

**STATE FACILITY ENERGY UPGRADE ANALYSIS  
AND  
PERFORMANCE CONTRACTING POTENTIAL**

**FINAL**

**ENERGY BENCHMARKING STUDY**

**VOLUME II  
Appendix**

*Submitted to*

*The State of Hawaii*

**Department of Business, Economic Development, & Tourism  
Strategic Industries Division**

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APPENDIX 1.0

UH Manoa Campus Energy Benchmarking Study Executive Summary

# **BENCHMARKING STUDY**

FOR

UNIVERSITY OF HAWAII AT MANOA CAMPUS

March 5, 2004

PREPARED FOR:

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Pre-Final Report

## **ABSTRACT**

This report presents an energy benchmarking study conducted for the University of Hawaii at Manoa Campus. A database was developed based on the campus electricity utility history, organized by the campus building occupancy type and building age. The developed database was evaluated against the building classification in order to identify the benchmarking trends. According to this study, the campus buildings consume an average of 22.8 kWh per year per square feet of occupied space. However, large variations exist between the Energy Utilization Index (EUI) of buildings when evaluated by occupancy. EUI of laboratory type facilities was 64.3 kWh/sq.ft.-year and dormitories was 5.1.

A detailed benchmarking analysis was conducted to identify the Energy Conservation Measures (ECMs) that were applicable to majority of the campus buildings. Sources of data included energy audits conducted in 2001 on 44 buildings, representing approximately 40% of the campus buildings square footage area. Campus walkthrough audits were conducted for the buildings that had no prior energy audits. In addition, electrical consumption data was collected using metered data from Campus sub-meters. ECMs documented in the audit reports, integrated with additional engineering observations, were generalized for the entire campus when applicable.

The ECMs were categorized by the energy savings potentials and payback periods. Three ECMs were identified that were applicable to the majority of the buildings through the campus. Those ECMs are: 1) interior and exterior lighting replacements with efficient lighting, 2) replacement of existing exit signs with efficient LED exit signs, 3) window tinting with shading coefficient (sc)=0.4. When extrapolated for the entire campus, it was determined that implementing the listed ECMs would reduce the UH Manoa Campus electricity approximately 4.3 %. Eleven other ECMs were identified that were common to a sizable number of the buildings in the campus. When the savings for these ECMs were extrapolated for the entire campus, it was estimated that implementing these ECMs would reduce the campus electricity another 11 percent with payback periods ranging from 3 to 13 years. Several other ECMs were applicable only to specific buildings

in the campus. Therefore, they were not generalized in the benchmarking. If all evaluated ECMs were applied throughout the campus, the campus could save up to 20 % electricity. However, further detailed design and engineering analysis is recommended for a more precise ECM estimates.

## **ACKNOWLEDGEMENT**

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The UH benchmarking project was administered by the Hawaiian Electric Company: Jim Maskrey, Commercial Energy Efficiency Program Manager, with technical assistance provided by Tom Van Liew, PE, Project Engineer. The report was prepared by Melek Yalcintas, PhD, PE, Cedric D.O. Chong and Associates, Inc.

## EXECUTIVE SUMMARY

This benchmarking study reports electricity consumption distribution through the University of Hawaii at Manoa Campus by building occupancy, end use and the age of a building. Additionally, benchmarking for various Energy Conservation Measures (ECMs) and associated energy savings potentials for the whole campus are presented in the report.

The source data for the benchmarking study consisted of reports from energy audits conducted on various buildings, data recorded from electricity meters installed on various buildings, and additional campus walkthrough energy audits.

The total building floor space through the UH Manoa Campus, excluding pavements, sidewalks, courtyards and any open spaces, is about 6,122,395 square feet. The total yearly electricity consumption by the entire campus for the year 2003 was 139,765,181 kWh. The UH Manoa has spent approximately 12 million dollars for electricity for the year 2003. This results in an average of 22.8 kW per square foot of occupied building space per year electricity consumption and an average of \$1.96 per square feet electricity cost.

The building floor area and energy use distribution by building occupancy types were determined as part of the benchmarking study, and illustrated in Figure 1 and Figure 2.

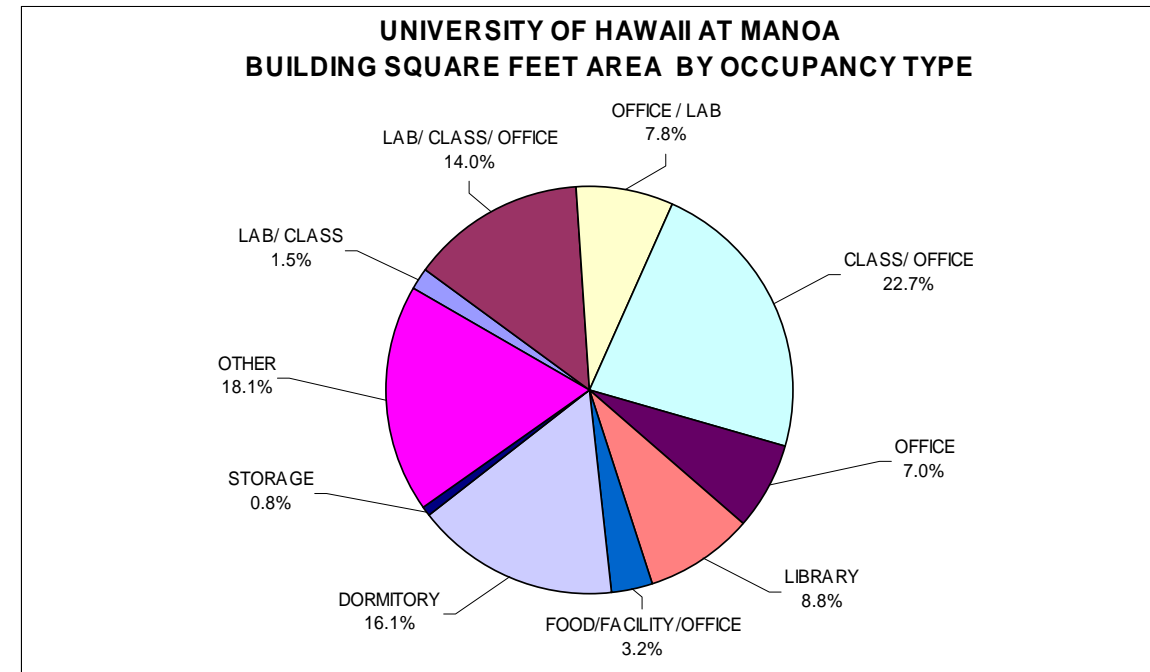


Figure 1: University of Hawaii at Manoa Building Square Feet Area by Occupancy Type.

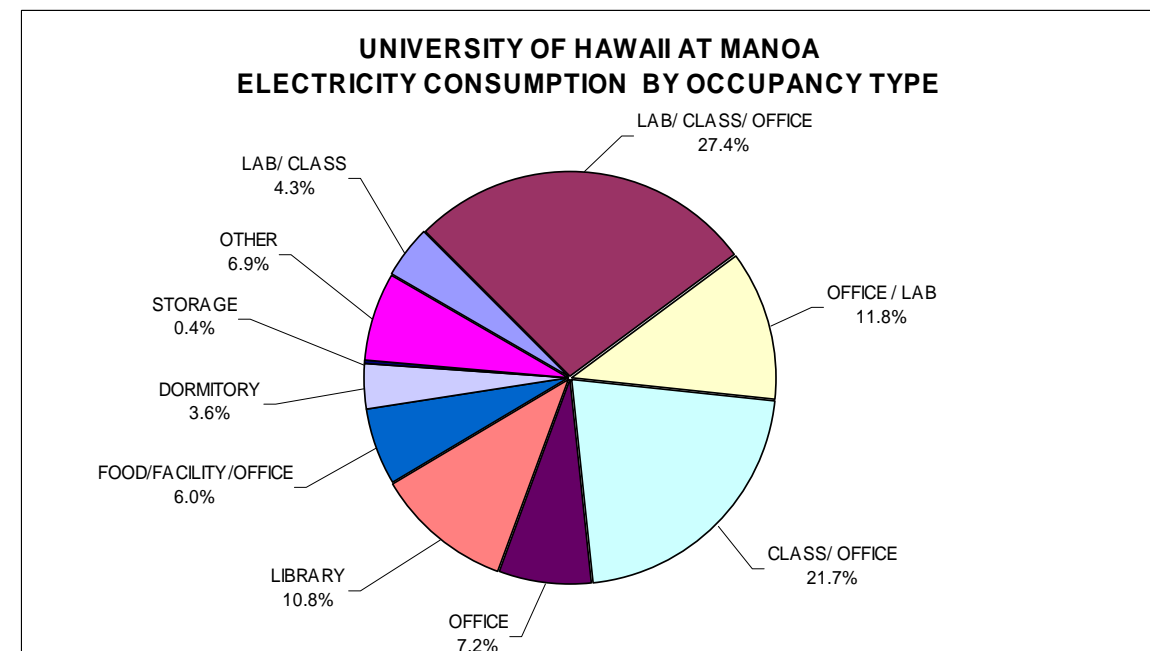


Figure 2: University of Hawaii at Manoa Electricity Consumption by Occupancy Type.

The building floor area and yearly electricity usage by square foot for building occupancy type and campus-wide percentage electricity usage are documented in the following Table 1.

Table 1: University of Hawaii at Manoa Campus Building Floor Area and Yearly Electricity Use

Building Occupancy Type	Total Occupied Building Space (sq.ft.)	% Building Space (sq.ft.)	Total Building Electricity Use (kWh/year)	Building Electricity Use per square foot (kWh/sq.ft.-year)	% of Total Energy Use	Ratio of Energy Use to Area
LAB/CLASS	94,133	2	5,964,206	64.3	4.3	2.2
LAB/CLASS /OFFICE	855,234	14	38,263,645	44.7	27.4	2.0
FOOD/FACILITY /OFFICE	198,762	3	8,376,420	42.1	6.0	2.0
OFFICE/LAB	476,381	8	16,487,311	34.7	11.6	1.5
LIBRARY	538,543	9	15,097,136	28.0	10.8	1.2
OFFICE	426,497	7	10,111,205	23.7	7.2	1.0
CLASS/OFFICE	1,390,020	22	30,277,275	21.8	21.7	1.0
STORAGE	51,991	1	496,084	9.5	0.4	0.4
OTHERS	1,105,426	18	9,632,147	8.7	6.9	0.4
DORMITORY	984,708	16	5,096,752	5.1	3.6	0.2
<b>TOTAL</b>	<b>6,122,395</b>	<b>100</b>	<b>139,765,181</b>	<b>22.9</b>	<b>100</b>	

The campus buildings floor area and energy use were also categorized by the year of construction. Distribution was made by four time periods:

- Buildings that were constructed from year:
- 1) 1912 to 1950,
  - 2) 1951 to 1970,
  - 3) 1971 to 1990, and
  - 4) 1991 to 2004.

The building square feet area and energy consumption are shown in the following Figure 3 and Figure 4.

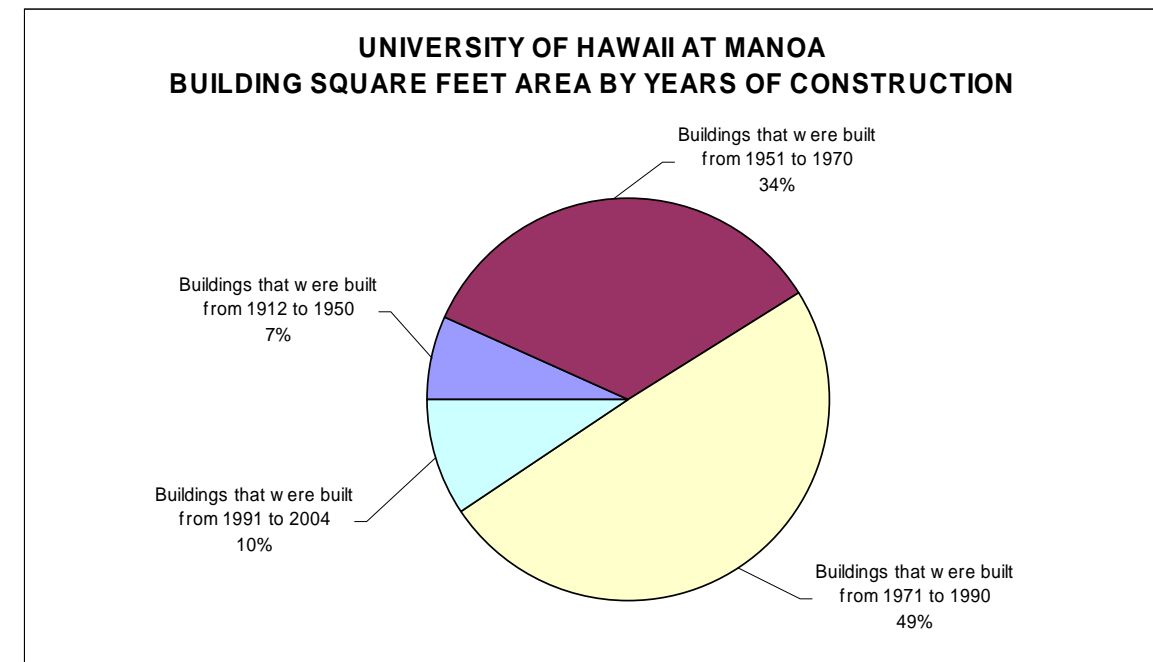


Figure 3: UH Manoa Building Square Feet Area by Years of Construction.

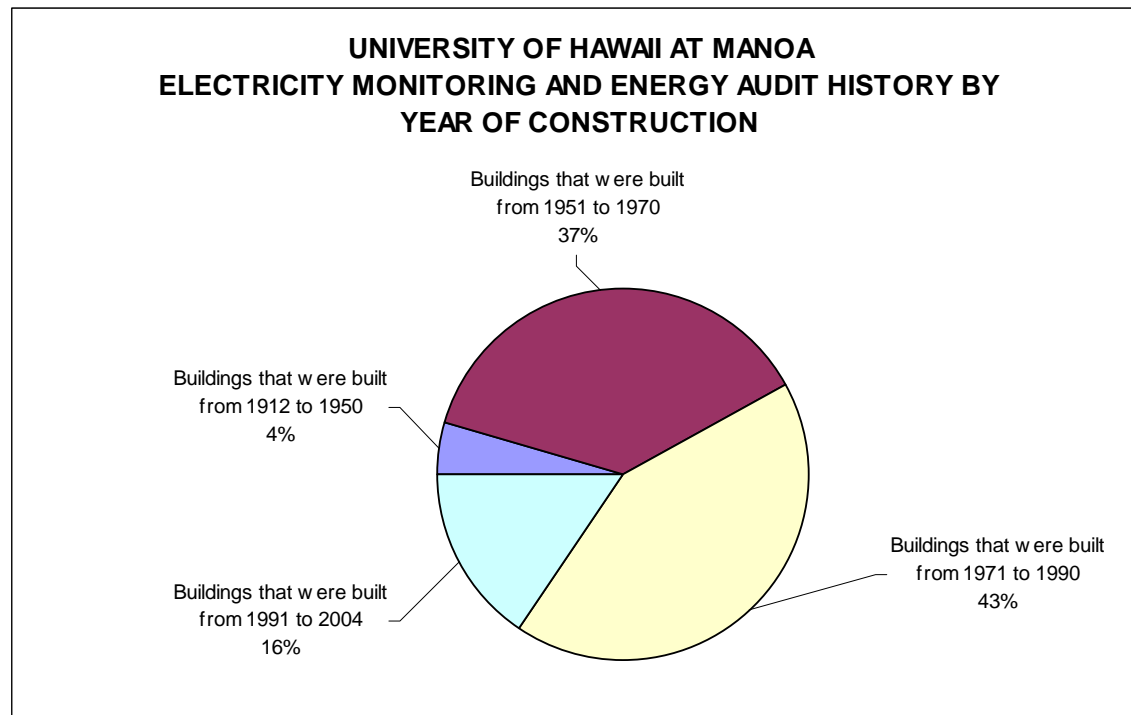


Figure 4: UH Manoa Electricity Monitoring and Energy Audit History by Years of Construction.

The electricity use distribution by utility categories, including air conditioning, lighting and miscellaneous equipment in the buildings such as computers, specialty laboratory equipment etc., for the entire campus was determined. Findings suggest that more than half of the campus electricity is spent for air conditioning. Figure 5 illustrates these findings.

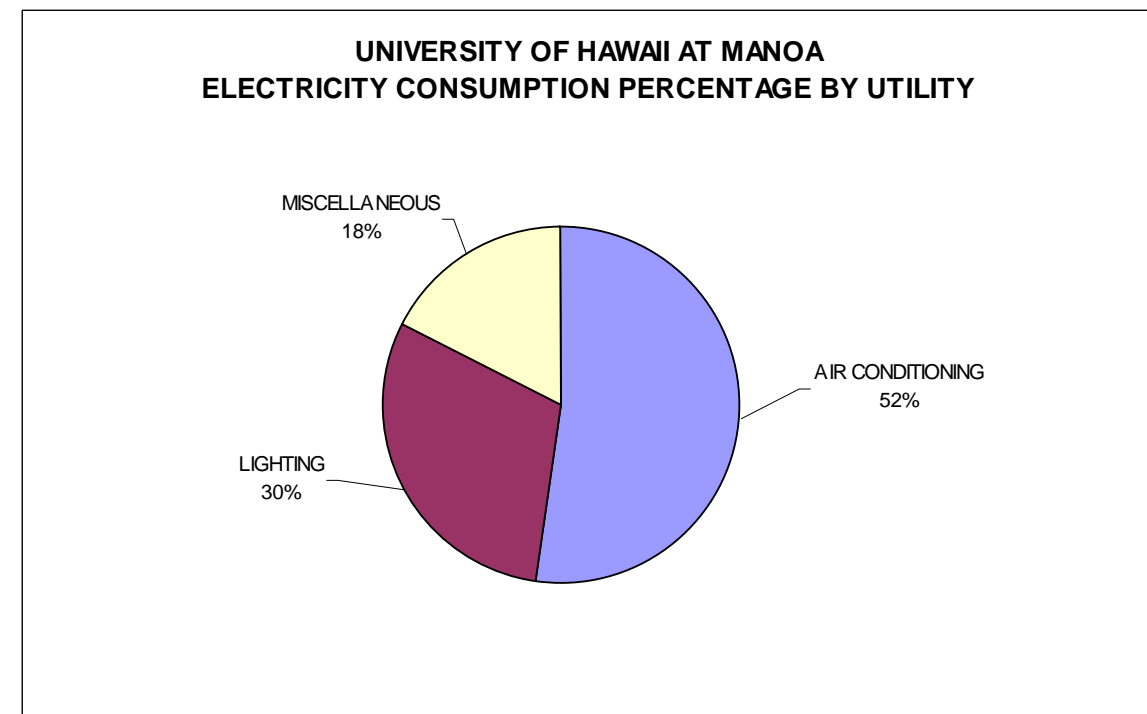


Figure 5: UH Manoa Electricity Consumption Percentage by Utility.

According to the energy audits that were conducted on 2,303,464 square feet of building space in year 2000 and 2001, energy savings of 10,098,284 kWh per year, or \$1,037,250 per year was estimated for the buildings covered by the audits. The estimated construction cost for implementation of the recommended ECMs was \$6,477,150, which would result in a payback of about 6.2 years. If the energy savings predicted by the energy audits were extrapolated through the entire campus, the campus-wide energy savings would be about 25,729,000 kWh per year, or \$2,641,160 per year, with a corresponding construction cost of \$16,338,440 for the implementation of all ECMs. This would correspond to roughly a 20 percent reduction in the campus-wide electricity consumption.

From the energy audit reports, a total of fourteen ECMs were identified that would produce energy savings with a payback period of less than 15 years. In order to support the effort for a more precise prediction of energy savings opportunities of various ECMs, three ECMs were further categorized that were likely to apply to the majority of the buildings throughout the campus. Those

ECMs were: 1) interior and exterior lighting replacements with more energy efficient lighting, 2) replacement of existing ‘Exit’ signs with efficient LED ‘Exit’ signs, and 3) window tinting, shading coefficient (sc)=0.4. Those ECMs and the percentage energy savings are listed in the following Table 2. Note that the estimates in the Table 2 do not cover libraries, sports arena, dormitories, and residential units due to lack of energy audit report data for comparison.

Table 2: Energy Conservation Measures I, II & III and Potential Electricity Savings

Description	Estimated Construction Cost (\$)	Estimated Energy/Savings (kWh/year)	Estimated Energy Cost Savings (\$/year)	Simple Payback (year)
ECM-I Interior and exterior lighting Replacement	3,986,870	4,928,997	529,689	7.5
ECM-II LED Exit Sign Installation	438,181	338,732	113,538	3.8
ECM-III Window Tinting sc=0.4	560,266	848,642	75,950	7.4
Totals	4,984,318	6,116,372	719,177	6.9

The remaining eleven ECMs of the identified fourteen ECMs were extrapolated for the entire campus based on square feet energy savings potentials and associated cost by square feet. Table 3 lists energy savings potentials of the ECMs with less than seven years payback period, and Table 4 lists the ECMs with higher than seven years payback period.

Please note that while the ECMs presented in the Table 3 and Table 4 provide a rough idea on the campus-wide energy savings potentials, a more detailed ECM study is recommended for a more precise predictions.

Table 3: Energy Conservation Measures and Potential Electricity Savings with less than Seven Years Payback Period

Description	Estimated Construction Cost (\$)	Estimated Energy/Savings (kWh/year)	Estimated Energy Cost Savings (\$/year)	Simple Payback (year)
ECM-IV Chiller Retrofits	3,992,485	6,687,542	630,035	6.34
ECM-V Variable Speed Drive Utilization	1,466,828	2,923,974	287,017	5.11
ECM-VIII Waste Heat Recovery System	59,627	249,959	24,247	2.46
ECM-X Energy Management Systems (EMS) Installation	342,724	2,655,365	257,521	1.33
ECM-XIV Outside Air CO2 Sensor Installation	272,137	448,412	50,552	5.38
Totals	6,133,805	12,965,252	1,249,422	4.9



Table 4: Energy Conservation Measures and Potential Electricity Savings with more than Seven Years Payback Period

Description	Estimated Construction Cost (\$)	Estimated Energy/Savings (kWh/year)	Estimated Energy Cost Savings (\$/year)	Simple Payback (year)
ECM-VI OTHER (ECMs Unique to Buildings)	398,317	313,249	30,385	13.11
ECM-VII Motor Replacement with High Efficiency Motors	468,055	642,922	47,951	7.76
ECM-IX Packaged Air Conditioning Replacement	415,088	466,121	45,215	9.18
ECM-XI Insulation Installation	980,079	1,257,681	124,477	7.87
ECM-XII Convert Constant Volume to VAV System	156,018	195,997	19,011	8.21
ECM-XIII Repair VAV Control System	212,287	93,217	17,139	12.39
Totals	2,629,844	2,969,243	284,178	9.25

APPENDIX 2.0

HECO Electricity Billing History for Large State Facilities on Oahu  
for 2003 and 2004

**TABLE: STATE LARGE FACILITIES IN OAHU ELECTRICITY BILL HISTORY FOR YEAR 2003 (PROVIDED BY HECO)**

ACCTNUM	TARCODE	REVPER	RATESCH	BILLDMD	KW	KWH	NBRDAYS	TOTAMT	DEPARTMENT	NAME
9600-5614-003	1	200301	PS	1,883	1,243	457,200	32	\$ 62,117	Convention Center	SOH CONVENTION CTR AUTHORITY
9600-5614-003	1	200302	PS	2,185	1,847	538,200	30	\$ 72,902	Convention Center	SOH CONVENTION CTR AUTHORITY
9600-5614-003	1	200303	PS	2,251	1,980	669,000	29	\$ 87,082	Convention Center	SOH CONVENTION CTR AUTHORITY
9600-5614-003	1	200304	PS	2,827	2,827	796,800	32	\$ 106,016	Convention Center	SOH CONVENTION CTR AUTHORITY
9600-5614-003	1	200305	PS	2,810	2,793	626,400	29	\$ 90,507	Convention Center	SOH CONVENTION CTR AUTHORITY
9600-5614-003	1	200306	PS	2,216	1,605	500,400	30	\$ 72,002	Convention Center	SOH CONVENTION CTR AUTHORITY
9600-5614-003	1	200307	PS	2,191	1,555	561,000	32	\$ 75,468	Convention Center	SOH CONVENTION CTR AUTHORITY
9600-5614-003	1	200308	PS	2,313	1,798	629,400	30	\$ 81,409	Convention Center	SOH CONVENTION CTR AUTHORITY
9600-5614-003	1	200309	PS	3,400	3,400	982,800	32	\$ 122,277	Convention Center	SOH CONVENTION CTR AUTHORITY
9600-5614-003	1	200310	PS	2,494	1,587	532,200	30	\$ 73,536	Convention Center	SOH CONVENTION CTR AUTHORITY
9600-5614-003	1	200311	PS	2,795	2,190	686,400	29	\$ 89,574	Convention Center	SOH CONVENTION CTR AUTHORITY
9600-5614-003	1	200312	PS	2,992	2,584	693,600	32	\$ 92,874	Convention Center	SOH CONVENTION CTR AUTHORITY
TOTAL								\$ 1,025,765		
8800-6839-077	1	200301	PS5	1,460	1,360	510,000	31	\$ 61,746	DAGS	SOH DAGS
8800-6839-077	1	200302	PS5	1,560	1,560	560,000	28	\$ 67,823	DAGS	SOH DAGS
8800-6839-077	1	200303	PS5	1,500	1,440	612,000	32	\$ 72,867	DAGS	SOH DAGS
8800-6839-077	1	200304	PS5	1,350	1,140	588,000	29	\$ 70,637	DAGS	SOH DAGS
8800-6839-077	1	200305	PS5	1,520	1,480	644,000	30	\$ 78,535	DAGS	SOH DAGS
8800-6839-077	1	200306	PS5	1,470	1,380	504,000	32	\$ 65,091	DAGS	SOH DAGS
8800-6839-077	1	200307	PS5	1,447	1,334	464,000	29	\$ 60,061	DAGS	SOH DAGS
8800-6839-077	1	200308	PS5	1,490	1,420	476,000	30	\$ 59,843	DAGS	SOH DAGS
8800-6839-077	1	200309	PS5	1,470	1,380	494,000	33	\$ 60,495	DAGS	SOH DAGS
8800-6839-077	1	200310	PS5	1,510	1,460	462,000	29	\$ 57,605	DAGS	SOH DAGS
8800-6839-077	1	200311	PS5	1,470	1,380	522,000	30	\$ 61,968	DAGS	SOH DAGS
8800-6839-077	1	200312	PS5	1,450	1,340	436,000	32	\$ 54,461	DAGS	SOH DAGS
TOTAL								\$ 771,132		
8819-2839-079	1	200301	J3	576	576	182,000	30	\$ 22,349	DAGS	SOH DAGS CENTRAL SERVICES
8819-2839-079	1	200302	J3	588	588	206,000	33	\$ 25,058	DAGS	SOH DAGS CENTRAL SERVICES
8819-2839-079	1	200303	J3	590	590	189,000	29	\$ 24,002	DAGS	SOH DAGS CENTRAL SERVICES
8819-2839-079	1	200304	J3	590	590	184,000	29	\$ 23,713	DAGS	SOH DAGS CENTRAL SERVICES
8819-2839-079	1	200305	J3	562	562	186,000	29	\$ 23,873	DAGS	SOH DAGS CENTRAL SERVICES
8819-2839-079	1	200306	J3	623	623	194,000	32	\$ 24,910	DAGS	SOH DAGS CENTRAL SERVICES
8819-2839-079	1	200307	J3	620	620	188,000	29	\$ 23,565	DAGS	SOH DAGS CENTRAL SERVICES
8819-2839-079	1	200308	J3	653	653	221,000	33	\$ 26,672	DAGS	SOH DAGS CENTRAL SERVICES
8819-2839-079	1	200309	J3	629	629	205,000	30	\$ 24,677	DAGS	SOH DAGS CENTRAL SERVICES
8819-2839-079	1	200310	J3	638	638	209,000	30	\$ 24,937	DAGS	SOH DAGS CENTRAL SERVICES
8819-2839-079	1	200311	J3	615	615	198,000	31	\$ 23,686	DAGS	SOH DAGS CENTRAL SERVICES
8819-2839-079	1	200312	J3	591	591	168,000	28	\$ 20,812	DAGS	SOH DAGS CENTRAL SERVICES
TOTAL								\$ 288,253		
8819-9076-075	1	200301	J	292	205	78,000	31	\$ 10,150	DAGS	SOH DAGS
8819-9076-075	1	200302	J	292	203	92,400	33	\$ 11,706	DAGS	SOH DAGS
8819-9076-075	1	200303	J	311	311	106,080	28	\$ 13,571	DAGS	SOH DAGS
8819-9076-075	1	200304	J	299	299	121,680	30	\$ 15,206	DAGS	SOH DAGS
8819-9076-075	1	200305	J	335	335	105,360	29	\$ 13,890	DAGS	SOH DAGS
8819-9076-075	1	200306	J	311	311	108,960	33	\$ 13,927	DAGS	SOH DAGS
8819-9076-075	1	200307	J	318	318	99,600	29	\$ 12,617	DAGS	SOH DAGS
8819-9076-075	1	200308	J	307	307	114,240	32	\$ 13,796	DAGS	SOH DAGS
8819-9076-075	1	200309	J	322	322	104,160	30	\$ 12,795	DAGS	SOH DAGS
8819-9076-075	1	200310	J	332	332	110,400	30	\$ 13,380	DAGS	SOH DAGS
8819-9076-075	1	200311	J	339	339	106,800	31	\$ 13,077	DAGS	SOH DAGS
8819-9076-075	1	200312	J	326	326	96,000	28	\$ 12,021	DAGS	SOH DAGS
TOTAL								\$ 156,137		
8820-4007-075	1	200301	J3	627	627	204,000	31	\$ 25,137	DAGS	SOH DAGS
8820-4007-075	1	200302	J3	631	631	230,000	33	\$ 28,041	DAGS	SOH DAGS
8820-4007-075	1	200303	J3	620	620	201,000	29	\$ 25,726	DAGS	SOH DAGS
8820-4007-075	1	200304	J3	616	616	198,000	29	\$ 25,644	DAGS	SOH DAGS
8820-4007-075	1	200305	J3	611	611	204,000	29	\$ 26,420	DAGS	SOH DAGS
8820-4007-075	1	200306	J3	617	617	229,000	33	\$ 28,802	DAGS	SOH DAGS
8820-4007-075	1	200307	J3	604	604	214,000	29	\$ 26,289	DAGS	SOH DAGS
8820-4007-075	1	200308	J3	649	649	227,000	33	\$ 27,528	DAGS	SOH DAGS
8820-4007-075	1	200309	J3	628	628	205,000	29	\$ 24,948	DAGS	SOH DAGS
8820-4007-075	1	200310	J3	626	626	220,000	30	\$ 26,195	DAGS	SOH DAGS
8820-4007-075	1	200311	J3	622	622	217,000	32	\$ 25,827	DAGS	SOH DAGS
8820-4007-075	1	200312	J3	609	609	175,000	27	\$ 21,847	DAGS	SOH DAGS
TOTAL								\$ 312,404		
8820-5318-076	1	200301	PS5	1,401	1,397	571,200	30	\$ 66,767	DAGS	SOH DAGS
8820-5318-076	1	200302	PS5	1,424	1,424	629,400	32	\$ 72,859	DAGS	SOH DAGS
8820-5318-076	1	200303	PS5	1,416	1,407	573,000	29	\$ 69,648	DAGS	SOH DAGS
8820-5318-076	1	200304	PS5	1,435	1,435	600,000	30	\$ 73,099	DAGS	SOH DAGS
8820-5318-076	1	200305	PS5	1,424	1,412	589,800	29	\$ 72,572	DAGS	SOH DAGS
8820-5318-076	1	200306	PS5	1,439	1,439	644,400	32	\$ 76,901	DAGS	SOH DAGS
8820-5318-076	1	200307	PS5	1,434	1,429	619,800	30	\$ 72,270	DAGS	SOH DAGS
8820-5318-076	1	200308	PS5	1,444	1,444	652,800	32	\$ 74,027	DAGS	SOH DAGS
8820-5318-076	1	200309	PS5	1,445	1,445	615,600	30	\$ 70,141	DAGS	SOH DAGS
8820-5318-076	1	200310	PS5	1,444	1,442	629,400	30	\$ 70,696	DAGS	SOH DAGS
8820-5318-076	1	200311	PS5	1,429	1,412	612,000	31	\$ 68,991	DAGS	SOH DAGS
8820-5318-076	1	200312	PS5	1,412	1,378	580,800	30	\$ 66,785	DAGS	SOH DAGS
TOTAL								\$ 854,756		
8820-5319-075	1	200301	J	432	421	131,200	30	\$ 16,662	DAGS	SOH DAGS
8820-5319-075	1	200302	J	457	457	144,800	32	\$ 18,391	DAGS	SOH DAGS
8820-5319-075	1	200303	J	479	479	138,400	29	\$ 18,358	DAGS	SOH DAGS
8820-5319-075	1	200304	J	483	483	146,000	30	\$ 19,370	DAGS	SOH DAGS
8820-5319-075	1	200305	J	527	527	141,600	29	\$ 19,382	DAGS	SOH DAGS
8820-5319-075	1	200306	J	497	497	158,800	32	\$ 20,762	DAGS	SOH DAGS
8820-5319-075	1	200307	J	508	508	152,800	30	\$ 19,629	DAGS	SOH DAGS
8820-5319-075	1	200308	J	538	538	166,800	32	\$ 20,957	DAGS	SOH DAGS
8820-5319-075	1	200309	J	550	550	151,600	30	\$ 19,362	DAGS	SOH DAGS
8820-5319-075	1	200310	J	479	479	148,400	30	\$ 18,330	DAGS	SOH DAGS
8820-5319-075	1	200311	J	494	494	136,400	31	\$ 17,259	DAGS	SOH DAGS
8820-5319-075	1	200312	J	453	453	126,800	30	\$ 16,135	DAGS	SOH DAGS
TOTAL								\$ 224,598		
8824-3048-076	1	200301	J	648	648	200,800	32	\$ 25,194	DAGS	SOH DAGS
8824-3048-076	1	200302	J	664	664	207,600	31	\$ 26,284	DAGS	SOH DAGS
8824-3048-076	1	200303	J	691	691	188,000	28	\$ 25,140	DAGS	SOH DAGS
8824-3048-076	1	200304	J	692	692	194,800	29	\$ 26,055	DAGS	SOH DAGS
8824-3048-076	1	200305	J	689	689	210,400	32	\$ 27,871	DAGS	SOH DAGS
8824-3048-076	1	200306	J	708	708	207,600	30	\$ 27,395	DAGS	SOH DAGS
8824-3048-076	1	200307	J	688	688	202,000	29	\$ 25,883	DAGS	SOH DAGS
8824-3048-076	1	200308	J	732	732	225,200	33	\$ 28,178	DAGS	SOH DAGS
8824-3048-076	1	200309	J	708	708	203,600	29	\$ 25,600	DAGS	SOH DAGS
8824-3048-076	1	200310	J	724	724	222,400	32	\$ 27,363	DAGS	SOH DAGS
8824-3048-076	1	200311	J	675	675	195,600	29	\$ 24,362	DAGS	SOH DAGS
8824-3048-076	1	200312	J	549	492	185,200	28	\$ 22,556	DAGS	SOH DAGS
TOTAL								\$ 311,882		
8824-4189-078	1	200301	J	427	427	203,520	32	\$ 23,599	DAGS	SOH DAGS
8824-4189-078	1	200302	J	509	509	202,800	31	\$ 24,776	DAGS	SOH DAGS
8824-4189-078	1	200303	J	516	516	186,720	28	\$ 23,818	DAGS	SOH DAGS
8824-4189-078	1	200304	J	490	490	216,480	29	\$ 26,721	DAGS	SOH DAGS
8824-4189-078	1	200305	J	518	518	215,520	32	\$ 27,177	DAGS	SOH DAGS
8824-4189-078	1	200306	J	523	523	202,560	30	\$ 25,589	DAGS	SOH DAGS
8824-4189-078	1	200307	J	444	444	200,640	29	\$ 23,776	DAGS	SOH DAGS
8824-4189-078	1	200308	J	518	518	226,080	33	\$ 26,590	DAGS	SOH DAGS
8824-4189-078	1	200309	J	456	456	193,680	29	\$ 22,701	DAGS	SOH DAGS

TABLE: STATE LARGE FACILITIES IN OAHU ELECTRICITY BILL HISTORY FOR YEAR 2003 (PROVIDED BY HECO)

ACCTNUM	TARCODE	REVPER	RATESCH	BILLDMD	KW	KWH	NBRDAYS	TOTAMT	DEPARTMENT	NAME
8824-4189-078	1	200310	J	463	463	219,120	32	\$ 24,860	DAGS	SOH DAGS
8824-4189-078	1	200311	J	499	499	189,120	29	\$ 22,526	DAGS	SOH DAGS
8824-4189-078	1	200312	J	473	473	174,240	28	\$ 21,045	DAGS	SOH DAGS
		TOTAL				2,430,480		\$ 293,178		
8824-4781-075	1	200301	J	371	371	118,640	31	\$ 14,907	DAGS	SOH DAGS
8824-4781-075	1	200302	J	378	378	127,120	33	\$ 15,968	DAGS	SOH DAGS
8824-4781-075	1	200303	J	381	381	108,560	28	\$ 14,468	DAGS	SOH DAGS
8824-4781-075	1	200304	J	380	380	114,720	30	\$ 15,237	DAGS	SOH DAGS
8824-4781-075	1	200305	J	370	370	112,560	29	\$ 15,039	DAGS	SOH DAGS
8824-4781-075	1	200306	J	418	418	124,080	33	\$ 16,471	DAGS	SOH DAGS
8824-4781-075	1	200307	J	406	406	115,120	29	\$ 14,986	DAGS	SOH DAGS
8824-4781-075	1	200308	J	384	384	132,480	33	\$ 16,336	DAGS	SOH DAGS
8824-4781-075	1	200309	J	396	396	119,440	29	\$ 14,989	DAGS	SOH DAGS
8824-4781-075	1	200310	J	382	382	127,840	30	\$ 15,581	DAGS	SOH DAGS
8824-4781-075	1	200311	J	366	366	123,200	31	\$ 14,998	DAGS	SOH DAGS
8824-4781-075	1	200312	J	357	357	112,000	28	\$ 13,949	DAGS	SOH DAGS
		TOTAL				1,435,760		\$ 182,931		
8824-8557-076	1	200301	J	1,076	1,076	324,000	31	\$ 40,818	DAGS	SOH DAGS
8824-8557-076	1	200302	J	1,104	1,104	356,400	33	\$ 44,734	DAGS	SOH DAGS
8824-8557-076	1	200303	J	1,168	1,168	330,800	28	\$ 43,770	DAGS	SOH DAGS
8824-8557-076	1	200304	J	1,168	1,168	354,400	30	\$ 46,648	DAGS	SOH DAGS
8824-8557-076	1	200305	J	1,132	1,132	350,800	29	\$ 46,282	DAGS	SOH DAGS
8824-8557-076	1	200306	J	1,140	1,140	377,600	33	\$ 48,648	DAGS	SOH DAGS
8824-8557-076	1	200307	J	1,124	1,124	333,200	29	\$ 42,586	DAGS	SOH DAGS
8824-8557-076	1	200308	J	1,124	1,124	375,600	33	\$ 46,163	DAGS	SOH DAGS
8824-8557-076	1	200309	J	1,120	1,120	331,200	29	\$ 41,334	DAGS	SOH DAGS
8824-8557-076	1	200310	J	1,192	1,192	365,600	30	\$ 44,941	DAGS	SOH DAGS
8824-8557-076	1	200311	J	1,172	1,172	338,400	31	\$ 42,104	DAGS	SOH DAGS
8824-8557-076	1	200312	J	1,084	1,084	294,400	28	\$ 37,445	DAGS	SOH DAGS
		TOTAL				4,132,400		\$ 525,473		
8824-8619-075	1	200301	J5	440	440	119,000	32	\$ 15,400	DAGS	SOH DAGS
8824-8619-075	1	200302	J5	420	420	125,500	31	\$ 16,059	DAGS	SOH DAGS
8824-8619-075	1	200303	J5	410	410	110,500	28	\$ 14,833	DAGS	SOH DAGS
8824-8619-075	1	200304	J5	425	425	114,000	29	\$ 15,434	DAGS	SOH DAGS
8824-8619-075	1	200305	J5	405	405	122,500	32	\$ 16,284	DAGS	SOH DAGS
8824-8619-075	1	200306	J5	400	400	128,500	30	\$ 16,661	DAGS	SOH DAGS
8824-8619-075	1	200307	J5	430	430	127,500	29	\$ 16,301	DAGS	SOH DAGS
8824-8619-075	1	200308	J5	415	415	140,500	33	\$ 17,256	DAGS	SOH DAGS
8824-8619-075	1	200309	J5	435	435	116,000	29	\$ 14,849	DAGS	SOH DAGS
8824-8619-075	1	200310	J5	415	415	138,500	32	\$ 16,768	DAGS	SOH DAGS
8824-8619-075	1	200311	J5	405	405	117,500	29	\$ 14,656	DAGS	SOH DAGS
		TOTAL				1,360,000		\$ 174,500		
9800-1977-002	1	200301	J	767	767	255,200	33	\$ 31,458	DAGS	SOH DAGS
9800-1977-002	1	200302	J	781	781	227,200	29	\$ 29,058	DAGS	SOH DAGS
9800-1977-002	1	200303	J	808	808	242,400	31	\$ 31,252	DAGS	SOH DAGS
9800-1977-002	1	200304	J	858	858	219,200	28	\$ 29,876	DAGS	SOH DAGS
9800-1977-002	1	200305	J	866	866	236,800	31	\$ 32,003	DAGS	SOH DAGS
9800-1977-002	1	200306	J	848	848	241,600	30	\$ 32,516	DAGS	SOH DAGS
9800-1977-002	1	200307	J	868	868	236,000	29	\$ 31,517	DAGS	SOH DAGS
9800-1977-002	1	200308	J	852	852	259,600	32	\$ 32,880	DAGS	SOH DAGS
9800-1977-002	1	200309	J	867	867	257,600	31	\$ 32,434	DAGS	SOH DAGS
9800-1977-002	1	200310	J	853	853	247,600	29	\$ 31,073	DAGS	SOH DAGS
9800-1977-002	1	200311	J	864	864	241,200	28	\$ 30,343	DAGS	SOH DAGS
9800-1977-002	1	200312	J	841	841	256,000	33	\$ 31,645	DAGS	SOH DAGS
		TOTAL				2,920,400		\$ 376,055		
8819-4960-078	1	200301	J	99	90	19,200	30	\$ 2,777	DBEDT	SOH FOREIGN TRADE
8819-4960-078	1	200302	J	99	92	20,800	32	\$ 2,971	DBEDT	SOH FOREIGN TRADE
8819-4960-078	1	200303	J	99	89	21,760	29	\$ 3,137	DBEDT	SOH FOREIGN TRADE
8819-4960-078	1	200304	J	106	106	23,360	30	\$ 3,390	DBEDT	SOH FOREIGN TRADE
8819-4960-078	1	200305	J	102	102	24,000	29	\$ 3,451	DBEDT	SOH FOREIGN TRADE
8819-4960-078	1	200306	J	110	110	28,160	32	\$ 3,917	DBEDT	SOH FOREIGN TRADE
8819-4960-078	1	200307	J	115	115	28,800	30	\$ 3,920	DBEDT	SOH FOREIGN TRADE
8819-4960-078	1	200308	J	104	104	31,680	32	\$ 4,060	DBEDT	SOH FOREIGN TRADE
8819-4960-078	1	200309	J	119	119	29,120	30	\$ 3,887	DBEDT	SOH FOREIGN TRADE
8819-4960-078	1	200310	J	122	122	30,080	30	\$ 3,977	DBEDT	SOH FOREIGN TRADE
8819-4960-078	1	200311	J	124	124	25,920	31	\$ 3,582	DBEDT	SOH FOREIGN TRADE
8819-4960-078	1	200312	J	104	104	22,400	30	\$ 3,107	DBEDT	SOH FOREIGN TRADE
		TOTAL				305,280		\$ 42,175		
0000-3507-002	1	200301	J	351	351	110,400	30	\$ 13,909	Dept of Defense	KAPALAMA MILITARY RESERVATION
0000-3507-002	1	200302	J	346	346	117,600	33	\$ 14,779	Dept of Defense	KAPALAMA MILITARY RESERVATION
0000-3507-002	1	200303	J	353	353	109,800	29	\$ 14,366	Dept of Defense	KAPALAMA MILITARY RESERVATION
0000-3507-002	1	200304	J	353	353	108,000	29	\$ 14,299	Dept of Defense	KAPALAMA MILITARY RESERVATION
0000-3507-002	1	200305	J	363	363	111,000	28	\$ 14,802	Dept of Defense	KAPALAMA MILITARY RESERVATION
0000-3507-002	1	200306	J	379	379	124,800	30	\$ 16,158	Dept of Defense	KAPALAMA MILITARY RESERVATION
0000-3507-002	1	200307	J	382	382	132,600	32	\$ 16,489	Dept of Defense	KAPALAMA MILITARY RESERVATION
0000-3507-002	1	200308	J	371	371	127,200	30	\$ 15,631	Dept of Defense	KAPALAMA MILITARY RESERVATION
0000-3507-002	1	200309	J	392	392	132,600	32	\$ 16,196	Dept of Defense	KAPALAMA MILITARY RESERVATION
0000-3507-002	1	200310	J	391	391	135,600	31	\$ 16,350	Dept of Defense	KAPALAMA MILITARY RESERVATION
0000-3507-002	1	200311	J	373	373	128,400	32	\$ 15,551	Dept of Defense	KAPALAMA MILITARY RESERVATION
0000-3507-002	1	200312	J	349	349	103,800	29	\$ 13,057	Dept of Defense	KAPALAMA MILITARY RESERVATION
		TOTAL				1,441,800		\$ 181,585		
8811-6162-076	1	200301	J	246	246	91,200	31	\$ 11,138	Dept of Defense	SOH DEPT OF DEFENSE
8811-6162-076	1	200302	J	252	252	83,040	28	\$ 10,471	Dept of Defense	SOH DEPT OF DEFENSE
8811-6162-076	1	200303	J	259	259	95,600	32	\$ 12,035	Dept of Defense	SOH DEPT OF DEFENSE
8811-6162-076	1	200304	J	266	266	94,000	29	\$ 12,118	Dept of Defense	SOH DEPT OF DEFENSE
8811-6162-076	1	200305	J	262	262	97,120	30	\$ 12,506	Dept of Defense	SOH DEPT OF DEFENSE
8811-6162-076	1	200306	J	279	279	107,200	32	\$ 13,652	Dept of Defense	SOH DEPT OF DEFENSE
8811-6162-076	1	200307	J	282	282	109,280	30	\$ 13,530	Dept of Defense	SOH DEPT OF DEFENSE
8811-6162-076	1	200308	J	280	280	120,080	32	\$ 14,245	Dept of Defense	SOH DEPT OF DEFENSE
8811-6162-076	1	200309	J	278	278	111,520	30	\$ 13,295	Dept of Defense	SOH DEPT OF DEFENSE
8811-6162-076	1	200310	J	283	283	110,400	30	\$ 13,136	Dept of Defense	SOH DEPT OF DEFENSE
8811-6162-076	1	200311	J	276	276	103,360	31	\$ 12,354	Dept of Defense	SOH DEPT OF DEFENSE
8811-6162-076	1	200312	J	270	270	96,560	30	\$ 11,714	Dept of Defense	SOH DEPT OF DEFENSE
		TOTAL				1,219,360		\$ 150,195		
8808-7404-076	1	200301	PP3	683	641	351,600	32	\$ 38,538	Dept of Health	SOH DEPT OF HEALTH
8808-7404-076	1	200302	PP3	668	612	320,400	29	\$ 36,117	Dept of Health	SOH DEPT OF HEALTH
8808-7404-076	1	200303	PP3	673	620	356,400	31	\$ 40,105	Dept of Health	SOH DEPT OF HEALTH
8808-7404-076	1	200304	PP3	680	636	370,800	31	\$ 42,307	Dept of Health	SOH DEPT OF HEALTH
8808-7404-076	1	200305	PP3	685	646	344,400	29	\$ 40,289	Dept of Health	SOH DEPT OF HEALTH
8808-7404-076	1	200306	PP3	697	670	394,800	31	\$ 44,877	Dept of Health	SOH DEPT OF HEALTH
8808-7404-076	1	200307	PP3	691	658	393,600	31	\$ 43,499	Dept of Health	SOH DEPT OF HEALTH
8808-7404-076	1	200308	PP3	721	718	384,000	2			

TABLE: STATE LARGE FACILITIES IN OAHU ELECTRICITY BILL HISTORY FOR YEAR 2003 (PROVIDED BY HECO)

