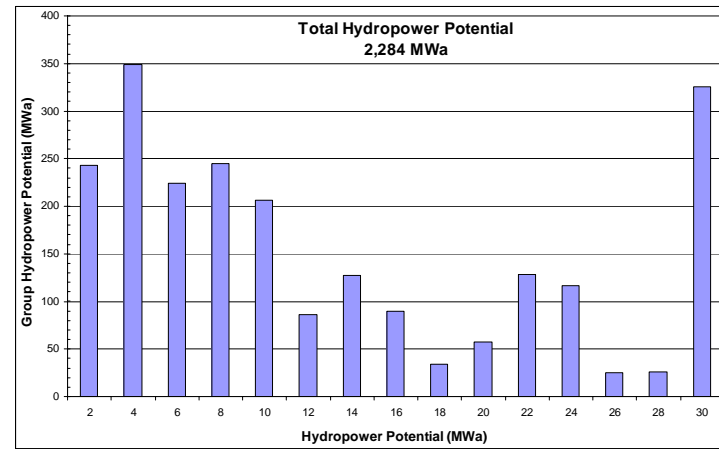
(b)

Figure B-8. Distributions of the (a) number and (b) group hydropower potential of low power feasible projects in Alaska.

B-13

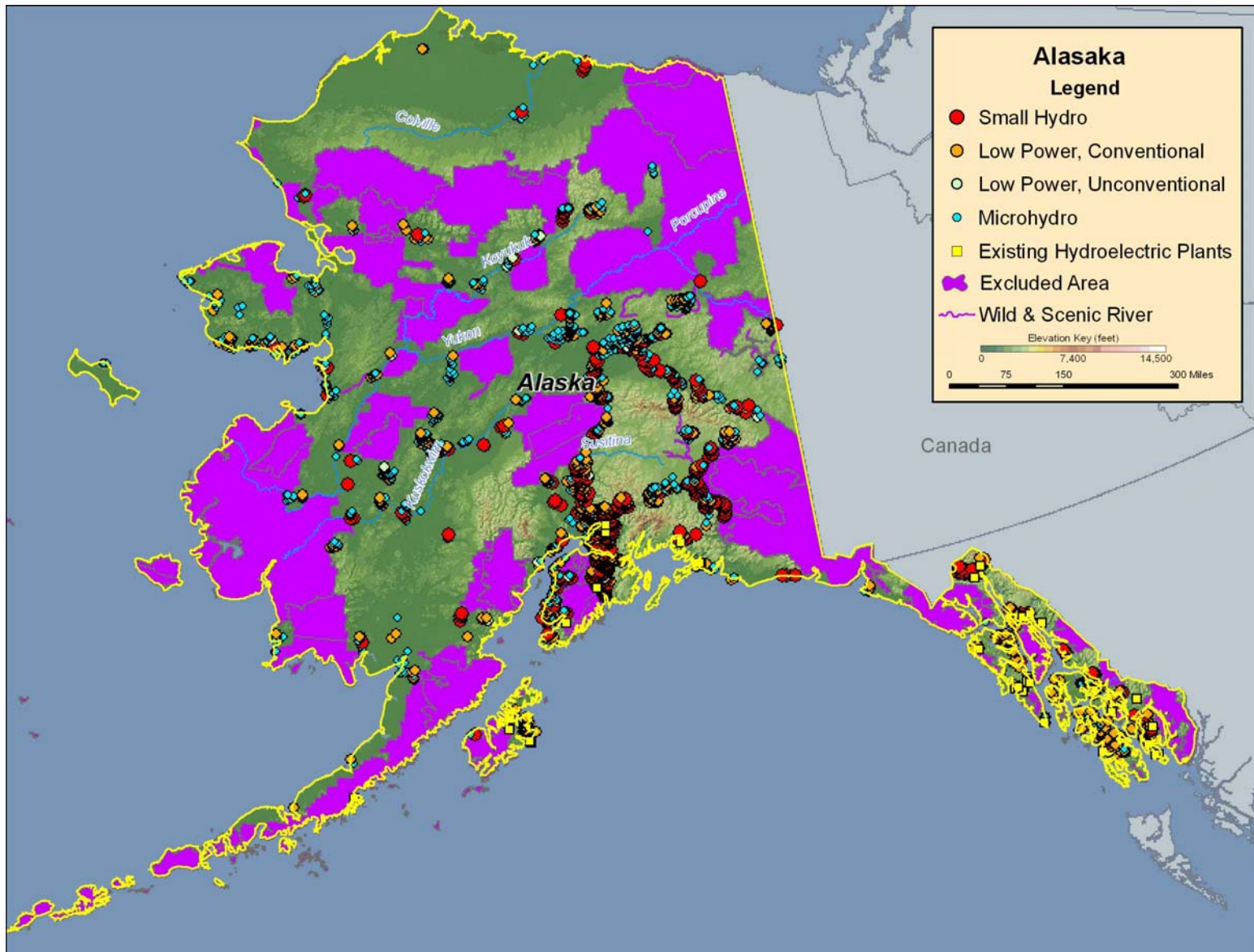


(a)



(b)

Figure B-9. Distributions of the (a) number and (b) group hydropower potential of small hydropower feasible projects in Alaska.



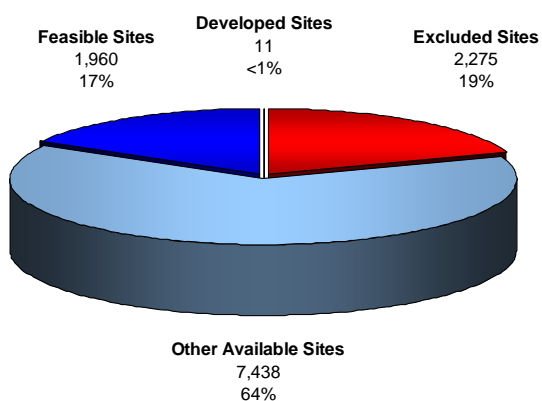
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Figure B-10. Low power and small hydropower feasible projects, and existing hydroelectric plants in Alaska.

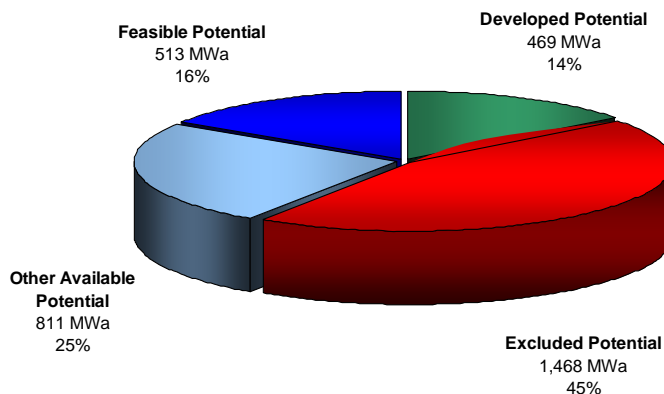
B.3 Arizona

Table B-7. Summary of results of water energy resource assessment of Arizona.

Power Class	Total (MWa)	Developed (MWa)	Federally Excluded (MWa)	Other Excluded (MWa)	Available (MWa)
Total Power	3,260	469	1,200	268	1,324
Total High Power	2,109	466	988	200	454
Large Hydro	594	441	35	118	0
Small Hydro	1,515	25	953	82	454
Total Low Power	1,152	2	212	68	869
Conventional Turbines	814	2	164	51	597
Unconventional Systems	49	0	10	4	35
Microhydro	288	0	38	13	237



(a) Total Resource Sites
11,684



(b) Total Resource Potential
3,260 MWa

Figure B-11. Power category distribution of the (a) number and (b) total power potential of the water energy resource sites in Arizona.

Table B-8. Summary of results of feasibility assessment of water energy resources in Arizona.

Power Class	Available (MWa)	Feasible Sites (MWa)	Feasible Projects (MWa)
Total Power	1,324	513	150
Total High Power	454	170	10
Large Hydro	0	0	0
Small Hydro	454	170	10
Total Low Power	869	343	140
Conventional Turbines	597	265	65
Unconventional Systems	35	28	25
Microhydro	237	50	50

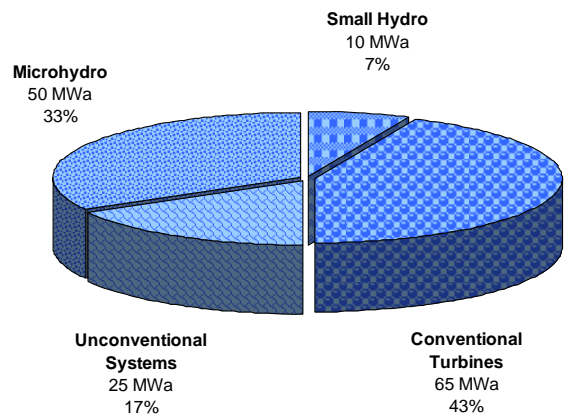
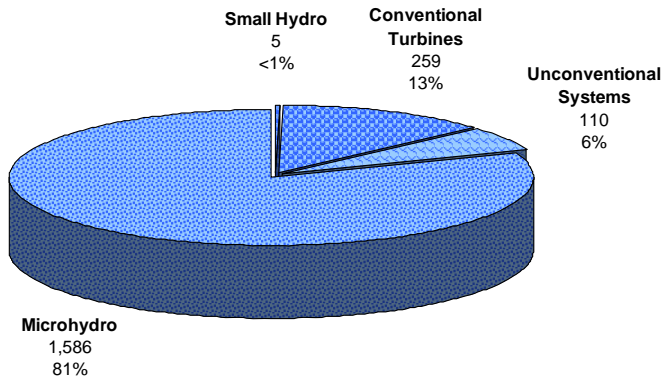
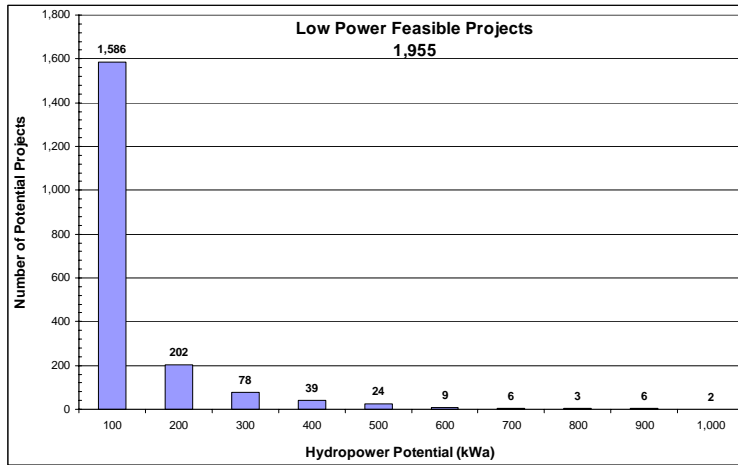
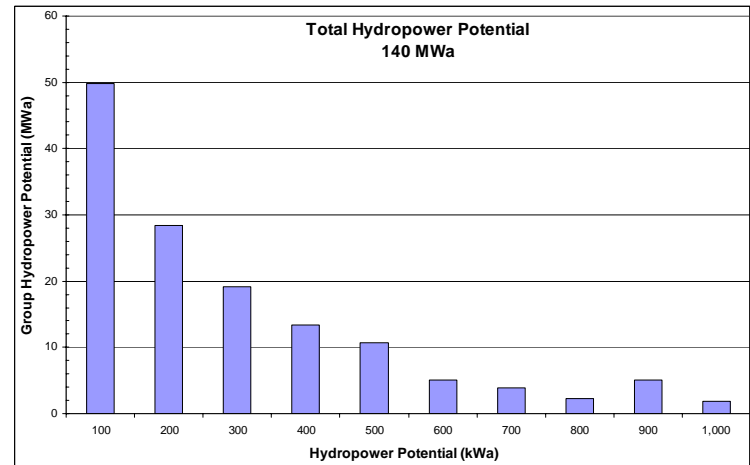


Figure B-12. Distribution of the (a) number and (b) total hydropower potential of the low power and small hydropower feasible projects in Arizona with the low power projects divided into technology classes.

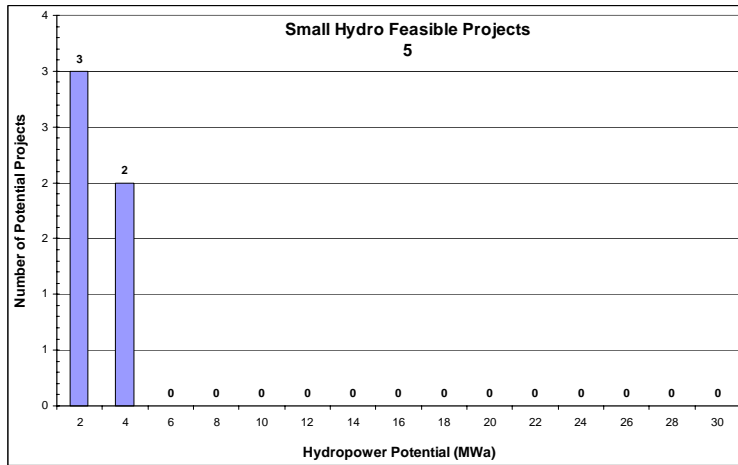


(a)

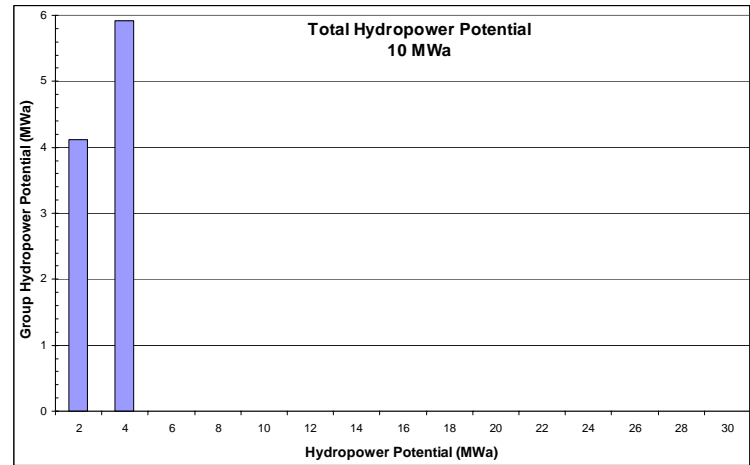


(b)

Figure B-13. Distributions of the (a) number and (b) group hydropower potential of low power feasible projects in Arizona.



(a)



(b)

Figure B-14. Distributions of the (a) number and (b) group hydropower potential of small hydropower feasible projects in Arizona.

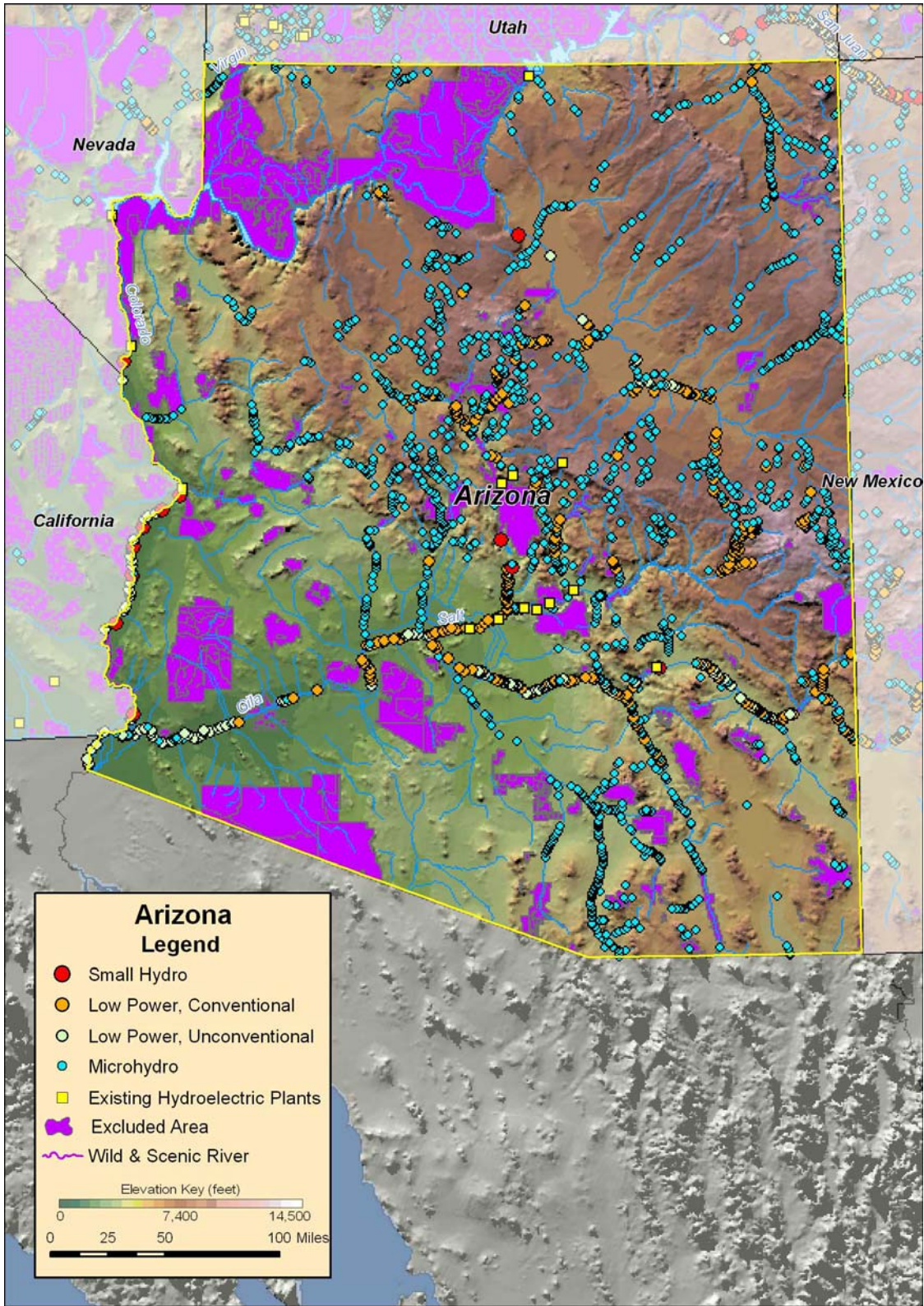
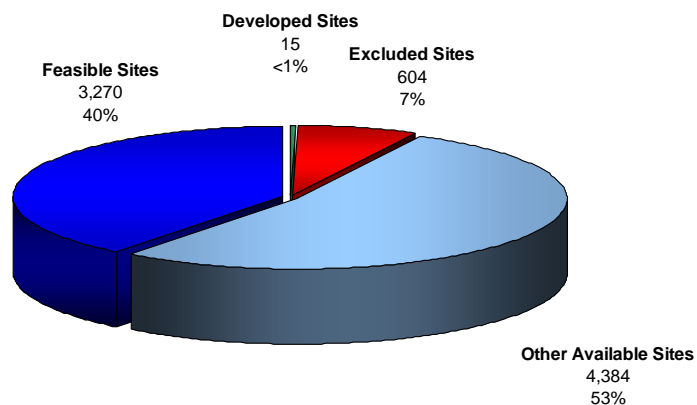


Figure B-15. Low power and small hydropower feasible projects, and existing hydroelectric plants in Arizona.

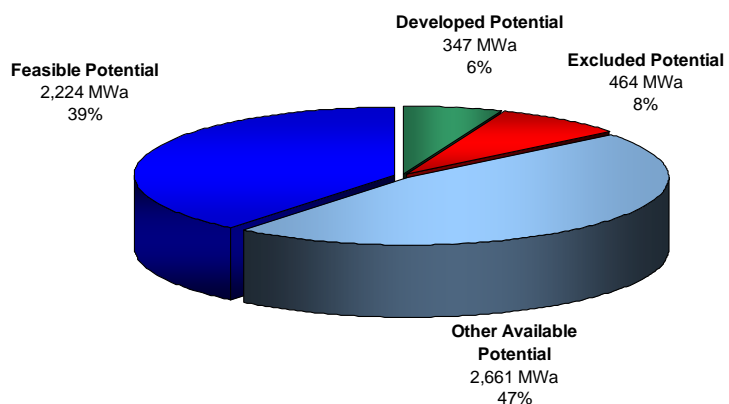
B.4 Arkansas

Table B-9. Summary of results of water energy resource assessment of Arkansas.

Power Class	Total (MWa)	Developed (MWa)	Federally Excluded (MWa)	Other Excluded (MWa)	Available (MWa)
Total Power	5,697	347	385	79	4,886
Total High Power	4,819	347	307	55	4,110
Large Hydro	3,607	230	166	0	3,211
Small Hydro	1,212	117	141	55	899
Total Low Power	878	0	78	24	776
Conventional Turbines	547	0	63	11	473
Unconventional Systems	117	0	7	9	101
Microhydro	214	0	8	4	202



(a) Total Resource Sites
8,273

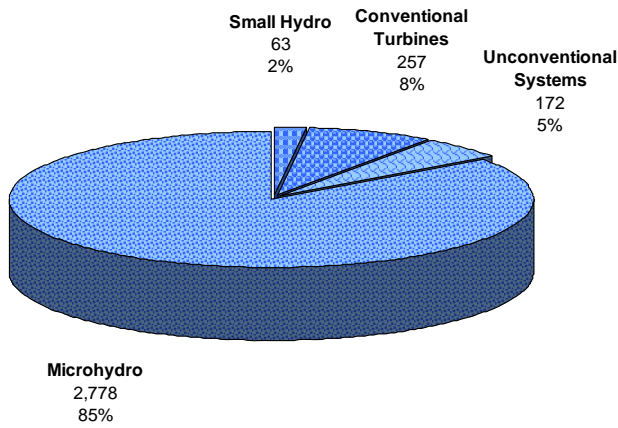


(b) Total Resource Potential
5,697 MWa

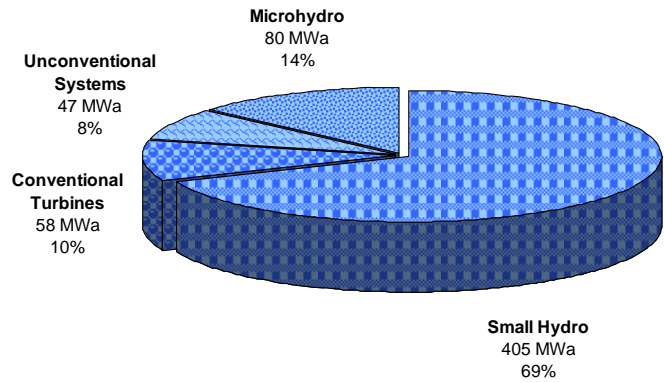
Figure B-16. Power category distribution of the (a) number and (b) total power potential of the water energy resource sites in Arkansas.

Table B-10. Summary of results of feasibility assessment of water energy resources in Arkansas.

Power Class	Available (MWa)	Feasible Sites (MWa)	Feasible Projects (MWa)
Total Power	4,886	2,224	590
Total High Power	4,110	1,660	405
Large Hydro	3,211	996	0
Small Hydro	899	665	405
Total Low Power	776	564	185
Conventional Turbines	473	407	58
Unconventional Systems	101	76	47
Microhydro	202	81	80

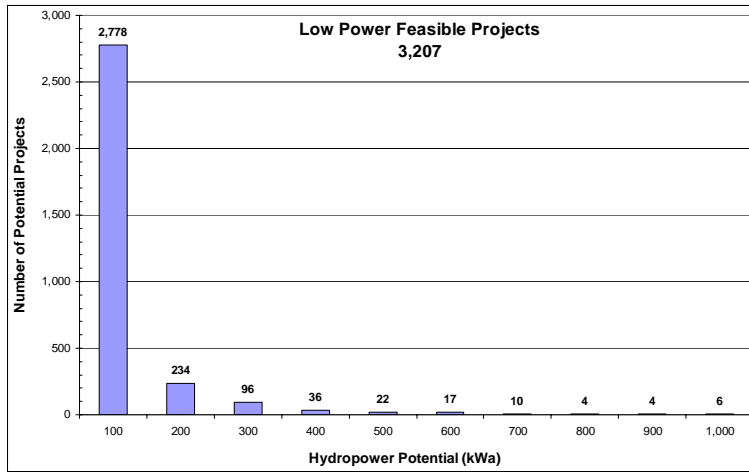


(a) Total Feasible Projects
3,270

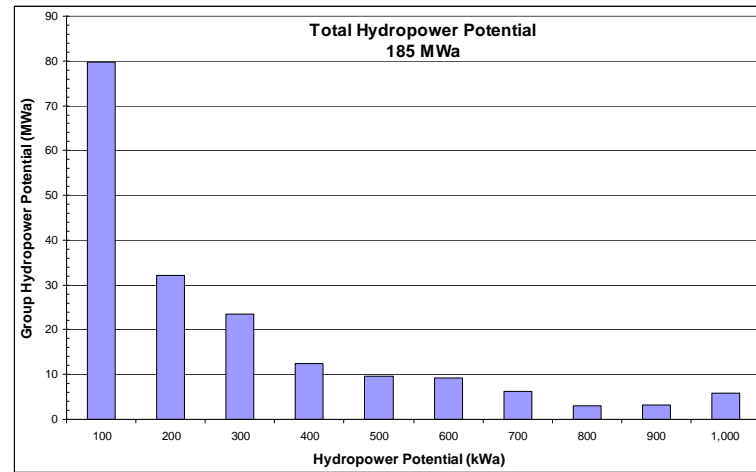


(b) Total Feasible Project Hydropower Potential
590 MWa

Figure B-17. Distribution of the (a) number and (b) total hydropower potential of the low power and small hydropower feasible projects in Arkansas with the low power projects divided into technology classes.

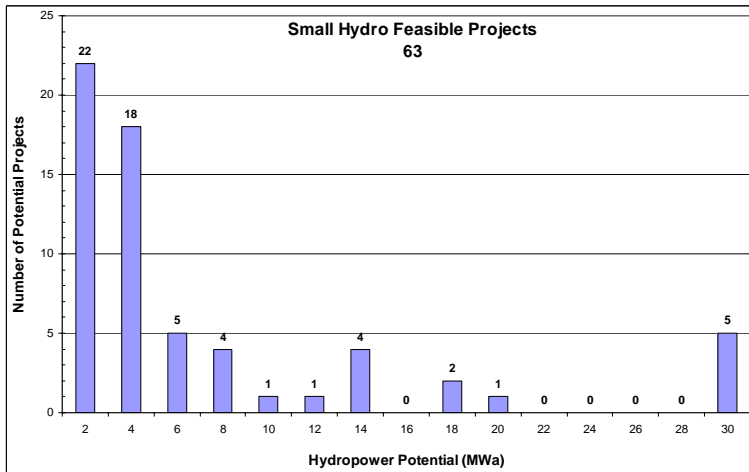


(a)

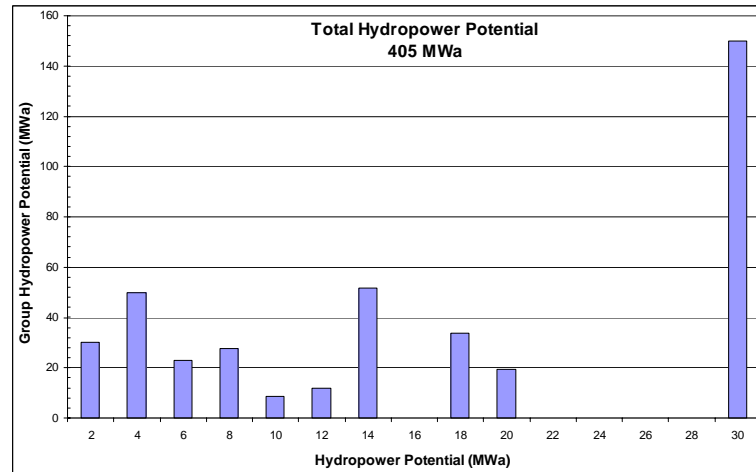


(b)

Figure B-18. Distributions of the (a) number and (b) group hydropower potential of low power feasible projects in Arkansas.



(a)



(b)

Figure B-19. Distributions of the (a) number and (b) group hydropower potential of small hydropower feasible projects in Arkansas.

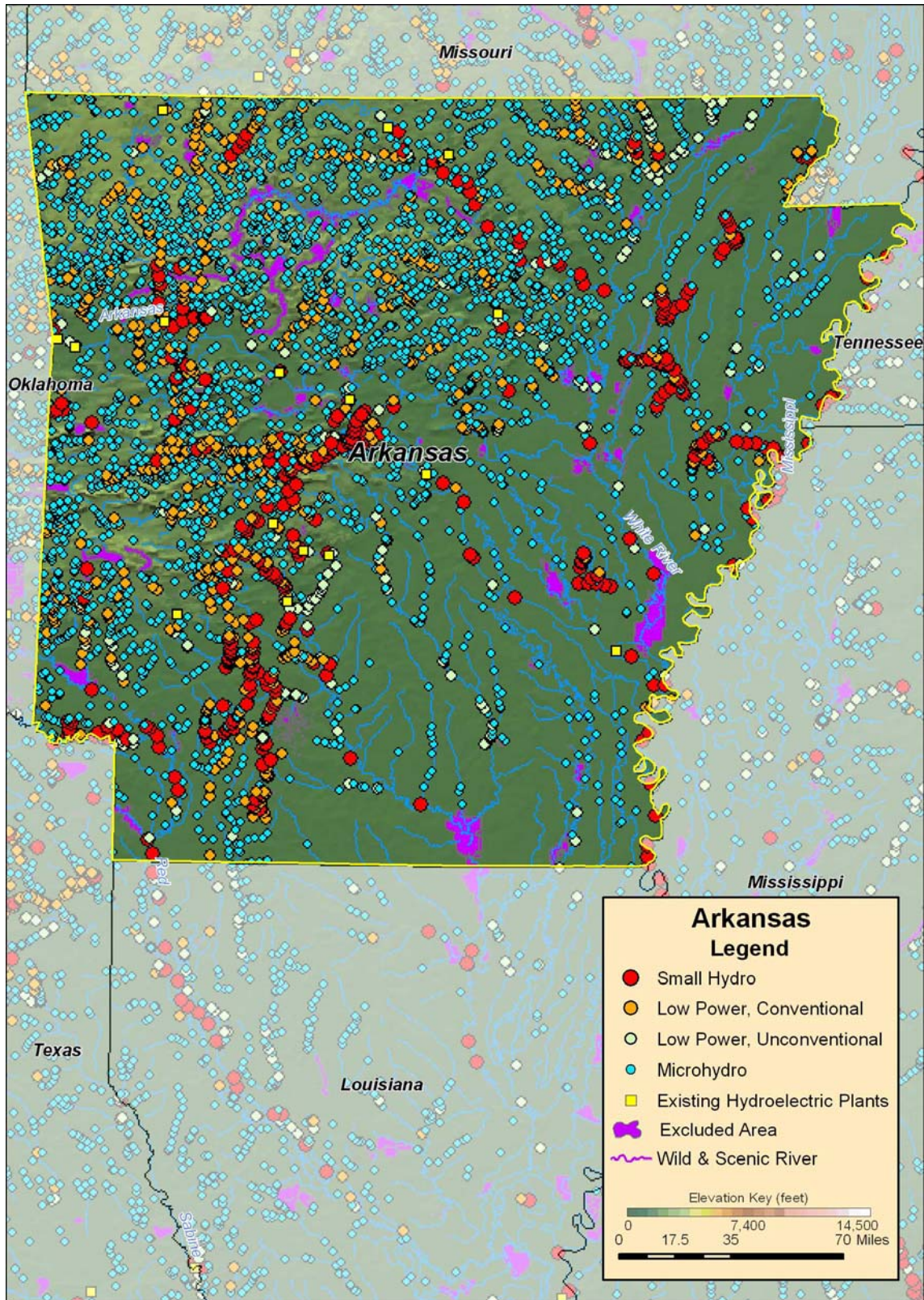
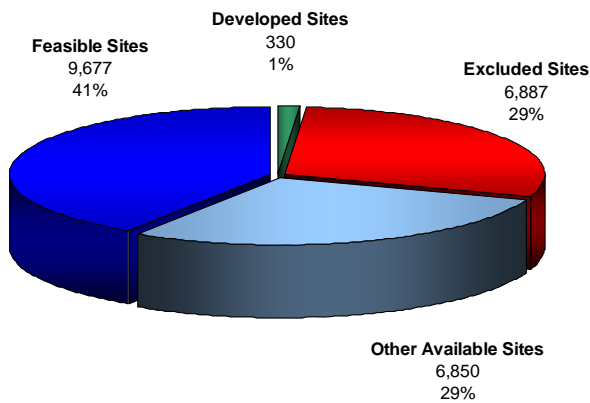


Figure B-20. Low power and small hydropower feasible projects, and existing hydroelectric plants in Arkansas.

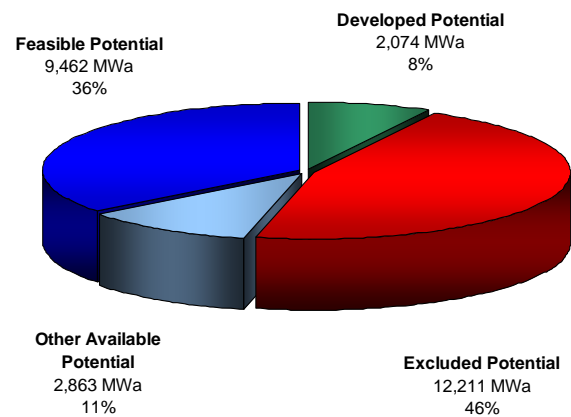
B.5 California

Table B-11. Summary of results of water energy resource assessment of California.

Power Class	Total (MWa)	Developed (MWa)	Federally Excluded (MWa)	Other Excluded (MWa)	Available (MWa)
Total Power	26,611	2,074	11,056	1,155	12,325
Total High Power	22,937	2,030	10,126	976	9,806
Large Hydro	4,816	1,155	1,598	407	1,656
Small Hydro	18,122	875	8,528	568	8,151
Total Low Power	3,674	45	930	180	2,519
Conventional Turbines	3,161	39	839	148	2,134
Unconventional Systems	101	2	22	6	71
Microhydro	412	4	69	26	314



(a) Total Resource Sites
23,744



(b) Total Resource Potential
26,611 MWa

Figure B-21. Power category distribution of the (a) number and (b) total power potential of the water energy resource sites in California.

Table B-12. Summary of results of water energy resource assessment of California.

Power Class	Available (MWa)	Feasible Sites (MWa)	Feasible Projects (MWa)
Total Power	12,325	9,462	3,425
Total High Power	9,806	7,679	2,283
Large Hydro	1,656	1,465	0
Small Hydro	8,151	6,214	2,283
Total Low Power	2,519	1,783	1,141
Conventional Turbines	2,134	1,529	880
Unconventional Systems	71	67	44
Microhydro	314	187	217

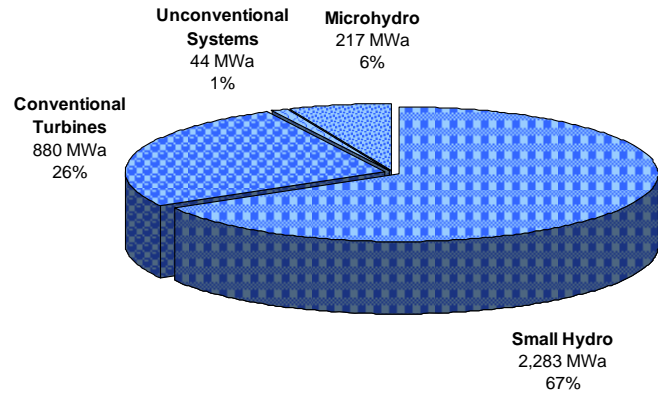
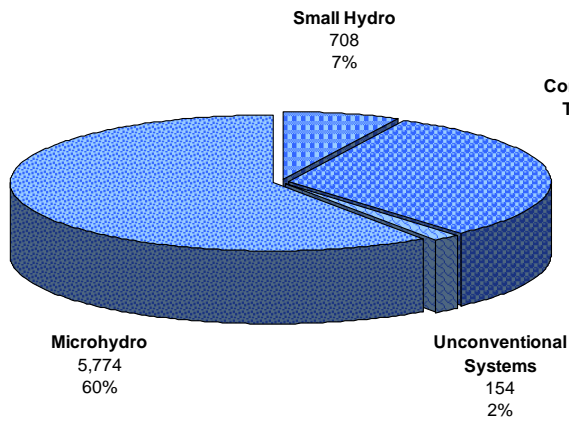
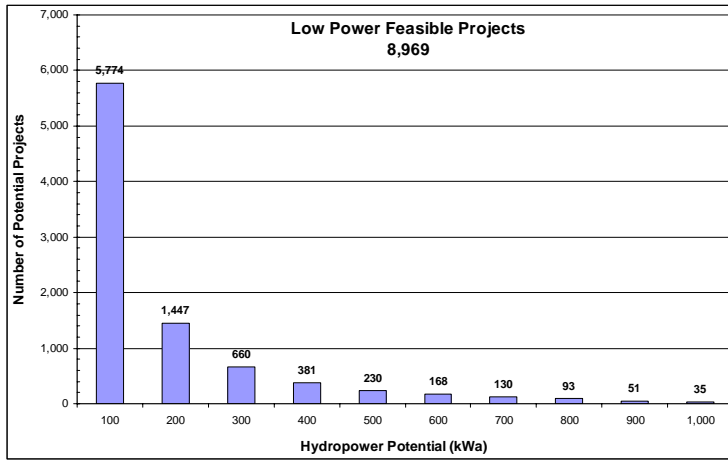
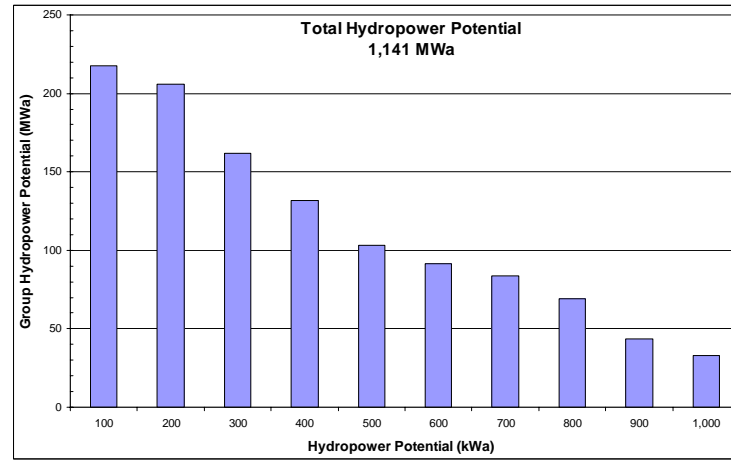


Figure B-22. Distribution of the (a) number and (b) total hydropower potential of the low power and small hydropower feasible projects in California with the low power projects divided into technology classes.



