

Table 1. 2004 Summary Statistics

Item	Value	U.S. Rank
Hawaii		
NERC Region(s).....		--
Primary Energy Source		Petroleum
Net Summer Capability (megawatts).....	2,311	47
Electric Utilities	1,691	41
Independent Power Producers & Combined Heat and Power	620	43
Net Generation (megawatthours).....	11,410,403	44
Electric Utilities	6,982,469	39
Independent Power Producers & Combined Heat and Power	4,427,934	36
Emissions (thousand metric tons)		
Sulfur Dioxide.....	24	39
Nitrogen Oxide.....	13	41
Carbon Dioxide.....	8,912	42
Sulfur Dioxide (lbs/MWh).....	4.7	22
Nitrogen Oxide (lbs/MWh).....	2.6	23
Carbon Dioxide (lbs/MWh).....	1,722	16
Total Retail Sales (megawatthours).....	10,731,520	46
Full Service Provider Sales (megawatthours).....	10,731,520	43
Direct Use (megawatthours).....	480,616	36
Average Retail Price (cents/kWh).....	15.70	1

See footnotes at end of tables.

Table 2. Ten Largest Plants by Generating Capability, 2004

Plant	Energy Sources	Operating Company	Net Summer Capability (MW)
Hawaii			
1. Kahe.....	Petroleum	Hawaiian Electric Co Inc	582
2. Waiau.....	Petroleum	Hawaiian Electric Co Inc	457
3. Maalaea.....	Petroleum	Maui Electric Co Ltd	190
4. AES Hawaii.....	Petroleum,Other,Coal	AES Hawaii Inc	180
5. Kalaeloa Cogen Plant.....	Petroleum	Kalaeloa Partners LP	180
6. Honolulu.....	Petroleum	Hawaiian Electric Co Inc	100
7. Port Allen.....	Petroleum	Kauai Island Utility Cooperative	96
8. Keahole.....	Petroleum	Hawaii Electric Light Co Inc	63
9. Hamakua Energy Plant.....	Petroleum,Gas,Other	Hamakua Energy Partners LP	61
10. H Power.....	Petroleum,Other	Covanta Honolulu Resource Recovery	60

See footnotes at end of tables.

Table 3. Top Five Providers of Retail Electricity, 2004
(Megawatthours)

Entity	Ownership Type	All Sectors	Residential	Commercial	Industrial	Transportation
Hawaii						
1. Hawaiian Electric Co Inc.....	Investor-Owned	7,732,834	2,151,329	2,454,705	3,126,800	0
2. Maui Electric Co Ltd.....	Investor-Owned	1,247,689	440,376	401,018	406,295	0
3. Hawaii Electric Light Co Inc.....	Investor-Owned	1,082,807	408,963	444,354	229,490	0
4. Kauai Island Utility Coop.....	Cooperative	446,923	161,486	118,968	166,469	0
Total Sales, Top Five Providers.....		10,510,253	3,162,154	3,419,045	3,929,054	0
Percent of Total State Sales.....		98	100	94	100	0

See footnotes at end of tables.

Table 4. Electric Power Industry Net Summer Capability by Primary Energy Source, 1990, 1995, and 2000 Through 2004
(Megawatts)

Energy Source	1990	1995	2000	2001	2002	2003	2004	Percentage Share	
								1990	2004
Hawaii									
Electric Utilities	1,487	1,602	1,626	1,622	1,622	1,624	1,691	78.8	73.2
Petroleum	1,483	1,598	1,606	1,601	1,618	1,620	1,687	78.6	73.0
Natural Gas	0	0	15	15	0	0	0	.0	.0
Hydroelectric	3	3	4	3	2	2	2	.2	.1
Other Renewables	0	0	2	2	2	2	2	.0	.1
Independent Power Producers and Combined									
Heat and Power	400	758	762	669	645	644	620	21.2	26.8
Coal	22	213	213	202	202	202	180	1.2	7.8
Petroleum	133	276	331	189	196	212	262	7.1	11.3
Natural Gas	0	0	0	61	67	50	0	.0	.0
Other Gases	8	8	8	9	9	9	9	.4	.4
Hydroelectric	14	25	23	22	22	20	20	.7	.9
Other Renewables	223	236	187	186	148	151	149	11.8	6.4
Total Electric Industry	1,886	2,359	2,388	2,292	2,267	2,268	2,311	100.0	100.0
Coal	22	213	213	202	202	202	180	1.2	7.8
Petroleum	1,616	1,874	1,937	1,790	1,815	1,832	1,949	85.7	84.3
Natural Gas	0	0	15	76	67	50	0	.0	.0
Other Gases	8	8	8	9	9	9	9	.4	.4
Hydroelectric	18	28	26	25	23	22	22	1.0	1.0
Other Renewables	223	237	189	188	150	153	151	11.8	6.5

See footnotes at end of tables.