ACCTNUM	TARCODE	REVPER	RATESCH	BILLDMD	KW	KWH	NBRDAYS	TOTAMT	DEPARTMENT	NAME
8808-7405-076	1	200307	J3	334	334	131,400	31	\$ 15,999	Dept of Health	SOH DEPT OF HEALTH
8808-7405-076	1	200308	J3	330	330	132,000	29	\$ 15,652	Dept of Health	SOH DEPT OF HEALTH
8808-7405-076	1	200309	J3	319	319	133,800	31	\$ 15,521	Dept of Health	SOH DEPT OF HEALTH
8808-7405-076	1	200310	J3	314	314	138,800	32	\$ 15,749	Dept of Health	SOH DEPT OF HEALTH
8808-7405-076	1	200311	J3	314	314	127,200	30	\$ 14,687	Dept of Health	SOH DEPT OF HEALTH
8808-7405-076	1	200312	J3	272	272	109,200	29	\$ 12,713	Dept of Health	SOH DEPT OF HEALTH
		TOTAL				1,473,600		\$ 176,904		
8813-6833-076	1	200301	J	482	482	124,800	33	\$ 16,373	Dept of Health	SOH DEPT OF HEALTH
8813-6833-076	1	200302	J	511	511	117,120	30	\$ 15,991	Dept of Health	SOH DEPT OF HEALTH
8813-6833-076	1	200303	J	439	439	125,760	29	\$ 16,633	Dept of Health	SOH DEPT OF HEALTH
8813-6833-076	1	200304	J	470	470	129,120	32	\$ 17,452	Dept of Health	SOH DEPT OF HEALTH
8813-6833-076	1	200305	J	463	463	138,240	29	\$ 18,525	Dept of Health	SOH DEPT OF HEALTH
8813-6833-076	1	200306	J	466	466	133,920	30	\$ 17,927	Dept of Health	SOH DEPT OF HEALTH
8813-6833-076	1	200307	J	463	463	128,160	29	\$ 16,863	Dept of Health	SOH DEPT OF HEALTH
8813-6833-076	1	200308	J	478	478	146,880	33	\$ 18,518	Dept of Health	SOH DEPT OF HEALTH
8813-6833-076	1	200309	J	502	502	128,880	29	\$ 16,752	Dept of Health	SOH DEPT OF HEALTH
8813-6833-076	1	200310	J	475	475	142,080	32	\$ 17,705	Dept of Health	SOH DEPT OF HEALTH
8813-6833-076	1	200311	J	478	478	134,160	30	\$ 16,913	Dept of Health	SOH DEPT OF HEALTH
8813-6833-076	1	200312	J	490	490	119,520	29	\$ 15,681	Dept of Health	SOH DEPT OF HEALTH
		TOTAL				1,568,640		\$ 205,334		
8813-6841-075	1	200301	PP3	665	613	254,400	33	\$ 29,929	Dept of Health	SOH DEPT OF HEALTH
8813-6841-075	1	200302	PP3	665	614	229,200	30	\$ 28,037	Dept of Health	SOH DEPT OF HEALTH
8813-6841-075	1	200303	PP3	676	635	232,400	29	\$ 29,072	Dept of Health	SOH DEPT OF HEALTH
8813-6841-075	1	200304	PP3	678	638	252,800	32	\$ 31,384	Dept of Health	SOH DEPT OF HEALTH
8813-6841-075	1	200305	PP3	673	630	243,200	29	\$ 30,686	Dept of Health	SOH DEPT OF HEALTH
8813-6841-075	1	200306	PP3	700	684	261,200	30	\$ 32,391	Dept of Health	SOH DEPT OF HEALTH
8813-6841-075	1	200307	PP3	699	681	260,400	29	\$ 31,446	Dept of Health	SOH DEPT OF HEALTH
8813-6841-075	1	200308	PP3	716	715	303,200	33	\$ 34,661	Dept of Health	SOH DEPT OF HEALTH
8813-6841-075	1	200309	PP3	714	712	270,800	29	\$ 31,528	Dept of Health	SOH DEPT OF HEALTH
8813-6841-075	1	200310	PP3	717	717	297,600	32	\$ 33,544	Dept of Health	SOH DEPT OF HEALTH
8813-6841-075	1	200311	PP3	704	691	270,400	30	\$ 31,047	Dept of Health	SOH DEPT OF HEALTH
8813-6841-075	1	200312	PP3	672	627	242,800	29	\$ 28,584	Dept of Health	SOH DEPT OF HEALTH
		TOTAL				3,118,400		\$ 372,309		
8821-2602-075	1	200301	PP3	404	385	196,800	31	\$ 21,891	Dept of Health	SOH MALUHIA HOSP
8821-2602-075	1	200302	PP3	407	391	211,200	33	\$ 23,438	Dept of Health	SOH MALUHIA HOSP
8821-2602-075	1	200303	PP3	411	398	193,200	29	\$ 22,586	Dept of Health	SOH MALUHIA HOSP
8821-2602-075	1	200304	PP3	424	424	210,000	32	\$ 24,476	Dept of Health	SOH MALUHIA HOSP
8821-2602-075	1	200305	PP3	416	408	194,400	29	\$ 23,164	Dept of Health	SOH MALUHIA HOSP
8821-2602-075	1	200306	PP3	425	425	201,600	29	\$ 23,577	Dept of Health	SOH MALUHIA HOSP
8821-2602-075	1	200307	PP3	425	425	211,200	30	\$ 23,660	Dept of Health	SOH MALUHIA HOSP
8821-2602-075	1	200308	PP3	439	439	236,400	33	\$ 25,566	Dept of Health	SOH MALUHIA HOSP
8821-2602-075	1	200309	PP3	443	443	216,000	30	\$ 23,644	Dept of Health	SOH MALUHIA HOSP
8821-2602-075	1	200310	PP3	443	443	223,200	31	\$ 24,033	Dept of Health	SOH MALUHIA HOSP
8821-2602-075	1	200311	PP3	431	420	211,200	30	\$ 22,901	Dept of Health	SOH MALUHIA HOSP
8821-2602-075	1	200312	PP3	431	419	200,400	30	\$ 22,217	Dept of Health	SOH MALUHIA HOSP
		TOTAL				2,505,600		\$ 281,154		
9300-8875-002	1	200301	PS	1,231	1,231	538,800	31	\$ 61,500	Dept of Health	SOH DEPT OF HEALTH
9300-8875-002	1	200302	PS	1,104	977	469,200	28	\$ 54,588	Dept of Health	SOH DEPT OF HEALTH
9300-8875-002	1	200303	PS	1,095	959	558,000	33	\$ 63,073	Dept of Health	SOH DEPT OF HEALTH
9300-8875-002	1	200304	PS	1,117	1,003	531,000	29	\$ 62,506	Dept of Health	SOH DEPT OF HEALTH
9300-8875-002	1	200305	PS	1,118	1,006	503,400	29	\$ 60,531	Dept of Health	SOH DEPT OF HEALTH
9300-8875-002	1	200306	PS	1,100	970	565,200	32	\$ 66,392	Dept of Health	SOH DEPT OF HEALTH
9300-8875-002	1	200307	PS	1,203	1,175	533,400	29	\$ 63,593	Dept of Health	SOH DEPT OF HEALTH
9300-8875-002	1	200308	PS	1,274	1,274	573,000	30	\$ 65,799	Dept of Health	SOH DEPT OF HEALTH
9300-8875-002	1	200309	PS	1,264	1,255	634,800	33	\$ 70,060	Dept of Health	SOH DEPT OF HEALTH
9300-8875-002	1	200310	PS	1,153	1,033	565,200	29	\$ 62,226	Dept of Health	SOH DEPT OF HEALTH
9300-8875-002	1	200311	PS	1,163	1,052	610,800	31	\$ 65,659	Dept of Health	SOH DEPT OF HEALTH
9300-8875-002	1	200312	PS	1,151	1,028	567,600	31	\$ 62,048	Dept of Health	SOH DEPT OF HEALTH
		TOTAL				6,650,400		\$ 757,975		
8803-9993-076	1	200301	J3	300	300	121,000	32	\$ 14,209	Dept of Public Safety	SOH WAIAWA CORRECT FACILITY
8803-9993-076	1	200302	J3	290	290	110,000	29	\$ 13,183	Dept of Public Safety	SOH WAIAWA CORRECT FACILITY
8803-9993-076	1	200303	J3	280	280	111,000	31	\$ 13,414	Dept of Public Safety	SOH WAIAWA CORRECT FACILITY
8803-9993-076	1	200304	J3	280	280	110,000	31	\$ 13,617	Dept of Public Safety	SOH WAIAWA CORRECT FACILITY
8803-9993-076	1	200305	J3	270	270	104,000	29	\$ 13,024	Dept of Public Safety	SOH WAIAWA CORRECT FACILITY
8803-9993-076	1	200306	J3	280	280	112,000	31	\$ 13,983	Dept of Public Safety	SOH WAIAWA CORRECT FACILITY
8803-9993-076	1	200307	J3	280	280	109,000	31	\$ 13,393	Dept of Public Safety	SOH WAIAWA CORRECT FACILITY
8803-9993-076	1	200308	J3	290	290	92,000	29	\$ 11,422	Dept of Public Safety	SOH WAIAWA CORRECT FACILITY
8803-9993-076	1	200309	J3	290	290	119,000	31	\$ 13,901	Dept of Public Safety	SOH WAIAWA CORRECT FACILITY
8803-9993-076	1	200310	J3	310	310	122,000	32	\$ 14,243	Dept of Public Safety	SOH WAIAWA CORRECT FACILITY
8803-9993-076	1	200311	J3	320	320	117,000	31	\$ 13,748	Dept of Public Safety	SOH WAIAWA CORRECT FACILITY
8803-9993-076	1	200312	J3	280	280	110,000	31	\$ 12,809	Dept of Public Safety	SOH WAIAWA CORRECT FACILITY
		TOTAL				1,337,000		\$ 160,946		
8823-3657-076	1	200301	J	206	199	97,680	29	\$ 11,387	Dept of Public Safety	SOH-DEPT OF PUBLIC SAFETY
8823-3657-076	1	200302	J	206	192	102,240	30	\$ 11,918	Dept of Public Safety	SOH-DEPT OF PUBLIC SAFETY
8823-3657-076	1	200303	J	206	201	105,120	29	\$ 12,517	Dept of Public Safety	SOH-DEPT OF PUBLIC SAFETY
8823-3657-076	1	200304	J	220	220	125,760	32	\$ 14,770	Dept of Public Safety	SOH-DEPT OF PUBLIC SAFETY
8823-3657-076	1	200305	J	266	266	113,520	30	\$ 14,273	Dept of Public Safety	SOH-DEPT OF PUBLIC SAFETY
8823-3657-076	1	200306	J	206	201	108,960	29	\$ 12,892	Dept of Public Safety	SOH-DEPT OF PUBLIC SAFETY
8823-3657-076	1	200307	J	209	209	122,400	32	\$ 13,730	Dept of Public Safety	SOH-DEPT OF PUBLIC SAFETY
8823-3657-076	1	200308	J	207	207	116,160	30	\$ 12,946	Dept of Public Safety	SOH-DEPT OF PUBLIC SAFETY
8823-3657-076	1	200309	J	206	206	121,680	32	\$ 13,294	Dept of Public Safety	SOH-DEPT OF PUBLIC SAFETY
8823-3657-076	1	200310	J	201	201	111,840	30	\$ 12,259	Dept of Public Safety	SOH-DEPT OF PUBLIC SAFETY
8823-3657-076	1	200311	J	200	198	107,280	30	\$ 11,866	Dept of Public Safety	SOH-DEPT OF PUBLIC SAFETY
8823-3657-076	1	200312	J	200	185	109,200	32	\$ 12,164	Dept of Public Safety	SOH-DEPT OF PUBLIC SAFETY
		TOTAL				1,341,840		\$ 154,016		
8823-3672-076	1	200301	PS	874	857	400,800	30	\$ 45,593	Dept of Public Safety	SOH-DEPT OF PUBLIC SAFETY
8823-3672-076	1	200302	PS	882	874	442,800	33	\$ 49,966	Dept of Public Safety	SOH-DEPT OF PUBLIC SAFETY
8823-3672-076	1	200303	PS	887	883	396,600	29	\$ 47,218	Dept of Public Safety	SOH-DEPT OF PUBLIC SAFETY
8823-3672-076	1	200304	PS	874	862	402,000	29	\$ 47,990	Dept of Public Safety	SOH-DEPT OF PUBLIC SAFETY
8823-3672-076	1	200305	PS	902	902	396,600	28	\$ 48,206	Dept of Public Safety	SOH-DEPT OF PUBLIC SAFETY
8823-3672-076	1	200306	PS	896	890	427,200	30	\$ 50,144	Dept of Public Safety	SOH-DEPT OF PUBLIC SAFETY
8823-3672-076	1	200307	PS	892	881	448,800	32	\$ 50,300	Dept of Public Safety	SOH-DEPT OF PUBLIC SAFETY
8823-3672-076	1	200308	PS	887	871	450,000	31	\$ 49,624	Dept of Public Safety	SOH-DEPT OF PUBLIC SAFETY
8823-3672-076	1	200309	PS	883	864	459,600	32	\$ 49,889	Dept of Public Safety	SOH-DEPT OF PUBLIC SAFETY
8823-3672-076	1	200310	PS	896	890	424,800	29	\$ 46,722	Dept of Public Safety	SOH-DEPT OF PUBLIC SAFETY
8823-3672-076	1	200311	PS	875	847	411,000	30	\$ 45,343	Dept of Public Safety	SOH-DEPT OF PUBLIC SAFETY
8823-3672-076	1	200312	PS	868	833	434,400	32	\$ 47,717	Dept of Public Safety	SOH-DEPT OF PUBLIC SAFETY
		TOTAL				5,094,600		\$ 578,712		
8823-8291-076	1	200301	PP3	972	917	517,200	31	\$ 56,185	Dept of Public Safety	SOH OCCC
8823-8291-076	1	200302	PP3	994	960	526,800	31	\$ 57,960	Dept of Public Safety	SOH OCCC
8823-8291-076	1	200303	PP3	972	917	504,000	29	\$ 57,409	Dept of Public Safety	SOH OCCC
8823-8291-076	1	200304	PP3	974	922	536,400	31	\$ 60,953	Dept of Public Safety	SOH OCCC
8823-8291-076	1	200305	PP3	994	960	532,800	30	\$ 61,353	Dept of Public Safety	SOH OCCC
8823-8291-076	1	200306	PP3	994	960	536,400	30	\$ 60,704	Dept of Public Safety	SOH OCCC
8823-8291-076	1	200307	PP3	994	960	565,200	31	\$ 61,106	Dept of Public Safety	SOH OCCC
8823-8291-076	1	200308	PP3	991	970	600,000	31	\$ 63,040	Dept of Public Safety	SOH OCCC
8823-8291-076	1	200309	PP3	989	965	538,800	28	\$ 57,262	Dept of Public Safety	SOH OCCC
8823-8291-076	1	200310	PP3	1,018	1,018	651,600	33	\$ 66,421	Dept of Public Safety	SOH OCCC
8823-8291-076	1	200311	PP3	1,018	1,018	546,000	29	\$ 57,737	Dept of Public Safety	SOH OCCC
8823-8291-076	1	200312	PP3	994	970	586,800	33	\$ 61,465		

TABLE: STATE LARGE FACILITIES IN OAHU ELECTRICITY BILL HISTORY FOR YEAR 2003 (PROVIDED BY HECO)

ACCTNUM	TARCODE	REVPER	RATESCH	BILLDMD	KW	KWH	NBRDAYS	TOTAMT	DEPARTMENT	NAME
9300-5247-002	1	200303	J	246	246	134,000	32	\$ 15,595	Dept of Public Safety	SOH DEPT OF PUBLIC SAFETY
9300-5247-002	1	200304	J	252	252	128,720	29	\$ 15,425	Dept of Public Safety	SOH DEPT OF PUBLIC SAFETY
9300-5247-002	1	200305	J	244	244	130,720	30	\$ 15,656	Dept of Public Safety	SOH DEPT OF PUBLIC SAFETY
9300-5247-002	1	200306	J	259	259	150,560	33	\$ 17,661	Dept of Public Safety	SOH DEPT OF PUBLIC SAFETY
9300-5247-002	1	200307	J	271	271	140,560	29	\$ 16,379	Dept of Public Safety	SOH DEPT OF PUBLIC SAFETY
9300-5247-002	1	200308	J	289	289	148,400	29	\$ 16,947	Dept of Public Safety	SOH DEPT OF PUBLIC SAFETY
9300-5247-002	1	200309	J	278	278	168,480	33	\$ 18,415	Dept of Public Safety	SOH DEPT OF PUBLIC SAFETY
9300-5247-002	1	200310	J	299	299	156,320	30	\$ 17,431	Dept of Public Safety	SOH DEPT OF PUBLIC SAFETY
9300-5247-002	1	200311	J	290	290	159,920	32	\$ 17,581	Dept of Public Safety	SOH DEPT OF PUBLIC SAFETY
9300-5247-002	1	200312	J	265	265	139,120	30	\$ 15,567	Dept of Public Safety	SOH DEPT OF PUBLIC SAFETY
TOTAL						1,703,280		\$ 195,158		
0000-3209-004	1	200301	J	1,088	1,088	314,800	31	\$ 40,554	DOE	SOH DEPARTMENT OF EDUCATION
0000-3209-004	1	200302	J	847	609	198,400	30	\$ 23,957	DOE	SOH DEPARTMENT OF EDUCATION
0000-3209-004	1	200303	J	847	598	216,400	30	\$ 29,172	DOE	SOH DEPARTMENT OF EDUCATION
0000-3209-004	1	200304	J	847	789	246,800	29	\$ 33,048	DOE	SOH DEPARTMENT OF EDUCATION
0000-3209-004	1	200305	J	1,198	1,198	364,000	32	\$ 48,809	DOE	SOH DEPARTMENT OF EDUCATION
0000-3209-004	1	200306	J	1,119	1,119	362,800	30	\$ 48,220	DOE	SOH DEPARTMENT OF EDUCATION
0000-3209-004	1	200307	J	953	953	260,800	29	\$ 35,180	DOE	SOH DEPARTMENT OF EDUCATION
0000-3209-004	1	200308	J	1,011	1,011	316,800	32	\$ 40,298	DOE	SOH DEPARTMENT OF EDUCATION
0000-3209-004	1	200309	J	1,043	1,043	358,000	31	\$ 44,153	DOE	SOH DEPARTMENT OF EDUCATION
0000-3209-004	1	200310	J	981	981	318,000	29	\$ 39,392	DOE	SOH DEPARTMENT OF EDUCATION
0000-3209-004	1	200311	J	1,008	1,008	332,800	32	\$ 40,809	DOE	SOH DEPARTMENT OF EDUCATION
0000-3209-004	1	200312	J	1,100	1,100	311,600	30	\$ 39,608	DOE	SOH DEPARTMENT OF EDUCATION
TOTAL						3,601,200		\$ 463,200		
0100-2579-004	1	200301	J	446	446	79,440	32	\$ 11,472	DOE	SOH DEPARTMENT OF EDUCATION
0100-2579-004	1	200302	J	443	443	101,520	29	\$ 13,821	DOE	SOH DEPARTMENT OF EDUCATION
0100-2579-004	1	200303	J	461	461	108,480	30	\$ 14,908	DOE	SOH DEPARTMENT OF EDUCATION
0100-2579-004	1	200304	J	477	477	91,440	29	\$ 13,477	DOE	SOH DEPARTMENT OF EDUCATION
0100-2579-004	1	200305	J	470	470	120,000	32	\$ 16,580	DOE	SOH DEPARTMENT OF EDUCATION
0100-2579-004	1	200306	J	474	474	114,000	31	\$ 15,941	DOE	SOH DEPARTMENT OF EDUCATION
0100-2579-004	1	200307	J	378	335	81,840	31	\$ 11,570	DOE	SOH DEPARTMENT OF EDUCATION
0100-2579-004	1	200308	J	456	456	92,160	29	\$ 12,969	DOE	SOH DEPARTMENT OF EDUCATION
0100-2579-004	1	200309	J	472	472	119,280	31	\$ 15,638	DOE	SOH DEPARTMENT OF EDUCATION
0100-2579-004	1	200310	J	473	473	118,320	32	\$ 15,439	DOE	SOH DEPARTMENT OF EDUCATION
0100-2579-004	1	200311	J	464	464	112,320	29	\$ 14,717	DOE	SOH DEPARTMENT OF EDUCATION
0100-2579-004	1	200312	J	435	435	105,840	30	\$ 13,906	DOE	SOH DEPARTMENT OF EDUCATION
TOTAL						1,244,640		\$ 170,439		
0100-2966-002	1	200301	J	584	584	170,400	32	\$ 21,702	DOE	SOH DEPARTMENT OF EDUCATION
0100-2966-002	1	200302	J	572	572	145,200	28	\$ 19,256	DOE	SOH DEPARTMENT OF EDUCATION
0100-2966-002	1	200303	J	582	582	188,400	33	\$ 24,002	DOE	SOH DEPARTMENT OF EDUCATION
0100-2966-002	1	200304	J	582	582	152,880	29	\$ 20,846	DOE	SOH DEPARTMENT OF EDUCATION
0100-2966-002	1	200305	J	592	592	175,920	29	\$ 23,495	DOE	SOH DEPARTMENT OF EDUCATION
0100-2966-002	1	200306	J	590	590	191,760	32	\$ 25,286	DOE	SOH DEPARTMENT OF EDUCATION
0100-2966-002	1	200307	J	566	566	144,960	29	\$ 19,836	DOE	SOH DEPARTMENT OF EDUCATION
0100-2966-002	1	200308	J	491	491	147,360	30	\$ 18,917	DOE	SOH DEPARTMENT OF EDUCATION
0100-2966-002	1	200309	J	636	636	210,240	33	\$ 26,045	DOE	SOH DEPARTMENT OF EDUCATION
0100-2966-002	1	200310	J	647	647	195,840	29	\$ 24,477	DOE	SOH DEPARTMENT OF EDUCATION
0100-2966-002	1	200311	J	618	618	200,400	33	\$ 24,543	DOE	SOH DEPARTMENT OF EDUCATION
0100-2966-002	1	200312	J	610	610	177,600	30	\$ 22,283	DOE	SOH DEPARTMENT OF EDUCATION
TOTAL						2,100,960		\$ 270,688		
8801-3223-078	1	200301	J3	566	508	133,200	31	\$ 17,401	DOE	SOH DEPARTMENT OF EDUCATION
8801-3223-078	1	200302	J3	619	619	123,000	28	\$ 16,948	DOE	SOH DEPARTMENT OF EDUCATION
8801-3223-078	1	200303	J3	513	513	155,400	33	\$ 19,579	DOE	SOH DEPARTMENT OF EDUCATION
8801-3223-078	1	200304	J3	501	501	114,000	29	\$ 15,702	DOE	SOH DEPARTMENT OF EDUCATION
8801-3223-078	1	200305	J3	520	520	133,800	29	\$ 18,012	DOE	SOH DEPARTMENT OF EDUCATION
8801-3223-078	1	200306	J3	525	525	148,200	32	\$ 19,660	DOE	SOH DEPARTMENT OF EDUCATION
8801-3223-078	1	200307	J3	479	479	99,600	29	\$ 14,015	DOE	SOH DEPARTMENT OF EDUCATION
8801-3223-078	1	200308	J3	481	481	108,600	30	\$ 14,527	DOE	SOH DEPARTMENT OF EDUCATION
8801-3223-078	1	200309	J3	685	685	170,400	33	\$ 21,935	DOE	SOH DEPARTMENT OF EDUCATION
8801-3223-078	1	200310	J3	541	541	171,600	29	\$ 20,749	DOE	SOH DEPARTMENT OF EDUCATION
8801-3223-078	1	200311	J3	556	556	162,600	31	\$ 19,865	DOE	SOH DEPARTMENT OF EDUCATION
8801-3223-078	1	200312	J3	556	556	148,800	31	\$ 18,573	DOE	SOH DEPARTMENT OF EDUCATION
TOTAL						1,669,200		\$ 216,967		
8801-5001-077	1	200301	J	464	248	54,000	32	\$ 8,713	DOE	SOH DEPARTMENT OF EDUCATION CLOSED
8803-0106-077	1	200301	J3	518	518	114,600	33	\$ 15,381	DOE	SOH DEPARTMENT OF EDUCATION
8803-0106-077	1	200302	J3	508	508	112,800	29	\$ 15,216	DOE	SOH DEPARTMENT OF EDUCATION
8803-0106-077	1	200303	J3	518	518	140,400	31	\$ 18,295	DOE	SOH DEPARTMENT OF EDUCATION
8803-0106-077	1	200304	J3	516	516	106,200	28	\$ 15,122	DOE	SOH DEPARTMENT OF EDUCATION
8803-0106-077	1	200305	J3	517	517	139,200	31	\$ 18,728	DOE	SOH DEPARTMENT OF EDUCATION
8803-0106-077	1	200306	J3	538	538	149,400	31	\$ 20,029	DOE	SOH DEPARTMENT OF EDUCATION
8803-0106-077	1	200307	J3	488	488	94,800	32	\$ 13,708	DOE	SOH DEPARTMENT OF EDUCATION
8803-0106-077	1	200308	J3	497	497	84,600	28	\$ 12,270	DOE	SOH DEPARTMENT OF EDUCATION
8803-0106-077	1	200309	J3	541	541	144,600	31	\$ 18,467	DOE	SOH DEPARTMENT OF EDUCATION
8803-0106-077	1	200310	J3	550	550	147,600	32	\$ 18,614	DOE	SOH DEPARTMENT OF EDUCATION
8803-0106-077	1	200311	J3	536	536	129,600	30	\$ 16,694	DOE	SOH DEPARTMENT OF EDUCATION
8803-0106-077	1	200312	J3	520	520	126,600	30	\$ 16,296	DOE	SOH DEPARTMENT OF EDUCATION
TOTAL						1,490,400		\$ 198,819		
8803-9117-078	1	200301	J	358	358	84,000	33	\$ 11,361	DOE	SOH DEPARTMENT OF EDUCATION
8803-9117-078	1	200302	J	351	351	80,640	28	\$ 11,022	DOE	SOH DEPARTMENT OF EDUCATION
8803-9117-078	1	200303	J	350	350	99,120	33	\$ 13,081	DOE	SOH DEPARTMENT OF EDUCATION
8803-9117-078	1	200304	J	361	361	80,160	29	\$ 11,451	DOE	SOH DEPARTMENT OF EDUCATION
8803-9117-078	1	200305	J	359	359	95,760	29	\$ 13,160	DOE	SOH DEPARTMENT OF EDUCATION
8803-9117-078	1	200306	J	355	355	105,840	33	\$ 14,213	DOE	SOH DEPARTMENT OF EDUCATION
8803-9117-078	1	200307	J	289	252	73,440	29	\$ 10,064	DOE	SOH DEPARTMENT OF EDUCATION
8803-9117-078	1	200308	J	346	346	91,200	29	\$ 12,058	DOE	SOH DEPARTMENT OF EDUCATION
8803-9117-078	1	200309	J	373	373	119,040	33	\$ 14,896	DOE	SOH DEPARTMENT OF EDUCATION
8803-9117-078	1	200310	J	377	377	108,480	29	\$ 13,768	DOE	SOH DEPARTMENT OF EDUCATION
8803-9117-078	1	200311	J	376	376	117,840	30	\$ 14,598	DOE	SOH DEPARTMENT OF EDUCATION
8803-9117-078	1	200312	J	351	351	116,400	33	\$ 14,314	DOE	SOH DEPARTMENT OF EDUCATION
TOTAL						1,171,920		\$ 153,985		
8806-1340-077	1	200301	J3	563	563	110,400	30	\$ 15,228	DOE	SOH DEPARTMENT OF EDUCATION
8806-1340-077	1	200302	J3	534	534	138,000	29	\$ 17,852	DOE	SOH DEPARTMENT OF EDUCATION
8806-1340-077	1	200303	J3	547	547	154,800	32	\$ 19,937	DOE	SOH DEPARTMENT OF EDUCATION
8806-1340-077	1	200304	J3	557	557	127,200	29	\$ 17,567	DOE	SOH DEPARTMENT OF EDUCATION
8806-1340-077	1	200305	J3	568	568	156,000	30	\$ 20,787	DOE	SOH DEPARTMENT OF EDUCATION
8806-1340-077	1	200306	J3	607	607	160,800	32	\$ 21,595	DOE	SOH DEPARTMENT OF EDUCATION
8806-1340-077	1	200307	J3	455	408	81,600	30	\$ 11,866	DOE	SOH DEPARTMENT OF EDUCATION
8806-1340-077	1	200308	J3	539	539	105,600	29	\$ 14,690	DOE	SOH DEPARTMENT OF EDUCATION
8806-1340-077	1	200309	J3	605	605	175,200	33	\$ 21,810	DOE	SOH DEPARTMENT OF EDUCATION
8806-1340-077	1	200310	J3	600	600	156,000	29	\$ 19,741	DOE	SOH DEPARTMENT OF EDUCATION
8806-1340-077	1	200311	J3	710	710	152,400	30	\$ 20,141	DOE	SOH DEPARTMENT OF EDUCATION
8806-1340-077	1	200312	J3	586	586	147,600	32	\$ 18,789	DOE	SOH DEPARTMENT OF EDUCATION
TOTAL						1,665,600		\$ 220,004		
8806-3539-079	1	200301	J	85	85	3,920	30	\$ 987	DOE	SOH DEPARTMENT OF EDUCATION
8806-3539-079	1	200302	J	92	92	5,680	29	\$ 1,226	DOE	SOH DEPARTMENT OF EDUCATION
8806-3539-079	1	200303	J	93	93	6,000	32	\$ 1,284	DOE	SOH DEPARTMENT OF EDUCATION
8806-3539-079	1	200304	J	96	96	4,480	29	\$ 1,138	DOE	SOH DEPARTMENT OF EDUCATION
8806-3539-079	1	200305	J	90	90	5,680	30	\$ 1,250	DOE	SOH DEPARTMENT OF EDUCATION
8806-3539-079	1	200306	J	88	88	5,680	32	\$ 1,237	DOE	SOH DEPARTMENT OF EDUCATION
8806-3539-079	1	200307	J	81	34	3,040	29	\$ 875	DOE	SOH DEPARTMENT OF EDUCATION
8806-3539-079	1	200308	J	90	90	3,760	30	\$ 996	DOE	SOH DEPARTMENT OF EDUCATION
8806-3539-079	1	200309	J	90	90	6,080	32	\$ 1,250	DOE	SOH DEPARTMENT OF EDUCATION

TABLE: STATE LARGE FACILITIES IN OAHU ELECTRICITY BILL HISTORY FOR YEAR 2003 (PROVIDED BY HECO)

ACCTNUM	TARCODE	REVPER	RATESCH	BILLDMD	KW	KWH	NBRDAYS	TOTAMT	DEPARTMENT	NAME
8806-3539-079	1	200310	J	102	102	5,760	30	\$ 1,276	DOE	SOH DEPARTMENT OF EDUCATION
8806-3539-079	1	200311	J	89	88	5,760	30	\$ 1,194	DOE	SOH DEPARTMENT OF EDUCATION
8806-3539-079	1	200312	J	77	74	5,360	32	\$ 1,086	DOE	SOH DEPARTMENT OF EDUCATION
			TOTAL			61,200		\$ 13,798		
8809-2020-077	1	200301	J3	370	370	94,400	32	\$ 12,223	DOE	SOH DEPARTMENT OF EDUCATION
8809-2020-077	1	200302	J3	375	375	101,600	29	\$ 13,064	DOE	SOH DEPARTMENT OF EDUCATION
8809-2020-077	1	200303	J3	386	386	110,400	31	\$ 14,279	DOE	SOH DEPARTMENT OF EDUCATION
8809-2020-077	1	200304	J3	397	397	98,800	31	\$ 13,417	DOE	SOH DEPARTMENT OF EDUCATION
8809-2020-077	1	200305	J3	407	407	113,400	30	\$ 15,120	DOE	SOH DEPARTMENT OF EDUCATION
8809-2020-077	1	200306	J3	409	409	116,400	31	\$ 15,405	DOE	SOH DEPARTMENT OF EDUCATION
8809-2020-077	1	200307	J3	307	240	84,600	30	\$ 11,063	DOE	SOH DEPARTMENT OF EDUCATION
8809-2020-077	1	200308	J3	307	250	81,000	30	\$ 10,478	DOE	SOH DEPARTMENT OF EDUCATION
8809-2020-077	1	200309	J3	409	409	121,800	30	\$ 15,109	DOE	SOH DEPARTMENT OF EDUCATION
8809-2020-077	1	200310	J3	422	422	142,200	32	\$ 17,035	DOE	SOH DEPARTMENT OF EDUCATION
8809-2020-077	1	200311	J3	415	415	136,800	31	\$ 16,400	DOE	SOH DEPARTMENT OF EDUCATION
8809-2020-077	1	200312	J3	415	415	114,000	29	\$ 14,285	DOE	SOH DEPARTMENT OF EDUCATION
			TOTAL			1,315,400		\$ 167,877		
8809-6595-077	1	200301	J	370	370	83,840	33	\$ 11,434	DOE	SOH DEPARTMENT OF EDUCATION
8809-6595-077	1	200302	J	370	370	94,960	30	\$ 12,606	DOE	SOH DEPARTMENT OF EDUCATION
8809-6595-077	1	200303	J	366	366	104,560	32	\$ 13,799	DOE	SOH DEPARTMENT OF EDUCATION
8809-6595-077	1	200304	J	378	378	89,280	29	\$ 12,514	DOE	SOH DEPARTMENT OF EDUCATION
8809-6595-077	1	200305	J	385	385	93,520	29	\$ 13,096	DOE	SOH DEPARTMENT OF EDUCATION
8809-6595-077	1	200306	J	390	390	100,240	33	\$ 13,829	DOE	SOH DEPARTMENT OF EDUCATION
8809-6595-077	1	200307	J	292	201	64,560	29	\$ 9,111	DOE	SOH DEPARTMENT OF EDUCATION
8809-6595-077	1	200308	J	292	212	58,400	29	\$ 8,317	DOE	SOH DEPARTMENT OF EDUCATION
8809-6595-077	1	200309	J	384	384	102,240	33	\$ 13,244	DOE	SOH DEPARTMENT OF EDUCATION
8809-6595-077	1	200310	J	393	393	105,440	29	\$ 13,512	DOE	SOH DEPARTMENT OF EDUCATION
8809-6595-077	1	200311	J	387	387	112,480	31	\$ 14,092	DOE	SOH DEPARTMENT OF EDUCATION
8809-6595-077	1	200312	J	379	379	96,320	31	\$ 12,552	DOE	SOH DEPARTMENT OF EDUCATION
			TOTAL			1,105,840		\$ 148,107		
8811-3369-078	1	200301	J3	484	484	112,800	31	\$ 15,148	DOE	SOH DEPARTMENT OF EDUCATION
8811-3369-078	1	200302	J3	457	457	122,400	29	\$ 15,991	DOE	SOH DEPARTMENT OF EDUCATION
8811-3369-078	1	200303	J3	457	457	135,600	32	\$ 17,660	DOE	SOH DEPARTMENT OF EDUCATION
8811-3369-078	1	200304	J3	467	467	115,200	29	\$ 15,892	DOE	SOH DEPARTMENT OF EDUCATION
8811-3369-078	1	200305	J3	464	464	123,600	30	\$ 16,864	DOE	SOH DEPARTMENT OF EDUCATION
8811-3369-078	1	200306	J3	464	464	129,600	32	\$ 17,422	DOE	SOH DEPARTMENT OF EDUCATION
8811-3369-078	1	200307	J3	420	420	105,600	29	\$ 14,219	DOE	SOH DEPARTMENT OF EDUCATION
8811-3369-078	1	200308	J3	439	439	100,800	33	\$ 13,658	DOE	SOH DEPARTMENT OF EDUCATION
8811-3369-078	1	200309	J3	473	473	127,200	29	\$ 16,274	DOE	SOH DEPARTMENT OF EDUCATION
8811-3369-078	1	200310	J3	487	487	148,800	30	\$ 18,333	DOE	SOH DEPARTMENT OF EDUCATION
8811-3369-078	1	200312	J3	479	479	265,200	61	\$ 33,466	DOE	SOH DEPARTMENT OF EDUCATION
			TOTAL			1,486,800		\$ 194,926		
8812-7930-077	1	200301	J	138	138	37,680	30	\$ 4,941	DOE	SOH DEPARTMENT OF EDUCATION
8812-7930-077	1	200302	J	149	149	51,200	32	\$ 6,446	DOE	SOH DEPARTMENT OF EDUCATION
8812-7930-077	1	200303	J	141	141	47,760	29	\$ 6,169	DOE	SOH DEPARTMENT OF EDUCATION
8812-7930-077	1	200304	J	139	138	41,120	29	\$ 5,526	DOE	SOH DEPARTMENT OF EDUCATION
8812-7930-077	1	200305	J	140	140	49,440	32	\$ 6,465	DOE	SOH DEPARTMENT OF EDUCATION
8812-7930-077	1	200306	J	143	143	46,400	31	\$ 6,121	DOE	SOH DEPARTMENT OF EDUCATION
8812-7930-077	1	200307	J	125	113	41,200	29	\$ 5,289	DOE	SOH DEPARTMENT OF EDUCATION
8812-7930-077	1	200308	J	147	147	47,280	33	\$ 5,973	DOE	SOH DEPARTMENT OF EDUCATION
8812-7930-077	1	200309	J	149	149	49,600	29	\$ 6,166	DOE	SOH DEPARTMENT OF EDUCATION
8812-7930-077	1	200310	J	142	142	50,560	32	\$ 6,150	DOE	SOH DEPARTMENT OF EDUCATION
8812-7930-077	1	200311	J	143	143	49,920	30	\$ 6,084	DOE	SOH DEPARTMENT OF EDUCATION
8812-7930-077	1	200312	J	146	146	45,600	29	\$ 5,723	DOE	SOH DEPARTMENT OF EDUCATION
			TOTAL			557,760		\$ 71,053		
8814-6868-077	1	200301	J3	546	546	158,000	32	\$ 19,969	DOE	SOH DEPARTMENT OF EDUCATION
8814-6868-077	1	200302	J3	578	578	185,200	31	\$ 23,076	DOE	SOH DEPARTMENT OF EDUCATION
8814-6868-077	1	200303	J3	566	566	184,400	29	\$ 23,425	DOE	SOH DEPARTMENT OF EDUCATION
8814-6868-077	1	200304	J3	562	562	177,200	32	\$ 22,958	DOE	SOH DEPARTMENT OF EDUCATION
8814-6868-077	1	200305	J3	565	565	179,200	29	\$ 23,372	DOE	SOH DEPARTMENT OF EDUCATION
8814-6868-077	1	200306	J3	562	562	170,000	30	\$ 22,203	DOE	SOH DEPARTMENT OF EDUCATION
8814-6868-077	1	200307	J3	445	408	141,200	31	\$ 17,815	DOE	SOH DEPARTMENT OF EDUCATION
8814-6868-077	1	200308	J3	454	454	136,400	31	\$ 17,107	DOE	SOH DEPARTMENT OF EDUCATION
8814-6868-077	1	200309	J3	592	592	169,200	29	\$ 21,163	DOE	SOH DEPARTMENT OF EDUCATION
8814-6868-077	1	200310	J3	588	588	191,600	32	\$ 23,124	DOE	SOH DEPARTMENT OF EDUCATION
8814-6868-077	1	200311	J3	591	591	180,000	30	\$ 21,982	DOE	SOH DEPARTMENT OF EDUCATION
8814-6868-077	1	200312	J3	577	577	162,400	29	\$ 20,337	DOE	SOH DEPARTMENT OF EDUCATION
			TOTAL			2,034,800		\$ 256,532		
8818-8260-078	1	200301	J	352	352	76,800	30	\$ 10,540	DOE	SOH DEPARTMENT OF EDUCATION
8818-8260-078	1	200302	J	377	377	100,800	30	\$ 13,237	DOE	SOH DEPARTMENT OF EDUCATION
8818-8260-078	1	200303	J	382	382	105,600	31	\$ 14,069	DOE	SOH DEPARTMENT OF EDUCATION
8818-8260-078	1	200304	J	389	389	96,600	30	\$ 13,347	DOE	SOH DEPARTMENT OF EDUCATION
8818-8260-078	1	200305	J	394	394	102,600	29	\$ 14,106	DOE	SOH DEPARTMENT OF EDUCATION
8818-8260-078	1	200306	J	397	397	98,400	32	\$ 13,580	DOE	SOH DEPARTMENT OF EDUCATION
8818-8260-078	1	200307	J	300	244	70,200	30	\$ 9,595	DOE	SOH DEPARTMENT OF EDUCATION
8818-8260-078	1	200308	J	319	319	66,600	30	\$ 9,252	DOE	SOH DEPARTMENT OF EDUCATION
8818-8260-078	1	200309	J	408	408	117,600	32	\$ 14,847	DOE	SOH DEPARTMENT OF EDUCATION
8818-8260-078	1	200310	J	414	414	122,400	30	\$ 15,232	DOE	SOH DEPARTMENT OF EDUCATION
8818-8260-078	1	200311	J	410	410	109,200	29	\$ 13,900	DOE	SOH DEPARTMENT OF EDUCATION
8818-8260-078	1	200312	J	379	379	103,200	32	\$ 13,182	DOE	SOH DEPARTMENT OF EDUCATION
			TOTAL			1,170,000		\$ 154,886		
8819-7510-077	1	200301	J	650	650	149,600	30	\$ 20,316	DOE	SOH DEPARTMENT OF EDUCATION
8819-7510-077	1	200302	J	679	679	196,000	33	\$ 25,404	DOE	SOH DEPARTMENT OF EDUCATION
8819-7510-077	1	200303	J	688	688	174,800	29	\$ 23,875	DOE	SOH DEPARTMENT OF EDUCATION
8819-7510-077	1	200304	J	752	752	199,200	30	\$ 27,224	DOE	SOH DEPARTMENT OF EDUCATION
8819-7510-077	1	200305	J	728	728	207,600	28	\$ 28,098	DOE	SOH DEPARTMENT OF EDUCATION
8819-7510-077	1	200306	J	753	753	194,000	32	\$ 26,625	DOE	SOH DEPARTMENT OF EDUCATION
8819-7510-077	1	200307	J	628	453	157,200	30	\$ 21,168	DOE	SOH DEPARTMENT OF EDUCATION
8819-7510-077	1	200308	J	732	732	237,200	33	\$ 29,608	DOE	SOH DEPARTMENT OF EDUCATION
8819-7510-077	1	200309	J	772	772	218,000	29	\$ 27,747	DOE	SOH DEPARTMENT OF EDUCATION
8819-7510-077	1	200310	J	798	798	225,600	31	\$ 28,500	DOE	SOH DEPARTMENT OF EDUCATION
8819-7510-077	1	200311	J	732	732	208,000	30	\$ 26,206	DOE	SOH DEPARTMENT OF EDUCATION
8819-7510-077	1	200312	J	732	732	177,200	28	\$ 23,379	DOE	SOH DEPARTMENT OF EDUCATION
			TOTAL			2,344,400		\$ 308,149		
8821-9443-077	1	200301	J	397	-	-	15	\$ 1,171	DOE	SOH DEPARTMENT OF EDUCATION CLOSED
8822-5334-078	1	200301	J	515	515	128,400	29	\$ 17,059	DOE	SOH DEPARTMENT OF EDUCATION
8822-5334-078	1	200302	J	511	511	157,840	31	\$ 20,151	DOE	SOH DEPARTMENT OF EDUCATION
8822-5334-078	1	200303	J	542	542	142,560	31	\$ 19,374	DOE	SOH DEPARTMENT OF EDUCATION
8822-5334-078	1	200304	J	543	543	150,880	29	\$ 20,384	DOE	SOH DEPARTMENT OF EDUCATION
8822-5334-078	1	200305	J	550	550	161,520	30	\$ 21,716	DOE	SOH DEPARTMENT OF EDUCATION
8822-5334-078	1	200306	J	455	455	120,560	32	\$ 16,418	DOE	SOH DEPARTMENT OF EDUCATION
8822-5334-078	1	200307	J	421	323	107,680	29	\$ 14,322	DOE	SOH DEPARTMENT OF EDUCATION
8822-5334-078	1	200308	J	546	546	167,920	31	\$ 21,077	DOE	SOH DEPARTMENT OF EDUCATION
8822-5334-078	1	200309	J	569	569	174,160	31	\$ 21,691	DOE	SOH DEPARTMENT OF EDUCATION
8822-5334-078	1	200310	J	566	566	168,480	30	\$ 20,948	DOE	SOH DEPARTMENT OF EDUCATION
8822-5334-078	1	200312	J	544	544	282,080	62	\$ 36,468	DOE	SOH DEPARTMENT OF EDUCATION
			TOTAL			1,762,080		\$ 229,608		
9600-2562-003	1	200301	J	423	413	118,320	32	\$ 15,265	DOE	SOH DEPARTMENT OF EDUCATION
9600-2562-003	1	200302	J	425	425	111,360	28	\$ 14,693	DOE	SOH DEPARTMENT OF EDUCATION
9600-2562-003	1	200303	J	487	487	130,080	33	\$ 17,320	DOE	SOH DEPARTMENT OF EDUCATION
9600-2562-003	1	200304	J	559	559	125,280	29	\$ 17,768	DOE	SOH DEPARTMENT OF EDUCATION
9600-2562-003	1	200305	J	557	557	128,880	29	\$ 18,259	DOE	SOH DEPARTMENT OF EDUCATION

TABLE: STATE LARGE FACILITIES IN OAHU ELECTRICITY BILL HISTORY FOR YEAR 2003 (PROVIDED BY HECO)

ACCTNUM	TARCODE	REVPER	RATESCH	BILLDMD	KW	KWH	NBRDAYS	TOTAMT	DEPARTMENT	NAME
9600-2562-003	1	200306	J	569	569	145,920	32	\$ 20,269	DOE	SOH DEPARTMENT OF EDUCATION
9600-2562-003	1	200307	J	552	552	145,440	29	\$ 19,741	DOE	SOH DEPARTMENT OF EDUCATION
9600-2562-003	1	200308	J	636	636	150,960	30	\$ 20,400	DOE	SOH DEPARTMENT OF EDUCATION
9600-2562-003	1	200309	J	583	583	161,760	33	\$ 20,837	DOE	SOH DEPARTMENT OF EDUCATION
9600-2562-003	1	200310	J	478	478	149,280	30	\$ 18,602	DOE	SOH DEPARTMENT OF EDUCATION
9600-2562-003	1	200311	J	477	473	152,160	31	\$ 18,775	DOE	SOH DEPARTMENT OF EDUCATION
9600-2562-003	1	200312	J	477	458	132,720	31	\$ 16,903	DOE	SOH DEPARTMENT OF EDUCATION
		TOTAL				1,652,160		\$ 218,834		
9800-2018-003	1	200301	J	627	627	124,800	32	\$ 17,699	DOE	SOH DEPARTMENT OF EDUCATION
9800-2018-003	1	200302	J	680	680	141,200	29	\$ 19,886	DOE	SOH DEPARTMENT OF EDUCATION
9800-2018-003	1	200303	J	598	598	170,800	30	\$ 22,536	DOE	SOH DEPARTMENT OF EDUCATION
9800-2018-003	1	200304	J	672	672	174,000	31	\$ 23,942	DOE	SOH DEPARTMENT OF EDUCATION
9800-2018-003	1	200305	J	678	678	180,400	30	\$ 24,845	DOE	SOH DEPARTMENT OF EDUCATION
9800-2018-003	1	200306	J	668	668	184,000	30	\$ 25,200	DOE	SOH DEPARTMENT OF EDUCATION
9800-2018-003	1	200307	J	699	699	194,800	32	\$ 26,077	DOE	SOH DEPARTMENT OF EDUCATION
9800-2018-003	1	200308	J	754	754	209,600	29	\$ 27,323	DOE	SOH DEPARTMENT OF EDUCATION
9800-2018-003	1	200309	J	766	766	224,000	33	\$ 28,576	DOE	SOH DEPARTMENT OF EDUCATION
9800-2018-003	1	200310	J	719	719	206,800	29	\$ 26,245	DOE	SOH DEPARTMENT OF EDUCATION
9800-2018-003	1	200311	J	724	724	209,600	30	\$ 26,440	DOE	SOH DEPARTMENT OF EDUCATION
9800-2018-003	1	200312	J	736	736	194,400	32	\$ 25,142	DOE	SOH DEPARTMENT OF EDUCATION
		TOTAL				2,214,400		\$ 293,910		
9900-0148-003	1	200301	J	535	535	123,360	31	\$ 16,837	DOE	SOH DEPARTMENT OF EDUCATION
9900-0148-003	1	200302	J	514	514	124,080	30	\$ 16,872	DOE	SOH DEPARTMENT OF EDUCATION
9900-0148-003	1	200303	J	504	504	131,280	30	\$ 17,737	DOE	SOH DEPARTMENT OF EDUCATION
9900-0148-003	1	200304	J	547	547	140,400	29	\$ 19,399	DOE	SOH DEPARTMENT OF EDUCATION
9900-0148-003	1	200305	J	535	535	151,680	32	\$ 20,677	DOE	SOH DEPARTMENT OF EDUCATION
9900-0148-003	1	200306	J	547	546	147,360	30	\$ 20,371	DOE	SOH DEPARTMENT OF EDUCATION
9900-0148-003	1	200307	J	563	563	137,520	29	\$ 19,132	DOE	SOH DEPARTMENT OF EDUCATION
9900-0148-003	1	200308	J	559	558	162,000	32	\$ 21,053	DOE	SOH DEPARTMENT OF EDUCATION
9900-0148-003	1	200309	J	590	590	168,000	31	\$ 21,642	DOE	SOH DEPARTMENT OF EDUCATION
9900-0148-003	1	200310	J	541	540	163,680	29	\$ 20,641	DOE	SOH DEPARTMENT OF EDUCATION
9900-0148-003	1	200311	J	589	589	169,200	32	\$ 21,443	DOE	SOH DEPARTMENT OF EDUCATION
9900-0148-003	1	200312	J	636	636	169,920	30	\$ 21,949	DOE	SOH DEPARTMENT OF EDUCATION
		TOTAL				1,788,480		\$ 237,752		
8800-6352-076	1	200301	PP3	1,900	1,640	1,080,000	31	\$ 113,634	DOT-Airport Division	SOH DOT AIRPORT
8800-6352-076	1	200302	PP3	1,920	1,680	1,000,000	28	\$ 108,255	DOT-Airport Division	SOH DOT AIRPORT
8800-6352-076	1	200303	PP3	1,920	1,680	1,164,000	33	\$ 124,165	DOT-Airport Division	SOH DOT AIRPORT
8800-6352-076	1	200304	PP3	1,880	1,600	960,000	29	\$ 108,830	DOT-Airport Division	SOH DOT AIRPORT
8800-6352-076	1	200305	PP3	2,060	1,960	960,000	29	\$ 112,046	DOT-Airport Division	SOH DOT AIRPORT
8800-6352-076	1	200306	PP3	1,880	1,600	1,060,000	32	\$ 119,531	DOT-Airport Division	SOH DOT AIRPORT
8800-6352-076	1	200307	PP3	1,900	1,640	1,068,000	31	\$ 118,150	DOT-Airport Division	SOH DOT AIRPORT
8800-6352-076	1	200308	PP3	1,900	1,640	976,000	28	\$ 106,386	DOT-Airport Division	SOH DOT AIRPORT
8800-6352-076	1	200309	PP3	1,920	1,680	1,188,000	33	\$ 123,131	DOT-Airport Division	SOH DOT AIRPORT
8800-6352-076	1	200310	PP3	1,840	1,720	1,040,000	29	\$ 108,695	DOT-Airport Division	SOH DOT AIRPORT
8800-6352-076	1	200311	PP3	1,820	1,680	1,068,000	29	\$ 109,881	DOT-Airport Division	SOH DOT AIRPORT
8800-6352-076	1	200312	PP3	1,780	1,600	1,176,000	33	\$ 118,487	DOT-Airport Division	SOH DOT AIRPORT
		TOTAL				12,740,000		\$ 1,371,190		
8800-6353-076	1	200303	PP3	650	624	1,025,000	92	\$ 111,454	DOT-Airport Division	SOH DOT AIRPORT
8800-6353-076	1	200304	PP3	616	580	341,000	29	\$ 38,275	DOT-Airport Division	SOH DOT AIRPORT
8800-6353-076	1	200305	PP3	612	572	331,000	29	\$ 37,673	DOT-Airport Division	SOH DOT AIRPORT
8800-6353-076	1	200306	PP3	600	548	362,000	32	\$ 40,578	DOT-Airport Division	SOH DOT AIRPORT
8800-6353-076	1	200307	PP3	600	548	355,000	31	\$ 39,111	DOT-Airport Division	SOH DOT AIRPORT
8800-6353-076	1	200308	PP3	610	568	325,000	28	\$ 35,388	DOT-Airport Division	SOH DOT AIRPORT
8800-6353-076	1	200309	PP3	612	572	387,000	33	\$ 40,124	DOT-Airport Division	SOH DOT AIRPORT
8800-6353-076	1	200310	PP3	610	588	341,000	29	\$ 35,899	DOT-Airport Division	SOH DOT AIRPORT
8800-6353-076	1	200311	PP3	602	580	345,000	29	\$ 35,837	DOT-Airport Division	SOH DOT AIRPORT
8800-6353-076	1	200312	PP3	600	576	378,000	33	\$ 38,559	DOT-Airport Division	SOH DOT AIRPORT
		TOTAL				4,190,000		\$ 452,899		
8800-6356-075	1	200301	J3	164	164	91,200	31	\$ 10,045	DOT-Airport Division	SOH DOT AIRPORT
8800-6356-075	1	200302	J3	192	192	105,600	28	\$ 11,757	DOT-Airport Division	SOH DOT AIRPORT
8800-6356-075	1	200303	J3	191	191	104,400	33	\$ 11,814	DOT-Airport Division	SOH DOT AIRPORT
8800-6356-075	1	200304	J3	199	199	115,200	29	\$ 13,238	DOT-Airport Division	SOH DOT AIRPORT
8800-6356-075	1	200305	J3	194	194	98,400	29	\$ 11,705	DOT-Airport Division	SOH DOT AIRPORT
8800-6356-075	1	200306	J3	192	192	121,200	32	\$ 13,925	DOT-Airport Division	SOH DOT AIRPORT
8800-6356-075	1	200307	J3	190	190	100,800	31	\$ 11,711	DOT-Airport Division	SOH DOT AIRPORT
8800-6356-075	1	200308	J3	192	192	91,200	28	\$ 10,511	DOT-Airport Division	SOH DOT AIRPORT
8800-6356-075	1	200309	J3	188	188	100,800	33	\$ 11,182	DOT-Airport Division	SOH DOT AIRPORT
8800-6356-075	1	200310	J3	191	191	106,800	29	\$ 11,626	DOT-Airport Division	SOH DOT AIRPORT
8800-6356-075	1	200311	J3	154	154	86,400	29	\$ 9,334	DOT-Airport Division	SOH DOT AIRPORT
8800-6356-075	1	200312	J3	188	188	118,800	33	\$ 12,559	DOT-Airport Division	SOH DOT AIRPORT
		TOTAL				1,240,800		\$ 139,407		
8800-6357-075	1	200301	J4	238	238	138,960	31	\$ 15,105	DOT-Airport Division	SOH DOT AIRPORT
8800-6357-075	1	200302	J4	234	234	131,280	28	\$ 14,518	DOT-Airport Division	SOH DOT AIRPORT
8800-6357-075	1	200303	J4	230	230	166,000	33	\$ 17,842	DOT-Airport Division	SOH DOT AIRPORT
8800-6357-075	1	200304	J4	227	227	147,280	29	\$ 16,555	DOT-Airport Division	SOH DOT AIRPORT
8800-6357-075	1	200305	J4	222	222	143,280	29	\$ 16,269	DOT-Airport Division	SOH DOT AIRPORT
8800-6357-075	1	200306	J4	216	216	128,320	32	\$ 14,881	DOT-Airport Division	SOH DOT AIRPORT
8800-6357-075	1	200307	J4	215	215	123,120	31	\$ 14,095	DOT-Airport Division	SOH DOT AIRPORT
8800-6357-075	1	200308	J4	209	209	104,800	28	\$ 11,928	DOT-Airport Division	SOH DOT AIRPORT
8800-6357-075	1	200309	J4	206	206	123,520	33	\$ 13,390	DOT-Airport Division	SOH DOT AIRPORT
8800-6357-075	1	200310	J4	207	207	115,440	29	\$ 12,563	DOT-Airport Division	SOH DOT AIRPORT
8800-6357-075	1	200311	J4	208	208	113,360	29	\$ 12,294	DOT-Airport Division	SOH DOT AIRPORT
8800-6357-075	1	200312	J4	203	203	125,920	33	\$ 13,339	DOT-Airport Division	SOH DOT AIRPORT
		TOTAL				1,561,280		\$ 172,780		
8800-6358-076	1	200301	PP3	1,636	1,610	1,068,000	31	\$ 109,359	DOT-Airport Division	SOH DOT AIRPORT
8800-6358-076	1	200302	PP3	1,628	1,596	960,000	28	\$ 101,313	DOT-Airport Division	SOH DOT AIRPORT
8800-6358-076	1	200303	PP3	1,645	1,630	1,068,000	33	\$ 112,464	DOT-Airport Division	SOH DOT AIRPORT
8800-6358-076	1	200304	PP3	1,537	1,414	871,200	29	\$ 96,795	DOT-Airport Division	SOH DOT AIRPORT
8800-6358-076	1	200305	PP3	1,649	1,637	974,400	29	\$ 108,309	DOT-Airport Division	SOH DOT AIRPORT
8800-6358-076	1	200306	PP3	1,652	1,644	1,132,800	32	\$ 123,551	DOT-Airport Division	SOH DOT AIRPORT
8800-6358-076	1	200307	PP3	1,670	1,670	1,065,600	31	\$ 115,136	DOT-Airport Division	SOH DOT AIRPORT
8800-6358-076	1	200308	PP3	1,669	1,668	991,200	28	\$ 104,883	DOT-Airport Division	SOH DOT AIRPORT
8800-6358-076	1	200309	PP3	1,692	1,692	1,176,000	33	\$ 119,241	DOT-Airport Division	SOH DOT AIRPORT
8800-6358-076	1	200310	PP3	1,673	1,654	1,032,000	29	\$ 105,857	DOT-Airport Division	SOH DOT AIRPORT
8800-6358-076	1	200311	PP3	1,662	1,632	1,020,000	29	\$ 103,869	DOT-Airport Division	SOH DOT AIRPORT
8800-6358-076	1	200312	PP3	1,663	1,634	1,154,400	33	\$ 115,064	DOT-Airport Division	SOH DOT AIRPORT
		TOTAL				12,513,600		\$ 1,315,839		
8800-6359-076	1	200301	PP3	930	924	633,000	31	\$ 64,650	DOT-Airport Division	SOH DOT AIRPORT
8800-6359-076	1	200302	PP3	930	924	564,000	28	\$ 59,552	DOT-Airport Division	SOH DOT AIRPORT
8800-6359-076	1	200303	PP3	936	936	681,000	33	\$ 70,646	DOT-Airport Division	SOH DOT AIRPORT
8800-6359-076	1	200304	PP3	930	924	582,000	29	\$ 63,802	DOT-Airport Division	SOH DOT AIRPORT
8800-6359-076	1	200305	PP3	930	924	591,000	29	\$ 65,206	DOT-Airport Division	SOH DOT AIRPORT
8800-6359-076	1	200306	PP3	930	924	660,000	32	\$ 71,963	DOT-Airport Division	SOH DOT AIRPORT
8800-6359-076	1	200307	PP3	918	900	624,000	31	\$ 67,077	DOT-Airport Division	SOH DOT AIRPORT
8800-6359-076	1	200308	PP3	930	924	561,000	28	\$ 59,658	DOT-Airport Division	SOH DOT AIRPORT
8800-6359-076	1	200309	PP3	936	936	681,000	33	\$ 68,974	DOT-Airport Division	SOH DOT AIRPORT
8800-6359-076	1	200310	PP3	930	924	594,000	29	\$ 60,918	DOT-Airport Division	SOH DOT AIRPORT
8800-6359-076	1	200311	PP3	936	936	594,000	29	\$ 60,432	DOT-Airport Division	SOH DOT AIRPORT
8800-6359-076	1	200312	PP3	912	888	636,000	33	\$ 63,631	DOT-Airport Division	SOH DOT AIRPORT
		TOTAL				7,401,000		\$ 776,509		