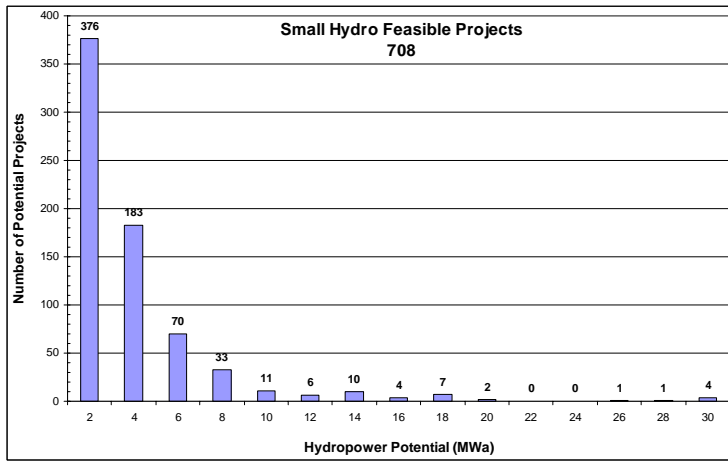
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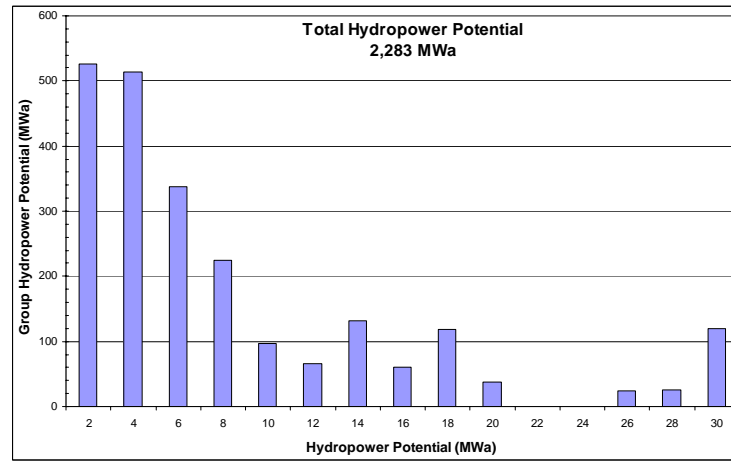
(b)

Figure B-23. Distributions of the (a) number and (b) group hydropower potential of low power feasible projects in California.

B-25



(a)



(b)

Figure B-24. Distributions of the (a) number and (b) group hydropower potential of small hydropower feasible projects in California.

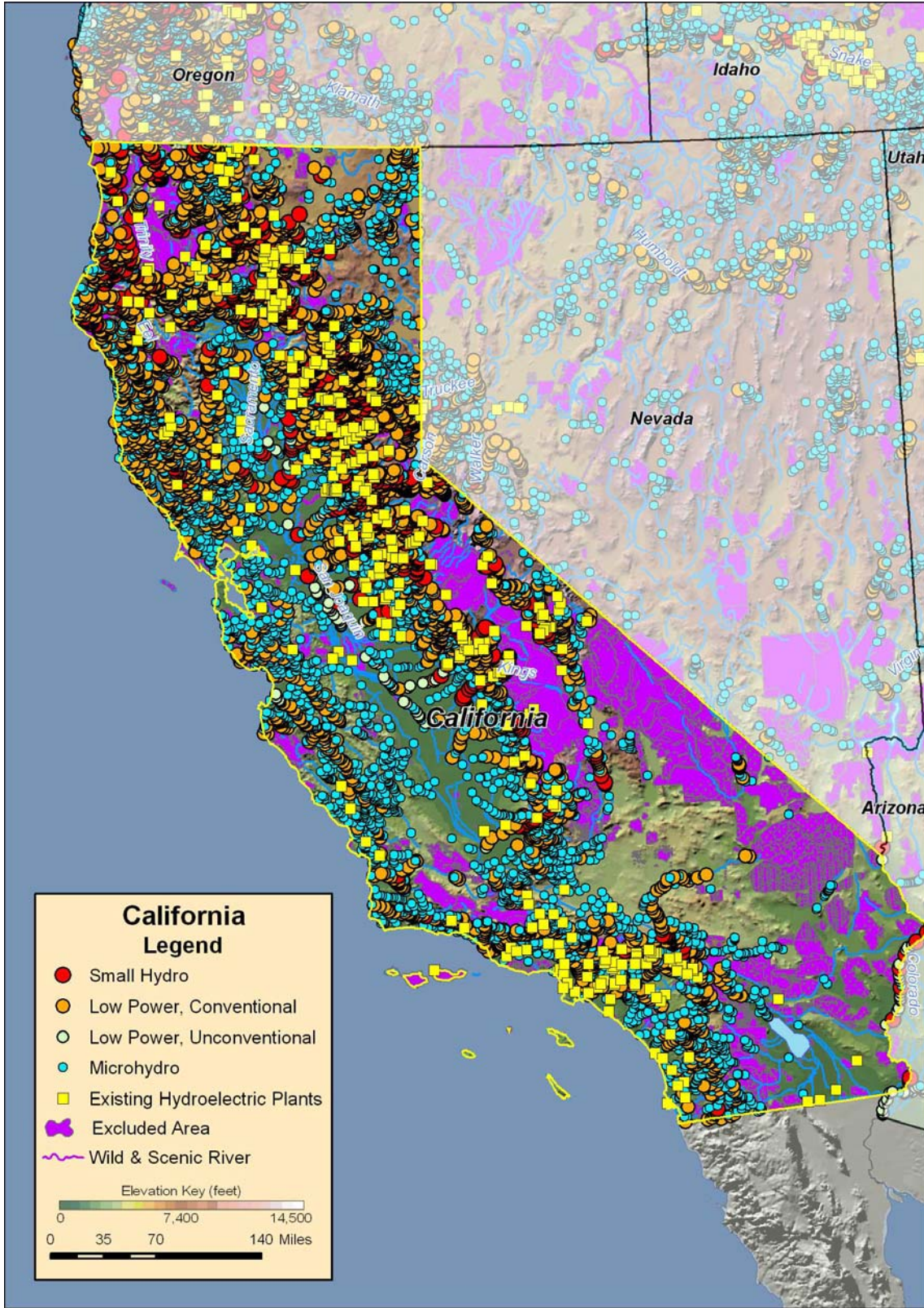
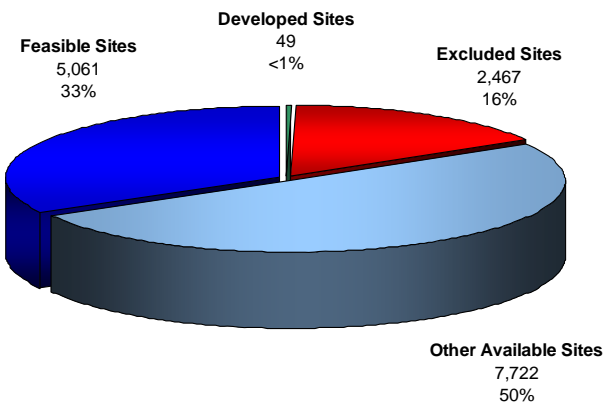


Figure B-25. Low power and small hydropower feasible projects, and existing hydroelectric plants in California.

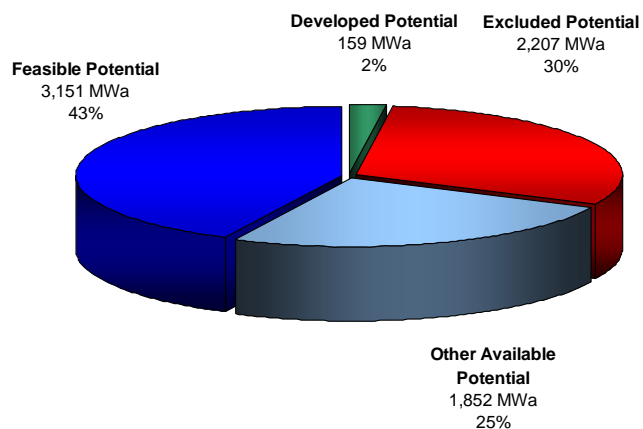
B.6 Colorado

Table B-13. Summary of results of water energy resource assessment of Colorado.

Power Class	Total (MWa)	Developed (MWa)	Federally Excluded (MWa)	Other Excluded (MWa)	Available (MWa)
Total Power	7,370	159	1,817	391	5,003
Total High Power	4,930	149	1,420	263	3,099
Large Hydro	261	80	180	0	0
Small Hydro	4,670	68	1,240	263	3,099
Total Low Power	2,439	11	397	128	1,904
Conventional Turbines	2,090	10	375	104	1,600
Unconventional Systems	64	0	6	9	49
Microhydro	285	0	16	15	255



(a) Total Resource Sites
15,299

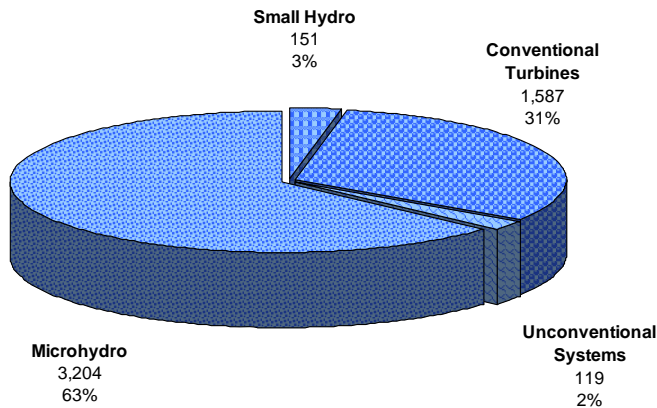


(b) Total Resource Potential
7,370 MWa

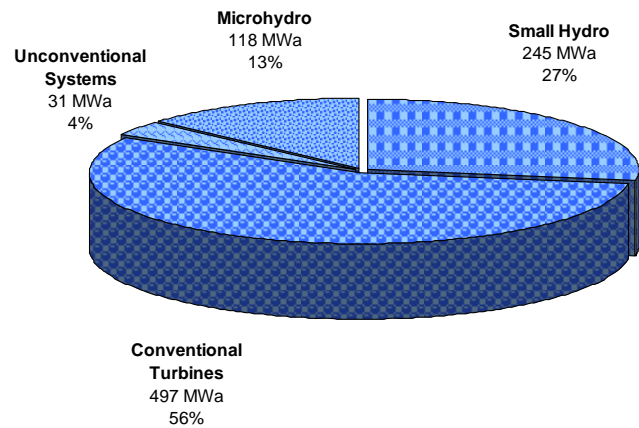
Figure B-26. Power category distribution of the (a) number and (b) total power potential of the water energy resource sites in Colorado.

Table B-14. Summary of results of feasibility assessment of water energy resources in Colorado.

Power Class	Available (MWa)	Feasible Sites (MWa)	Feasible Projects (MWa)
Total Power	5,003	3,151	891
Total High Power	3,099	2,130	245
Large Hydro	0	0	0
Small Hydro	3,099	2,130	245
Total Low Power	1,904	1,021	646
Conventional Turbines	1,600	887	497
Unconventional Systems	49	43	31
Microhydro	255	91	118

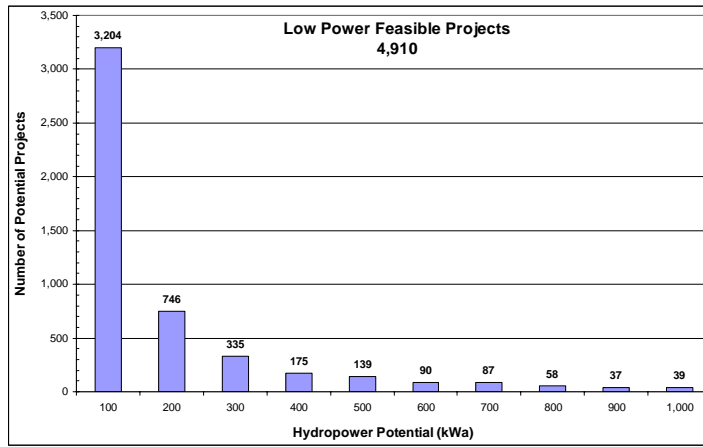


(a) Total Feasible Projects
5,061

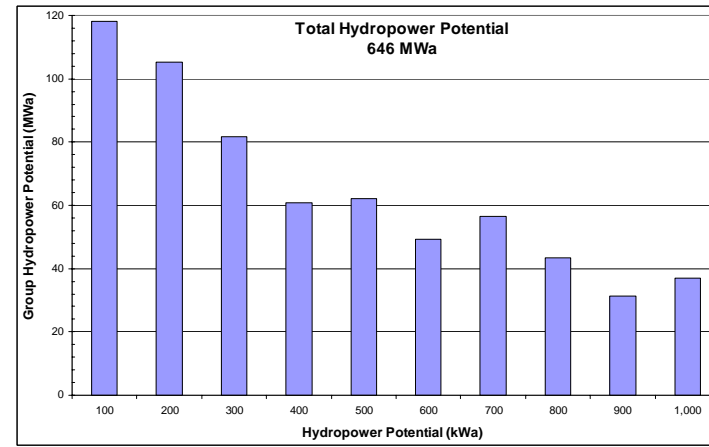


(b) Total Feasible Project Hydropower Potential
891 MWa

Figure B-27. Distribution of the (a) number and (b) total hydropower potential of the low power and small hydropower feasible projects in Colorado with the low power projects divided into technology classes.

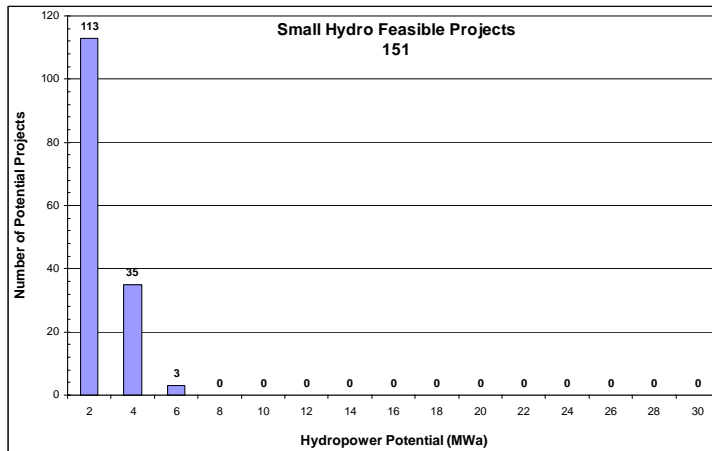


(a)

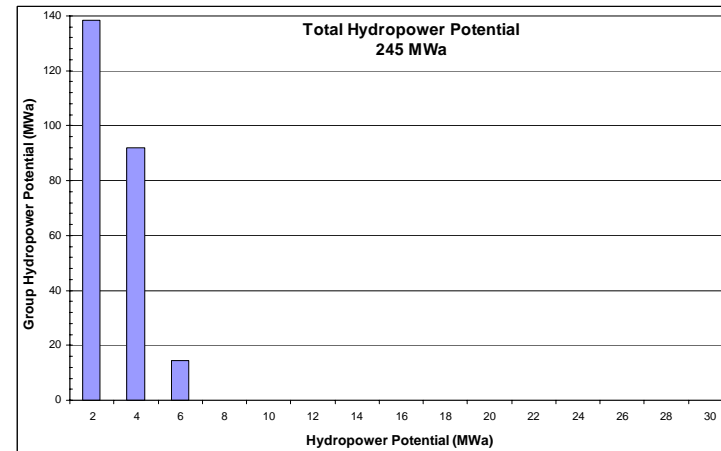


(b)

Figure B-28. Distributions of the (a) number and (b) group hydropower potential of low power feasible projects in Colorado.

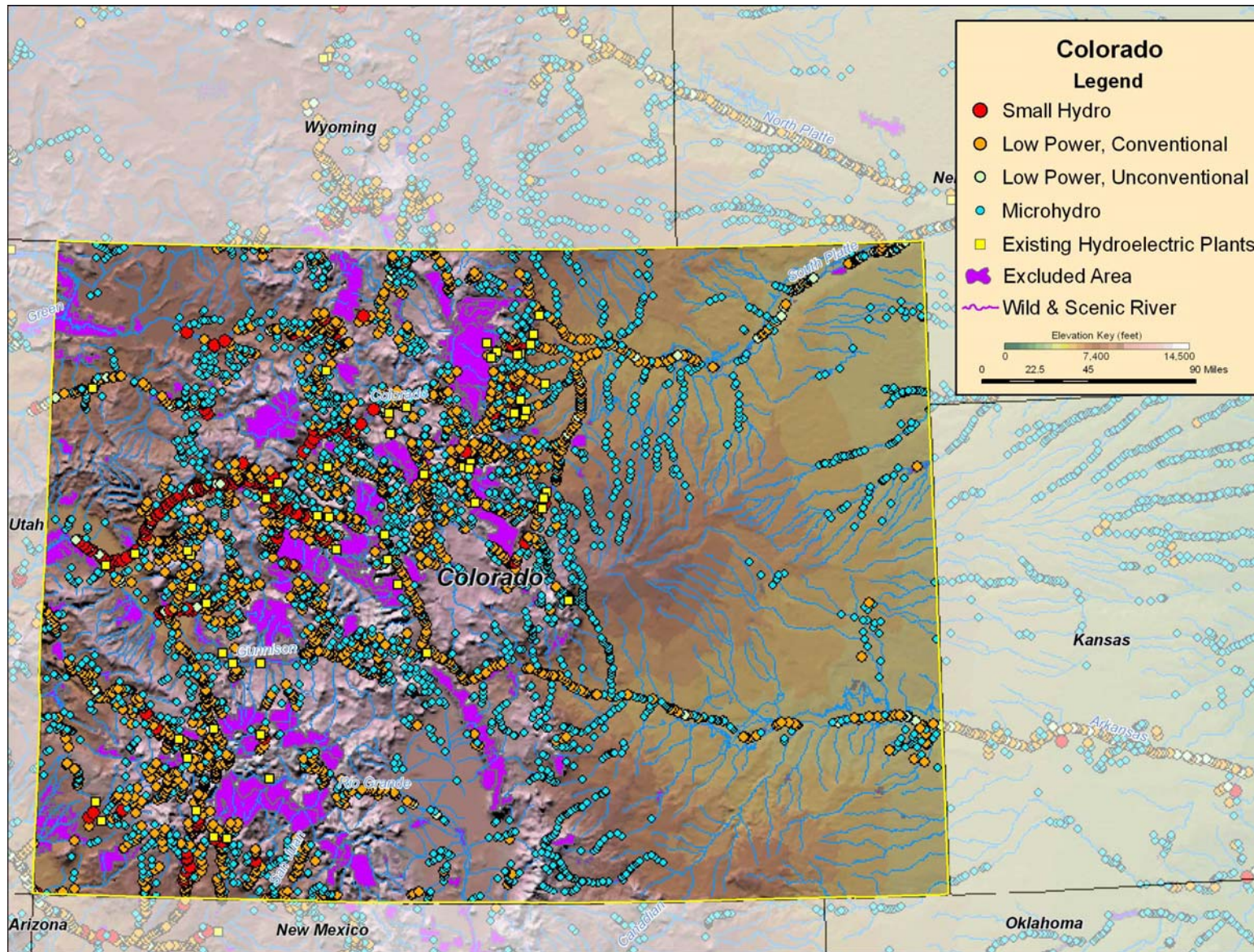


(a)



(b)

Figure B-29. Distributions of the (a) number and (b) group hydropower potential of small hydropower feasible projects in Colorado.



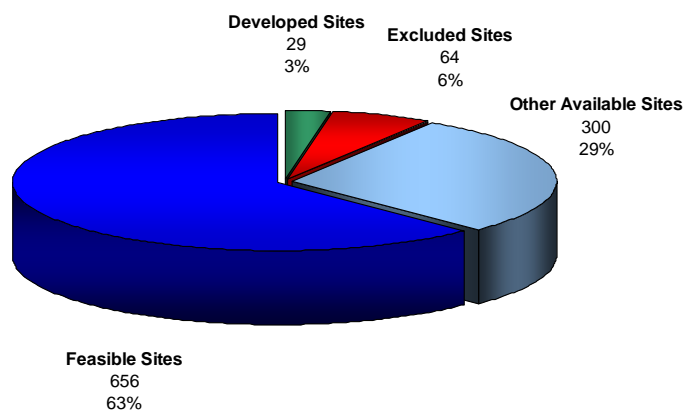
B-30

Figure B-30. Low power and small hydropower feasible projects, and existing hydroelectric plants in Colorado.

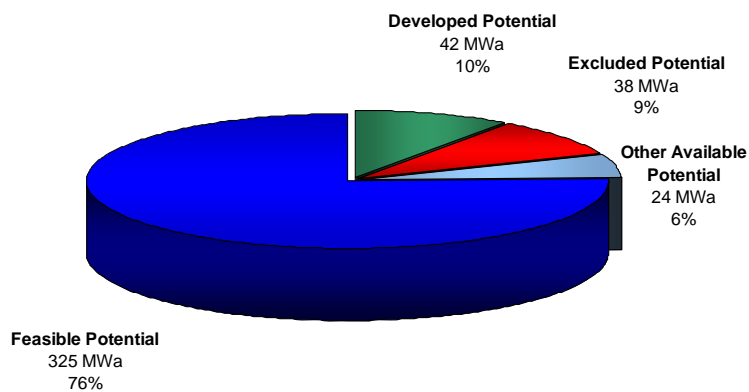
B.7 Connecticut

Table B-15. Summary of results of water energy resource assessment of Connecticut.

Power Class	Total (MWa)	Developed (MWa)	Federally Excluded (MWa)	Other Excluded (MWa)	Available (MWa)
Total Power	430	42	13	25	350
Total High Power	273	37	12	11	213
Large Hydro	0	0	0	0	0
Small Hydro	273	37	12	11	213
Total Low Power	157	5	1	14	137
Conventional Turbines	122	3	1	12	105
Unconventional Systems	11	2	0	1	8
Microhydro	25	0	0	1	23



(a) Total Resource Sites
1,049

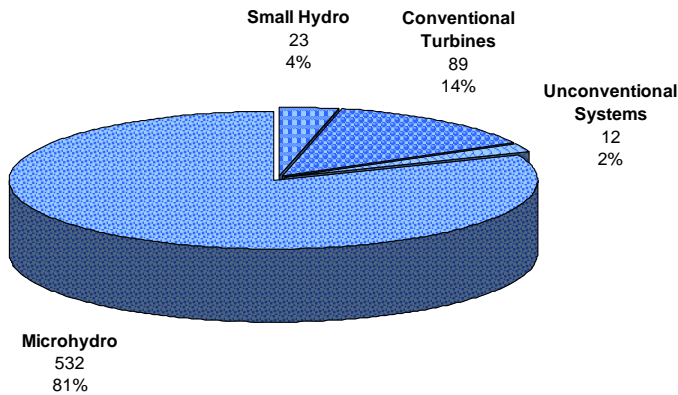


(b) Total Resource Potential
430 MWa

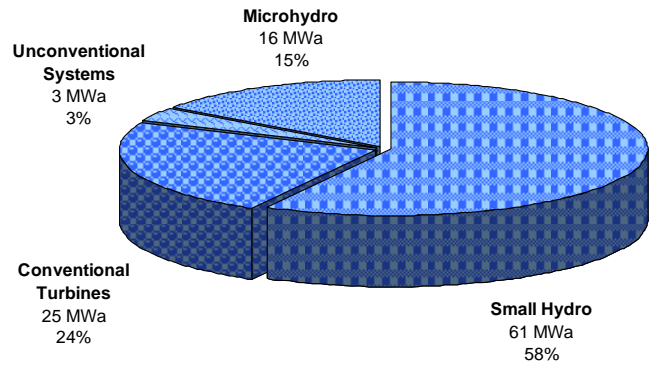
Figure B-31. Power category distribution of the (a) number and (b) total power potential of the water energy resource sites in Connecticut.

Table B-16. Summary of results of water energy resource assessment of Connecticut.

Power Class	Available (MWa)	Feasible Sites (MWa)	Feasible Projects (MWa)
Total Power	350	325	105
Total High Power	213	204	61
Large Hydro	0	0	0
Small Hydro	213	204	61
Total Low Power	137	121	44
Conventional Turbines	105	98	25
Unconventional Systems	8	8	3
Microhydro	23	15	16

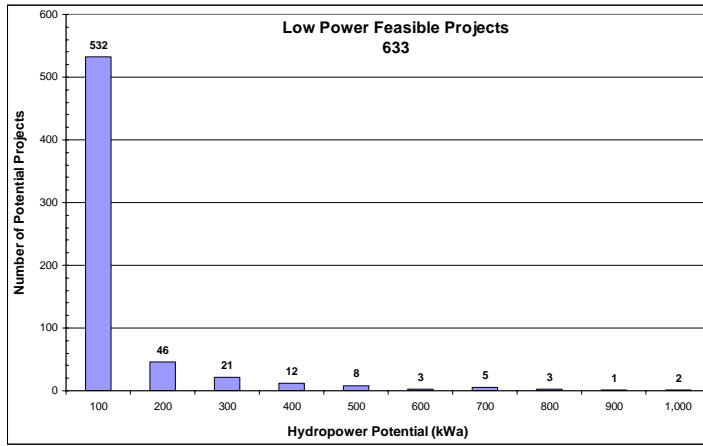


(a) Total Feasible Projects
656

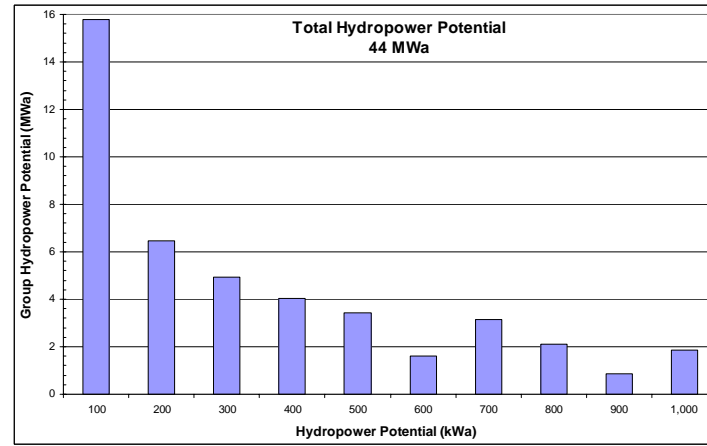


(b) Total Feasible Project Hydropower Potential
105 MWa

Figure B-32. Distribution of the (a) number and (b) total hydropower potential of the low power and small hydropower feasible projects in Connecticut with the low power projects divided into technology classes.



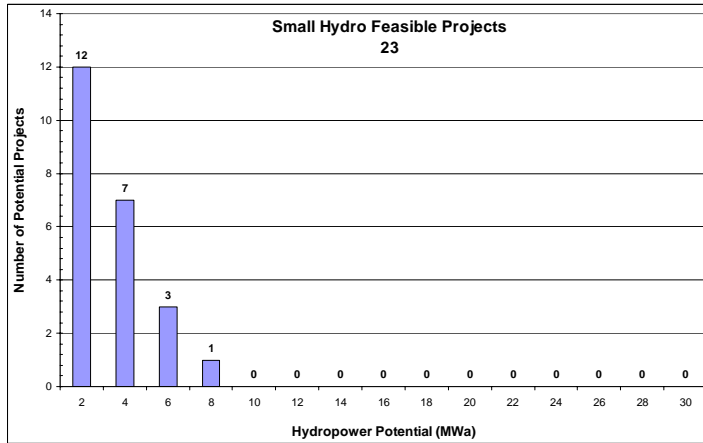
(a)



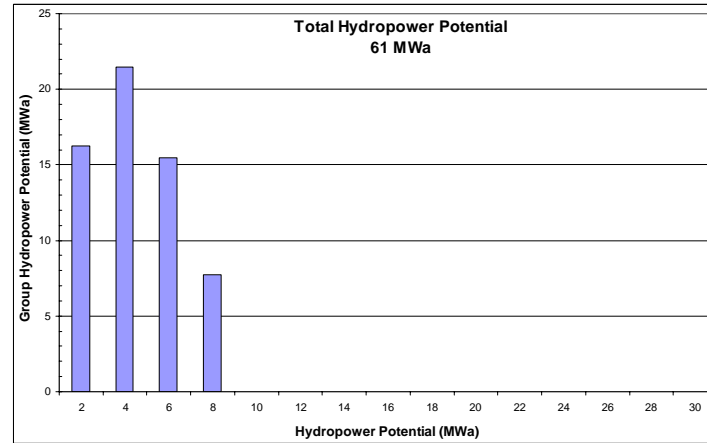
(b)

Figure B-33. Distributions of the (a) number and (b) group hydropower potential of low power feasible projects in Connecticut

B-33

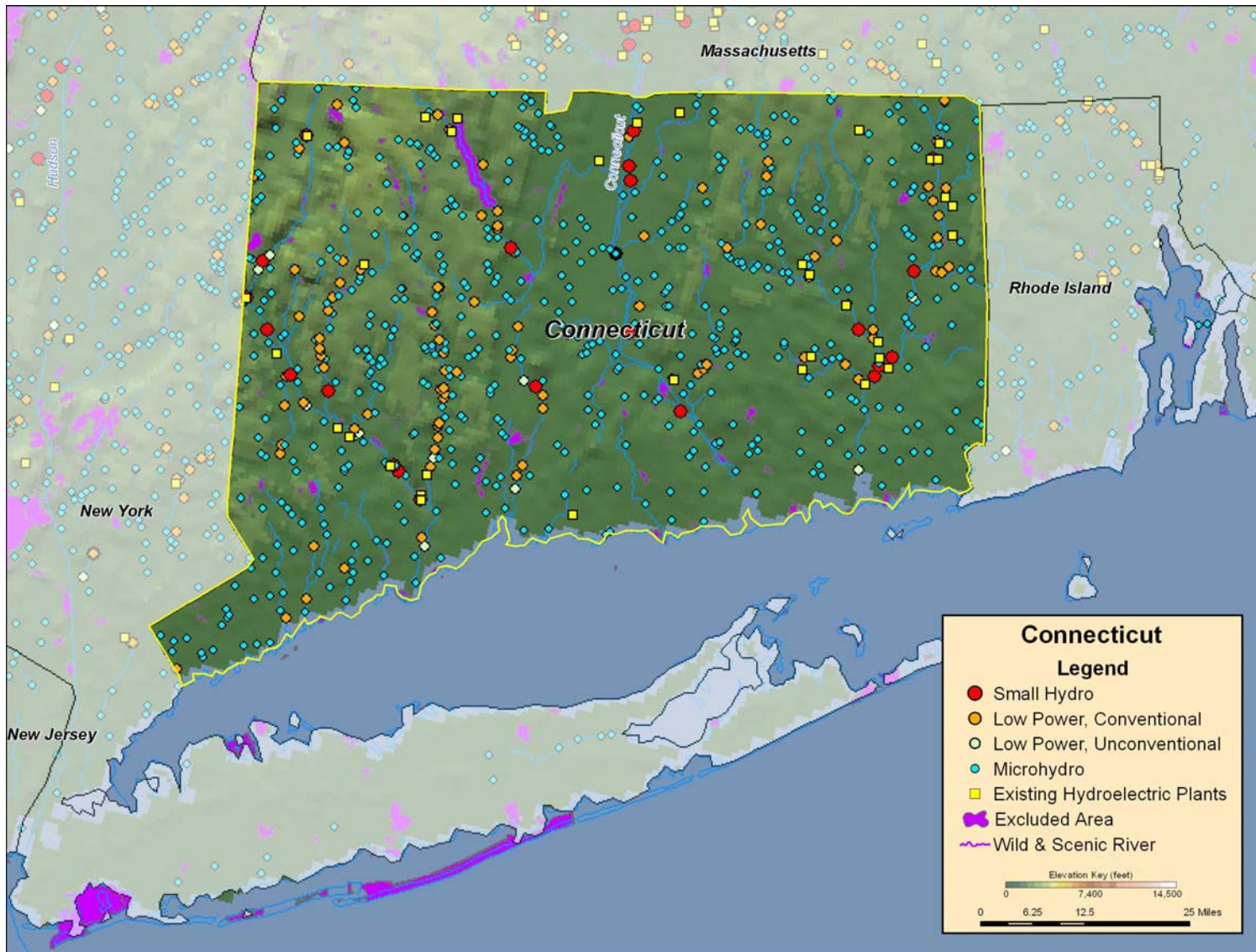


(a)



(b)

Figure B-34. Distributions of the (a) number and (b) group hydropower potential of small hydropower feasible projects in Connecticut.



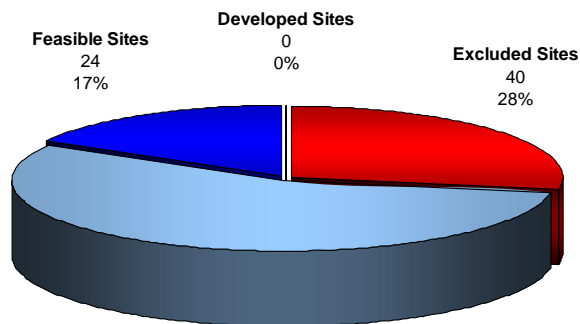
B-34

Figure B-35. Low power and small hydropower feasible projects, and existing hydroelectric plants in Connecticut.

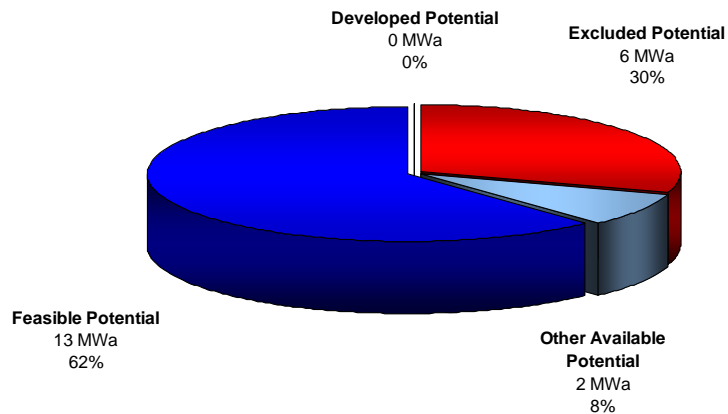
B.8 Delaware

Table B-17. Summary of results of water energy resource assessment of Delaware.

Power Class	Total (MWa)	Developed (MWa)	Federally Excluded (MWa)	Other Excluded (MWa)	Available (MWa)
Total Power	22	0	0	6	15
Total High Power	14	0	0	5	10
Large Hydro	0	0	0	0	0
Small Hydro	14	0	0	5	10
Total Low Power	7	0	0	2	5
Conventional Turbines	3	0	0	1	2
Unconventional Systems	1	0	0	0	1
Microhydro	3	0	0	1	2



(a) Total Resource Sites
144

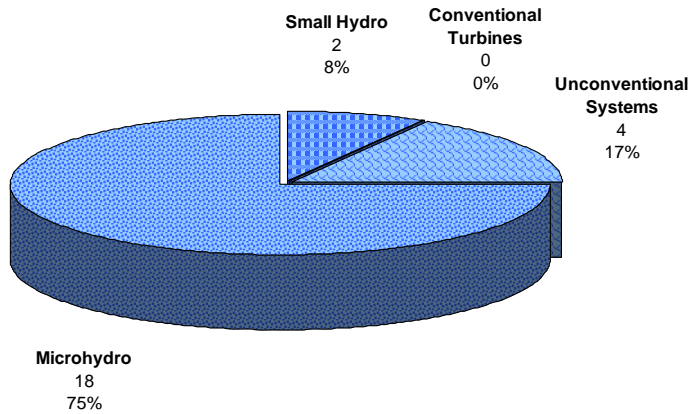


(b) Total Resource Potential
22 MWa

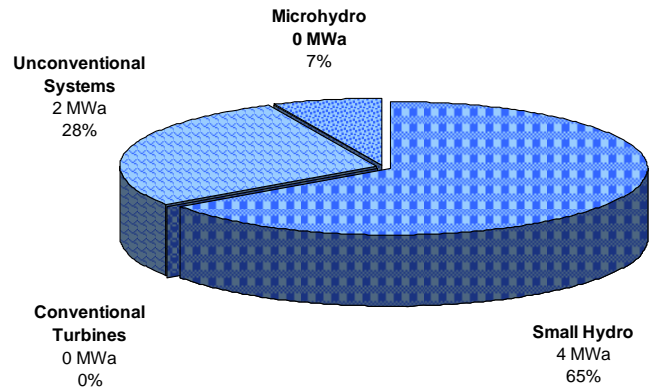
Figure B-36. Power category distribution of the (a) number and (b) total power potential of the water energy resource sites in Delaware.

Table B-18. Summary of results of feasibility assessment of water energy resources in Delaware.