Table 5. Electric Power Industry Generation by Primary Energy Source, 1990, 1995, and 2000 Through 2004
(Megawatthours)

Energy Source	1990	1995	2000	2001	2002	2003	2004	Percentage Share	
								1990	2004
Hawaii									
Electric Utilities	7,996,096	6,190,584	6,534,692	6,383,088	7,513,051	6,493,205	6,982,469	82.4	61.2
Petroleum	7,967,354	6,174,627	6,516,929	6,362,846	7,502,913	6,489,565	6,971,259	82.1	61.1
Hydroelectric	22,743	15,957	15,114	18,132	8,533	2,078	9,724	.2	.1
Other Renewables	5,999	0	2,649	2,110	1,605	1,562	1,486	.1	*
Independent Power Producers and Combined									
Heat and Power	1,706,656	4,113,399	4,058,711	4,250,005	4,150,019	4,483,167	4,427,934	17.6	38.8
Coal	2,381	1,561,204	1,578,585	1,604,764	1,545,797	1,644,137	1,603,811	*	14.1
Petroleum	768,508	1,504,368	1,534,853	1,860,978	1,964,077	2,012,985	1,855,462	7.9	16.3
Natural Gas	0	0	0	0	0	0	125,081	.0	1.1
Other Gases	16,163	69,307	42,173	37,855	40,816	40,251	40,794	.2	.4
Hydroelectric	56,773	81,853	88,344	82,618	86,535	88,427	84,177	.6	.7
Other Renewables	862,831	894,548	814,756	663,790	512,794	695,204	716,377	8.9	6.3
Other	0	2,119	0	0	0	2,162	2,231	.0	*
Total Electric Industry	9,702,752	10,303,983	10,593,403	10,633,093	11,663,070	10,976,371	11,410,403	100.0	100.0
Coal	2,381	1,561,204	1,578,585	1,604,764	1,545,797	1,644,137	1,603,811	*	14.1
Petroleum	8,735,862	7,678,995	8,051,782	8,223,824	9,466,990	8,502,550	8,826,721	90.0	77.4
Natural Gas	0	0	0	0	0	0	125,081	.0	1.1
Other Gases	16,163	69,307	42,173	37,855	40,816	40,251	40,794	.2	.4
Hydroelectric	79,516	97,810	103,458	100,750	95,068	90,505	93,901	.8	.8
Other Renewables	868,830	894,548	817,405	665,900	514,399	696,766	717,863	9.0	6.3
Other	0	2,119	0	0	0	2,162	2,231	.0	*

See footnotes at end of tables.

Table 6. Electric Power Delivered Fuel Prices for Coal, Petroleum, and Natural Gas, 1990, 1995, and 2000 Through 2004

Fuel, Quality	1990	1995	2000	2001	2002	2003	2004
Hawaii							
Coal (cents per million Btu)	0.0	0.0	0.0	0.0	W	W	W
Average heat value (Btu per pound).....	0	0	0	0	11,454	11,422	11,097
Average sulfur Content (percent).....	.0	.0	.0	.0	.3	.4	.5
Petroleum (cents per million Btu).....	415.2	298.0	503.9	490.3	W	W	W
Average heat value (Btu per gallon).....	148,883	149,392	149,704	146,571	142,633	140,581	140,629
Average sulfur Content (percent).....	.5	.4	.4	.5	.4	.4	.4

See footnotes at end of tables.

Table 7. Electric Power Industry Emissions Estimates, 1990, 1995, and 2000 Through 2004
(Thousand Metric Tons)

Emission Type	1990	1995	2000	2001	2002	2003	2004
Hawaii							
Sulfur Dioxide							
Coal	*	4	2	7	6	1	1
Petroleum.....	35	25	18	20	18	22	23
Natural Gas	0	0	0	0	0	0	0
Other.....	*	*	*	*	*	*	*
Total.....	35	29	19	27	24	23	24
Nitrogen Oxide							
Coal	*	6	4	4	3	2	2
Petroleum.....	14	9	9	10	10	10	10
Gas.....	0	0	0	0	0	0	0
Other.....	1	1	1	1	1	2	1
Total.....	15	16	14	14	14	13	13
Carbon Dioxide							
Coal	6	1,599	1,621	1,645	1,596	1,699	1,693
Petroleum.....	8,588	6,424	6,599	6,526	7,350	6,633	6,936
Gas.....	0	0	0	0	0	0	67
Geothermal.....	0	6	7	5	2	5	5
Other.....	66	74	59	99	183	209	210
Total.....	8,660	8,103	8,286	8,275	9,130	8,545	8,912

See footnotes at end of tables.