TABLE: STATE LARGE FACILITIES IN OAHU ELECTRICITY BILL HISTORY FOR YEAR 2003 (PROVIDED BY HECO)

ACCTNUM	TARCODE	REVPER	RATESCH	BILLDMD	KW	KWH	NBRDAYS	TOTAMT	DEPARTMENT	NAME
8800-6360-075	1	200304	PP3	1,062	1,008	573,000	29	\$ 64,208	DOT-Airport Division	SOH DOT AIRPORT
8800-6360-075	1	200305	PP3	1,050	984	567,000	29	\$ 64,153	DOT-Airport Division	SOH DOT AIRPORT
8800-6360-075	1	200306	PP3	1,074	1,032	648,000	32	\$ 72,192	DOT-Airport Division	SOH DOT AIRPORT
8800-6360-075	1	200307	PP3	1,086	1,056	648,000	31	\$ 70,817	DOT-Airport Division	SOH DOT AIRPORT
8800-6360-075	1	200308	PP3	1,098	1,080	609,000	28	\$ 65,282	DOT-Airport Division	SOH DOT AIRPORT
8800-6360-075	1	200309	PP3	1,104	1,104	714,000	33	\$ 73,256	DOT-Airport Division	SOH DOT AIRPORT
8800-6360-075	1	200310	PP3	1,284	1,284	639,000	29	\$ 68,458	DOT-Airport Division	SOH DOT AIRPORT
8800-6360-075	1	200311	PP3	1,194	1,104	642,000	29	\$ 67,084	DOT-Airport Division	SOH DOT AIRPORT
8800-6360-075	1	200312	PP3	1,164	1,044	699,000	33	\$ 71,421	DOT-Airport Division	SOH DOT AIRPORT
		TOTAL				7,491,000		\$ 804,319		
8800-6364-076	1	200301	PP3	958	907	480,000	31	\$ 52,074	DOT-Airport Division	SOH DOT AIRPORT
8800-6364-076	1	200302	PP3	938	869	434,400	28	\$ 48,521	DOT-Airport Division	SOH DOT AIRPORT
8800-6364-076	1	200303	PP3	989	970	514,800	33	\$ 56,796	DOT-Airport Division	SOH DOT AIRPORT
8800-6364-076	1	200304	PP3	1,027	1,027	475,200	29	\$ 55,299	DOT-Airport Division	SOH DOT AIRPORT
8800-6364-076	1	200305	PP3	1,020	1,013	477,600	29	\$ 55,912	DOT-Airport Division	SOH DOT AIRPORT
8800-6364-076	1	200306	PP3	1,061	1,061	522,000	32	\$ 60,787	DOT-Airport Division	SOH DOT AIRPORT
8800-6364-076	1	200307	PP3	1,044	1,027	507,600	31	\$ 58,079	DOT-Airport Division	SOH DOT AIRPORT
8800-6364-076	1	200308	PP3	1,025	989	451,200	28	\$ 51,196	DOT-Airport Division	SOH DOT AIRPORT
8800-6364-076	1	200309	PP3	1,039	1,018	538,800	33	\$ 58,047	DOT-Airport Division	SOH DOT AIRPORT
8800-6364-076	1	200310	PP3	1,027	994	463,200	29	\$ 51,085	DOT-Airport Division	SOH DOT AIRPORT
8800-6364-076	1	200311	PP3	1,042	1,022	470,400	29	\$ 51,448	DOT-Airport Division	SOH DOT AIRPORT
8800-6364-076	1	200312	PP3	1,032	1,003	524,400	33	\$ 55,825	DOT-Airport Division	SOH DOT AIRPORT
		TOTAL				5,859,600		\$ 655,070		
8800-6365-075	1	200301	PP3	2,280	2,100	1,272,000	31	\$ 134,149	DOT-Airport Division	SOH DOT AIRPORT
8800-6365-075	1	200302	PP3	2,400	2,340	1,110,000	28	\$ 123,112	DOT-Airport Division	SOH DOT AIRPORT
8800-6365-075	1	200303	PP3	2,310	2,160	1,254,000	33	\$ 136,494	DOT-Airport Division	SOH DOT AIRPORT
8800-6365-075	1	200304	PP3	2,340	2,220	1,326,000	29	\$ 146,808	DOT-Airport Division	SOH DOT AIRPORT
8800-6365-075	1	200306	PP3	2,367	2,274	2,790,000	61	\$ 310,564	DOT-Airport Division	SOH DOT AIRPORT
8800-6365-075	1	200307	PP3	2,352	2,244	1,470,000	31	\$ 159,052	DOT-Airport Division	SOH DOT AIRPORT
8800-6365-075	1	200308	PP3	2,313	2,286	1,338,000	28	\$ 141,962	DOT-Airport Division	SOH DOT AIRPORT
8800-6365-075	1	200309	PP3	2,514	2,514	1,680,000	33	\$ 171,065	DOT-Airport Division	SOH DOT AIRPORT
8800-6365-075	1	200310	PP3	2,544	2,544	1,470,000	29	\$ 152,056	DOT-Airport Division	SOH DOT AIRPORT
8800-6365-075	1	200311	PP3	2,523	2,502	1,452,000	29	\$ 149,199	DOT-Airport Division	SOH DOT AIRPORT
8800-6365-075	1	200312	PP3	2,514	2,484	1,566,000	33	\$ 158,821	DOT-Airport Division	SOH DOT AIRPORT
		TOTAL				16,728,000		\$ 1,783,282		
9201-0482-002	1	200301	PP3	1,996	1,622	952,800	31	\$ 104,277	DOT-Airport Division	SOH DOT AIRPORT
9201-0482-002	1	200302	PP3	1,976	1,584	804,000	28	\$ 92,525	DOT-Airport Division	SOH DOT AIRPORT
9201-0482-002	1	200303	PP3	1,934	1,500	967,200	33	\$ 107,602	DOT-Airport Division	SOH DOT AIRPORT
9201-0482-002	1	200304	PP3	1,974	1,579	955,200	29	\$ 109,766	DOT-Airport Division	SOH DOT AIRPORT
9201-0482-002	1	200305	PP3	1,986	1,603	900,000	29	\$ 105,857	DOT-Airport Division	SOH DOT AIRPORT
9201-0482-002	1	200306	PP3	1,960	1,550	1,065,600	32	\$ 121,363	DOT-Airport Division	SOH DOT AIRPORT
9201-0482-002	1	200307	PP3	1,964	1,577	1,075,200	31	\$ 119,769	DOT-Airport Division	SOH DOT AIRPORT
9201-0482-002	1	200308	PP3	1,628	1,596	969,600	28	\$ 102,982	DOT-Airport Division	SOH DOT AIRPORT
9201-0482-002	1	200309	PP3	1,624	1,586	1,173,600	33	\$ 118,735	DOT-Airport Division	SOH DOT AIRPORT
9201-0482-002	1	200310	PP3	2,386	2,386	1,036,800	29	\$ 114,546	DOT-Airport Division	SOH DOT AIRPORT
9201-0482-002	1	200311	PP3	2,040	1,694	1,111,200	29	\$ 115,951	DOT-Airport Division	SOH DOT AIRPORT
9201-0482-002	1	200312	PP3	2,036	1,687	1,161,600	33	\$ 120,321	DOT-Airport Division	SOH DOT AIRPORT
		TOTAL				12,172,800		\$ 1,333,694		
9300-0115-002	1	200301	PS	1,570	1,555	1,017,600	31	\$ 106,042	DOT-Airport Division	SOH DOT AIRPORT
9300-0115-002	1	200302	PS	1,570	1,555	912,000	28	\$ 98,095	DOT-Airport Division	SOH DOT AIRPORT
9300-0115-002	1	200303	PS	1,560	1,536	1,099,200	33	\$ 115,939	DOT-Airport Division	SOH DOT AIRPORT
9300-0115-002	1	200304	PS	1,579	1,574	969,600	29	\$ 107,770	DOT-Airport Division	SOH DOT AIRPORT
9300-0115-002	1	200305	PS	1,541	1,498	940,800	29	\$ 105,680	DOT-Airport Division	SOH DOT AIRPORT
9300-0115-002	1	200306	PS	1,541	1,498	1,027,200	32	\$ 114,329	DOT-Airport Division	SOH DOT AIRPORT
9300-0115-002	1	200307	PS	1,560	1,536	1,008,000	31	\$ 110,412	DOT-Airport Division	SOH DOT AIRPORT
9300-0115-002	1	200308	PS	1,546	1,517	907,200	28	\$ 97,850	DOT-Airport Division	SOH DOT AIRPORT
9300-0115-002	1	200309	PS	1,565	1,555	1,089,600	33	\$ 112,300	DOT-Airport Division	SOH DOT AIRPORT
9300-0115-002	1	200310	PS	1,574	1,574	969,600	29	\$ 101,090	DOT-Airport Division	SOH DOT AIRPORT
9300-0115-002	1	200311	PS	1,574	1,574	950,400	29	\$ 98,662	DOT-Airport Division	SOH DOT AIRPORT
9300-0115-002	1	200312	PS	1,574	1,574	1,036,800	33	\$ 106,076	DOT-Airport Division	SOH DOT AIRPORT
		TOTAL				11,928,000		\$ 1,274,246		
9300-4842-002	1	200301	PP3	378	360	223,200	31	\$ 23,686	DOT-Airport Division	SOH DOT AIRPORT
9300-4842-002	1	200302	PP3	396	396	203,400	28	\$ 22,482	DOT-Airport Division	SOH DOT AIRPORT
9300-4842-002	1	200303	PP3	396	396	232,200	33	\$ 25,314	DOT-Airport Division	SOH DOT AIRPORT
9300-4842-002	1	200304	PP3	396	396	212,400	29	\$ 24,238	DOT-Airport Division	SOH DOT AIRPORT
9300-4842-002	1	200305	PP3	369	342	196,200	29	\$ 22,636	DOT-Airport Division	SOH DOT AIRPORT
9300-4842-002	1	200306	PP3	378	360	225,000	32	\$ 25,509	DOT-Airport Division	SOH DOT AIRPORT
9300-4842-002	1	200307	PP3	369	342	219,600	31	\$ 24,390	DOT-Airport Division	SOH DOT AIRPORT
9300-4842-002	1	200308	PP3	387	378	201,600	28	\$ 22,281	DOT-Airport Division	SOH DOT AIRPORT
9300-4842-002	1	200309	PP3	396	396	246,600	33	\$ 25,870	DOT-Airport Division	SOH DOT AIRPORT
9300-4842-002	1	200310	PP3	387	378	212,400	29	\$ 22,671	DOT-Airport Division	SOH DOT AIRPORT
9300-4842-002	1	200311	PP3	396	396	208,800	29	\$ 22,306	DOT-Airport Division	SOH DOT AIRPORT
9300-4842-002	1	200312	PP3	378	360	235,800	33	\$ 24,343	DOT-Airport Division	SOH DOT AIRPORT
		TOTAL				2,617,200		\$ 285,726		
8811-0340-077	1	200301	J	188	161	66,800	33	\$ 8,253	DOT-Highway Division	SOH DOT HIGHWAY DIVISION (-)
8811-0340-077	1	200302	J	188	161	59,280	29	\$ 7,575	DOT-Highway Division	SOH DOT HIGHWAY DIVISION (-)
8811-0340-077	1	200303	J	188	187	73,920	32	\$ 9,240	DOT-Highway Division	SOH DOT HIGHWAY DIVISION (-)
8811-0340-077	1	200304	J	188	176	68,880	29	\$ 8,860	DOT-Highway Division	SOH DOT HIGHWAY DIVISION (-)
8811-0340-077	1	200305	J	177	176	71,440	29	\$ 9,103	DOT-Highway Division	SOH DOT HIGHWAY DIVISION (-)
8811-0340-077	1	200306	J	177	172	82,720	33	\$ 10,144	DOT-Highway Division	SOH DOT HIGHWAY DIVISION (-)
8811-0340-077	1	200307	J	172	172	71,680	29	\$ 8,797	DOT-Highway Division	SOH DOT HIGHWAY DIVISION (-)
8811-0340-077	1	200308	J	183	182	69,520	29	\$ 8,505	DOT-Highway Division	SOH DOT HIGHWAY DIVISION (-)
8811-0340-077	1	200309	J	185	185	77,840	33	\$ 9,217	DOT-Highway Division	SOH DOT HIGHWAY DIVISION (-)
8811-0340-077	1	200310	J	170	170	67,440	30	\$ 8,042	DOT-Highway Division	SOH DOT HIGHWAY DIVISION (-)
8811-0340-077	1	200311	J	169	169	65,040	30	\$ 7,771	DOT-Highway Division	SOH DOT HIGHWAY DIVISION (-)
8811-0340-077	1	200312	J	168	168	62,400	31	\$ 7,542	DOT-Highway Division	SOH DOT HIGHWAY DIVISION (-)
		TOTAL				836,960		\$ 103,048		
8824-9624-058	1	200301	J3	262	262	118,400	32	\$ 13,578	DOT-Highway Division	SOH DOT HIGHWAY DIVISION (-)
8824-9624-058	1	200302	J3	262	262	92,800	29	\$ 11,318	DOT-Highway Division	SOH DOT HIGHWAY DIVISION (-)
8824-9624-058	1	200303	J3	266	266	115,200	30	\$ 13,723	DOT-Highway Division	SOH DOT HIGHWAY DIVISION (-)
8824-9624-058	1	200304	J3	262	262	110,400	29	\$ 13,505	DOT-Highway Division	SOH DOT HIGHWAY DIVISION (-)
8824-9624-058	1	200305	J3	254	254	121,600	32	\$ 14,573	DOT-Highway Division	SOH DOT HIGHWAY DIVISION (-)
8824-9624-058	1	200306	J3	264	264	123,200	31	\$ 14,806	DOT-Highway Division	SOH DOT HIGHWAY DIVISION (-)
8824-9624-058	1	200307	J3	267	267	121,600	31	\$ 14,322	DOT-Highway Division	SOH DOT HIGHWAY DIVISION (-)
8824-9624-058	1	200308	J3	270	270	110,400	29	\$ 13,026	DOT-Highway Division	SOH DOT HIGHWAY DIVISION (-)
8824-9624-058	1	200309	J3	275	275	118,400	31	\$ 13,644	DOT-Highway Division	SOH DOT HIGHWAY DIVISION (-)
8824-9624-058	1	200310	J3	267	267	131,200	32	\$ 14,529	DOT-Highway Division	SOH DOT HIGHWAY DIVISION (-)
8824-9624-058	1	200311	J3	258	258	115,200	29	\$ 12,981	DOT-Highway Division	SOH DOT HIGHWAY DIVISION (-)
8824-9624-058	1	200312	J3	262	262	110,400	30	\$ 12,686	DOT-Highway Division	SOH DOT HIGHWAY DIVISION (-)
		TOTAL				1,388,800		\$ 162,691		
9400-4323-001	1	200301	J3	1,833	1,609	342,000	30	\$ 47,377	DOT-Highway Division	SOH DOT HIGHWAY DIVISION (-)
9400-4323-001	1	200302	J3	1,933	1,933	390,000	31	\$ 53,537	DOT-Highway Division	SOH DOT HIGHWAY DIVISION (-)
9400-4323-001	1	200303	J3	1,833	1,231	330,000	30	\$ 47,211	DOT-Highway Division	SOH DOT HIGHWAY DIVISION (-)
9400-4323-001	1	200304	J3	1,833	1,264	336,000	29	\$ 48,662	DOT-Highway Division	SOH DOT HIGHWAY DIVISION (-)
9400-4323-001	1	200305	J3	1,833	1,616	366,000	32	\$ 52,477	DOT-Highway Division	SOH DOT HIGHWAY DIVISION (-)
9400-4323-001	1	200306	J3	1,833	1,548	378,000	31	\$ 53,688	DOT-Highway Division	SOH DOT HIGHWAY DIVISION (-)
9400-4323-001	1	200307	J3	1,833	1,015	318,000	29	\$ 45,953	DOT-Highway Division	SOH DOT HIGHWAY DIVISION (-)

TABLE: STATE LARGE FACILITIES IN OAHU ELECTRICITY BILL HISTORY FOR YEAR 2003 (PROVIDED BY HECO)

ACCTNUM	TARCODE	REVPER	RATESCH	BILLDMD	KW	KWH	NBRDAYS	TOTAMT	DEPARTMENT	NAME
8819-5909-075	1	200301	PP3	350	346	170,000	31	\$ 19,091	HCDCH	HCDCH - 130
8819-5909-075	1	200302	PP3	349	342	179,500	32	\$ 20,093	HCDCH	HCDCH - 130
8819-5909-075	1	200303	PP3	346	337	160,000	29	\$ 18,906	HCDCH	HCDCH - 130
8819-5909-075	1	200304	PP3	344	334	163,500	30	\$ 19,408	HCDCH	HCDCH - 130
8819-5909-075	1	200305	PP3	343	331	158,500	29	\$ 19,070	HCDCH	HCDCH - 130
8819-5909-075	1	200306	PP3	343	331	180,500	33	\$ 20,836	HCDCH	HCDCH - 130
8819-5909-075	1	200307	PP3	340	324	158,000	29	\$ 18,151	HCDCH	HCDCH - 130
8819-5909-075	1	200308	PP3	347	338	180,000	33	\$ 19,805	HCDCH	HCDCH - 130
8819-5909-075	1	200309	PP3	350	344	158,500	29	\$ 17,856	HCDCH	HCDCH - 130
8819-5909-076	1	200310	PP3	337	337	172,000	31	\$ 18,660	HCDCH	HCDCH
8819-5909-076	1	200311	PP3	346	346	172,000	31	\$ 18,739	HCDCH	HCDCH
8819-5909-076	1	200312	PP3	350	350	157,500	28	\$ 17,772	HCDCH	HCDCH
						2,010,000		\$ 228,385		
8823-1584-076	1	200301	PP3	445	422	184,800	30	\$ 21,442	HCDCH	HCDCH - 130
8823-1584-076	1	200302	PP3	449	430	205,200	33	\$ 23,540	HCDCH	HCDCH - 130
8823-1584-076	1	200303	PP3	456	445	183,600	29	\$ 22,343	HCDCH	HCDCH - 130
8823-1584-076	1	200304	PP3	444	421	180,600	29	\$ 22,114	HCDCH	HCDCH - 130
8823-1584-076	1	200305	PP3	444	421	175,200	28	\$ 21,780	HCDCH	HCDCH - 130
8823-1584-076	1	200306	PP3	432	396	192,000	30	\$ 22,792	HCDCH	HCDCH - 130
8823-1584-076	1	200307	PP3	450	433	209,400	32	\$ 23,762	HCDCH	HCDCH - 130
8823-1584-076	1	200308	PP3	470	470	206,400	31	\$ 23,398	HCDCH	HCDCH - 130
8823-1584-076	1	200309	PP3	461	451	206,400	32	\$ 23,072	HCDCH	HCDCH - 130
8823-1584-077	1	200310	PP3	446	446	199,200	29	\$ 22,087	HCDCH	HCDCH
8823-1584-077	1	200311	PP3	565	565	205,200	30	\$ 23,975	HCDCH	HCDCH
8823-1584-077	1	200312	PP3	554	542	228,000	32	\$ 26,032	HCDCH	HCDCH
						2,376,000		\$ 276,337		
9400-2851-001	1	200301	J	222	222	103,120	31	\$ 11,921	HCDCH	SOH HCDCH *
9400-2851-001	1	200302	J	222	222	102,240	31	\$ 11,978	HCDCH	SOH HCDCH *
9400-2851-001	1	200303	J	222	222	97,920	29	\$ 11,913	HCDCH	SOH HCDCH *
9400-2851-001	1	200304	J	219	219	104,320	32	\$ 12,587	HCDCH	SOH HCDCH *
9400-2851-001	1	200305	J	219	219	95,440	29	\$ 11,837	HCDCH	SOH HCDCH *
9400-2851-001	1	200306	J	217	217	97,200	29	\$ 11,795	HCDCH	SOH HCDCH *
9400-2851-001	1	200307	J	217	217	104,640	32	\$ 12,102	HCDCH	SOH HCDCH *
9400-2851-001	1	200308	J	225	225	104,000	31	\$ 11,954	HCDCH	SOH HCDCH *
9400-2851-001	1	200309	J	234	234	97,520	28	\$ 11,377	HCDCH	SOH HCDCH *
9400-2851-001	1	200310	J	228	228	115,760	33	\$ 12,805	HCDCH	SOH HCDCH *
9400-2851-001	1	200311	J	226	226	107,680	31	\$ 12,069	HCDCH	SOH HCDCH *
9400-2851-001	1	200312	J	233	233	110,320	31	\$ 12,515	HCDCH	SOH HCDCH *
						1,240,160		\$ 144,853		
9400-2852-001	1	200301	J	232	232	111,040	31	\$ 12,743	HCDCH	SOH HCDCH *
9400-2852-001	1	200302	J	229	229	110,880	31	\$ 12,837	HCDCH	SOH HCDCH *
9400-2852-001	1	200303	J	226	226	104,240	29	\$ 12,544	HCDCH	SOH HCDCH *
9400-2852-001	1	200304	J	226	226	113,040	32	\$ 13,500	HCDCH	SOH HCDCH *
9400-2852-001	1	200305	J	220	220	101,840	29	\$ 12,460	HCDCH	SOH HCDCH *
9400-2852-001	1	200306	J	214	214	102,880	29	\$ 12,301	HCDCH	SOH HCDCH *
9400-2852-001	1	200307	J	220	220	114,480	32	\$ 13,029	HCDCH	SOH HCDCH *
9400-2852-001	1	200308	J	233	233	117,040	31	\$ 13,204	HCDCH	SOH HCDCH *
9400-2852-001	1	200309	J	234	234	104,880	28	\$ 12,030	HCDCH	SOH HCDCH *
9400-2852-001	1	200310	J	235	235	121,840	33	\$ 13,418	HCDCH	SOH HCDCH *
9400-2852-001	1	200311	J	236	236	114,400	31	\$ 12,775	HCDCH	SOH HCDCH *
9400-2852-001	1	200312	J	243	243	117,760	31	\$ 13,292	HCDCH	SOH HCDCH *
						1,334,320		\$ 154,133		
8819-9077-077	1	200301	PS	885	842	304,400	30	\$ 37,254	Judiciary	SOH JUDICIARY *
8819-9077-077	1	200302	PS	890	852	330,800	32	\$ 40,067	Judiciary	SOH JUDICIARY *
8819-9077-077	1	200303	PS	883	837	318,400	29	\$ 39,907	Judiciary	SOH JUDICIARY *
8819-9077-077	1	200304	PS	882	836	328,000	30	\$ 41,219	Judiciary	SOH JUDICIARY *
8819-9077-077	1	200305	PS	895	870	335,200	29	\$ 42,358	Judiciary	SOH JUDICIARY *
8819-9077-077	1	200306	PS	897	874	370,800	32	\$ 45,209	Judiciary	SOH JUDICIARY *
8819-9077-077	1	200307	PS	888	864	356,800	30	\$ 42,522	Judiciary	SOH JUDICIARY *
8819-9077-077	1	200308	PS	900	887	381,600	32	\$ 44,051	Judiciary	SOH JUDICIARY *
8819-9077-077	1	200309	PS	885	882	349,600	30	\$ 40,717	Judiciary	SOH JUDICIARY *
8819-9077-077	1	200310	PS	894	894	364,400	30	\$ 41,752	Judiciary	SOH JUDICIARY *
8819-9077-077	1	200311	PS	894	894	352,800	31	\$ 40,693	Judiciary	SOH JUDICIARY *
8819-9077-077	1	200312	PS	881	868	329,200	30	\$ 38,863	Judiciary	SOH JUDICIARY *
						4,122,000		\$ 494,613		
8824-2360-078	1	200301	PS	1,075	1,013	410,000	29	\$ 48,519	Judiciary	SOH JUDICIARY *
8824-2360-078	1	200302	PS	1,070	1,003	443,000	32	\$ 51,928	Judiciary	SOH JUDICIARY *
8824-2360-078	1	200303	PS	1,106	1,075	420,000	29	\$ 51,621	Judiciary	SOH JUDICIARY *
8824-2360-078	1	200304	PS	1,046	956	424,000	30	\$ 51,879	Judiciary	SOH JUDICIARY *
8824-2360-078	1	200305	PS	1,037	937	464,000	32	\$ 55,752	Judiciary	SOH JUDICIARY *
8824-2360-078	1	200306	PS	1,040	944	471,000	31	\$ 55,638	Judiciary	SOH JUDICIARY *
8824-2360-078	1	200307	PS	1,042	947	403,000	28	\$ 47,927	Judiciary	SOH JUDICIARY *
8824-2360-078	1	200308	PS	1,052	967	463,000	32	\$ 52,527	Judiciary	SOH JUDICIARY *
8824-2360-078	1	200309	PS	1,052	1,010	447,000	30	\$ 50,657	Judiciary	SOH JUDICIARY *
8824-2360-078	1	200310	PS	1,035	976	483,000	32	\$ 53,010	Judiciary	SOH JUDICIARY *
8824-2360-078	1	200311	PS	1,030	966	424,000	29	\$ 48,040	Judiciary	SOH JUDICIARY *
8824-2360-078	1	200312	PS	993	911	421,000	31	\$ 47,797	Judiciary	SOH JUDICIARY *
						5,273,000		\$ 615,293		
8824-4780-075	1	200301	J5	349	349	130,080	31	\$ 15,966	Judiciary	SOH JUDICIARY *
8824-4780-075	1	200302	J5	357	357	139,440	33	\$ 17,160	Judiciary	SOH JUDICIARY *
8824-4780-075	1	200303	J5	357	357	128,640	28	\$ 16,457	Judiciary	SOH JUDICIARY *
8824-4780-075	1	200304	J5	358	358	137,280	30	\$ 17,543	Judiciary	SOH JUDICIARY *
8824-4780-075	1	200305	J5	362	362	139,920	29	\$ 17,983	Judiciary	SOH JUDICIARY *
8824-4780-075	1	200306	J5	370	370	155,520	33	\$ 19,435	Judiciary	SOH JUDICIARY *
8824-4780-075	1	200307	J5	371	371	138,480	29	\$ 17,170	Judiciary	SOH JUDICIARY *
8824-4780-075	1	200308	J5	372	372	163,680	33	\$ 19,310	Judiciary	SOH JUDICIARY *
8824-4780-075	1	200309	J5	369	369	146,400	29	\$ 17,513	Judiciary	SOH JUDICIARY *
8824-4780-075	1	200310	J5	373	372	155,280	30	\$ 18,219	Judiciary	SOH JUDICIARY *
8824-4780-075	1	200311	J5	373	373	149,520	31	\$ 17,720	Judiciary	SOH JUDICIARY *
8824-4780-075	1	200312	J5	361	361	128,160	28	\$ 15,645	Judiciary	SOH JUDICIARY *
						1,712,400		\$ 210,122		
8820-3139-077	1	200301	J	410	410	128,880	31	\$ 16,237	Public Libraries	SOH HSPLS
8820-3139-077	1	200302	J	401	401	123,120	33	\$ 15,726	Public Libraries	SOH HSPLS
8820-3139-077	1	200303	J	442	442	122,160	29	\$ 16,361	Public Libraries	SOH HSPLS
8820-3139-077	1	200304	J	440	440	105,600	30	\$ 14,748	Public Libraries	SOH HSPLS
8820-3139-077	1	200305	J	420	420	99,600	28	\$ 14,033	Public Libraries	SOH HSPLS
8820-3139-077	1	200306	J	423	423	95,280	33	\$ 13,470	Public Libraries	SOH HSPLS
8820-3139-077	1	200307	J	438	438	87,120	29	\$ 12,391	Public Libraries	SOH HSPLS
8820-3139-077	1	200308	J	447	447	99,120	33	\$ 13,493	Public Libraries	SOH HSPLS
8820-3139-077	1	200309	J	443	443	94,560	29	\$ 12,901	Public Libraries	SOH HSPLS
8820-3139-077	1	200310	J	436	436	102,000	30	\$ 13,490	Public Libraries	SOH HSPLS
8820-3139-077	1	200311	J	452	452	97,920	32	\$ 13,203	Public Libraries	SOH HSPLS
8820-3139-077	1	200312	J	452	452	87,120	28	\$ 12,206	Public Libraries	SOH HSPLS
						1,242,480		\$ 168,261		
8820-3139-077	1	200301	J	410	410	128,880	31	\$ 16,237	Public Libraries	\$ 16,237 4 SOH HSPLS
8820-3139-077	1	200302	J	401	401	123,120	33	\$ 15,726	Public Libraries	\$ 15,726 4 SOH HSPLS
8820-3139-077	1	200303	J	442	442	122,160	29	\$ 16,361	Public Libraries	\$ 16,361 4 SOH HSPLS
8820-3139-077	1	200304	J	440	440	105,600	30	\$ 14,748	Public Libraries	\$ 14,748 4 SOH HSPLS
8820-3139-077	1	200305	J	420	420	99,600	28	\$ 14,033	Public Libraries	\$ 14,033 4 SOH HSPLS
8820-3139-077	1	200306	J	423	423	95,280	33	\$ 13,470	Public Libraries	\$ 13,470 4 SOH HSPLS
8820-3139-077	1	200307	J	438	438	87,120	29	\$ 12,391	Public Libraries	\$ 12,391 4 SOH HSPLS
8820-3139-077	1	200308	J	447	447	99,120	33	\$ 13,493	Public Libraries	\$ 13,493 4 SOH HSPLS
8820-3139-077	1	200309	J	443	443	94,560	29			

TABLE: STATE LARGE FACILITIES IN OAHU ELECTRICITY BILL HISTORY FOR YEAR 2003 (PROVIDED BY HECO)

ACCTNUM	TARCD	REVPER	RATESCH	BILLDMD	KW	KWH	NBRDAYS	TOTAMT	DEPARTMENT	NAME			
8820-3139-077	1	200310	J	436	436	102,000	30	\$ 13,490	Public Libraries		\$	13,490	4 SOH HSPLS
8820-3139-077	1	200311	J	452	452	97,920	32	\$ 13,203	Public Libraries		\$	13,203	4 SOH HSPLS
8820-3139-077	1	200312	J	452	452	87,120	28	\$ 12,206	Public Libraries		\$	12,206	4 SOH HSPLS
		TOTAL				1,242,480		\$ 168,261					
8823-4938-076	1	200301	J3	2,023	2,023	217,800	30	\$ 35,180	Stadium Authority	STADIUM AUTHORITY *			
8823-4938-076	1	200302	J3	1,658	1,001	279,000	33	\$ 40,288	Stadium Authority	STADIUM AUTHORITY *			
8823-4938-076	1	200303	J3	1,658	1,224	268,200	28	\$ 39,905	Stadium Authority	STADIUM AUTHORITY *			
8823-4938-076	1	200304	J3	1,658	770	208,800	29	\$ 33,349	Stadium Authority	STADIUM AUTHORITY *			
8823-4938-076	1	200305	J3	1,658	1,310	228,600	30	\$ 35,852	Stadium Authority	STADIUM AUTHORITY *			
8823-4938-076	1	200306	J3	1,658	1,318	271,800	32	\$ 40,378	Stadium Authority	STADIUM AUTHORITY *			
8823-4938-076	1	200307	J3	1,658	1,058	246,600	30	\$ 36,469	Stadium Authority	STADIUM AUTHORITY *			
8823-4938-076	1	200308	J3	1,658	1,462	275,400	30	\$ 39,216	Stadium Authority	STADIUM AUTHORITY *			
8823-4938-076	1	200309	J3	2,153	2,153	358,200	31	\$ 50,677	Stadium Authority	STADIUM AUTHORITY *			
8823-4938-076	1	200310	J3	2,146	2,146	356,400	31	\$ 50,067	Stadium Authority	STADIUM AUTHORITY *			
8823-4938-076	1	200311	J3	2,059	2,059	354,600	32	\$ 49,339	Stadium Authority	STADIUM AUTHORITY *			
8823-4938-076	1	200312	J3	2,138	2,138	315,000	30	\$ 45,941	Stadium Authority	STADIUM AUTHORITY *			
		TOTAL				3,380,400		\$ 496,661					
8813-7302-075	1	200301	J	150	150	85,360	33	\$ 9,559	UH Manoa	UH SCHOOL OF MEDICINE			
8813-7302-075	1	200302	J	149	149	92,000	30	\$ 10,257	UH Manoa	UH SCHOOL OF MEDICINE			
8813-7302-075	1	200303	J	178	178	64,720	29	\$ 8,239	UH Manoa	UH SCHOOL OF MEDICINE			
8813-7302-075	1	200304	J	161	161	87,840	32	\$ 10,415	UH Manoa	UH SCHOOL OF MEDICINE			
8813-7302-075	1	200305	J	159	159	81,520	29	\$ 9,871	UH Manoa	UH SCHOOL OF MEDICINE			
8813-7302-075	1	200306	J	160	160	86,640	30	\$ 10,284	UH Manoa	UH SCHOOL OF MEDICINE			
8813-7302-075	1	200307	J	168	168	86,640	29	\$ 10,097	UH Manoa	UH SCHOOL OF MEDICINE			
8813-7302-075	1	200308	J	167	167	101,680	33	\$ 11,233	UH Manoa	UH SCHOOL OF MEDICINE			
8813-7302-075	1	200309	J	166	166	86,800	29	\$ 9,769	UH Manoa	UH SCHOOL OF MEDICINE			
8813-7302-075	1	200310	J	162	162	95,920	32	\$ 10,437	UH Manoa	UH SCHOOL OF MEDICINE			
8813-7302-075	1	200311	J	167	167	88,400	30	\$ 9,819	UH Manoa	UH SCHOOL OF MEDICINE			
8813-7302-075	1	200312	J	166	166	78,000	29	\$ 8,953	UH Manoa	UH SCHOOL OF MEDICINE			
		TOTAL				1,035,520		\$ 118,933					
8815-4443-075	1	200301	J	216	216	117,600	33	\$ 13,190	UH Manoa	UH WAIKIKI AQUARIUM			
8815-4443-075	1	200302	J	213	213	110,880	31	\$ 12,702	UH Manoa	UH WAIKIKI AQUARIUM			
8815-4443-075	1	200303	J	215	215	112,800	31	\$ 13,235	UH Manoa	UH WAIKIKI AQUARIUM			
8815-4443-075	1	200304	J	213	213	103,680	29	\$ 12,521	UH Manoa	UH WAIKIKI AQUARIUM			
8815-4443-075	1	200305	J	213	213	102,960	29	\$ 12,530	UH Manoa	UH WAIKIKI AQUARIUM			
8815-4443-075	1	200306	J	217	217	120,960	33	\$ 14,182	UH Manoa	UH WAIKIKI AQUARIUM			
8815-4443-075	1	200307	J	219	219	111,120	29	\$ 12,850	UH Manoa	UH WAIKIKI AQUARIUM			
8815-4443-075	1	200308	J	221	221	114,480	30	\$ 12,954	UH Manoa	UH WAIKIKI AQUARIUM			
8815-4443-075	1	200309	J	216	216	120,240	32	\$ 13,263	UH Manoa	UH WAIKIKI AQUARIUM			
8815-4443-075	1	200310	J	216	216	112,320	30	\$ 12,465	UH Manoa	UH WAIKIKI AQUARIUM			
8815-4443-075	1	200311	J	214	214	113,760	31	\$ 12,549	UH Manoa	UH WAIKIKI AQUARIUM			
8815-4443-075	1	200312	J	207	207	105,600	30	\$ 11,846	UH Manoa	UH WAIKIKI AQUARIUM			
		TOTAL				1,346,400		\$ 154,286					
8816-2141-076	1	200301	J	196	196	87,520	32	\$ 10,310	UH Manoa	UH FACILITIES MANAGEMENT			
8816-2141-076	1	200302	J	198	198	86,800	31	\$ 10,384	UH Manoa	UH FACILITIES MANAGEMENT			
8816-2141-076	1	200303	J	197	197	87,120	31	\$ 10,662	UH Manoa	UH FACILITIES MANAGEMENT			
8816-2141-076	1	200304	J	191	191	82,080	30	\$ 10,241	UH Manoa	UH FACILITIES MANAGEMENT			
8816-2141-076	1	200305	J	196	196	77,760	28	\$ 9,956	UH Manoa	UH FACILITIES MANAGEMENT			
8816-2141-076	1	200306	J	183	183	87,040	33	\$ 10,593	UH Manoa	UH FACILITIES MANAGEMENT			
8816-2141-076	1	200307	J	177	177	77,280	29	\$ 9,302	UH Manoa	UH FACILITIES MANAGEMENT			
8816-2141-076	1	200308	J	193	193	83,360	31	\$ 9,890	UH Manoa	UH FACILITIES MANAGEMENT			
8816-2141-076	1	200309	J	218	218	88,640	32	\$ 10,567	UH Manoa	UH FACILITIES MANAGEMENT			
8816-2141-076	1	200310	J	233	233	88,480	30	\$ 10,599	UH Manoa	UH FACILITIES MANAGEMENT			
8816-2141-076	1	200311	J	236	236	87,040	29	\$ 10,456	UH Manoa	UH FACILITIES MANAGEMENT			
8816-2141-076	1	200312	J	231	231	90,880	31	\$ 10,883	UH Manoa	UH FACILITIES MANAGEMENT			
		TOTAL				1,024,000		\$ 123,843					
8816-2154-076	1	200301	PP3	19,886	18,579	10,129,200	32	\$ 1,072,942	UH Manoa	UH FACILITIES MANAGEMENT			
8816-2154-076	1	200302	PP3	20,570	19,946	10,166,400	30	\$ 1,096,878	UH Manoa	UH FACILITIES MANAGEMENT			
8816-2154-076	1	200303	PP3	20,595	19,995	10,368,000	29	\$ 1,143,504	UH Manoa	UH FACILITIES MANAGEMENT			
8816-2154-076	1	200304	PP3	20,677	20,159	11,136,000	32	\$ 1,230,259	UH Manoa	UH FACILITIES MANAGEMENT			
8816-2154-076	1	200305	PP3	20,783	20,372	10,466,400	29	\$ 1,181,378	UH Manoa	UH FACILITIES MANAGEMENT			
8816-2154-076	1	200306	PP3	20,173	19,152	10,346,400	30	\$ 1,151,868	UH Manoa	UH FACILITIES MANAGEMENT			
8816-2154-076	1	200307	PP3	20,288	19,381	11,139,600	32	\$ 1,185,555	UH Manoa	UH FACILITIES MANAGEMENT			
8816-2154-076	1	200308	PP3	20,691	20,187	10,833,600	30	\$ 1,141,289	UH Manoa	UH FACILITIES MANAGEMENT			
8816-2154-076	1	200309	PP3	21,130	21,130	11,931,600	32	\$ 1,225,812	UH Manoa	UH FACILITIES MANAGEMENT			
8816-2154-076	1	200310	PP3	21,475	21,475	11,703,600	30	\$ 1,198,993	UH Manoa	UH FACILITIES MANAGEMENT			
8816-2154-076	1	200311	PP3	21,205	20,935	10,903,200	29	\$ 1,128,271	UH Manoa	UH FACILITIES MANAGEMENT			
8816-2154-076	1	200312	PP3	20,811	20,147	11,257,200	32	\$ 1,162,780	UH Manoa	UH FACILITIES MANAGEMENT			
		TOTAL				130,381,200		\$13,919,528					
8817-7690-076	1	200301	PP3	318	295	163,800	33	\$ 17,981	UH Manoa	UH FACILITIES MANAGEMENT			
8817-7690-076	1	200302	PP3	332	322	173,400	33	\$ 19,191	UH Manoa	UH FACILITIES MANAGEMENT			
8817-7690-076	1	200303	PP3	334	328	164,400	29	\$ 18,981	UH Manoa	UH FACILITIES MANAGEMENT			
8817-7690-076	1	200304	PP3	343	343	165,000	29	\$ 19,358	UH Manoa	UH FACILITIES MANAGEMENT			
8817-7690-076	1	200305	PP3	326	310	163,800	29	\$ 19,188	UH Manoa	UH FACILITIES MANAGEMENT			
8817-7690-076	1	200306	PP3	338	334	183,600	32	\$ 20,891	UH Manoa	UH FACILITIES MANAGEMENT			
8817-7690-076	1	200307	PP3	351	351	177,000	30	\$ 19,806	UH Manoa	UH FACILITIES MANAGEMENT			
8817-7690-076	1	200308	PP3	353	353	166,800	30	\$ 18,648	UH Manoa	UH FACILITIES MANAGEMENT			
8817-7690-076	1	200309	PP3	356	356	217,800	32	\$ 22,689	UH Manoa	UH FACILITIES MANAGEMENT			
8817-7690-076	1	200310	PP3	356	356	192,000	30	\$ 20,369	UH Manoa	UH FACILITIES MANAGEMENT			
8817-7690-076	1	200311	PP3	364	364	190,200	30	\$ 20,298	UH Manoa	UH FACILITIES MANAGEMENT			
8817-7690-076	1	200312	PP3	360	357	189,600	31	\$ 20,391	UH Manoa	UH FACILITIES MANAGEMENT			
		TOTAL				2,147,400		\$ 237,789					
9800-2426-001	1	200301	J	262	262	156,720	32	\$ 17,306	UH Manoa	UH HIMB			
9800-2426-001	1	200302	J	265	265	130,640	29	\$ 15,172	UH Manoa	UH HIMB			
9800-2426-001	1	200303	J	278	278	146,800	31	\$ 17,163	UH Manoa	UH HIMB			
9800-2426-001	1	200304	J	292	292	149,360	28	\$ 17,942	UH Manoa	UH HIMB			
9800-2426-001	1	200305	J	300	300	171,280	32	\$ 20,239	UH Manoa	UH HIMB			
9800-2426-001	1	200306	J	323	323	192,400	31	\$ 22,527	UH Manoa	UH HIMB			
9800-2426-001	1	200307	J	330	330	190,080	31	\$ 21,819	UH Manoa	UH HIMB			
9800-2426-001	1	200308	J	328	328	181,440	29	\$ 20,484	UH Manoa	UH HIMB			
9800-2426-001	1	200309	J	341	341	196,160	31	\$ 21,714	UH Manoa	UH HIMB			
9800-2426-001	1	200310	J	332	332	204,320	32	\$ 22,116	UH Manoa	UH HIMB			
9800-2426-001	1	200311	J	330	330	185,680	29	\$ 20,364	UH Manoa	UH HIMB			
9800-2426-001	1	200312	J	308	308	170,720	30	\$ 18,878	UH Manoa	UH HIMB			
		TOTAL				2,075,600		\$ 235,724					
8801-5005-075	1	200301	PP3	1,397	1,363	456,000	32	\$ 55,046	UH-Community College	LEEWARD COMMUNITY COLLEGE			
8801-5005-075	1	200302	PP3	1,354	1,277	394,800	28	\$ 49,712	UH-Community College	LEEWARD COMMUNITY COLLEGE			
8801-5005-075	1	200303	PP3	1,354	1,277	518,400	33	\$ 61,531	UH-Community College	LEEWARD COMMUNITY COLLEGE			
8801-5005-075	1	200304	PP3	1,378	1,325	466,800	29	\$ 58,653	UH-Community College	LEEWARD COMMUNITY COLLEGE			
8801-5005-075	1	200305	PP3	1,382	1,334	480,000	29	\$ 60,547	UH-Community College	LEEWARD COMMUNITY COLLEGE			</

TABLE: STATE LARGE FACILITIES IN OAHU ELECTRICITY BILL HISTORY FOR YEAR 2003 (PROVIDED BY HECO)

ACCTNUM	TARCODE	REVPER	RATESCH	BILLDMD	KW	KWH	NBRDAYS	TOTAMT	DEPARTMENT	NAME
8814-8544-076	1	200306	J3	1,744	1,744	586,800	30	\$ 75,463	UH-Community College	UH KAP COMM COLLEGE BUSINESS
8814-8544-076	1	200307	J3	1,838	1,838	615,600	31	\$ 77,104	UH-Community College	UH KAP COMM COLLEGE BUSINESS
8814-8544-076	1	200308	J3	1,766	1,766	693,000	31	\$ 82,794	UH-Community College	UH KAP COMM COLLEGE BUSINESS
8814-8544-076	1	200309	J3	2,070	2,070	700,200	29	\$ 85,028	UH-Community College	UH KAP COMM COLLEGE BUSINESS
8814-8544-076	1	200310	J3	2,047	2,047	802,800	32	\$ 94,125	UH-Community College	UH KAP COMM COLLEGE BUSINESS
8814-8544-076	1	200311	J3	2,030	2,030	757,800	30	\$ 89,436	UH-Community College	UH KAP COMM COLLEGE BUSINESS
8814-8544-076	1	200312	J3	1,831	1,831	621,000	29	\$ 75,212	UH-Community College	UH KAP COMM COLLEGE BUSINESS
		TOTAL				7,839,000		\$ 967,444		
8823-6252-075	1	200301	PP3	1,327	1,244	374,000	32	\$ 47,321	UH-Community College	UH HONOLULU COMMUNITY COLLEGE
8823-6252-075	1	200302	PP3	1,307	1,204	412,000	31	\$ 50,975	UH-Community College	UH HONOLULU COMMUNITY COLLEGE
8823-6252-075	1	200303	PP3	1,350	1,290	362,000	28	\$ 48,246	UH-Community College	UH HONOLULU COMMUNITY COLLEGE
8823-6252-075	1	200304	PP3	1,353	1,296	412,000	31	\$ 53,258	UH-Community College	UH HONOLULU COMMUNITY COLLEGE
8823-6252-075	1	200305	PP3	1,352	1,294	416,000	31	\$ 54,022	UH-Community College	UH HONOLULU COMMUNITY COLLEGE
8823-6252-075	1	200306	PP3	1,249	1,088	364,000	29	\$ 47,345	UH-Community College	UH HONOLULU COMMUNITY COLLEGE
8823-6252-075	1	200307	PP3	1,276	1,142	388,000	31	\$ 48,362	UH-Community College	UH HONOLULU COMMUNITY COLLEGE
8823-6252-075	1	200308	PP3	1,406	1,402	428,000	31	\$ 52,537	UH-Community College	UH HONOLULU COMMUNITY COLLEGE
8823-6252-075	1	200309	PP3	1,405	1,400	448,000	29	\$ 53,758	UH-Community College	UH HONOLULU COMMUNITY COLLEGE
8823-6252-075	1	200310	PP3	1,404	1,404	508,000	33	\$ 58,411	UH-Community College	UH HONOLULU COMMUNITY COLLEGE
8823-6252-075	1	200311	PP3	1,387	1,370	432,000	30	\$ 51,798	UH-Community College	UH HONOLULU COMMUNITY COLLEGE
8823-6252-075	1	200312	PP3	1,354	1,304	376,000	31	\$ 47,169	UH-Community College	UH HONOLULU COMMUNITY COLLEGE
		TOTAL				4,920,000		\$ 613,202		
9500-5803-001	1	200301	PS	928	928	430,800	32	\$ 48,843	UH-Community College	SOH WINDWARD COMMUNITY COLLEGE
9500-5803-001	1	200302	PS	963	963	406,200	29	\$ 47,669	UH-Community College	SOH WINDWARD COMMUNITY COLLEGE
9500-5803-001	1	200303	PS	914	866	432,600	31	\$ 50,358	UH-Community College	SOH WINDWARD COMMUNITY COLLEGE
9500-5803-001	1	200304	PS	933	904	447,000	31	\$ 52,885	UH-Community College	SOH WINDWARD COMMUNITY COLLEGE
9500-5803-001	1	200305	PS	942	922	436,200	29	\$ 52,439	UH-Community College	SOH WINDWARD COMMUNITY COLLEGE
9500-5803-001	1	200306	PS	912	860	436,800	31	\$ 51,985	UH-Community College	SOH WINDWARD COMMUNITY COLLEGE
9500-5803-001	1	200307	PS	926	888	464,400	31	\$ 53,277	UH-Community College	SOH WINDWARD COMMUNITY COLLEGE
9500-5803-001	1	200308	PS	925	887	436,200	29	\$ 49,575	UH-Community College	SOH WINDWARD COMMUNITY COLLEGE
9500-5803-001	1	200309	PS	960	957	493,200	31	\$ 54,278	UH-Community College	SOH WINDWARD COMMUNITY COLLEGE
9500-5803-001	1	200310	PS	1,028	1,028	514,200	32	\$ 56,400	UH-Community College	SOH WINDWARD COMMUNITY COLLEGE
9500-5803-001	1	200311	PS	1,001	973	481,200	30	\$ 53,063	UH-Community College	SOH WINDWARD COMMUNITY COLLEGE
9500-5803-001	1	200312	PS	1,003	978	432,600	29	\$ 49,201	UH-Community College	SOH WINDWARD COMMUNITY COLLEGE
		TOTAL				5,411,400		\$ 619,973		

TABLE: STATE LARGE FACILITIES IN OAHU ELECTRICITY BILL HISTORY FOR YEAR 2004 (PROVIDED BY HECO)