Power Class	Available (MWa)	Feasible Sites (MWa)	Feasible Projects (MWa)
Total Power	15	13	6
Total High Power	10	10	4
Large Hydro	0	0	0
Small Hydro	10	10	4
Total Low Power	5	3	2
Conventional Turbines	2	2	0
Unconventional Systems	1	1	2
Microhydro	2	0	0

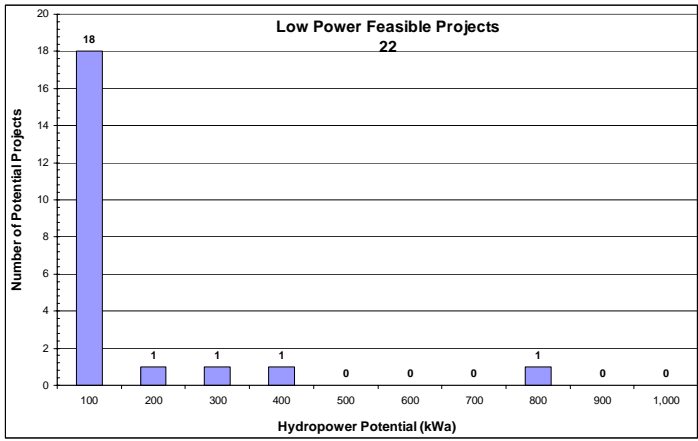


(a) Total Feasible Projects
24

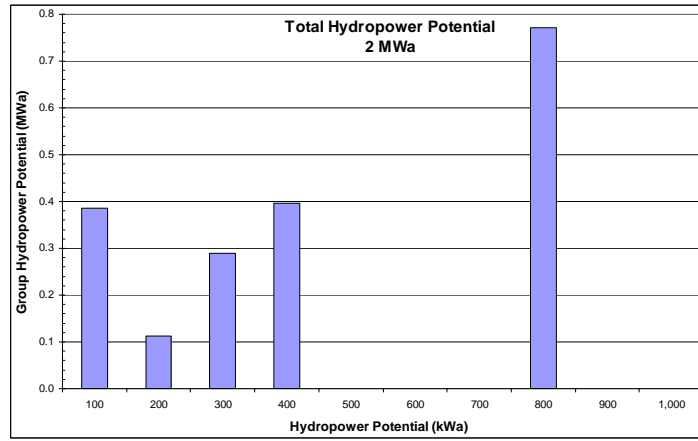


(b) Total Feasible Project Hydropower Potential
6 MWa

Figure B-37. Distribution of the (a) number and (b) total hydropower potential of the low power and small hydropower feasible projects in Delaware with the low power projects divided into technology classes.

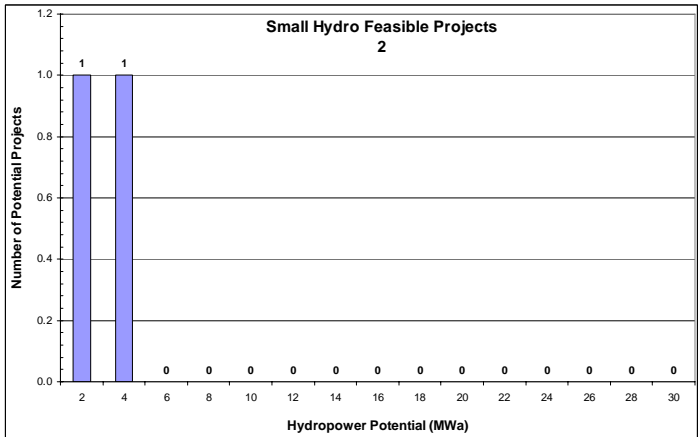


(a)

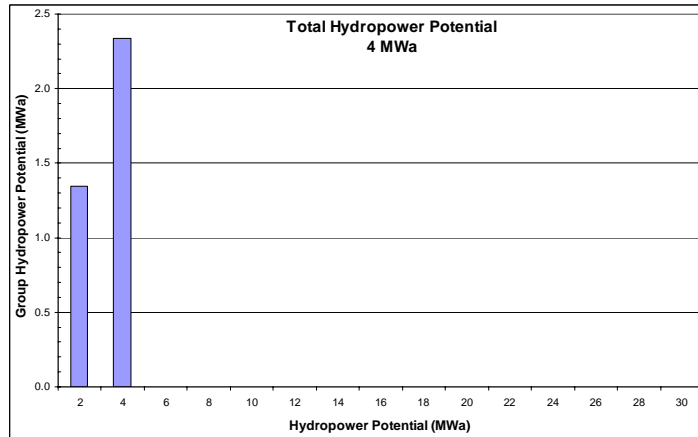


(b)

Figure B-38. Distributions of the (a) number and (b) group hydropower potential of low power feasible projects in Delaware.



(a)



(b)

Figure B-39. Distributions of the (a) number and (b) group hydropower potential of small hydropower feasible projects in Delaware.

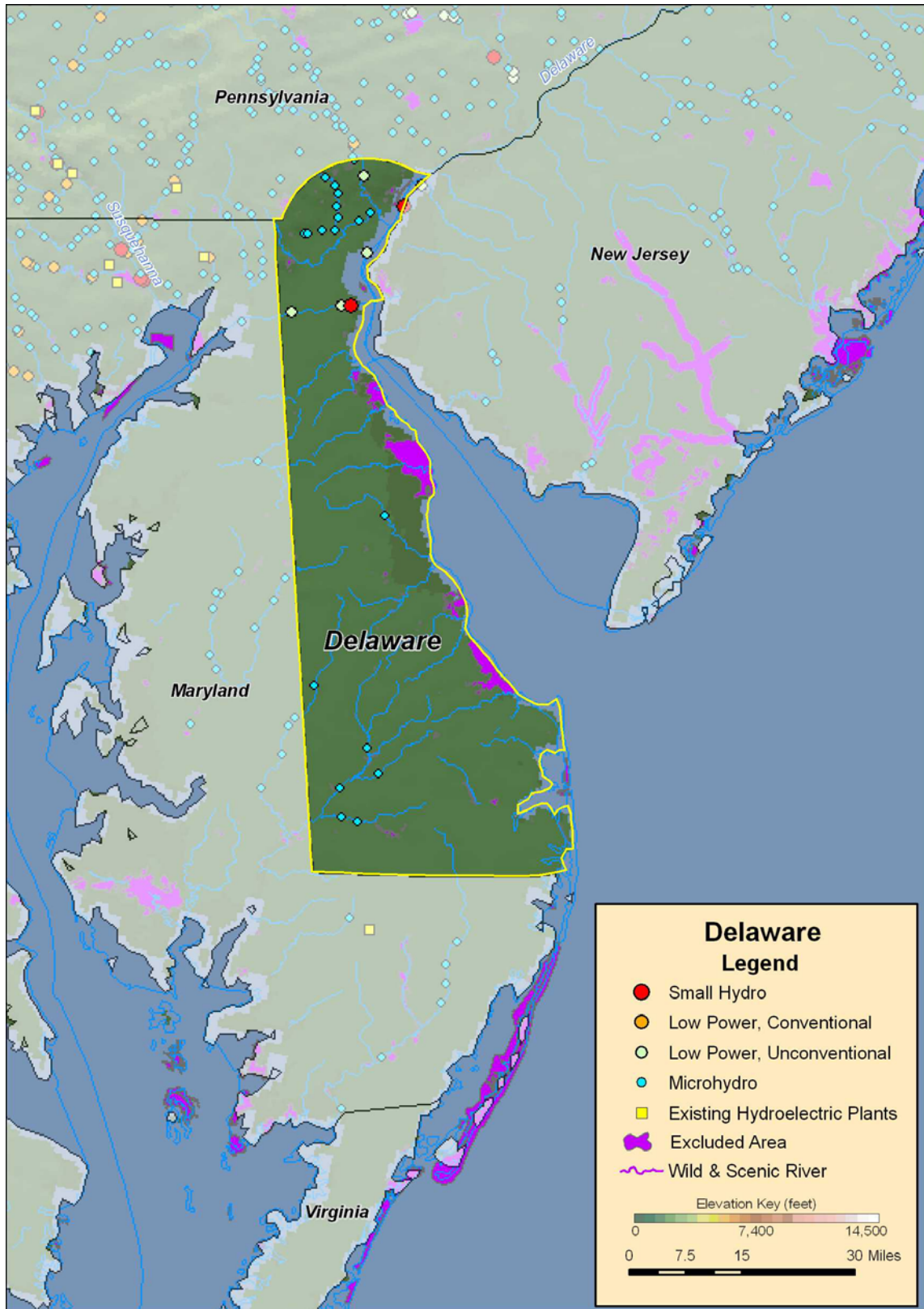
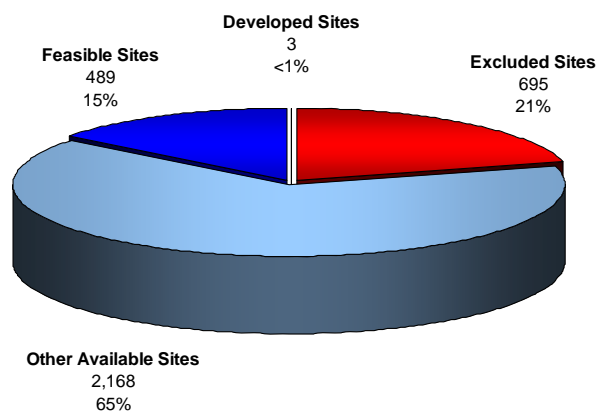


Figure B-40. Low power and small hydropower feasible projects, and existing hydroelectric plants in Delaware.

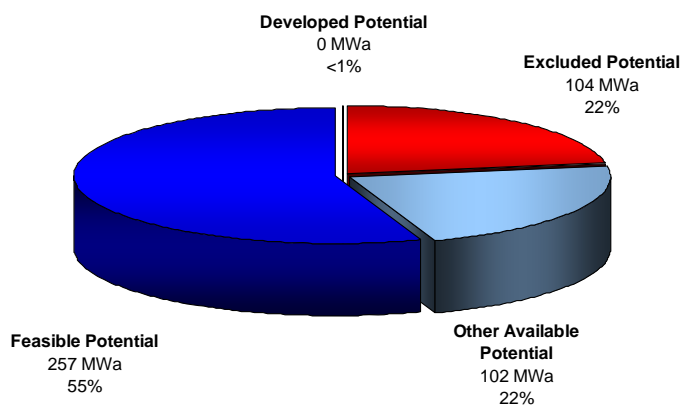
B.9 Florida

Table B-19. Summary of results of water energy resource assessment of Florida.

Power Class	Total (MWa)	Developed (MWa)	Federally Excluded (MWa)	Other Excluded (MWa)	Available (MWa)
Total Power	464	0	14	90	359
Total High Power	250	0	6	42	201
Large Hydro	36	0	0	0	36
Small Hydro	213	0	6	42	165
Total Low Power	214	0	8	48	158
Conventional Turbines	55	0	2	9	44
Unconventional Systems	73	0	4	23	47
Microhydro	85	0	2	16	68



(a) Total Resource Sites
3,355

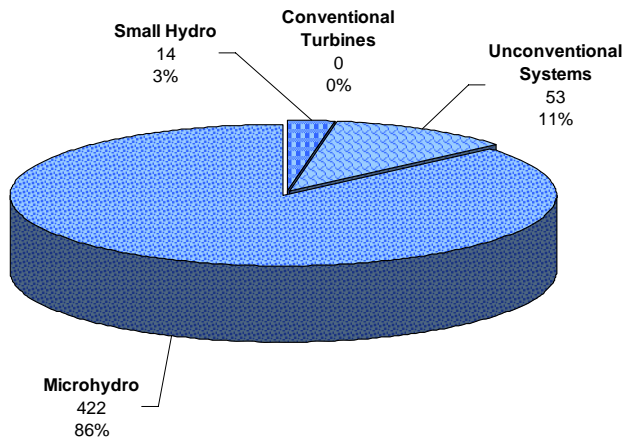


(a) Total Resource Potential
464 MWa

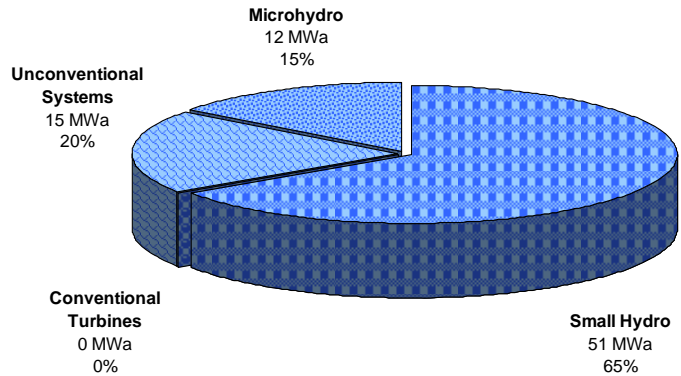
Figure B-41. Power category distribution of the (a) number and (b) total power potential of the water energy resource sites in Florida.

Table B-20. Summary of results of feasibility assessment of water energy resources in Florida.

Power Class	Available (MWa)	Feasible Sites (MWa)	Feasible Projects (MWa)
Total Power	359	257	79
Total High Power	201	180	51
Large Hydro	36	36	0
Small Hydro	165	143	51
Total Low Power	158	77	27
Conventional Turbines	44	30	0
Unconventional Systems	47	36	15
Microhydro	68	11	12

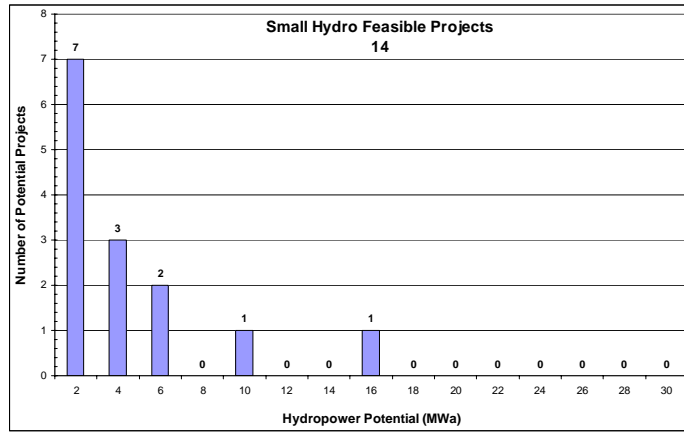


(a) Total Feasible Projects
489

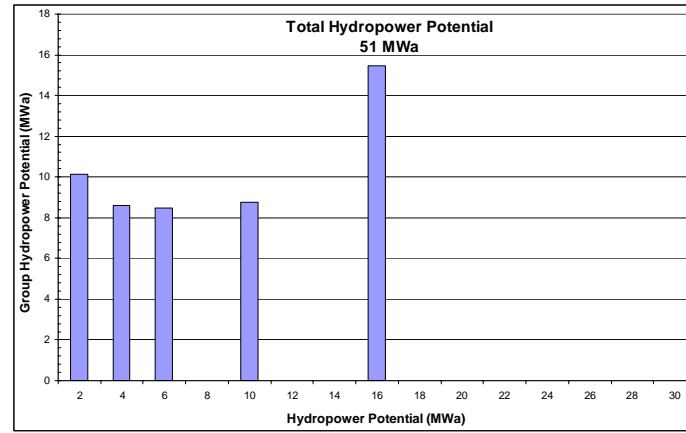


(b) Total Feasible Project Hydropower Potential
79 MWa

Figure B-42. Distribution of the (a) number and (b) total hydropower potential of the low power and small hydropower feasible projects in Florida with the low power projects divided into technology classes.

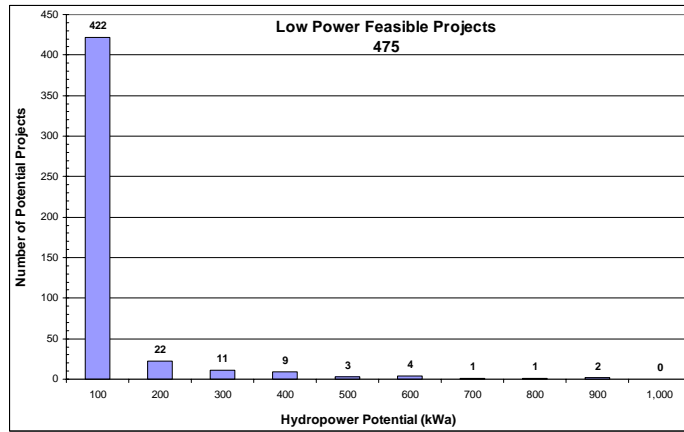


(a)

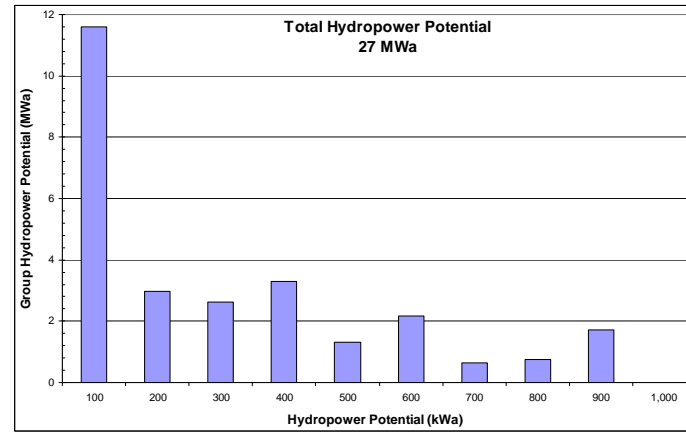


(b)

Figure B-43. Distributions of the (a) number and (b) group hydropower potential of low power feasible projects in Florida.



(a)



(b)

Figure B-44. Distributions of the (a) number and (b) group hydropower potential of small hydropower feasible projects in Florida.

B-42

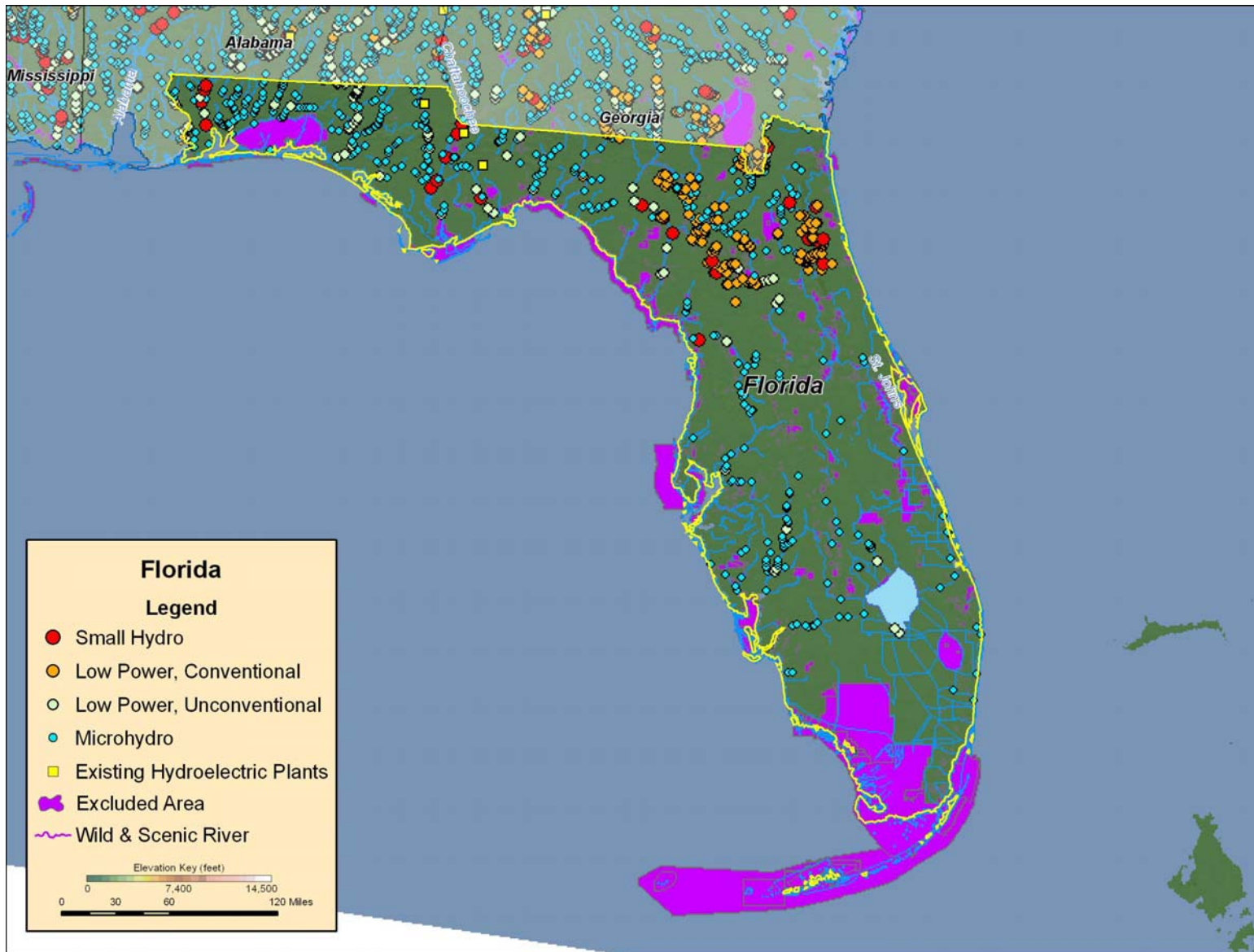
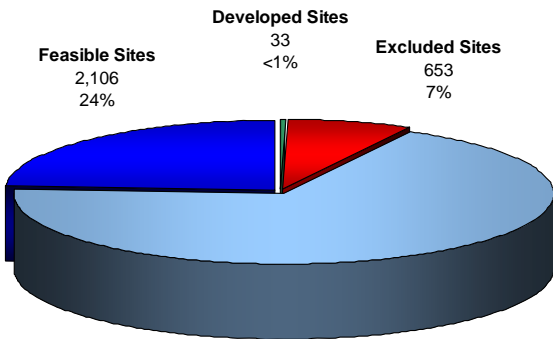


Figure B-45. Low power and small hydropower feasible projects, and existing hydroelectric plants in Florida.

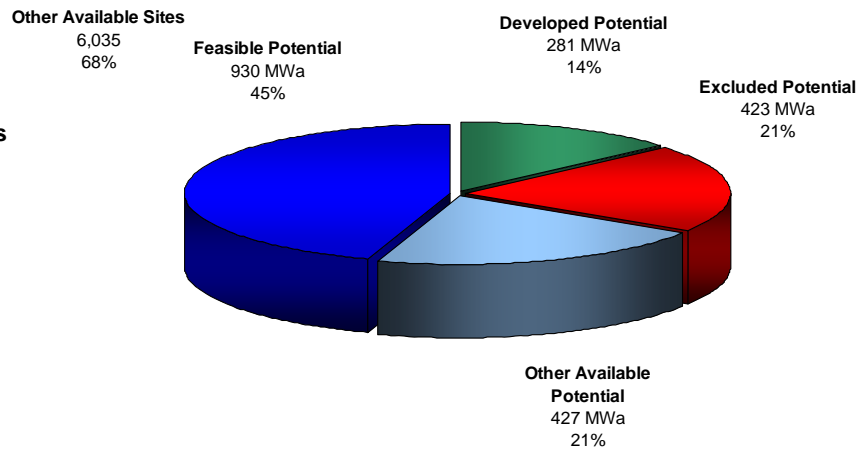
B.10 Georgia

Table B-21. Summary of results of water energy resource assessment of Georgia.

Power Class	Total (MWa)	Developed (MWa)	Federally Excluded (MWa)	Other Excluded (MWa)	Available (MWa)
Total Power	2,061	281	190	233	1,357
Total High Power	1,272	277	172	165	658
Large Hydro	222	142	42	0	37
Small Hydro	1,050	134	130	165	621
Total Low Power	789	5	18	68	699
Conventional Turbines	444	4	13	44	383
Unconventional Systems	123	1	3	12	107
Microhydro	223	0	2	11	209



(a) Total Resource Sites
8,827

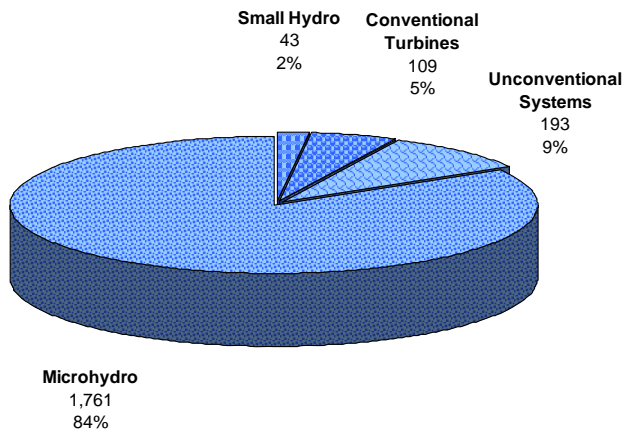


(b) Total Resource Potential
2,061 MWa

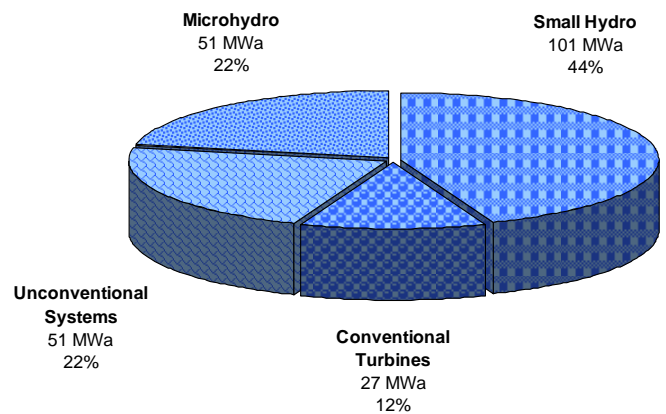
Figure B-46. Power category distribution of the (a) number and (b) total power potential of the water energy resource sites in Georgia.

Table B-22. Summary of results of feasibility assessment of water energy resources in Georgia.

Power Class	Available (MWa)	Feasible Sites (MWa)	Feasible Projects (MWa)
Total Power	1,357	930	230
Total High Power	658	514	101
Large Hydro	37	37	0
Small Hydro	621	477	101
Total Low Power	699	416	129
Conventional Turbines	383	284	27
Unconventional Systems	107	91	51
Microhydro	209	41	51

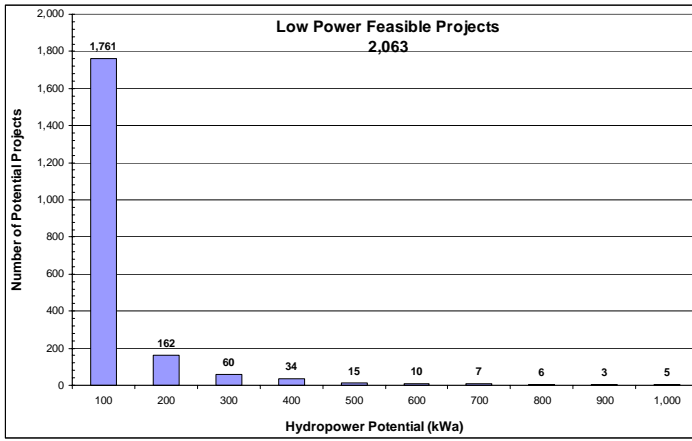


(a) Total Feasible Projects
2,106

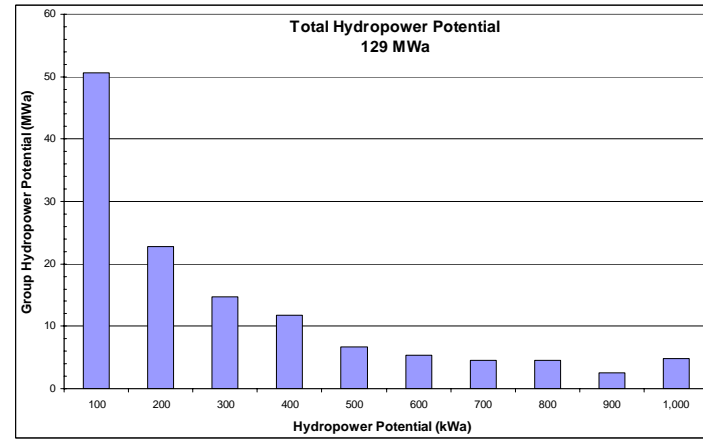


(b) Total Feasible Project Hydropower Potential
230 MWa

Figure B-47. Distribution of the (a) number and (b) total hydropower potential of the low power and small hydropower feasible projects in Georgia with the low power projects divided into technology classes.

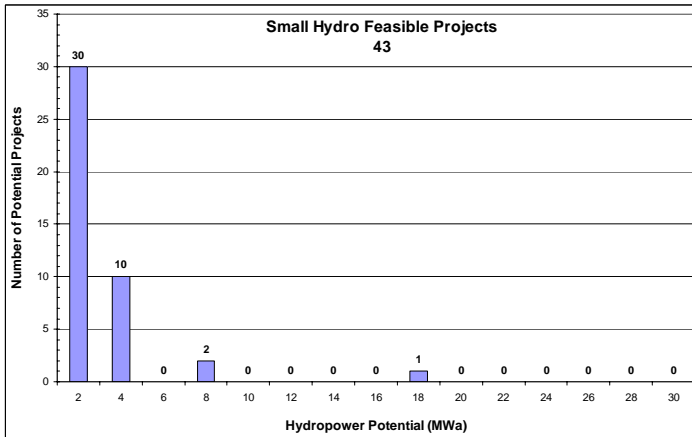


(a)

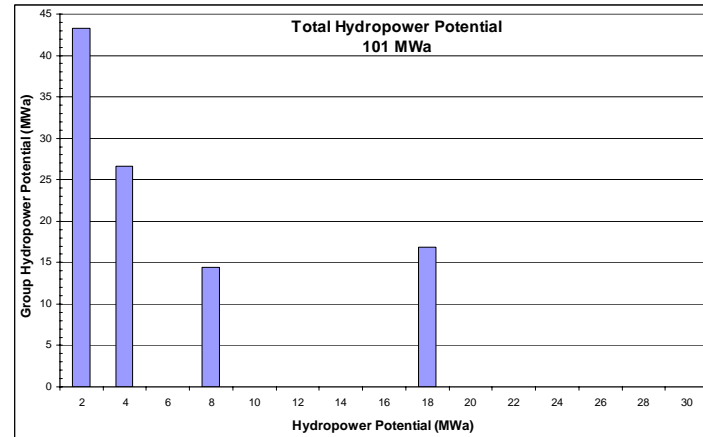


(b)

Figure B-48. Distributions of the (a) number and (b) group hydropower potential of low power feasible projects in Georgia.



(a)



(b)

Figure B-49. Distributions of the (a) number and (b) group hydropower potential of small hydropower feasible projects in Georgia.

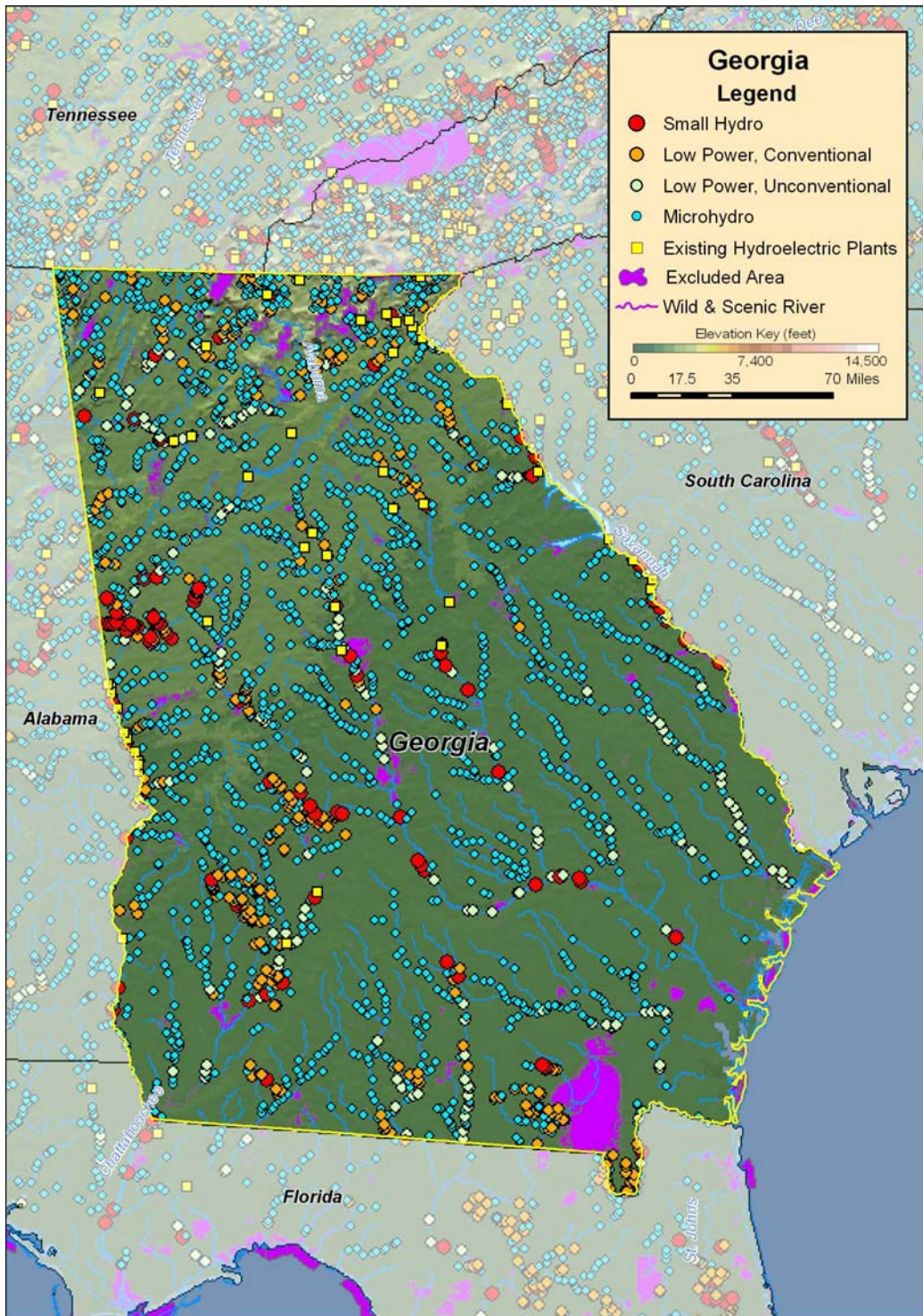
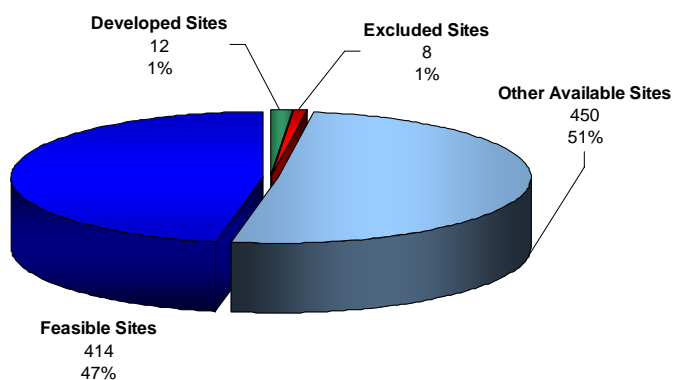


Figure B-50. Low power and small hydropower feasible projects, and existing hydroelectric plants in Georgia.

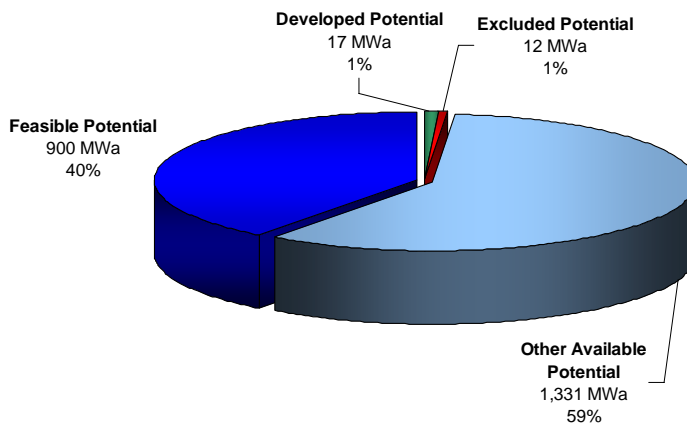
B.11 Hawaii

Table B-23. Summary of results of water energy resource assessment of Hawaii.

Power Class	Total (MWa)	Developed (MWa)	Federally Excluded (MWa)	Other Excluded (MWa)	Available (MWa)
Total Power	2,259	17	12	0	2,230
Total High Power	2,102	15	11	0	2,077
Large Hydro	382	0	0	0	382
Small Hydro	1,720	15	11	0	1,695
Total Low Power	157	2	1	0	154
Conventional Turbines	149	2	1	0	147
Unconventional Systems	0	0	0	0	0
Microhydro	7	0	0	0	7



(a) Total Resource Sites
884



(b) Total Resource Potential
2,259 MWa

Figure B-51. Power category distribution of the (a) number and (b) total power potential of the water energy resource sites in Hawaii.

Table B-24. Summary of results of feasibility assessment of water energy resources in Hawaii.