Table 8. Retail Sales, Revenue, and Average Retail Price by Sector, 1990, 1995, and 2000 Through 2004

Sector	1990	1995	2000	2001	2002	2003	2004	Percentage Share	
								1990	2004
Hawaii									
Retail Sales (thousand megawatthours)									
Residential.....	2,324	2,606	2,765	2,802	2,898	3,028	3,162	28.0	29.5
Commercial.....	2,194	2,721	3,036	3,129	3,168	3,517	3,632	26.4	33.8
Industrial.....	3,734	3,803	3,834	3,790	3,770	3,846	3,937	44.9	36.7
Other.....	58	57	56	63	55	NA	NA	.7	NA
Total.....	8,311	9,188	9,691	9,785	9,892	10,391	10,732	100.0	100.0
Retail Revenue (million dollars)									
Residential.....	238	347	454	458	453	507	571	31.7	33.9
Commercial.....	223	331	450	464	447	528	588	29.7	34.9
Industrial.....	283	352	448	443	415	469	526	37.7	31.2
Other.....	5	7	8	11	9	NA	NA	.7	NA
Total.....	750	1,038	1,360	1,374	1,325	1,504	1,685	100.0	100.0
Average Retail Price (cents/kWh)									
Residential.....	10.26	13.32	16.41	16.34	15.63	16.73	18.06	NA	NA
Commercial.....	10.18	12.16	14.81	14.81	14.11	15.02	16.19	NA	NA
Industrial.....	7.57	9.27	11.69	11.68	11.02	12.20	13.35	NA	NA
Other.....	9.40	12.11	14.76	16.81	16.85	NA	NA	NA	NA
Total.....	9.02	11.29	14.03	14.05	13.39	14.47	15.70	NA	NA

See footnotes at end of tables.

Table 9. Retail Electricity Sales Statistics, 2004

Item	Full Service Providers					Other Providers		Total
	Investor-Owned	Public	Federal	Cooperative	Facility	Energy	Delivery	
Hawaii								
Number of Entities.....	3	NA	NA	1	3	NA	NA	7
Number of Retail Customers.....	419,228	NA	NA	32,949	14	NA	NA	452,191
Retail Sales (thousand megawatthours).....	10,063	NA	NA	447	221	NA	NA	10,732
Percentage of Retail Sales.....	93.77	NA	NA	4.16	2.06	NA	NA	100.00
Revenue from Retail Sales (million dollars).....	1,542	NA	NA	117	26	NA	NA	1,685
Percentage of Revenue.....	91.52	NA	NA	6.96	1.52	NA	NA	100.00
Average Retail Price (cents/kWh).....	15.32	NA	NA	26.22	11.57	NA	NA	15.70

Table 9 Notes: Data are shown for All Sectors. **Full Service Providers** sell bundled electricity services (e.g., both energy and delivery) to end users. Full Service Providers may purchase electricity from others (such as Independent Power Producers or other full service providers) prior to delivery. **Other Providers** sell either the energy or the delivery services, but not both. Sales volumes and customer counts shown for Other Providers refer to delivered electricity, which is a joint activity of both energy and delivery providers; for clarity, they are reported only in the Energy column in this table. The revenue shown under Other Providers represents the revenue realized from the sale of the energy and the delivery services distinctly. "Public" entities include municipalities, State power agencies, and municipal marketing authorities. "Federal" entities are either owned or financed by the Federal Government. "Cooperatives" are electric utilities legally established to be owned by and operated for the benefit of those using its service. The cooperative will generate, transmit, and/or distribute supplies of electric energy to a specified area not being serviced by another utility. "Facility" sales represent direct electricity transactions from independent generators to end use consumers.

Other Notes: NA = Not applicable; NM = Not meaningful;

W = Withheld to avoid disclosure of individual company data;

* = Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is '1' and values under 0.5 are shown as '*');

Totals may not equal sum of components because of independent rounding; Table 4 "Other Renewables" includes generation from municipal solid waste;

Table 7 "Other" includes emissions from municipal solid waste.

Direct Use is commercial or industrial use of electricity that 1) is self-generated, 2) is produced by either the same entity that consumes the power or an affiliate, and 3) is used in direct support of a service or industrial process located within the same facility or group of facilities that houses the generating equipment. Direct use is exclusive of station use.