ACCTNUM	TARCODE	REVPER	METRNR	RATESCH	BILLDMD	MDM	KWH	NBRDAYS	TOTAMT	DEPARTMENT	NAME
9600-5614-003	1	200401	441972	PS	2,975	2,551	576,600	31	\$ 84,382	Convention Center	SOH CONVENTION CTR AUTHORITY
9600-5614-003	1	200402	441972	PS	3,003	2,606	788,400	32	\$ 104,918	Convention Center	SOH CONVENTION CTR AUTHORITY
9600-5614-003	1	200403	441972	PS	2,983	2,566	768,000	29	\$ 103,585	Convention Center	SOH CONVENTION CTR AUTHORITY
9600-5614-003	1	200404	441972	PS	2,852	2,304	671,400	30	\$ 93,382	Convention Center	SOH CONVENTION CTR AUTHORITY
9600-5614-003	1	200405	441972	PS	2,552	1,703	615,000	29	\$ 86,077	Convention Center	SOH CONVENTION CTR AUTHORITY
9600-5614-003	1	200406	441972	PS	2,670	1,939	662,400	32	\$ 91,891	Convention Center	SOH CONVENTION CTR AUTHORITY
9600-5614-003	1	200407	441972	PS	3,061	2,721	657,000	30	\$ 94,979	Convention Center	SOH CONVENTION CTR AUTHORITY
9600-5614-003	1	200408	441972	PS	3,152	2,905	778,800	32	\$ 108,359	Convention Center	SOH CONVENTION CTR AUTHORITY
9600-5614-003	1	200409	441972	PS	2,294	1,683	575,400	30	\$ 82,628	Convention Center	SOH CONVENTION CTR AUTHORITY
9600-5614-003	1	200410	441972	PS	2,789	2,673	663,600	29	\$ 99,292	Convention Center	SOH CONVENTION CTR AUTHORITY
9600-5614-003	1	200411	441972	PS	2,615	2,324	648,000	30	\$ 98,752	Convention Center	SOH CONVENTION CTR AUTHORITY
9600-5614-003	1	200412	441972	PS	2,392	1,878	489,600	31	\$ 80,983	Convention Center	SOH CONVENTION CTR AUTHORITY
<b>TOTAL</b>							<b>7,894,200</b>		<b>1,129,227</b>		
8803-9993-076	1	200401	440494	J3	250	250	98,000	31	\$ 11,628	Corrections	SOH WAIAWA CORRECT FACILITY
8803-9993-076	1	200402	440494	J3	260	260	91,000	28	\$ 11,301	Corrections	SOH WAIAWA CORRECT FACILITY
8803-9993-076	1	200403	440494	J3	260	260	106,000	32	\$ 12,866	Corrections	SOH WAIAWA CORRECT FACILITY
8803-9993-076	1	200404	440494	J3	260	260	96,000	30	\$ 11,944	Corrections	SOH WAIAWA CORRECT FACILITY
8803-9993-076	1	200405	440494	J3	250	250	102,000	30	\$ 12,487	Corrections	SOH WAIAWA CORRECT FACILITY
8803-9993-076	1	200406	440494	J3	290	290	112,000	31	\$ 14,001	Corrections	SOH WAIAWA CORRECT FACILITY
8803-9993-076	1	200407	440494	J3	260	260	108,000	31	\$ 13,254	Corrections	SOH WAIAWA CORRECT FACILITY
8803-9993-076	1	200408	440494	J3	260	260	100,000	29	\$ 12,501	Corrections	SOH WAIAWA CORRECT FACILITY
8803-9993-076	1	200409	440494	J3	260	260	112,000	32	\$ 13,949	Corrections	SOH WAIAWA CORRECT FACILITY
8803-9993-076	1	200412	440494	J3	250	250	308,000	90	\$ 41,527	Corrections	SOH WAIAWA CORRECT FACILITY
<b>TOTAL</b>							<b>1,233,000</b>		<b>155,458</b>		
8823-8291-076	1	200401	441637	PP3	984	950	504,000	29	\$ 56,486	Corrections	SOH OCCC
8823-8291-076	1	200402	441637	PP3	984	950	556,800	31	\$ 61,342	Corrections	SOH OCCC
8823-8291-076	1	200403	441637	PP3	965	912	534,000	31	\$ 59,804	Corrections	SOH OCCC
8823-8291-076	1	200404	441637	PP3	972	926	532,800	30	\$ 59,644	Corrections	SOH OCCC
8823-8291-076	1	200405	441637	PP3	1,003	989	529,200	29	\$ 60,676	Corrections	SOH OCCC
8823-8291-076	1	200406	441637	PP3	1,001	984	616,800	33	\$ 68,216	Corrections	SOH OCCC
8823-8291-076	1	200407	441637	PP3	1,018	1,018	597,600	30	\$ 66,606	Corrections	SOH OCCC
8823-8291-076	1	200408	441637	PP3	1,018	1,018	648,000	32	\$ 72,351	Corrections	SOH OCCC
8823-8291-076	1	200409	441637	PP3	1,006	994	604,800	30	\$ 70,881	Corrections	SOH OCCC
8823-8291-076	1	200411	441637	PP3	1,008	998	1,198,800	61	\$ 149,015	Corrections	SOH OCCC
8823-8291-076	1	200412	441637	PP3	972	926	526,800	29	\$ 69,007	Corrections	SOH OCCC
<b>TOTAL</b>							<b>6,849,600</b>		<b>794,028</b>		
8800-6839-077	1	200401	441662	PS5	1,450	1,340	468,000	31	\$ 57,920	DAGS	SOH DAGS
8800-6839-077	1	200402	441662	PS5	1,520	1,520	556,000	31	\$ 68,591	DAGS	SOH DAGS
8800-6839-077	1	200403	441662	PS5	1,510	1,500	592,000	30	\$ 72,027	DAGS	SOH DAGS
8800-6839-077	1	200404	441662	PS5	1,460	1,400	558,000	29	\$ 69,024	DAGS	SOH DAGS
8800-6839-077	1	200405	441662	PS5	1,450	1,380	666,000	32	\$ 78,706	DAGS	SOH DAGS
8800-6839-077	1	200406	441662	PS5	1,470	1,420	470,000	29	\$ 61,648	DAGS	SOH DAGS
8800-6839-077	1	200407	441662	PS5	1,400	1,280	450,000	30	\$ 58,695	DAGS	SOH DAGS
8800-6839-077	1	200408	441662	PS5	1,470	1,420	478,000	32	\$ 62,092	DAGS	SOH DAGS
8800-6839-077	1	200409	441662	PS5	1,470	1,420	478,000	30	\$ 63,017	DAGS	SOH DAGS
8800-6839-077	1	200410	441662	PS5	1,470	1,420	486,000	30	\$ 65,971	DAGS	SOH DAGS
8800-6839-077	1	200411	441662	PS5	1,430	1,340	508,000	31	\$ 70,169	DAGS	SOH DAGS
8800-6839-077	1	200412	441662	PS5	1,470	1,420	416,000	30	\$ 62,758	DAGS	SOH DAGS
<b>TOTAL</b>							<b>6,126,000</b>		<b>790,618</b>		
8819-2839-079	1	200401	486866	J3	590	590	173,000	31	\$ 21,838	DAGS	SOH DAGS CENTRAL SERVICES
8819-2839-079	1	200402	486866	J3	625	625	196,000	33	\$ 24,670	DAGS	SOH DAGS CENTRAL SERVICES
8819-2839-079	1	200403	486866	J3	625	625	184,000	31	\$ 23,669	DAGS	SOH DAGS CENTRAL SERVICES
8819-2839-079	1	200404	486866	J3	625	625	178,000	31	\$ 23,033	DAGS	SOH DAGS CENTRAL SERVICES
8819-2839-079	1	200405	486866	J3	634	634	180,000	29	\$ 23,627	DAGS	SOH DAGS CENTRAL SERVICES
8819-2839-079	1	200406	486866	J3	615	615	190,000	32	\$ 24,455	DAGS	SOH DAGS CENTRAL SERVICES
8819-2839-079	1	200407	486866	J3	623	623	195,000	31	\$ 24,994	DAGS	SOH DAGS CENTRAL SERVICES
8819-2839-079	1	200408	486866	J3	633	633	195,000	29	\$ 25,390	DAGS	SOH DAGS CENTRAL SERVICES
8819-2839-079	1	200409	486866	J3	626	626	205,000	30	\$ 27,172	DAGS	SOH DAGS CENTRAL SERVICES
8819-2839-079	1	200410	486866	J3	623	623	193,000	31	\$ 26,761	DAGS	SOH DAGS CENTRAL SERVICES
8819-2839-079	1	200411	486866	J3	612	612	190,000	30	\$ 27,210	DAGS	SOH DAGS CENTRAL SERVICES
8819-2839-079	1	200412	486866	J3	611	611	164,000	28	\$ 24,536	DAGS	SOH DAGS CENTRAL SERVICES
<b>TOTAL</b>							<b>2,243,000</b>		<b>297,353</b>		
8819-9076-075	1	200401	486828	J	333	333	104,640	32	\$ 13,263	DAGS	SOH DAGS
8819-9076-075	1	200402	486828	J	339	339	108,000	33	\$ 13,797	DAGS	SOH DAGS
8819-9076-075	1	200403	486828	J	305	305	96,000	30	\$ 12,407	DAGS	SOH DAGS
8819-9076-075	1	200404	486828	J	302	302	95,040	31	\$ 12,284	DAGS	SOH DAGS
8819-9076-075	1	200405	486828	J	310	310	96,960	29	\$ 12,704	DAGS	SOH DAGS
8819-9076-075	1	200406	486828	J	328	328	107,280	31	\$ 13,902	DAGS	SOH DAGS
8819-9076-075	1	200407	486828	J	319	319	106,560	31	\$ 13,732	DAGS	SOH DAGS
8819-9076-075	1	200408	486828	J	343	342	113,760	31	\$ 14,850	DAGS	SOH DAGS
8819-9076-075	1	200409	486828	J	325	325	106,800	29	\$ 14,405	DAGS	SOH DAGS
8819-9076-075	1	200410	486828	J	341	341	115,920	32	\$ 16,072	DAGS	SOH DAGS
8819-9076-075	1	200411	486828	J	349	349	96,480	28	\$ 14,353	DAGS	SOH DAGS
8819-9076-075	1	200412	486828	J	327	327	100,080	29	\$ 14,819	DAGS	SOH DAGS
<b>TOTAL</b>							<b>1,247,520</b>		<b>166,588</b>		
8820-4007-075	1	200401	484529	J3	614	614	210,000	33	\$ 25,989	DAGS	SOH DAGS
8820-4007-075	1	200402	484529	J3	658	658	219,000	33	\$ 27,509	DAGS	SOH DAGS
8820-4007-075	1	200403	484529	J3	612	612	180,000	28	\$ 23,393	DAGS	SOH DAGS
8820-4007-075	1	200404	484529	J3	623	623	217,000	32	\$ 27,291	DAGS	SOH DAGS
8820-4007-075	1	200405	484529	J3	635	635	207,000	30	\$ 26,682	DAGS	SOH DAGS
8820-4007-075	1	200406	484529	J3	640	640	202,000	30	\$ 26,130	DAGS	SOH DAGS
8820-4007-075	1	200407	484529	J3	644	644	224,000	32	\$ 28,411	DAGS	SOH DAGS
8820-4007-075	1	200408	484529	J3	666	666	223,000	30	\$ 28,868	DAGS	SOH DAGS
8820-4007-075	1	200409	484529	J3	661	661	231,000	32	\$ 30,606	DAGS	SOH DAGS
8820-4007-075	1	200410	484529	J3	641	641	216,000	29	\$ 29,877	DAGS	SOH DAGS
8820-4007-075	1	200411	484529	J3	636	636	203,000	29	\$ 29,220	DAGS	SOH DAGS
8820-4007-075	1	200412	484529	J3	610	610	202,000	29	\$ 29,386	DAGS	SOH DAGS
<b>TOTAL</b>							<b>2,534,000</b>		<b>333,361</b>		
8820-5318-076	1	200401	486837	PS5	1,417	1,389	612,000	33	\$ 71,616	DAGS	SOH DAGS
8820-5318-076	1	200402	486837	PS5	1,415	1,384	580,800	30	\$ 69,480	DAGS	SOH DAGS
8820-5318-076	1	200403	486837	PS5	1,3						

TABLE: STATE LARGE FACILITIES IN OAHU ELECTRICITY BILL HISTORY FOR YEAR 2004 (PROVIDED BY HECO)

ACCTNUM	TARCODE	REVPER	METRNR	RATESCH	BILLDM	MDM	KWH	NBRDAYS	TOTAMT	DEPARTMENT	NAME
TOTAL							1,631,200		222,814		
8824-3048-076	1	200401	441750	J	653	653	200,000	31 \$	25,486	DAGS	SOH DAGS
8824-3048-076	1	200402	441750	J	676	676	213,200	33 \$	27,269	DAGS	SOH DAGS
8824-3048-076	1	200403	441750	J	638	638	200,400	30 \$	25,913	DAGS	SOH DAGS
8824-3048-076	1	200404	441750	J	640	640	206,000	32 \$	26,478	DAGS	SOH DAGS
8824-3048-076	1	200405	441750	J	702	702	200,800	29 \$	26,803	DAGS	SOH DAGS
8824-3048-076	1	200406	441750	J	672	672	202,000	30 \$	26,610	DAGS	SOH DAGS
8824-3048-076	1	200407	441750	J	682	682	231,600	33 \$	29,748	DAGS	SOH DAGS
8824-3048-076	1	200408	441750	J	675	675	210,400	30 \$	28,003	DAGS	SOH DAGS
8824-3048-076	1	200409	441750	J	697	697	221,600	32 \$	30,353	DAGS	SOH DAGS
8824-3048-076	1	200410	441750	J	695	695	217,200	30 \$	30,935	DAGS	SOH DAGS
8824-3048-076	1	200411	441750	J	684	684	194,800	29 \$	29,102	DAGS	SOH DAGS
8824-3048-076	1	200412	441750	J	648	648	204,400	32 \$	30,437	DAGS	SOH DAGS
TOTAL							2,502,400		337,136		
8824-4189-078	1	200401	359183	J	482	482	192,240	31 \$	23,548	DAGS	SOH DAGS
8824-4189-078	1	200402	359183	J	499	499	222,000	33 \$	26,752	DAGS	SOH DAGS
8824-4189-078	1	200403	359183	J	425	425	202,080	30 \$	24,234	DAGS	SOH DAGS
8824-4189-078	1	200404	359183	J	425	425	212,640	32 \$	25,214	DAGS	SOH DAGS
8824-4189-078	1	200405	359183	J	427	427	197,280	29 \$	24,143	DAGS	SOH DAGS
8824-4189-078	1	200406	359183	J	418	418	205,680	30 \$	24,757	DAGS	SOH DAGS
8824-4189-078	1	200407	359183	J	509	509	218,640	32 \$	27,047	DAGS	SOH DAGS
8824-4189-078	1	200408	359183	J	509	509	216,720	31 \$	27,223	DAGS	SOH DAGS
8824-4189-078	1	200409	359183	J	475	475	223,200	32 \$	28,374	DAGS	SOH DAGS
8824-4189-078	1	200410	359183	J	432	432	229,200	30 \$	29,627	DAGS	SOH DAGS
8824-4189-078	1	200411	359183	J	420	420	215,280	29 \$	28,959	DAGS	SOH DAGS
8824-4189-078	1	200412	359183	J	418	418	232,080	32 \$	31,311	DAGS	SOH DAGS
TOTAL							2,567,040		321,188		
8824-4781-075	1	200401	441419	J	351	351	112,160	31 \$	14,275	DAGS	SOH DAGS
8824-4781-075	1	200402	441419	J	380	380	131,600	33 \$	16,664	DAGS	SOH DAGS
8824-4781-075	1	200403	441419	J	365	364	120,800	30 \$	15,563	DAGS	SOH DAGS
8824-4781-075	1	200404	441419	J	400	400	128,080	32 \$	16,601	DAGS	SOH DAGS
8824-4781-075	1	200405	441419	J	358	358	114,080	29 \$	15,012	DAGS	SOH DAGS
8824-4781-075	1	200406	441419	J	348	348	125,040	31 \$	16,053	DAGS	SOH DAGS
8824-4781-075	1	200407	441419	J	386	386	123,520	31 \$	16,160	DAGS	SOH DAGS
8824-4781-075	1	200408	441419	J	378	378	132,480	31 \$	17,252	DAGS	SOH DAGS
8824-4781-075	1	200409	441419	J	375	374	133,200	32 \$	17,842	DAGS	SOH DAGS
8824-4781-075	1	200410	441419	J	360	360	121,200	29 \$	16,996	DAGS	SOH DAGS
8824-4781-075	1	200411	441419	J	360	360	116,880	29 \$	16,996	DAGS	SOH DAGS
8824-4781-075	1	200412	441419	J	383	383	112,720	29 \$	16,943	DAGS	SOH DAGS
TOTAL							1,471,760		196,359		
8824-8557-076	1	200401	359551	J	1,120	1,120	313,200	31 \$	40,572	DAGS	SOH DAGS
8824-8557-076	1	200402	359551	J	1,112	1,112	366,000	33 \$	46,352	DAGS	SOH DAGS
8824-8557-076	1	200403	359551	J	1,088	1,088	334,800	30 \$	43,345	DAGS	SOH DAGS
8824-8557-076	1	200404	359551	J	1,096	1,096	360,000	32 \$	46,048	DAGS	SOH DAGS
8824-8557-076	1	200405	359551	J	1,136	1,136	351,600	29 \$	46,082	DAGS	SOH DAGS
8824-8557-076	1	200406	359551	J	1,132	1,132	377,200	31 \$	48,626	DAGS	SOH DAGS
8824-8557-076	1	200407	359551	J	1,148	1,148	354,400	31 \$	46,252	DAGS	SOH DAGS
8824-8557-076	1	200408	359551	J	1,148	1,148	370,800	31 \$	48,593	DAGS	SOH DAGS
8824-8557-076	1	200409	359551	J	1,128	1,128	367,600	32 \$	49,560	DAGS	SOH DAGS
8824-8557-076	1	200410	359551	J	1,112	1,112	355,600	29 \$	49,914	DAGS	SOH DAGS
8824-8557-076	1	200411	359551	J	1,096	1,096	312,400	29 \$	46,113	DAGS	SOH DAGS
8824-8557-076	1	200412	359551	J	1,104	1,104	311,200	29 \$	46,756	DAGS	SOH DAGS
TOTAL							4,174,800		558,214		
8824-8619-075	1	200401	333056	J5	330	255	71,500	59 \$	11,732	DAGS	SOH DAGS
8824-8619-075	1	200403	333056	J5	326	55	12,000	33 \$	3,312	DAGS	SOH DAGS
8824-8619-075	1	200404	333056	J5	435	70	9,500	62 \$	5,151	DAGS	SOH DAGS
8824-8619-075	1	200405	333056	J5	440	10	500	29 \$	2,550	DAGS	SOH DAGS CLOSED
8824-8619-077	1	200409	333056	J5	25	20	13,500	63 \$	1,981	DAGS	SOH DAGS
TOTAL							107,000		24,725		
9800-1977-002	1	200401	441420	J	830	830	242,400	33 \$	30,667	DAGS	SOH DAGS
9800-1977-002	1	200402	441420	J	805	805	226,000	29 \$	29,613	DAGS	SOH DAGS
9800-1977-002	1	200403	441420	J	809	809	250,800	31 \$	32,301	DAGS	SOH DAGS
9800-1977-002	1	200404	441420	J	804	804	253,600	33 \$	32,806	DAGS	SOH DAGS
9800-1977-002	1	200405	441420	J	860	860	238,000	29 \$	31,669	DAGS	SOH DAGS
9800-1977-002	1	200406	441420	J	856	856	246,000	29 \$	32,839	DAGS	SOH DAGS
9800-1977-002	1	200407	441420	J	852	852	270,400	33 \$	35,240	DAGS	SOH DAGS
9800-1977-002	1	200408	441420	J	852	852	244,800	28 \$	32,598	DAGS	SOH DAGS
9800-1977-002	1	200409	441420	J	857	857	269,600	30 \$	35,807	DAGS	SOH DAGS
9800-1977-002	1	200410	441420	J	850	850	298,000	33 \$	40,265	DAGS	SOH DAGS
9800-1977-002	1	200411	441420	J	858	858	275,200	30 \$	39,048	DAGS	SOH DAGS
9800-1977-002	1	200412	441420	J	843	843	235,600	28 \$	35,254	DAGS	SOH DAGS
TOTAL							3,050,400		408,107		
0000-3507-002	1	200401	493935	J	337	337	100,200	29 \$	13,021	Dept of Defense	KAPALAMA MILITARY RESERVATION
0000-3507-002	1	200402	493935	J	347	347	119,400	33 \$	15,121	Dept of Defense	KAPALAMA MILITARY RESERVATION
0000-3507-002	1	200403	493935	J	338	338	108,000	30 \$	14,006	Dept of Defense	KAPALAMA MILITARY RESERVATION
0000-3507-002	1	200404	493935	J	349	349	111,000	30 \$	14,363	Dept of Defense	KAPALAMA MILITARY RESERVATION
0000-3507-002	1	200405	493935	J	367	367	109,200	28 \$	14,537	Dept of Defense	KAPALAMA MILITARY RESERVATION
0000-3507-002	1	200406	493935	J	371	371	120,600	32 \$	15,703	Dept of Defense	KAPALAMA MILITARY RESERVATION
0000-3507-002	1	200407	493935	J	389	389	121,800	30 \$	15,949	Dept of Defense	KAPALAMA MILITARY RESERVATION
0000-3507-002	1	200408	493935	J	382	382	130,800	32 \$	17,071	Dept of Defense	KAPALAMA MILITARY RESERVATION
0000-3507-002	1	200409	493935	J	403	403	123,600	30 \$	17,024	Dept of Defense	KAPALAMA MILITARY RESERVATION
0000-3507-002	1	200410	493935	J	391	391	126,000	30 \$	17,778	Dept of Defense	KAPALAMA MILITARY RESERVATION
0000-3507-002	1	200411	493935	J	383	383	115,200	31 \$	16,989	Dept of Defense	KAPALAMA MILITARY RESERVATION
0000-3507-002	1	200412	493935	J	354	354	105,600	30 \$	15,831	Dept of Defense	KAPALAMA MILITARY RESERVATION
TOTAL							1,391,400		187,393		
8811-6162-076	1	200401	494955	J	254	254	101,920	33 \$	12,416	Dept of Defense	SOH DEPT OF DEFENSE
8811-6162-076	1	200402	494955	J	267	267	101,360	30 \$	12,648	Dept of Defense	SOH DEPT OF DEFENSE
8811-6162-076	1	200403	494955	J	269	269	96,160	29 \$	12,213	Dept of Defense	SOH DEPT OF DEFENSE
8811-6162-076	1	200404	494955	J	269	269	104,800	32 \$	13,147	Dept of Defense	SOH DEPT OF DEFENSE
8811-6162-076	1	200405	494955	J	272	272	103,680	29 \$	13,170	Dept of Defense	SOH DEPT OF DEFENSE
8811-6162-076	1	200406	494955	J	284	284	114,960	30 \$	14,479	Dept of Defense	SOH DEPT OF DEFENSE
8811-6162-076	1	200407	488053	J	284	284	123,680	32 \$	15,270	Dept of Defense	SOH DEPT OF DEFENSE
8811-6162-076	1	200408	488053	J	282	282	116,640	29 \$	14,691	Dept of Defense	SOH DEPT OF DEFENSE
8811-6162-076	1	2004									

TABLE: STATE LARGE FACILITIES IN OAHU ELECTRICITY BILL HISTORY FOR YEAR 2004 (PROVIDED BY HECO)

ACCTNUM	TARCODE	REPPER	METRNR	BRRATESCH	BILLDMD	MDM	KWH	NBRDAYS	TOTAMT	DEPARTMENT	NAME
8808-7405-076	1	200403	441724	J3	285	285	117,600	32	\$ 14,278	Dept of Health	SOH DEPT OF HEALTH
8808-7405-076	1	200404	441724	J3	278	278	106,800	30	\$ 13,198	Dept of Health	SOH DEPT OF HEALTH
8808-7405-076	1	200405	441724	J3	290	290	109,600	29	\$ 13,665	Dept of Health	SOH DEPT OF HEALTH
8808-7405-076	1	200406	441724	J3	289	289	121,600	32	\$ 14,922	Dept of Health	SOH DEPT OF HEALTH
8808-7405-076	1	200407	441724	J3	295	295	120,600	30	\$ 14,845	Dept of Health	SOH DEPT OF HEALTH
8808-7405-076	1	200408	441724	J3	288	288	120,000	29	\$ 14,804	Dept of Health	SOH DEPT OF HEALTH
8808-7405-076	1	200409	441724	J3	299	299	137,200	33	\$ 16,991	Dept of Health	SOH DEPT OF HEALTH
8808-7405-076	1	200410	441724	J3	288	288	132,800	33	\$ 17,099	Dept of Health	SOH DEPT OF HEALTH
8808-7405-076	1	200411	441724	J3	279	279	117,400	31	\$ 15,984	Dept of Health	SOH DEPT OF HEALTH
8808-7405-076	1	200412	441724	J3	267	267	92,800	27	\$ 13,333	Dept of Health	SOH DEPT OF HEALTH
TOTAL							1,395,000		175,222		
8813-6833-076	1	200401	314114	J	444	444	117,840	33	\$ 15,505	Dept of Health	SOH DEPT OF HEALTH
8813-6833-076	1	200402	314114	J	458	458	132,960	31	\$ 17,387	Dept of Health	SOH DEPT OF HEALTH
8813-6833-076	1	200403	314114	J	468	468	116,400	29	\$ 15,873	Dept of Health	SOH DEPT OF HEALTH
8813-6833-076	1	200404	314114	J	468	468	126,720	32	\$ 16,971	Dept of Health	SOH DEPT OF HEALTH
8813-6833-076	1	200405	314114	J	468	468	121,680	28	\$ 16,600	Dept of Health	SOH DEPT OF HEALTH
8813-6833-076	1	200406	314114	J	502	502	138,240	33	\$ 18,639	Dept of Health	SOH DEPT OF HEALTH
8813-6833-076	1	200407	314114	J	470	470	142,320	30	\$ 18,773	Dept of Health	SOH DEPT OF HEALTH
8813-6833-076	1	200408	314114	J	478	478	142,080	29	\$ 18,978	Dept of Health	SOH DEPT OF HEALTH
8813-6833-076	1	200409	314114	J	502	502	139,440	32	\$ 19,370	Dept of Health	SOH DEPT OF HEALTH
8813-6833-076	1	200410	314114	J	480	480	144,480	30	\$ 20,454	Dept of Health	SOH DEPT OF HEALTH
8813-6833-076	1	200411	314114	J	502	502	126,960	29	\$ 19,181	Dept of Health	SOH DEPT OF HEALTH
8813-6833-076	1	200412	314114	J	444	444	129,360	28	\$ 19,403	Dept of Health	SOH DEPT OF HEALTH
TOTAL							1,578,480		217,135		
8813-6841-075	1	200401	441759	PP3	675	634	254,400	33	\$ 30,392	Dept of Health	SOH DEPT OF HEALTH
8813-6841-075	1	200402	441759	PP3	670	623	262,000	31	\$ 31,455	Dept of Health	SOH DEPT OF HEALTH
8813-6841-075	1	200403	441759	PP3	677	637	236,800	29	\$ 29,482	Dept of Health	SOH DEPT OF HEALTH
8813-6841-075	1	200404	441759	PP3	691	664	265,600	32	\$ 32,316	Dept of Health	SOH DEPT OF HEALTH
8813-6841-075	1	200405	441759	PP3	689	660	247,600	28	\$ 30,958	Dept of Health	SOH DEPT OF HEALTH
8813-6841-075	1	200406	441759	PP3	700	684	298,000	33	\$ 35,748	Dept of Health	SOH DEPT OF HEALTH
8813-6841-075	1	200407	441759	PP3	709	700	284,400	30	\$ 34,515	Dept of Health	SOH DEPT OF HEALTH
8813-6841-075	1	200408	441759	PP3	715	713	277,600	29	\$ 34,302	Dept of Health	SOH DEPT OF HEALTH
8813-6841-075	1	200409	441759	PP3	730	730	307,200	32	\$ 38,280	Dept of Health	SOH DEPT OF HEALTH
8813-6841-075	1	200410	441759	PP3	721	712	289,600	30	\$ 37,921	Dept of Health	SOH DEPT OF HEALTH
8813-6841-075	1	200411	441759	PP3	708	687	259,600	29	\$ 35,876	Dept of Health	SOH DEPT OF HEALTH
TOTAL							2,982,800		371,246		
8821-2602-075	1	200401	485646	PP3	423	403	205,200	32	\$ 23,262	Dept of Health	SOH MALUHIA HOSP
8821-2602-075	1	200402	485646	PP3	419	395	205,200	31	\$ 23,389	Dept of Health	SOH MALUHIA HOSP
8821-2602-075	1	200403	485646	PP3	418	392	198,000	31	\$ 22,989	Dept of Health	SOH MALUHIA HOSP
8821-2602-075	1	200404	485646	PP3	415	386	196,800	30	\$ 22,827	Dept of Health	SOH MALUHIA HOSP
8821-2602-075	1	200405	485646	PP3	432	421	195,600	29	\$ 23,298	Dept of Health	SOH MALUHIA HOSP
8821-2602-075	1	200406	485646	PP3	419	396	214,800	32	\$ 24,745	Dept of Health	SOH MALUHIA HOSP
8821-2602-075	1	200407	485646	PP3	425	408	206,400	30	\$ 24,050	Dept of Health	SOH MALUHIA HOSP
8821-2602-075	1	200408	485646	PP3	435	427	205,200	29	\$ 24,412	Dept of Health	SOH MALUHIA HOSP
8821-2602-075	1	200409	485646	PP3	444	444	229,200	32	\$ 27,623	Dept of Health	SOH MALUHIA HOSP
8821-2602-075	1	200410	485646	PP3	442	439	208,800	29	\$ 26,692	Dept of Health	SOH MALUHIA HOSP
8821-2602-075	1	200411	485646	PP3	434	425	201,600	29	\$ 26,748	Dept of Health	SOH MALUHIA HOSP
8821-2602-075	1	200412	485646	PP3	425	407	219,600	33	\$ 29,018	Dept of Health	SOH MALUHIA HOSP
TOTAL							2,486,400		299,054		
9300-8875-002	1	200401	441977	PS	1,157	1,039	552,000	31	\$ 61,617	Dept of Health	SOH DEPT OF HEALTH
9300-8875-002	1	200402	441977	PS	1,137	1,000	548,400	31	\$ 63,186	Dept of Health	SOH DEPT OF HEALTH
9300-8875-002	1	200403	441977	PS	1,171	1,069	547,800	30	\$ 63,579	Dept of Health	SOH DEPT OF HEALTH
9300-8875-002	1	200404	441977	PS	1,138	1,003	526,800	30	\$ 62,074	Dept of Health	SOH DEPT OF HEALTH
9300-8875-002	1	200405	441977	PS	1,153	1,033	570,600	32	\$ 66,156	Dept of Health	SOH DEPT OF HEALTH
9300-8875-002	1	200406	441977	PS	1,182	1,090	543,600	29	\$ 64,995	Dept of Health	SOH DEPT OF HEALTH
9300-8875-002	1	200407	441977	PS	1,156	1,037	575,400	30	\$ 67,155	Dept of Health	SOH DEPT OF HEALTH
9300-8875-002	1	200408	441977	PS	1,175	1,094	601,800	31	\$ 69,870	Dept of Health	SOH DEPT OF HEALTH
9300-8875-002	1	200409	441977	PS	1,243	1,243	603,600	30	\$ 71,982	Dept of Health	SOH DEPT OF HEALTH
9300-8875-002	1	200410	441977	PS	1,199	1,155	594,000	30	\$ 73,270	Dept of Health	SOH DEPT OF HEALTH
9300-8875-002	1	200411	441977	PS	1,176	1,109	612,600	31	\$ 77,718	Dept of Health	SOH DEPT OF HEALTH
9300-8875-002	1	200412	441977	PS	1,161	1,080	568,800	30	\$ 75,623	Dept of Health	SOH DEPT OF HEALTH
TOTAL							6,845,400		817,406		
8823-3657-076	1	200401	441847	J	265	264	97,680	30	\$ 12,240	Dept of Public Safety	SOH-DEPT OF PUBLIC SAFETY
8823-3657-076	1	200402	441847	J	200	186	108,000	32	\$ 12,541	Dept of Public Safety	SOH-DEPT OF PUBLIC SAFETY
8823-3657-076	1	200403	441847	J	200	181	94,080	29	\$ 11,361	Dept of Public Safety	SOH-DEPT OF PUBLIC SAFETY
8823-3657-076	1	200404	441847	J	200	198	102,480	30	\$ 12,126	Dept of Public Safety	SOH-DEPT OF PUBLIC SAFETY
8823-3657-076	1	200405	441847	J	210	210	106,560	29	\$ 12,822	Dept of Public Safety	SOH-DEPT OF PUBLIC SAFETY
8823-3657-076	1	200406	441847	J	206	206	124,080	32	\$ 14,357	Dept of Public Safety	SOH-DEPT OF PUBLIC SAFETY
8823-3657-076	1	200407	441847	J	212	212	121,200	30	\$ 14,143	Dept of Public Safety	SOH-DEPT OF PUBLIC SAFETY
8823-3657-076	1	200408	441847	J	212	212	131,280	32	\$ 15,343	Dept of Public Safety	SOH-DEPT OF PUBLIC SAFETY
8823-3657-076	1	200409	441847	J	210	210	126,240	30	\$ 15,396	Dept of Public Safety	SOH-DEPT OF PUBLIC SAFETY
8823-3657-076	1	200410	441847	J	208	208	116,400	29	\$ 14,923	Dept of Public Safety	SOH-DEPT OF PUBLIC SAFETY
8823-3657-076	1	200411	441847	J	205	205	119,520	32	\$ 15,740	Dept of Public Safety	SOH-DEPT OF PUBLIC SAFETY
8823-3657-076	1	200412	441847	J	198	196	107,760	30	\$ 14,633	Dept of Public Safety	SOH-DEPT OF PUBLIC SAFETY
TOTAL							1,355,280		165,624		
8823-3672-076	1	200401	441645	PS	862	821	393,600	30	\$ 45,801	Dept of Public Safety	SOH-DEPT OF PUBLIC SAFETY
8823-3672-076	1	200402	441645	PS	886	869	434,400	32	\$ 49,878	Dept of Public Safety	SOH-DEPT OF PUBLIC SAFETY
8823-3672-076	1	200403	441645	PS	886	869	403,800	30	\$ 47,668	Dept of Public Safety	SOH-DEPT OF PUBLIC SAFETY
8823-3672-076	1	200404	441645	PS	907	907	400,800	29	\$ 47,514	Dept of Public Safety	SOH-DEPT OF PUBLIC SAFETY
8823-3672-076	1	200405	441645	PS	881	854	416,400	29	\$ 49,394	Dept of Public Safety	SOH-DEPT OF PUBLIC SAFETY
8823-3672-076	1	200406	441645	PS	882	857	452,400	32	\$ 52,396	Dept of Public Safety	SOH-DEPT OF PUBLIC SAFETY
8823-3672-076	1	200407	441645	PS	874	840	451,200	31	\$ 52,155	Dept of Public Safety	SOH-DEPT OF PUBLIC SAFETY
8823-3672-076	1	200408	441645	PS	900	893	454,200	31	\$ 53,625	Dept of Public Safety	SOH-DEPT OF PUBLIC SAFETY
8823-3672-076	1	200409	441645	PS	886	864	454,800	31	\$ 55,505	Dept of Public Safety	SOH-DEPT OF PUBLIC SAFETY
8823-3672-076	1	200410	441645	PS	876	845	451,200	32	\$ 57,282	Dept of Public Safety	SOH-DEPT OF PUBLIC SAFETY
8823-3672-076	1	200411	441645	PS	862	816	397,800	29	\$ 53,429	Dept of Public Safety	SOH-DEPT OF PUBLIC SAFETY
8823-3672-076	1	200412	441645	PS	871	835	386,400	29	\$ 53,078	Dept of Public Safety	SOH-DEPT OF PUBLIC SAFETY
TOTAL							5,097,000		617,725		
9300-5247-002	1	200401	417468	J	275	275	151,440	33	\$ 17,210	Dept of Public Safety	SOH DEPT OF PUBLIC SAFETY
9300-5247-002	1	200402	417468	J	275	275	137,840	30	\$ 16,231	Dept of Public Safety	SOH DEPT OF PUBLIC SAFETY
9300-5247-002	1	200403	417468	J	258	258	125,040	28	\$ 14,934	Dept of Public Safety	SOH DEPT OF PUBLIC SAFETY
9300-5247-002	1	200404	417468	J	261	261	148,800	33	\$ 17,245	Dept of Public Safety	SOH DEPT OF PUBLIC SAFETY
9300-5247-002	1	200405	417468	J	264	264	126,960	28	\$ 15,376	Dept of Public Safety	SOH DEPT OF PUBLIC SAFETY
9300-5247-002	1	200406	417468	J	266	266	160,480	32	\$ 18,618	Dept of Public Safety	SOH DEPT OF PUBLIC SAFETY
9300-5247-002	1	200407	417468	J	278	278	143,840	28	\$ 17,133	Dept of Public Safety	SOH DEPT OF PUBLIC SAFETY
9300-5247-002	1	200408	417468	J	295	295	171,120	32	\$ 20,107	Dept of Public Safety	SOH DEPT OF PUBLIC SAFETY
9300-5247-002	1	200409	417468	J	282	282	160,960	30	\$ 19,493	Dept of Public Safety	SOH DEPT OF PUBLIC SAFETY
9300-5247-002	1	200410	417468	J	283	283	177,360	33	\$ 22,018	Dept of Public Safety	SOH DEPT OF PUBLIC SAFETY
9300-5247-002	1	200411	417468	J	284	284	156,240	30	\$ 20,568	Dept of Public Safety	SOH DEPT OF PUBLIC SAFETY
9300-5247-002	1	200412	417468	J	257	257	121,040	27	\$ 16,735	Dept of Public Safety	SOH DEPT OF PUBLIC SAFETY
TOTAL							1,781,120</				

TABLE: STATE LARGE FACILITIES IN OAHU ELECTRICITY BILL HISTORY FOR YEAR 2004 (PROVIDED BY HECO)

ACCTNUM	TARCODE	REVPER	METRNR	RATESCH	BILLMD	MDM	KWH	NBRDAYS	TOTAMT	DEPARTMENT	NAME
							3,609,200		484,320		
0100-2579-004	1	200401	488472	J	409	409	73,440	33	\$ 10,659	DOE	SOH DEPARTMENT OF EDUCATION
0100-2579-004	1	200402	488472	J	431	431	100,800	29	\$ 13,888	DOE	SOH DEPARTMENT OF EDUCATION
0100-2579-004	1	200403	488472	J	439	439	111,840	32	\$ 15,161	DOE	SOH DEPARTMENT OF EDUCATION
0100-2579-004	1	200404	488472	J	422	422	89,040	30	\$ 12,731	DOE	SOH DEPARTMENT OF EDUCATION
0100-2579-004	1	200405	488472	J	429	429	106,080	29	\$ 14,620	DOE	SOH DEPARTMENT OF EDUCATION
0100-2579-004	1	200406	488472	J	449	449	111,600	32	\$ 15,460	DOE	SOH DEPARTMENT OF EDUCATION
0100-2579-004	1	200407	488472	J	356	356	86,400	30	\$ 12,050	DOE	SOH DEPARTMENT OF EDUCATION
0100-2579-004	1	200408	488472	J	433	433	101,040	29	\$ 14,266	DOE	SOH DEPARTMENT OF EDUCATION
0100-2579-004	1	200409	488472	J	452	452	116,160	33	\$ 16,367	DOE	SOH DEPARTMENT OF EDUCATION
0100-2579-004	1	200410	488472	J	460	460	106,800	30	\$ 15,915	DOE	SOH DEPARTMENT OF EDUCATION
0100-2579-004	1	200411	488472	J	457	457	106,080	29	\$ 16,276	DOE	SOH DEPARTMENT OF EDUCATION
0100-2579-004	1	200412	488472	J	435	435	100,800	31	\$ 15,850	DOE	SOH DEPARTMENT OF EDUCATION
TOTAL							1,210,080		173,242		
0100-2966-002	1	200401	488040	J	573	573	148,800	32	\$ 19,498	DOE	SOH DEPARTMENT OF EDUCATION
0100-2966-002	1	200402	488040	J	564	564	146,160	28	\$ 19,625	DOE	SOH DEPARTMENT OF EDUCATION
0100-2966-002	1	200403	488040	J	576	576	178,800	30	\$ 23,132	DOE	SOH DEPARTMENT OF EDUCATION
0100-2966-002	1	200404	488040	J	567	567	155,040	31	\$ 20,812	DOE	SOH DEPARTMENT OF EDUCATION
0100-2966-002	1	200405	488040	J	572	572	169,680	30	\$ 22,355	DOE	SOH DEPARTMENT OF EDUCATION
0100-2966-002	1	200406	488040	J	601	601	182,400	30	\$ 24,219	DOE	SOH DEPARTMENT OF EDUCATION
0100-2966-002	1	200407	488040	J	583	583	143,040	30	\$ 19,881	DOE	SOH DEPARTMENT OF EDUCATION
0100-2966-002	1	200408	488040	J	590	590	148,800	32	\$ 20,589	DOE	SOH DEPARTMENT OF EDUCATION
0100-2966-002	1	200409	488040	J	599	599	202,080	30	\$ 26,603	DOE	SOH DEPARTMENT OF EDUCATION
0100-2966-002	1	200410	488040	J	615	615	202,320	32	\$ 27,724	DOE	SOH DEPARTMENT OF EDUCATION
0100-2966-002	1	200411	488040	J	617	617	194,640	30	\$ 27,778	DOE	SOH DEPARTMENT OF EDUCATION
0100-2966-002	1	200412	488040	J	610	610	177,360	29	\$ 26,452	DOE	SOH DEPARTMENT OF EDUCATION
TOTAL							2,049,120		278,670		
8801-3223-078	1	200401	488053	J3	558	558	140,400	31	\$ 17,989	DOE	SOH DEPARTMENT OF EDUCATION
8801-3223-078	1	200402	488053	J3	558	558	129,000	31	\$ 17,385	DOE	SOH DEPARTMENT OF EDUCATION
8801-3223-078	1	200403	488053	J3	558	558	144,600	30	\$ 19,011	DOE	SOH DEPARTMENT OF EDUCATION
8801-3223-078	1	200404	488053	J3	558	558	114,600	30	\$ 16,119	DOE	SOH DEPARTMENT OF EDUCATION
8801-3223-078	1	200405	488053	J3	558	558	139,200	32	\$ 18,620	DOE	SOH DEPARTMENT OF EDUCATION
8801-3223-078	1	200406	488053	J3	558	558	134,400	29	\$ 18,357	DOE	SOH DEPARTMENT OF EDUCATION
8801-3223-078	1	200407	488053	J3	558	558	109,200	30	\$ 15,672	DOE	SOH DEPARTMENT OF EDUCATION
8801-3223-078	1	200408	467276	J3	514	503	121,200	31	\$ 16,605	DOE	SOH DEPARTMENT OF EDUCATION
8801-3223-078	1	200409	467276	J3	536	536	154,200	30	\$ 20,458	DOE	SOH DEPARTMENT OF EDUCATION
8801-3223-078	1	200410	467276	J3	506	506	162,600	30	\$ 21,824	DOE	SOH DEPARTMENT OF EDUCATION
8801-3223-078	1	200411	467276	J3	527	527	146,400	31	\$ 20,926	DOE	SOH DEPARTMENT OF EDUCATION
8801-3223-078	1	200412	467276	J3	527	527	140,400	30	\$ 20,858	DOE	SOH DEPARTMENT OF EDUCATION
TOTAL							1,636,200		223,823		
8803-0106-077	1	200401	417841	J3	501	501	105,000	33	\$ 14,347	DOE	SOH DEPARTMENT OF EDUCATION
8803-0106-077	1	200402	417841	J3	501	501	111,000	29	\$ 15,244	DOE	SOH DEPARTMENT OF EDUCATION
8803-0106-077	1	200403	417841	J3	509	509	136,200	32	\$ 17,920	DOE	SOH DEPARTMENT OF EDUCATION
8803-0106-077	1	200404	417841	J3	484	484	102,600	29	\$ 14,430	DOE	SOH DEPARTMENT OF EDUCATION
8803-0106-077	1	200405	417841	J3	518	518	130,200	30	\$ 17,537	DOE	SOH DEPARTMENT OF EDUCATION
8803-0106-077	1	200406	417841	J3	530	530	132,000	29	\$ 18,001	DOE	SOH DEPARTMENT OF EDUCATION
8803-0106-077	1	200407	498307	J3	486	486	106,200	33	\$ 14,942	DOE	SOH DEPARTMENT OF EDUCATION
8803-0106-077	1	200408	498307	J3	536	536	103,800	29	\$ 15,055	DOE	SOH DEPARTMENT OF EDUCATION
8803-0106-077	1	200409	498307	J3	553	553	148,800	33	\$ 20,222	DOE	SOH DEPARTMENT OF EDUCATION
8803-0106-077	1	200410	498307	J3	562	562	144,600	29	\$ 20,498	DOE	SOH DEPARTMENT OF EDUCATION
8803-0106-077	1	200411	498307	J3	551	551	136,200	30	\$ 20,116	DOE	SOH DEPARTMENT OF EDUCATION
8803-0106-077	1	200412	498307	J3	537	537	125,400	31	\$ 19,283	DOE	SOH DEPARTMENT OF EDUCATION
TOTAL							1,482,000		207,595		
8803-9117-078	1	200401	486912	J	354	354	87,120	30	\$ 11,663	DOE	SOH DEPARTMENT OF EDUCATION
8803-9117-078	1	200402	486912	J	355	354	99,600	29	\$ 13,199	DOE	SOH DEPARTMENT OF EDUCATION
8803-9117-078	1	200403	486912	J	364	364	114,720	32	\$ 14,901	DOE	SOH DEPARTMENT OF EDUCATION
8803-9117-078	1	200404	486912	J	372	372	92,640	29	\$ 12,761	DOE	SOH DEPARTMENT OF EDUCATION
8803-9117-078	1	200405	486912	J	379	379	111,600	30	\$ 14,808	DOE	SOH DEPARTMENT OF EDUCATION
8803-9117-078	1	200406	486912	J	403	402	124,320	32	\$ 16,489	DOE	SOH DEPARTMENT OF EDUCATION
8803-9117-078	1	200407	486912	J	333	333	99,840	31	\$ 13,314	DOE	SOH DEPARTMENT OF EDUCATION
8803-9117-078	1	200408	486912	J	387	387	115,440	31	\$ 15,436	DOE	SOH DEPARTMENT OF EDUCATION
8803-9117-078	1	200409	486912	J	394	394	122,640	30	\$ 16,546	DOE	SOH DEPARTMENT OF EDUCATION
8803-9117-078	1	200410	486912	J	389	389	108,480	29	\$ 15,470	DOE	SOH DEPARTMENT OF EDUCATION
8803-9117-078	1	200411	486912	J	418	418	125,280	32	\$ 18,179	DOE	SOH DEPARTMENT OF EDUCATION
8803-9117-078	1	200412	486912	J	402	402	111,600	29	\$ 16,873	DOE	SOH DEPARTMENT OF EDUCATION
TOTAL							1,313,280		179,640		
8806-1340-077	1	200401	484482	J3	533	512	78,000	31	\$ 11,543	DOE	SOH DEPARTMENT OF EDUCATION
8806-1340-077	1	200402	484482	J3	534	534	150,000	31	\$ 19,370	DOE	SOH DEPARTMENT OF EDUCATION
8806-1340-077	1	200404	498305	J3	586	586	261,600	59	\$ 35,487	DOE	SOH DEPARTMENT OF EDUCATION
8806-1340-077	1	200405	498305	J3	571	571	157,200	32	\$ 20,670	DOE	SOH DEPARTMENT OF EDUCATION
8806-1340-077	1	200406	498305	J3	700	700	150,000	29	\$ 21,125	DOE	SOH DEPARTMENT OF EDUCATION
8806-1340-077	1	200407	498305	J3	548	548	109,200	31	\$ 15,664	DOE	SOH DEPARTMENT OF EDUCATION
8806-1340-077	1	200408	498305	J3	572	572	126,000	31	\$ 17,640	DOE	SOH DEPARTMENT OF EDUCATION
8806-1340-077	1	200409	498305	J3	654	654	182,400	31	\$ 24,594	DOE	SOH DEPARTMENT OF EDUCATION
8806-1340-077	1	200410	498305	J3	695	695	163,200	29	\$ 23,616	DOE	SOH DEPARTMENT OF EDUCATION
8806-1340-077	1	200411	498305	J3	629	629	166,800	31	\$ 24,259	DOE	SOH DEPARTMENT OF EDUCATION
8806-1340-077	1	200412	498305	J3	604	604	151,200	30	\$ 22,851	DOE	SOH DEPARTMENT OF EDUCATION
TOTAL							1,695,600		236,818		
8806-3539-079	1	200401	491770	J	103	103	4,080	33	\$ 1,105	DOE	SOH DEPARTMENT OF EDUCATION
8806-3539-079	1	200402	491770	J	92	92	5,040	28	\$ 1,166	DOE	SOH DEPARTMENT OF EDUCATION
8806-3539-079	1	200403	491770	J	88	88	6,160	31	\$ 1,275	DOE	SOH DEPARTMENT OF EDUCATION
8806-3539-079	1	200404	491770	J	88	88	4,560	32	\$ 1,094	DOE	SOH DEPARTMENT OF EDUCATION
8806-3539-079	1	200405	491770	J	93	93	5,200	29	\$ 1,200	DOE	SOH DEPARTMENT OF EDUCATION
8806-3539-079	1	200406	491770	J	91	91	5,680	30	\$ 1,248	DOE	SOH DEPARTMENT OF EDUCATION
8806-3539-079	1	200407	491770	J	77	59	3,600	32	\$ 925	DOE	SOH DEPARTMENT OF EDUCATION
8806-3539-079	1	200408	491770	J	77	59	4,320	30	\$ 1,010	DOE	SOH DEPARTMENT OF EDUCATION
8806-3539-079	1	200409	491770	J	79	79	5,440	30	\$ 1,166	DOE	SOH DEPARTMENT OF EDUCATION
8806-3539-079	1	200410	491770	J	77	75	5,520	33	\$ 1,193	DOE	SOH DEPARTMENT OF EDUCATION
8806-3539-079	1	200411	491770	J	77	73	5,040	28	\$ 1,156	DOE	SOH DEPARTMENT OF EDUCATION
8806-3539-079	1	200412	491770	J	80	80	5,120	29	\$ 1,200	DOE	SOH DEPARTMENT OF EDUCATION
							59,760		13,736		
8809-2020-077	1	200401	495992	J3	376	376	96,600	33	\$ 12,563	DOE	SOH DEPARTMENT OF EDUCATION
8809-2020-077	1	200402	495992	J3	387	387	104,400				



TABLE: STATE LARGE FACILITIES IN OAHU ELECTRICITY BILL HISTORY FOR YEAR 2004 (PROVIDED BY HECO)

ACCTNUM	TARCODE	REVPER	METRNR	RATESCH	BILLDMD	MDM	KWH	NBRDAYS	TOTAMT	DEPARTMENT	NAME
8809-6595-077	1	200410	483982	J	398	398	112,080	30	\$ 16,006	DOE	SOH DEPARTMENT OF EDUCATION
8809-6595-077	1	200411	483982	J	413	413	103,040	31	\$ 15,592	DOE	SOH DEPARTMENT OF EDUCATION
8809-6595-077	1	200412	483982	J	388	388	94,000	29	\$ 14,618	DOE	SOH DEPARTMENT OF EDUCATION
TOTAL							1,094,240		155,445		
8811-3369-078	1	200401	441774	J3	437	437	108,000	31	\$ 14,413	DOE	SOH DEPARTMENT OF EDUCATION
8811-3369-078	1	200402	441774	J3	469	469	139,200	33	\$ 18,040	DOE	SOH DEPARTMENT OF EDUCATION
8811-3369-078	1	200403	441774	J3	467	467	123,600	29	\$ 16,535	DOE	SOH DEPARTMENT OF EDUCATION
8811-3369-078	1	200404	441774	J3	462	462	123,600	32	\$ 16,562	DOE	SOH DEPARTMENT OF EDUCATION
8811-3369-078	1	200405	441774	J3	541	541	124,800	29	\$ 17,442	DOE	SOH DEPARTMENT OF EDUCATION
8811-3369-078	1	200406	441774	J3	458	458	117,600	30	\$ 16,099	DOE	SOH DEPARTMENT OF EDUCATION
8811-3369-078	1	200407	441774	J3	406	342	104,400	32	\$ 14,296	DOE	SOH DEPARTMENT OF EDUCATION
8811-3369-078	1	200408	441774	J3	406	353	88,800	28	\$ 12,765	DOE	SOH DEPARTMENT OF EDUCATION
8811-3369-078	1	200409	441774	J3	500	500	139,200	31	\$ 19,209	DOE	SOH DEPARTMENT OF EDUCATION
8811-3369-078	1	200410	441774	J3	468	468	159,600	33	\$ 21,913	DOE	SOH DEPARTMENT OF EDUCATION
8811-3369-078	1	200411	441774	J3	484	484	118,800	28	\$ 17,975	DOE	SOH DEPARTMENT OF EDUCATION
8811-3369-078	1	200412	441774	J3	464	464	122,400	29	\$ 18,600	DOE	SOH DEPARTMENT OF EDUCATION
TOTAL							1,470,000		203,849		
8812-7930-077	1	200401	487700	J	136	136	40,960	33	\$ 5,306	DOE	SOH DEPARTMENT OF EDUCATION
8812-7930-077	1	200402	487700	J	138	138	48,160	31	\$ 6,138	DOE	SOH DEPARTMENT OF EDUCATION
8812-7930-077	1	200403	487700	J	144	144	44,320	29	\$ 5,838	DOE	SOH DEPARTMENT OF EDUCATION
8812-7930-077	1	200404	487700	J	144	144	45,440	32	\$ 5,965	DOE	SOH DEPARTMENT OF EDUCATION
8812-7930-077	1	200405	487700	J	139	139	45,600	30	\$ 5,998	DOE	SOH DEPARTMENT OF EDUCATION
8812-7930-077	1	200406	487700	J	139	138	41,680	29	\$ 5,585	DOE	SOH DEPARTMENT OF EDUCATION
8812-7930-077	1	200407	487700	J	112	106	42,320	31	\$ 5,427	DOE	SOH DEPARTMENT OF EDUCATION
8812-7930-077	1	200408	487700	J	146	146	45,040	29	\$ 6,041	DOE	SOH DEPARTMENT OF EDUCATION
8812-7930-077	1	200409	487700	J	145	145	50,480	30	\$ 6,779	DOE	SOH DEPARTMENT OF EDUCATION
8812-7930-077	1	200410	487700	J	145	145	-	0	\$ -	DOE	SOH DEPARTMENT OF EDUCATION
8812-7930-077	1	200412	487700	J	208	208	162,240	90	\$ 19,162	DOE	SOH DEPARTMENT OF EDUCATION
TOTAL							566,240		72,239		
8814-6868-077	1	200401	472614	J3	578	578	170,400	33	\$ 21,694	DOE	SOH DEPARTMENT OF EDUCATION
8814-6868-077	1	200402	472614	J3	574	574	214,000	33	\$ 26,336	DOE	SOH DEPARTMENT OF EDUCATION
8814-6868-077	1	200403	472614	J3	582	582	172,400	28	\$ 22,338	DOE	SOH DEPARTMENT OF EDUCATION
8814-6868-077	1	200404	472614	J3	584	584	188,800	31	\$ 24,071	DOE	SOH DEPARTMENT OF EDUCATION
8814-6868-077	1	200405	472614	J3	590	590	190,000	30	\$ 24,505	DOE	SOH DEPARTMENT OF EDUCATION
8814-6868-077	1	200406	472614	J3	590	590	183,200	31	\$ 23,811	DOE	SOH DEPARTMENT OF EDUCATION
8814-6868-077	1	200407	472614	J3	444	408	159,600	30	\$ 20,193	DOE	SOH DEPARTMENT OF EDUCATION
8814-6868-077	1	200408	472614	J3	513	513	158,800	32	\$ 20,899	DOE	SOH DEPARTMENT OF EDUCATION
8814-6868-077	1	200409	472614	J3	626	626	187,600	29	\$ 25,425	DOE	SOH DEPARTMENT OF EDUCATION
8814-6868-077	1	200410	472614	J3	618	618	207,600	30	\$ 28,500	DOE	SOH DEPARTMENT OF EDUCATION
8814-6868-077	1	200411	472614	J3	625	625	182,800	29	\$ 26,566	DOE	SOH DEPARTMENT OF EDUCATION
8814-6868-077	1	200412	472614	J3	581	581	188,400	29	\$ 27,367	DOE	SOH DEPARTMENT OF EDUCATION
TOTAL							2,203,600		291,705		
8818-8260-078	1	200401	483958	J	374	374	82,800	31	\$ 11,451	DOE	SOH DEPARTMENT OF EDUCATION
8818-8260-078	1	200402	483958	J	386	386	110,400	32	\$ 14,462	DOE	SOH DEPARTMENT OF EDUCATION
8818-8260-078	1	200403	483958	J	376	376	92,400	29	\$ 12,641	DOE	SOH DEPARTMENT OF EDUCATION
8818-8260-078	1	200404	483958	J	376	376	114,000	33	\$ 14,873	DOE	SOH DEPARTMENT OF EDUCATION
8818-8260-078	1	200405	483958	J	397	397	108,000	29	\$ 14,601	DOE	SOH DEPARTMENT OF EDUCATION
8818-8260-078	1	200406	483958	J	391	391	87,000	29	\$ 12,338	DOE	SOH DEPARTMENT OF EDUCATION
8818-8260-078	1	200407	483958	J	311	209	63,600	30	\$ 9,251	DOE	SOH DEPARTMENT OF EDUCATION
8818-8260-078	1	200408	483958	J	311	309	73,200	32	\$ 10,357	DOE	SOH DEPARTMENT OF EDUCATION
8818-8260-078	1	200409	483958	J	410	410	123,000	31	\$ 16,878	DOE	SOH DEPARTMENT OF EDUCATION
8818-8260-078	1	200410	483958	J	419	419	105,600	28	\$ 15,538	DOE	SOH DEPARTMENT OF EDUCATION
8818-8260-078	1	200411	483958	J	399	399	107,400	31	\$ 16,055	DOE	SOH DEPARTMENT OF EDUCATION
8818-8260-078	1	200412	483958	J	371	371	98,400	30	\$ 15,032	DOE	SOH DEPARTMENT OF EDUCATION
TOTAL							1,165,800		163,478		
8819-7510-077	1	200401	495986	J	598	596	168,000	33	\$ 22,009	DOE	SOH DEPARTMENT OF EDUCATION
8819-7510-077	1	200402	495986	J	694	694	198,400	32	\$ 26,063	DOE	SOH DEPARTMENT OF EDUCATION
8819-7510-077	1	200403	495986	J	690	690	182,400	29	\$ 24,588	DOE	SOH DEPARTMENT OF EDUCATION
8819-7510-077	1	200404	495986	J	686	686	204,800	33	\$ 26,923	DOE	SOH DEPARTMENT OF EDUCATION
8819-7510-077	1	200405	495986	J	734	734	212,400	29	\$ 28,448	DOE	SOH DEPARTMENT OF EDUCATION
8819-7510-077	1	200406	495986	J	708	708	194,400	30	\$ 26,300	DOE	SOH DEPARTMENT OF EDUCATION
8819-7510-077	1	200407	495986	J	614	614	178,000	31	\$ 23,810	DOE	SOH DEPARTMENT OF EDUCATION
8819-7510-077	1	200408	495986	J	753	753	230,000	30	\$ 30,697	DOE	SOH DEPARTMENT OF EDUCATION
8819-7510-077	1	200409	495986	J	821	821	236,000	30	\$ 32,804	DOE	SOH DEPARTMENT OF EDUCATION
8819-7510-077	1	200410	495986	J	794	794	222,000	31	\$ 32,129	DOE	SOH DEPARTMENT OF EDUCATION
8819-7510-077	1	200411	495986	J	737	737	194,000	29	\$ 29,281	DOE	SOH DEPARTMENT OF EDUCATION
8819-7510-077	1	200412	495986	J	725	725	181,200	29	\$ 28,103	DOE	SOH DEPARTMENT OF EDUCATION
TOTAL							2,401,600		331,155		
8822-5334-078	1	200401	467349	J	508	508	128,240	29	\$ 17,282	DOE	SOH DEPARTMENT OF EDUCATION
8822-5334-078	1	200402	467349	J	539	539	162,800	31	\$ 21,106	DOE	SOH DEPARTMENT OF EDUCATION
8822-5334-078	1	200403	467349	J	535	535	139,440	31	\$ 18,876	DOE	SOH DEPARTMENT OF EDUCATION
8822-5334-078	1	200404	467349	J	539	539	162,400	31	\$ 21,248	DOE	SOH DEPARTMENT OF EDUCATION
8822-5334-078	1	200405	467349	J	550	550	152,240	29	\$ 20,580	DOE	SOH DEPARTMENT OF EDUCATION
8822-5334-078	1	200406	467349	J	427	321	116,800	32	\$ 15,855	DOE	SOH DEPARTMENT OF EDUCATION
8822-5334-078	1	200407	467349	J	427	322	104,160	29	\$ 14,488	DOE	SOH DEPARTMENT OF EDUCATION
8822-5334-078	1	200408	467349	J	549	549	161,280	30	\$ 21,678	DOE	SOH DEPARTMENT OF EDUCATION
8822-5334-078	1	200409	467349	J	565	565	183,040	32	\$ 24,875	DOE	SOH DEPARTMENT OF EDUCATION
8822-5334-078	1	200410	467349	J	569	569	165,760	29	\$ 23,825	DOE	SOH DEPARTMENT OF EDUCATION
8822-5334-078	1	200411	467349	J	565	565	155,520	32	\$ 23,313	DOE	SOH DEPARTMENT OF EDUCATION
8822-5334-078	1	200412	467349	J	537	537	118,320	30	\$ 18,898	DOE	SOH DEPARTMENT OF EDUCATION
TOTAL							1,750,000		242,024		
9600-2562-003	1	200401	440532	J	477	458	118,080	33	\$ 15,737	DOE	SOH DEPARTMENT OF EDUCATION
9600-2562-003	1	200402	440532	J	477	418	114,960	28	\$ 15,767	DOE	SOH DEPARTMENT OF EDUCATION
9600-2562-003	1	200403	440532	J	477	406	125,760	30	\$ 16,934	DOE	SOH DEPARTMENT OF EDUCATION
9600-2562-003	1	200404	440532	J	571	571	131,040	32	\$ 18,391	DOE	SOH DEPARTMENT OF EDUCATION
9600-2562-003	1	200405	440532	J	477	434	128,640	30	\$ 17,381	DOE	SOH DEPARTMENT OF EDUCATION
9600-2562-003	1	200406	440532	J	542	542	136,560	29	\$ 18,954	DOE	SOH DEPARTMENT OF EDUCATION
9600-2562-003	1	200407	440532	J	477	377	147,840	33	\$ 19,548	DOE	SOH DEPARTMENT OF EDUCATION
9600-2562-003	1	200408	440532	J	550	550	136,080	28	\$ 18,903	DOE	SOH DEPARTMENT OF EDUCATION
9600-2562-003	1	200409	440532	J	550	550	157,440	30	\$ 21,466	DOE	SOH DEPARTMENT OF EDUCATION
9600-2562-003	1	200410	440532	J	550	550	171,120	32	\$ 23,743	DOE	SOH DEPARTMENT OF EDUCATION
9600-2562-003	1	200411	440532	J	538	538	156,000	30	\$ 22,682	DOE	SOH DEPARTMENT OF EDUCATION
9600-2562-003	1	200412	440532	J	559	559	133,920	28	\$ 20,829	DOE	SOH DEPARTMENT OF EDUCATION
TOTAL							1,657,440		230,333		
9800-2018-003	1	200401	493932	J	675	675	168,800	31	\$ 22,507	DOE	SOH DEPARTMENT OF EDUCATION
9800-2018-003	1	200402	493932	J	769	769	184,800	29	\$ 25,410	DOE	SOH DEPARTMENT OF EDUCATION
9800-2018-003	1	200403	493932	J	742	742	205,200	32	\$ 27,428	DOE	SOH DEPARTMENT OF EDUCATION
9800-2018-003	1	200404	493932	J	664	664	173,600	29	\$ 23,650	DOE	SOH DEPARTMENT OF EDUCATION
9800-2018-003	1	200405	493932	J	707	707	194,800	30	\$ 26,275	DOE	SOH DEPARTMENT OF EDUCATION
9800-2018-003	1	200406	493932	J	688	688	199,200	31	\$ 26,860	DOE	SOH DEPARTMENT OF EDUCATION
9800-2018-003	1	200407	493932	J	751	751	214,400	31	\$ 28,841	DOE	SOH DEPARTMENT OF EDUCATION
9800-2018-003	1	200408	493932	J	777	777	210,800	29	\$ 28,734	DOE	SOH DEPARTMENT OF EDUCATION
9800-2018-003	1	200409	493932	J	739	739	225,200	33	\$ 30,590	DOE	SOH DEPARTMENT OF EDUCATION
9800-2018-00											