Power Class	Available (MWa)	Feasible Sites (MWa)	Feasible Projects (MWa)
Total Power	2,230	900	280
Total High Power	2,077	823	214
Large Hydro	382	104	0
Small Hydro	1,695	719	214
Total Low Power	154	77	66
Conventional Turbines	147	73	60
Unconventional Systems	0	0	0
Microhydro	7	4	6

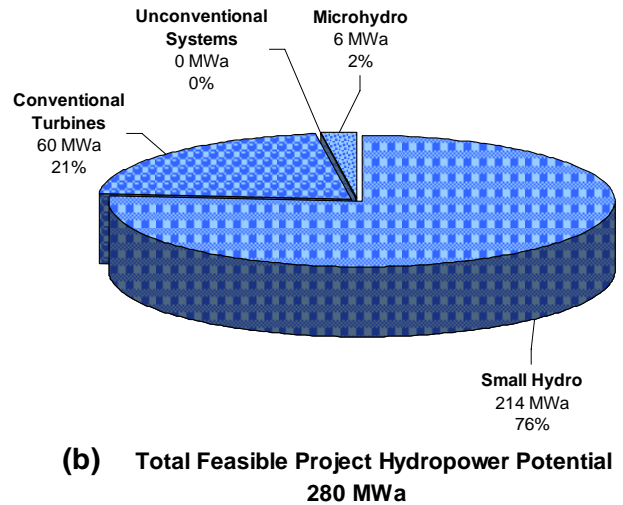
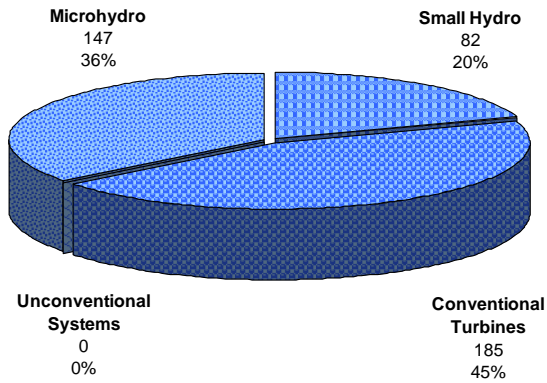
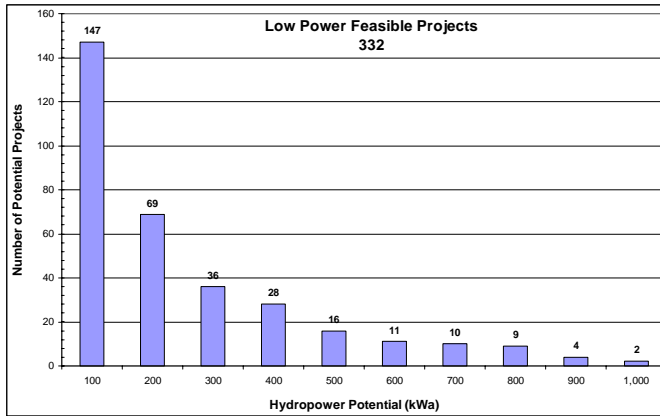
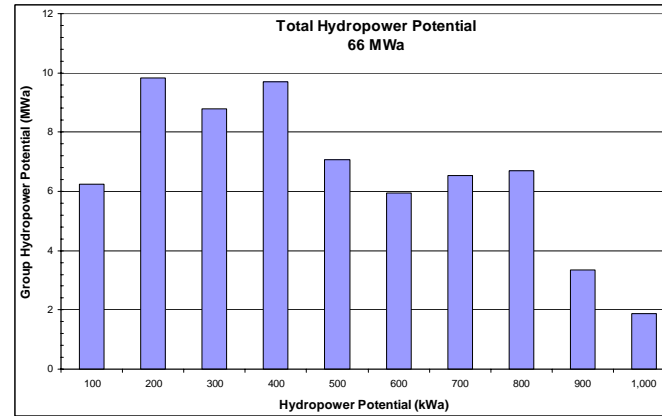


Figure B-52. Distribution of the (a) number and (b) total hydropower potential of the low power and small hydropower feasible projects in Hawaii with the low power projects divided into technology classes.

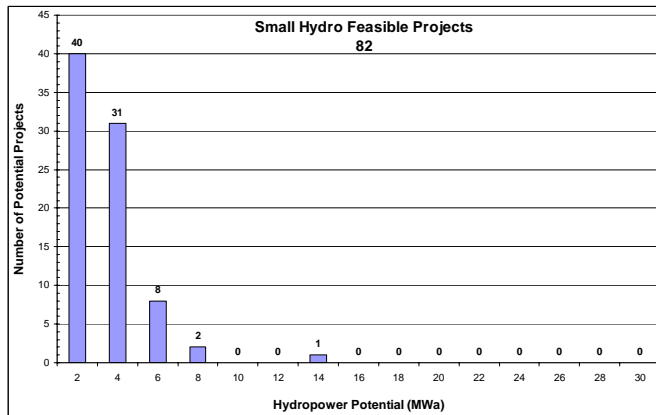


(a)

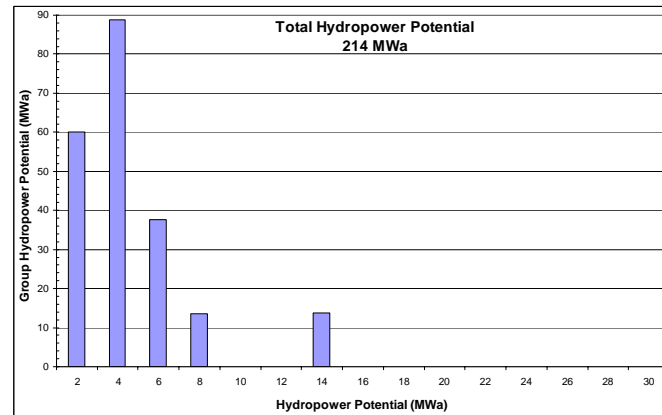


(b)

Figure B-53. Distributions of the (a) number and (b) group hydropower potential of low power feasible projects in Hawaii.



(a)



(b)

Figure B-54. Distributions of the (a) number and (b) group hydropower potential of small hydropower feasible projects in Hawaii.

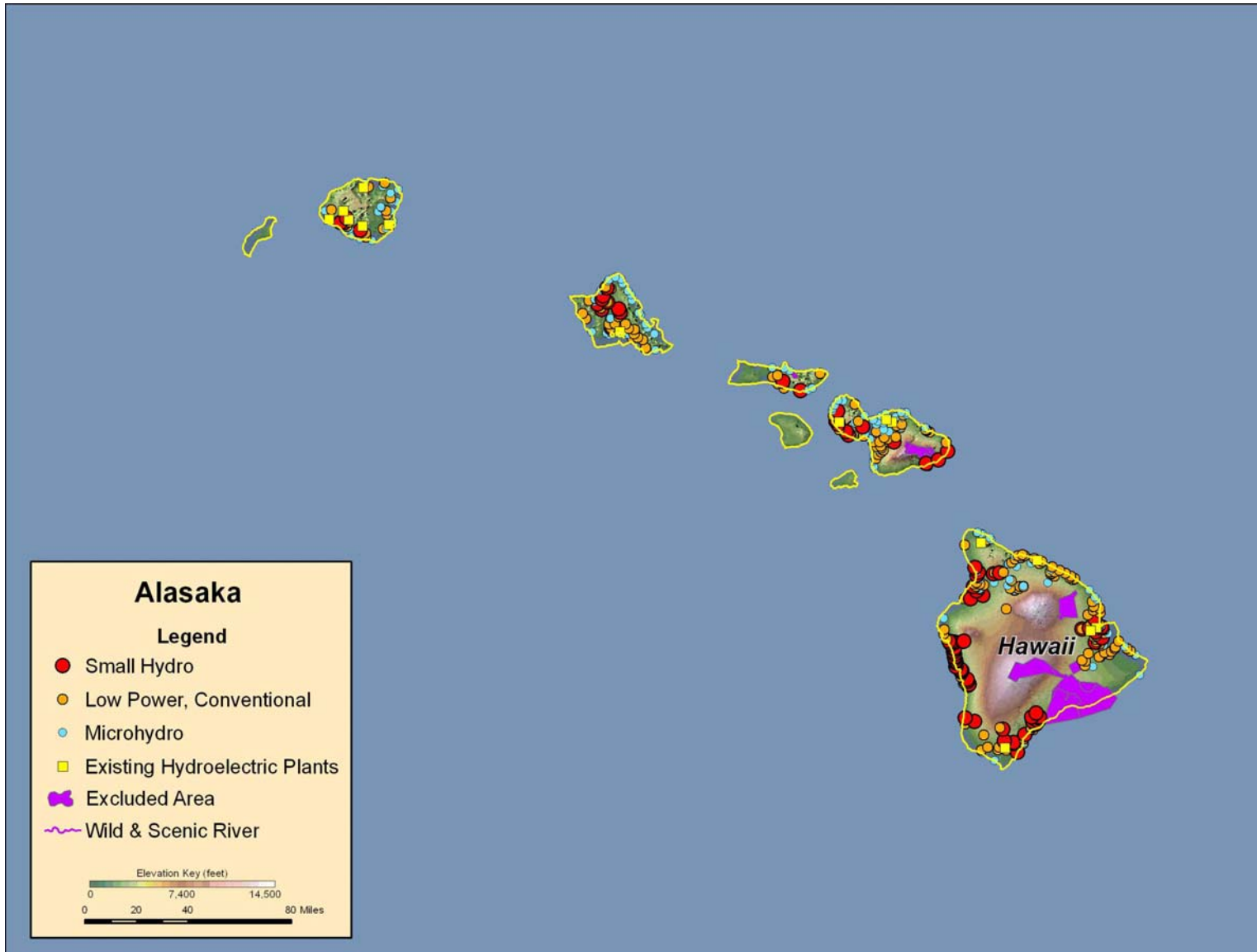
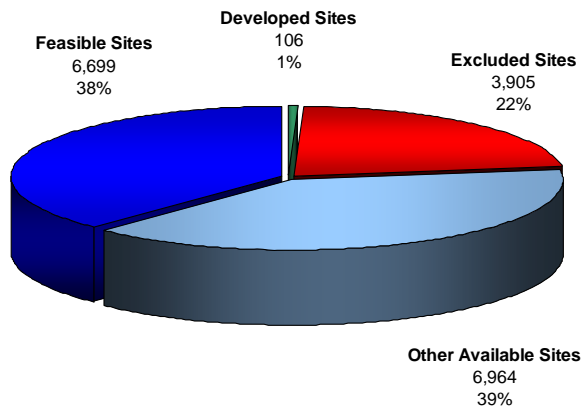


Figure B-55. Low power and small hydropower feasible projects, and existing hydroelectric plants in Hawaii.

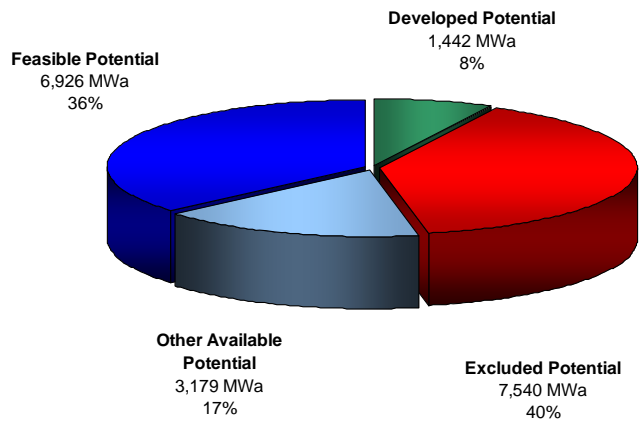
B.12 Idaho

Table B-25. Summary of results of water energy resource assessment of Idaho.

Power Class	Total (MWa)	Developed (MWa)	Federally Excluded (MWa)	Other Excluded (MWa)	Available (MWa)
Total Power	19,088	1,442	5,511	2,029	10,105
Total High Power	15,996	1,428	4,994	1,762	7,812
Large Hydro	4,238	1,181	1,023	339	1,695
Small Hydro	11,758	247	3,971	1,423	6,117
Total Low Power	3,092	14	517	268	2,293
Conventional Turbines	2,717	12	485	236	1,985
Unconventional Systems	87	2	17	8	60
Microhydro	289	1	16	24	248



(a) Total Resource Sites
17,674

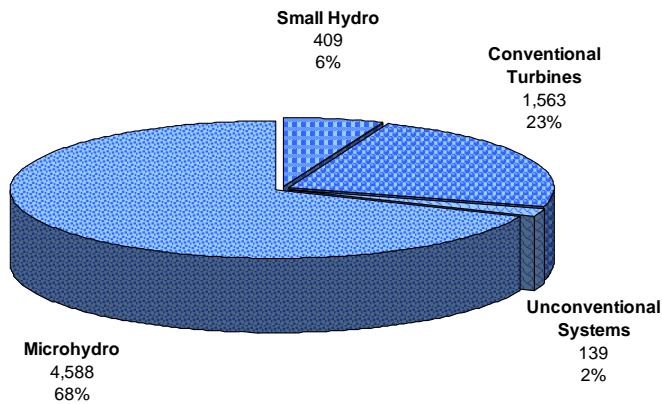


(b) Total Resource Potential
19,088 MWa

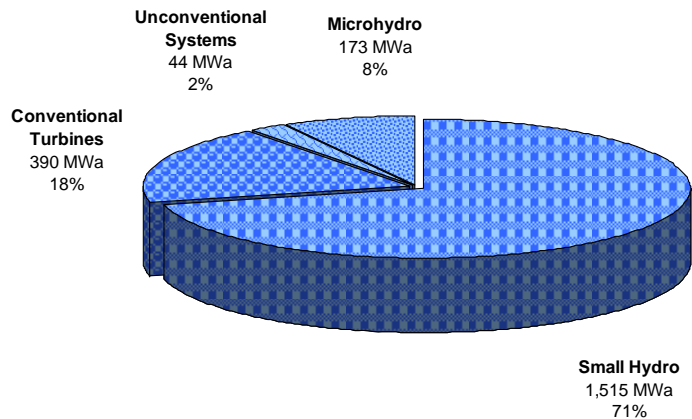
Figure B-56. Power category distribution of the (a) number and (b) total power potential of the water energy resource sites in Idaho.

Table B-26. Summary of results of feasibility assessment of water energy resources in Idaho.

Power Class	Available (MWa)	Feasible Sites (MWa)	Feasible Projects (MWa)
Total Power	10,105	6,926	2,122
Total High Power	7,812	5,573	1,515
Large Hydro	1,695	1,657	0
Small Hydro	6,117	3,916	1,515
Total Low Power	2,293	1,353	607
Conventional Turbines	1,985	1,182	390
Unconventional Systems	60	54	44
Microhydro	248	117	173

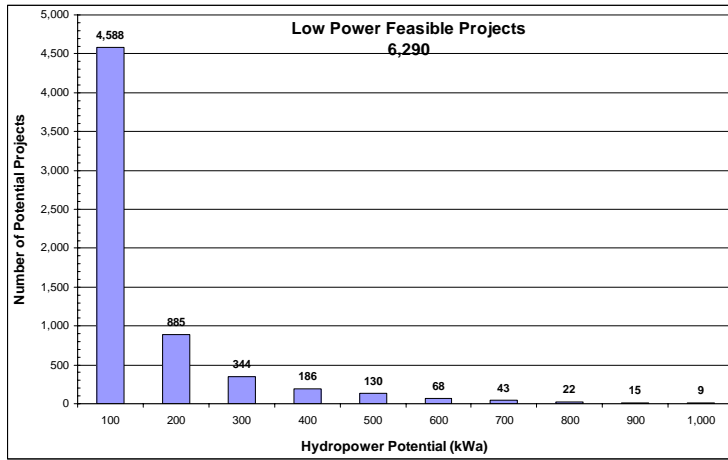


(a) Total Feasible Projects
6,699

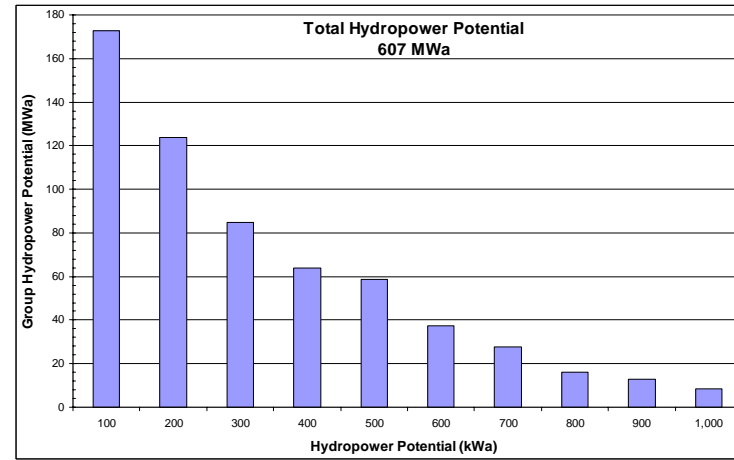


(b) Total Feasible Project Hydropower Potential
2,122 MWa

Figure B-57. Distribution of the (a) number and (b) total hydropower potential of the low power and small hydropower feasible projects in Idaho with the low power projects divided into technology classes.



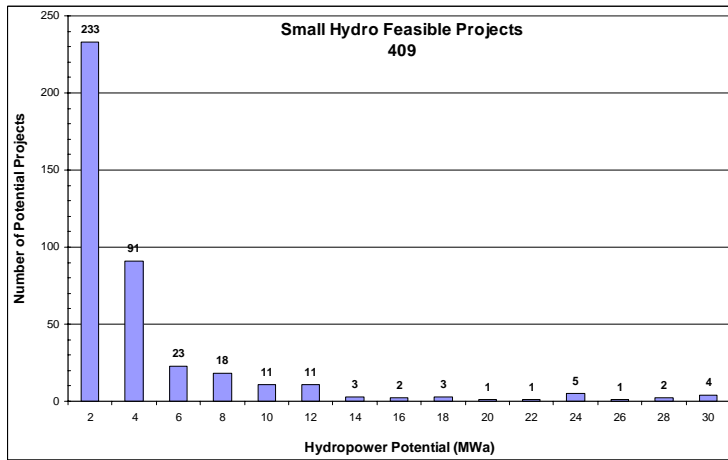
(a)



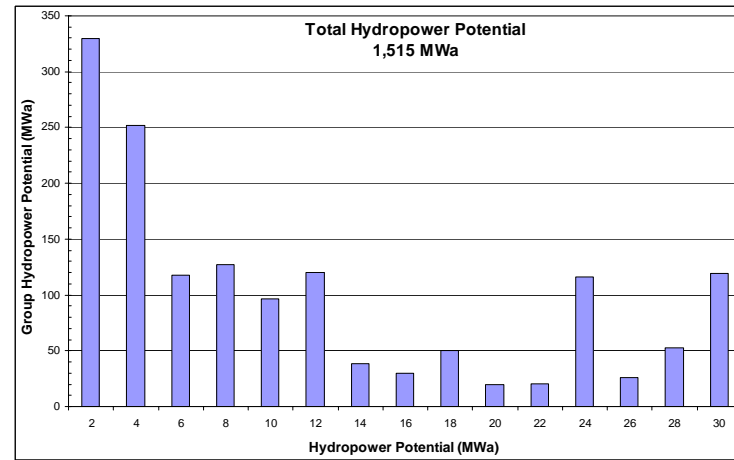
(b)

Figure B-58. Distributions of the (a) number and (b) group hydropower potential of low power feasible projects in Idaho.

B-53



(a)



(b)

Figure B-59. Distributions of the (a) number and (b) group hydropower potential of small hydropower feasible projects in Idaho.

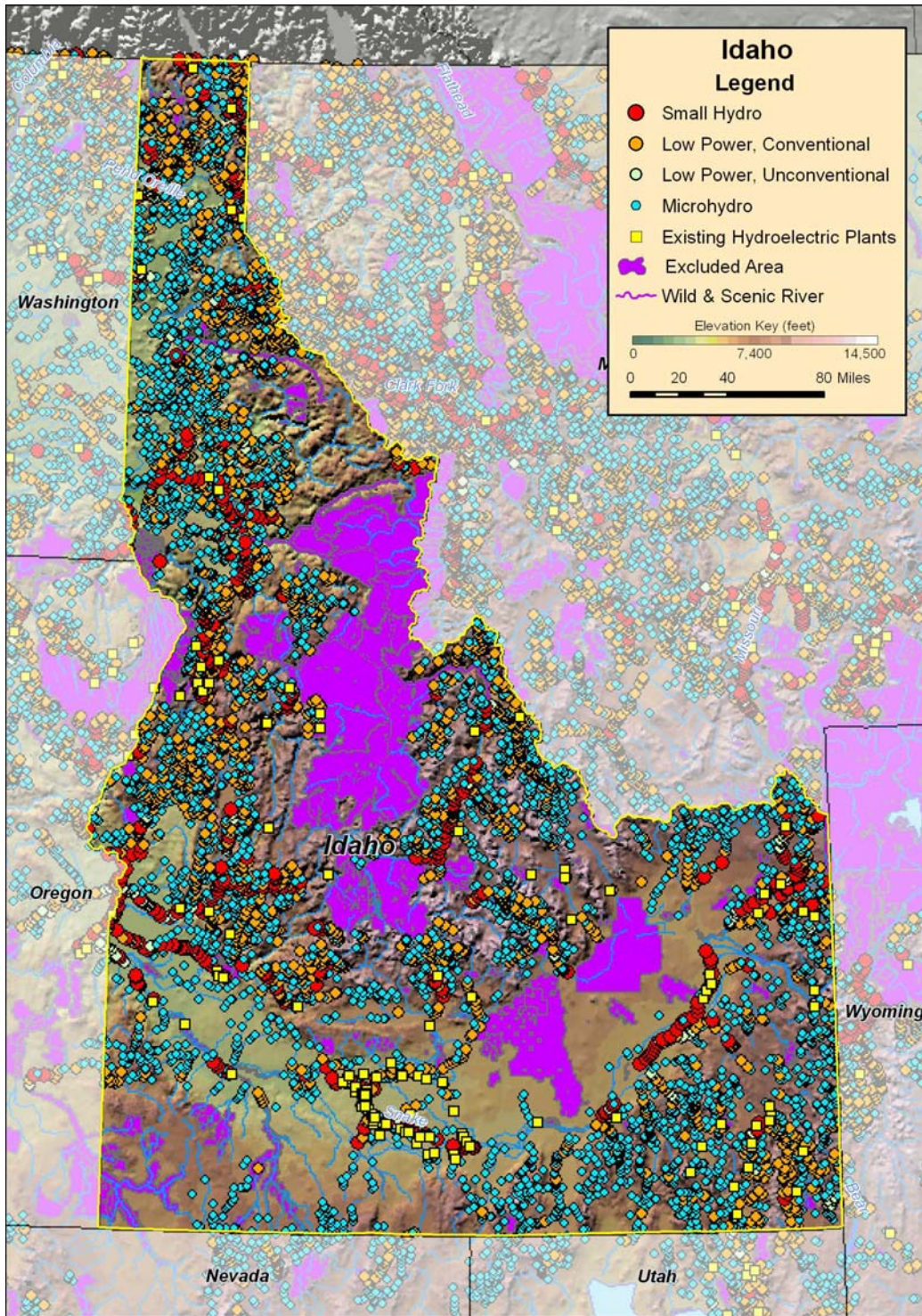
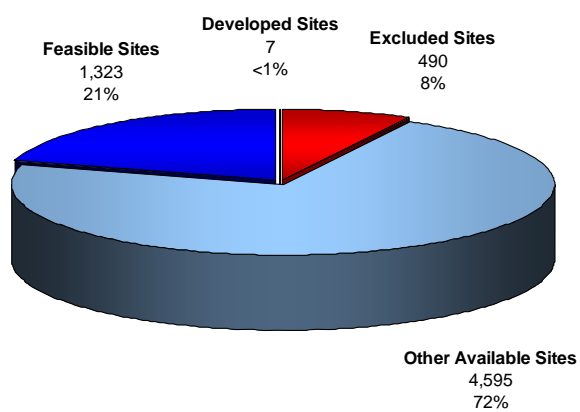


Figure B-60. Low power and small hydropower feasible projects, and existing hydroelectric plants in Idaho.

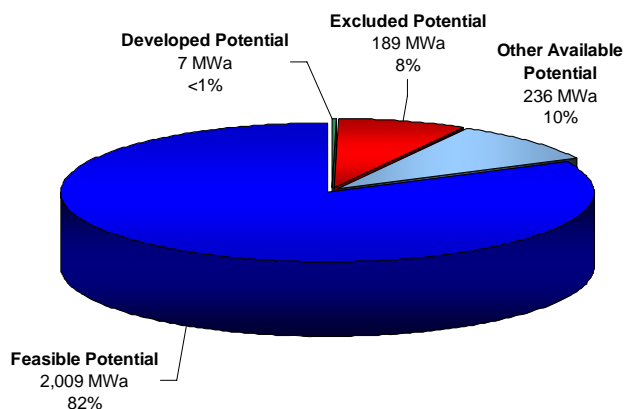
B.13 Illinois

Table B-27. Summary of results of water energy resource assessment of Illinois.

Power Class	Total (MWa)	Developed (MWa)	Federally Excluded (MWa)	Other Excluded (MWa)	Available (MWa)
Total Power	2,440	7	101	88	2,244
Total High Power	2,028	6	90	42	1,891
Large Hydro	1,647	0	75	0	1,572
Small Hydro	381	6	15	42	318
Total Low Power	412	1	11	47	353
Conventional Turbines	150	1	6	19	124
Unconventional Systems	100	0	2	18	79
Microhydro	162	0	2	10	150



(a) Total Resource Sites
6,415

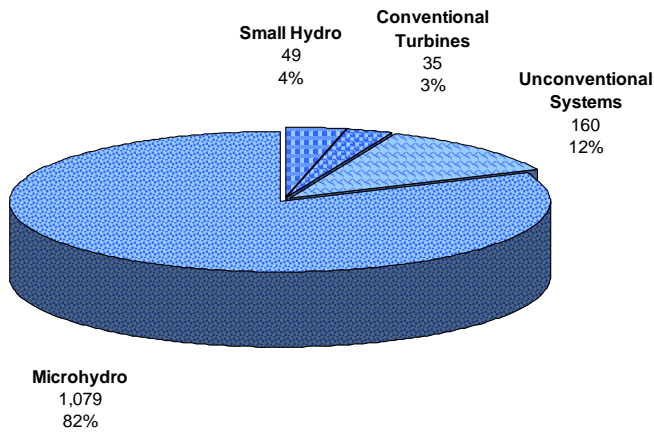


(b) Total Resource Potential
2,440 MWa

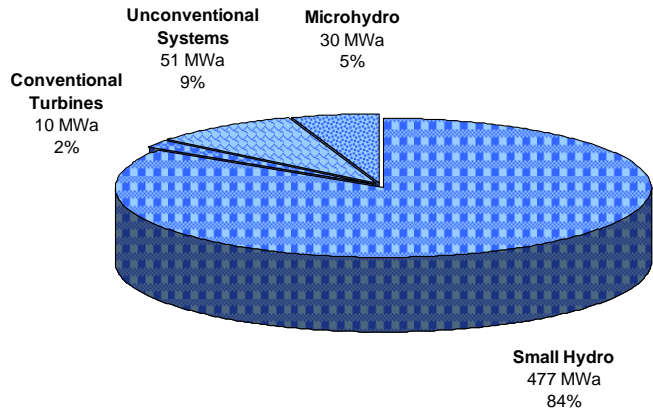
Figure B-61. Power category distribution of the (a) number and (b) total power potential of the water energy resource sites in Illinois.

Table B-28. Summary of results of feasibility assessment of water energy resources in Illinois.

Power Class	Available (MWa)	Feasible Sites (MWa)	Feasible Projects (MWa)
Total Power	2,244	2,009	568
Total High Power	1,891	1,810	477
Large Hydro	1,572	1,506	0
Small Hydro	318	304	477
Total Low Power	353	198	91
Conventional Turbines	124	99	10
Unconventional Systems	79	64	51
Microhydro	150	36	30

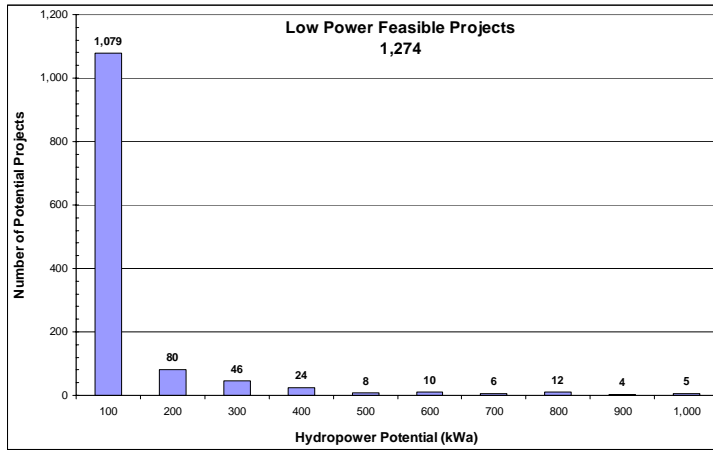


(a) Total Feasible Projects
1,323

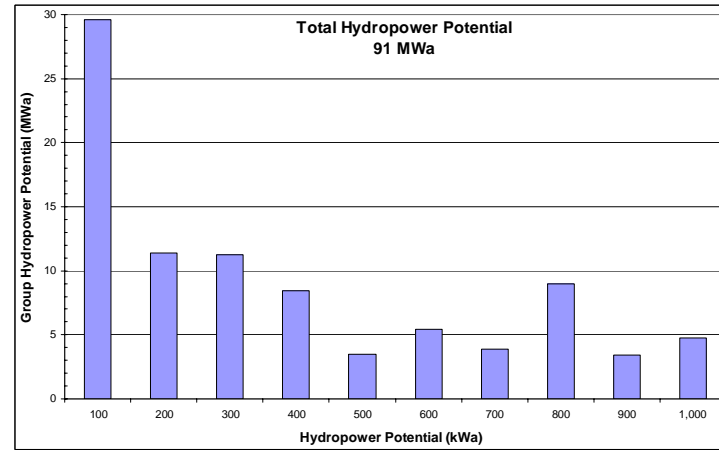


(b) Total Feasible Project Hydropower Potential
568 MWa

Figure B-62. Distribution of the (a) number and (b) total hydropower potential of the low power and small hydropower feasible projects in Illinois with the low power projects divided into technology classes.

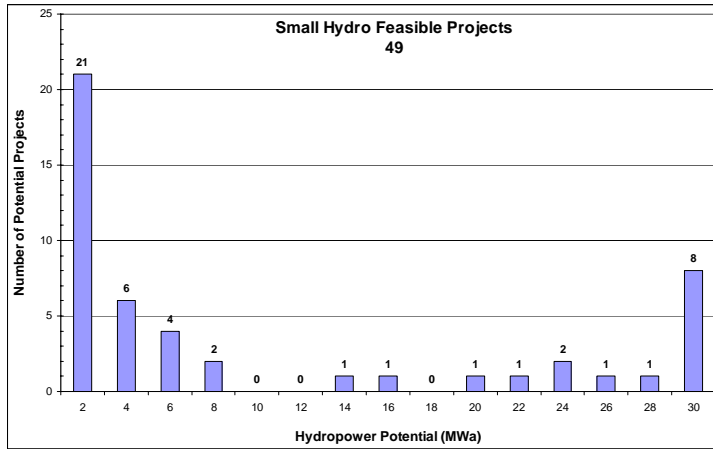


(a)

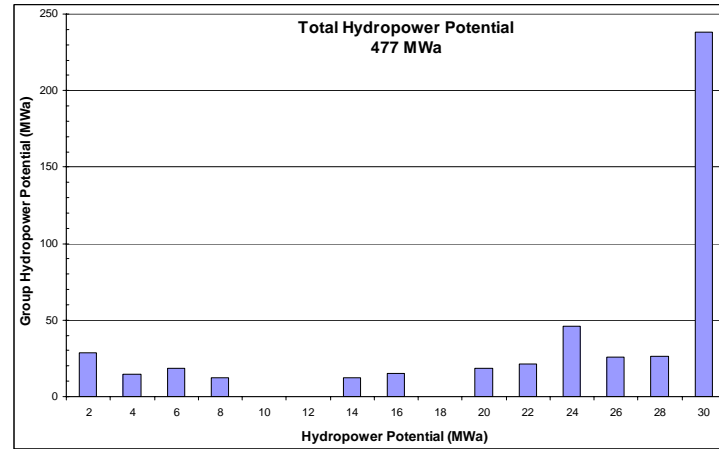


(b)

Figure B-63. Distributions of the (a) number and (b) group hydropower potential of low power feasible projects in Illinois.



(a)



(b)

Figure B-64. Distributions of the (a) number and (b) group hydropower potential of small hydropower feasible projects in Illinois.

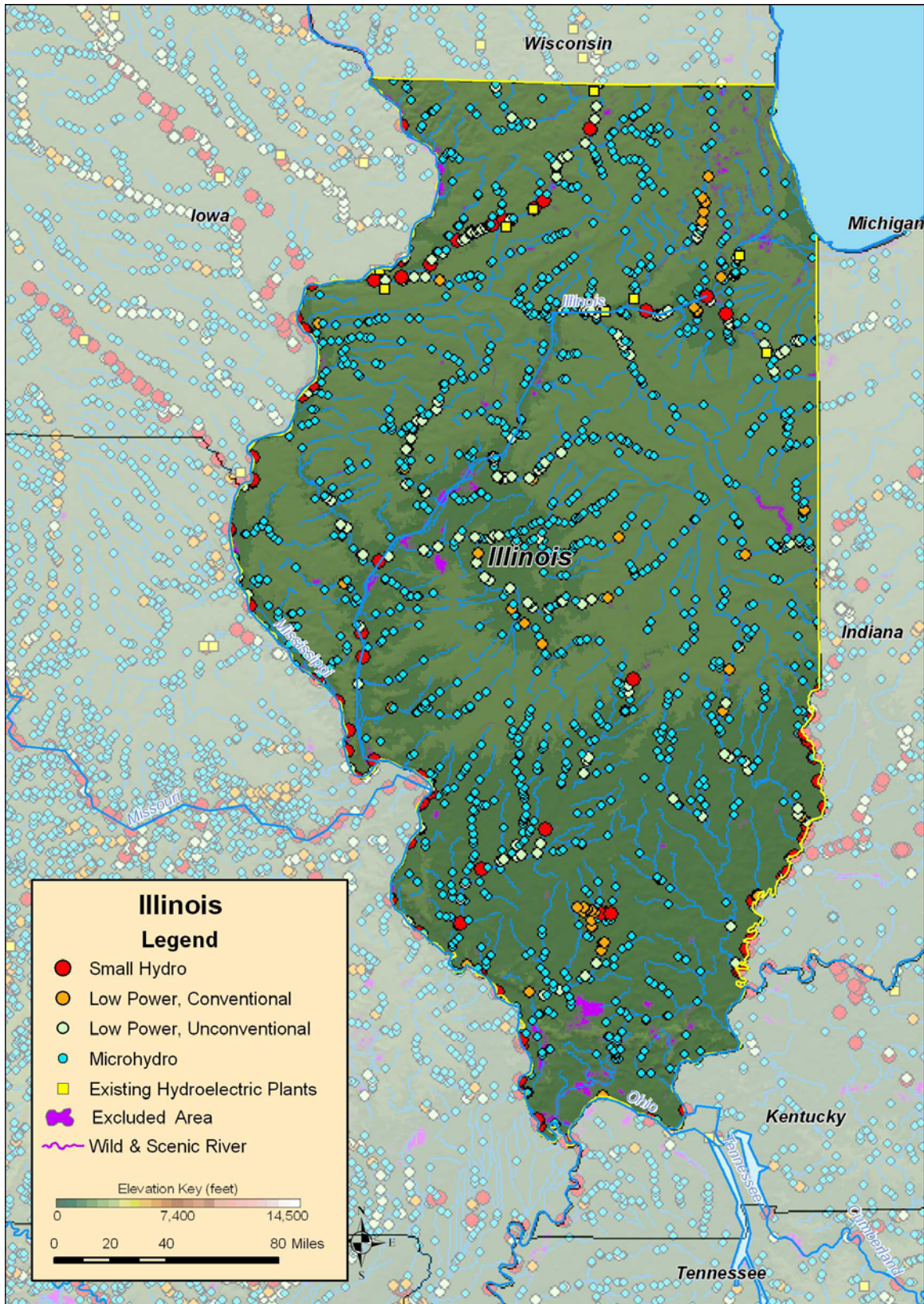
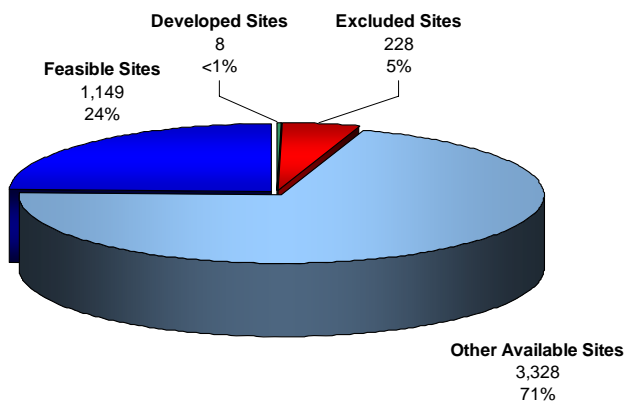


Figure B-65. Low power and small hydropower feasible projects, and existing hydroelectric plants in Illinois.

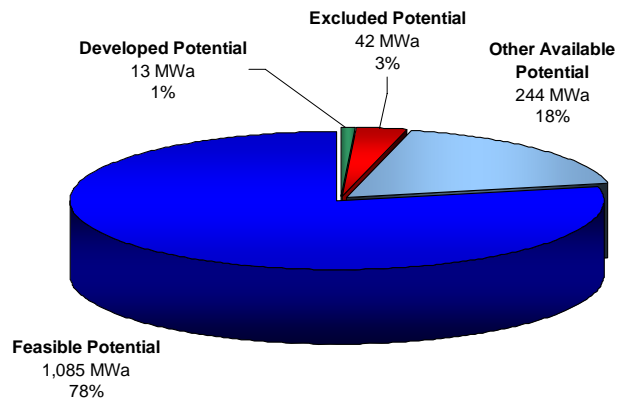
B.14 Indiana

Table B-29. Summary of results of water energy resource assessment of Indiana.

Power Class	Total (MWa)	Developed (MWa)	Federally Excluded (MWa)	Other Excluded (MWa)	Available (MWa)
Total Power	1,383	13	2	40	1,328
Total High Power	991	12	0	17	962
Large Hydro	396	0	0	0	396
Small Hydro	596	12	0	17	566
Total Low Power	392	0	2	24	366
Conventional Turbines	204	0	0	16	188
Unconventional Systems	66	0	1	3	62
Microhydro	122	0	1	5	116



(a) Total Resource Sites
4,713



(b) Total Resource Potential
1,383 MWa

Figure B-66. Power category distribution of the (a) number and (b) total power potential of the water energy resource sites in Indiana.

Table B-30. Summary of results of feasibility assessment of water energy resources in Indiana.