TABLE: STATE LARGE FACILITIES IN OAHU ELECTRICITY BILL HISTORY FOR YEAR 2004 (PROVIDED BY HECO)

ACCTNUM	TARCODE	REVPER	METRNR	RATESCH	BILLDMD	MDM	KWH	NBRDAYS	TOTAMT	DEPARTMENT	NAME
9900-0148-003	1	200407	467278	J	521	521	198,960	33	\$ 25,421	DOE	SOH DEPARTMENT OF EDUCATION
9900-0148-003	1	200408	467278	J	576	576	169,200	29	\$ 22,724	DOE	SOH DEPARTMENT OF EDUCATION
9900-0148-003	1	200409	467278	J	596	596	197,040	30	\$ 26,261	DOE	SOH DEPARTMENT OF EDUCATION
9900-0148-003	1	200410	467278	J	591	591	216,000	32	\$ 29,306	DOE	SOH DEPARTMENT OF EDUCATION
9900-0148-003	1	200411	467278	J	591	591	196,320	30	\$ 27,986	DOE	SOH DEPARTMENT OF EDUCATION
9900-0148-003	1	200412	467278	J	577	577	185,520	29	\$ 27,396	DOE	SOH DEPARTMENT OF EDUCATION
TOTAL							2,094,000		282,619		
8800-6352-076	1	200401	359793	PP3	1,780	1,600	1,092,000	31	\$ 113,166	DOT-Airport Division	SOH DOT AIRPORT
8800-6352-076	1	200402	359793	PP3	1,760	1,560	1,124,000	33	\$ 119,962	DOT-Airport Division	SOH DOT AIRPORT
8800-6352-076	1	200403	359793	PP3	1,960	1,960	968,000	28	\$ 108,948	DOT-Airport Division	SOH DOT AIRPORT
8800-6352-076	1	200404	359793	PP3	1,800	1,640	1,012,000	29	\$ 112,105	DOT-Airport Division	SOH DOT AIRPORT
8800-6352-076	1	200405	359793	PP3	1,800	1,640	1,104,000	32	\$ 120,211	DOT-Airport Division	SOH DOT AIRPORT
8800-6352-076	1	200406	359793	PP3	1,800	1,640	1,036,000	29	\$ 116,006	DOT-Airport Division	SOH DOT AIRPORT
8800-6352-076	1	200407	359793	PP3	1,800	1,640	1,108,000	31	\$ 121,622	DOT-Airport Division	SOH DOT AIRPORT
8800-6352-076	1	200408	359793	PP3	1,800	1,640	1,112,000	31	\$ 122,264	DOT-Airport Division	SOH DOT AIRPORT
8800-6352-076	1	200409	359793	PP3	1,800	1,640	1,088,000	30	\$ 122,198	DOT-Airport Division	SOH DOT AIRPORT
8800-6352-076	1	200410	359793	PP3	1,820	1,680	1,092,000	30	\$ 126,995	DOT-Airport Division	SOH DOT AIRPORT
8800-6352-076	1	200411	359793	PP3	1,820	1,680	1,132,000	31	\$ 136,050	DOT-Airport Division	SOH DOT AIRPORT
8800-6352-076	1	200412	359793	PP3	1,780	1,600	1,068,000	30	\$ 133,978	DOT-Airport Division	SOH DOT AIRPORT
TOTAL							12,936,000		1,453,504		
8800-6353-076	1	200401	441630	PP3	616	608	347,000	31	\$ 36,724	DOT-Airport Division	SOH DOT AIRPORT
8800-6353-076	1	200402	441630	PP3	604	600	370,000	33	\$ 39,921	DOT-Airport Division	SOH DOT AIRPORT
8800-6353-076	1	200403	441630	PP3	588	568	317,000	28	\$ 35,240	DOT-Airport Division	SOH DOT AIRPORT
8800-6353-076	1	200404	441630	PP3	628	628	325,000	29	\$ 36,780	DOT-Airport Division	SOH DOT AIRPORT
8800-6353-076	1	200405	441630	PP3	600	572	365,000	32	\$ 39,954	DOT-Airport Division	SOH DOT AIRPORT
8800-6353-076	1	200406	441630	PP3	598	568	332,000	29	\$ 37,607	DOT-Airport Division	SOH DOT AIRPORT
8800-6353-076	1	200407	441630	PP3	600	572	357,000	31	\$ 39,590	DOT-Airport Division	SOH DOT AIRPORT
8800-6353-076	1	200408	441630	PP3	602	576	363,000	31	\$ 40,210	DOT-Airport Division	SOH DOT AIRPORT
8800-6353-076	1	200409	441630	PP3	618	608	358,000	30	\$ 40,644	DOT-Airport Division	SOH DOT AIRPORT
8800-6353-076	1	200410	441630	PP3	616	604	362,000	30	\$ 42,611	DOT-Airport Division	SOH DOT AIRPORT
8800-6353-076	1	200411	441630	PP3	610	592	353,000	31	\$ 43,385	DOT-Airport Division	SOH DOT AIRPORT
8800-6353-076	1	200412	441630	PP3	600	572	347,000	30	\$ 44,199	DOT-Airport Division	SOH DOT AIRPORT
TOTAL							4,196,000		476,865		
8800-6356-075	1	200401	488489	J3	184	184	92,400	31	\$ 10,356	DOT-Airport Division	SOH DOT AIRPORT
8800-6356-075	1	200402	488489	J3	185	185	110,400	33	\$ 12,378	DOT-Airport Division	SOH DOT AIRPORT
8800-6356-075	1	200403	488489	J3	178	178	82,800	28	\$ 9,792	DOT-Airport Division	SOH DOT AIRPORT
8800-6356-075	1	200404	488489	J3	179	179	91,200	29	\$ 10,683	DOT-Airport Division	SOH DOT AIRPORT
8800-6356-075	1	200405	488489	J3	157	157	93,600	32	\$ 10,642	DOT-Airport Division	SOH DOT AIRPORT
8800-6356-075	1	200406	488489	J3	157	157	87,600	29	\$ 10,239	DOT-Airport Division	SOH DOT AIRPORT
8800-6356-075	1	200407	488489	J3	161	161	92,400	31	\$ 10,664	DOT-Airport Division	SOH DOT AIRPORT
8800-6356-075	1	200408	488489	J3	163	163	97,200	31	\$ 11,158	DOT-Airport Division	SOH DOT AIRPORT
8800-6356-075	1	200409	488489	J3	164	164	97,200	30	\$ 11,360	DOT-Airport Division	SOH DOT AIRPORT
8800-6356-075	1	200410	488489	J3	167	167	98,400	30	\$ 11,945	DOT-Airport Division	SOH DOT AIRPORT
8800-6356-075	1	200412	488489	J3	215	215	260,400	61	\$ 33,255	DOT-Airport Division	SOH DOT AIRPORT
TOTAL							1,203,600		142,471		
8800-6357-075	1	200401	359548	J4	205	205	118,800	31	\$ 12,916	DOT-Airport Division	SOH DOT AIRPORT
8800-6357-075	1	200402	359548	J4	205	205	122,240	33	\$ 13,701	DOT-Airport Division	SOH DOT AIRPORT
8800-6357-075	1	200403	359548	J4	199	199	101,200	28	\$ 11,851	DOT-Airport Division	SOH DOT AIRPORT
8800-6357-075	1	200404	359548	J4	195	195	102,960	29	\$ 12,082	DOT-Airport Division	SOH DOT AIRPORT
8800-6357-075	1	200405	359548	J4	186	186	117,280	32	\$ 13,312	DOT-Airport Division	SOH DOT AIRPORT
8800-6357-075	1	200406	359548	J4	188	188	123,120	29	\$ 14,099	DOT-Airport Division	SOH DOT AIRPORT
8800-6357-075	1	200407	359548	J4	192	192	133,520	31	\$ 15,033	DOT-Airport Division	SOH DOT AIRPORT
8800-6357-075	1	200408	359548	J4	189	189	133,680	31	\$ 15,031	DOT-Airport Division	SOH DOT AIRPORT
8800-6357-075	1	200409	359548	J4	190	190	128,880	30	\$ 14,833	DOT-Airport Division	SOH DOT AIRPORT
8800-6357-075	1	200410	359548	J4	186	186	126,720	30	\$ 15,154	DOT-Airport Division	SOH DOT AIRPORT
8800-6357-075	1	200411	359548	J4	186	186	129,280	31	\$ 16,019	DOT-Airport Division	SOH DOT AIRPORT
8800-6357-075	1	200412	359548	J4	231	231	147,040	30	\$ 18,944	DOT-Airport Division	SOH DOT AIRPORT
TOTAL							1,484,720		172,975		
8800-6358-076	1	200401	486902	PP3	1,670	1,649	1,092,000	31	\$ 111,700	DOT-Airport Division	SOH DOT AIRPORT
8800-6358-076	1	200402	486902	PP3	1,662	1,632	1,152,000	33	\$ 120,975	DOT-Airport Division	SOH DOT AIRPORT
8800-6358-076	1	200403	486902	PP3	1,632	1,572	945,600	28	\$ 102,810	DOT-Airport Division	SOH DOT AIRPORT
8800-6358-076	1	200404	486902	PP3	1,622	1,553	988,800	29	\$ 107,601	DOT-Airport Division	SOH DOT AIRPORT
8800-6358-076	1	200405	486902	PP3	1,631	1,570	1,092,000	32	\$ 116,761	DOT-Airport Division	SOH DOT AIRPORT
8800-6358-076	1	200406	486902	PP3	1,637	1,582	993,600	29	\$ 109,876	DOT-Airport Division	SOH DOT AIRPORT
8800-6358-076	1	200407	486902	PP3	1,634	1,577	1,075,200	31	\$ 116,409	DOT-Airport Division	SOH DOT AIRPORT
8800-6358-076	1	200408	486902	PP3	1,632	1,572	1,077,600	31	\$ 116,796	DOT-Airport Division	SOH DOT AIRPORT
8800-6358-076	1	200409	486902	PP3	1,614	1,574	1,032,000	30	\$ 114,492	DOT-Airport Division	SOH DOT AIRPORT
8800-6358-076	1	200410	486902	PP3	1,614	1,579	1,020,000	30	\$ 117,890	DOT-Airport Division	SOH DOT AIRPORT
8800-6358-076	1	200411	486902	PP3	1,621	1,594	1,092,000	31	\$ 130,178	DOT-Airport Division	SOH DOT AIRPORT
8800-6358-076	1	200412	486902	PP3	1,625	1,601	1,056,000	30	\$ 131,344	DOT-Airport Division	SOH DOT AIRPORT
TOTAL							12,616,800		1,396,833		
8800-6359-076	1	200401	441628	PP3	918	900	618,000	31	\$ 63,176	DOT-Airport Division	SOH DOT AIRPORT
8800-6359-076	1	200402	441628	PP3	918	900	657,000	33	\$ 68,967	DOT-Airport Division	SOH DOT AIRPORT
8800-6359-076	1	200403	441628	PP3	912	888	549,000	28	\$ 59,794	DOT-Airport Division	SOH DOT AIRPORT
8800-6359-076	1	200404	441628	PP3	912	888	558,000	29	\$ 60,902	DOT-Airport Division	SOH DOT AIRPORT
8800-6359-076	1	200405	441628	PP3	870	804	567,000	32	\$ 61,240	DOT-Airport Division	SOH DOT AIRPORT
8800-6359-076	1	200406	441628	PP3	924	912	555,000	29	\$ 61,812	DOT-Airport Division	SOH DOT AIRPORT
8800-6359-076	1	200407	441628	PP3	918	900	624,000	31	\$ 67,504	DOT-Airport Division	SOH DOT AIRPORT
8800-6359-076	1	200408	441628	PP3	918	900	627,000	31	\$ 67,889	DOT-Airport Division	SOH DOT AIRPORT
8800-6359-076	1	200409	441628	PP3	924	912	615,000	30	\$ 68,069	DOT-Airport Division	SOH DOT AIRPORT
8800-6359-076	1	200410	441628	PP3	936	936	621,000	30	\$ 71,551	DOT-Airport Division	SOH DOT AIRPORT
8800-6359-076	1	200411	441628	PP3	960	960	639,000	31	\$ 76,563	DOT-Airport Division	SOH DOT AIRPORT
8800-6359-076	1	200412	441628	PP3	960	960	606,000	30	\$ 75,965	DOT-Airport Division	SOH DOT AIRPORT
TOTAL							7,236,000		803,431		
8800-6360-075	1	200401	441679	PP3	1,146	1,008	636,000	31	\$ 66,995	DOT-Airport Division	SOH DOT AIRPORT
8800-6360-075	1	200402	441679	PP3	1,146	1,008	675,000	33	\$ 72,839	DOT-Airport Division	SOH DOT AIRPORT
8800-6360-075	1	200403	441679	PP3	1,146	1,008	561,000	28	\$ 63,141	DOT-Airport Division	SOH DOT AIRPORT
8800-6360-075	1	200404	441679	PP3	1,140	996	573,000	29	\$ 64,761	DOT-Airport Division	SOH DOT AIRPORT
8800-6360-075	1	200405	441679	PP3	1,152	1,020	624,000	32	\$ 69,360	DOT-Airport Division	SOH DOT AIRPORT
8800-6360-075	1	200406	441679	PP3	1,176	1,068	609,000	29	\$ 69,407	DOT-Airport Division	SOH DOT AIRPORT
8800-6360-075	1	200407	441679	PP3	1,188	1,092	684,000	31	\$ 75,741	DOT-Airport Division	SOH DOT AIRPORT
8800-6360-075	1	200408	441679	PP3	1,188	1,092	684,000	31	\$ 75,856	DOT-Airport Division	SOH DOT AIRPORT
8800-6360-075	1	200409	441679	PP3	1,182	1,080	660,000	30	\$ 74,912	DOT-Airport Division	SOH DOT AIRPORT
8800-6360-075	1	200410	441679	PP3	1,098	1,092	663,000	30	\$ 77,164	DOT-Airport Division	SOH DOT AIRPORT
8800-6360-075	1	200411	441679	PP3	1,092	1,092	675,000	31	\$ 81,455	DOT-Airport Division	SOH DOT AIRPORT
8800-6360-075	1	200412	441679	PP3	1,074	1,056	609,000	30	\$ 77,349	DOT-Airport Division	SOH DOT AIRPORT
TOTAL							7,653,000		868,980		
8800-6364-076	1	200401	441633	PP3	1,061	1,061	499,200	31	\$ 54,834	DOT-Airport Division	SOH DOT AIRPORT
8800-6364-076	1	200402	441633	PP3	1,027	994	524,400	33	\$ 58,516	DOT-Airport Division	SOH DOT AIRPORT
8800-6364-076	1	200403	44163								

TABLE: STATE LARGE FACILITIES IN OAHU ELECTRICITY BILL HISTORY FOR YEAR 2004 (PROVIDED BY HECO)

ACCTNUM	TARCODE	REVPER	METRNR	RATESCH	BILLDMD	MDM	KWH	NBRDAYS	TOTAMT	DEPARTMENT	NAME
8800-6365-075	1	200404	486873	PP3	2,364	2,184	1,212,000	29	\$ 136,164	DOT-Airport Division	SOH DOT AIRPORT
8800-6365-075	1	200405	486873	PP3	2,328	2,112	1,308,000	32	\$ 144,106	DOT-Airport Division	SOH DOT AIRPORT
8800-6365-075	1	200406	486873	PP3	2,484	2,424	1,350,000	29	\$ 151,865	DOT-Airport Division	SOH DOT AIRPORT
8800-6365-075	1	200407	486873	PP3	2,409	2,274	1,500,000	31	\$ 163,264	DOT-Airport Division	SOH DOT AIRPORT
8800-6365-075	1	200408	486873	PP3	2,415	2,286	1,512,000	31	\$ 164,799	DOT-Airport Division	SOH DOT AIRPORT
8800-6365-075	1	200409	486873	PP3	2,484	2,424	1,518,000	30	\$ 169,030	DOT-Airport Division	SOH DOT AIRPORT
8800-6365-075	1	200410	486873	PP3	2,466	2,430	1,494,000	30	\$ 173,332	DOT-Airport Division	SOH DOT AIRPORT
8800-6365-075	1	200411	486873	PP3	2,433	2,382	1,524,000	31	\$ 183,114	DOT-Airport Division	SOH DOT AIRPORT
8800-6365-075	1	200412	486873	PP3	2,415	2,400	1,392,000	30	\$ 175,836	DOT-Airport Division	SOH DOT AIRPORT
TOTAL							16,932,000		1,905,754		
9201-0482-002	1	200401	441881	PP3	2,039	1,692	1,020,000	31	\$ 110,164	DOT-Airport Division	SOH DOT AIRPORT
9201-0482-002	1	200402	441881	PP3	2,026	1,666	979,200	33	\$ 110,463	DOT-Airport Division	SOH DOT AIRPORT
9201-0482-002	1	200403	441881	PP3	1,972	1,558	844,800	28	\$ 98,378	DOT-Airport Division	SOH DOT AIRPORT
9201-0482-002	1	200404	441881	PP3	1,970	1,555	808,800	29	\$ 96,101	DOT-Airport Division	SOH DOT AIRPORT
9201-0482-002	1	200405	441881	PP3	1,996	1,606	950,400	32	\$ 108,943	DOT-Airport Division	SOH DOT AIRPORT
9201-0482-002	1	200406	441881	PP3	2,000	1,615	972,000	29	\$ 112,576	DOT-Airport Division	SOH DOT AIRPORT
9201-0482-002	1	200407	441881	PP3	2,002	1,618	1,077,600	31	\$ 121,312	DOT-Airport Division	SOH DOT AIRPORT
9201-0482-002	1	200408	441881	PP3	2,003	1,620	1,120,800	31	\$ 125,394	DOT-Airport Division	SOH DOT AIRPORT
9201-0482-002	1	200409	441881	PP3	2,042	1,699	1,144,800	30	\$ 130,115	DOT-Airport Division	SOH DOT AIRPORT
9201-0482-002	1	200410	441881	PP3	1,769	1,769	1,132,800	30	\$ 131,066	DOT-Airport Division	SOH DOT AIRPORT
9201-0482-002	1	200411	441881	PP3	1,742	1,716	1,116,000	31	\$ 134,461	DOT-Airport Division	SOH DOT AIRPORT
9201-0482-002	1	200412	441881	PP3	1,732	1,694	1,017,600	30	\$ 129,038	DOT-Airport Division	SOH DOT AIRPORT
TOTAL							12,184,800		1,408,012		
9300-0115-002	1	200401	495965	PS	1,546	1,517	979,200	31	\$ 102,306	DOT-Airport Division	SOH DOT AIRPORT
9300-0115-002	1	200402	495965	PS	1,555	1,536	1,032,000	33	\$ 110,949	DOT-Airport Division	SOH DOT AIRPORT
9300-0115-002	1	200403	495965	PS	1,651	1,651	921,600	28	\$ 102,590	DOT-Airport Division	SOH DOT AIRPORT
9300-0115-002	1	200404	495965	PS	1,603	1,555	955,200	29	\$ 106,035	DOT-Airport Division	SOH DOT AIRPORT
9300-0115-002	1	200405	495965	PS	1,622	1,594	1,022,400	32	\$ 112,297	DOT-Airport Division	SOH DOT AIRPORT
9300-0115-002	1	200406	495965	PS	1,622	1,594	945,600	29	\$ 107,073	DOT-Airport Division	SOH DOT AIRPORT
9300-0115-002	1	200407	495965	PS	1,642	1,632	1,046,400	31	\$ 115,589	DOT-Airport Division	SOH DOT AIRPORT
9300-0115-002	1	200408	495965	PS	1,670	1,670	1,060,800	31	\$ 117,487	DOT-Airport Division	SOH DOT AIRPORT
9300-0115-002	1	200409	495965	PS	1,670	1,670	1,041,600	30	\$ 117,664	DOT-Airport Division	SOH DOT AIRPORT
9300-0115-002	1	200410	495965	PS	1,661	1,651	1,003,200	30	\$ 118,489	DOT-Airport Division	SOH DOT AIRPORT
9300-0115-002	1	200411	495965	PS	1,651	1,632	1,032,000	31	\$ 126,100	DOT-Airport Division	SOH DOT AIRPORT
9300-0115-002	1	200412	495965	PS	1,651	1,632	1,003,200	30	\$ 127,682	DOT-Airport Division	SOH DOT AIRPORT
TOTAL							12,043,200		1,364,261		
9300-4842-002	1	200401	417651	PP3	396	396	228,600	31	\$ 24,292	DOT-Airport Division	SOH DOT AIRPORT
9300-4842-002	1	200402	417651	PP3	396	396	246,600	33	\$ 26,764	DOT-Airport Division	SOH DOT AIRPORT
9300-4842-002	1	200403	417651	PP3	378	360	208,800	28	\$ 23,336	DOT-Airport Division	SOH DOT AIRPORT
9300-4842-002	1	200404	417651	PP3	396	396	214,200	29	\$ 24,257	DOT-Airport Division	SOH DOT AIRPORT
9300-4842-002	1	200405	417651	PP3	378	360	228,600	32	\$ 25,310	DOT-Airport Division	SOH DOT AIRPORT
9300-4842-002	1	200406	417651	PP3	387	378	214,200	29	\$ 24,527	DOT-Airport Division	SOH DOT AIRPORT
9300-4842-002	1	200407	417651	PP3	414	414	234,000	31	\$ 26,446	DOT-Airport Division	SOH DOT AIRPORT
9300-4842-002	1	200408	417651	PP3	387	360	225,000	31	\$ 25,338	DOT-Airport Division	SOH DOT AIRPORT
9300-4842-002	1	200409	417651	PP3	378	342	214,200	30	\$ 24,670	DOT-Airport Division	SOH DOT AIRPORT
9300-4842-002	1	200410	417651	PP3	378	342	205,200	30	\$ 24,800	DOT-Airport Division	SOH DOT AIRPORT
9300-4842-002	1	200411	417651	PP3	369	324	212,400	31	\$ 26,392	DOT-Airport Division	SOH DOT AIRPORT
9300-4842-002	1	200412	417651	PP3	405	396	207,000	30	\$ 27,229	DOT-Airport Division	SOH DOT AIRPORT
TOTAL							2,638,800		303,361		
8811-0340-077	1	200401	484718	J	168	168	64,640	32	\$ 7,941	DOT-Highway Division	SOH DOT HIGHWAY DIVISION (-)
8811-0340-077	1	200402	484718	J	166	166	65,280	32	\$ 8,131	DOT-Highway Division	SOH DOT HIGHWAY DIVISION (-)
8811-0340-077	1	200403	484718	J	182	182	62,000	29	\$ 7,974	DOT-Highway Division	SOH DOT HIGHWAY DIVISION (-)
8811-0340-077	1	200404	484718	J	169	169	63,280	30	\$ 8,027	DOT-Highway Division	SOH DOT HIGHWAY DIVISION (-)
8811-0340-077	1	200405	484718	J	167	167	72,800	31	\$ 9,011	DOT-Highway Division	SOH DOT HIGHWAY DIVISION (-)
8811-0340-077	1	200406	484718	J	165	165	70,320	31	\$ 8,795	DOT-Highway Division	SOH DOT HIGHWAY DIVISION (-)
8811-0340-077	1	200407	484718	J	165	164	69,360	29	\$ 8,666	DOT-Highway Division	SOH DOT HIGHWAY DIVISION (-)
8811-0340-077	1	200408	484718	J	184	184	71,360	31	\$ 9,139	DOT-Highway Division	SOH DOT HIGHWAY DIVISION (-)
8811-0340-077	1	200409	484718	J	188	188	72,400	31	\$ 9,517	DOT-Highway Division	SOH DOT HIGHWAY DIVISION (-)
8811-0340-077	1	200410	484718	J	172	172	70,240	33	\$ 9,484	DOT-Highway Division	SOH DOT HIGHWAY DIVISION (-)
8811-0340-077	1	200411	484718	J	169	168	53,440	29	\$ 7,792	DOT-Highway Division	SOH DOT HIGHWAY DIVISION (-)
8811-0340-077	1	200412	484718	J	169	168	53,520	27	\$ 7,958	DOT-Highway Division	SOH DOT HIGHWAY DIVISION (-)
TOTAL							788,640		102,437		
8824-9624-058	1	200401	487217	J3	264	264	123,200	33	\$ 14,130	DOT-Highway Division	SOH DOT HIGHWAY DIVISION (-)
8824-9624-058	1	200402	487217	J3	261	261	108,800	29	\$ 13,081	DOT-Highway Division	SOH DOT HIGHWAY DIVISION (-)
8824-9624-058	1	200403	487217	J3	270	270	118,400	32	\$ 14,161	DOT-Highway Division	SOH DOT HIGHWAY DIVISION (-)
8824-9624-058	1	200404	487217	J3	266	266	113,600	30	\$ 13,713	DOT-Highway Division	SOH DOT HIGHWAY DIVISION (-)
8824-9624-058	1	200405	487217	J3	266	266	115,200	29	\$ 13,958	DOT-Highway Division	SOH DOT HIGHWAY DIVISION (-)
8824-9624-058	1	200406	487217	J3	269	269	131,200	32	\$ 15,589	DOT-Highway Division	SOH DOT HIGHWAY DIVISION (-)
8824-9624-058	1	200407	487217	J3	266	266	118,400	30	\$ 14,293	DOT-Highway Division	SOH DOT HIGHWAY DIVISION (-)
8824-9624-058	1	200408	487217	J3	262	262	115,200	29	\$ 14,045	DOT-Highway Division	SOH DOT HIGHWAY DIVISION (-)
8824-9624-058	1	200409	487217	J3	261	261	123,200	33	\$ 15,154	DOT-Highway Division	SOH DOT HIGHWAY DIVISION (-)
8824-9624-058	1	200410	487217	J3	258	258	107,200	30	\$ 14,081	DOT-Highway Division	SOH DOT HIGHWAY DIVISION (-)
8824-9624-058	1	200411	487217	J3	250	250	100,800	29	\$ 13,779	DOT-Highway Division	SOH DOT HIGHWAY DIVISION (-)
8824-9624-058	1	200412	487217	J3	245	245	97,600	31	\$ 13,720	DOT-Highway Division	SOH DOT HIGHWAY DIVISION (-)
TOTAL							1,372,800		169,706		
9400-4323-001	1	200401	441877	J3	2,006	1,246	366,000	33	\$ 51,180	DOT-Highway Division	SOH DOT HIGHWAY DIVISION (-)
9400-4323-001	1	200402	441877	J3	2,006	1,717	330,000	29	\$ 48,108	DOT-Highway Division	SOH DOT HIGHWAY DIVISION (-)
9400-4323-001	1	200403	441877	J3	2,006	1,458	342,000	30	\$ 49,680	DOT-Highway Division	SOH DOT HIGHWAY DIVISION (-)
9400-4323-001	1	200404	441877	J3	2,006	904	336,000	32	\$ 49,223	DOT-Highway Division	SOH DOT HIGHWAY DIVISION (-)
9400-4323-001	1	200405	441877	J3	2,006	788	324,000	29	\$ 48,078	DOT-Highway Division	SOH DOT HIGHWAY DIVISION (-)
9400-4323-001	1	200406	441877	J3	2,006	1,048	318,000	29	\$ 48,736	DOT-Highway Division	SOH DOT HIGHWAY DIVISION (-)
9400-4323-001	1	200407	441877	J3	2,006	655	348,000	33	\$ 50,978	DOT-Highway Division	SOH DOT HIGHWAY DIVISION (-)
9400-4323-001	1	200408	441877	J3	2,006	716	312,000	29	\$ 47,087	DOT-Highway Division	SOH DOT HIGHWAY DIVISION (-)
9400-4323-001	1	200409	441877	J3	2,006	785	372,000	33	\$ 55,044	DOT-Highway Division	SOH DOT HIGHWAY DIVISION (-)
9400-4323-001	1	200410	441877	J3	1,908	1,908	324,000	30	\$ 50,390	DOT-Highway Division	SOH DOT HIGHWAY DIVISION (-)
9400-4323-001	1	200411	441877	J3	1,431	1,260	300,000	28	\$ 45,953	DOT-Highway Division	SOH DOT HIGHWAY DIVISION (-)
9400-4323-001	1	200412	441877	J3	1,431	1,296	312,000	30	\$ 48,503	DOT-Highway Division	SOH DOT HIGHWAY DIVISION (-)
TOTAL							3,984,000		592,960		
8819-5909-076	1	200401	486827	PP3	349	348	168,000	30	\$ 19,175	HCDCH	HCDCH
8819-5909-076	1	200402	486827	PP3	350	350	184,000	33	\$ 20,803	HCDCH	HCDCH
8819-5909-076	1	200403	486827	PP3	348	345	168,500	30	\$ 19,607	HCDCH	HCDCH
8819-5909-076	1	200404	486827	PP3	351	351	175,000	32	\$ 20,218	HCDCH	HCDCH
8819-5909-076	1	200405	486827	PP3	339	327	155,500	29	\$ 18,612	HCDCH	HCDCH
8819-5909-076	1	200406	486827	PP3	339	328	159,000	30	\$ 18,877	HCDCH	HCDCH
8819-5909-076	1	200407	486827	PP3	340	329	171,500	32	\$ 19,980	HCDCH	HCDCH
8819-5909-076	1	200408	486827	PP3	341	332	162,500	30	\$ 19,451	HCDCH	HCDCH
8819-5909-076	1	200409	486827	PP3	340	330	161,000	30	\$ 19,930	HCDCH	HCDCH
8819-5909-076	1	200410	486827	PP3	342	334	165,000	31	\$ 21,115	HCDCH	HCDCH
8819-5909-076	1	200411	486827	PP3	347	3					

TABLE: STATE LARGE FACILITIES IN OAHU ELECTRICITY BILL HISTORY FOR YEAR 2004 (PROVIDED BY HECO)

ACCTNUM	TARCD	REVPER	METRNR	RATESCH	BILLDMD	MDM	KWH	NBRDAYS	TOTAMT	DEPARTMENT	NAME
TOTAL							2,579,400		329,819		
9400-2851-001	1	200401	417930	J	228	228	101,040	29 \$	12,038	HCDCH	SOH HCDCH *
9400-2851-001	1	200402	417930	J	228	228	107,920	31 \$	12,724	HCDCH	SOH HCDCH *
9400-2851-001	1	200403	417930	J	225	225	105,040	31 \$	12,549	HCDCH	SOH HCDCH *
9400-2851-001	1	200404	417930	J	228	228	101,680	30 \$	12,255	HCDCH	SOH HCDCH *
9400-2851-001	1	200405	417930	J	230	230	100,400	29 \$	12,350	HCDCH	SOH HCDCH *
9400-2851-001	1	200406	417930	J	229	229	105,920	32 \$	12,797	HCDCH	SOH HCDCH *
9400-2851-001	1	200407	417930	J	240	240	120,160	31 \$	14,262	HCDCH	SOH HCDCH *
9400-2851-001	1	200408	417930	J	240	240	106,480	29 \$	13,159	HCDCH	SOH HCDCH *
9400-2851-001	1	200409	417930	J	239	239	119,280	32 \$	14,864	HCDCH	SOH HCDCH *
9400-2851-001	1	200410	417930	J	254	254	111,920	29 \$	14,858	HCDCH	SOH HCDCH *
9400-2851-001	1	200411	417930	J	251	251	116,480	30 \$	15,811	HCDCH	SOH HCDCH *
9400-2851-001	1	200412	417930	J	248	248	122,320	32 \$	16,694	HCDCH	SOH HCDCH *
TOTAL							1,318,640		164,363		
9400-2852-001	1	200401	417924	J	223	223	102,720	29 \$	12,135	HCDCH	SOH HCDCH *
9400-2852-001	1	200402	417924	J	226	226	109,600	31 \$	12,860	HCDCH	SOH HCDCH *
9400-2852-001	1	200403	417924	J	226	226	105,040	31 \$	12,559	HCDCH	SOH HCDCH *
9400-2852-001	1	200404	417924	J	223	223	103,600	30 \$	12,377	HCDCH	SOH HCDCH *
9400-2852-001	1	200405	417924	J	232	232	103,520	29 \$	12,665	HCDCH	SOH HCDCH *
9400-2852-001	1	200406	417924	J	228	228	108,560	32 \$	13,036	HCDCH	SOH HCDCH *
9400-2852-001	1	200407	417924	J	230	230	122,000	31 \$	14,311	HCDCH	SOH HCDCH *
9400-2852-001	1	200408	417924	J	234	234	107,680	29 \$	13,198	HCDCH	SOH HCDCH *
9400-2852-001	1	200409	417924	J	238	238	120,720	32 \$	14,989	HCDCH	SOH HCDCH *
9400-2852-001	1	200410	417924	J	243	243	112,240	29 \$	14,767	HCDCH	SOH HCDCH *
9400-2852-001	1	200411	417924	J	243	243	116,880	30 \$	15,760	HCDCH	SOH HCDCH *
9400-2852-001	1	200412	417924	J	243	243	125,360	32 \$	16,977	HCDCH	SOH HCDCH *
TOTAL							1,337,920		165,635		
8819-9077-077	1	200401	486862	PS	860	826	347,200	33 \$	41,400	Judiciary	SOH JUDICIARY *
8819-9077-077	1	200402	486862	PS	864	833	328,400	30 \$	40,110	Judiciary	SOH JUDICIARY *
8819-9077-077	1	200403	486862	PS	844	793	298,800	29 \$	37,546	Judiciary	SOH JUDICIARY *
8819-9077-077	1	200404	486862	PS	826	758	317,200	32 \$	39,046	Judiciary	SOH JUDICIARY *
8819-9077-077	1	200405	486862	PS	802	709	303,200	29 \$	37,987	Judiciary	SOH JUDICIARY *
8819-9077-077	1	200406	486862	PS	795	696	324,800	30 \$	39,793	Judiciary	SOH JUDICIARY *
8819-9077-077	1	200407	486862	PS	763	632	362,400	32 \$	42,720	Judiciary	SOH JUDICIARY *
8819-9077-077	1	200408	486862	PS	783	672	342,000	30 \$	41,626	Judiciary	SOH JUDICIARY *
8819-9077-077	1	200409	486862	PS	795	695	344,000	30 \$	43,201	Judiciary	SOH JUDICIARY *
8819-9077-077	1	200410	486862	PS	807	720	352,400	31 \$	45,789	Judiciary	SOH JUDICIARY *
8819-9077-077	1	200411	486862	PS	761	654	310,800	29 \$	42,474	Judiciary	SOH JUDICIARY *
8819-9077-077	1	200412	486862	PS	735	636	314,800	30 \$	43,338	Judiciary	SOH JUDICIARY *
TOTAL							3,946,000		495,030		
8824-2360-078	1	200401	491861	PS	965	854	400,000	32 \$	47,164	Judiciary	SOH JUDICIARY *
8824-2360-078	1	200402	491861	PS	968	860	387,000	30 \$	46,402	Judiciary	SOH JUDICIARY *
8824-2360-078	1	200403	491861	PS	927	844	359,000	29 \$	43,862	Judiciary	SOH JUDICIARY *
8824-2360-078	1	200404	491861	PS	925	840	388,000	32 \$	46,391	Judiciary	SOH JUDICIARY *
8824-2360-078	1	200405	491861	PS	933	855	365,000	29 \$	45,043	Judiciary	SOH JUDICIARY *
8824-2360-078	1	200406	491861	PS	929	848	393,000	30 \$	47,395	Judiciary	SOH JUDICIARY *
8824-2360-078	1	200407	491861	PS	932	853	420,000	32 \$	49,844	Judiciary	SOH JUDICIARY *
8824-2360-078	1	200408	491861	PS	930	850	407,000	30 \$	49,321	Judiciary	SOH JUDICIARY *
8824-2360-078	1	200409	491861	PS	912	848	412,000	32 \$	51,189	Judiciary	SOH JUDICIARY *
8824-2360-078	1	200410	491861	PS	909	851	382,000	29 \$	50,200	Judiciary	SOH JUDICIARY *
8824-2360-078	1	200411	491861	PS	871	830	369,000	29 \$	50,011	Judiciary	SOH JUDICIARY *
8824-2360-078	1	200412	491861	PS	845	830	401,000	33 \$	54,026	Judiciary	SOH JUDICIARY *
TOTAL							4,683,000		580,849		
8824-4780-075	1	200401	483812	J5	348	348	131,520	31 \$	16,302	Judiciary	SOH JUDICIARY *
8824-4780-075	1	200402	483812	J5	366	366	145,440	33 \$	18,075	Judiciary	SOH JUDICIARY *
8824-4780-075	1	200403	483812	J5	366	366	136,080	30 \$	17,247	Judiciary	SOH JUDICIARY *
8824-4780-075	1	200404	483812	J5	357	357	142,320	32 \$	17,840	Judiciary	SOH JUDICIARY *
8824-4780-075	1	200405	483812	J5	343	343	128,640	29 \$	16,512	Judiciary	SOH JUDICIARY *
8824-4780-075	1	200406	483812	J5	344	344	138,720	31 \$	17,542	Judiciary	SOH JUDICIARY *
8824-4780-075	1	200407	483812	J5	341	341	135,840	31 \$	17,203	Judiciary	SOH JUDICIARY *
8824-4780-075	1	200408	483812	J5	353	353	141,600	31 \$	18,115	Judiciary	SOH JUDICIARY *
8824-4780-075	1	200409	483812	J5	362	362	148,320	32 \$	19,482	Judiciary	SOH JUDICIARY *
8824-4780-075	1	200410	483812	J5	357	357	136,320	29 \$	18,820	Judiciary	SOH JUDICIARY *
8824-4780-075	1	200411	483812	J5	357	357	129,120	29 \$	18,536	Judiciary	SOH JUDICIARY *
8824-4780-075	1	200412	483812	J5	344	344	125,760	29 \$	18,318	Judiciary	SOH JUDICIARY *
TOTAL							1,639,680		213,991		
88203139077	1	200401	494972	J	433	433	96,240	31 \$	13,307	Public Libraries	SOH HSPLS
88203139077	1	200402	494972	J	422	422	100,080	33 \$	13,743	Public Libraries	SOH HSPLS
88203139077	1	200403	494972	J	451	451	89,520	29 \$	12,971	Public Libraries	SOH HSPLS
88203139077	1	200404	494972	J	448	448	98,880	32 \$	13,924	Public Libraries	SOH HSPLS
88203139077	1	200406	494972	J	454	454	186,720	60 \$	27,039	Public Libraries	SOH HSPLS
88203139077	1	200408	500621	J	442	442	209,040	61 \$	29,318	Public Libraries	SOH HSPLS
88203139077	1	200409	500621	J	443	443	104,880	30 \$	15,210	Public Libraries	SOH HSPLS
88203139077	1	200410	500621	J	443	443	106,080	32 \$	15,849	Public Libraries	SOH HSPLS
88203139077	1	200411	500621	J	430	430	92,880	29 \$	14,657	Public Libraries	SOH HSPLS
88203139077	1	200412	500621	J	424	424	87,120	28 \$	14,123	Public Libraries	SOH HSPLS
TOTAL							1,171,440		170,141		
8819-4960-078	1	200401	487117	J	93	71	22,080	33 \$	3,060	SOH - Other	SOH FOREIGN TRADE
8819-4960-078	1	200402	487117	J	115	115	22,400	30 \$	3,291	SOH - Other	SOH FOREIGN TRADE
8819-4960-078	1	200403	487117	J	110	110	19,840	29 \$	2,989	SOH - Other	SOH FOREIGN TRADE
8819-4960-078	1	200404	487117	J	115	115	24,000	32 \$	3,485	SOH - Other	SOH FOREIGN TRADE
8819-4960-078	1	200405	487117	J	117	117	23,360	29 \$	3,476	SOH - Other	SOH FOREIGN TRADE
8819-4960-078	1	200406	487117	J	118	118	26,560	30 \$	3,821	SOH - Other	SOH FOREIGN TRADE
8819-4960-078	1	200407	487117	J	119	119	32,320	32 \$	4,426	SOH - Other	SOH FOREIGN TRADE
8819-4960-078	1	200408	487117	J	125	125	28,160	30 \$	4,078	SOH - Other	SOH FOREIGN TRADE
8819-4960-078	1	200409	487117	J	125	125	28,480	30 \$	4,225	SOH - Other	SOH FOREIGN TRADE
8819-4960-078	1	200410	487117	J	122	122	27,840	31 \$	4,258	SOH - Other	SOH FOREIGN TRADE
8819-4960-078	1	200411	487117	J	97	97	24,960	29 \$	3,839	SOH - Other	SOH FOREIGN TRADE
8819-4960-078	1	200412	487117	J	99	99	23,360	30 \$	3,719	SOH - Other	SOH FOREIGN TRADE
TOTAL							303,360		44,666		
8823-4938-076	1	200401	487216	J3	2,138	2,138	217,800	29 \$	36,357	Stadium Authority	STADIUM AUTHORITY *
8823-4938-076	1	200402	487216	J3	2,052	2,052	327,600	32 \$	48,275	Stadium Authority	STADIUM AUTHORITY *
8823-4938-076	1	200403	487216	J3	1,615	1,145	273,600	30 \$	40,084	Stadium Authority	STADIUM AUTHORITY *
8823-4938-076	1	200404									

TABLE: STATE LARGE FACILITIES IN OAHU ELECTRICITY BILL HISTORY FOR YEAR 2004 (PROVIDED BY HECO)

ACCTNUM	TARCODE	REVPER	METRNR	RATESCH	BILLDMD	MDM	KWH	NBRDAYS	TOTAMT	DEPARTMENT	NAME
8801-5005-075	1	200411	441203	PP3	1,382	1,368	524,400	30	\$ 70,365	UH-Hawai'i	LEEWARD COMMUNITY COLLEGE
8801-5005-075	1	200412	441203	PP3	1,358	1,320	462,000	29	\$ 65,465	UH-Hawai'i	LEEWARD COMMUNITY COLLEGE
<b>TOTAL</b>							<b>5,752,800</b>		<b>730,218</b>		
8813-7302-075	1	200401	239293	J	156	156	81,200	33	\$ 9,361	UH-Hawai'i	UH SCHOOL OF MEDICINE
8813-7302-075	1	200402	239293	J	161	161	80,720	31	\$ 9,519	UH-Hawai'i	UH SCHOOL OF MEDICINE
8813-7302-075	1	200403	239293	J	161	161	74,640	29	\$ 9,026	UH-Hawai'i	UH SCHOOL OF MEDICINE
8813-7302-075	1	200404	239293	J	152	152	84,400	32	\$ 9,855	UH-Hawai'i	UH SCHOOL OF MEDICINE
8813-7302-075	1	200405	239293	J	158	158	75,040	28	\$ 9,135	UH-Hawai'i	UH SCHOOL OF MEDICINE
8813-7302-075	1	200406	239293	J	162	162	94,320	33	\$ 11,036	UH-Hawai'i	UH SCHOOL OF MEDICINE
8813-7302-075	1	200407	239293	J	161	161	88,320	30	\$ 10,427	UH-Hawai'i	UH SCHOOL OF MEDICINE
8813-7302-075	1	200408	239293	J	166	166	87,200	29	\$ 10,488	UH-Hawai'i	UH SCHOOL OF MEDICINE
8813-7302-075	1	200409	239293	J	161	161	84,320	32	\$ 10,443	UH-Hawai'i	UH SCHOOL OF MEDICINE
8813-7302-075	1	200410	239293	J	173	173	74,880	30	\$ 10,008	UH-Hawai'i	UH SCHOOL OF MEDICINE
8813-7302-075	1	200411	239293	J	161	161	78,960	29	\$ 10,641	UH-Hawai'i	UH SCHOOL OF MEDICINE
8813-7302-075	1	200412	503097	J	178	178	68,720	28	\$ 9,902	UH-Hawai'i	UH SCHOOL OF MEDICINE
<b>TOTAL</b>							<b>972,720</b>		<b>119,840</b>		
8814-8544-076	1	200401	484522	J3	1,660	1,660	534,600	33	\$ 67,160	UH-Hawai'i	UH KAP COMM COLLEGE BUSINESS
8814-8544-076	1	200402	484522	J3	1,823	1,823	738,000	33	\$ 89,994	UH-Hawai'i	UH KAP COMM COLLEGE BUSINESS
8814-8544-076	1	200403	484522	J3	1,751	1,751	579,600	28	\$ 73,913	UH-Hawai'i	UH KAP COMM COLLEGE BUSINESS
8814-8544-076	1	200404	484522	J3	1,825	1,825	676,800	32	\$ 84,606	UH-Hawai'i	UH KAP COMM COLLEGE BUSINESS
8814-8544-076	1	200405	484522	J3	1,836	1,836	635,400	29	\$ 81,317	UH-Hawai'i	UH KAP COMM COLLEGE BUSINESS
8814-8544-076	1	200406	484522	J3	1,719	1,719	649,800	31	\$ 81,931	UH-Hawai'i	UH KAP COMM COLLEGE BUSINESS
8814-8544-076	1	200407	484522	J3	1,724	1,724	664,200	30	\$ 83,313	UH-Hawai'i	UH KAP COMM COLLEGE BUSINESS
8814-8544-076	1	200408	484522	J3	1,728	1,728	604,800	28	\$ 77,951	UH-Hawai'i	UH KAP COMM COLLEGE BUSINESS
8814-8544-076	1	200409	484522	J3	2,124	2,124	842,400	33	\$ 109,144	UH-Hawai'i	UH KAP COMM COLLEGE BUSINESS
8814-8544-076	1	200410	484522	J3	2,050	2,050	820,800	31	\$ 110,224	UH-Hawai'i	UH KAP COMM COLLEGE BUSINESS
8814-8544-076	1	200411	484522	J3	1,982	1,982	671,400	29	\$ 95,718	UH-Hawai'i	UH KAP COMM COLLEGE BUSINESS
8814-8544-076	1	200412	484522	J3	1,872	1,872	651,600	30	\$ 94,322	UH-Hawai'i	UH KAP COMM COLLEGE BUSINESS
<b>TOTAL</b>							<b>8,069,400</b>		<b>1,049,593</b>		
8815-4443-075	1	200401	483823	J	199	198	107,280	31	\$ 12,301	UH-Hawai'i	UH WAIKIKI AQUARIUM
8815-4443-075	1	200402	483823	J	209	209	114,960	32	\$ 13,232	UH-Hawai'i	UH WAIKIKI AQUARIUM
8815-4443-075	1	200403	483823	J	210	210	101,280	29	\$ 12,085	UH-Hawai'i	UH WAIKIKI AQUARIUM
8815-4443-075	1	200404	483823	J	211	211	112,800	31	\$ 13,184	UH-Hawai'i	UH WAIKIKI AQUARIUM
8815-4443-075	1	200405	483823	J	219	219	103,200	28	\$ 12,522	UH-Hawai'i	UH WAIKIKI AQUARIUM
8815-4443-075	1	200406	483823	J	215	215	120,000	32	\$ 14,069	UH-Hawai'i	UH WAIKIKI AQUARIUM
8815-4443-075	1	200407	483823	J	216	216	112,320	30	\$ 13,327	UH-Hawai'i	UH WAIKIKI AQUARIUM
8815-4443-075	1	200408	483823	J	221	221	123,360	32	\$ 14,605	UH-Hawai'i	UH WAIKIKI AQUARIUM
8815-4443-075	1	200409	483823	J	221	221	114,240	30	\$ 14,145	UH-Hawai'i	UH WAIKIKI AQUARIUM
8815-4443-075	1	200410	483823	J	218	218	106,080	30	\$ 13,791	UH-Hawai'i	UH WAIKIKI AQUARIUM
8815-4443-075	1	200411	483823	J	212	212	110,160	31	\$ 14,664	UH-Hawai'i	UH WAIKIKI AQUARIUM
8815-4443-075	1	200412	483823	J	214	214	101,280	28	\$ 13,985	UH-Hawai'i	UH WAIKIKI AQUARIUM
<b>TOTAL</b>							<b>1,326,960</b>		<b>161,912</b>		
8816-2141-076	1	200401	473513	J	220	220	91,280	31	\$ 11,105	UH-Hawai'i	UH FACILITIES MANAGEMENT
8816-2141-076	1	200402	473513	J	223	223	92,800	33	\$ 11,416	UH-Hawai'i	UH FACILITIES MANAGEMENT
8816-2141-076	1	200403	473513	J	215	215	80,480	29	\$ 10,204	UH-Hawai'i	UH FACILITIES MANAGEMENT
8816-2141-076	1	200404	473513	J	215	215	66,320	24	\$ 8,261	UH-Hawai'i	UH FACILITIES MANAGEMENT CLOSED
<b>TOTAL</b>							<b>330,880</b>		<b>40,987</b>		
8816-2154-076	1	200401	440980	PP3	20,447	19,418	10,078,800	31	\$ 1,093,888	UH-Hawai'i	UH FACILITIES MANAGEMENT
8816-2154-076	1	200402	440980	PP3	20,624	19,773	11,295,600	32	\$ 1,214,287	UH-Hawai'i	UH FACILITIES MANAGEMENT
8816-2154-076	1	200403	440980	PP3	20,601	19,727	9,993,600	29	\$ 1,111,206	UH-Hawai'i	UH FACILITIES MANAGEMENT
8816-2154-076	1	200404	440980	PP3	20,657	19,839	10,549,200	30	\$ 1,161,521	UH-Hawai'i	UH FACILITIES MANAGEMENT
8816-2154-076	1	200405	440980	PP3	20,791	20,107	10,557,600	29	\$ 1,178,246	UH-Hawai'i	UH FACILITIES MANAGEMENT
8816-2154-076	1	200406	440980	PP3	20,466	19,457	11,192,400	32	\$ 1,231,208	UH-Hawai'i	UH FACILITIES MANAGEMENT
8816-2154-076	1	200407	440980	PP3	20,683	19,891	10,867,200	30	\$ 1,202,797	UH-Hawai'i	UH FACILITIES MANAGEMENT
8816-2154-076	1	200408	440980	PP3	20,959	20,443	11,816,400	32	\$ 1,307,185	UH-Hawai'i	UH FACILITIES MANAGEMENT
8816-2154-076	1	200409	440980	PP3	22,290	22,290	12,046,800	30	\$ 1,388,790	UH-Hawai'i	UH FACILITIES MANAGEMENT
8816-2154-076	1	200410	440980	PP3	21,879	21,469	11,682,000	29	\$ 1,404,009	UH-Hawai'i	UH FACILITIES MANAGEMENT
8816-2154-076	1	200411	440980	PP3	22,282	22,275	9,690,000	30	\$ 1,252,797	UH-Hawai'i	UH FACILITIES MANAGEMENT
8816-2154-076	1	200412	440980	PP3	20,153	18,015	9,530,400	31	\$ 1,240,680	UH-Hawai'i	UH FACILITIES MANAGEMENT
<b>TOTAL</b>							<b>129,300,000</b>		<b>14,786,615</b>		
8817-7690-076	1	200401	486886	PP3	356	349	190,800	32	\$ 21,090	UH-Hawai'i	UH FACILITIES MANAGEMENT
8817-7690-076	1	200402	486886	PP3	356	349	200,400	32	\$ 22,157	UH-Hawai'i	UH FACILITIES MANAGEMENT
8817-7690-076	1	200403	486886	PP3	371	371	162,600	28	\$ 19,229	UH-Hawai'i	UH FACILITIES MANAGEMENT
8817-7690-076	1	200404	486886	PP3	381	381	198,000	31	\$ 22,476	UH-Hawai'i	UH FACILITIES MANAGEMENT
8817-7690-076	1	200405	486886	PP3	381	381	201,000	30	\$ 23,049	UH-Hawai'i	UH FACILITIES MANAGEMENT
8817-7690-076	1	200406	486886	PP3	380	380	198,600	31	\$ 22,778	UH-Hawai'i	UH FACILITIES MANAGEMENT
8817-7690-076	1	200407	486886	PP3	374	368	189,000	29	\$ 21,814	UH-Hawai'i	UH FACILITIES MANAGEMENT
8817-7690-076	1	200408	486886	PP3	379	376	207,000	32	\$ 23,768	UH-Hawai'i	UH FACILITIES MANAGEMENT
8817-7690-076	1	200409	486886	PP3	382	382	197,400	30	\$ 23,714	UH-Hawai'i	UH FACILITIES MANAGEMENT
8817-7690-076	1	200410	486886	PP3	374	367	196,200	29	\$ 24,419	UH-Hawai'i	UH FACILITIES MANAGEMENT
8817-7690-076	1	200411	486886	PP3	378	373	195,600	31	\$ 25,264	UH-Hawai'i	UH FACILITIES MANAGEMENT
8817-7690-076	1	200412	486886	PP3	380	379	178,800	29	\$ 24,044	UH-Hawai'i	UH FACILITIES MANAGEMENT
<b>TOTAL</b>							<b>2,315,400</b>		<b>273,801</b>		
8823-6252-075	1	200401	483790	PP3	1,315	1,226	346,000	29	\$ 45,544	UH-Hawai'i	UH HONOLULU COMMUNITY COLLEGE
8823-6252-075	1	200402	483790	PP3	1,357	1,310	448,000	31	\$ 55,346	UH-Hawai'i	UH HONOLULU COMMUNITY COLLEGE
8823-6252-075	1	200403	483790	PP3	1,326	1,248	396,000	32	\$ 50,822	UH-Hawai'i	UH HONOLULU COMMUNITY COLLEGE
8823-6252-075	1	200404	483790	PP3	1,357	1,310	424,000	30	\$ 53,625	UH-Hawai'i	UH HONOLULU COMMUNITY COLLEGE
8823-6252-075	1	200405	483790	PP3	1,356	1,308	394,000	29	\$ 51,641	UH-Hawai'i	UH HONOLULU COMMUNITY COLLEGE
8823-6252-075	1	200406	483790	PP3	1,266	1,128	390,000	32	\$ 50,075	UH-Hawai'i	UH HONOLULU COMMUNITY COLLEGE
8823-6252-075	1	200407	483790	PP3	1,247	1,090	392,000	30	\$ 50,002	UH-Hawai'i	UH HONOLULU COMMUNITY COLLEGE
8823-6252-075	1	200408	483790	PP3	1,442	1,442	448,000	32	\$ 58,045	UH-Hawai'i	UH HONOLULU COMMUNITY COLLEGE
8823-6252-075	1	200409	483790	PP3	1,474	1,474	482,000	30	\$ 63,725	UH-Hawai'i	UH HONOLULU COMMUNITY COLLEGE
8823-6252-075	1	200410	483790	PP3	1,468	1,462	486,000	30	\$ 66,369	UH-Hawai'i	UH HONOLULU COMMUNITY COLLEGE
8823-6252-075	1	200411	483790	PP3	1,417	1,360	414,000	31	\$ 60,245	UH-Hawai'i	UH HONOLULU COMMUNITY COLLEGE
8823-6252-075	1	200412	483790	PP3	1,391	1,308	386,000	29	\$ 57,788	UH-Hawai'i	UH HONOLULU COMMUNITY COLLEGE
<b>TOTAL</b>							<b>5,006,000</b>		<b>663,227</b>		
9500-5803-001	1	200401	472628	PS	1,001	974	444,600	33	\$ 51,288	UH-Hawai'i	SOH WINDWARD COMMUNITY COLLEGE
9500-5803-001	1	200402	472628	PS	1,046	1,046	475,200	30	\$ 55,667	UH-Hawai'i	SOH WINDWARD COMMUNITY COLLEGE
9500-5803-001											