Power Class	Available (MWa)	Feasible Sites (MWa)	Feasible Projects (MWa)
Total Power	1,328	1,085	305
Total High Power	962	881	216
Large Hydro	396	396	0
Small Hydro	566	486	216
Total Low Power	366	204	88
Conventional Turbines	188	129	19
Unconventional Systems	62	48	43
Microhydro	116	27	26

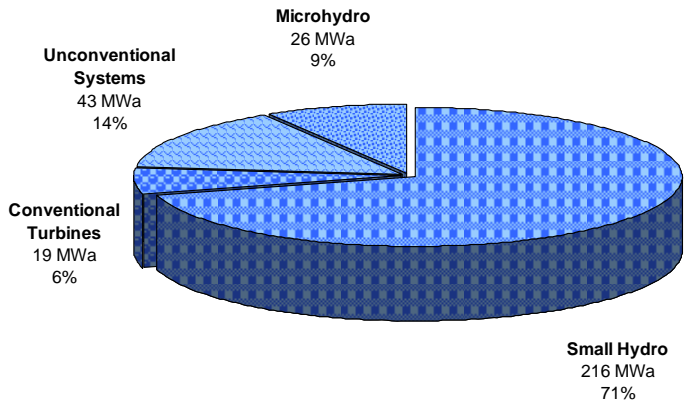
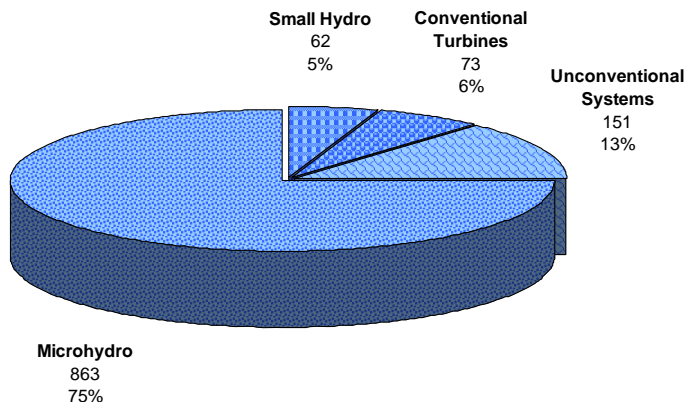
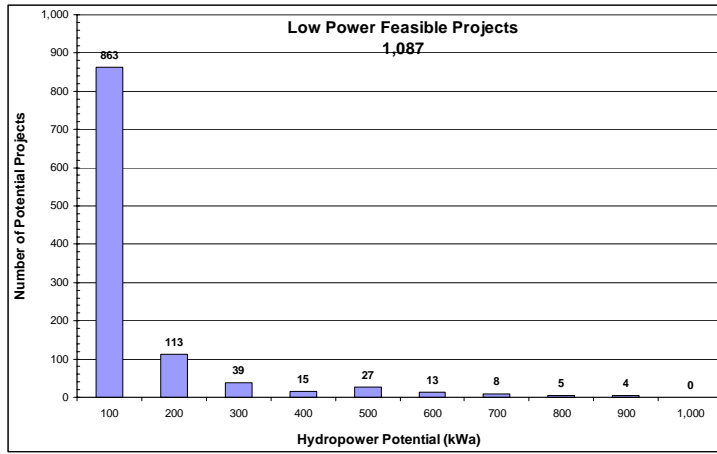
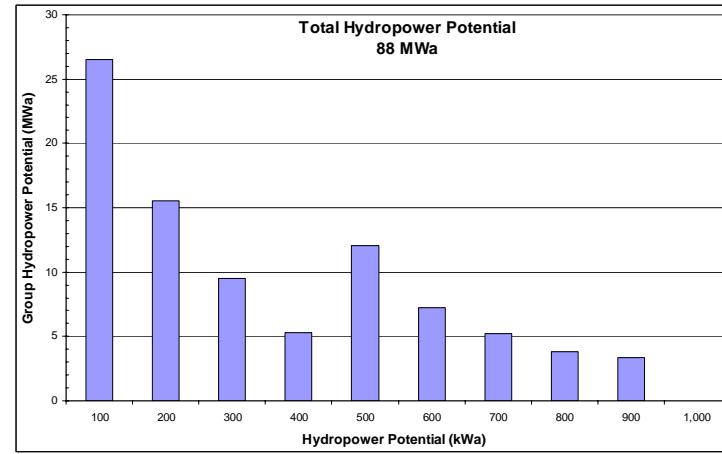


Figure B-67. Distribution of the (a) number and (b) total hydropower potential of the low power and small hydropower feasible projects in Indiana with the low power projects divided into technology classes.

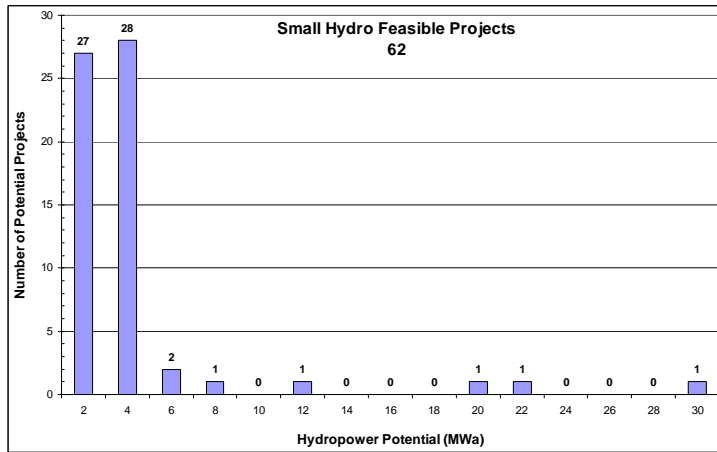


(a)

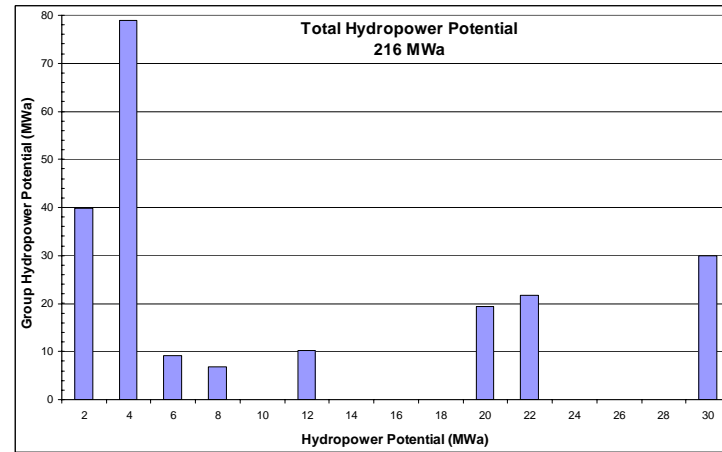


(b)

Figure B-68. Distributions of the (a) number and (b) group hydropower potential of low power feasible projects in Indiana.



(a)



(b)

Figure B-69. Distributions of the (a) number and (b) group hydropower potential of small hydropower feasible projects in Indiana.

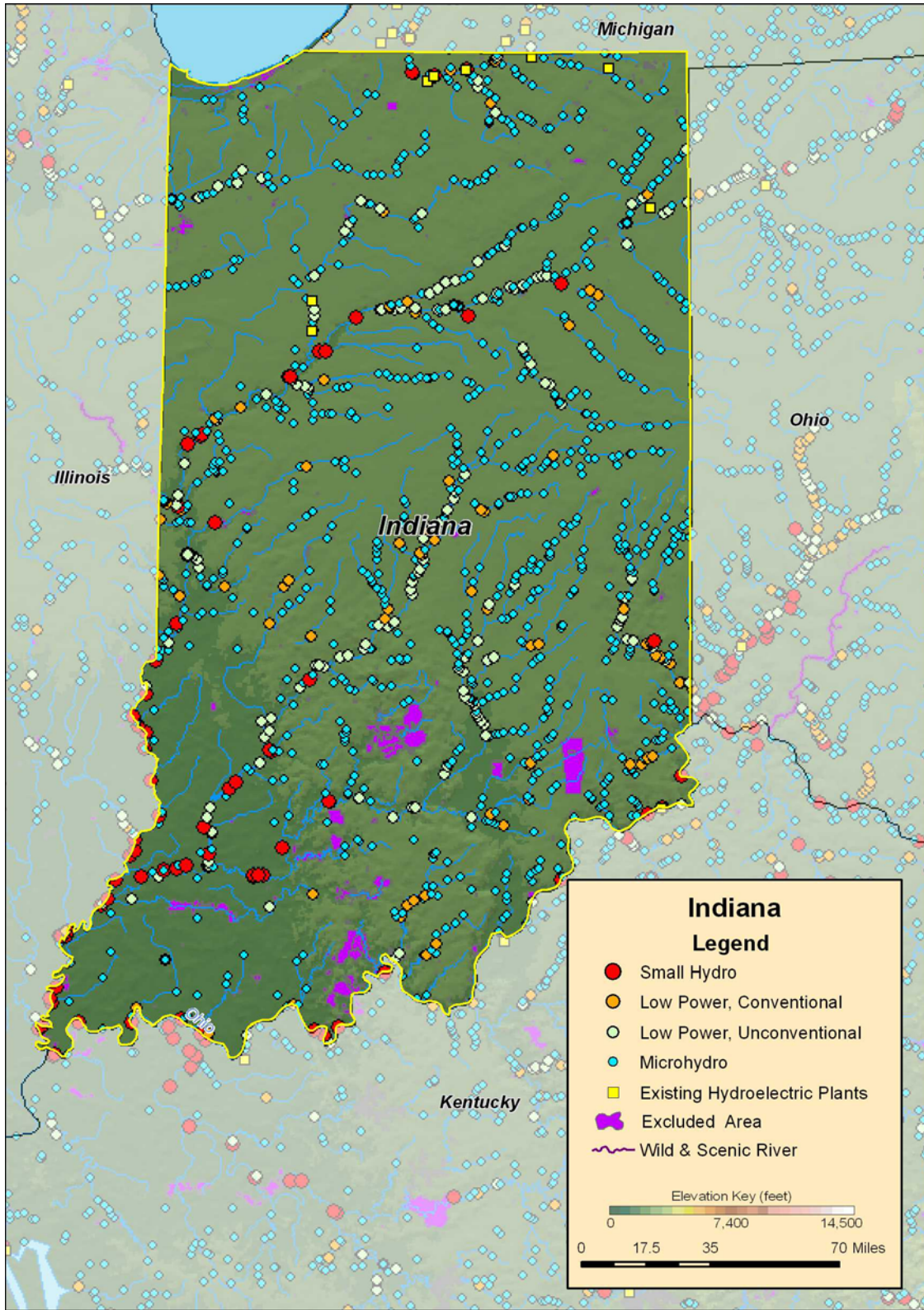


Figure B-70. Low power and small hydropower feasible projects, and existing hydroelectric plants in Indiana.

B.15 Iowa

Table B-31. Summary of results of water energy resource assessment of Iowa.

Power Class	Total (MWa)	Developed (MWa)	Federally Excluded (MWa)	Other Excluded (MWa)	Available (MWa)
Total Power	1,171	2	83	10	1,076
Total High Power	650	0	77	5	568
Large Hydro	42	0	0	0	42
Small Hydro	608	0	77	5	526
Total Low Power	520	2	6	5	507
Conventional Turbines	234	1	1	4	228
Unconventional Systems	114	1	4	1	108
Microhydro	173	0	1	1	171

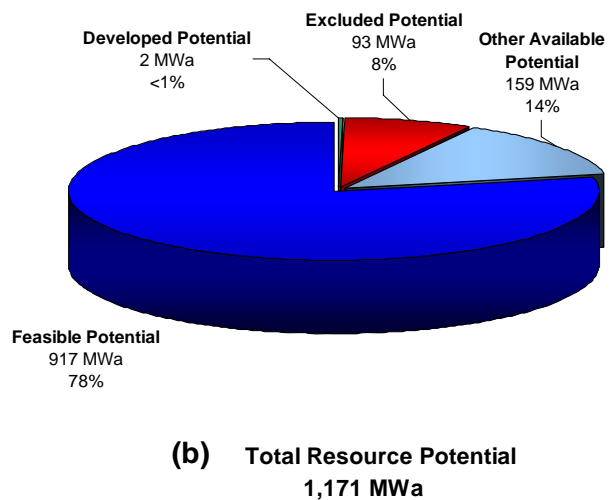
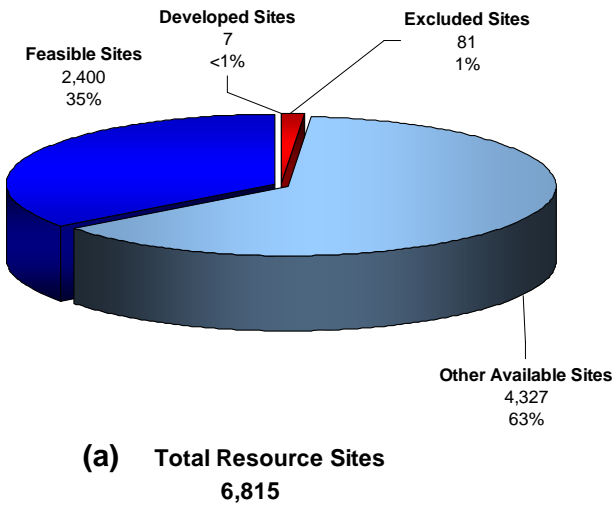


Figure B-71. Power category distribution of the (a) number and (b) total power potential of the water energy resource sites in Iowa.

Table B-32. Summary of results of feasibility assessment of water energy resources in Iowa.

Power Class	Available (MWa)	Feasible Sites (MWa)	Feasible Projects (MWa)
Total Power	1,076	917	329
Total High Power	568	544	176
Large Hydro	42	42	0
Small Hydro	526	501	176
Total Low Power	507	373	153
Conventional Turbines	228	203	32
Unconventional Systems	108	102	62
Microhydro	171	68	59

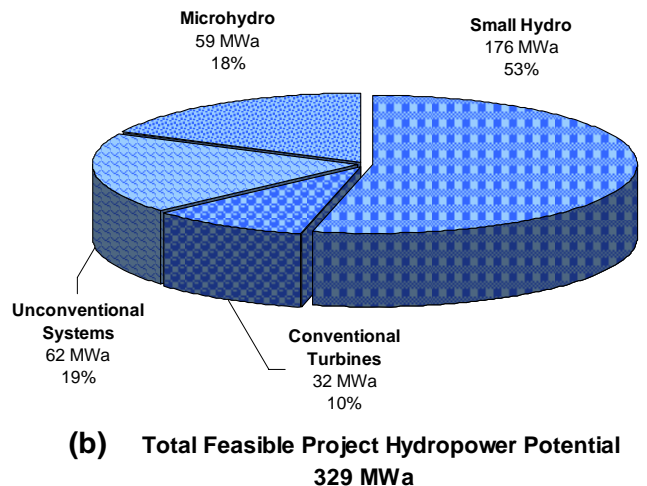
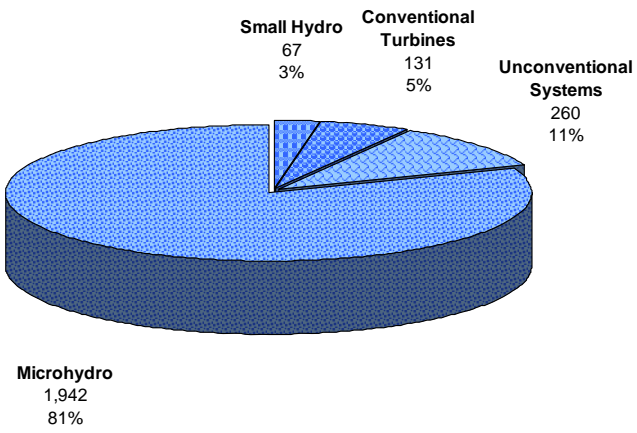
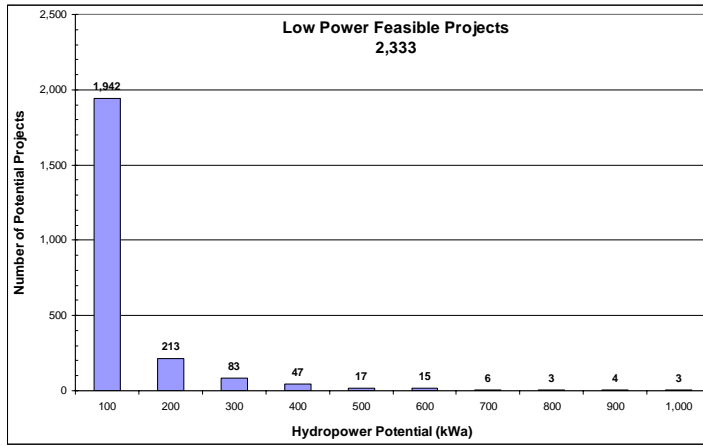
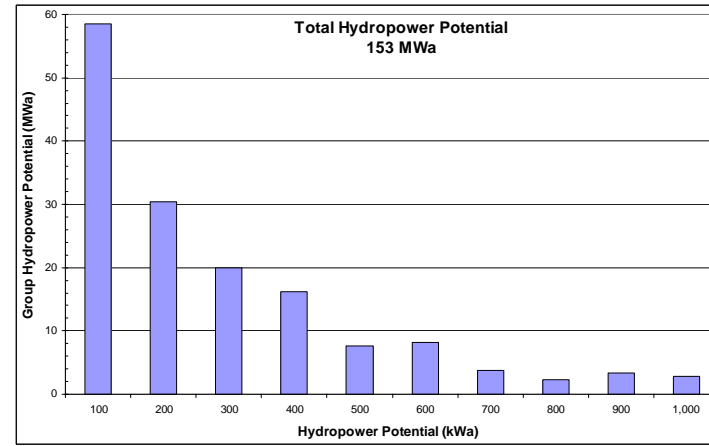


Figure B-72. Distribution of the (a) number and (b) total hydropower potential of the low power and small hydropower feasible projects in Iowa with the low power projects divided into technology classes.

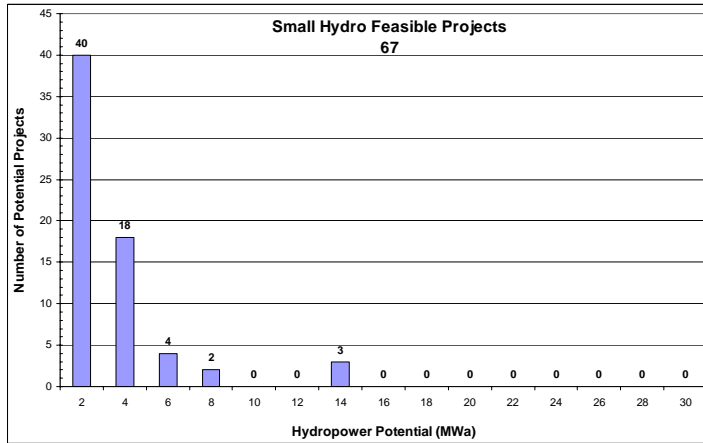


(a)

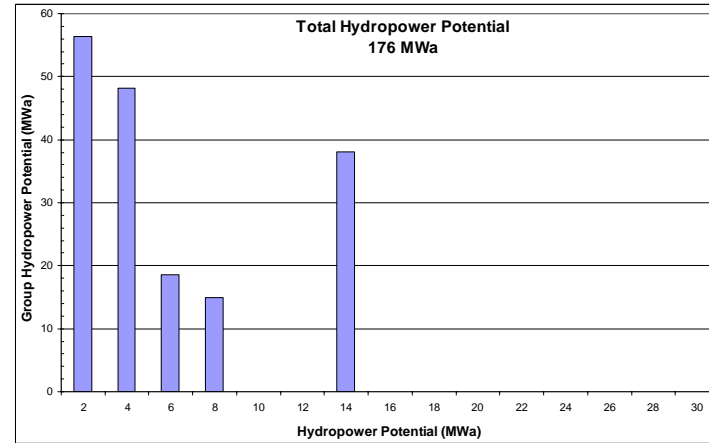


(b)

Figure B-73. Distributions of the (a) number and (b) group hydropower potential of low power feasible projects in Iowa.



(a)



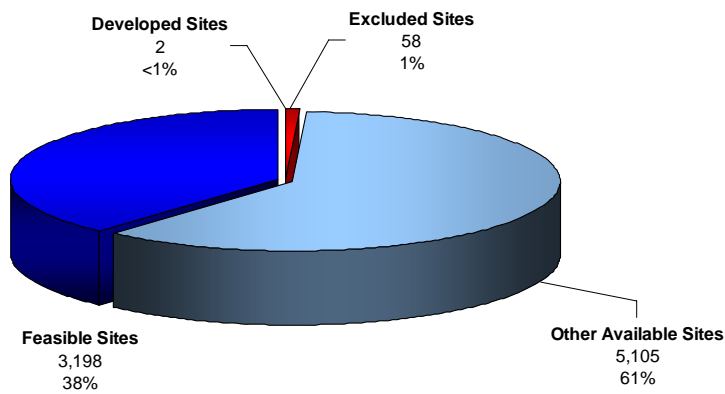
(b)

Figure B-74. Distributions of the (a) number and (b) group hydropower potential of small hydropower feasible projects in Iowa.

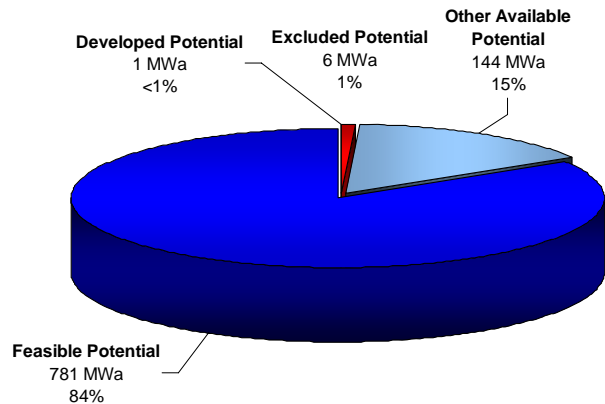
B.16 Kansas

Table B-33. Summary of results of water energy resource assessment of Kansas.

Power Class	Total (MWa)	Developed (MWa)	Federally Excluded (MWa)	Other Excluded (MWa)	Available (MWa)
Total Power	932	1	3	3	925
Total High Power	405	0	0	0	405
Large Hydro	0	0	0	0	0
Small Hydro	405	0	0	0	405
Total Low Power	527	1	3	3	520
Conventional Turbines	230	0	2	2	227
Unconventional Systems	80	1	1	0	77
Microhydro	217	0	1	0	216



(a) Total Resource Sites
8,363

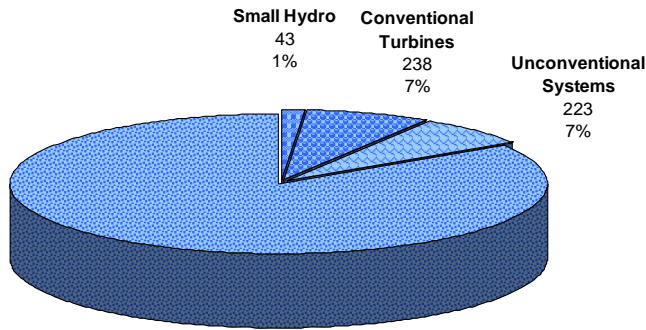


(b) Total Resource Potential
932 MWa

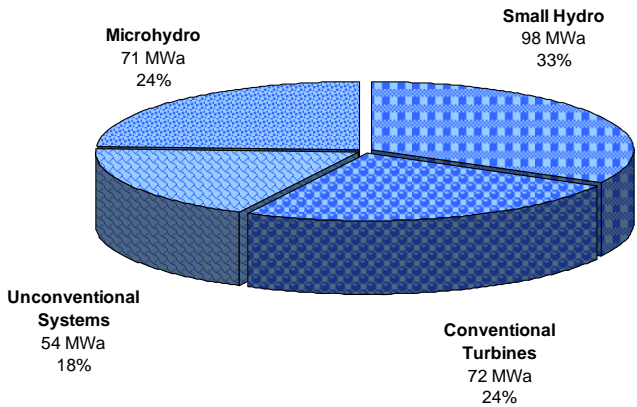
Figure B-76. Power category distribution of the (a) number and (b) total power potential of the water energy resource sites in Kansas.

Table B-34. Summary of results of feasibility assessment of water energy resources in Kansas.

Power Class	Available (MWa)	Feasible Sites (MWa)	Feasible Projects (MWa)
Total Power	925	781	295
Total High Power	405	403	98
Large Hydro	0	0	0
Small Hydro	405	403	98
Total Low Power	520	378	197
Conventional Turbines	227	196	72
Unconventional Systems	77	76	54
Microhydro	216	106	71

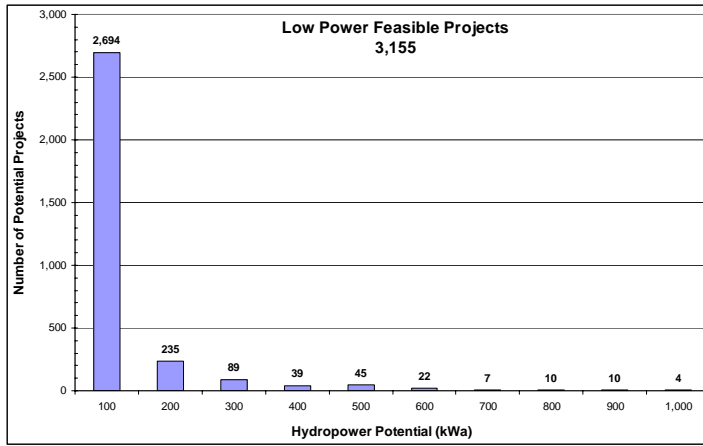


(a) Total Feasible Projects
3,198

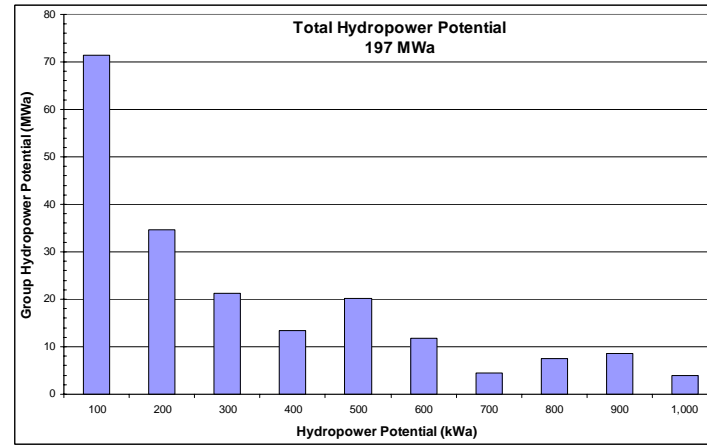


(b) Total Feasible Project Hydropower Potential
295 MWa

Figure B-77. Distribution of the (a) number and (b) total hydropower potential of the low power and small hydropower feasible projects in Kansas with the low power projects divided into technology classes.



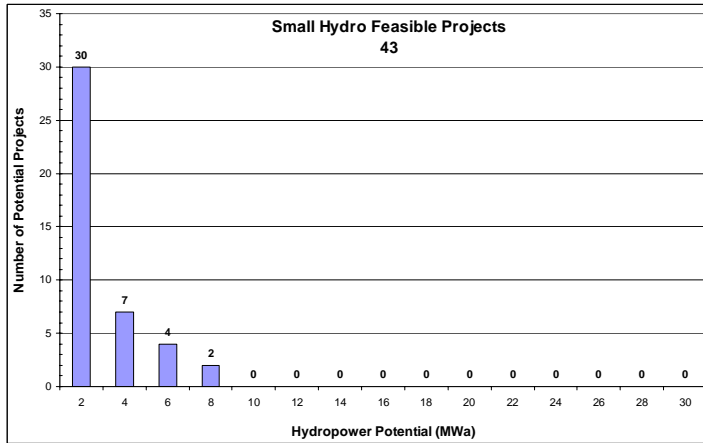
(a)



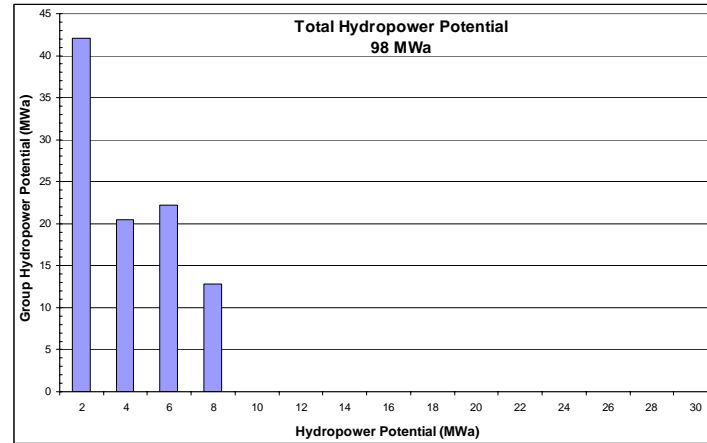
(b)

Figure B-78. Distributions of the (a) number and (b) group hydropower potential of low power feasible projects in Kansas.

B-69



(a)



(b)

Figures A-79. Distributions of the (a) number and (b) group hydropower potential of small hydropower feasible projects in Kansas.

B-70

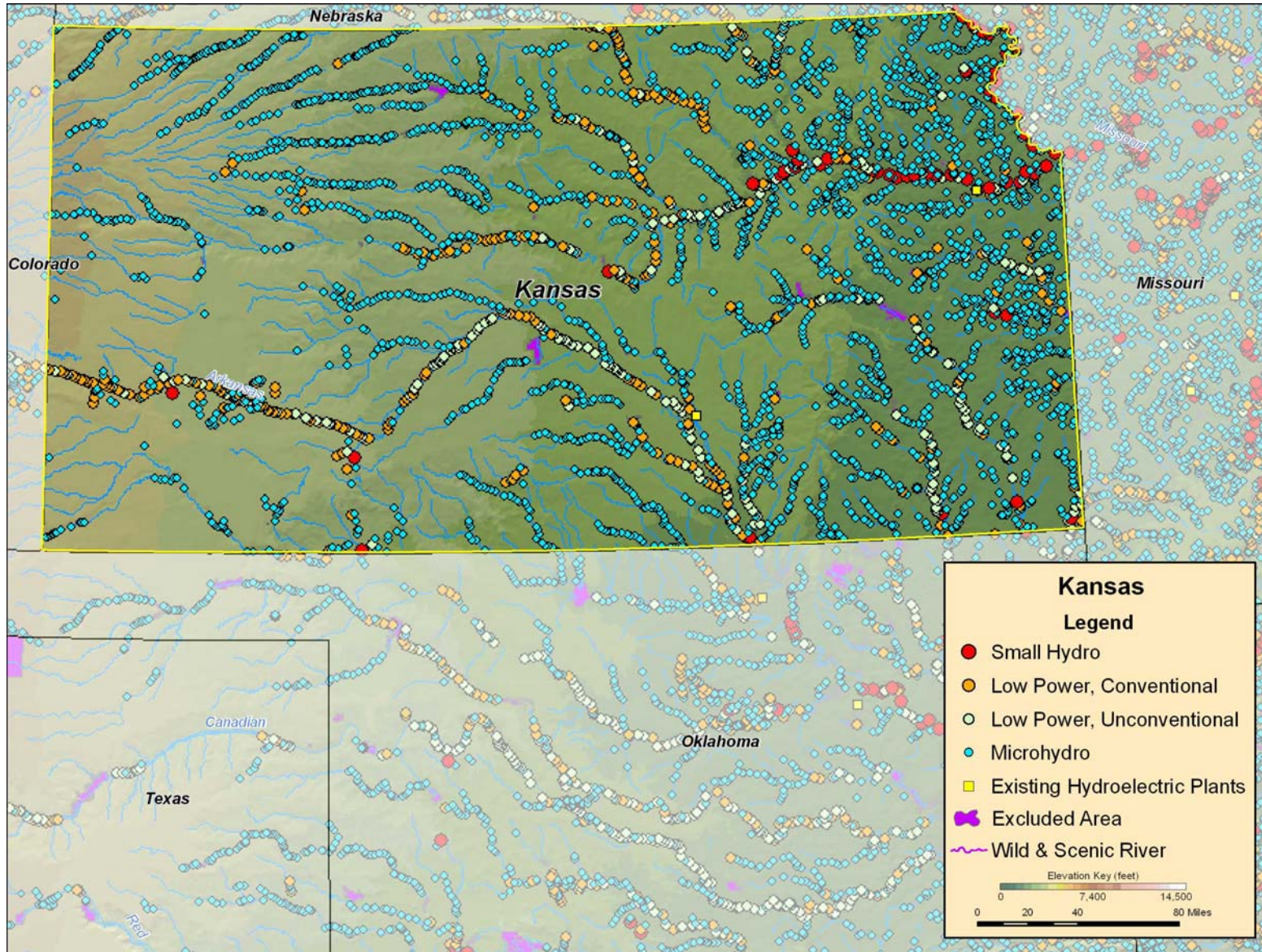
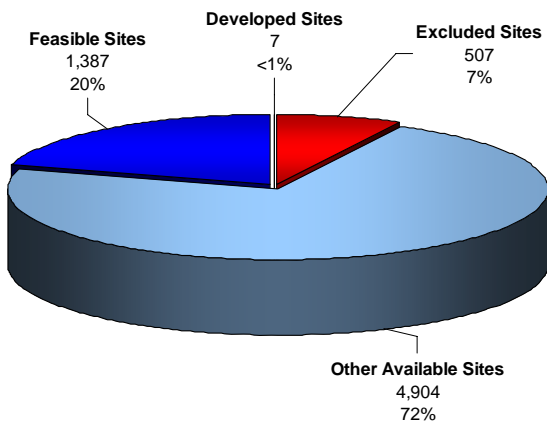


Figure B-80. Low power and small hydropower feasible projects, and existing hydroelectric plants in Kansas.

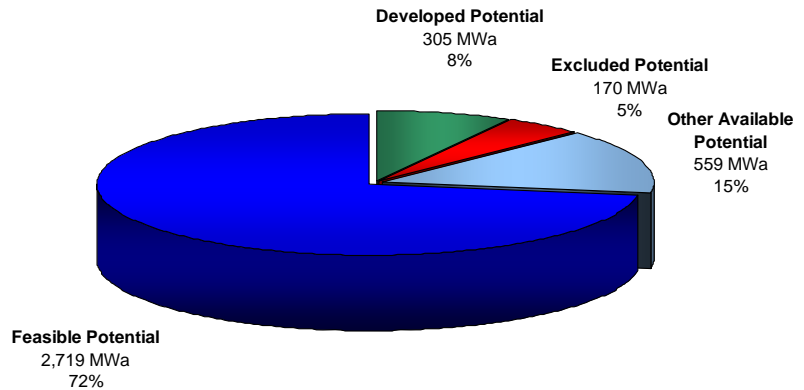
B.17 Kentucky

Table B-35. Summary of results of water energy resource assessment of Kentucky.

Power Class	Total (MWa)	Developed (MWa)	Federally Excluded (MWa)	Other Excluded (MWa)	Available (MWa)
Total Power	3,754	305	44	127	3,278
Total High Power	3,178	305	33	77	2,763
Large Hydro	2,518	285	0	0	2,233
Small Hydro	661	21	33	77	530
Total Low Power	576	0	11	49	515
Conventional Turbines	341	0	7	31	303
Unconventional Systems	49	0	2	7	40
Microhydro	186	0	2	12	172



(a) Total Resource Sites
6,805

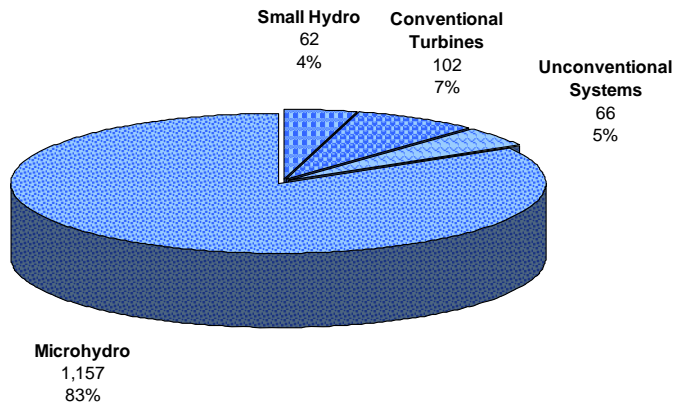


(a) Total Resource Potential
3,754 MWa

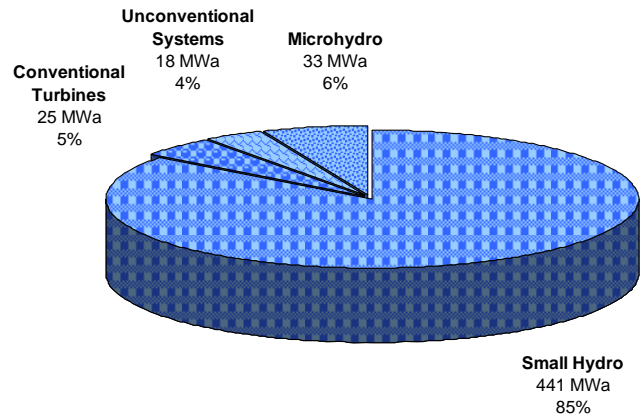
Figure B-81. Power category distribution of the (a) number and (b) total power potential of the water energy resource sites in Kentucky.

Table B-36. Summary of results of feasibility assessment of water energy resources in Kentucky.

Power Class	Available (MWa)	Feasible Sites (MWa)	Feasible Projects (MWa)
Total Power	3,278	2,719	518
Total High Power	2,763	2,493	441
Large Hydro	2,233	2,064	0
Small Hydro	530	428	441
Total Low Power	515	227	77
Conventional Turbines	303	174	25
Unconventional Systems	40	21	18
Microhydro	172	32	33

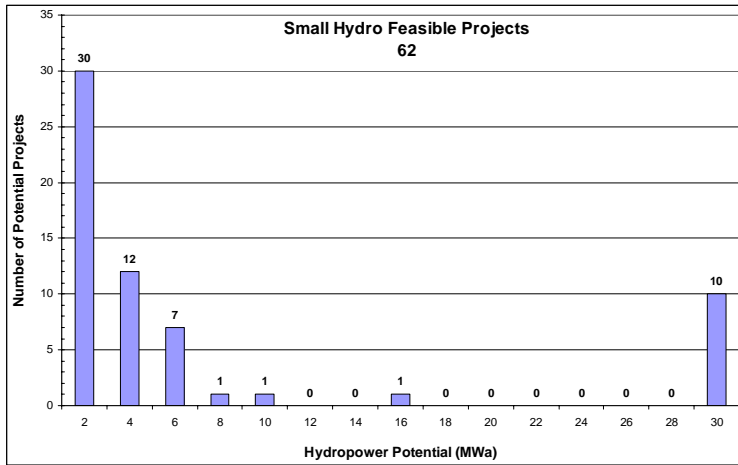


(a) Total Feasible Projects
1,387

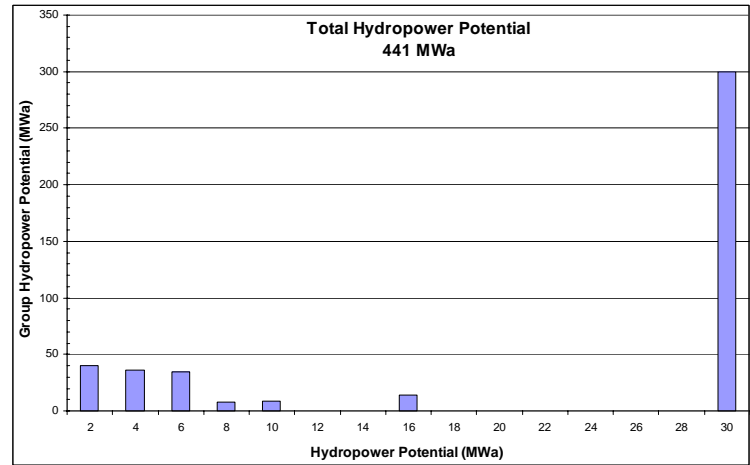


(b) Total Feasible Project Hydropower Potential
518 MWa

Figure B-82. Distribution of the (a) number and (b) total hydropower potential of the low power and small hydropower feasible projects in Kentucky with the low power projects divided into technology classes.

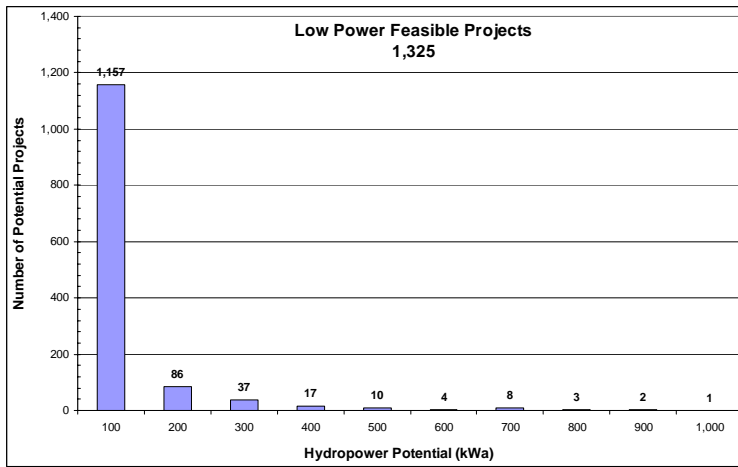


(a)

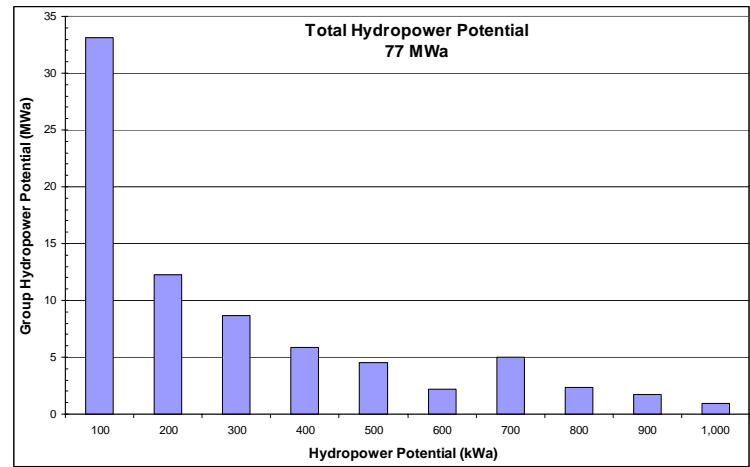


(b)

Figure B-83. Distributions of the (a) number and (b) group hydropower potential of low power feasible projects in Kentucky.

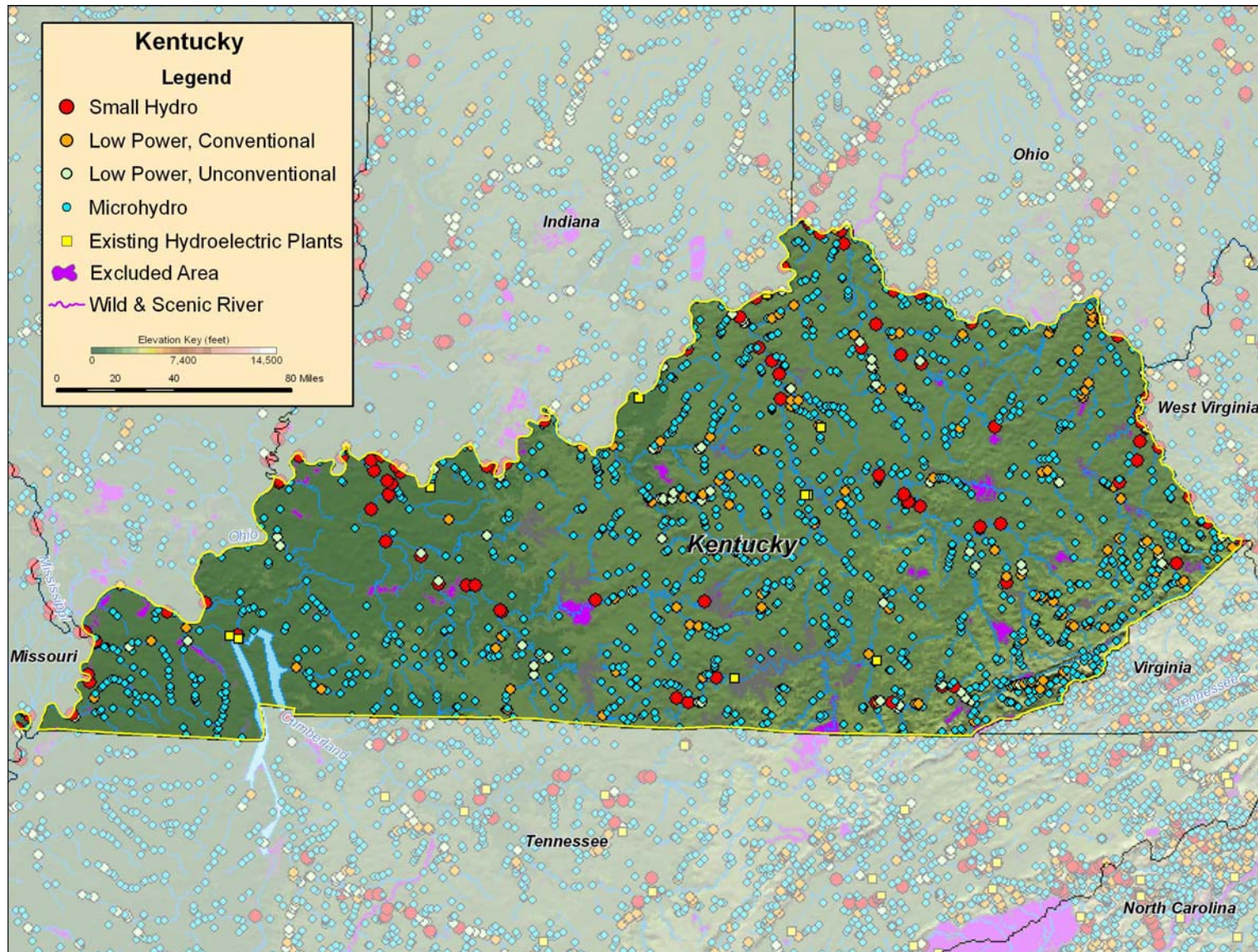


(a)



(b)

Figure B-84. Distributions of the (a) number and (b) group hydropower potential of small hydropower feasible projects in Kentucky.



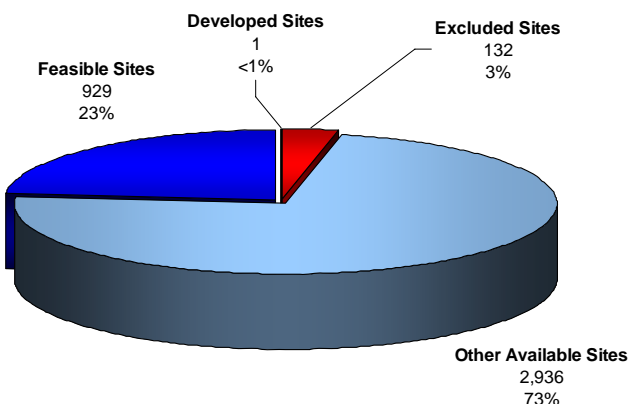
B-74

Figure B-85. Low power and small hydropower feasible projects, and existing hydroelectric plants in Kentucky.

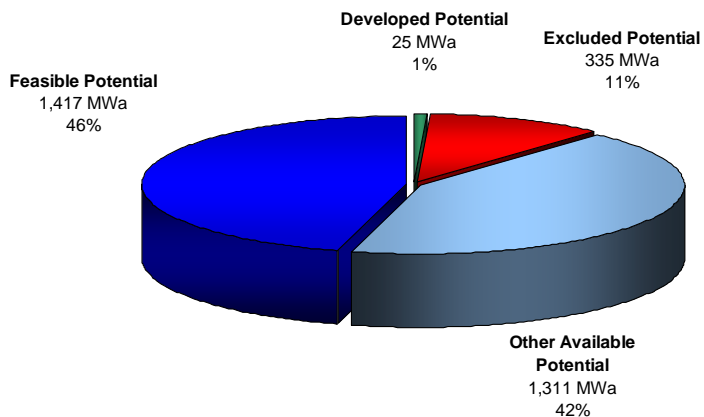
B.18 Louisiana

Table B-37. Summary of results of water energy resource assessment of Louisiana.

Power Class	Total (MWa)	Developed (MWa)	Federally Excluded (MWa)	Other Excluded (MWa)	Available (MWa)
Total Power	3,088	25	331	4	2,728
Total High Power	2,801	25	323	0	2,453
Large Hydro	2,416	0	287	0	2,129
Small Hydro	385	25	37	0	323
Total Low Power	287	0	7	4	276
Conventional Turbines	98	0	0	2	96
Unconventional Systems	84	0	5	1	78
Microhydro	105	0	2	2	101



(a) Total Resource Sites
3,998

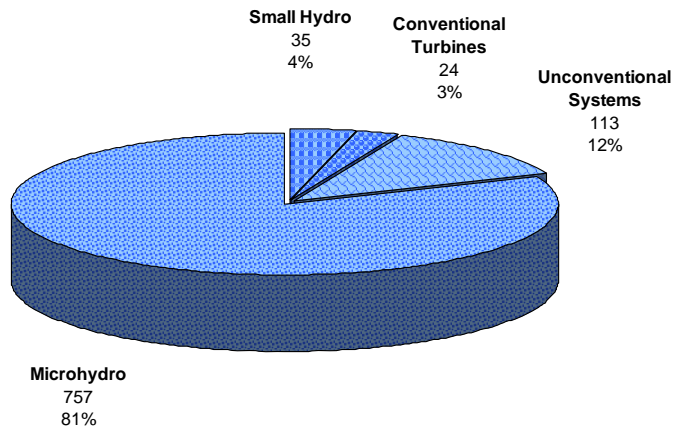


(b) Total Resource Potential
3,088 MWa

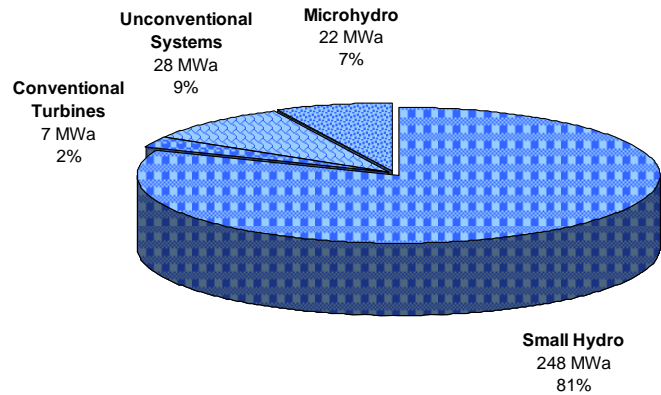
Figure B-86. Power category distribution of the (a) number and (b) total power potential of the water energy resource sites in Louisiana.

Table B-38. Summary of results of feasibility assessment of water energy resources in Louisiana.

Power Class	Available (MWa)	Feasible Sites (MWa)	Feasible Projects (MWa)
Total Power	2,728	1,417	306
Total High Power	2,453	1,266	248
Large Hydro	2,129	975	0
Small Hydro	323	291	248
Total Low Power	276	150	58
Conventional Turbines	96	69	7
Unconventional Systems	78	58	28
Microhydro	101	23	22

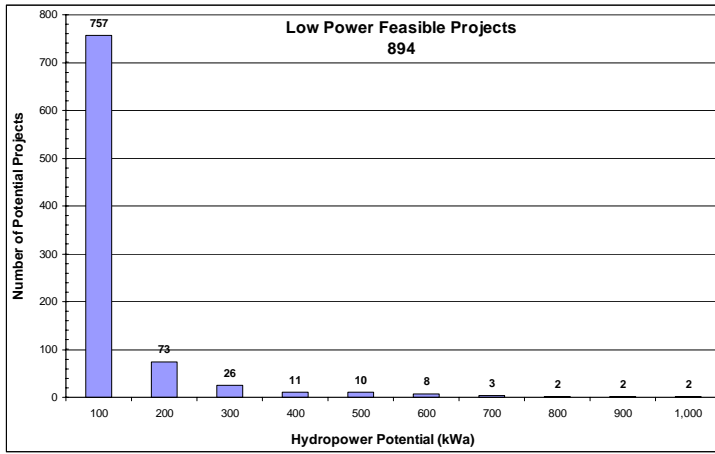


(a) Total Feasible Projects
929

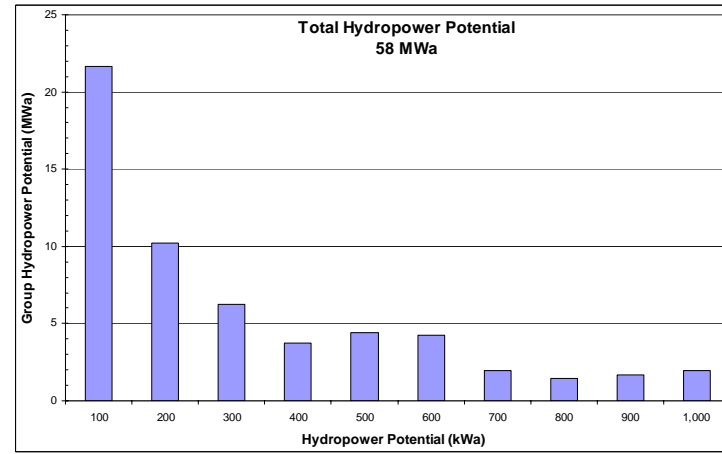


(b) Total Feasible Project Hydropower Potential
306 MWa

Figures A-87. Distribution of the (a) number and (b) total hydropower potential of the low power and small hydropower feasible projects in Louisiana with the low power projects divided into technology classes.

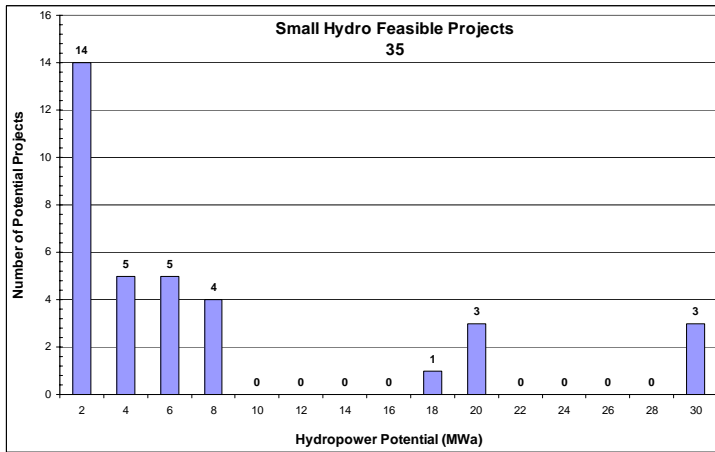


(a)

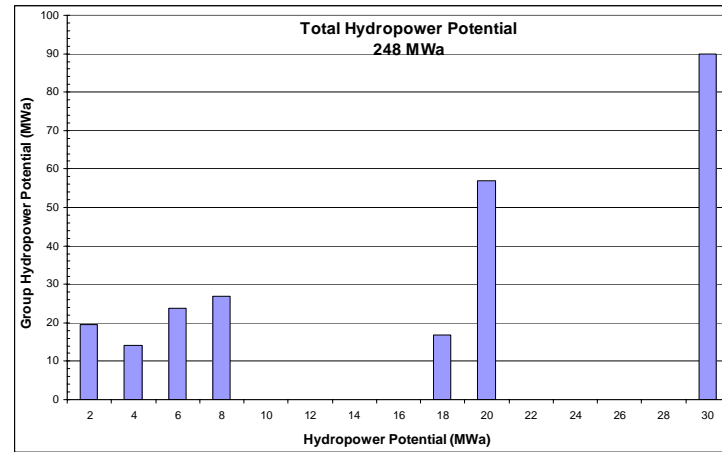


(b)

Figure B-88. Distributions of the (a) number and (b) group hydropower potential of low power feasible projects in Louisiana.



(a)



(b)

Figure B-89. Distributions of the (a) number and (b) group hydropower potential of small hydropower feasible projects in Louisiana.

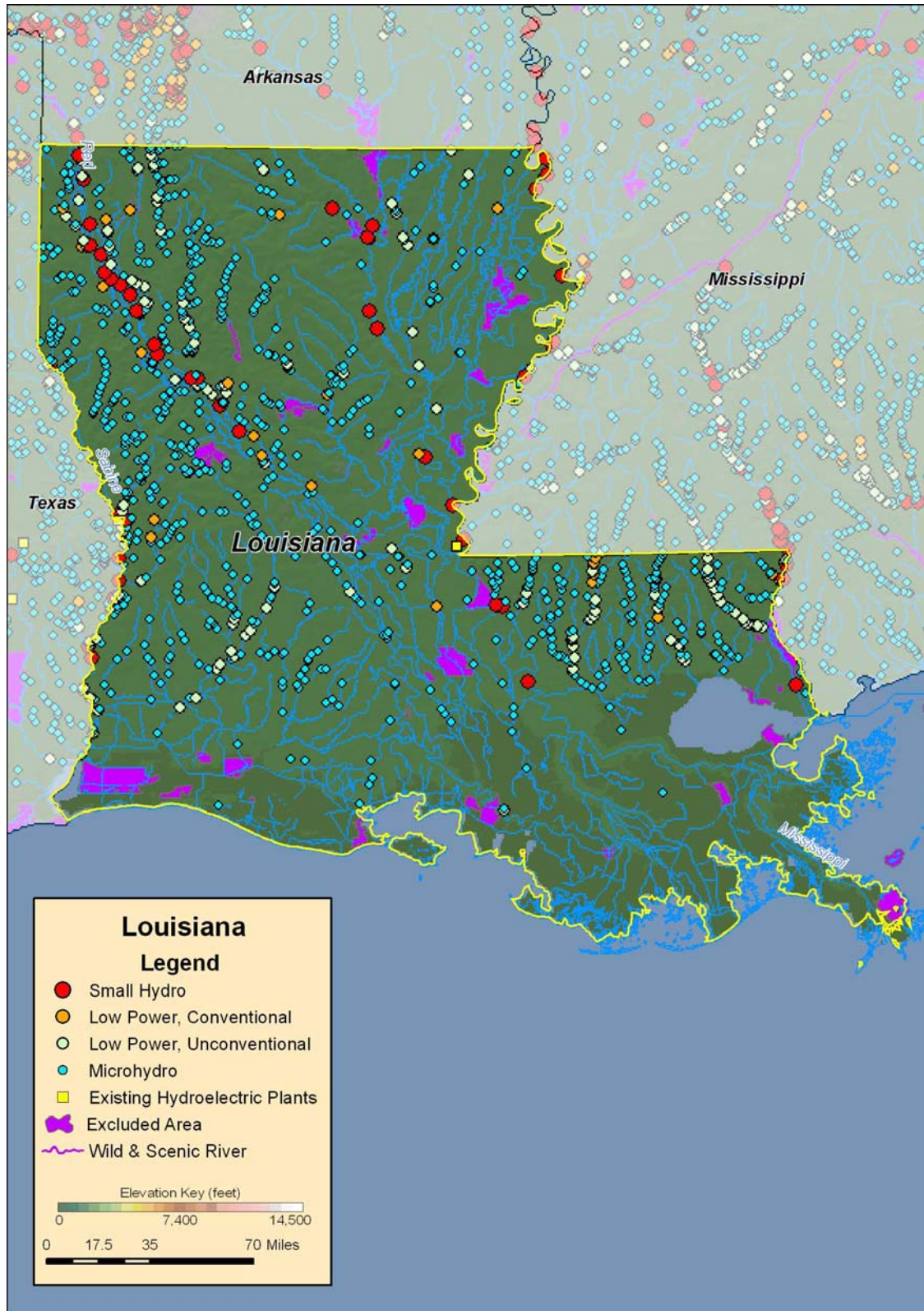
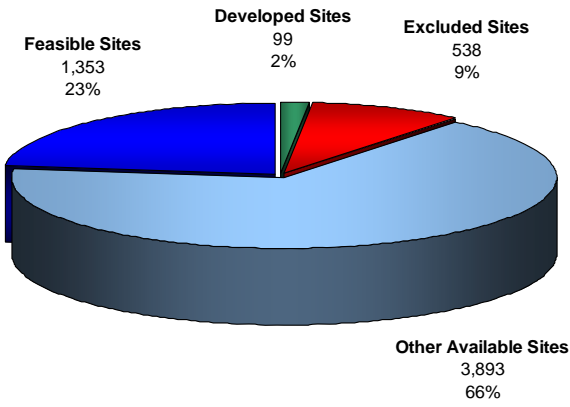


Figure B-90. Low power and small hydropower feasible projects, and existing hydroelectric plants in Louisiana.

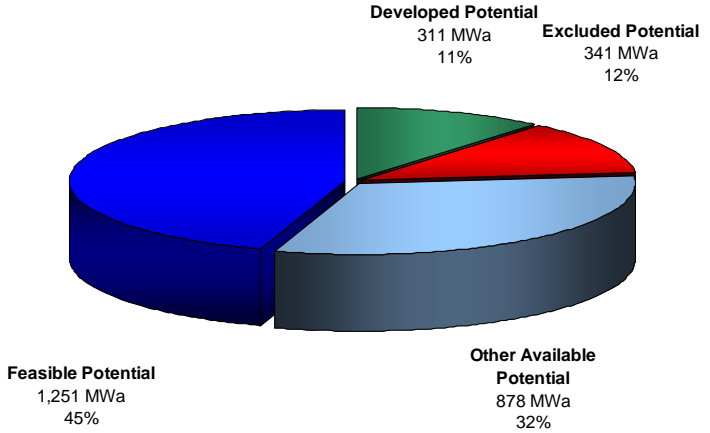
B.19 Maine

Table B-39. Summary of results of water energy resource assessment of Maine.

Power Class	Total (MWa)	Developed (MWa)	Federally Excluded (MWa)	Other Excluded (MWa)	Available (MWa)
Total Power	2,780	311	63	277	2,129
Total High Power	1,989	297	42	211	1,439
Large Hydro	315	89	0	47	179
Small Hydro	1,675	208	42	164	1,260
Total Low Power	791	14	21	66	689
Conventional Turbines	607	11	15	53	529
Unconventional Systems	44	2	4	4	35
Microhydro	139	2	2	9	126



(a) Total Resource Sites
5,883

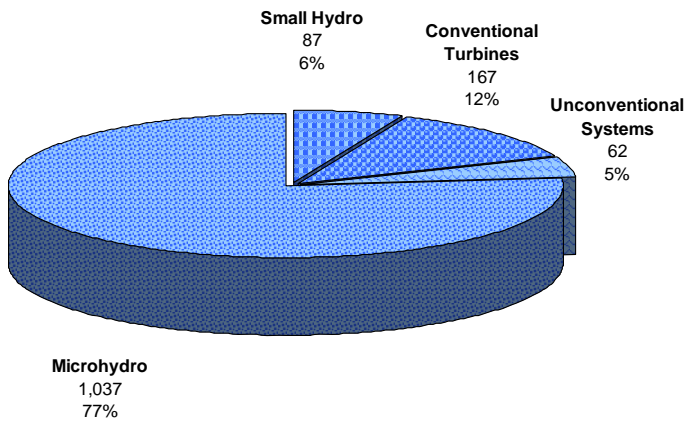


(a) Total Resource Potential
2,780 MWa

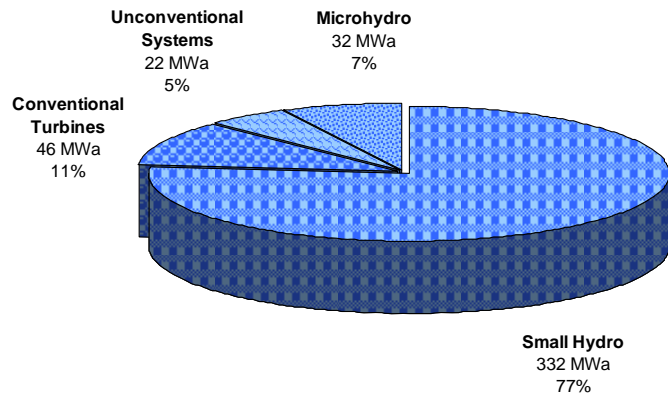
Figure B-91. Power category distribution of the (a) number and (b) total power potential of the water energy resource sites in Maine.

Table B-40. Summary of results of feasibility assessment of water energy resources in Maine.

Power Class	Available (MWa)	Feasible Sites (MWa)	Feasible Projects (MWa)
Total Power	2,129	1,251	432
Total High Power	1,439	1,015	332
Large Hydro	179	135	0
Small Hydro	1,260	881	332
Total Low Power	689	236	100
Conventional Turbines	529	187	46
Unconventional Systems	35	21	22
Microhydro	126	28	32

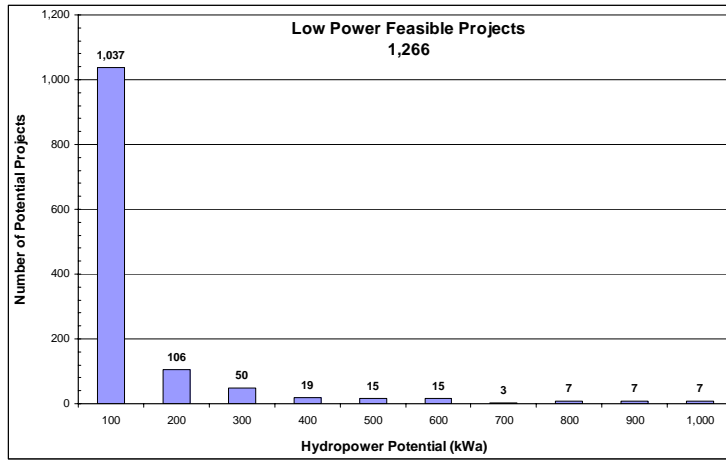


(a) Total Feasible Projects
1,353

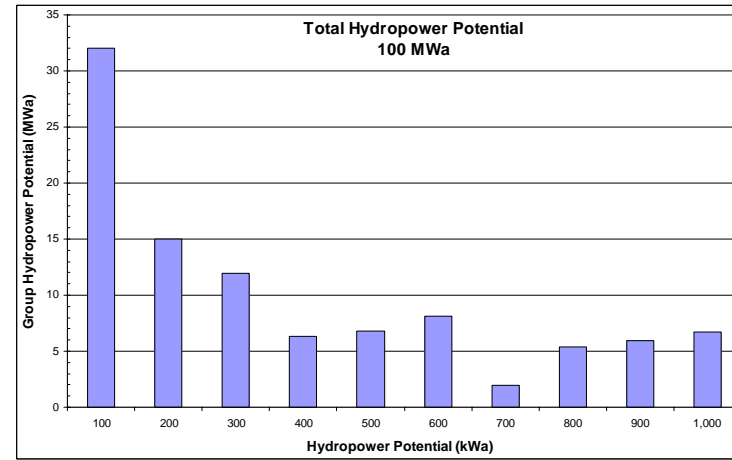


(b) Total Feasible Project Hydropower Potential
432 MWa

Figure B-92. Distribution of the (a) number and (b) total hydropower potential of the low power and small hydropower feasible projects in Maine with the low power projects divided into technology classes.

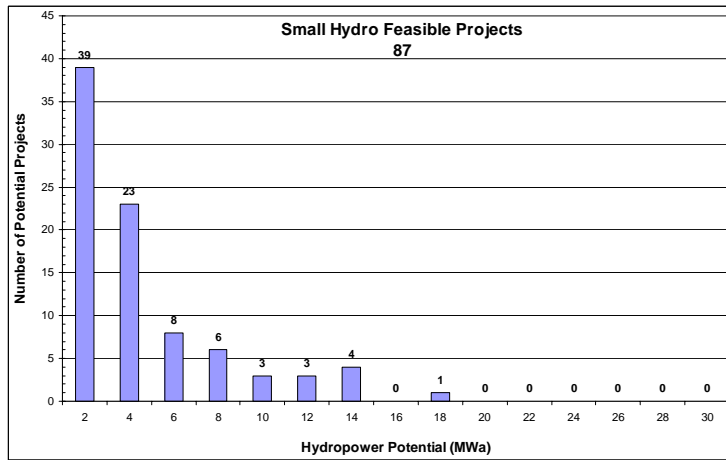


(a)

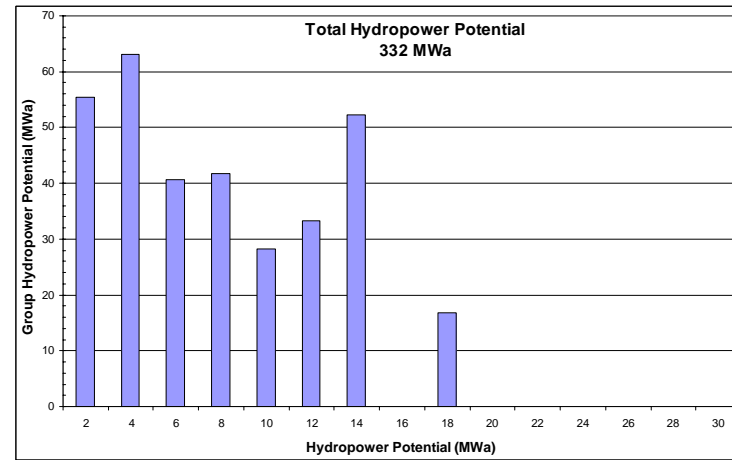


(b)

Figure B-93. Distributions of the (a) number and (b) group hydropower potential of low power feasible projects in Maine.



(a)



(b)

Figure B-94. Distributions of the (a) number and (b) group hydropower potential of small hydropower feasible projects in Maine.

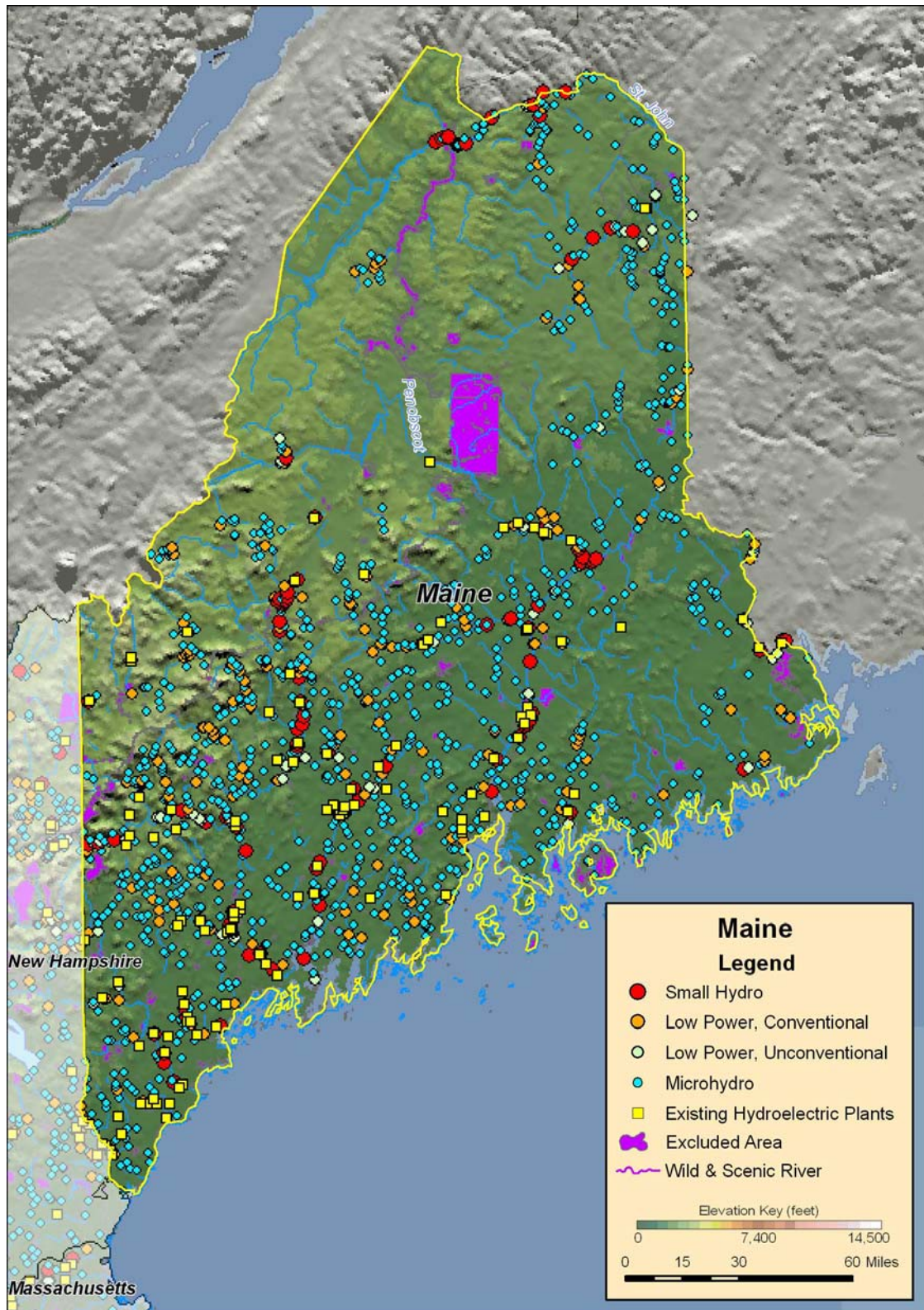
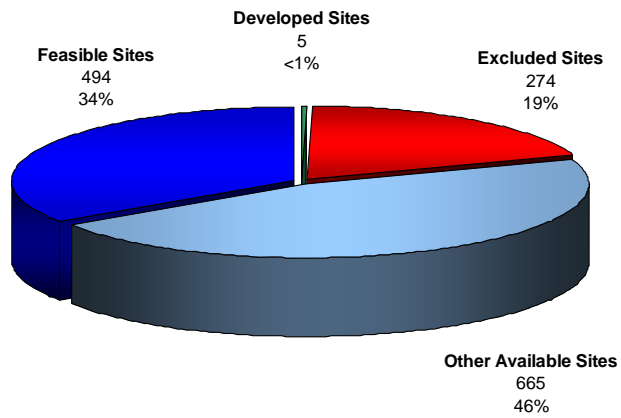


Figure B-95. Low power and small hydropower feasible projects, and existing hydroelectric plants in Maine.

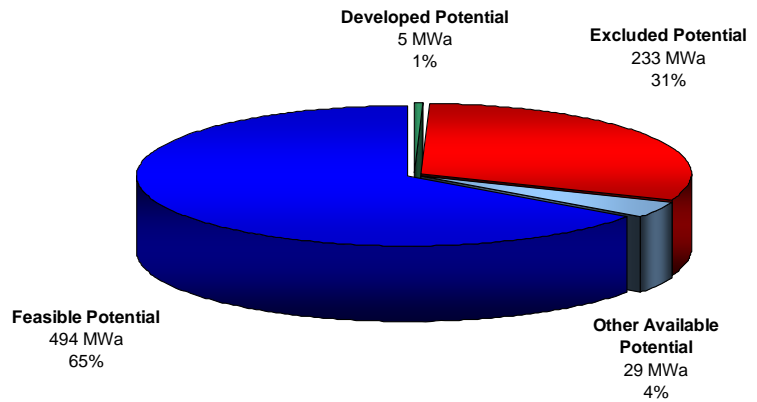
B.20 Maryland

Table B-41. Summary of results of water energy resource assessment of Maryland.

Power Class	Total (MWa)	Developed (MWa)	Federally Excluded (MWa)	Other Excluded (MWa)	Available (MWa)
Total Power	761	5	193	40	523
Total High Power	615	3	182	15	415
Large Hydro	336	0	69	0	268
Small Hydro	279	3	113	15	147
Total Low Power	146	1	12	25	108
Conventional Turbines	108	1	9	20	77
Unconventional Systems	4	0	0	0	3
Microhydro	34	0	2	4	28



(a) Total Resource Sites
1,438

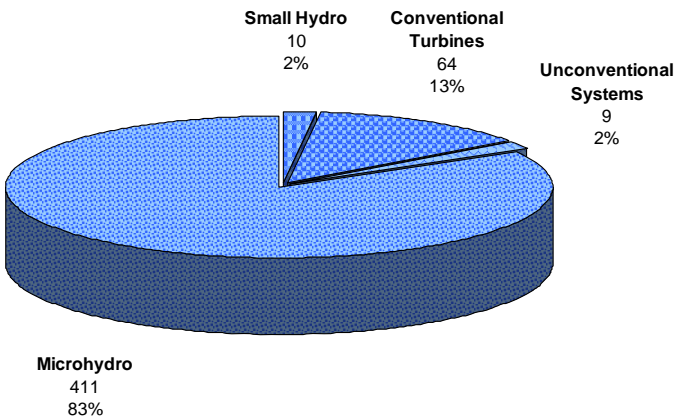


(a) Total Resource Potential
761 MWa

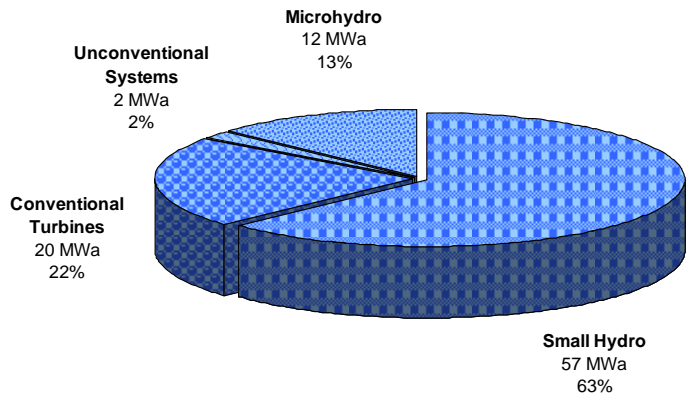
Figure B-96. Power category distribution of the (a) number and (b) total power potential of the water energy resource sites in Maryland.