APPENDIX 2.1

HECO Rebate History for All State Facilities on Oahu from 1997 through 2004



TABLE: STATE LARGE FACILITIES IN OAHU REBATE HISTORY SINCE YEAR 1997 (PROVIDED BY HECO)

NAME	CUSTNBR	DSM PGMID	DSM SEQNO	TARCODE	CUS KWSV	CUS KVHSV	REBAMT	REBAMTPD	ACCTNUM	INSEDDT	EQUIP	PAYR
SOH DAGS CENTRAL SERVICES	93028504	CIEE	800	OAHU	0.05	211	50	50	8819-2839-079	4/28/1998	MOTOR	1998
					<b>Sub-TOT,</b>	<b>13,229</b>	<b>1,865</b>					
SOH DAGS	88263561	CICR	1136	OAHU	5.25	39,375	2,625	2625	0300-4383-003	12/1/2003	CUSTOM	2004
SOH DAGS	88263561	CICR	1264	OAHU	6	65,000	4,000	4000	0300-4383-003	11/30/2003	CUSTOM	2004
SOH DAGS	88263561	CICR	1306	OAHU	7.5	56,250	3,750	3750	8819-9076-075	12/15/2004	CUSTOM	2005
SOH DAGS	88263561	CICR	1307	OAHU	3.6	39,000	2,400	2400	8819-9076-075	12/15/2004	CUSTOM	2005
SOH DAGS	88263561	CICR	418	OAHU	0	2,830	223	223	8824-4781-075	8/18/1999	CUSTOM	2001
					<b>Sub-TOT,</b>	<b>202,455</b>	<b>12,998</b>					
SOH DAGS	88263561	CIEE	3288	OAHU	25.8	88,920	15,075	15075	0300-4383-003	11/20/2003	SPACCOOL	2004
SOH DAGS	88263561	CIEE	3676	OAHU	46.986	208,805	16,667	16667	8819-9076-075	12/15/2004	SPACCOOL	2005
SOH DAGS	88263561	CIEE	623	OAHU	37.35	167,535	23,220	23220	8820-5318-076	10/28/1998	SPACCOOL	1998
SOH DAGS	88263561	CIEE	901	OAHU	15.438	69,248	5,152	5152	8824-4781-075	7/29/1998	SPACCOOL	1998
SOH DAGS	88263561	CINC	257	OAHU	33.2	148,920	21,200	21200	9800-1977-002	9/1/1998	SPACCOOL	1998
					<b>Sub-TOT,</b>	<b>683,428</b>	<b>81,314</b>					
					<b>TOTAL</b>	<b>4,403,683</b>	<b>265,135</b>					
SOH DEPT OF DEFENSE	92043214	CIEE	701	OAHU	6.33	26,143	1,655	1655	9500-4908-001	11/10/1997	LIGHTING	1998
					<b>Sub-TOT,</b>	<b>26,143</b>	<b>1,655</b>					
SOH DEPT OF DEFENSE	92043214	CIEE	734	OAHU	0.342	1,195	153	153	9500-4908-001	11/10/1997	SPACCOOL	1998
					<b>Sub-TOT,</b>	<b>1,195</b>	<b>153</b>					
					<b>TOTAL</b>	<b>27,338</b>	<b>1,808</b>					
SOH MALUHIA HOSP	88218449	CIEE	1076	OAHU	26.988	182,602	8,276	8276	8821-2602-075	11/20/1998	LIGHTING	1998
SOH DEPT OF HEALTH	88145757	CIEE	1077	OAHU	43.751	343,398	18,427	18427	8813-6841-075	3/12/1999	LIGHTING	1999
					<b>TOTAL</b>	<b>526,000</b>	<b>26,703</b>					
SOH DOE	1014685	CIEE	2493	OAHU	21.504	87,898	6,541	6541	0000-1024-002	7/31/2002	LIGHTING	2002
SOH DOE	1014685	CINC	700	OAHU	11.696	58,858	3,599	3599	0000-3209-004	12/30/2000	LIGHTING	2001
SOH DOE	1014685	CINC	1221	OAHU	31.53	135,568	10,400	10400	0000-3209-004	8/1/2003	LIGHTING	2003
SOH DOE	1014685	CIEE	3207	OAHU	39.24	160,394	11,889	11889	0100-2579-004	5/22/2003	LIGHTING	2003
SOH DOE	1014685	CINC	1942	OAHU	16.596	62,650	6,293	6293	0300-1631-003	1/30/2004	LIGHTING	2004
SOH DOE	1014685	CINC	1941	OAHU	15.996	70,382	6,229	6229	0300-4042-002	3/9/2004	LIGHTING	2005
SOH DOE	1014685	CIEE	2625	OAHU	5.928	24,231	2,050	2050	8800-4858-077	11/23/2001	LIGHTING	2002
SOH DOE	1014685	CIEE	1841	OAHU	6.024	24,623	1,412	1412	8800-5071-078	6/30/2002	LIGHTING	2002
SOH DOE	1014685	CIEE	2318	OAHU	12.408	50,718	2,980	2980	8800-5071-078	9/30/2001	LIGHTING	2002
SOH DOE	1014685	CIEE	2487	OAHU	10.104	41,300	2,375	2375	8800-6706-077	10/25/2002	LIGHTING	2002
SOH DOE	1014685	CIEE	3439	OAHU	31.728	129,688	8,207	8207	8800-8734-077	12/9/2003	LIGHTING	2004
SOH DOE	1014685	CIEE	2774	OAHU	13.368	54,642	3,120	3120	8801-3172-077	3/21/2003	LIGHTING	2003
SOH DOE	1014685	CIEE	1956	OAHU	3.88	23,915	4,316	4316	8801-5001-077	9/7/2001	LIGHTING	2002
SOH DOE	1014685	CIEE	3387	OAHU	18.816	76,910	5,900	5900	8801-9582-077	9/30/2003	LIGHTING	2003
SOH DOE	1014685	CIEE	2775	OAHU	26.4	107,910	6,277	6277	8802-6027-077	3/21/2003	LIGHTING	2003
SOH DOE	1014685	CIEE	3209	OAHU	13.224	54,053	5,836	5836	8802-8958-077	5/22/2003	LIGHTING	2003
SOH DOE	1014685	CIEE	1948	OAHU	1.608	6,573	555	555	8803-6359-077	9/22/2000	LIGHTING	2002
SOH DOE	1014685	CINC	1490	OAHU	1.488	5,617	508	508	8803-6359-077	1/26/2002	LIGHTING	2003
SOH DOE	1014685	CIEE	3386	OAHU	11.904	48,658	4,654	4654	8803-6418-077	10/30/2003	LIGHTING	2003
SOH DOE	1014685	CIEE	3396	OAHU	13.488	55,132	3,646	3646	8804-1194-077	8/30/2003	LIGHTING	2003
SOH DOE	1014685	CIEE	2488	OAHU	21.672	88,584	5,533	5533	8804-8426-077	9/9/2002	LIGHTING	2002
SOH DOE	1014685	CIEE	2276	OAHU	2.16	8,829	969	969	8805-0060-077	7/15/2001	LIGHTING	2002
SOH DOE	1014685	CIEE	3438	OAHU	51.384	210,032	15,087	15087	8806-1340-077	12/8/2003	LIGHTING	2004
SOH DOE	1014685	CIEE	3650	OAHU	19.872	81,227	4,856	4856	8806-1340-077	6/30/2004	LIGHTING	2004
SOH DOE	1014685	CIEE	2841	OAHU	13.824	56,506	3,624	3624	8806-3540-077	11/25/2003	LIGHTING	2003
SOH DOE	1014685	CIEE	3651	OAHU	29.76	121,644	7,930	7930	8806-3540-077	6/30/2004	LIGHTING	2004
SOH DOE	1014685	CIEE	1847	OAHU	5.76	23,544	1,344	1344	8806-3995-077	9/19/2001	LIGHTING	2001
SOH DOE	1014685	CIEE	2483	OAHU	21.072	86,132	4,951	4951	8806-3995-077	3/21/2003	LIGHTING	2003
SOH DOE	1014685	CIEE	2481	OAHU	22.536	92,116	6,144	6144	8806-7581-077	8/14/2002	LIGHTING	2002
SOH DOE	1014685	CIEE	2275	OAHU	1.56	6,377	628	628	8806-7625-077	7/15/2001	LIGHTING	2002
SOH DOE	1014685	CIEE	2777	OAHU	21.696	88,682	6,659	6659	8806-8422-077	8/30/2003	LIGHTING	2003
SOH DOE	1014685	CIEE	2267	OAHU	8.04	32,864	1,864	1864	8806-9207-077	7/15/2001	LIGHTING	2002
SOH DOE	1014685	CIEE	2321	OAHU	2.736	11,183	639	639	8808-0535-077	11/1/2001	LIGHTING	2002
SOH DOE	1014685	CIEE	2626	OAHU	1.728	7,063	404	404	8808-0535-077	10/30/2001	LIGHTING	2002
SOH DOE	1014685	CIEE	3352	OAHU	43.536	177,953	16,649	16649	8808-1036-077	11/26/2003	LIGHTING	2003
SOH DOE	1014685	CIEE	3649	OAHU	6.912	28,253	1,622	1622	8808-1036-077	6/30/2004	LIGHTING	2004
SOH DOE	1014685	CIEE	2320	OAHU	2.544	10,399	594	594	8808-4514-077	10/26/2001	LIGHTING	2002
SOH DOE	1014685	CIEE	2492	OAHU	68.16	278,604	15,904	15904	8809-2020-077	8/23/2002	LIGHTING	2002
SOH DOE	1014685	CIEE	2269	OAHU	7.848	32,079	1,902	1902	8809-2426-077	3/15/2001	LIGHTING	2001
SOH DOE	1014685	CIEE	2322	OAHU	1.008	4,120	471	471	8809-5090-078	11/6/2001	LIGHTING	2002
SOH DOE	1014685	CIEE	2189	OAHU	0.576	2,354	247	247	8809-6595-077	9/30/2000	LIGHTING	2001
SOH DOE	1014685	CIEE	3752	OAHU	23.472	95,942	6,211	6211	8810-6936-003	5/7/2004	LIGHTING	2004
SOH DOE	1014685	CIEE	2782	OAHU	38.424	157,058	17,388	17388	8810-7431-077	3/21/2003	LIGHTING	2003
SOH DOE	1014685	CIEE	3437	OAHU	22.128	90,448	6,104	6104	8810-9031-077	12/10/2003	LIGHTING	2004
SOH DOE	1014685	CIEE	1955	OAHU	1.656	6,769	634	634	8811-3052-077	8/15/2001	LIGHTING	2002
SOH DOE	1014685	CIEE	2490	OAHU	30.768	125,764	8,770	8770	8811-3052-077	7/31/2002	LIGHTING	2002
SOH DOE	1014685	CIEE	1951	OAHU	7.632	31,196	1,743	1743	8811-5563-077	8/10/2001	LIGHTING	2002
SOH DOE	1014685	CIEE	3208	OAHU	9.648	39,436	4,066	4066	8811-5563-077	5/22/2003	LIGHTING	2003
SOH DOE	1014685	CIEE	2624	OAHU	5.28	21,582	1,232	1232	8811-7270-077	12/12/2001	LIGHTING	2002
SOH DOE	1014685	CIEE	2820	OAHU	14.112	57,683	3,943	3943	8811-7270-077	9/25/2003	LIGHTING	2004
SOH DOE	1014685	CIEE	2746	OAHU	2.28	9,320	896	896	8811-7633-077	4/30/2002	LIGHTING	2002
SOH DOE	1014685	CIEE	2623	OAHU	1.224	5,003	488	488	8812-1152-077	1/19/2002	LIGHTING	2002
SOH DOE	1014685	CIEE	2471	OAHU	26.04	106,439	6,121	6121	8812-6818-077	1/1/2003	LIGHTING	2003
SOH DOE	1014685	CIEE	2478	OAHU	17.016	69,553	7,056	7056	8812-7386-077	7/31/2002	LIGHTING	2002
SOH DOE	1014685	CIEE	1846	OAHU	4.216	27,221	5,166	5166	8812-7930-077	8/3/2001	LIGHTING	2002
SOH DOE	1014685	CIEE	2822	OAHU	23.496	96,400	10,265	10265	8812-7930-077	11/30/2003	LIGHTING	2003
SOH DOE	1014685	CIEE	3655	OAHU	2.88	11,772	700	700	8812-7930-077	6/30/2004	LIGHTING	2004
SOH DOE	1014685	CIEE	2823	OAHU	21.408	87,505	5,617	5617	8813-4640-077	6/30/2004	LIGHTING	2004
SOH DOE	1014685	CIEE	2476	OAHU	30.24	123,606	8,775	8775	8813-5725-077	4/6/2003	LIGHTING	2003
SOH DOE	1014685	CIEE	1849	OAHU	0.624	2,551	180	180	8813-7441-077	6/30/2003	L	



TABLE: STATE LARGE FACILITIES IN OAHU REBATE HISTORY SINCE YEAR 1997 (PROVIDED BY HECO)

NAME	CUSTNR	DSM PGMID	DSM SEQNO	TARCDE	CUS KWSV	CUS KWHSV	REBATAMT	REBAMTPD	ACCTNUM	INSENDDT	EQUIP	PAYYR
SOH DOE EWA BEACH	90001937	CIEE		695 OAHU	0.72	2,976	168	168	8801-9582-076	7/27/1998	LIGHTING	1999
SOH DOE HAUULA	95022311	CIEE		871 OAHU	0.84	3,472	392	392	8808-0535-076	12/2/1998	LIGHTING	1999
SOH DOE HOLOMUA ELEMENTARY	96027961	CINC		136 OAHU	24.161	85,509	10,069	10069	9600-2562-002	10/9/1996	LIGHTING	1997
SOH DOE HOLOMUA ELEMENTARY	96027961	CINC		152 OAHU	9.221	32,627	3,796	3796	9600-2562-002	7/31/1997	LIGHTING	1997
SOH DOE IROQUOIS POINT	95022236	CINC		145 OAHU	2.427	8,581	713	713	8801-4331-076	8/31/1997	LIGHTING	1997
SOH DOE KAILUA INTER	95022272	CIEE		1103 OAHU	1.896	7,837	443	443	8810-7431-076	7/26/1999	LIGHTING	2000
SOH DOE KALANI HIGH	95021951	CINC		521 OAHU	0.48	1,984	64	64	8812-7930-076	11/2/1998	LIGHTING	1999
SOH DOE KALEIOPUHU	95022399	CINC		146 OAHU	4.064	14,353	1,346	1346	8806-9441-077	9/23/1997	LIGHTING	1998
SOH DOE KAMAILE	95022256	CINC		144 OAHU	4.949	17,503	2,539	2539	8804-5988-077	9/1/1997	LIGHTING	1997
SOH DOE KANOELANI	95022253	CINC		350 OAHU	4.393	15,506	1,055	1055	8804-3873-078	1/5/1998	LIGHTING	1998
SOH DOE KAPALAMA	95022249	CIEE		482 OAHU	8.445	30,157	2,544	2544	8822-1175-076	8/30/1997	LIGHTING	1998
SOH DOE KAPOLEI ELEMENTARY	97025114	CINC		153 OAHU	10.988	38,838	3,992	3992	9300-6344-003	10/30/1997	LIGHTING	1997
SOH DOE KAPOLEI HIGH SCHOOL	21126	CINC		697 OAHU	36.088	168,225	10,172	10172	0000-3209-003	7/24/2000	LIGHTING	2000
SOH DOE KAPOLEI MIDDLE SCHOOL	99015773	CINC		480 OAHU	81.52	403,366	15,322	15322	9900-0148-002	6/2/1999	LIGHTING	1999
SOH DOE KING INTERMEDIATE	95021585	CIEE		1052 OAHU	2.064	18,848	3,318	3318	8808-7023-076	7/22/1999	LIGHTING	1999
SOH DOE LEIHOKU	95022270	CINC		377 OAHU	4.589	16,219	1,468	1468	8804-8154-077	10/21/1998	LIGHTING	1998
SOH DOE LEILEHUA HIGH	95022277	CIEE		1729 OAHU	20.904	86,403	9,313	9313	8804-9734-076	12/2/1999	LIGHTING	2000
SOH DOE LEILEHUA HIGH	95022277	CINC		378 OAHU	4.627	16,328	1,099	1099	8804-9734-076	7/18/1997	LIGHTING	1998
SOH DOE MAKAHA	95022247	CIEE		1296 OAHU	1.608	6,646	980	980	8804-1194-076	7/15/1999	LIGHTING	2000
SOH DOE MAKAKILO	95022295	CIEE		1185 OAHU	2.28	9,424	1,059	1059	8803-1285-076	7/2/1999	LIGHTING	1999
SOH DOE MAKALAPA	95027157	CIEE		1108 OAHU	0.216	893	51	51	8823-4935-076	8/1/1999	LIGHTING	1999
SOH DOE MAKALAPA	95027157	CINC		444 OAHU	2.864	12,996	516	516	8823-4935-076	7/26/1999	LIGHTING	1999
SOH DOE MCKINLEY HIGH SCHOOL	98010916	CIEE		522 OAHU	12.739	45,476	3,575	3575	8819-7510-076	3/1/1998	LIGHTING	1998
SOH DOE MILILANI HIGH	95022367	CIEE		795 OAHU	0.144	595	34	34	8806-1340-076	1/5/1999	LIGHTING	1999
SOH DOE MILILANI HIGH	95022367	CINC		419 OAHU	4.704	19,443	800	800	8806-1340-076	12/31/1998	LIGHTING	1999
SOH DOE MILILANI INTERMEDIATE	98023529	CINC		429 OAHU	32.496	172,141	6,747	6747	9800-2018-002	7/20/1998	LIGHTING	1999
SOH DOE MILILANI INTERMEDIATE	98023529	CINC		430 OAHU	32.868	174,854	6,426	6426	9800-2018-002	7/8/1999	LIGHTING	1999
SOH DOE MOANALUA HIGH	95022260	CIEE		689 OAHU	1.54	18,032	1,340	1340	8822-5334-077	7/31/1998	LIGHTING	1999
SOH DOE MOANALUA HIGH	95022260	CINC		389 OAHU	4.776	30,057	1,394	1394	8822-5335-077	11/15/1999	LIGHTING	1999
SOH DOE NAKAKULI	95022284	CIEE		523 OAHU	1.394	4,964	514	514	8802-7712-077	8/1/1998	LIGHTING	1998
SOH DOE NAKAKULI	95022284	CINC		175 OAHU	4.618	16,314	1,819	1819	8802-7712-077	5/15/1998	LIGHTING	1998
SOH DOE NAKAKULI HIGH & INTER	95022292	CIEE		1380 OAHU	7.584	31,347	2,655	2655	8803-0106-076	7/25/2000	LIGHTING	2000
SOH DOE PALISADES	95022491	CIEE		1138 OAHU	10.56	43,648	4,777	4777	8800-1467-076	8/2/1999	LIGHTING	1999
SOH DOE PEARL CITY HIGH	95022233	CIEE		1926 OAHU	4.752	42,973	8,100	8100	8801-3223-077	8/14/2000	LIGHTING	2001
SOH DOE PEARL CITY HIGHLANDS	95022232	CIEE		1581 OAHU	0.192	794	68	68	8801-3172-076	1/13/2000	LIGHTING	2000
SOH DOE PEARL CITY HIGHLANDS	95022232	CIEE		1599 OAHU	0.552	2,282	152	152	8801-3172-076	2/11/2000	LIGHTING	2000
SOH DOE PEARLRIDGE	95022259	CINC		524 OAHU	2.968	13,554	781	781	8825-5578-076	2/4/2000	LIGHTING	2000
SOH DOE ROYAL ELEMENTARY	95022238	CINC		554 OAHU	3.966	18,693	1,440	1440	8820-5546-076	8/15/2000	LIGHTING	2000
SOH DOE WAIALAE	95022067	CIEE		1610 OAHU	7.968	32,934	3,696	3696	8813-7591-076	3/31/2000	LIGHTING	2000
SOH DOE WAIALUA HIGH	95022369	CIEE		640 OAHU	2.666	9,495	1,293	1293	8806-3540-076	1/1/1998	LIGHTING	1998
SOH DOE WAIUAI	95022229	CINC		571 OAHU	4.768	25,357	1,146	1146	8800-8414-077	12/31/1998	LIGHTING	1999
SOH DOE WAIKELE ELEMENTARY	98016666	CINC		425 OAHU	9.132	32,250	2,608	2608	9800-1286-002	7/1/1998	LIGHTING	1998
SOH DOE WAIKELE ELEMENTARY	98016666	CINC		468 OAHU	13.896	59,423	2,323	2323	9800-1286-002	5/28/1999	LIGHTING	1999
SOH DOE WAIPAHU HIGH	95022239	CIEE		1646 OAHU	4.352	51,394	10,200	10200	8801-5001-076	4/14/2000	LIGHTING	2000
SOH DOE WAIPAHU HIGH	95022239	CINC		424 OAHU	3.798	13,417	1,437	1437	8801-5002-077	2/20/1998	LIGHTING	1998
SOH DOE WAIPAHU INTER	95022237	CINC		95 OAHU	4.576	16,176	1,248	1248	8801-4719-077	9/10/1996	LIGHTING	1997
SOH DOE WHEELER ELEMENTARY	95022400	CINC		129 OAHU	3.244	11,457	1,482	1482	8807-3734-076	10/31/1997	LIGHTING	1998
SOH HSPLS	87016933	CINC		1577 OAHU	5.888	19,928	2,517	2517	0100-6313-002	1/1/2003	LIGHTING	2004
SOH HSPLS	87016933	CIEE		3594 OAHU	4.752	19,424	1,916	1916	8810-9012-075	12/30/2003	LIGHTING	2004
SOH HSPLS	87016933	CIEE		3637 OAHU	13.032	62,812	3,176	3176	8811-3338-001	9/11/2004	LIGHTING	2004
SOH HSPLS	87016933	CIEE		1652 OAHU	8.496	34,727	2,850	2850	8814-7285-075	9/1/2000	LIGHTING	2003
					Sub-TOT.	9,541,043	680,132					
SOH DOE	1014685	CINC		1987 OAHU	1.52	7,824	680	680	0300-1631-003	1/30/2004	MOTOR	2004
SOH DOE	1014685	CINC		2122 OAHU	1.168	6,697	1,513	1513	0300-4042-002	3/28/2004	MOTOR	2005
SOH DOE KAPOLEI HIGH SCHOOL	21126	CINC		699 OAHU	3.717	19,098	1,230	1230	0000-3209-003	7/1/2000	MOTOR	2000
SOH DOE KAPOLEI MIDDLE SCHOOL	99015773	CINC		481 OAHU	1.785	10,721	810	810	9900-0148-002	6/2/1999	MOTOR	1999
SOH HSPLS	87016933	CIEE		1859 OAHU	0.085	511	50	50	8817-7696-001	8/4/2000	MOTOR	2000
					Sub-TOT.	44,850	4,283					
SOH DOE	1014685	CINC		1989 OAHU	3.6	39,000	2,400	2400	0300-1631-003	1/30/2004	CUSTOM	2004
SOH DOE	1014685	CINC		2030 OAHU	5.3	39,750	2,650	2650	0300-1631-003	1/30/2004	CUSTOM	2004
SOH DOE	1014685	CINC		2124 OAHU	7.2	78,000	4,800	4800	0300-4042-002	3/28/2004	CUSTOM	2005
SOH DOE	1014685	CINC		2125 OAHU	6.5	48,750	3,250	3250	0300-4042-002	3/28/2004	CUSTOM	2005
					Sub-TOT.	205,500	13,100					
SOH DOE	1014685	CINC		1988 OAHU	23.4	53,550	15,075	15075	0300-1631-003	1/30/2004	SPACCOOL	2004
SOH DOE	1014685	CINC		2123 OAHU	55.2	125,760	7,847	7847	0300-4042-002	3/28/2004	SPACCOOL	2005
SOH DOE	1014685	CIEE		2001 OAHU	4.9	11,134	1,560	1560	8801-5195-077	9/28/2001	SPACCOOL	2002
SOH DOE	1014685	CIEE		2002 OAHU	12.25	27,835	3,600	3600	8803-9117-078	7/20/2001	SPACCOOL	2002
SOH DOE	1014685	CIEE		2000 OAHU	4.41	10,021	1,680	1680	8809-6631-077	10/16/2001	SPACCOOL	2002
SOH DOE	1014685	CIEE		1965 OAHU	6.125	13,918	1,275	1275	8823-4935-077	5/1/2003	SPACCOOL	2003
SOH DOE ALIOLANI	95022304	CIEE		2033 OAHU	9.856	22,411	2,268	2268	8814-4463-076	8/15/2000	SPACCOOL	2001
SOH DOE CAMPBELL HIGH	90002673	CIEE		810 OAHU	2.873	6,523	1,236	1236	8801-5195-076	7/23/1998	SPACCOOL	1998
SOH DOE CAMPBELL HIGH	90002673	CINC		176 OAHU	0.663	1,505	198	198	8801-5195-076	6/18/1998	SPACCOOL	1998
SOH DOE HEIEA	95021583	CINC		155 OAHU	1.547	3,514	546	546	8808-4514-076	8/29/1997	SPACCOOL	1997
SOH DOE HOLOMUA ELEMENTARY	96027961	CINC		132 OAHU	57.6	131,600	19,000	19000	9600-2562-002	10/9/1996	SPACCOOL	1997
SOH DOE KALANI HIGH	95021951	CIEE		697 OAHU	1.666	3,782	585	585	8812-7930-076	7/31/1998	SPACCOOL	1999
SOH DOE KALANI HIGH	95021951	CIEE		700 OAHU	5.304	12,043	1,676	1676	8812-7930-076	7/24/1998	SPACCOOL	1998
SOH DOE KALIHI KAI	95027158	CINC		629 OAHU	5.474	12,427	2,208	2208	8823-8198-076	9/30/1998	SPACCOOL	1999
SOH DOE KAPOLEI ELEMENTARY	97025114	CINC		154 OAHU	8.84	20,080	2,534	2534	9300-6344-003	10/30/1997	SPACCOOL	1997
SOH DOE KAPOLEI HIGH SCHOOL	21126	CINC		698 OAHU	158.67	361,374	70,356	70356	0000-3209-003	7/24/2000	SPACCOOL	2000
SOH DOE KAPOLEI MIDDLE SCHOOL	99015773	CINC		479 OAHU	95.89	218,397	22,790	22790	9900-0148-002	6/2/1999	SPACCOOL	1999
SOH DOE KUHILO	95022214	CIEE		1137 OAHU	2.856	6,484	900	900	8816-5560-076	8/27/1999	SPACCOOL	1999
SOH DOE MCKINLEY HIGH SCHOOL	98010916	CIEE		1053 OAHU	2.431	5,520	720	720	8819-7510-076	8/3/1998	SPACCOOL	1998
SOH DOE MOANALUA INTER	95022279	CIEE		811 OAHU	2.38	5,403	810	810	8822-8058-076	8/7/1998	SPACCOOL	1999
SOH DOE SALT LAKE	95022300	CIEE		690 OAHU	1.105	2,509	510	510	8823-0071-077	7/10/1998	SPACCOOL	1998
SOH DOE WAHIAWA INTER	95022395	CIEE		934 OAHU	8.092	18,370	2,056	2056	8805-2477-076	1/8/1999	SPACCOOL	1999
SOH DOE WAIKELE ELEMENTARY	98016666	CINC		417 OAHU	41.405	94,710	16,940	16940	9800-1286-002	7/1/1998	SPACCOOL	1998
SOH DOE WAILUPE	95021946	CINC		572 OAHU	2.856	6,484	750	750	8812-7482-003	1/11/1999	SPACCOOL	1999
SOH HSPLS	87016933	CIEE		1860 OAHU	7.14	16,209	1,629	1629	8814-7287-075	9/11/2000	SPACCOOL	2000
					Sub-TOT.	1,191,563	178,749					
					TOTAL	10,982,955	876,					

TABLE: STATE LARGE FACILITIES IN OAHU REBATE HISTORY SINCE YEAR 1997 (PROVIDED BY HECO)

NAME	CUSTNBR	DSM PGMID	DSM SEQNO	TARCDE	CUS KWSV	CUS KWHSV	REBATAMT	REBAMTPD	ACCTNUM	INSEDDT	EQUIP	PAYYR
UH FACILITIES MANAGEMENT	88167592	CIEE	647	OAHU	4.05	16,713	756	756	9400-7374-001	5/1/1998	LIGHTING	1998
UH FED CREDIT UNION	88245366	CINC	123	OAHU	5.238	23,871	4,158	4158	9700-0159-002	3/17/1997	LIGHTING	1997
UH HIMB	88093074	CINC	470	OAHU	9.065	60,209	2,621	2621	8808-8598-075	5/1/1999	LIGHTING	1999
					<b>Sub-TOT,</b>	<b>1,689,486</b>	<b>131,836</b>					
UH FACILITIES MANAGEMENT	88167592	CIEE	594	OAHU	0.675	2,835	575	575	8816-2154-075	10/1/1997	MOTOR	1997
UH FACILITIES MANAGEMENT	88167592	CINC	211	OAHU	2.85	11,970	1,890	1890	8816-2154-075	10/1/1997	MOTOR	1997
UH FACILITIES MANAGEMENT	88167592	CINC	738	OAHU	1.53	9,189	760	760	8816-2154-076	10/28/1999	MOTOR	1999
UH WAIKIKI AQUARIUM	88159897	CIEE	1670	OAHU	0.51	3,063	210	210	8815-4443-075	3/30/2000	MOTOR	2000
					<b>Sub-TOT,</b>	<b>27,057</b>	<b>3,435</b>					
UH FACILITIES MANAGEMENT	88167592	CICR	8	OAHU	0	21,896	1,645	1645	8816-2154-075	3/19/1997	CUSTOM	1997
UH FACILITIES MANAGEMENT	88167592	CICR	243	OAHU	19.8	78,845	6,417	6417	8816-2154-075	11/1/1998	CUSTOM	1998
UH FACILITIES MANAGEMENT	88167592	CICR	133	OAHU	0.7	19,011	1,277	1277	9400-7374-001	1/15/1998	CUSTOM	1998
UH HIMB	88093074	CICR	204	OAHU	4.5	6,224	874	874	8808-8598-075	7/9/1998	CUSTOM	1998
					<b>Sub-TOT,</b>	<b>125,976</b>	<b>10,213</b>					
UH FACILITIES MANAGEMENT	88167592	CIEE	189	OAHU	1.547	3,514	338	338	8816-2154-075	9/10/1996	SPACCOOL	1996
UH FACILITIES MANAGEMENT	88167592	CINC	187	OAHU	96.8	334,400	32,384	32384	8816-2154-075	10/1/1996	SPACCOOL	1997
UH FACILITIES MANAGEMENT	88167592	CIEE	2621	OAHU	49.02	168,948	24,339	24339	8816-2154-076	12/20/2002	SPACCOOL	2003
UH FACILITIES MANAGEMENT	88167592	CINC	310	OAHU	31.45	108,244	10,786	10786	8816-2154-076	10/28/1999	SPACCOOL	1999
UH FACILITIES MANAGEMENT	88167592	CINC	723	OAHU	136.125	465,438	77,660	77660	8816-2154-076	1/5/2001	SPACCOOL	2001
UH FACILITIES MANAGEMENT	88167592	CINC	987	OAHU	16.473	57,630	3,948	3948	8816-2154-076	8/1/2000	SPACCOOL	2001
UH FACILITIES MANAGEMENT	88167592	CIEE	1051	OAHU	1.288	4,503	585	585	8817-1865-076	9/10/1998	SPACCOOL	1999
					<b>Sub-TOT,</b>	<b>1,142,676</b>	<b>150,040</b>					
UH HIMB KEWALO DOCK	88198895	RWH	93125	OAHU	0.06	278	40	40	8819-3080-075	6/16/1999	WATERHT	1999
					<b>Sub-TOT,</b>	<b>278</b>	<b>40</b>					
					<b>TOTAL</b>	<b>2,985,473</b>	<b>295,564</b>					
SOH WINDWARD COMMUNITY COLLEGE	95032200	CIEE	1361	OAHU	29.976	143,740	10,115	10115	9500-5803-001	9/17/1999	LIGHTING	1999
SOH WINDWARD COMMUNITY COLLEGE	95032200	CINC	406	OAHU	11.351	38,938	3,540	3540	9500-5803-001	6/3/2002	LIGHTING	2002
SOH WINDWARD COMMUNITY COLLEGE	95032200	CINC	1129	OAHU	8.572	45,430	2,599	2599	9500-5803-001	2/15/2002	LIGHTING	2004
					<b>Sub-TOT,</b>	<b>228,108</b>	<b>16,254</b>					
SOH WINDWARD COMMUNITY COLLEGE	95032200	CINC	1130	OAHU	1.9	9,780	800	800	9500-5803-001	2/15/2002	MOTOR	2004
SOH WINDWARD COMMUNITY COLLEGE	95032200	CINC	1450	OAHU	1.14	5,868	540	540	9500-5803-001	6/3/2002	MOTOR	2002
					<b>Sub-TOT,</b>	<b>15,648</b>	<b>1,340</b>					
SOH WINDWARD COMMUNITY COLLEGE	95032200	CINC	520	OAHU	14.52	49,755	9,414	9414	9500-5803-001	6/3/2002	SPACCOOL	2002
SOH WINDWARD COMMUNITY COLLEGE	95032200	CINC	2000	OAHU	47.168	161,792	18,090	18090	9500-5803-001	1/1/2004	SPACCOOL	2005
					<b>Sub-TOT,</b>	<b>211,547</b>	<b>27,504</b>					
					<b>TOTAL</b>	<b>477,427</b>	<b>45,988</b>					
UH HONOLULU COMMUNITY COLLEGE	88245561	CICR	331	OAHU	12	92,000	5,600	5600	8823-6252-075	1/15/2003	CUSTOM	2003
UH HONOLULU COMMUNITY COLLEGE	88245561	CICR	1146	OAHU	16.8	126,000	8,400	8400	8823-6252-075	9/28/2003	CUSTOM	2003
					<b>Sub-TOT,</b>	<b>218,000</b>	<b>14,000</b>					
UH HONOLULU COMMUNITY COLLEGE	88245561	CIEE	1388	OAHU	98.4	336,640	37,280	37280	8823-6252-075	1/12/2001	SPACCOOL	2001
					<b>Sub-TOT,</b>	<b>336,640</b>	<b>37,280</b>					
UH HONOLULU COMMUNITY COLLEGE	88245561	CIEE	1389	OAHU	224.352	1,076,832	60,695	60695	8823-6252-075	9/5/2000	LIGHTING	2000
UH HONOLULU COMMUNITY COLLEGE	88245561	CIEE	786	OAHU	2.226	10,358	821	821	8823-9022-001	8/28/1998	LIGHTING	1999
					<b>Sub-TOT,</b>	<b>1,087,190</b>	<b>61,516</b>					
					<b>TOTAL</b>	<b>1,645,344</b>	<b>113,134</b>					
UH KAP COMM COLLEGE BUSINESS	88204379	CIEE	892	OAHU	207.01	856,448	46,319	46319	8814-8544-076	9/17/1998	LIGHTING	1998
					<b>Sub-TOT,</b>	<b>856,448</b>	<b>46,319</b>					
UH KAP COMM COLLEGE BUSINESS	88204379	CIEE	2078	OAHU	2.646	9,279	1,158	1158	8814-8544-076	6/15/2001	SPACCOOL	2004
					<b>Sub-TOT,</b>	<b>9,279</b>	<b>1,158</b>					
					<b>TOTAL</b>	<b>865,727</b>	<b>47,477</b>					
LEEWARD COMMUNITY COLLEGE	88015311	CIEE	1027	OAHU	1.384	6,387	574	574	8801-5005-075	10/15/1999	LIGHTING	1999
LEEWARD COMMUNITY COLLEGE	88015311	CIEE	1391	OAHU	146.8	696,349	43,609	43609	8801-5005-075	3/23/2001	LIGHTING	2001
					<b>Sub-TOT,</b>	<b>702,737</b>	<b>44,183</b>					
LEEWARD COMMUNITY COLLEGE	88015311	CIEE	4018	OAHU	1.295	7,419	1,290	1290	8801-5005-075	3/24/2005	MOTOR	2005
					<b>Sub-TOT,</b>	<b>7,419</b>	<b>1,290</b>					
LEEWARD COMMUNITY COLLEGE	88015311	CICR	330	OAHU	9.6	104,000	6,400	6400	8801-5005-075	3/24/2005	CUSTOM	2005
LEEWARD COMMUNITY COLLEGE	88015311	CICR	1463	OAHU	4	30,000	2,000	2000	8801-5005-075	3/24/2005	CUSTOM	2005
					<b>Sub-TOT,</b>	<b>134,000</b>	<b>8,400</b>					
LEEWARD COMMUNITY COLLEGE	88015311	CIEE	1033	OAHU	3.57	8,105	1,215	1215	8801-5005-075	10/19/1999	SPACCOOL	1999
LEEWARD COMMUNITY COLLEGE	88015311	CIEE	1390	OAHU	43.344	149,386	28,241	28241	8801-5005-075	12/16/2004	SPACCOOL	2004
					<b>Sub-TOT,</b>	<b>157,490</b>	<b>29,456</b>					
					<b>TOTAL</b>	<b>1,001,645</b>	<b>83,329</b>					
SOH DLNR DIV OF BOATING	93007897	CIEE	3512	OAHU	1.768	8,517	389	389	8823-8780-031	2/24/2004	LIGHTING	2004
					<b>TOTAL</b>	<b>8,517</b>	<b>389</b>					

APPENDIX 3.0

Summary of Existing Energy Audit/Survey Results Presented in  
“Task 1-a-1 Report”

**ISLAND OF OAHU STATE FACILITIES  
BENCHMARKING  
STUDY**

Task 1-a

PREPARED FOR:

STATE OF HAWAII  
DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT, AND  
TOURISM  
STRATEGIC INDUSTRIES DIVISION ENERGY BRANCH

March 25, 2005

PREPARED BY:  
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Progress Submittal

**EXECUTIVE SUMMARY**

This Task 1-a progress report summarizes the previously developed reports, energy audits and spreadsheets under the earlier conducted "State Facility Energy Upgrade Analysis and Performance Contracting Potential Phase I and II" study by the Washington State Department of General Administration, for the State of Hawaii, Department of Business, Economic Development, & Tourism (DBEDT), in year 2003-2004.

The details of this progress report include data on the surveyed buildings' total square footage, yearly electricity consumption, typical building usage, operation schedule, building-renovation equipment retrofit history, and potential Energy Conservation Measures (ECM). Surveyed building indoor air quality related findings and future scheduled improvements (if any) were also included in the report. Additionally, reviews from earlier conducted Energy Performance Contract evaluations were included in the report to provide insight into potential benchmarking ECMs.

The Task 1-a progress report also provides an overview of the currently available data and insight in the future directions of the benchmarking study. The findings of this progress report are summarized as follows:

- 1- A total of five buildings were selected for the survey due to their relatively large sizes and electricity consumption rates within the state facilities. Four of those buildings' lighting was already retrofitted. Therefore, no ECM savings related to lighting retrofits were quantified. However lighting related ECM is crucial information in the surveys because of its common occurrence in the other facilities. Since this information is missing in the surveys, either we have the option of going back and recovering the actual energy savings from the already accomplished retrofits, or conduct additional energy surveys on new set of buildings that has not undergone major retrofits.
- 2- Our experience with energy benchmarking studies shows that in order to develop an accurate benchmarking, a good size of buildings in the set should have earlier conducted through energy audits (Reference: UH Manoa Benchmarking Study). The current available information on the State Facilities energy usage characteristics is not sufficient for a through benchmarking. Therefore, we recommend that we limit the ECMs considered in the benchmarking to the most common ECMs, such as lighting retrofits, EXIT sign retrofits and window tinting retrofits. Quantifications and generalizing of the listed ECMs can be achieved by combining new energy survey studies from 5 to 10 other state buildings that had no recent retrofit history with the already conducted energy survey results. This will produce data from homogenized set of buildings, sufficient enough for the benchmarking for the three listed ECMs.

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**1.0 HIGHLIGHTS OF THE “STATE FACILITY ENERGY UPGRADE ANALYSIS AND PERFORMANCE CONTRACTING POTENTIAL PHASE I AND PHASE II” PROJECT**

The study “State Facility Energy Upgrade Analysis and Performance Contracting Potential” project that was conducted by the Washington State Department of General Administration, for the State of Hawaii, Department of Business, Economic Development, & Tourism (DBEDT), in year 2003-2004 consisted of two phases. The first phase investigated the general standing of state buildings energy usage characteristics, electricity usage by state agency, by island, and electricity bill size.

Rebate records on the energy conservation projects, obtained from the utility companies including HECO, HELCO, MECO and KIUC were used to identify the state buildings’ current electricity usage characteristics.

The second phase of the project dealt with generalizing the Phase I findings with the input from walk through energy surveys on selected state buildings that helped to identify the energy consumption levels and energy cost of typical office buildings. A total of five buildings were identified for the walk through surveys according to their size and electricity consumption rate. More specifically four Department of Accounting and General Services (DAGS) buildings (Queen Liliuokalani, Kinau Hale, Kekuanaoa, Keelikolani & Hale Auhau) and one DBEDT building (Foreign Trade Zone 9) were included in the walk through energy surveys. Also energy audit reports from two Energy Performance Contracting (EPC) projects, conducted on five State Judiciary Facilities and a total of 16 Department of Defense Hawaii Army National Guard (DOD HIARNG) were used in generalizing the potential Energy Conservation Measures (ECMs) for the entire State of Hawaii occupied buildings.

The summary of the energy savings estimates with associates cost and payback calculations for the most promising ECMs, as a result of the walk-through energy survey for the five state buildings, are shown in Table 1.

Table 1: Summary of Energy Survey Findings

FACILITY	ANNUAL KWH CONSUMPTION	EST. KWH SAVINGS	EST. \$ SAVINGS	EST. \$ COST	EST. % SAVINGS
QUEEN LILIUOKALANI	2,495,000	126,940	\$16,170	\$26,000	5.1 %
KINAU HALE	1,826,600	7,000	\$880	\$1,880	0.4 %
KEKUANAEOA	1,464,920	396,460	\$57,000	\$216,300	27.1 %
KEELIKOLANI/ HALE AUHAU	4,342,600	317 200	\$40,600	\$64,640	7.3 %
FTZ No. 9 OFFICE	323,840	49,600	\$6,240	\$8,440	15.3 %
FTZ No. 9 WAREHOUSE	750,720	-0-	-0-	-0-	-0-
TOTALS	11,203,680	897,200	\$120,890	\$317,260	8.0 %

Table 2 lists the generalized results of the Table 1 with an extrapolation process integrated with the findings from the Phase I part of the project for the entire State of Hawaii large and medium size buildings electricity consumption.

Table 2: Overall Findings

AGENCY/DESC.	DAGS	DOH	DOD	JUDICIARY	PSD
ANNUAL ENERGY CONSUMPTION	43,379,420	42,097,000	8,535,510	12,535,260	21,427,440
ANNUAL ENERGY COST	\$5,258,500	\$5,424,600	\$1,093,501	\$1,520,807	\$2,519,900
ESTIMATED KWH SAVINGS	11,463,400	10,096,900	2,497,477	1,939,360	5,313,200
ESTIMATED \$ SAVINGS	\$1,423,450	\$1,296,600	\$333,600	\$198,623	\$672,190
ESTIMATED % SAVINGS	26.4 %	23.98 %	28.9 %	23.9 %	24.8 %
BLDG. TYPE	Office	Health Care	Office	Office	Secure Lodging
# OF BLDGS.	23	14	29	5	10
AVG. SQ. FT.	92,450	121,100	25,600	111,220	88,500

Additional recommendations on the implementations of the ECMs are listed as follows:

- 1- Develop an overall plan to bring facilities up to an acceptable level of energy consumption and comfort conditions. An acceptable level of energy consumption would be achieved by meeting or exceeding the requirements of the existing Hawaii energy code.
- 2- Focus on the larger facilities to maximize the amount of conservation that can be achieved with the minimum number of facilities. Identify smaller facilities that can receive an energy upgrade and bundled as part of the larger facility project.
- 3- Use existing utility DSM programs to assist with the conservation efforts.
- 4- Develop and use methods to make smaller projects more cost-effective.

A detailed description of the ECMs and buildings included in the walk through energy audit survey, as well as available other energy audit reports are described in the following section.

## 2.0 SUMMARY OF ENERGY SURVEY RESULTS UNDER “STATE FACILITY ENERGY UPGRADE ANALYSIS AND PERFORMANCE CONTRACTING POTENTIAL PHASE II” PROJECT

### 2.1 KINAU HALE BUILDING

#### General Information

Kinau Hale is located at 1250 Punchbowl St. Honolulu, HI. The facility is a single building office type facility, occupied by the Department of Health (DOH) and owned by the Department of Accounting and General Services (DAGS). The building was built on 1961, occupies 66,951 square feet space. Building envelope includes single fixed projection windows with overhangs and vertical shading devices. The walls have fiberglass insulation. The building is cooled by a central air conditioning system. Water cooled chilled plant is attached to the west side of the building. The building is equipped with an energy management system.

#### Building Occupancy and Electricity Usage

The average occupancy rate of the building during the weekdays is 270 people, and Saturdays is 27 people. The building operation schedule is Monday through Friday 6:00 am to 5:00 pm, and Saturdays 7:00 am to 2:00 pm. The building has consumed 1,820,400 kWh per year electricity with an electricity cost of \$232,324 in year 2003, according to the records from the Hawaiian Electric Company (HECO). This converts to 26.02kWh per year per square feet of electricity consumption and \$3.32 per square feet electricity cost for the Kinau Hale.

#### Building and Equipment Renovations the Past Five Years

- 1- Chiller replacement, cooling tower replacement.
- 2- Fourth floor major renovation.
- 3- First and third floor minor renovations.
- 4- Lighting system upgrades.

#### Other Ongoing Renovation

- 1- Existing Energy Management System was being upgrades at the time of the survey in year 2003-2004.
- 2- Existing air handlers were scheduled for upgrades at the time of the survey in year 2003-2004.

#### Indoor Air Quality Concerns

- 1- First and third floor walls have asbestos. Asbestos has to be removed before any other renovations.
- 2- Building is under negative pressure. Retro-commission the energy systems in the building when the building retrofit is completed.
- 3- Restrooms have jalousie windows which allow outside air into the building. The jalousie windows need to be replaced with fixed windows.

**Energy Conservation Measures**

- 1- Change EXIT signs from incandescent to LED with battery backup.
- 2- Install vending miser on all vending machines.

Potential savings from the recommended energy conservation measures are quantified in the following Table 3:

Table 3: Kinau Hale

DESCRIPTION OF MEASURES	COST BASIS	BENEFIT	SIMPLE PAYBACK
ECM-3 Change EXIT signs from incandescent to LED	12 each @ \$100 material 6 hours @ \$50/hour Total cost \$1,500	6 hours @ \$50/hour Energy Saved \$501 Total Savings \$801	1.9
ECM-4 Install Vending Misers	2 each @ \$165 material 1 hour @ \$50/hour Total cost \$380	Energy Saved \$378 Total Savings \$378	1.0
Total Impact of ECMs	\$1,880	\$1,179	1.8 years

Note: The ECM numbering was developed for all buildings included in the energy survey. This was essential to maintain the same order when developing the cumulative ECM analysis for all the buildings considered in the energy surveys.

**2.2 QUEEN LILIUOKALANI BUILDING**

**General Information**

Queen Liliuokalani is located at 1250 Punchbowl St. Honolulu, HI. The facility is a single building office type facility, occupied by the Department of Health (DOH) and Department of Education (DOE), and owned by the Department of Accounting and General Services (DAGS). While the first through fourth floors of the building are used as offices, the basement houses computer facilities and associates office spaces. The building was built in 1943, occupies 94,528 square feet space. Building envelope includes single glazed tinted windows with overhangs on the fourth floor and basement windows. The reef has reflecting coating. The building is cooled by a central air conditioning system. Water cooled chilled plant is located in the basement of the building. The building is equipped with an energy management system.

**Building Occupancy and Electricity Usage**

The average occupancy rate of the building during the weekdays was reported as 826 people, however this rate was changed to 344 by the energy surveyor since the building did not seem to have that many people during the survey. The occupancy rate on Saturdays was reported as 62 people. The building office operation schedule is Monday through Friday 5:30 am to 5:00 pm and Saturdays 7:00 am to 4:00 pm. The computer facility is operational 27/7 throughout the year. The building has consumed 2,577,000 kWh per year electricity with an electricity cost of \$317,349 in year 2003, according to the records from the Hawaiian Electric Company (HECO). This converts to 27.26kWh per year per square feet of electricity consumption and \$3.36 per square feet electricity cost for the Queen Liliuokalani. However, when the electricity consumption due to the computer facility is subtracted from the total, the yearly electricity consumption per square feet is reduced to 18.5 kWh.

**Building and Equipment Renovations the Past Five Years**

- 1- Chiller replacement, cooling tower replacement.
- 2- Basement and fourth floor air handling unit replacements.
- 3- First through fourth floor T-8 lighting, window tinting renovations.

**Other Ongoing Renovation**

- 1- Replacement of the existing air handling units in the first, second and third floors were ongoing at the time of the survey in year 2003-2004.

**Indoor Air Quality Concerns**

- 1- Retro-commission the energy systems in the building. The systems have been installed over a four plus year period by different contractors. A comprehensive retro-commissioning process will ensure that all systems are operating correctly and efficiently.

**Energy Conservation Measures**

- 1- Change EXIT signs from incandescent to LED with battery backup.
- 2- Install vending miser on all vending machines.

Potential savings from the recommended energy conservation measures are quantified in the following Table 4.

Table 4: Queen Liliuokalani Building

DESCRIPTION OF MEASURES	COST BASIS	BENEFIT	SIMPLE PAYBACK
ECM-3 Change EXIT signs from incandescent to LED	16 each @ \$100 material 8 hours @ \$50/hour Total cost \$2,000	8 hours @ \$50/hour Energy Saved \$669 Total Savings \$1,069	1.9
ECM-4 Install Vending Misers	2 each @ \$165 material 1 hour @ \$50/ hour Total cost \$380	Energy Saved \$378 Total Savings \$378	1.0
ECM-5 Retro-commission	\$0.25 x 94,528 = \$23,632	Productivity gain \$18,900 one time Energy saved \$15,125 per year	
Total Impact of ECMs	\$26,012	\$35,472 first year \$16,572 thereafter	< 1 year total or 1.6 year energy only

Note: The ECM numbering was developed for all buildings included in the energy survey. This was essential to maintain the same order when developing the cumulative ECM analysis for all the buildings considered in the energy surveys.

## 2.3 KEKUANA OA BUILDING

### General Information

Kekuanaoa Building is located at 485 South King St. Honolulu, HI. The facility is a single building office type facility, occupied by seven different agencies and owned by the Department of Accounting and General Services (DAGS). The building occupies 65,075 square feet space. Its original construction date is not known. Building envelope includes double hang single glaze windows with drapes. No insulation layer on the walls or roof exists. The building is cooled by a central air conditioning system. The building does not have energy management system.

### Building Occupancy and Electricity Usage

The average occupancy rate of the building during the weekdays is 250 people; no occupancy in the weekends. The building operation schedule is Monday through Friday 7:30 am to 4:30 pm. The building has consumed 1,457,680 kWh per year electricity with an electricity cost of \$185,048 in year 2003, according to the records from the Hawaiian Electric Company (HECO). This converts to 22.55 kWh per year per square feet of electricity consumption and \$2.84 per square feet electricity cost for the Kekuanaoa Building.

### Building and Equipment Renovations the Past Five Years

- 1- Chiller replacement.

### Other Ongoing Renovation

- 1- Cooling tower and chilled water pumping was scheduled for upgrades at the time of the survey in year 2003-2004.

### Indoor Air Quality Concerns

- 1- Copy machines have been installed in individual rooms in the office areas. There is no exhaust system to remove the contaminated air. This could cause an indoor air quality problem. Recommend the installation of an exhaust system to remove the air from the copy rooms.
- 2- The elevator is starting to malfunction. The elevator system needs a retrofit to avoid further problems.
- 3- Retro-commission the building when the cooling tower has been replaced and the lighting systems have been upgraded.

### Energy Conservation Measures

- 1- Change EXIT signs from incandescent to LED with battery backup.
- 2- Install vending miser on all vending machines.
- 3- Existing lighting system needs to be upgraded to T-8 fluorescent with electronic ballasts.
- 4- The first floor SE corner is a high bay area with Metal Halide lamps. One of the lamps has been replaced with a High Pressure Sodium Lamp. Metal Halide lamps should be stocked to avoid this problem.



Potential savings from the recommended energy conservation measures are quantified in the following Table 5.

Table 5: Kekuaanoa Building

DESCRIPTION OF MEASURES	COST BASIS	BENEFIT	SIMPLE PAYBACK
ECM-1 Change 2 lamp to T-8 w/ electronic ballasts	330 each @ \$35 material 165 hours @ \$100/hour Total cost \$28,050	Energy Saved \$15.22 Total Savings \$5,023	5.6
ECM-2a Change to 2 lamp lighting system	750 each @ \$75 mtl. 750 hours @ \$150/hour Total cost \$168,750	Energy Saved \$52.63 Total Saved \$39,470	4.3
ECM-3 Change EXIT signs from incandescent to LED	20 each @ \$100 material 10 hours @ \$50/hour Total cost \$2,500	10 hours @ \$50/hour Energy Saved \$836 Total Savings \$1,336	1.9
ECM-4 Install Vending Misers	4 each @ \$165 material 2 hours @ \$50/hour Total cost \$ 760	Energy Saved \$756	1
ECM-5 Retro-commission	\$0.25 x 65,075 = \$16,300	Productivity gain \$13,000 one time Energy saved \$10,412 per year	0.7
Total Impact of ECMs	\$216,360	\$69,997 first year \$56,997 thereafter	3.6 years or 3.8 energy

Note: The ECM numbering was developed for all buildings included in the energy survey. This was essential to maintain the same order when developing the cumulative ECM analysis for all the buildings considered in the energy surveys.

## 2.4 KEELIKOLANI AND HALE AUHAU BUILDINGS

### General Information

Keelikolani and Hale Auhau Buildings are served of the same electric meter and same chiller plant. Therefore their energy survey results and energy conservation measures are presented together. Keelikolani building is located at 830 Punchbowl St. and Hale Auhau Building is located across the street from the Keelikolani, on 425 Queen St. in Honolulu, HI. Both facilities are office type facilities, owned by the Department of Accounting and General Services (DAGS). The Keelikolani is occupied by the Department Labor and Industrial Relations (DLIR), and the Hale Auhau is occupied by the Department of Taxation (DOTaxation). The Keelikolani was built on 1949, occupies 230,066 square feet space. The Hale Auhau was built on 1931, occupies 48,573 square feet space. Keelikolani building envelope includes window walls and vertical shades in place. Hale Auhau building envelope includes double hang windows with drapes. Both buildings are cooled by a single central air conditioning system, located in the Keelikolani. No energy management system exists in either buildings.

### Building Occupancy and Electricity Usage

The average occupancy rate of the Keelikolani building during the weekdays is 625 people, and Saturdays is 60 people. The average occupancy rate of the Hale Auhau building during the weekdays is 170 people, and Saturdays is 20 people. Both buildings operation schedule is identical, which is Monday through Friday 6:30 am to 5:00 pm, and Saturdays 7:00 am to 4:00 pm. Both building together has consumed 4,248,400 kWh per year electricity with an electricity cost of \$535,534 in year 2003, according to the records from the Hawaiian Electric Company (HECO). This converts to 14.92 kWh per year per square feet of electricity consumption and \$1.88 per square feet electricity cost for the Keelikolani and Hale Auhau Buildings.

### Building and Equipment Renovations the Past Five Years

- 1- Two of the existing three chillers have been replaced .
- 2- Cooling towers and pumps have been upgraded.
- 3- Existing lamps and ballasts have been replaced to T-8 lamps with electronic ballasts.

### Other Ongoing Renovation

- 1- Project on providing outside air to the air handlers through roof top vents was ongoing at the time of the survey in year 2003-2004.

### Future Renovations Considered

- 1- DAGS was planning to replace the 39 air handlers in the Hale Auhau Building with one air handler per floor with pre-coolers and to provide fresh air at the rate of 20 cfm/person at the time of the survey in year 2003-2004. They also planed to increase the size of chiller No. 3 in the Keelikolani Building when replacement is necessary in order to handle the increased fresh air load from the Hale Auhau upgrade.
- 2- DAGS has been unable to obtain capital funding to upgrade the control system in Keelikolani Building at the time of the survey in year 2003-2004. The original surveyors have recommend evaluating the cost-effectiveness of providing a direct digital control

system and variable frequency drives to reduce energy consumption and increase comfort levels. However, no electricity savings or associated cost estimates were provided on this item by the surveyor.

**Indoor Air Quality Concerns**

- 1- No air quality problem was recorded.

**Energy Conservation Measures**

- 1- Change EXIT signs from incandescent or fluorescent to LED with battery backup
- 2- Install Vending Misers on all vending machines.
- 3- Retro-commission and rebalance the air distribution system in Keelikolani Building. The existing system is dependent on an out of date control system. It failed at different stages and current air distribution patterns do not provide uniform temperature conditions.

Potential savings from the recommended energy conservation measures are quantified in the following Table 6.

Table 6: Keelikolani and Hale Auhau Buildings

DESCRIPTION OF MEASURES	COST BASIS	BENEFIT	SIMPLE PAYBACK
ECM-2 Change EXIT signs from incandescent to LED	32 each @ \$100 material 16 hours @ \$50/hour Total cost \$4,000	16 hours @ \$50/hour Energy Saved \$1,337 Total Savings \$2,137	1.9
ECM-4 Install Vending Misers	6 each @ \$165 material 3 hours @ \$50/hour Total cost \$1,140	Energy Saved \$1,134	1.0
ECM-5 Retro-commission Keelikolani Building only	\$0.25 x 238,066 = \$59,500	Productivity gain \$47,613 one time Energy saved \$38,090 per year	1.5
Total Impact of ECMs	\$64,640	\$88,974 first year \$41,361 thereafter	< 1 year total or 1.6 energy

Note: Retro-commissioning of Hale Auhau Building should be delayed until VAC upgrade is completed.

Note: The ECM numbering was developed for all buildings included in the energy survey. This was essential to maintain the same order when developing the cumulative ECM analysis for all the buildings considered in the energy surveys.

**2.5 FOREIGN TRADE ZONE # 9 WAREHOUSE AND OFFICE**

**General Information**

Foreign Trade Zone # 9 Office and Warehouse Building is located at OFT Armstrong Pier 2, Honolulu, HI. The facility is a single building, majority warehouse with a small area used for office space. The building is owned and occupied by the Department of Business, Economic Development, & Tourism (DBEDT). The original construction date of the building is not known. The total building square footage is 320,752, of which 286,001 sq.ft. is occupied by the warehouse, 14,451 sq.ft. is occupied by the offices and 20,300 sq.ft. is used as tenant lease space. Building envelope includes projection windows and overhang shading. No insulation recording was made on the walls or roof. The building is cooled by a central air conditioning system. Water cooled chilled plant is attached to the east side of the building. The building is equipped with an energy management system.

**Building Occupancy and Electricity Usage**

The average occupancy rate of the building during the weekdays is 50 people, and during the weekends is 10 people. The building operation schedule is Monday through Friday 6:10 am to 4:30 pm, Saturdays 6:40 am to 3:00 pm, and Sundays and Holidays 6:40 am to 12:00 noon. The warehouse is served by a separate meter, and has consumed 303,360 kWh per year electricity with an electricity cost of \$41,727 in year 2003, according to the records from the Hawaiian Electric Company (HECO). This converts to 1.06 kWh per year per square feet of electricity consumption and \$0.15 per square feet electricity cost for the Foreign Trade Zone # 9 Warehouse. The tenant lease space electricity is served from the office meter. The combined electricity usage of both the tenant lease space and the office was 792,960 kWh per year electricity with an electricity cost of \$98,659 in year 2003, according to the records from the HECO. This converted to 22.82 kWh per year per square feet of electricity consumption and \$2.84 per square feet electricity cost for the Foreign Trade Zone # 9 Office and Tenant Lease Space.

**Building and Equipment Renovations the Past Five Years**

- 1- Two chillers have been replaced.
- 2- Cooling tower and pumps have been upgraded.
- 3- Existing lamps and ballasts have been replaced to T-8 lamps with electronic ballasts.

**Other Ongoing Renovation**

- 1- None identified.

**Future Renovations Considered**

- 1- An addition to the office space of approximately 12,000 square feet was planned at the time of the survey in year 2003-2004.

**Indoor Air Quality Concerns**

- 1- None Identified.

**Energy Conservation Measures**

- 1- Change EXIT signs from incandescent to LED with battery backup.
- 2- Install vending miser on all vending machines.
- 3- Retro-commission the chiller plant and office space. The existing system is controlled in a time clock fashion. An updated control system may allow the chillers and ventilation system to operate on an “as needed” basis.

Potential savings from the recommended energy conservation measures are quantified in the following Table 7.

Table 7: Foreign Trade Zone # 9 Office and Warehouse Building

DESCRIPTION OF MEASURES	COST BASIS	BENEFIT	SIMPLE PAYBACK
ECM-3 Change EXIT signs from incandescent to LED	14 each @\$100 material 7 hours @ \$50/hour Total cost \$1,750	7 hours @ \$50/hour Energy Saved \$585 Total Savings \$935	1.9
ECM-4 Install Vending Misers	1 each @ \$165 material 1/2 hour @ \$50/ hour Total cost \$190	Energy Saved \$189 Total Savings \$189	1.0
ECM-5 Retro-commission	\$0.25 x 34,751 = \$8,690	Energy saved \$5,470 per year	
<b>Total Impact of ECMs</b>	<b>\$8,440</b>	<b>\$6,594</b>	<b>1.3 years</b>

Note: The ECM numbering was developed for all buildings included in the energy survey. This was essential to maintain the same order when developing the cumulative ECM analysis for all the buildings considered in the energy surveys.

**2.6 STATE JUDICIARY BUILDINGS**

**General Information**

The State Judiciary Buildings’ lighting energy surveys and potential retrofits were evaluated earlier under Energy Performance Contracts (EPC). A total of five buildings were evaluated under the EPC. The estimated potential energy savings by the lighting retrofits for those buildings estimated in year 2002 are listed in Table 8.

Table 8: Summary of Judiciary Energy Savings Estimates by Facility

FACILITY	CONSUMPTION	KWH SAVINGS	\$ SAVINGS	Simple Payback
Kauikeaouli Hale	5,432,000	966,200	\$90,653	6.9 years
Kaahumanu Hale	4,052,400	639,800	\$62,209	8.8 years
Aliiolani Hale	1,727,760	172,100	\$18,993	7.5 years
Hoapili Hale	1,291,400	160,200	\$25,579	9.1 years
Lahaina Dis. Crt.	31,700	1,060	\$189	74.5 years
Sub-total	12,535,260	1,939,360	\$198,623	7.9 years
Utility Rebate	-	-	\$100,652	-
Totals	12,535,260	1,939,360	-	7.4 years

Following is a description of the occupancy type for the areas proposed for upgrades in 2002 along with a general description of the types of improvements being proposed:

- 1- Courtrooms, offices, hallways, public areas, elevator lobbies, bathrooms, and parking structures:
  - Replace T-12 fluorescent lamps and magnetic ballasts with T-8 fluorescent lamps and electronic ballasts.
  - Replace incandescent floodlights with compact fluorescent lamps.
  - Install occupancy sensors to automatically shut off lights when courtrooms or offices are vacant.
  - De-lamp over lit areas.
- 2- Plaza and loading dock:
  - Re-lamp and re-ballast existing 70-watt High Pressure Sodium (HPS) fixtures with new 70-watt HPS.
- 3- Holding Cell:
  - Replace existing incandescent and fluorescent fixtures with “security/vandal proof” fixtures.

4- General:

- Replace Incandescent EXIT signs with new LED EXIT signs.
- Replace Mercury lamps in recessed cans with compact fluorescent lamps in atrium halls.
- Replace glaring Metal Halide fixtures with T-5 fluorescent in atrium halls.
- Lighting in Historical Register Building, Aliiolani Hale, will only be upgraded where historical fixtures will not be disturbed.

The total savings attributable to lighting upgrades is approximately 15.5% of electricity consumption in these facilities at the time of the study.

The current status of the listed energy conservation measures should be determined and findings should be included in the current benchmarking study.

2.7 HIARNG ENERGY EFFICIENCY MEASURES

**General Information**

The Department of Defense Hawaii Army National Guard (DOD HIARNG) Buildings' energy surveys and potential retrofits were evaluated by Energy Performance Contracts (EPC) in 2002 . A total of 16 buildings statewide were evaluated under the EPC. The estimated potential energy savings for those buildings estimated in year 2002 are listed in Table 9.

Table 9: Summary of HIARNG Energy Savings by Facility in Oahu.

FACILITY	CONSUMPTION	KWH SAVINGS	\$ SAVINGS	SPB
Ft. Ruger 300 Armory	160,200	10,410	\$1,330	16.10 yr.
Ft. Ruger 306/ 306A Arm	1,260,000	348,710	\$44,140	13.65 yr.
Ft. Ruger 407 Admin	122,800	12,600	\$1,530	3.70 yr.
Kalealoha 1784-1788	165,600	60,000	\$7,200	89.06 yr.
Kalealoha 1898 Hdq	1,332,000	357,880	\$42,910	14.98 yr.
Kalealoha 19 Mess Facility	480,000	19,330	\$2,320	14.7 yr.
Kalealoha 282 Hanger	1,644,000	1,031,030	\$139,710	3.63 yr.
Kalealoha 46 Enlisted	744,000	33,330	\$4,000	7.79 yr.
Wahiawa 1,2&4 A&M	653,760	178,000	\$21,360	21.30 yr.
Waiawa 1&23101 Armory	550,680	86,450	\$10,390	7.91 yr.
Waiawa 21&23317 I&M	196,500	26,540	\$3,190	12.60 yr.
Wheeler AFB 829&833	475,000	192,900	\$23,150	3.70 est.
Hanapepe 1 Armory	161,040	15,800	\$2,530	12.01 yr.
Hanapepe 27 Maintenance	26,890	2,690	\$430	6.26 yr.
Kapaa 1 Armory	68,440	6,100	\$1,160	9.62 yr.
Hilo 618 & 621	497,600	84,650	\$15,040	3.03 est.
Sub-Total	8,538,510	2,461,420	\$320,390	11.6 yr.
Utility Rebate	-	-	\$167,160	-
Total	8,538,510	2,461,420	-	11.1 yr.

Note: Since the current benchmarking study is limited to the Island of Oahu, only the buildings in Oahu should be considered in the future phases of the benchmarking study.

Following is a description of the occupancy type for the areas where lighting was upgraded along with a general description of the types of improvements were proposed in 2002:

- 1- Offices, classrooms, hallways, public areas, bathrooms, and computer rooms:
  - Replace T-12 fluorescent lamps and magnetic ballasts with T-8 fluorescent lamps and electronic ballasts.
  - Replace incandescent lights with compact fluorescent lamps.

- Install Specular Reflectors in fixtures that the lighting is being changed from four lamps to 2 lamp fixtures.
- Install occupancy sensors to turn off lighting in areas that occupants are not present all the time.
- Replace existing EXIT signs with new LED EXIT signs.

2- Hangers

- Retrofit Hangers with Inductively Coupled Electrodeless Lamps and remove HID lamps.
- Install Day lighting Control in areas where skylights allow daylight to penetrate the space.

The Air-Conditioning system was being upgraded in six of the facilities in 2002:

- 1- The upgrades in Ft. Rucker 306/306a, Kalaeloa 1898, Wahiawa 1, and Wheeler 829 were primarily being made because the existing equipment was reaching the end of its maximum useful life.
- 2- In the case of Kalaeloa 1784-1788 the equipment failed and a rental machine was brought in to provide the necessary cooling.
- 3- In the case of Hilo 618 the existing system was ready to fail and the control system has already become non-functional.

As noted previously, since the current benchmarking study is limited to the Island of Oahu only, the buildings in Oahu should be extracted from this referenced ECO study in the future phases of the benchmarking study.

Additionally, current implementation status of the listed energy conservation measures should be determined and findings should be included in the current benchmarking study.

### 3.0 LIST OF BUILDING INFORMATION REQUIRED FOR THE BENCHMARKING STUDY

In addition to a new set of the walk through surveys, some information will be required from the participating state buildings in order to conduct the “State Facility Benchmarking Study.” The list of the requested information is listed in the following Table 10.

Table 10: The list of information required for the Benchmarking Study.

BENCHMARK INPUT	
Operation Hours	Total Building Percentage Area Cooled
Building Age	Is Lighting Retrofitted? Percentage
Occupancy Rate	Other Equipment Retrofits in the Past Five Years
Total Number of PC in the Building	Are Windows Tinted? Percentage
Building total Square Footage Total	Number of Floors
Type of Cooling Equipment	Yearly Electricity Consumption

APPENDIX 4.0

State of Hawaii Electricity Consumption by State Agencies and  
Percentage Electricity Consumed for Fiscal Year 2002 Summarized from  
“Hawaii State Facility Energy Upgrade Analysis & Performance Contracting Potential Phase I and Phase II Reports”

TABLE 2 STATE OF HAWAII AGENCY ELECTRICAL CONSUMPTION

CUSTOMER NUMBER	AGENCY	TARIFF CODE	APPROX # METERS	ANNUAL kWh	% TOTAL CONSUMPTION	ANNUAL COST
9603-0543	SOH CONV CTR AUTH	1	1	7,524,000		\$ 909,670.21
	CONVENTION CENTER TOTAL		1	7,524,000	1.13%	\$ 909,670.21
8807-1307	SOH DAGS	1	43	41,569,803		\$ 4,747,477.07
8603-4435	SOH DAGS	2	16	1,721,793		\$ 328,285.16
8700-0217	SOH DAGS	3	8	1,491,115		\$ 260,223.17
9204-5346	SOH DAGS	5	3	422,490		\$ 89,298.28
A	SOH DAGS	6	7	1,560,054		\$ 385,930.98
	DAGS TOTAL		77	46,765,255	7.00%	\$ 5,811,214.66
8814-1379	SOH DBEDT	1	11	1,414,286		\$ 186,864.38
9801-4502	SOH DBEDT	5	1	-		\$ 212.70
	DBEDT TOTAL		12	1,414,286	0.21%	\$ 187,077.08
8820-1034	SOH DOA	1	15	1,268,475		\$ 169,453.05
8603-5946	SOH DOA	2	7	132,535		\$ 30,356.54
9204-2009	SOH DOA	5	4	1,071,280		\$ 209,108.59
B	SOH DOA	6	1	10,900		\$ 5,869.79
	DEPT OF AGRICULTURE TOTAL		27	2,483,190	0.37%	\$ 414,787.97
C	SOH ATG	6	1	32,190		\$ 7,816.79
	DEPT OF ATTORNEY GENERAL TOTAL		1	32,190	0.005%	\$ 7,816.79
9204-3214	SOH DOD	1	17	4,082,567		\$ 481,973.33
8602-9330	SOH DOD	2	33	1,377,213		\$ 271,240.46
9204-3214	SOH DOD	3	6	446,558		\$ 80,797.15
9501-1255	SOH DOD	5	2	31,680		\$ 9,605.49
E	SOH DOD	6	1	156,160		\$ 35,103.58
	DEPT OF DEFENSE TOTAL		59	6,094,178	0.91%	\$ 878,720.01
0101-4685	SOH DOE	1	296	92,732,273		\$ 11,944,413.29
0101-8269	SOH DOE	2	137	16,305,101		\$ 3,285,604.99
0101-5653	SOH DOE	3	59	11,211,582		\$ 2,052,221.16
0101-5653	SOH DOE	4	2	450,720		\$ 119,923.79
0101-5653	SOH DOE	5	16	1,249,813		\$ 293,424.94
F	SOH DOE	6	44	6,348,419		\$ 1,610,021.73
	DEPT OF EDUCATION TOTAL		554	128,297,908	19.19%	\$ 19,305,609.90
9301-1976	SOH DOHHL	1	20	68,836		\$ 8,767.97
9703-6269	SOH DOHHL	2	10	62,058		\$ 17,265.81
0103-6662	SOH DOHHL	3	3	9,605		\$ 2,022.85
9301-1976	SOH DOHHL	5	8	1,503,491		\$ 238,763.35
H	SOH DOHHL	6	1	93,040		\$ 25,768.21
	DEPT OF HAWIIAN HOME LANDS TOTAL		42	1,737,030	0.26%	\$ 292,588.19
9502-1446	SOH DOH	1	48	22,419,959		\$ 2,435,205.02
8603-6561	SOH DOH	2	37	14,195,299		\$ 2,262,192.00
8700-1032	SOH DOH	3	44	9,586,021		\$ 1,373,855.21
8703-6225	SOH DOH	4	2	200,683		\$ 48,984.73
9204-2979	SOH DOH	5	1	1,188,000		\$ 231,870.36
I	SOH DOH	6	3	32,842		\$ 8,484.86
	DEPT OF HEALTH TOTAL		135	47,622,804	7.12%	\$ 6,360,592.18
8811-8347	SOH DOHS	1	65	2,985,569		\$ 376,990.51
9402-3824	SOH DOHS	2	17	533,195		\$ 116,348.02
8700-1090	SOH DOHS	3	8	155,532		\$ 30,840.47
K	SOH DOHS	6	10	189,249		\$ 47,172.08
	DEPT OF HUMAN SERVICES TOTAL		100	3,863,545	0.58%	\$ 571,351.08
8809-6280	SOH DOLIR	1	5	122,953		\$ 17,406.60
8602-9149	SOH DOLIR	2	12	312,299		\$ 76,484.35
N	SOH DOLIR	6	2	39,100		\$ 9,704.69
	DEPT OF LABOR & IND RELATIONS TOTAL		19	474,352	0.07%	\$ 103,595.64
8807-7879	SOH DOL&NR	1	90	2,215,366		\$ 290,054.41
9201-8358	SOH DOL&NR	2	42	707,805		\$ 156,738.68
8702-4781	SOH DOL&NR	3	37	252,198		\$ 52,586.19
8702-4781	SOH DOL&NR	4	2	12,000		\$ 3,048.82
9204-4602	SOH DOL&NR	5	5	33,435		\$ 10,131.19
O	SOH DOL&NR	6	22	291,899		\$ 74,297.67
	DEPT OF LAND & NAT RES TOTAL		198	3,512,703	0.53%	\$ 586,856.96
9401-3209	SOH PSD	1	10	16,762,902		\$ 1,708,410.37
8603-9236	SOH PSD	2	15	2,541,991		\$ 437,712.49
8700-2210	SOH PSD	3	2	2,203,910		\$ 328,144.40
Q	SOH PSD	6	7	859,093		\$ 194,619.96
	DEPT OF PUBLIC SAFETY TOTAL		34	22,367,896	3.35%	\$ 2,668,887.22
8800-1207	SOH DOT AIR DIV	1	60	104,775,202		\$ 10,291,989.82
8604-9500	SOH DOT AIR DIV	2	28	9,736,183		\$ 1,515,170.48
0101-5653	SOH DOT AIR DIV	3	4	10,497,460		\$ 1,527,209.14
8700-9409	SOH DOT AIR DIV	4	1	523,200		\$ 131,384.58
8700-9409	SOH DOT AIR DIV	5	2	106,701		\$ 24,213.64
R	SOH DOT AIR DIV	6	12	4,508,581		\$ 981,152.88
	DOT AIRPORTS DIVISION TOTAL		107	130,147,327	19.47%	\$ 14,471,120.54
8820-6076	SOH DOT HAR DIV	1	66	4,559,658		\$ 603,618.88
8600-2215	SOH DOT HAR DIV	2	11	84,481		\$ 23,461.90
9102-5682	SOH DOT HAR DIV	3	10	410,487		\$ 80,573.71

**TABLE 2 STATE OF HAWAII AGENCY ELECTRICAL CONSUMPTION**

<b>CUSTOMER NUMBER</b>	<b>AGENCY</b>	<b>TARIFF CODE</b>	<b>APPROX # METERS</b>	<b>ANNUAL kWh</b>	<b>% TOTAL CONSUMPTION</b>	<b>ANNUAL COST</b>
9102-5682	SOH DOT HAR DIV	5	1	13,137		\$ 3,895.18
S	SOH DOT HAR DIV	6	11	312,006		\$ 81,875.74
	DOT HARBORS DIVISION TOTAL		99	5,379,769	0.80%	\$ 793,425.41
8801-5441	SOH DOT HWY DIV	1	454	26,423,316		\$ 3,267,727.21
8602-1234	SOH DOT HWY DIV	2	98	1,246,898		\$ 282,302.92
8701-8331	SOH DOT HWY DIV	3	225	1,727,015		\$ 381,012.96
8701-8331	SOH DOT HWY DIV	4	3	1,476		\$ 860.64
9204-1732	SOH DOT HWY DIV	5	11	150,304		\$ 44,898.82
T	SOH DOT HWY DIV	6	36	393,868		\$ 101,346.07
	DOT HIGHWAYS DIVISION TOTAL		827	29,942,877	4.48%	\$ 4,078,148.62
8822-2776	SOH HCDCH	1	785	19,429,529		\$ 2,329,589.58
8600-2366	SOH HCDCH	2	345	1,196,518		\$ 296,193.42
8807-8210	SOH HCDCH	3	131	867,422		\$ 160,119.06
9400-0679	SOH HCDCH	5	8	24,004		\$ 7,286.12
J	SOH HCDCH	6	23	387,202		\$ 95,833.99
	HOUSING & COMM DEV CORP OF HAW TOTAL		1,292	21,904,675	3.28%	\$ 2,889,022.17
8820-5405	JUDICIARY DEPT	1	19	12,057,449		\$ 1,321,154.73
9400-6716	JUDICIARY DEPT	2	9	266,482		\$ 59,297.25
9202-2806	JUDICIARY DEPT	3	1	10,840		\$ 2,352.97
L	JUDICIARY DEPT	6	10	151,917		\$ 38,276.99
	JUDICIARY DEPT TOTAL		39	12,486,688	1.87%	\$ 1,421,081.94
9202-6207	NELHA	2	6	3,498,125		\$ 554,542.63
	NAT ENERGY LAB OF HAW TOTAL		6	3,498,125	0.52%	\$ 554,542.63
8800-5226	SOH OFF LT. GOV	1	2	120,309		\$ 16,710.04
	OFFICE OF LT GOVERNOR TOTAL		2	120,309	0.02%	\$ 16,710.04
8701-6933	SOH HSPLS	1	45	6,767,094		\$ 857,530.01
8604-7371	SOH HSPLS	2	12	633,397		\$ 134,698.58
8701-6933	SOH HSPLS	3	5	587,730		\$ 106,947.90
8701-6933	SOH HSPLS	4	1	79,360		\$ 22,612.75
8701-6933	SOH HSPLS	5	2	40,851		\$ 10,313.99
P	SOH HSPLS	6	4	597,280		\$ 148,432.23
	HAW STATE PUBLIC LIBRARIES SYS TOTAL		69	8,705,712	1.30%	\$ 1,280,535.46
8820-2530	SOH - OTHER	1	6	1,438,947		\$ 163,052.66
8604-9277	SOH - OTHER	2	8	60,216		\$ 15,873.96
0100-5035	SOH - OTHER	3	8	233,249		\$ 44,235.67
8701-5117	SOH - OTHER	4	1	90,979		\$ 23,501.78
	SOH OTHER FACILITIES TOTAL		23	1,823,391	0.27%	\$ 246,664.07
8824-1170	SOH STADIUM AUTH	1	4	3,544,412		\$ 480,163.83
	STADIUM AUTHORITY TOTAL		4	3,544,412	0.53%	\$ 480,163.83
8816-7592	U OF H MANOA	1	128	136,648,607		\$ 13,341,627.19
8603-6037	U OF H MANOA	2	1	1,268		\$ 861.93
8801-3683	U OF H WEST OAHU	1	1	43,564		\$ 6,068.39
8603-6037	U OF H HAWAII	2	58	11,486,642		\$ 2,018,030.43
8701-4964	U OF H MAUI	3	13	530,172		\$ 92,622.25
U	U OF H HAWAII	6	3	6,864		\$ 2,439.18
	UNIVERSITY OF HAWAII TOTAL		204	148,717,117	22.25%	\$ 15,461,649.37
8824-5561	U OF H COMM COLL	1	18	22,848,884		\$ 2,584,922.70
8700-8959	U OF H COMM COLL	3	6	4,948,494		\$ 753,031.73
8701-6938	U OF H COMM COLL	4	1	26,716		\$ 6,628.84
9204-1172	U OF H COMM COLL	5	3	203,620		\$ 47,083.85
	U OF H COMM COLL	6	3	1,962,205		\$ 463,532.29
	COMMUNITY COLLEGE TOTAL		31	29,989,919	4.49%	\$ 3,855,199.41
	ISLAND OF OAHU TOTAL	1	2,209	531,823,960	79.56%	\$ 58,540,841.25
	ISLAND OF HAWAII TOTAL	2	902	66,099,499	9.89%	\$ 11,882,662.20
	ISLAND OF MAUI TOTAL	3	570	45,169,390	6.76%	\$ 7,328,795.99
	ISLAND OF MOLOKAI TOTAL	4	13	1,385,134	0.21%	\$ 356,945.93
	ISLAND OF LANAI TOTAL	5	67	6,038,806	0.90%	\$ 1,220,106.51
	ISLAND OF KAUAI TOTAL	6	201	17,932,869	2.68%	\$ 4,317,679.71
<b>SOH AGENCY ELECTRICAL CONSUMPTION TOTAL</b>			<b>3,962</b>	<b>668,449,658</b>	<b>100.00%</b>	<b>\$ 83,647,031.59</b>

**LEGEND:**

**TARIFF CODE** 1 = HAWAIIAN ELECTRIC COMPANY (HECO) CONSUMPTION DATA FOR 1-JUL-01 THROUGH 30-JUN-02  
 2 = HAWAII ELECTRIC COMPANY (HELCO) CONSUMPTION DATA FOR 1-JUL-01 THROUGH 30-JUN-02  
 3, 4, & 5 = MAUI ELECTRIC COMPANY (MECO) CONSUMPTION DATA FOR 1-JUL-01 THROUGH 30-JUN-02  
 6 = KAUAI ISLAND UTILITY COOPERATIVE (KIUC) CONSUMPTION DATA FOR 1-JAN-01 THROUGH 31-DEC-01

**CONSUMPTION** INCLUDES TOTAL ELECTRICAL CONSUMPTION BY ISLAND AND STATEWIDE FOR EACH AGENCY



APPENDIX 4.1

Large and Medium Size State Facilities on Oahu Electricity Consumption History for Fiscal Year 2002 Reported in  
“Hawaii State Facility Energy Upgrade Analysis & Performance Contracting Potential Phase I and Phase II Reports”

**TABLE 4 STATE OF HAWAII AGENCY LARGE FACILITY ELECTRICAL CONSUMPTION**

ACCOUNT NUMBER	AGENCY	FACILITY LOCATION	RATE SCHEDULE	TARIFF CODE	NUMBER READINGS	ANNUAL KWH	ANNUAL \$ COST
8800-6839-077	SOH DAGS	400 S HOTEL ST (STATE CAPITOL)	PS5	1	12	6,304,000	\$706,862.61
8819-2839-079	SOH DAGS	919 ALA MOANA BLVD (AAFES)	J3	1	12	2,473,000	\$276,003.38
8819-9076-075	SOH DAGS	869 PUNCHBOWL ST (TRANSPORTATION)	J	1	24	1,731,520	\$202,070.88
8820-4007-075	SOH DAGS	1390 MILLER ST (QUEEN LILIOULANI)	J3	1	12	2,455,000	\$278,499.02
8820-5318-076	SOH DAGS	1151 PUNCHBOWL ST (KALANIMOKU)	PS5	1	12	7,090,200	\$748,490.38
8820-5319-075	SOH DAGS	1250 PUNCHBOWL ST (KINAU HALE)	J	1	12	1,809,600	\$212,507.91
8824-3048-076	SOH DAGS	235 S BERETANIA ST (OFFICE TOWER)	J	1	12	2,455,600	\$286,963.65
8824-4189-078	SOH DAGS	250 S HOTEL ST (NO. 1-DISTRICT BLDG)	J	1	12	2,312,400	\$254,055.90
8824-4781-075	SOH DAGS	465 S KING ST (KEKUANAO'A BLDG)	J	1	12	1,455,200	\$169,776.64
8824-8557-076	SOH DAGS	830 PUNCHBOWL ST (OFFICE BLDG #2)	J	1	12	4,431,600	\$505,809.19
8824-8619-075	SOH DAGS	1010 RICHARDS ST (KAMAMALU)	J5	1	12	1,504,000	\$176,553.13
9800-1977-002	SOH DAGS	601 KAMOKILA BV (KAKUIHEIWA KAPOLEI)	J	1	12	2,818,000	\$330,470.16
8823-4938-076	SOH DAGS	99500 SALT LAKE BV (STADIUM AUTHORITY)	J3	1	20	3,520,200	\$476,567.80
TOTAL	SOH DAGS LARGE FACILITIES				13 Facilities	40,360,320	\$4,624,630.65
9600-5614-003	SOH DBEDT	1777 KAPIOLANI BV (HCC)	PS	1	12	7,524,000	\$909,670.21
8819-4960-078	SOH DBEDT	0 FT ARMSTRONG PIER 2 (FTZ)	J	1	24	1,054,720	\$125,325.73
8819-5909-075	SOH DBEDT	1541 KALAKAUA AV (HCDCH)	PP3	1	12	1,931,000	\$199,992.00
8823-1584-076	SOH DBEDT	99132 KOHOMUA ST (HCDCH)	PP3	1	12	2,146,200	\$227,696.48
9400-2851-001	SOH DBEDT	1545 LINAPUNI ST #BLDG B (HCDCH HHA)	J	1	12	1,131,680	\$121,062.11
9400-2852-001	SOH DBEDT	1475 LINAPUNI ST #BLDG (HCDCH HHA)	J	1	12	1,233,120	\$129,018.68
TOTAL	SOH DBEDT LARGE FACILITIES				6 Facilities	15,020,720	\$1,712,765.21
8811-6162-076	SOH DOD	3949 DIAMOND HEAD RD	J	1	36	1,530,720	\$174,952.23
TOTAL	SOH DODEFENSE LARGE FACILITIES				1 Facility	1,530,720	\$174,952.23
0000-3209-004	SOH DOE	915007 KAPOLEI PKWY	J	1	12	2,290,000	\$272,433.63
0100-2579-004	SOH DOE	46155 KAMEHAMEHA HY	J	1	11	1,190,880	\$150,604.95
0100-2966-002	SOH DOE	91884 FT WEAVER RD	J	1	29	2,320,000	\$294,370.90
8801-3223-078	SOH DOE	2460 WAIMANO HOME RD (PEARL CITY HIGH)	J3	1	12	1,494,600	\$182,507.28
8801-5001-077	SOH DOE	941211 FARRINGTON HY (WAIPAHU HIGH)	J	1	24	1,659,200	\$220,988.34
8803-0106-077	SOH DOE	89980 NANAKULI AV (NANAKULI HIGH & INTER)	J3	1	12	1,302,600	\$170,626.06
8803-9117-078	SOH DOE	85271 FARRINGTON HY (WAIANAE HIGH)	J	1	12	1,074,080	\$133,017.75
8806-1340-077	SOH DOE	951200 MEHEULA PARKWAY(MILILANI HIGH)	J3	1	12	1,576,800	\$190,820.59
8806-3539-079	SOH DOE	67160 FARRINGTON HY (WAIALUA HIGH)	J	1	48	1,081,360	\$149,799.07
8809-2020-077	SOH DOE	45386 KANEOHE BAY DR (CASTLE HIGH)	J3	1	58	1,752,195	\$214,752.15
8809-6595-077	SOH DOE	760 ILIAINA ST (KALAHEO)	J	1	12	1,082,880	\$132,615.45
8811-3369-078	SOH DOE	511 LUNALILO HOME RD (KAISER HIGH)	J3	1	24	1,610,160	\$200,481.53
8812-7930-077	SOH DOE	4680 KALANIANAOLE HY (KALANI HIGH)	J	1	36	1,028,632	\$124,411.16
8814-6868-077	SOH DOE	2705 KAIMUKI AVE (KAIMUKI HIGH)	J3	1	24	2,159,820	\$248,180.34
8818-8260-078	SOH DOE	1120 NEHOA ST (ROOSEVELT HIGH)	J	1	24	1,321,800	\$168,822.39
8819-7510-077	SOH DOE	1039 S KING ST (MCKINLEY HIGH)	J	1	23	2,429,760	\$293,098.06
8821-9443-077	SOH DOE	1564 N KING ST (FARRINGTON HIGH)	J	1	72	1,812,520	\$229,096.62
8822-5334-078	SOH DOE	1185 ALA NAPUNANI ST (MOANALUA HIGH)	J	1	47	2,035,520	\$254,202.65
9600-2562-003	SOH DOE	911561 KEAUNUI RD HOLOMUA ELEMENTARY)	J	1	12	1,508,400	\$185,101.08
9800-2018-003	SOH DOE	951140 LEHIWA DR (MILILANI INTERMED)	J	1	12	2,058,800	\$250,897.78
9900-0148-003	SOH DOE	915335 KAPOLEI PKWY (KAPOLEI MID SCH)	J	1	12	1,589,520	\$194,643.55
8820-3139-077	SOH HSPLS	478 S KING ST (HAWAII STATE LIBRARY)	J	1	12	1,592,160	\$187,214.88
TOTAL	SOT DOEDUCATION LARGE FACILITIES				22 Facilities	35,971,687	\$4,448,686.21
8808-7404-076	SOH DOH	45747 KEAAHALA RD (HAWAII STATE HOSP)	PP3	1	12	4,162,800	\$417,400.89
8808-7405-075	SOH DOH	45633 KEAAHALA RD	J3	1	12	1,073,600	\$121,437.39
8813-6833-076	SOH DOH	3627 KILAUEA AV (ADMIN SRVC OFF)	J	1	12	1,604,400	\$191,076.40
8813-6841-075	SOH DOH	3675 KILAUEA AV	PP3	1	12	2,898,000	\$316,966.06
8821-2602-075	SOH DOH	1103 HALA DR (MALUHIA HOSP)	PP3	1	12	2,395,200	\$241,526.23
9300-8875-002	SOH DOH	2725 WAIMANO HOME RD (ADMIN OFF)	PS	1	12	6,542,400	\$661,633.24
TOTAL	SOH DOHEALTH LARGE FACILITIES				6 Facilities	18,676,400	\$1,950,040.21
8803-9993-076	SOH PSD	94560 KAMEHAMEHA HY (WAIAWA CORR FAC)	J3	1	12	1,270,000	\$139,010.06
8823-3657-076	SOH PSD	5100 MOANALUA RD	J	1	12	1,400,880	\$144,947.43
8823-3672-076	SOH PSD	99902 MOANALUA RD (HALAWA PRISON)	PS	1	12	5,276,400	\$534,958.56
8823-8291-076	SOH PSD	2199 KAMEHAMEHA HY (OCCC & HSE CORR)	PP3	1	12	6,709,200	\$663,983.52
9300-5247-002	SOH PSD	42477 KALANIANAOLE HY	J	1	12	1,667,280	\$173,746.61
TOTAL	SOH DEPT OF PUBLIC SAFETY LARGE FACILITIES				5 Facilities	16,323,760	\$1,656,646.18
0000-3507-001	SOH DOT - AIR DIV	40 PIER (KAPALAMA MIL RES)	J	1	18	3,658,000	\$439,698.28
8800-6352-076	SOH DOT - AIR DIV	302 RODGERS BV #344 (IAB VAULT "B")	PP3	1	12	13,664,000	\$1,314,747.50
8800-6359-076	SOH DOT - AIR DIV	302 RODGERS BV #342 (SVC CRT VLT "C")	PP3	1	12	7,488,000	\$704,534.83
8800-6365-075	SOH DOT - AIR DIV	302 RODGERS BV #336 (OST VLT "N")	PP3	1	12	16,932,000	\$1,603,470.22
8800-6353-076	SOH DOT - AIR DIV	304 RODGERS BV #360 (EWA VLT "1E")	PP3	1	12	4,598,000	\$442,388.07
8800-6356-075	SOH DOT - AIR DIV	300 RODGERS BV (COMM TERM ELEC)	J3	1	12	1,269,600	\$128,209.00
8800-6357-075	SOH DOT - AIR DIV	300 RODGERS BV #355 (OSPAK VLT "A")	J4	1	12	1,848,240	\$184,599.41
8800-6358-076	SOH DOT - AIR DIV	301 RODGERS BV #A (DIA HD EXT)	PP3	1	12	11,793,600	\$1,118,490.17
8800-6364-076	SOH DOT - AIR DIV	301 RODGERS BV (CEN CONC VLT "Y")	PP3	1	12	5,667,600	\$565,778.84
8800-6360-075	SOH DOT - AIR DIV	303 RODGERS BV #373 (DIA HD VLT "1D")	PP3	1	11	7,524,000	\$720,394.51
9201-0482-002	SOH DOT - AIR DIV	3651 AOELELE ST (EWA CHILLER PLT)	PP3	1	12	11,959,200	\$1,204,785.43
9300-0115-002	SOH DOT - AIR DIV	3650 AOELELE ST (NEW INTERISLE TERM)	PS	1	12	12,211,200	\$1,171,502.48
9300-4842-002	SOH DOT - AIR DIV	3661 AOELELE ST (EWA CONC GATES)	PP3	1	12	2,311,200	\$230,294.04
8811-0340-076	SOH DOT HWY DIV	2 PALI HY (PRIMECO & ST LTS)	J3	1	11	1,016,720	\$104,055.04
8824-9624-058	SOH DOT HWY DIV	0 WILSON TUNNEL	J3	1	12	1,379,200	\$143,007.65
9400-4323-001	SOH DOT HWY DIV	0 H-3 TUNNEL HAIKU IB PORTAL (HE INT)	J3	1	12	4,146,000	\$527,091.28
TOTAL	SOH DOTTRANSPORTATION LARGE FACILITIES				16 Facilities	107,466,560	\$10,603,046.75
8819-9077-077	SOH JUDICIARY	777 PUNCHBOWL ST (KAAHUMANU HALE)	PS	1	12	4,061,600	\$445,705.93
8824-2360-078	SOH JUDICIARY	1111 ALAKEA ST (KAUIKEAOULI DIS CT 1ST C)	PS	1	12	5,164,000	\$536,807.66
8824-4780-075	SOH JUDICIARY	417 S KING ST (ALIOLANE HALE)	J5	1	12	1,693,440	\$192,289.61
TOTAL	SOH JUDICIARY LARGE FACILITIES				3 Facilities	10,919,040	\$1,174,803.20
8813-7302-075	UH MANOA	650 MAKAPUU AV (SCHOOL OF MEDICINE)	J	1	12	1,035,920	\$108,285.28
8815-4443-075	UH MANOA	2777 KALAKAUA AV (WAIKIKI AQUARIUM)	J	1	12	1,292,880	\$133,874.40

TABLE 4 STATE OF HAWAII AGENCY LARGE FACILITY ELECTRICAL CONSUMPTION

ACCOUNT NUMBER	AGENCY	FACILITY LOCATION	RATE SCHEDULE	TARIFF CODE	NUMBER READINGS	ANNUAL KWH	ANNUAL \$ COST
8816-2141-076	UH MANOA	2445 DOLE ST (FACILITIES MGMT)	J	1	24	1,409,920	\$160,564.79
8816-2154-076	UH MANOA	1701 EAST WEST RD (FACILITIES MGMT)	PP3	1	12	121,201,200	\$11,585,576.89
8817-7690-076	UH MANOA	2680 WOODLAWN DR (ASTRONOMY FAC)	PP3	1	12	2,075,400	\$211,407.17
9800-2426-001	UH MANOA	46007 LILIPUNA RD (HIMB)	J	1	12	1,736,240	\$177,047.56
TOTAL	UH MANOA LARGE FACILITIES				6 Facilities	128,751,560	\$12,376,756.09
8801-5005-075	UH COMM COLL	96045 ALAIKE ST (LEEWARD)	PP3	1	12	5,355,600	\$601,529.91
8814-8544-076	UH COMM COLL	655 MAKAPUU AV (KAPIOLANI BUSINESS)	J3	1	12	7,930,800	\$888,040.03
8823-6252-075	UH COMM COLL	874 DILLINGHAM BV (HONOLULU)	PP3	1	36	4,915,590	\$563,697.21
9500-5803-001	UH COMM COLL	45720 KEAAHALA RD (HALE IMILOA)	PS	1	12	3,447,600	\$369,203.18
TOTAL	UH COMMUNITY COLLEGES LARGE FACILITIES				4 Facilities	21,649,590	\$2,422,470.33
TOTAL	OAHU SOH LARGE FACILITIES				82 Facilities	396,670,357	\$41,144,797.06
TOTAL	ALL OAHU SOH FACILITIES					531,823,960	\$58,540,841.25
8603-9132-001	SH DAGS	75 AUPUNI ST	J3	2	12	1,103,200	\$197,756.94
TOTAL	SH DAGS LARGE FACILITIES				1 Facility	1,103,200	\$197,756.94
8600-1704-001	SH DBEDT	KEAHOLE #OTEC CABINET (NELHA)	J3	2	12	2,001,600	\$309,638.15
TOTAL	SH DBEDT - NELHA LARGE FACILITIES				1 Facility	2,001,600	\$309,638.15
8604-2844-003	SH DOE/HELCO	WAIAKEA HIGH SCHOOL	J3	2	12	1,203,000	\$217,265.18
9700-1291-003	SH DOE/HELCO	KEALAKEHE #HIGH SCHOOL	J	2	12	1,198,400	\$223,069.57
9800-2311-002	SH DOE/HELCO	KEAAU PAHOA RD-ELEMENTARY II	J	2	11	1,120,660	\$211,799.12
9900-0545-003	SH DOE/HELCO	KEAAU HIGH SCHOOL	J	2	12	2,024,400	\$379,311.24
TOTAL	SH DOEDUCATION/HELCO LARGE FACILITIES				4 Facilities	5,546,460	\$1,031,445.11
8602-4929-001	SH DOH	KEALAKEKUA (KONA HOSP)	P3	2	12	3,328,800	\$490,876.28
0000-0000-022	SH DOH	1190 WAIANUENUE AV (HILO MED CTR)	P	2	12	7,804,200	\$1,197,069.00
9400-6479-001	SH DOH	HONOKAA (HAMA HOOLA HAMAKUA)	J	2	12	1,350,000	\$234,807.77
TOTAL	SH DOHEALTH LARGE FACILITIES				3 Facilities	12,483,000	\$1,922,753.05
9700-3316-002	SH PSD	STAINBACK HY (CORRECTIONAL DIV)	P	2	12	1,152,400	\$196,470.35
TOTAL	SH DEPT OF PUBLIC SAFETY LARGE FACILITIES				1 Facility	1,152,400	\$196,470.35
8600-1960-001	SH DOT AIR DIV	KEAHOLE AIRPORT	P3	2	12	5,348,400	\$790,953.85
8604-3528-001	SH DOT AIR DIV	LYMAN FIELD	P3	2	12	3,696,000	\$575,646.03
TOTAL	SH DOTTRANSPORTATION LARGE FACILITIES				2 Facilities	9,044,400	\$1,366,599.88
9600-2104-001	SH UH-HAWAII	1175 MANONO ST (COMMUNITY COLL)	J3	2	12	1,224,720	\$218,355.08
9900-2035-002	SH UH-HAWAII	NOWELO ST - MAIN SW GEAR	P3	2	12	5,633,100	\$927,075.17
TOTAL	SH UH HAWAII LARGE FACILITIES				2 Facilities	6,857,820	\$1,145,430.25
TOTAL	BIG ISLAND (HAWAII) SOH LARGE FACILITIES				14 Facilities	38,188,880	\$6,170,093.73
TOTAL	ALL BIG ISLAND (HAWAII) SOH FACILITIES					66,099,499	\$11,882,662.20
8701-2872-002	SOH DOE	LONO AV (MAUI HIGH)	J3	3	12	1,407,000	\$243,823.36
9500-3543-003	SOH DOE	KULA HY (KING KEKAULIKE SCH)	J	3	12	1,183,000	\$211,856.52
TOTAL	SOH DOEDUCATION LARGE FACILITIES				2 Facilities	2,590,000	\$455,679.88
9700-1019-003	SOH DOH	MAHALANI ST (MAUI MEM MED CTR)	P	3	12	8,451,000	\$1,183,936.34
TOTAL	SOH DOHEALTH LARGE FACILITIES				1 Facility	8,451,000	\$1,183,936.34
9300-9041-001	SOH PSD	600 WAIALE RD (NEW JAILHOUSE)	P	3	12	2,187,000	\$324,724.06
TOTAL	SOH DEPT OF PUBLIC SAFETY LARGE FACILITIES				1 Facility	2,187,000	\$324,724.06
8700-8946-001	SOH DOT AIR DIV	KAHULUI AIRPORT RD (A/C NEW TERM BLD)	P3	3	12	9,499,200	\$1,339,541.89
TOTAL	SOH DOTTRANSPORTATION LARGE FACILITIES				1 Facility	9,499,200	\$1,339,541.89
8700-8296-001	UH-COMM COLL	KAHUMANU AV (MAUI COMM COLL)	P3	3	12	4,894,000	\$742,090.58
TOTAL	UH HAWAII COMMUNITY COLLEGES LARGE FACILITIES				1 Facility	4,894,000	\$742,090.58
TOTAL	MAUI SOH LARGE FACILITIES				6 Facilities	27,621,200	\$4,045,972.75
TOTAL	ALL MAUI SOH FACILITIES					45,169,390	\$7,328,795.99
9200-7384-001	SOH DOA	PUULUAHINE	P3	5	12	1,019,000	\$192,044.69
TOTAL	SOH DOAGRICULTURE LARGE FACILITIES				1 Facility	1,019,000	\$192,044.69
9200-7387-001	SOH DHHL	KALAE WATER SYSTEM	P0	5	12	1,476,576	\$229,473.29
TOTAL	SOH DOHAWAIIAN HOME LANDS LARGE FACILITIES				1 Facility	1,476,576	\$229,473.29
TOTAL	LANAI SOH LARGE FACILITIES				2 Facilities	2,495,576	\$421,517.98
TOTAL	ALL LANAI & MOLOKAI SOH FACILITIES					7,423,940	\$1,577,052.44

**TABLE 4 STATE OF HAWAII AGENCY LARGE FACILITY ELECTRICAL CONSUMPTION**

ACCOUNT NUMBER	AGENCY	FACILITY LOCATION	RATE SCHEDULE	TARIFF CODE	NUMBER READINGS	ANNUAL KWH	ANNUAL \$ COST
96-62500-1-2	SOH DAGS	STATE OFFICE	P	6	12	1,117,920	\$274,880.81
TOTAL	SOH DAGS LARGE FACILITIES				1 Facility	1,117,920	\$274,880.81
96-83000-1-3	SOH DOE	KAPAA HIGH SCH	P	6	12	1,081,200	\$270,056.81
TOTAL	SOH DOEDUCATION KAUAI LARGE FACILITIES				1 Facility	1,081,200	\$1,081,200.00
96-67500-2-0	SOH DOT-AIR DIV	LIHUE AIRPORT COMPLEX	P	6	12	3,793,500	\$813,377.24
TOTAL	SOH DOTTRANSPORTATION LARGE FACILITIES				1 Facility	3,793,500	\$813,377.24
96-57600-2-0	UH COMM COLL	GEN ACCT PUHI (KAUAI COMM COLL)	L	6	12	1,958,400	\$462,244.39
TOTAL	SOH HAWAII COMMUNITY COLLEGES LARGE FACILITIES				1 Facility	1,958,400	\$462,244.39
TOTAL	KAUAI SOH LARGE FACILITIES				4 Facilities	7,951,020	\$2,226,130.85
TOTAL	ALL KAUAI SOH FACILITIES					17,932,869	\$4,317,679.71
<b>GRAND TOTAL STATE OF HAWAII LARGE FACILITIES</b>					<b>108 Facilities</b>	<b>472,927,033</b>	<b>\$54,008,512.37</b>
<b>GRAND TOTAL ALL STATE OF HAWAII FACILITIES</b>						<b>668,449,658</b>	<b>\$83,647,031.59</b>