Table B-42. Summary of results of feasibility assessment of water energy resources in Maryland.

Power Class	Available (MWa)	Feasible Sites (MWa)	Feasible Projects (MWa)
Total Power	523	494	91
Total High Power	415	411	57
Large Hydro	268	268	0
Small Hydro	147	143	57
Total Low Power	108	83	34
Conventional Turbines	77	69	20
Unconventional Systems	3	3	2
Microhydro	28	11	12

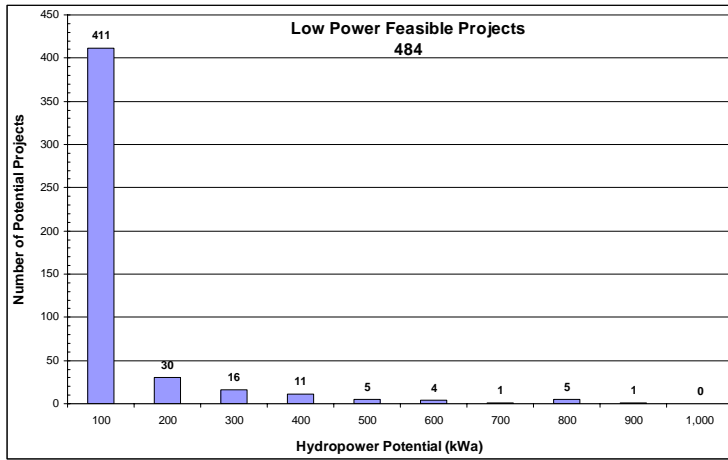


(a) Total Feasible Projects
494

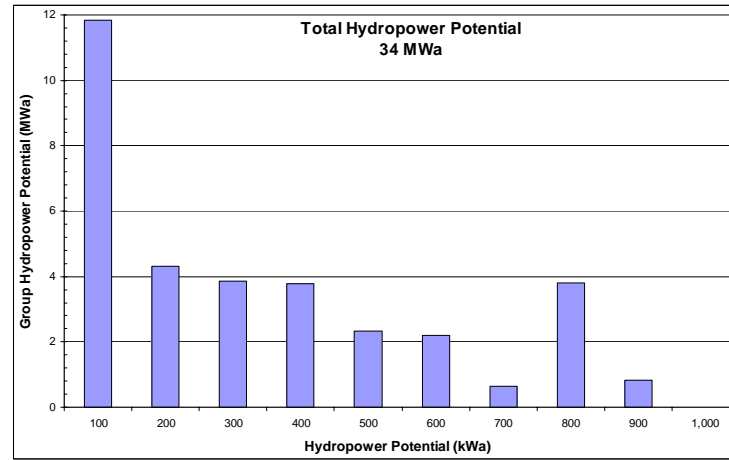


(a) Total Feasible Project Hydropower Potential
91 MWa

Figure B-97. Distribution of the (a) number and (b) total hydropower potential of the low power and small hydropower feasible projects in Maryland with the low power projects divided into technology classes.



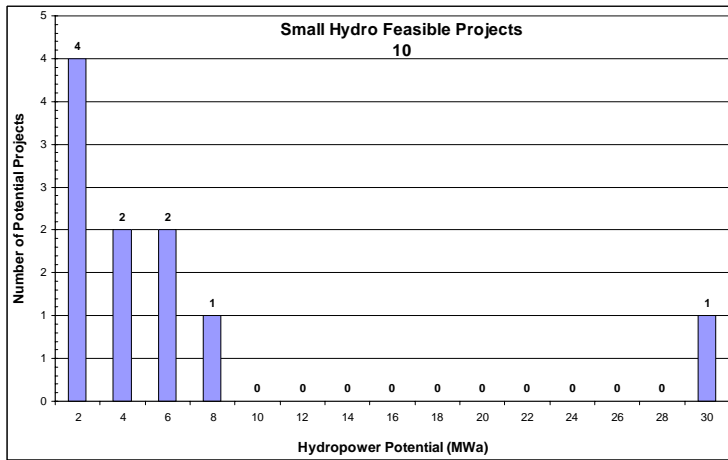
(a)



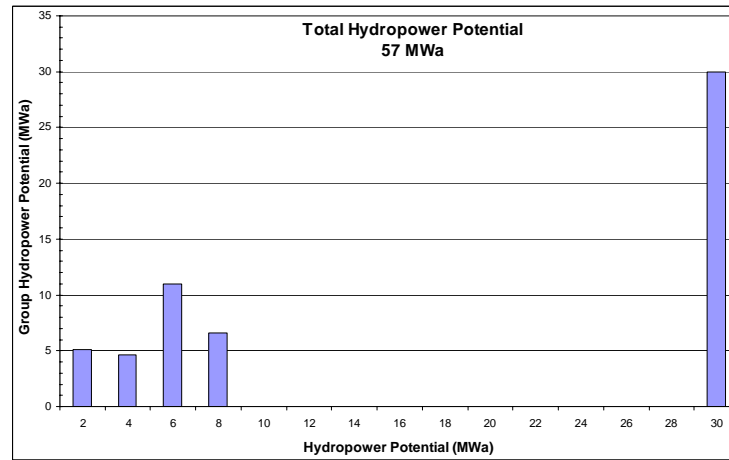
(b)

Figure B-98. Distributions of the (a) number and (b) group hydropower potential of low power feasible projects in Maryland.

B-85



(a)



(b)

Figure B-99. Distributions of the (a) number and (b) group hydropower potential of small hydropower feasible projects in Maryland.

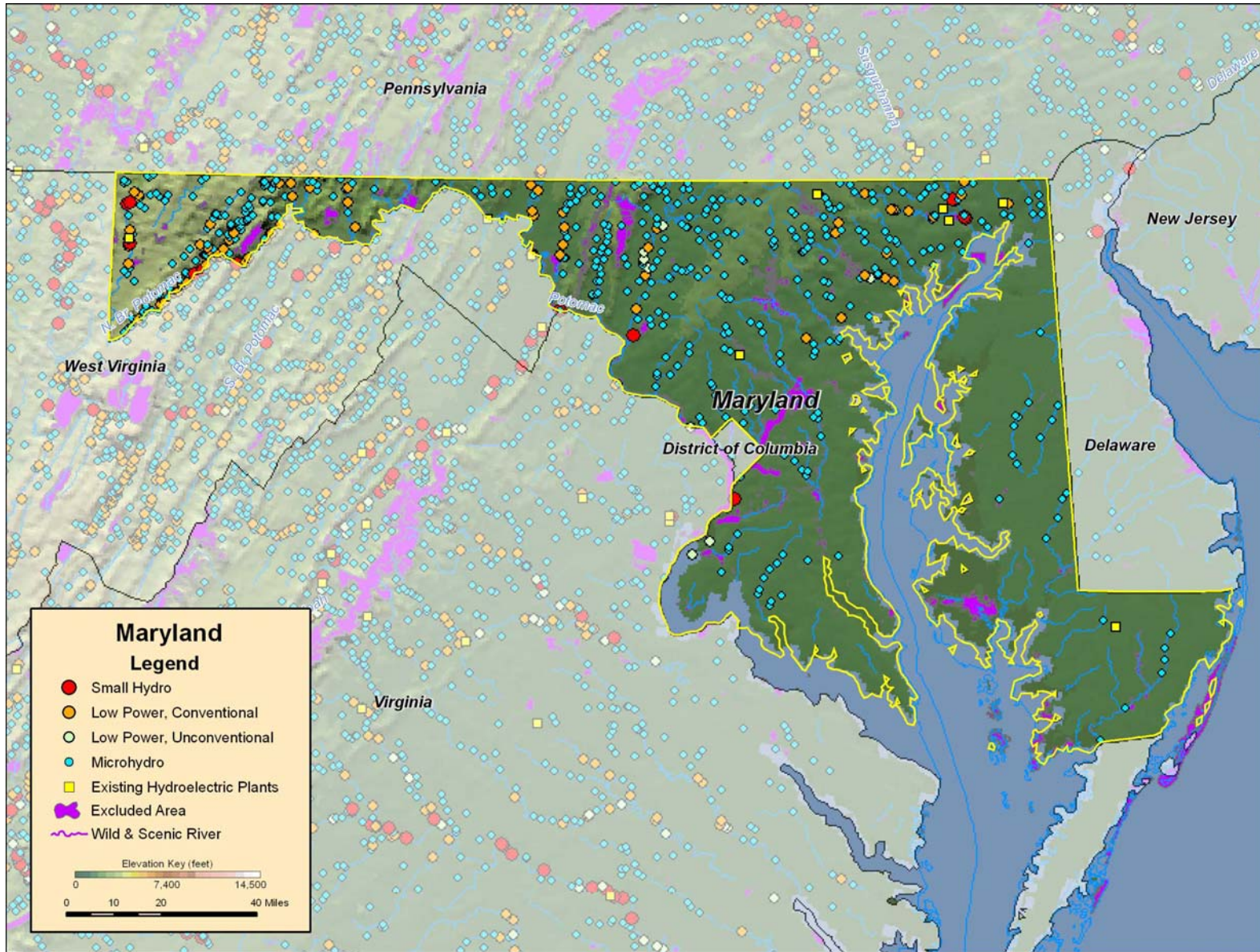
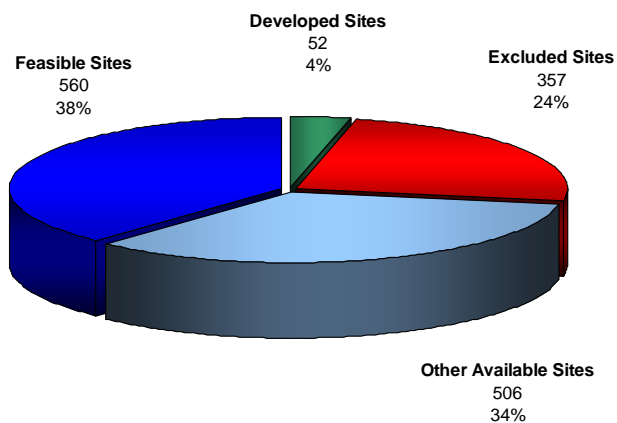


Figure B-100. Low power and small hydropower feasible projects, and existing hydroelectric plants in Maryland.

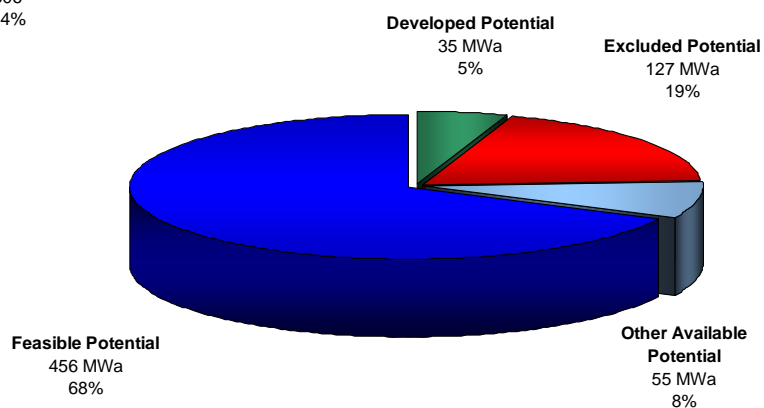
B.21 Massachusetts

Table B-43. Summary of results of water energy resource assessment of Massachusetts.

Power Class	Total (MWa)	Developed (MWa)	Federally Excluded (MWa)	Other Excluded (MWa)	Available (MWa)
Total Power	673	35	29	98	511
Total High Power	478	29	11	57	381
Large Hydro	136	0	0	0	136
Small Hydro	343	29	11	57	246
Total Low Power	195	6	18	41	130
Conventional Turbines	155	5	17	31	101
Unconventional Systems	6	0	0	2	4
Microhydro	33	1	0	8	25



(a) Total Resource Sites
1,475

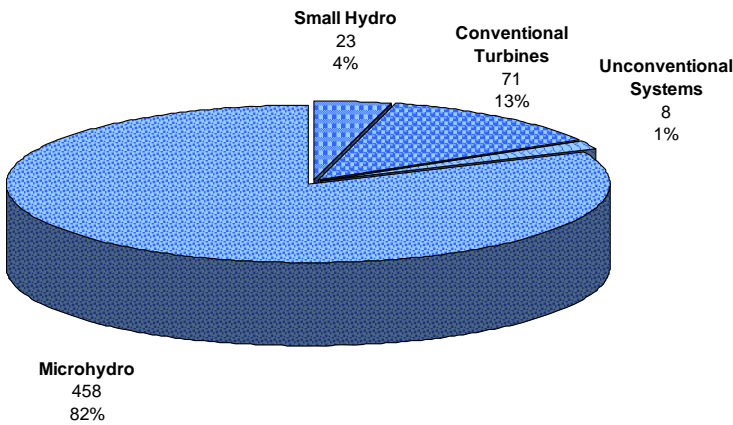


(b) Total Resource Potential
673 MWa

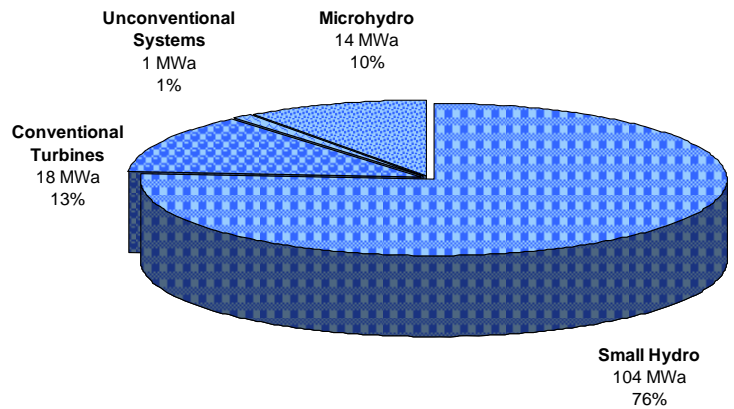
Figures A-101. Power category distribution of the (a) number and (b) total power potential of the water energy resource sites in Massachusetts.

Table B-44. Summary of results of feasibility assessment of water energy resources in Massachusetts.

Power Class	Available (MWa)	Feasible Sites (MWa)	Feasible Projects (MWa)
Total Power	511	456	136
Total High Power	381	360	104
Large Hydro	136	136	0
Small Hydro	246	225	104
Total Low Power	130	96	33
Conventional Turbines	101	80	18
Unconventional Systems	4	3	1
Microhydro	25	13	14

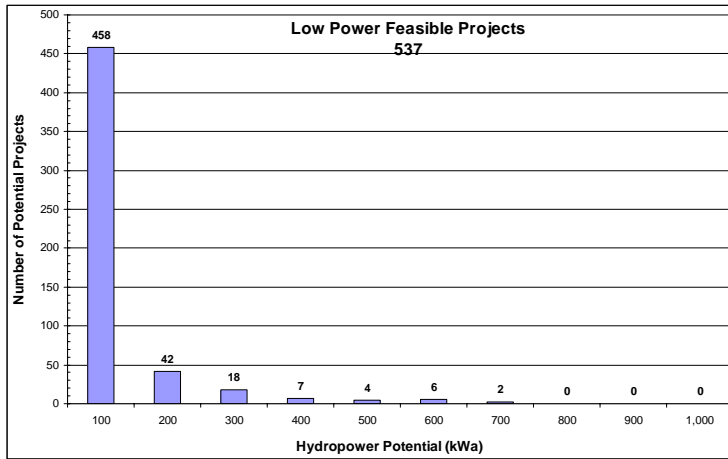


(a) Total Feasible Projects
560

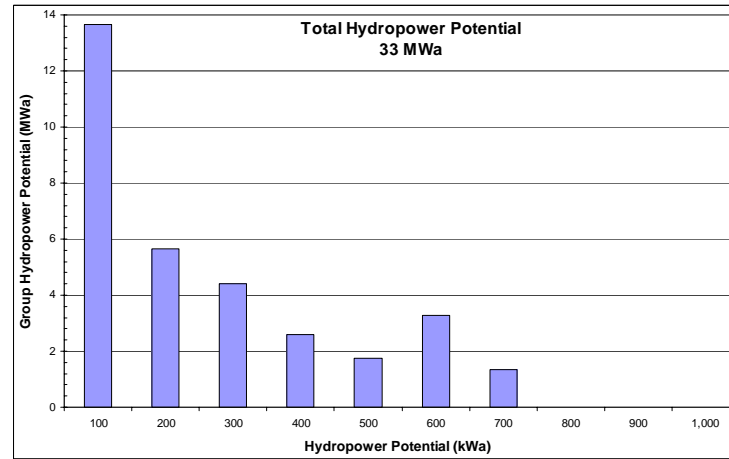


(b) Total Feasible Project Hydropower Potential
136 MWa

Figure B-102. Distribution of the (a) number and (b) total hydropower potential of the low power and small hydropower feasible projects in Massachusetts with the low power projects divided into technology classes.



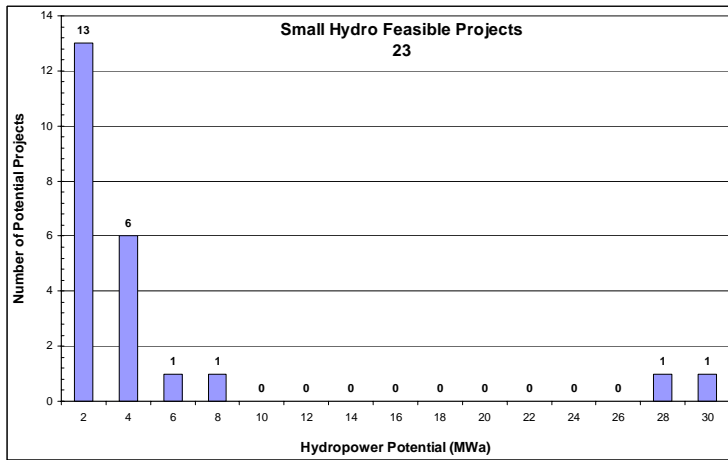
(a)



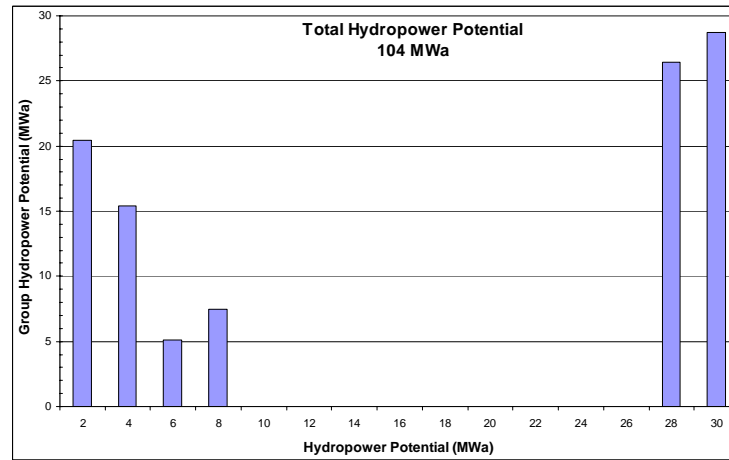
(b)

Figure B-103. Distributions of the (a) number and (b) group hydropower potential of low power feasible projects in Massachusetts.

B-89

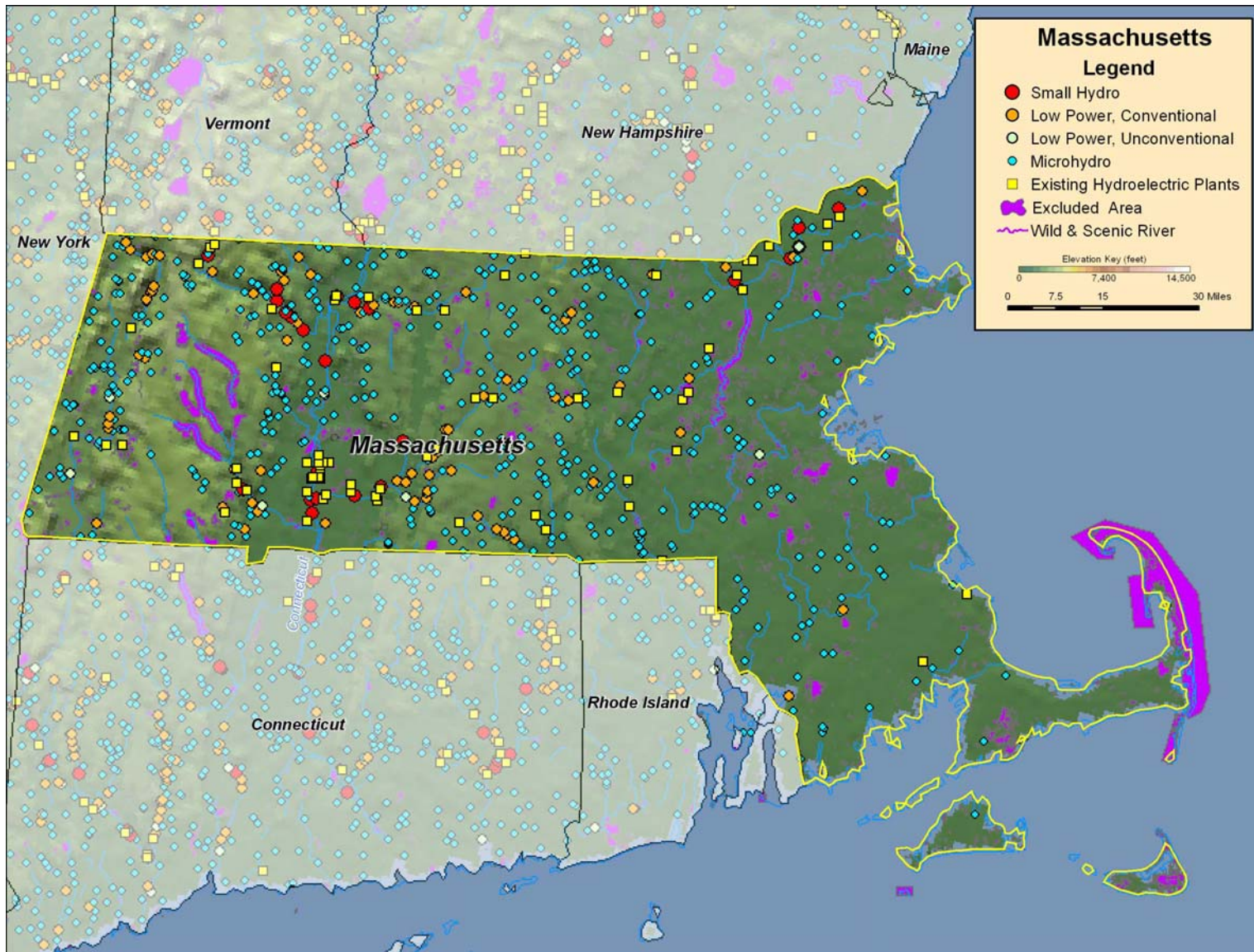


(a)



(b)

Figure B-104. Distributions of the (a) number and (b) group hydropower potential of small hydropower feasible projects in Massachusetts.



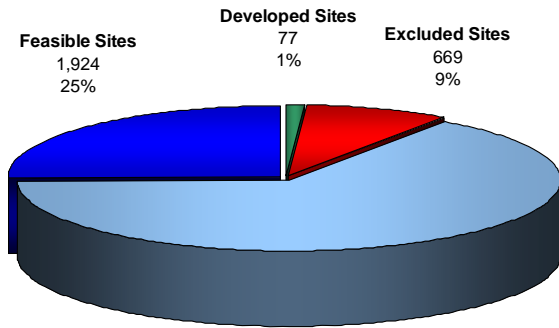
B-90

Figure B-105. Low power and small hydropower feasible projects, and existing hydroelectric plants in Massachusetts.

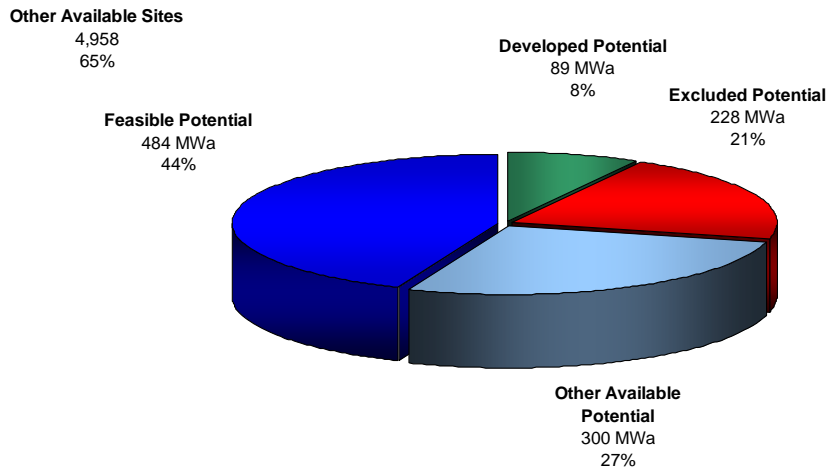
B.22 Michigan

Table B-45. Summary of results of water energy resource assessment of Michigan.

Power Class	Total (MWa)	Developed (MWa)	Federally Excluded (MWa)	Other Excluded (MWa)	Available (MWa)
Total Power	1,101	89	200	27	784
Total High Power	434	75	124	12	224
Large Hydro	0	0	0	0	0
Small Hydro	434	75	124	12	224
Total Low Power	666	15	77	15	560
Conventional Turbines	409	12	57	8	332
Unconventional Systems	59	2	9	3	46
Microhydro	198	1	11	4	182



(a) Total Resource Sites
7,628

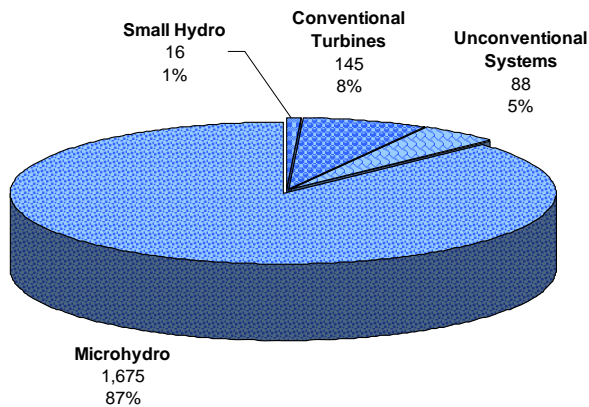


(b) Total Resource Potential
1,101 MWa

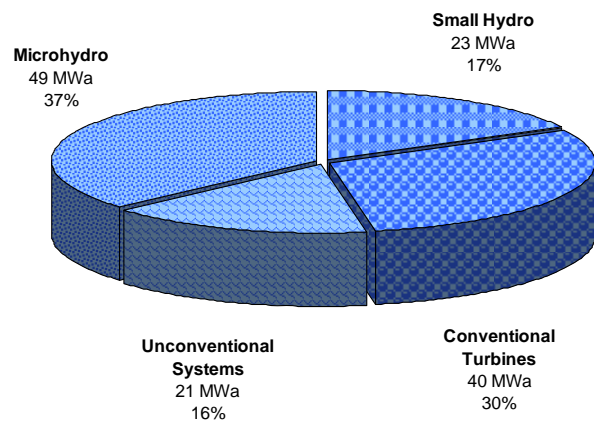
Figure B-106. Power category distribution of the (a) number and (b) total power potential of the water energy resource sites in Michigan.

Table B-46. Summary of results of feasibility assessment of water energy resources in Michigan.

Power Class	Available (MWa)	Feasible Sites (MWa)	Feasible Projects (MWa)
Total Power	784	484	133
Total High Power	224	187	23
Large Hydro	0	0	0
Small Hydro	224	187	23
Total Low Power	560	297	110
Conventional Turbines	332	208	40
Unconventional Systems	46	34	21
Microhydro	182	54	49

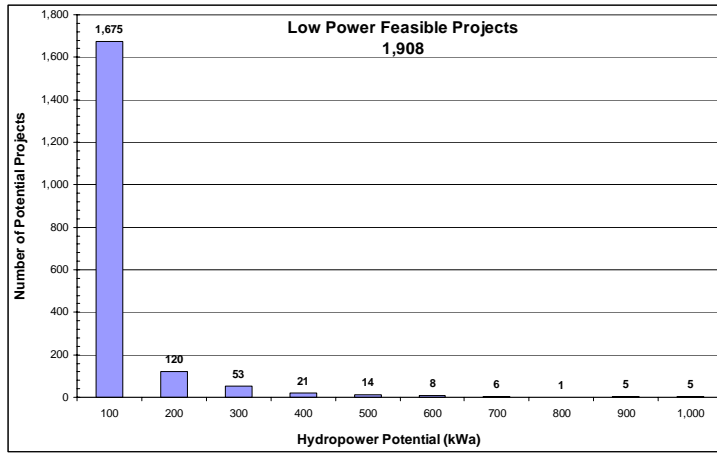


(a) Total Feasible Projects
1,924

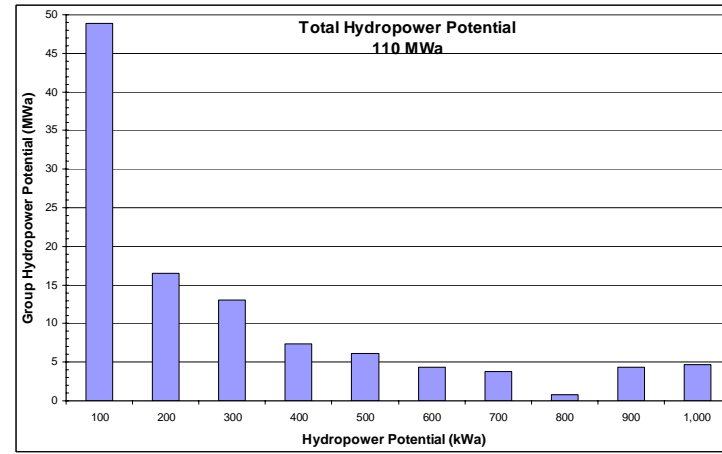


(b) Total Feasible Project Hydropower Potential
133 MWa

Figure B-107. Distribution of the (a) number and (b) total hydropower potential of the low power and small hydropower feasible projects in Michigan with the low power projects divided into technology classes.



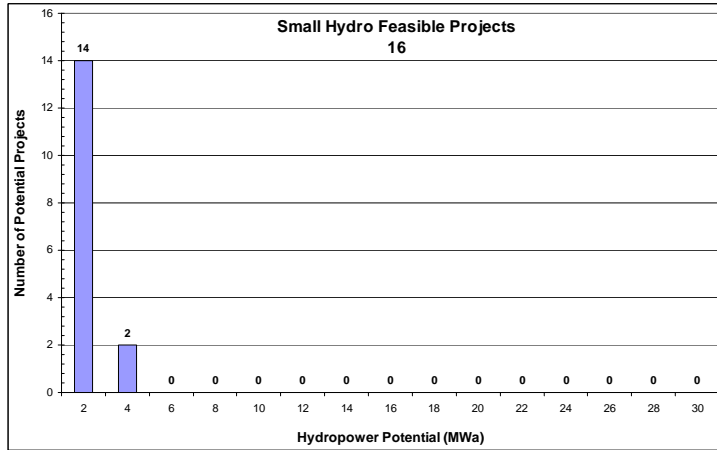
(a)



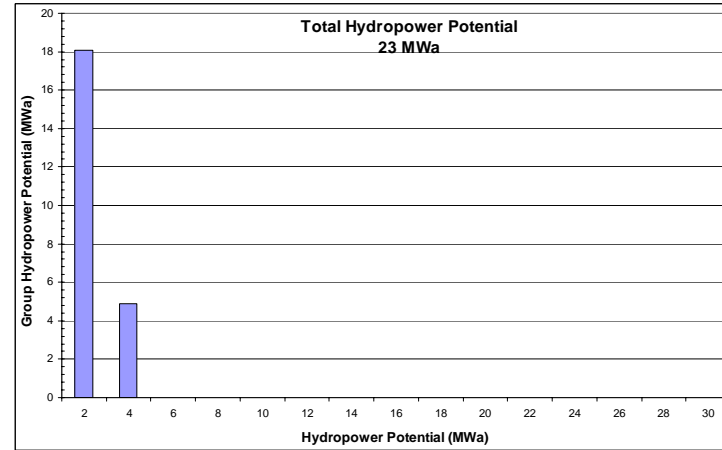
(b)

Figure B-108. Distributions of the (a) number and (b) group hydropower potential of low power feasible projects in Michigan.

B-93



(a)



(b)

Figure B-109. Distributions of the (a) number and (b) group hydropower potential of small hydropower feasible projects in Michigan.

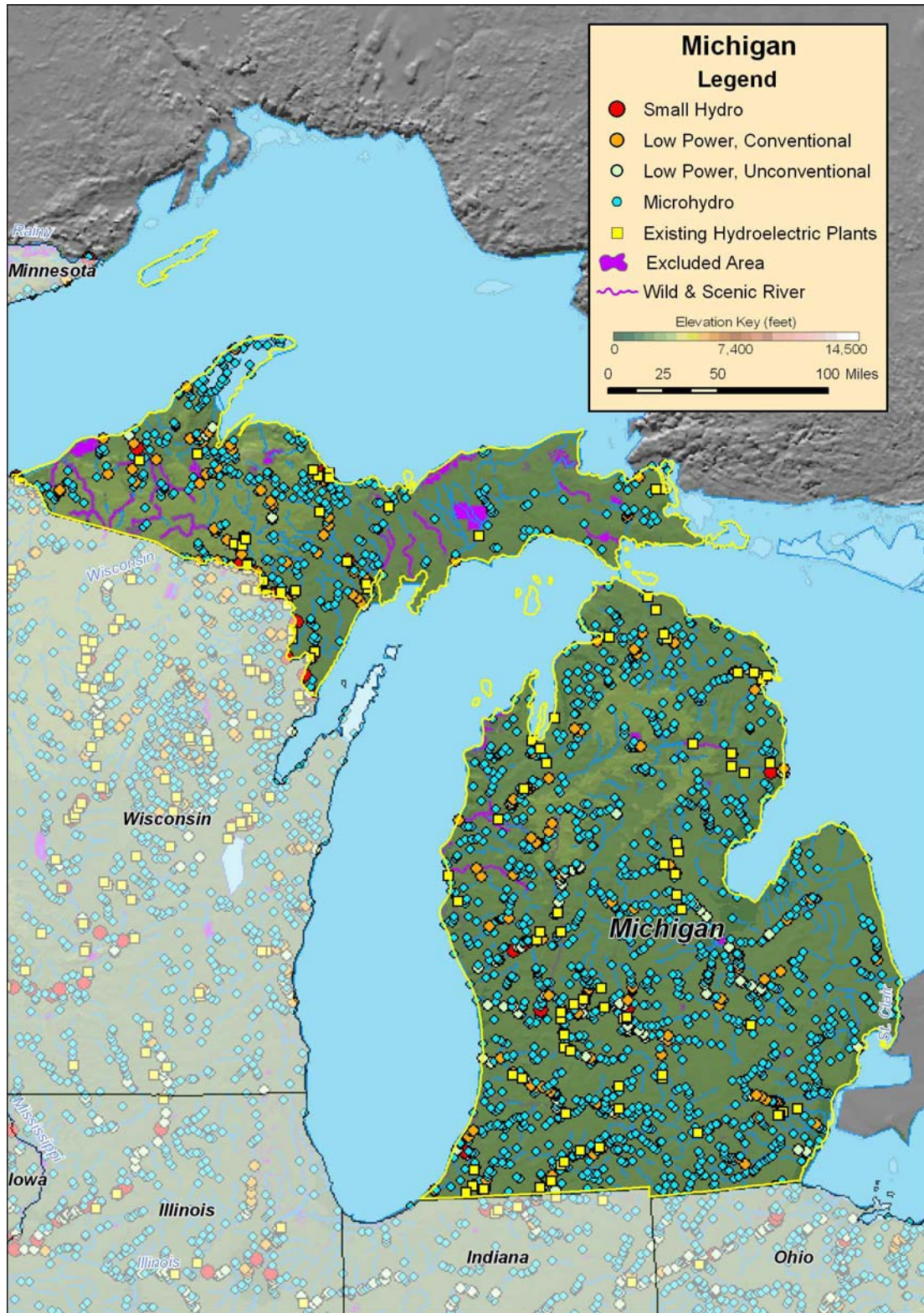
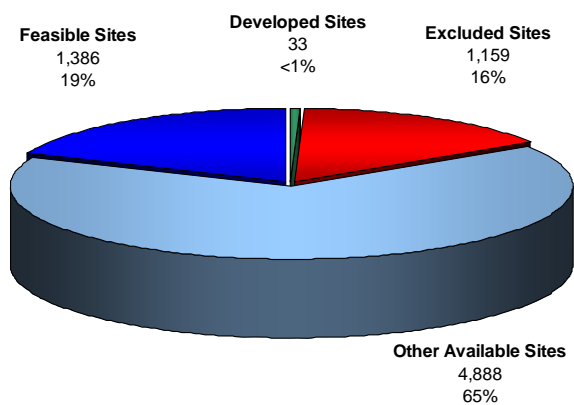


Figure B-110. Low power and small hydropower feasible projects, and existing hydroelectric plants in Michigan.

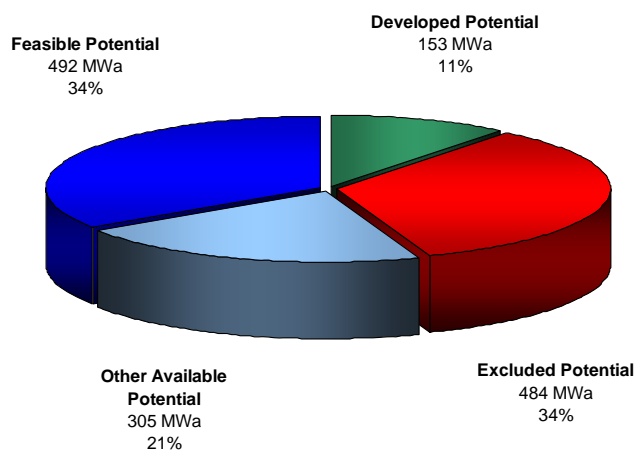
B.23 Minnesota

Table B-47. Summary of results of water energy resource assessment of Minnesota.

Power Class	Total (MWa)	Developed (MWa)	Federally Excluded (MWa)	Other Excluded (MWa)	Available (MWa)
Total Power	1,433	153	311	173	797
Total High Power	811	147	250	112	302
Large Hydro	123	74	48	0	0
Small Hydro	688	73	201	112	302
Total Low Power	622	6	61	61	495
Conventional Turbines	349	3	39	34	274
Unconventional Systems	85	2	11	11	60
Microhydro	188	0	11	16	161



(a) Total Resource Sites
7,466



(b) Total Resource Potential
1,433 MWa

Figure B-111. Power category distribution of the (a) number and (b) total power potential of the water energy resource sites in Minnesota.

Table B-48. Summary of results of feasibility assessment of water energy resources in Minnesota.

Power Class	Available (MWa)	Feasible Sites (MWa)	Feasible Projects (MWa)
Total Power	797	492	140
Total High Power	302	250	56
Large Hydro	0	0	0
Small Hydro	302	250	56
Total Low Power	495	242	84
Conventional Turbines	274	161	18
Unconventional Systems	60	46	31
Microhydro	161	36	35

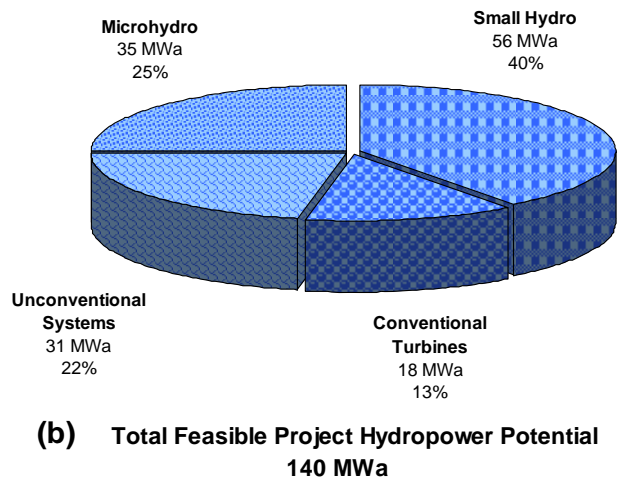
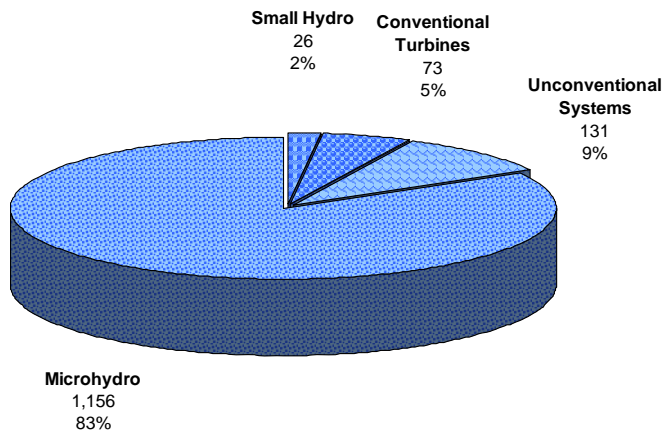
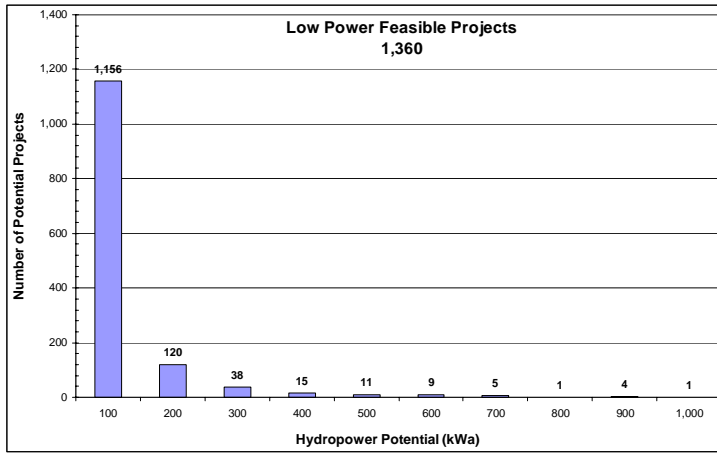
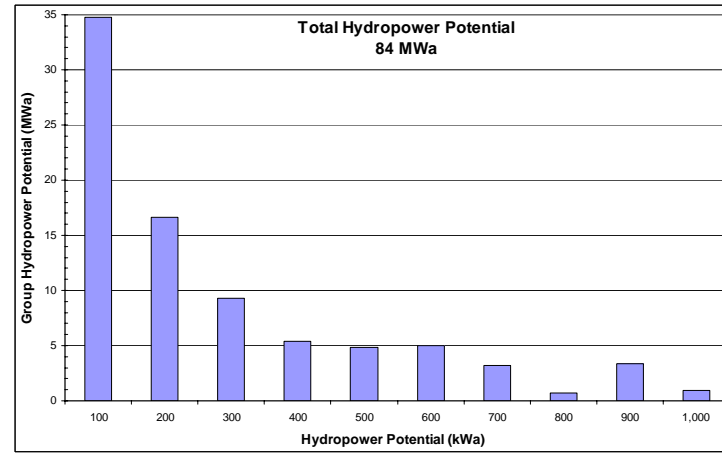


Figure B-112. Distribution of the (a) number and (b) total hydropower potential of the low power and small hydropower feasible projects in Minnesota with the low power projects divided into technology classes.

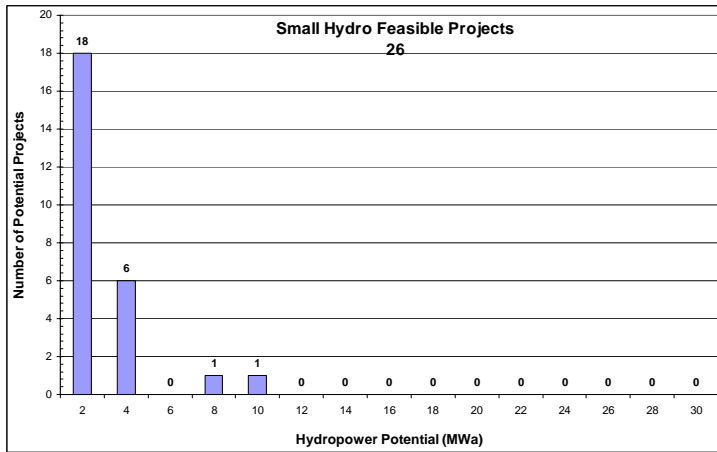


(a)

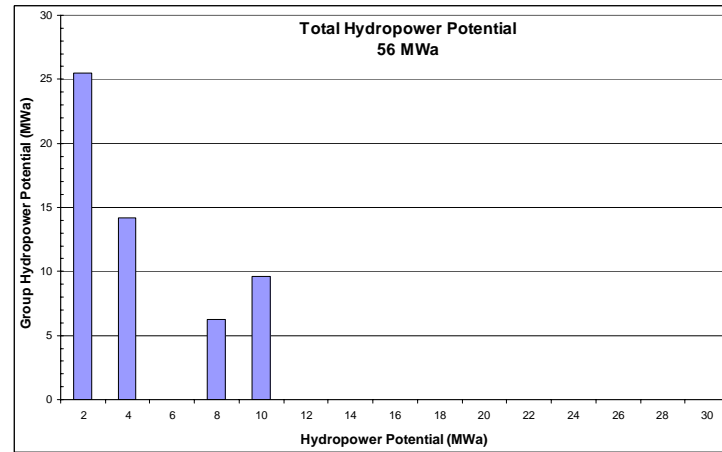


(b)

Figure B-113. Distributions of the (a) number and (b) group hydropower potential of low power feasible projects in Minnesota.

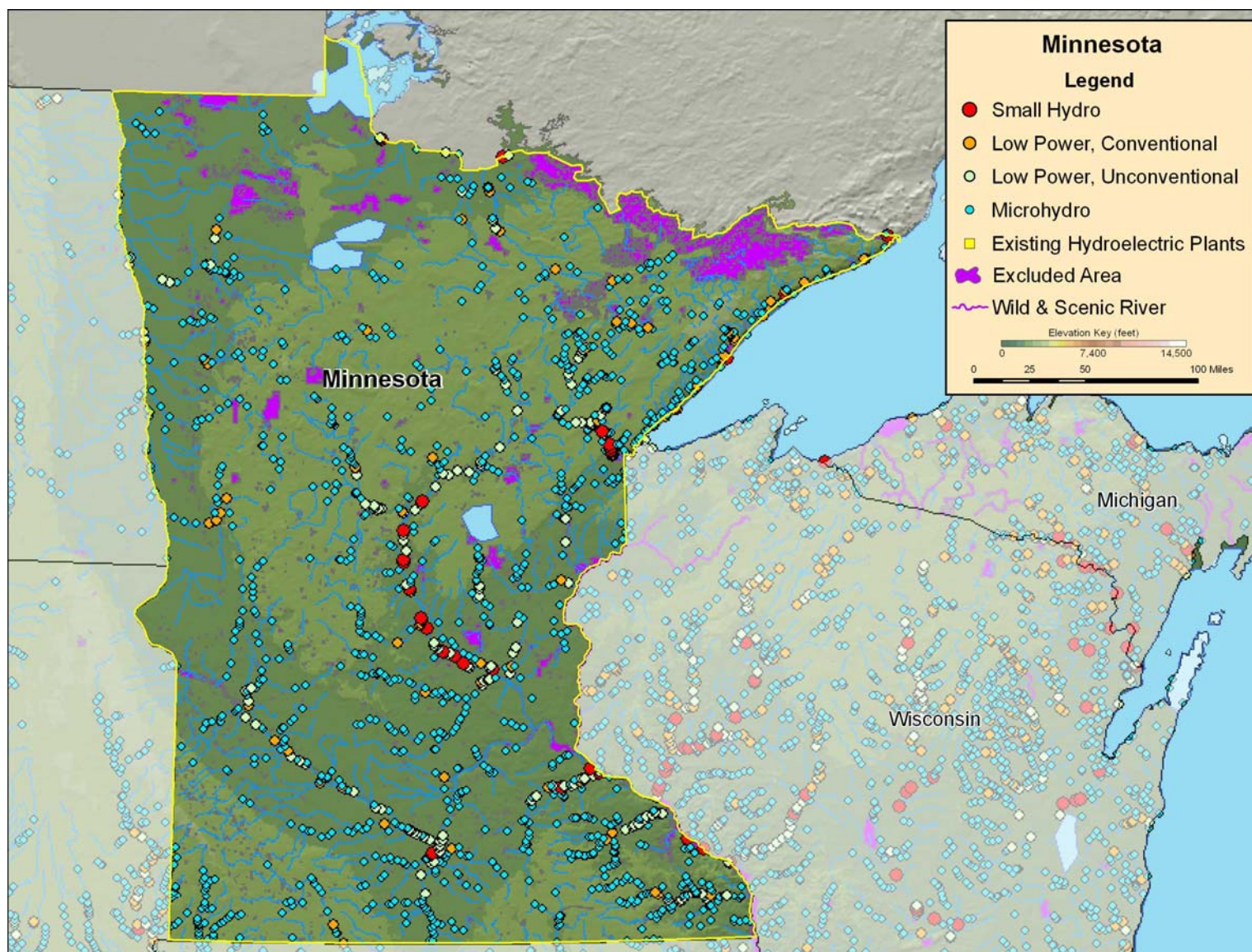


(a)



(b)

Figure B-114. Distributions of the (a) number and (b) group hydropower potential of small hydropower feasible projects in Minnesota.



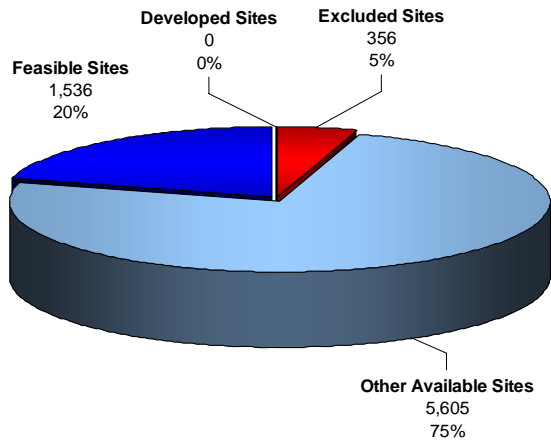
B-98

Figure B-115. Low power and small hydropower feasible projects, and existing hydroelectric plants in Minnesota.

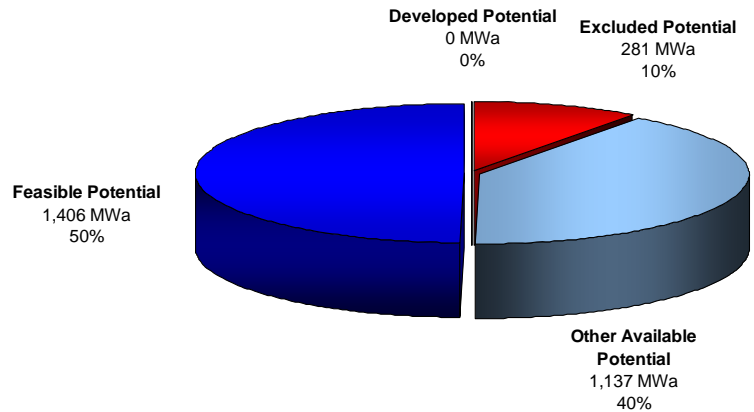
B.24 Mississippi

Table B-49. Summary of results of water energy resource assessment of Mississippi.

Power Class	Total (MWa)	Developed (MWa)	Federally Excluded (MWa)	Other Excluded (MWa)	Available (MWa)
Total Power	2,823	0	265	16	2,542
Total High Power	2,235	0	233	12	1,990
Large Hydro	1,684	0	182	0	1,502
Small Hydro	552	0	51	12	489
Total Low Power	588	0	31	4	552
Conventional Turbines	248	0	15	1	232
Unconventional Systems	137	0	7	2	128
Microhydro	202	0	9	1	192



(a) Total Resource Sites
7,497



(b) Total Resource Potential
2,823 MWa

Figure B-116. Power category distribution of the (a) number and (b) total power potential of the water energy resource sites in Mississippi.

Table B-50. Summary of results of feasibility assessment of water energy resources in Mississippi.

Power Class	Available (MWa)	Feasible Sites (MWa)	Feasible Projects (MWa)
Total Power	2,542	1,406	298
Total High Power	1,990	1,121	194
Large Hydro	1,502	736	0
Small Hydro	489	386	194
Total Low Power	552	284	104
Conventional Turbines	232	162	9
Unconventional Systems	128	92	59
Microhydro	192	31	36

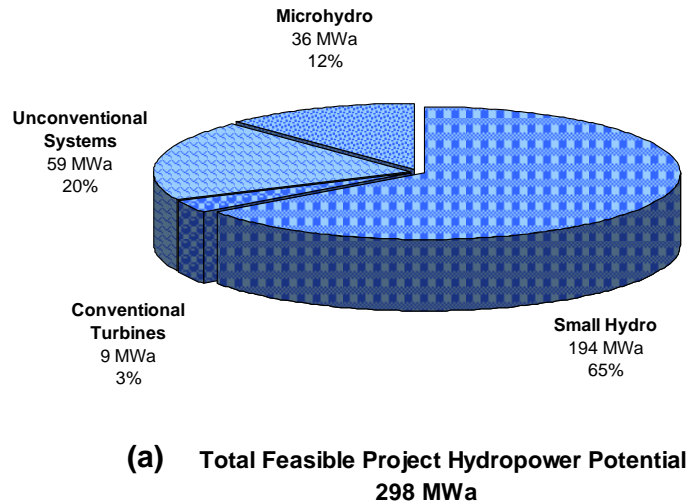
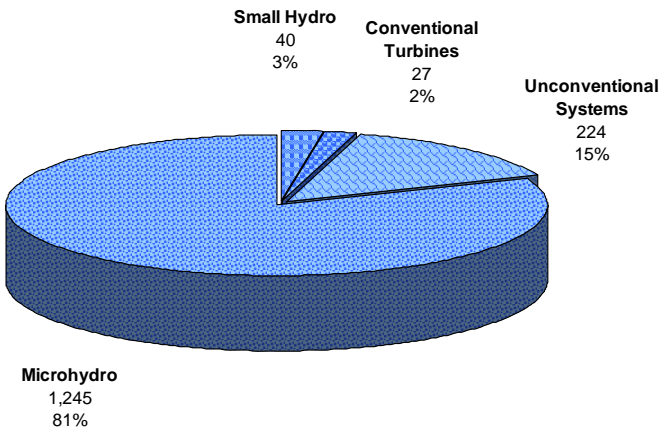
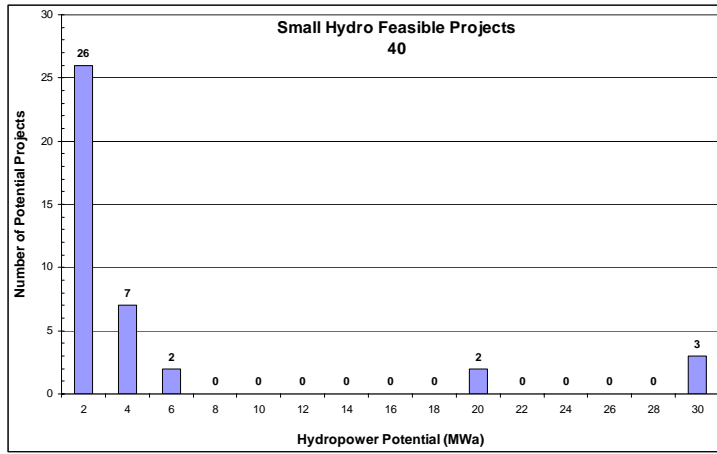
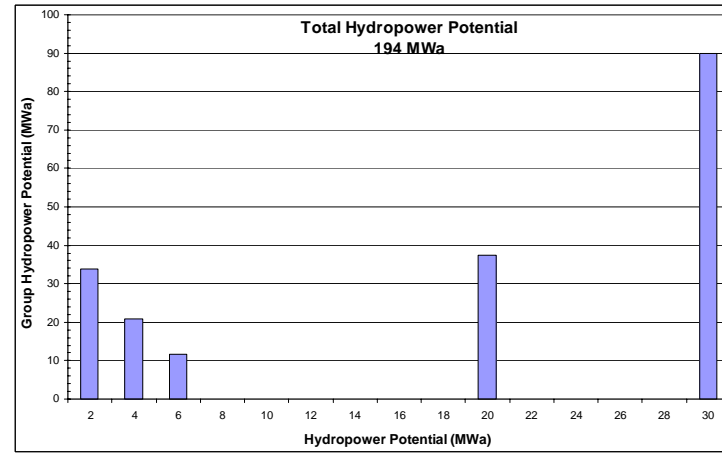


Figure B-117. Distribution of the (a) number and (b) total hydropower potential of the low power and small hydropower feasible projects in Mississippi with the low power projects divided into technology classes Mississippi.

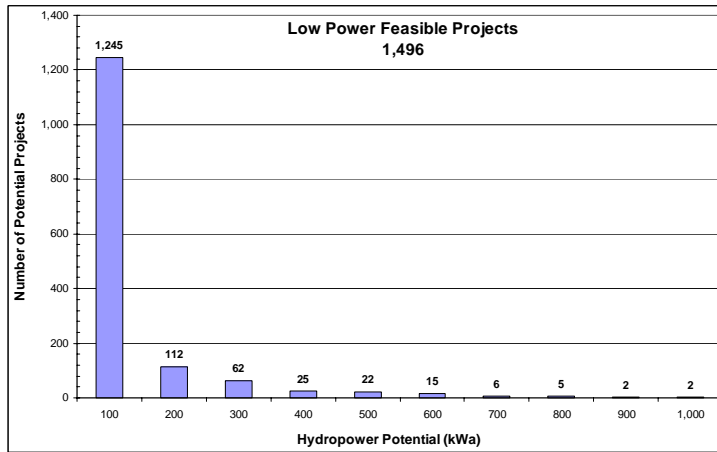


(a)

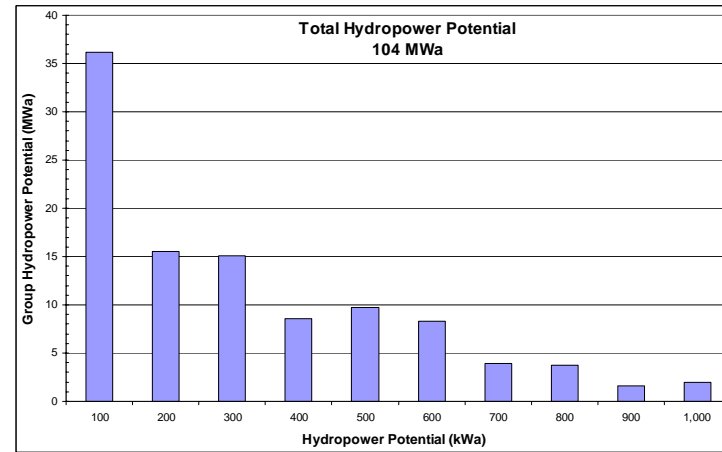


(b)

Figure B-118. Distributions of the (a) number and (b) group hydropower potential of low power feasible projects in Mississippi.



(a)



(b)

Figure B-119. Distributions of the (a) number and (b) group hydropower potential of small hydropower feasible projects in Mississippi.

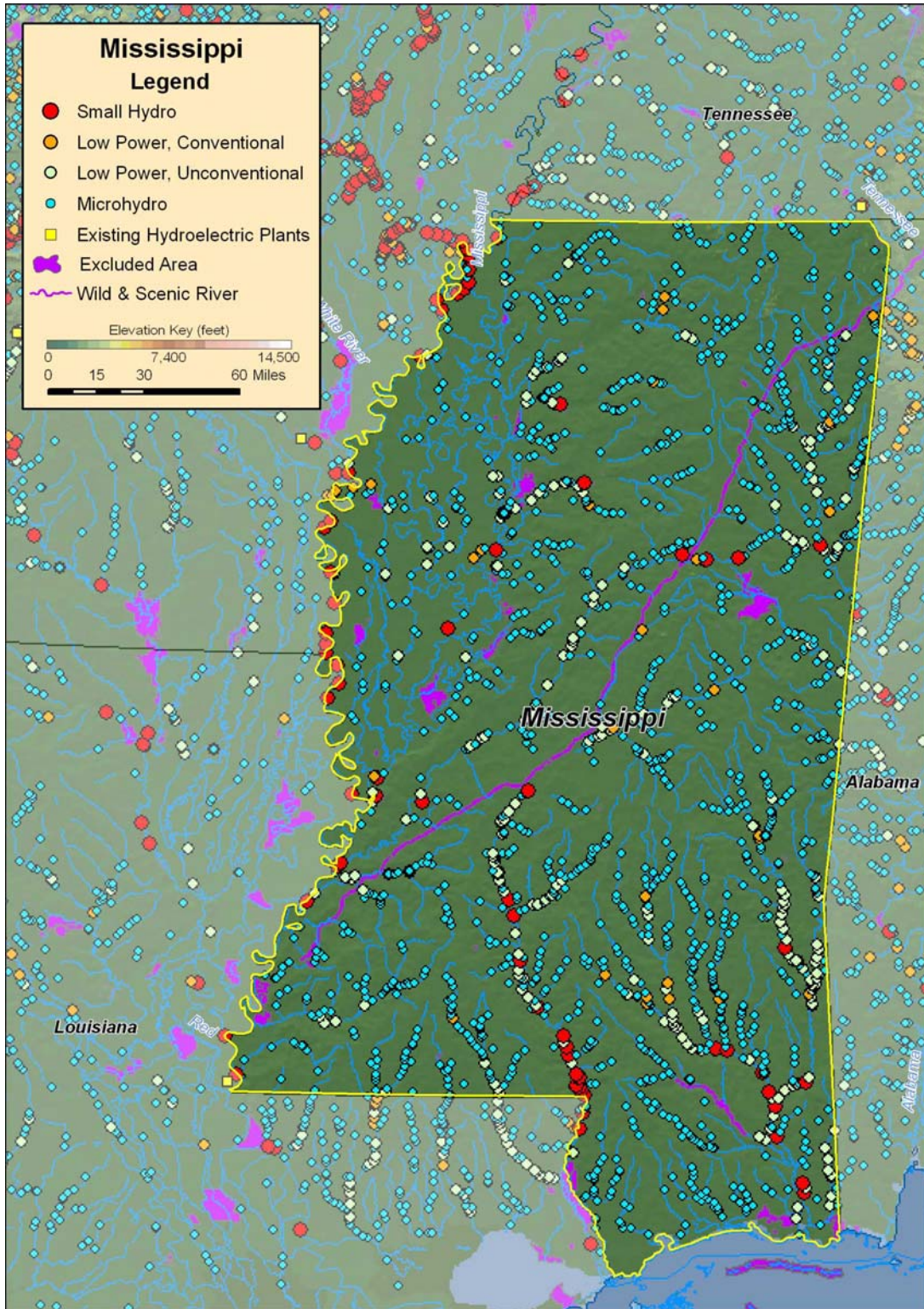
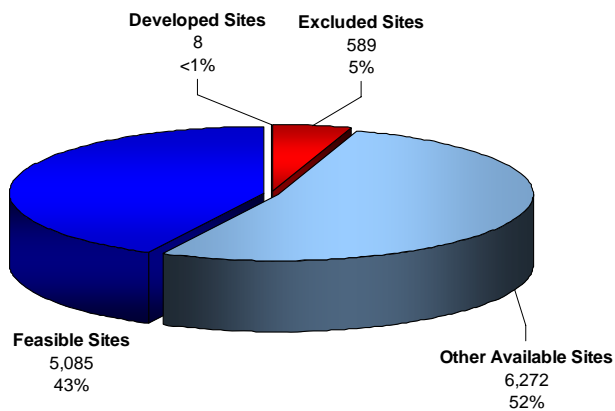


Figure B-120. Low power and small hydropower feasible projects, and existing hydroelectric plants in Mississippi.

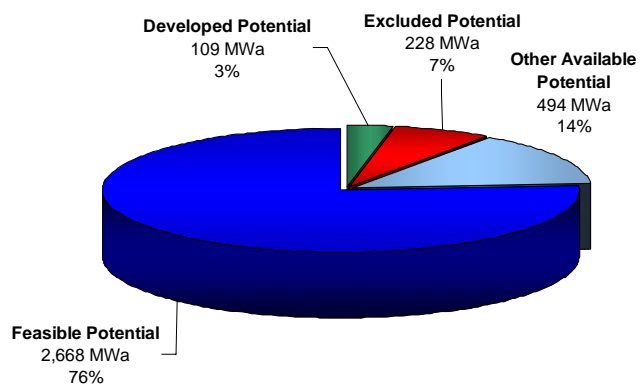
B.25 Missouri

Table B-51. Summary of results of water energy resource assessment of Missouri.

Power Class	Total (MWa)	Developed (MWa)	Federally Excluded (MWa)	Other Excluded (MWa)	Available (MWa)
Total Power	3,499	109	111	117	3,162
Total High Power	2,563	107	64	69	2,323
Large Hydro	1,571	63	0	0	1,508
Small Hydro	992	45	64	69	814
Total Low Power	936	2	47	48	839
Conventional Turbines	499	2	31	36	431
Unconventional Systems	110	0	10	5	95
Microhydro	328	0	6	7	314



(a) Total Resource Sites
11,954

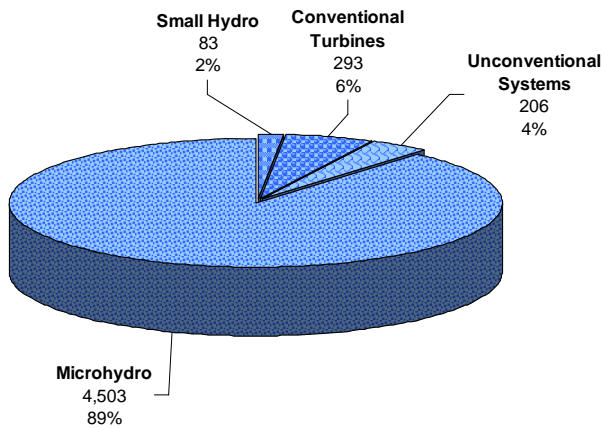


(b) Total Resource Potential
3,499 MWa

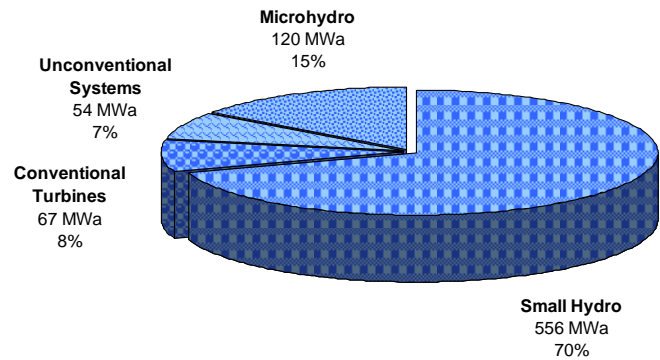
Figure B-121. Power category distribution of the (a) number and (b) total power potential of the water energy resource sites in Missouri.

Table B-52. Summary of results of feasibility assessment of water energy resources in Missouri.

Power Class	Available (MWa)	Feasible Sites (MWa)	Feasible Projects (MWa)
Total Power	3,162	2,668	798
Total High Power	2,323	2,046	556
Large Hydro	1,508	1,247	0
Small Hydro	814	799	556
Total Low Power	839	621	241
Conventional Turbines	431	371	67
Unconventional Systems	95	90	54
Microhydro	314	160	120

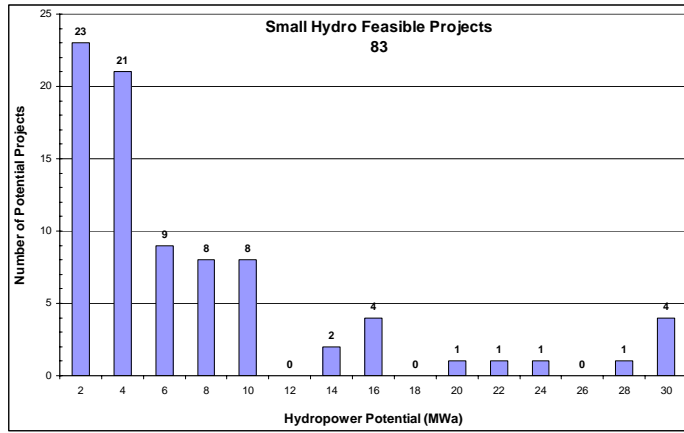


(a) Total Feasible Projects
5,085

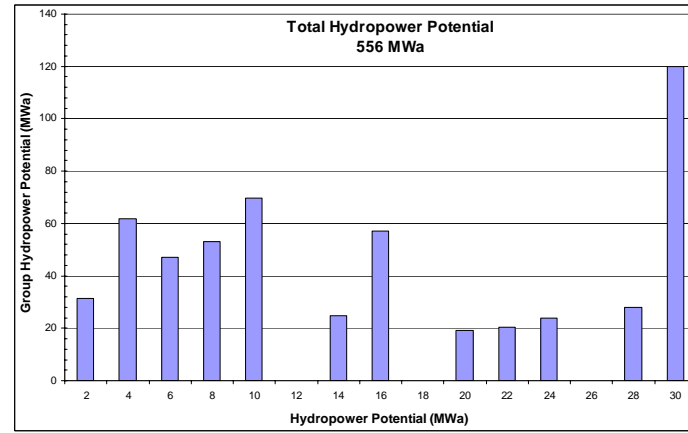


(b) Total Feasible Project Hydropower Potential
798 MWa

Figure B-122. Distribution of the (a) number and (b) total hydropower potential of the low power and small hydropower feasible projects in Missouri with the low power projects divided into technology classes.

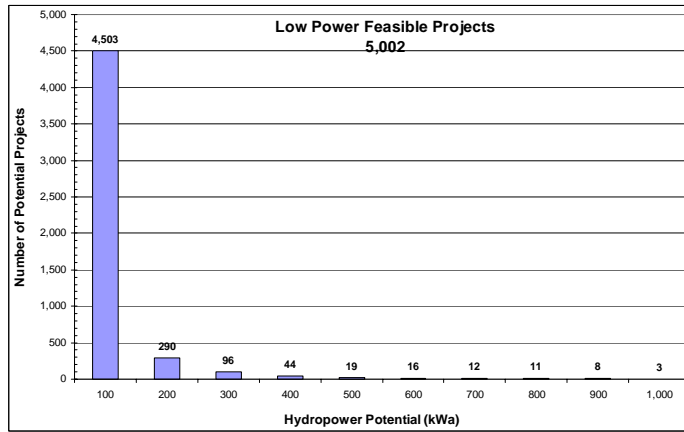


(a)

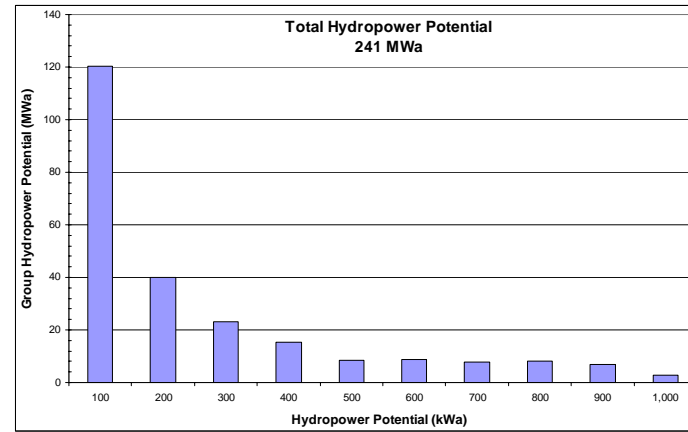


(b)

Figure B-123. Distributions of the (a) number and (b) group hydropower potential of low power feasible projects in Missouri.



(a)



(b)

Figure B-124. Distributions of the (a) number and (b) group hydropower potential of small hydropower feasible projects in Missouri.

B-106

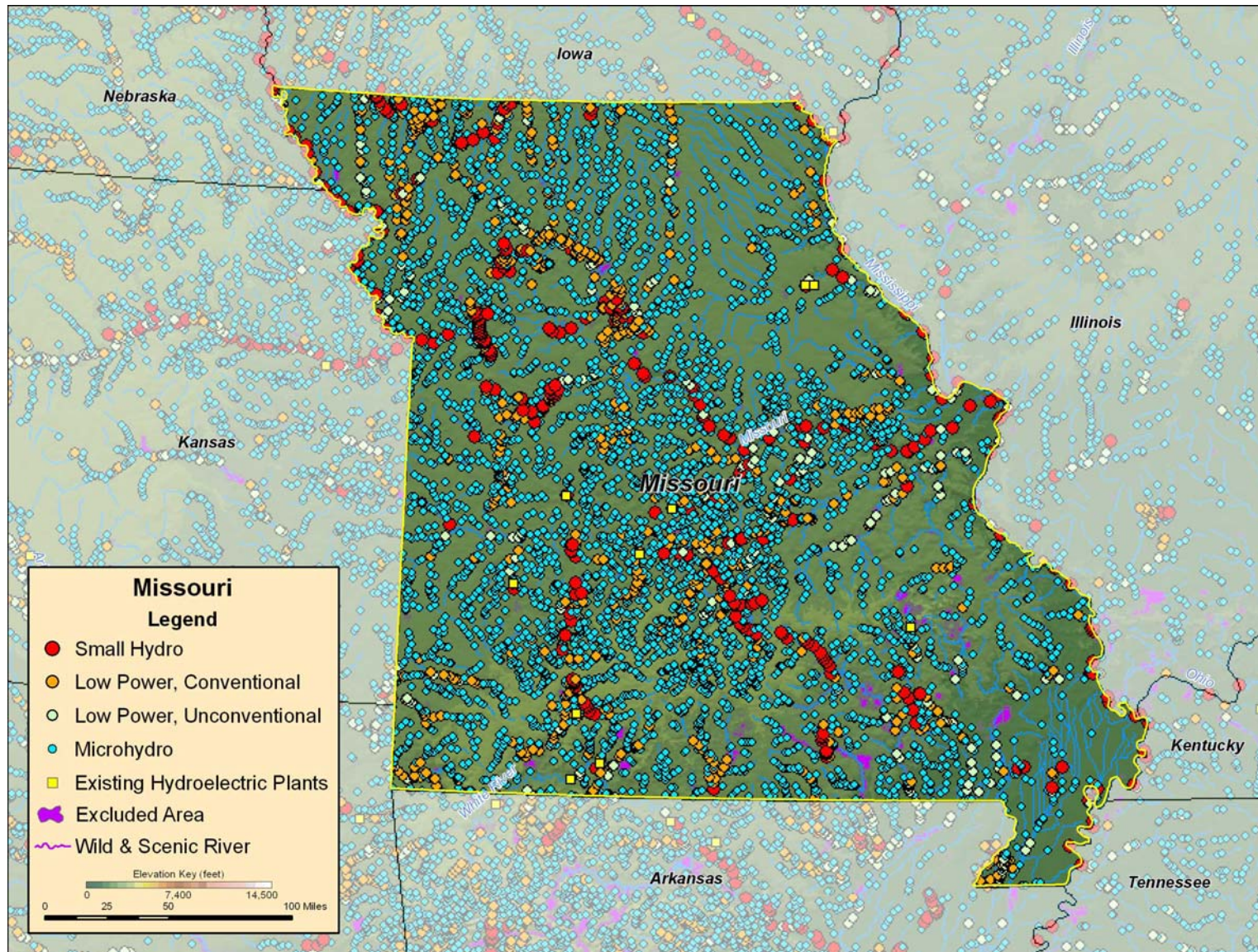


Figure B-125. Low power and small hydropower feasible projects, and existing hydroelectric plants in Missouri.