**LEGEND:**

**ACCTNUM** UTILITY ACCOUNT NUMBER FOR FACILITY

**ANNUAL DATA** TARIFF CODE 1 THROUGH 5 CONSUMPTION DATA FOR 1-JUL-01 THROUGH 30-JUN-02  
TARIFF CODE 6 CONSUMPTION DATA FOR 1-JAN-01 THROUGH 31-DEC-01

**LARGE FACILITY** ELECTRICAL CONSUMPTION EXCEEDS ONE MILLION KWH PER YEAR

**NBRMTH** NUMBER OF MONTHS METERED, IF NUMBER EXCEEDS 12 THEN THERE IS MORE THAN ONE METER.

**RATESCH** UTILITY RATE SCHEDULE

**TARCDE** TARIFF CODE  
1 = HAWAIIAN ELECTRIC COMPANY  
2 = HAWAII ELECTRIC COMPANY  
3, 4, & 5 = MAUI ELECTRIC COMPANY  
6 = KAUAI ISLAND UTILITY COOPERATIVE

APPENDIX 5.0

State Facilities on Oahu Building Area Square Footage Data Provided by DAGS Under "Incomplete" Status

STATE FACILITIES IN OAHU BUILDING AREA SQUATE FOOTAGE DATA PROVIDED BY DAGS IN 2001 (INCOMPLETE)

Statewide inventory 2001 (Approximate & Incomplete)

STATE BUILDINGS (INVENTORY MANAGEMENT)

DESCRIPTION - BUILDING	ADDRESS	LOCATION	TAX KEY	AREA SQ		DEPT
				FT	ISLAND	
DOA MAIN COMPLEX ANNEX BUILDING D	1428 S. KING ST - HONOLULU, OAHU 96814	PAWAA-KING STREET	2-4-05:18	10,010	OAHU	AGRIC
DOA MAIN COMPLEX BIO-CONTROL FACILITY	1428 S. KING ST - HONOLULU, OAHU 96814	PAWAA-KING STREET	2-4-05:18	0	OAHU	AGRIC
DOA MAIN COMPLEX BUILDING A	1428 S. KING ST - HONOLULU, OAHU 96814	PAWAA-KING STREET	2-4-05:18	0	OAHU	AGRIC
DOA MAIN COMPLEX BUILDING B	1428 S. KING ST - HONOLULU, OAHU 96814	PAWAA-KING STREET	2-4-05:18	0	OAHU	AGRIC
DOA MAIN COMPLEX BUILDING C	1428 S. KING ST - HONOLULU, OAHU 96814	PAWAA-KING STREET	2-4-05:18	0	OAHU	AGRIC
DOA MAIN COMPLEX GARAGE	1428 S. KING ST - HONOLULU, OAHU 96814	PAWAA-KING STREET	2-4-05:18	1,344	OAHU	AGRIC
DOA MAIN COMPLEX HALE WAIOLAMA	1428 S. KING ST - HONOLULU, OAHU 96814	PAWAA-KING STREET	2-4-05:18	1,170	OAHU	AGRIC
DOA MAIN COMPLEX PROPAGATION INSECTARY	1428 S. KING ST - HONOLULU, OAHU 96814	PAWAA-KING STREET	2-4-05:18	1,440	OAHU	AGRIC
DOA MAIN COMPLEX QUARANTINE INSECTARY	1428 S. KING ST - HONOLULU, OAHU 96814	PAWAA-KING STREET	2-4-05:18	1,471	OAHU	AGRIC
HAQS BLIND PERSON'S COTTAGE	99-762 MOANALUA RD - AIEA, OAHU 96701	HALAWA	9-9-10:34	850	OAHU	AGRIC
HAQS CONFERENCE/LUNCH ROOM	99-762 MOANALUA RD - AIEA, OAHU 96701	HALAWA	9-9-10:34	1,386	OAHU	AGRIC
HAQS COTTAGE #1	99-762 MOANALUA RD - AIEA, OAHU 96701	HALAWA	9-9-10:34	850	OAHU	AGRIC
HAQS COTTAGE #2	99-762 MOANALUA RD - AIEA, OAHU 96701	HALAWA	9-9-10:34	850	OAHU	AGRIC
HAQS COTTAGE D	99-770 MOANALUA RD - AIEA, OAHU 96701	HALAWA	9-9-10:34	1,700	OAHU	AGRIC
HAQS MAINTENANCE SHOP	99-770 MOANALUA RD - AIEA, OAHU 96701	HALAWA	9-9-10:34	7,300	OAHU	AGRIC
HAQS OFFICES, RESTROOMS, STORAGE	99-762 MOANALUA RD - AIEA, OAHU 96701	HALAWA	9-9-10:34	11,165	OAHU	AGRIC
KANAHOAHOA BUILDING	99-762 MOANALUA RD - AIEA, OAHU 96701	HALAWA	9-9-10:34	20,000	OAHU	AGRIC
LIVESTOCK DISEASE CONTROL-LARGE BUILDING	99-762 MOANALUA RD - AIEA, OAHU 96701	HALAWA	9-9-10:34	5,134	OAHU	AGRIC
LIVESTOCK DISEASE CONTROL-SMALL BUILDING	99-762 MOANALUA RD - AIEA, OAHU 96701	HALAWA	9-9-10:34	2,278	OAHU	AGRIC
NECROPSY BUILDING	99-770 MOANALUA RD - AIEA, OAHU 96701	HALAWA	9-9-10:34	3,000	OAHU	AGRIC
PLANT QUARANTINE STATION	701 ILALO ST - HONOLULU, OAHU 96813	KAKAAKO	2-1-60:10	9,760	OAHU	AGRIC
PRINCESS NAHIENAENA	725 ILALO ST - HONOLULU, OAHU 96813	KAKAAKO	2-1-60:10	6,400	OAHU	AGRIC
SEWAGE TREATMENT PLANT	99-762 MOANALUA RD - AIEA, OAHU 96701	HALAWA	9-9-10:34	0	OAHU	AGRIC
WAIMANALO IRRIGATION OFFICE	41-645 MOKULAMA ST - WAIMANALO, OAHU 96795	WAIMANALO	4-1-24:68	320	OAHU	AGRIC
				<b>86,428</b>		
CONTAINER ENGINEERING MAINTENANCE BUILDING	521 ALA MOANA BLVD - HONOLULU, OAHU 96813	FOREIGN TRADE ZONE	2-1-15:30	35,870	OAHU	DBEDT-FTZ
CONTAINER FREIGHT STATION #3	521 ALA MOANA BLVD - HONOLULU, OAHU 96813	FOREIGN TRADE ZONE	2-1-15:30	72,861	OAHU	DBEDT-FTZ
DIAMOND HEAD TERMINAL	521 ALA MOANA BLVD - HONOLULU, OAHU 96813	FOREIGN TRADE ZONE	2-1-15:30	191,721	OAHU	DBEDT-FTZ
HAWAII CONVENTION CENTER	1801 KALALAU AVE. HONOLULU, OAHU 96815	HONOLULU	2-3-35:1		OAHU	DBEDT-TOURISM
MANOA INNOVATION CENTER	2900 WOODLAWN DR. HONOLULU, OAHU 96822	MANOA	2-9-26:3		OAHU	DBEDT-HTEC
AAFES BUILDING	919 ALA MOANA BLVD HONOLULU, OAHU 96814	HONOLULU	2-1-58:06		OAHU	DBEDT-HCDA
WAIKA	827 WAIKA RD - HONOLULU, OAHU 96822	MOLIIHI	2-7-27:14	3,750	OAHU	DEBT HCDCH
BANYAN TREE	41-520 POALIMA ST - WAIMANALO, OAHU 96795	WAIMANALO	4-1-08:86-89	4,144	OAHU	DEBT HCDCH
HHA ADMINISTRATION BUILDING A	1002 N. SCHOOL ST - HONOLULU, OAHU 96817	PALAMA	1-6-09:3	0	OAHU	DEBT HCDCH
HHA ADMINISTRATION BUILDING B	1002 N. SCHOOL ST - HONOLULU, OAHU 96817	PALAMA	1-6-09:3	0	OAHU	DEBT HCDCH
HHA ADMINISTRATION BUILDING C	1002 N. SCHOOL ST - HONOLULU, OAHU 96817	PALAMA	1-6-09:3	0	OAHU	DEBT HCDCH
HHA ADMINISTRATION BUILDING D	1002 N. SCHOOL ST - HONOLULU, OAHU 96817	PALAMA	1-6-09:3	0	OAHU	DEBT HCDCH
HHA ADMINISTRATION BUILDING E	1002 N. SCHOOL ST - HONOLULU, OAHU 96817	PALAMA	1-6-09:3	0	OAHU	DEBT HCDCH
HHA ADMINISTRATION BUILDING F	1002 N. SCHOOL ST - HONOLULU, OAHU 96817	PALAMA	1-6-09:3	0	OAHU	DEBT HCDCH
STATE CAPITOL	415 S BERETANIA ST - HONOLULU, OAHU 96813	CAPITOL DISTRICT	2-1-24:1,8	300,000	OAHU	DAGS
AUTOMOTIVE MGMT DIV. - VINEYARD STREET PARKING	1418 PUNCHBOWL ST - HONOLULU, OAHU 96813	CAPITOL DISTRICT	2-1-18:11	159,890	OAHU	DAGS
AUTOMOTIVE MGMT DIV. - SOUTH STREET GARAGE	564 POUHUKAINA ST - HONOLULU, OAHU 96813	CAPITOL DISTRICT	2-1-30:3	207,230	OAHU	DAGS
AUTOMOTIVE MGMT DIV. - PARKING GARAGE #1 OFFICE	869-A PUNCHBOWL ST - HONOLULU, OAHU 96813	CAPITOL DISTRICT	2-1-31:12	589	OAHU	DAGS
AUTOMOTIVE MGMT - DIVISION OFFICE	869-A PUNCHBOWL ST - HONOLULU, OAHU 96813	CAPITOL DISTRICT	2-1-31:12	1,904	OAHU	DAGS
HALE AUAU	425 QUEEN ST - HONOLULU, OAHU 96813	CAPITOL DISTRICT	2-1-27:22	46,573	OAHU	DAGS
KALANIMOKU BUILDING	1151 PUNCHBOWL ST - HONOLULU, OAHU 96813	CAPITOL DISTRICT	2-1-33:25	203,000	OAHU	DAGS
KAMAMALU BUILDING	1010 RICHARDS ST - HONOLULU, OAHU 96813	CAPITOL DISTRICT	2-1-17:10	124,000	OAHU	DAGS
KAPUAIWA BUILDING	426 QUEEN ST - HONOLULU, OAHU 96813	CAPITOL DISTRICT	2-1-25:3	24,000	OAHU	DAGS
KEELIKOLANI BUILDING	830 PUNCHBOWL ST - HONOLULU, OAHU 96813	CAPITOL DISTRICT	2-1-26:22	238,000	OAHU	DAGS
KEKALUOHI BUILDING	364 S. KING ST - HONOLULU, OAHU 96813	CAPITOL DISTRICT	2-1-25:2	16,300	OAHU	DAGS
KEKUANA OA BUILDING	465 S. KING ST - HONOLULU, OAHU 96813	CAPITOL DISTRICT	2-1-25:3	65,000	OAHU	DAGS
LILUOKALANI BUILDING	1390 MILLER ST - HONOLULU, OAHU 96813	CAPITOL DISTRICT	2-1-18:16	95,000	OAHU	DAGS
KEONI ANA (CAPITOL CENTER BUILDING)	1177 ALAKEA ST - HONOLULU, OAHU 96813	CAPITOL DISTRICT	2-1-15:5	51,450	OAHU	DAGS
LEIOPAPA A KAM (SOT BUILDING)	236 S. BERETANIA ST - HONOLULU, OAHU 96813	CAPITOL DISTRICT	2-1-17:19	15 Flrs	OAHU	DAGS
NO. 1 CAPITOL DISTRICT BLDG	250 SOUTH HOTEL ST - HONOLULU, OAHU	CAPITOL DISTRICT		119,316	OAHU	DAGS
WASHINGTON PLACE BUILDING #1	320 S. BERETANIA ST - HONOLULU, OAHU 96813	CAPITOL DISTRICT	2-1-18:1	16,300	OAHU	DAGS
WASHINGTON PLACE COTTAGE	320 S. BERETANIA ST - HONOLULU, OAHU 96813	CAPITOL DISTRICT	2-1-18:1	552	OAHU	DAGS
WASHINGTON PLACE GARAGE	320 S. BERETANIA ST - HONOLULU, OAHU 96813	CAPITOL DISTRICT	2-1-18:1	3,000	OAHU	DAGS
KAM V BUILDING - POST OFFICE	901 BETHEL ST - HONOLULU, OAHU 96813	DOWN-TOWN HONOLULU	2-1-02:12	8,600	OAHU	DAGS
ALOHA STADIUM	99-500 SALT LAKE BLVD - HONOLULU, OAHU 96818	HALAWA	9-9-03:69	300,000	OAHU	DAGS
AAFES (ARMY/AIR FORCE EXCHANGE SERVICE) BLDG	919 ALA MOANA BLVD HONOLULU, OAHU	HONOLULU		108,000	OAHU	DAGS
OR&L ANNEX	355 N. KING ST - HONOLULU, OAHU 96817	IWILEI	1-5-07:64	2,300	OAHU	DAGS
OR&L MAIN BUILDING	333 N. KING ST - HONOLULU, OAHU 96817	IWILEI	1-5-07:64	0	OAHU	DAGS
KOULA STREET WAREHOUSE	205 KOULA ST - HONOLULU, OAHU 96814	KAKAAKO	2-1-59:1	800	OAHU	DAGS
KANEHOE CIVIC CENTER	45-260 WAIKALUA RD - KANEHOE, OAHU 96744	KANEHOE	4-5-18:3	6,130	OAHU	DAGS
KAKUHIHEWA (KAPOLEI) BUILDING	601 KAMOKILA BLVD KAPOLEI, OAHU	KAPOLEI		213,887	OAHU	DAGS
HO'OPONO ANNEX	1901 BACHELOT ST - HONOLULU, OAHU 96817	LILIHA	1-7-15:2	0	OAHU	DAGS
HO'OPONO BLDG B	1901 BACHELOT ST - HONOLULU, OAHU 96817	LILIHA	1-7-15:2	16,187	OAHU	DAGS
HAWAII STATE SENIOR CENTER	1640 LANAKILA AVE - HONOLULU, OAHU 96817	PALAMA	1-6-09:7	6,000	OAHU	DAGS
PEARL CITY CIVIC CENTER	870 FOURTH ST., PEARL CITY, OAHU 96782	PEARL CITY	9-7-22:1		OAHU	DAGS
EWA DISTRICT COURTHOUSE (PEARL CITY)	870 FOURTH ST - PEARL CITY, OAHU 96782	PEARL CITY	9-7-22:1	6,100	OAHU	DAGS
CENTRAL SERVICES -FURNITURE STORAGE BUILDING	729 KAKOI ST - HONOLULU, OAHU 96819	SHAFTER FLATS	1-1-64:25	23,000	OAHU	DAGS
CENTRAL SERVICES DIV. - ADMINISTRATION OFFICE	729 KAKOI ST - HONOLULU, OAHU 96819	SHAFTER FLATS	1-1-64:25	4,000	OAHU	DAGS
CENTRAL SERVICES DIV. - MAINTENANCE STORAGE BUILDING	729 KAKOI ST - HONOLULU, OAHU 96819	SHAFTER FLATS	1-1-64:25	34,000	OAHU	DAGS
CENTRAL SERVICES DIV. -GROUNDS MAINTENANCE BUILDING	729 KAKOI ST - HONOLULU, OAHU 96819	SHAFTER FLATS	1-1-64:25	3,000	OAHU	DAGS
FEDERAL SURPLUS WAREHOUSE	729 KAKOI ST - HONOLULU, OAHU 96819	SHAFTER FLATS	1-1-64:25	15,000	OAHU	DAGS
RECORDS/ARCHIVE STORAGE	729 KAKOI ST - HONOLULU, OAHU 96819	SHAFTER FLATS	1-1-64:25	12,000	OAHU	DAGS
WAHIAWA CIVIC CENTER	910 CALIFORNIA AVE - WAHIAWA, OAHU 96786	WAHIAWA	7-4-06:12	8,700	OAHU	DAGS
WAIPAHO CIVIC CENTER	94-275 MOKULA ST - WAIPAHO, OAHU 96797	WAIPAHO	9-4-17:01	34,000	OAHU	DAGS
LAHAINA DISTRICT COURT	1870 HONOPILANI HWY, LAHAINA, MAUI 96761	LAHAINA			MAUI	DAGS
MAUI DISTRICT OFFICE ADMINISTRATION BLDG	KAHULUI, MAUI 96732	KAHULUI	3-8-01:19	5,520	MAUI	DAGS
MAUI DISTRICT OFFICE MAINTENANCE BLDG	KAHULUI, MAUI 96732	KAHULUI	3-8-01:19	16,768	MAUI	DAGS
MAUI DISTRICT OFFICE STORAGE BLDG	KAHULUI, MAUI 96732	KAHULUI	3-8-01:19	12,600	MAUI	DAGS
MAUI DISTRICT OFFICE CARPORTS 1 AND 2	KAHULUI, MAUI 96732	KAHULUI	3-8-01:09	5,080	MAUI	DAGS
MAUI DISTRICT OFFICE MOTOR POOL BLDG	KAHULUI, MAUI 96732	KAHULUI	3-8-01:09	2,560	MAUI	DAGS
MAINTENANCE FACILITY	179 KAAHUMANU AVE - KAHULUI, MAUI 96732	KAHULUI	3-7-04:3	7,700	MAUI	DAGS
MAINTENANCE FACILITY OFFICE	179 KAAHUMANU AVE - KAHULUI, MAUI 96732	KAHULUI	3-7-04:3	8,850	MAUI	DAGS
OLD LIHIKAI SCHOOL	153 KAAHUMANU AVE - KAHULUI, MAUI 96732	KAHULUI	3-7-04:3	13,680	MAUI	DAGS
OLD DISTRICT COURT	2264 AUPUNI ST - WAILUKU, MAUI 96793	WAILUKU	3-4-14:1	6,866	MAUI	DAGS
WAILUKU STATE OFFICE BUILDING #2	54 HIGH ST - WAILUKU, MAUI 96793	WAILUKU	3-4-13:13	29,340	MAUI	DAGS
WAILUKU STATE OFFICE BUILDING #1	54 HIGH ST - WAILUKU, MAUI 96793	WAILUKU	3-4-13:13	139,172	MAUI	DAGS
STATE TAX OFFICE BUILDING (KULANA NAAUA)	41 KEAWE ST - HILO, HAWAII 96720	HILO	2-3-05:4	8,500	HAWAII	DAGS
DAGS BASEYARD	50 BRIG RD - HILO, HAWAII 96720	HILO	2-1-12:9	10 BLDGS	HAWAII	DAGS
HILO STATE OFFICE BUILDING	75 AUPUNI ST - HILO, HAWAII 96720	HILO	2-2-14:72	108,000	HAWAII	DAGS
DAGS MAINTENANCE BUILDING	45-3180 OHIA ST - HONOKAA, HAWAII 96727	HONOKAA	4-5-21:1	2,400	HAWAII	DAGS
HAMAKUA STATE OFFICE BUILDING	45-3380 MAMANE ST - HONOKAA, HAWAII 96727	HONOKAA	4-5-06:3	3,400	HAWAII	DAGS
DEPARTMENT OF HEALTH BUILDING	45-3380 MAMANE ST - HONOKAA, HAWAII 96727	HONOKAA	4-5-06:3	2,514	HAWAII	DAGS
HONOKAA HEALTH LAB OFFICE	45-3380 MAMANE ST - HONOKAA, HAWAII 96727	HONOKAA	4-5-06:3	2,913	HAWAII	DAGS
HAMAKUA DISTRICT COURT	45-3380 MAMANE ST - HONOKAA, HAWAII 96727	HONOKAA	4-5-06:3	2,050	HAWAII	DAGS
HAMAKUA STATE OFFICE BUILDING #2	45-3380 MAMANE ST - HONOKAA, HAWAII 96727	HONOKAA	4-5-06:3	2,050	HAWAII	DAGS
SOUTH KOHALA STATE OFFICE BUILDING	67-5175 KAMAMALU ST - KAMUELA, HAWAII 96743	WAIMEA	6-7-02:11	5,300	HAWAII	DAGS
KAMUELA TAX OFFICE	MAMALAHOA HWY - KAMUELA, HAWAII 96743	WAIMEA	6-7-02:25	0	HAWAII	DAGS
NORTH KOHALA STATE OFFICE BUILDING	54-3900 GOVT MAIN RD - KAPAAU, HAWAII 96755	KAPPAU	5-3-05:30	3,480	HAWAII	DAGS
KONA OFFICE/SHOP	83-5775 NAPOOPOO RD - KEALAKEKUA, HAWAII 96750	KEALAKEKUA	8-3-03:5	0	HAWAII	DAGS
KEAKEALANI BLDG (OLD KONA HOSPITAL)	PO BOX P - KEALAKEKUA, HAWAII 96750	KEALAKEKUA	7-9-10:81	23,925	HAWAII	DAGS
KOHALA OFFICE/WORKSHOP	54-3611 HAWI-NIUULI RD - KAPAAU, HAWAII 96755	KOHALA	5-5-11:7	0	HAWAII	DAGS
KONA CIVIC CENTER BUILDING #1	82-6130 MAMALAHOA HWY - CAPT COOK, HAWAII 96704	KONA CAPTAIN COOK	8-2-01:84	2,200	HAWAII	DAGS
KONA CIVIC CENTER BUILDING #2	82-6130 MAMALAHOA HWY - CAPT COOK, HAWAII 96704	KONA CAPTAIN COOK	8-2-01:84	3,685	HAWAII	DAGS
KONA CIVIC CENTER BUILDING #3 (SAME AS 60109001)	82-6130 MAMALAHOA HWY - CAPT COOK, HAWAII 96704	KONA CAPTAIN COOK	8-2-04:84	2,315	HAWAII	DAGS
KAU SHOP	955-5545 MAMALAHOA HWY - NAALEHU, HAWAII 96772	NAALEHU	9-5-09:6	0	HAWAII	DAGS
NAALEHU STATE BLDG	95-5669 MAMALAHOA HWY - NAALEHU, 96772	NAALEHU			HAWAII	DAGS
LIHUE STATE OFFICE BUILDING	3060 EIWA ST - LIHUE, KAUI 96766	LIHUE	3-6-05:11	58,204	KAUI	DAGS
BASEYARD OFFICE BUILDING E	2820 WEHE RD - LIHUE, KAUI 96766	LIHUE	3-8-05:1	890	KAUI	DAGS
BASEYARD PAINT STORAGE BUILDING	2820 WEHE RD - LIHUE, KAUI 96766	LIHUE	3-8-05:1	570	KAUI	DAGS
BASEYARD CARPENTER SHOP BUILDING 003	2820 WEHE RD - LIHUE, KAUI 96766	LIHUE	3-8-05:1	2,300	KAUI	DAGS
KOLOA CIVIC CENTER	3461 WELIWEI RD - KOLOA, KAUI 96756	KOLOA	2-8-08:17	2,500	KAUI	DAGS
KAUNAKAKAI CIVIC CENTER	KAUNAKAKAI MOLOKAI 96748	KAUNAKAKAI	5-3-05:12,14	11,621	MOLOKAI	DAGS
TAX OFFICE	101 ALAMALAMA ST - KAUNAKAKAI, MOLOKAI 96748	KAUNAKAKAI	5-3-05:12	1,000	MOLOKAI	DAGS
IRWIN HEALTH CENTER	KAM V HWY - PUKOO, KAUNAKAKAI, MOLOKAI 96748	PUKOO	5-7-07:16	1,900	MOLOKAI	DAGS

**STATE FACILITIES IN OAHU BUILDING AREA SQUARE FOOTAGE DATA PROVIDED BY DAGS IN 2001 (INCOMPLETE)**

Statewide inventory 2001 (Approximate & Incomplete)

STATE BUILDINGS (INVENTORY MANAGEMENT)

DESCRIPTION - BUILDING	ADDRESS	LOCATION	TAX KEY	AREA SQ FT	ISLAND	DEPT
EWA BEACH PUBLIC AND SCHOOL LIBRARY	91-950 NORTH RD - EWA BEACH, OAHU 96706	EWA BEACH	9-1-01:2	23200	OAHU	STATE LIBRARY SYS
HAWAII KAI PUBLIC LIBRARY	249 LUNALILO HOME RD - HONOLULU, OAHU 96825	HAWAII KAI	3-9-40:11	12540	OAHU	STATE LIBRARY SYS
KAHUKU PUBLIC AND SCHOOL LIBRARY	56-490 KAMEHAMEHA HWY - KAHUKU, OAHU 96731	KAHUKU	5-6-06:3	8464	OAHU	STATE LIBRARY SYS
KAILUA PUBLIC LIBRARY	239 KUULEI RD - KAILUA, OAHU 96734	KAILUA	4-3-56:12	9542	OAHU	STATE LIBRARY SYS
KAIMUKI PUBLIC LIBRARY	1041 KOKO HEAD AVE - HONOLULU, OAHU 96816	KAIMUKI	3-2-42:20	19600	OAHU	STATE LIBRARY SYS
CENTRALIZED PROCESSING CENTER	690 POHUKAINA ST - HONOLULU, OAHU 96813	KAKAAKO	2-1-51:3	11700	OAHU	STATE LIBRARY SYS
KALIHI-PALAMA PUBLIC LIBRARY	1325 KALIHI ST - HONOLULU, OAHU 96817	KALIHI	1-6-24:3	11880	OAHU	STATE LIBRARY SYS
KANEHOE PUBLIC LIBRARY	45-829 KAMEHAMEHA HWY - KANEHOE, OAHU 96744	KANEHOE	4-5-18:52	0	OAHU	STATE LIBRARY SYS
LILIHA PUBLIC LIBRARY	1515 LILIHA ST - HONOLULU, OAHU 96817	LILIHA	1-7-23:43	21150	OAHU	STATE LIBRARY SYS
MANOA PUBLIC LIBRARY	2716 WOODLAWN DR - HONOLULU, OAHU 96822	MANOA	2-9-23:25	5940	OAHU	STATE LIBRARY SYS
McCULLY-MOILILI PUBLIC LIBRARY	2211 S. KING ST - HONOLULU, OAHU 96814	McCULLY-MOILILI	2-7-07:1	16600	OAHU	STATE LIBRARY SYS
MILILANI PUBLIC LIBRARY	95-450 MAKAIMOIMO ST - MILILANI TOWN, OAHU 96789	MILILANI	9-5-48:52	29000	OAHU	STATE LIBRARY SYS
PEARL CITY PUBLIC LIBRARY	1138 WAIMANO HOME RD - PEARL CITY, OAHU 96782	PEARL CITY	9-7-94:26	35000	OAHU	STATE LIBRARY SYS
WAHIAWA PUBLIC LIBRARY	820 CALIFORNIA AVE - WAHIAWA, OAHU 96786	WAHIAWA	7-4-04:70	12000	OAHU	STATE LIBRARY SYS
WAIALUA PUBLIC LIBRARY	67-068 KEALOHANUI ST - WAIALUA, OAHU 96791	WAIALUA	6-7-16:2	3500	OAHU	STATE LIBRARY SYS
WAIANAE PUBLIC LIBRARY	85-625 FARRINGTON HWY - WAIANAE, OAHU 96792	WAIANAE	8-5-2:42	10246	OAHU	STATE LIBRARY SYS
LIBRARY FOR THE BLIND & PHYSICALLY HANDICAPPED	402 KAPAHULU AVE - HONOLULU, OAHU 96815	WAIKIKI	2-7-36:6	0	OAHU	STATE LIBRARY SYS
WAIKIKI-KAPAHULU PUBLIC LIBRARY	400 KAPAHULU AVE - HONOLULU, OAHU 96815	WAIKIKI-KAPAHULU	2-7-36:6	9020	OAHU	STATE LIBRARY SYS
				<b>324343</b>		
ALOHA MAIN TERMINAL BUILDING	HONOLULU, OAHU 96819	HONOLULU INT. AIRPORT	1-1-03:79	35,200	OAHU	DOT AIRPORTS
AUTOMOBILE PARKING STRUCTURE	HONOLULU, OAHU 96819	HONOLULU INT. AIRPORT	1-1-03:61	0	OAHU	DOT AIRPORTS
B332 CONCOURSE B-DOMESTIC	HONOLULU, OAHU 96819	HONOLULU INT. AIRPORT	1-1-03:57	79,977	OAHU	DOT AIRPORTS
B336 ADMINISTRATION TOWER	HONOLULU, OAHU 96819	HONOLULU INT. AIRPORT	1-1-03:55	73,000	OAHU	DOT AIRPORTS
B339 CONCOURSE A-DOMESTIC	HONOLULU, OAHU 96819	HONOLULU INT. AIRPORT	1-1-03:53	106,795	OAHU	DOT AIRPORTS
B342 WAITING LOBBY WLB	HONOLULU, OAHU 96819	HONOLULU INT. AIRPORT	1-1-03:51	223,302	OAHU	DOT AIRPORTS
B346 INTERNATIONAL ARRIVALS	HONOLULU, OAHU 96819	HONOLULU INT. AIRPORT	1-1-03:59	262,184	OAHU	DOT AIRPORTS
B350 CENTRAL CONCOURSE	HONOLULU, OAHU 96819	HONOLULU INT. AIRPORT	1-1-03:50	212,063	OAHU	DOT AIRPORTS
B360 EWA CONCOURSE	HONOLULU, OAHU 96819	HONOLULU INT. AIRPORT	1-1-03:66	264,787	OAHU	DOT AIRPORTS
B360 EWA CONCOURSE	HONOLULU, OAHU 96819	HONOLULU INT. AIRPORT	1-1-03:161	278,473	OAHU	DOT AIRPORTS
B373 DIAMOND HEAD CONCOURSE	HONOLULU, OAHU 96819	HONOLULU INT. AIRPORT	1-1-03:65	247,112	OAHU	DOT AIRPORTS
CONTROL TOWER	HONOLULU, OAHU 96819	HONOLULU INT. AIRPORT	1-1-03: X	0	OAHU	DOT AIRPORTS
CRASH/FIRE/RESCUE BLDG 1	HONOLULU, OAHU 96819	HONOLULU INT. AIRPORT	1-1-03: X	0	OAHU	DOT AIRPORTS
CRASH/FIRE/RESCUE BLDG 2	HONOLULU, OAHU 96819	HONOLULU INT. AIRPORT	1-1-03: X	0	OAHU	DOT AIRPORTS
DIAMOND HEAD EXTENSION	HONOLULU, OAHU 96819	HONOLULU INT. AIRPORT	1-1-03:42	135,450	OAHU	DOT AIRPORTS
INTERISLAND GATE BUILDING	HONOLULU, OAHU 96819	HONOLULU INT. AIRPORT	1-1-03:179	10,000	OAHU	DOT AIRPORTS
LEI STANDS	HONOLULU, OAHU 96819	HONOLULU INT. AIRPORT	1-1-03:82	4,480	OAHU	DOT AIRPORTS
MAINTENANCE BASE	HONOLULU, OAHU 96819	HONOLULU INT. AIRPORT	1-1-03: X	0	OAHU	DOT AIRPORTS
MAINTENANCE SHED	HONOLULU, OAHU 96819	HONOLULU INT. AIRPORT	1-1-03: X	0	OAHU	DOT AIRPORTS
MAINTENANCE STORAGE	HONOLULU, OAHU 96819	HONOLULU INT. AIRPORT	1-1-03: X	0	OAHU	DOT AIRPORTS
NOSEDOCK HANGER 1	HONOLULU, OAHU 96819	HONOLULU INT. AIRPORT	1-1-03: X	0	OAHU	DOT AIRPORTS
NOSEDOCK HANGER 2	HONOLULU, OAHU 96819	HONOLULU INT. AIRPORT	1-1-03: X	0	OAHU	DOT AIRPORTS
OLD HAWAIIAN TERMINAL	HONOLULU, OAHU 96819	HONOLULU INT. AIRPORT	1-1-03:73	80,000	OAHU	DOT AIRPORTS
PAINT SHOP	HONOLULU, OAHU 96819	HONOLULU INT. AIRPORT	1-1-03: X	0	OAHU	DOT AIRPORTS
PARKING TOLL BOOTHS	HONOLULU, OAHU 96819	HONOLULU INT. AIRPORT	1-1-03:60	0	OAHU	DOT AIRPORTS
PUMPHOUSE	HONOLULU, OAHU 96819	HONOLULU INT. AIRPORT	1-1-03: X	0	OAHU	DOT AIRPORTS
RESTAURANT (INTERISLAND TERMINAL)	HONOLULU, OAHU 96819	HONOLULU INT. AIRPORT	1-1-03:70	3,200	OAHU	DOT AIRPORTS
SAILPLANE HANGER	HONOLULU, OAHU 96819	HONOLULU INT. AIRPORT	1-1-03: X	0	OAHU	DOT AIRPORTS
T-HANGERS	HONOLULU, OAHU 96819	HONOLULU INT. AIRPORT	1-1-03: X	0	OAHU	DOT AIRPORTS
T-HANGERS BLDG 1	HONOLULU, OAHU 96819	HONOLULU INT. AIRPORT	1-1-03: X	0	OAHU	DOT AIRPORTS
T-HANGERS BLDG 2	HONOLULU, OAHU 96819	HONOLULU INT. AIRPORT	1-1-03: X	0	OAHU	DOT AIRPORTS
WAREHOUSE 1	HONOLULU, OAHU 96819	HONOLULU INT. AIRPORT	1-1-03: X	0	OAHU	DOT AIRPORTS
WAREHOUSE 2	HONOLULU, OAHU 96819	HONOLULU INT. AIRPORT	1-1-03: X	0	OAHU	DOT AIRPORTS
WIKI WIKI	HONOLULU, OAHU 96819	HONOLULU INT. AIRPORT	1-1-03: X	0	OAHU	DOT AIRPORTS
DILLINGHAM FIELD HUT	69-102 FARRINGTON HWY - WAIALUA, OAHU 96791	MOKULEIA	6-8-14:1	3,120	OAHU	DOT AIRPORTS
				<b>2,019,143</b>		
ALOHA TOWER	103 ALA MOANA BLVD - HONOLULU, OAHU 96813	HONOLULU HARBOR	2-1-01:13	9,700	OAHU	DOT HARBORS
CFS #2 MAIN BUILDING	599 ALA MOANA BLVD - HONOLULU, OAHU 96813	HONOLULU HARBOR	2-1-15:2	78,000	OAHU	DOT HARBORS
CFS #2 OFFICE	599 ALA MOANA BLVD - HONOLULU, OAHU 96813	HONOLULU HARBOR	2-1-15:26	2,260	OAHU	DOT HARBORS
CFS #2 SCALE HOUSE	599 ALA MOANA BLVD - HONOLULU, OAHU 96813	HONOLULU HARBOR	2-1-15:28	272	OAHU	DOT HARBORS
CFS #2 TOWER	599 ALA MOANA BLVD - HONOLULU, OAHU 96813	HONOLULU HARBOR	2-1-15:36	2,300	OAHU	DOT HARBORS
CUSTOMS A	79 S. NIMITZ HWY - HONOLULU, OAHU 96813	HONOLULU HARBOR	2-1-01:1	28,350	OAHU	DOT HARBORS
CUSTOMS B	79 S. NIMITZ HWY - HONOLULU, OAHU 96813	HONOLULU HARBOR	2-1-01:1	24,600	OAHU	DOT HARBORS
DIAMOND HEAD MAIN TERMINAL	521 ALA MOANA BLVD - HONOLULU, OAHU 96813	HONOLULU HARBOR	2-1-15:30	169,000	OAHU	DOT HARBORS
HAR-OM BASEYARD CARPENTER DOCK BLDG	48 SAND ISLAND RD - HONOLULU, OAHU 96819	HONOLULU HARBOR	1-2-25:22	6,223	OAHU	DOT HARBORS
HAR-OM BASEYARD CARPENTER OFFICE BLDG	48 SAND ISLAND RD - HONOLULU, OAHU 96819	HONOLULU HARBOR	1-2-25:22	2,136	OAHU	DOT HARBORS
HAR-OM BASEYARD CARPENTER SHOP BUILDING #1	48 SAND ISLAND RD - HONOLULU, OAHU 96819	HONOLULU HARBOR	1-2-25:22	9,638	OAHU	DOT HARBORS
HAR-OM BASEYARD CARPENTER SHOP/STOREROOM	48 SAND ISLAND RD - HONOLULU, OAHU 96819	HONOLULU HARBOR	1-2-25:22	9,000	OAHU	DOT HARBORS
HARBOR ADMINISTRATION BUILDING	604 FORT ST - HONOLULU, OAHU 96813	HONOLULU HARBOR	2-1-01:5	26,500	OAHU	DOT HARBORS
HARBOR WAREHOUSE #6	NIMITZ HWY - HONOLULU, OAHU 96817	HONOLULU HARBOR	1-5-39:26	132,089	OAHU	DOT HARBORS
HARBOR WAREHOUSE #8	NIMITZ HWY - HONOLULU, OAHU 96817	HONOLULU HARBOR	1-5-39:29	19,308	OAHU	DOT HARBORS
IRWIN PARK COMFORT STATION	610 BISHOP ST - HONOLULU, OAHU 96813	HONOLULU HARBOR	2-1-13:7	288	OAHU	DOT HARBORS
PIER 10 SHED	79 S. NIMITZ HWY - HONOLULU, OAHU 96813	HONOLULU HARBOR	2-1-01:1	64,700	OAHU	DOT HARBORS
PIER 11	79 S. NIMITZ HWY - HONOLULU, OAHU 96813	HONOLULU HARBOR	2-1-01:1	6,570	OAHU	DOT HARBORS
PIER 11 SHED BLDG A	608 FORT STREET MALL - HONOLULU, OAHU 96813	HONOLULU HARBOR	2-1-01:5	36,500	OAHU	DOT HARBORS
PIER 13-14 SHED	NIMITZ HWY - HONOLULU, OAHU 96817	HONOLULU HARBOR	2-1-01:47	27,638	OAHU	DOT HARBORS
PIER 15 SHED	NIMITZ HWY - HONOLULU, OAHU 96817	HONOLULU HARBOR	2-1-01:44	4,325	OAHU	DOT HARBORS
PIER 18 SHED	NIMITZ HWY - HONOLULU, OAHU 96817	HONOLULU HARBOR	1-5-39:30	5,200	OAHU	DOT HARBORS
PIER 19 COMFORT STATION	NIMITZ HWY - HONOLULU, OAHU 96817	HONOLULU HARBOR	1-5-39:60	450	OAHU	DOT HARBORS
PIER 19 OFFICE	NIMITZ HWY - HONOLULU, OAHU 96817	HONOLULU HARBOR	1-5-39:28	2,258	OAHU	DOT HARBORS
PIER 19 SHED	NIMITZ HWY - HONOLULU, OAHU 96817	HONOLULU HARBOR	1-5-39:63	122,820	OAHU	DOT HARBORS
PIER 21 MACHINE SHOP	NIMITZ HWY - HONOLULU, OAHU 96817	HONOLULU HARBOR	1-5-39:35	13,124	OAHU	DOT HARBORS
PIER 22 CARPENTER SHOP	NIMITZ HWY - HONOLULU, OAHU 96817	HONOLULU HARBOR	1-5-39:34	7,154	OAHU	DOT HARBORS
PIER 23 BUILDING #24	NIMITZ HWY - HONOLULU, OAHU 96817	HONOLULU HARBOR	1-5-39:25	28,340	OAHU	DOT HARBORS
PIER 24 MARITIME BLDG	NIMITZ HWY - HONOLULU, OAHU 96817	HONOLULU HARBOR	1-5-38:9	2,680	OAHU	DOT HARBORS
PIER 24 OFFICE BUILDING #25	NIMITZ HWY - HONOLULU, OAHU 96817	HONOLULU HARBOR	1-5-38:19	8,340	OAHU	DOT HARBORS
PIER 24 SHED	NIMITZ HWY - HONOLULU, OAHU 96817	HONOLULU HARBOR	1-5-38:43	75,760	OAHU	DOT HARBORS
PIER 25 SHED	NIMITZ HWY - HONOLULU, OAHU 96817	HONOLULU HARBOR	1-5-38:7	18,560	OAHU	DOT HARBORS
PIER 26 SHED	NIMITZ HWY - HONOLULU, OAHU 96817	HONOLULU HARBOR	1-5-38:42	35,000	OAHU	DOT HARBORS
PIER 27-28 SHED	NIMITZ HWY - HONOLULU, OAHU 96817	HONOLULU HARBOR	1-5-38:1	62,304	OAHU	DOT HARBORS
PIER 29 SHED	NIMITZ HWY - HONOLULU, OAHU 96817	HONOLULU HARBOR	1-5-38:36	101,560	OAHU	DOT HARBORS
PIER 31-33 SHED	NIMITZ HWY - HONOLULU, OAHU 96817	HONOLULU HARBOR	1-5-36:9	275,331	OAHU	DOT HARBORS
PIER 39 SHED	NIMITZ HWY - HONOLULU, OAHU 96817	HONOLULU HARBOR	1-5-32:17	180,171	OAHU	DOT HARBORS
PIER 40 SHED	NIMITZ HWY - HONOLULU, OAHU 96817	HONOLULU HARBOR	1-5-32:8	133,340	OAHU	DOT HARBORS
PIER 51-53 CFS SHED	SAND ISLAND ACCESS RD - HONOLULU, OAHU 96819	HONOLULU HARBOR	1-5-41:225	51,480	OAHU	DOT HARBORS
PIER 8 SHED	79 S. NIMITZ HWY - HONOLULU, OAHU 96813	HONOLULU HARBOR	2-1-01:1	74,000	OAHU	DOT HARBORS
PIER 9 SHED	79 S. NIMITZ HWY - HONOLULU, OAHU 96813	HONOLULU HARBOR	2-1-01:1	147,000	OAHU	DOT HARBORS
CHARTER BOAT BUILDING	1125B1 ALA MOANA BLVD - HONOLULU, OAHU 96814	KEWALO BASIN	2-1-58:43	2,736	OAHU	DOT HARBORS
NATIONAL FISHERIES BUILDING	1125B1 ALA MOANA BLVD - HONOLULU, OAHU 96814	KEWALO BASIN	2-1-58:64	7,280	OAHU	DOT HARBORS
NEW NET DRYING SHED	1125B1 ALA MOANA BLVD - HONOLULU, OAHU 96814	KEWALO BASIN	2-1-58:1	8,400	OAHU	DOT HARBORS
OLD NET DRYING SHED	1125B1 ALA MOANA BLVD - HONOLULU, OAHU 96814	KEWALO BASIN	2-1-58:68	12,300	OAHU	DOT HARBORS
ALIAIMOKU HALE	869 PUNCHBOWL ST - HONOLULU, OAHU 96813	CAPITOL DISTRICT	2-1-31:12	55,854	OAHU	DOT HIGHWAYS
BASEYARD OFFICE	54-310 HAUULA HOMESTEAD RD - HAUULA, OAHU 96717	HAUULA	5-4-02:12	360	OAHU	DOT HIGHWAYS
MATERIALS TESTING & RESEARCH LABORATORY	2530 LIKE LIKE HWY - HONOLULU, OAHU 96819	KALIHI VALLEY	1-4-22:14	16,540	OAHU	DOT HIGHWAYS
BASEYARD OFFICE	45-349 KAMEHAMEHA HWY - KANEHOE, OAHU 96744	KANEHOE	4-5-33:2	360	OAHU	DOT HIGHWAYS
BASEYARD WAREHOUSE	45-349 KAMEHAMEHA HWY - KANEHOE, OAHU 96744	KANEHOE	4-5-33:2	1,440	OAHU	DOT HIGHWAYS
BASEYARD OFFICE	SECOND ST - PEARL CITY, OAHU 96782	PEARL CITY	9-7-18:13	1,440	OAHU	DOT HIGHWAYS
HIGHWAYS DIVISION ADMINISTRATION BUILDING	727 KAKOI ST - HONOLULU, OAHU 96819	SHAFTER FLATS	1-1-64:26	6,096	OAHU	DOT HIGHWAYS
HIGHWAYS DIVISION MAINTENANCE OFFICE AND SHOP	727 KAKOI ST - HONOLULU, OAHU 96819	SHAFTER FLATS	1-1-64:26	6,339	OAHU	DOT HIGHWAYS
HIGHWAYS DIVISION MOTOR POOL BUILDING	727 KAKOI ST - HONOLULU, OAHU 96819	SHAFTER FLATS	1-1-64:26	5,600	OAHU	DOT HIGHWAYS
HIGHWAYS DIVISION WAREHOUSE	727 KAKOI ST - HONOLULU, OAHU 96819	SHAFTER FLATS	1-1-64:26	7,980	OAHU	DOT HIGHWAYS
BASEYARD OFFICE	155 CALIFORNIA AVE - WAHIAWA, OAHU 96786	WAHIAWA	7-3-07:5	360	OAHU	DOT HIGHWAYS
BASEYARD BUILDING A	85-630 FARRINGTON HWY - WAIANAE, OAHU 96792	WAIANAE	8-5-28:42	456	OAHU	DOT HIGHWAYS
BASEYARD BUILDING B	85-630 FARRINGTON HWY - WAIANAE, OAHU 96792	WAIANAE	8-5-28:42	180	OAHU	DOT HIGHWAYS
BASEYARD BUILDING C	85-630 FARRINGTON HWY - WAIANAE, OAHU 96792	WAIANAE	8-5-28:42	180	OAHU	DOT HIGHWAYS
<b>COURT HOUSE (3 FLOORS)</b>						
HALEIWA ELEMENTARY SCHOOL TEACHER'S COTTAGE A	66-207 KAMEHAMEHA HWY - HALEIWA, OAHU 96712	HALEIWA	6-6-09:23	5,754	OAHU	DLNR LAND MGT
HALEIWA ELEMENTARY SCHOOL TEACHER'S COTTAGE B	66-490 HALEIWA RD - HALEIWA, OAHU 96712	HALEIWA	6-6-11:13	1,967	OAHU	DLNR LAND MGT
HALEIWA ELEMENTARY SCHOOL TEACHER'S COTTAGE C	66-490 HALEIWA RD - HALEIWA, OAHU 96712	HALEIWA	6-6-11:13	1,910	OAHU	DLNR LAND MGT
HALEIWA ELEMENTARY SCHOOL TEACHER'S COTTAGE D	66-490 HALEIWA RD - HALEIWA, OAHU 96712	HALEIWA	6-6-11:13	986	OAHU	DLNR LAND MGT
HALEIWA ELEMENTARY SCHOOL TEACHER'S COTTAGE E	66-490 HALEIWA RD - HALEIWA, OAHU 96712	HALEIWA	6-6-11:13	1,36		

## STATE FACILITIES IN OAHU BUILDING AREA SQUARE FOOTAGE DATA PROVIDED BY DAGS IN 2001 (INCOMPLETE)

Statewide inventory 2001 (Approximate &amp; Incomplete)

## STATE BUILDINGS (INVENTORY MANAGEMENT)

DESCRIPTION - BUILDING	ADDRESS	LOCATION	TAX KEY	AREA SQ		DEPT
				FT	ISLAND	
AINA MOANA - EQUIPMENT SHED	1365 ALA MOANA BLVD - HONOLULU, OAHU 96814	MAGIC ISLAND	2-3-37:25	576	OAHU	DLNR PARKS
WAAHILA RIDGE STATE REC AREA RESTROOM	1600 RUTH PL - HONOLULU, OAHU 96816	SAINT LOUIS HEIGHTS	3-4-10:3	280	OAHU	DLNR PARKS
PUU UALAKAA WAYSIDE COMFORT STATION	3286 ROUND TOP DR - HONOLULU, OAHU 96822	TANTALUS	2-5-19:3	676	OAHU	DLNR PARKS
WAHIAWA FRESHWATER ST REC AREA CARETAKER'S HOME	380 WALKER AVE - WAHIAWA, OAHU 96786	WAHIAWA	7-6-01:6	1,536	OAHU	DLNR PARKS
WAIMANALO STATE REC AREA RESTROOM #1, 2 & 3	41-1055 KALANIANA'OLE HWY-WAIMANALO, OAHU 96795	WAIMANALO	4-1-15:15	4,350	OAHU	DLNR PARKS
WAIMANALO STATE REC AREA ENFORCEMENT OFCR HOUSE	41-1055 KALANIANA'OLE HWY-WAIMANALO, OAHU 96795	WAIMANALO	4-1-15:15	1,225	OAHU	DLNR PARKS
SAND ISLAND STATE PARK RESTROOM #1 THROUGH 6	10 SAND ISLAND ACCESS RD - HONOLULU, OAHU 96819	SAND ISLAND	1-5-41:6	675	OAHU	DLNR PARKS
SAND ISLAND STATE PARK PICNIC SHELTER #1 THROUGH 14	10 SAND ISLAND ACCESS RD - HONOLULU, OAHU 96819	SAND ISLAND	1-5-41:6	0	OAHU	DLNR PARKS
SAND ISLAND STATE PARK MAINT SHOP & OFFICE BLDG A - C	10 SAND ISLAND ACCESS RD - HONOLULU, OAHU 96819	SAND ISLAND	1-5-41:6	0	OAHU	DLNR PARKS
SAND ISLAND STATE PARK CARETAKER'S HOUSE BLDG B	10 SAND ISLAND ACCESS RD - HONOLULU, OAHU 96819	SAND ISLAND	1-5-41:6	1,520	OAHU	DLNR PARKS
HEEIA STATE PARK CARETAKER'S HOUSE	46-461 KAMEHAMEHA HWY - KANEOHE, OAHU 96744	HEEIA KEA	4-6-05:9	1,296	OAHU	DLNR PARKS
HEEIA STATE PARK PICNIC SHELTER #1/RESTROOM	46-461 KAMEHAMEHA HWY - KANEOHE, OAHU 96744	HEEIA KEA	4-6-05:9	2,926	OAHU	DLNR PARKS
HEEIA STATE PARK VISITOR CENTER	46-461 KAMEHAMEHA HWY - KANEOHE, OAHU 96744	HEEIA KEA	4-6-05:9	3,600	OAHU	DLNR PARKS
HONOLULU STADIUM STATE PARK RESTROOM/STORAGE	2237 S. KING ST - HONOLULU, OAHU 96814	MOLILILI	2-7-08:2	4,500	OAHU	DLNR PARKS
MAKUA-KAENA RESTROOM	81-601 FARRINGTON HWY - WAIANAE, OAHU 96792	YOKOHAMA BAY	8-1-01:7	576	OAHU	DLNR PARKS
KAIKA STATE REC AREA RESTROOM	66-449 HALEIWA RD - HALEIWA, OAHU 96712	HALEIWA	6-6-07:7	784	OAHU	DLNR PARKS
MALAIEKAHANA STATE REC AREA RESIDENCE/SHELTER	53-291 KAMEHAMEHA HWY - KAHUKU, OAHU 96731	KAHUKU	5-6-01:4	2,500	OAHU	DLNR PARKS
MALAIEKAHANA STATE REC AREA RESTROOMS	53-291 KAMEHAMEHA HWY - KAHUKU, OAHU 96731	KAHUKU	5-6-01:4	400	OAHU	DLNR PARKS
KAHANA VALLEY STATE PARK ORIENTATION BUILDING	52-266 KAMEHAMEHA HWY - HAUULA, OAHU 96717	KAHANA VALLEY	5-2-02:1	1,700	OAHU	DLNR PARKS
KAHANA VALLEY STATE PARK PICNIC SHELTERS #1 & 2	52-266 KAMEHAMEHA HWY - HAUULA, OAHU 96717	KAHANA VALLEY	5-2-02:1	0	OAHU	DLNR PARKS
FORT RUGER MAINTENANCE SHOP	3949 DIAMOND HEAD RD - HONOLULU, OAHU 96816	KAIMUKI	3-1-42:20	10,600	OAHU	DLNR PARKS
MAKIKI HEIGHTS RESTROOM	2131 MAKIKI HEIGHTS DR - HONOLULU, OAHU 96822	MAKIKI	2-5-19:8	400	OAHU	DLNR PARKS
DIAMOND HEAD MONUMENT COMFORT STATION	4204 DIAMOND HEAD RD - HONOLULU, OAHU 96816	DIAMOND HEAD	3-1-42:6	400	OAHU	DLNR PARKS
IOLANI PALACE COMPLEX - IOLANI PALACE	417 S. KING ST - HONOLULU, OAHU 96813	CAPITOL DISTRICT	2-1-25:2	55,800	OAHU	DLNR PARKS
IOLANI PALACE COMPLEX - BARRACKS	417 S. KING ST - HONOLULU, OAHU 96813	CAPITOL DISTRICT	2-1-25:2	8,500	OAHU	DLNR PARKS
IOLANI PALACE COMPLEX - BANDSTAND	417 S. KING ST - HONOLULU, OAHU 96813	CAPITOL DISTRICT	2-1-25:2	800	OAHU	DLNR PARKS
IOLANI PALACE COMPLEX - KANAINA BLDG	417 S. KING ST - HONOLULU, OAHU 96813	CAPITOL DISTRICT	2-1-25:2	10,000	OAHU	DLNR PARKS
IOLANI PALACE COMPLEX - MAINTENANCE BUILDING	417 S. KING ST - HONOLULU, OAHU 96813	CAPITOL DISTRICT	2-1-25:2	900	OAHU	DLNR PARKS
ROYAL MAUSOLEUM CHAPEL	2261 NUUANU AVE - HONOLULU, OAHU 96817	NUUANU	2-2-21:12	3,000	OAHU	DLNR PARKS
ROYAL MAUSOLEUM CARETAKER COTTAGE	2261 NUUANU AVE - HONOLULU, OAHU 96817	NUUANU	2-2-21:12	750	OAHU	DLNR PARKS
FUEL STORAGE	2135 MAKIKI HTS DR - HONOLULU, OAHU 96822	MAKIKI	2-5-19:8	144	OAHU	DLNR FORESTRY
CARPENTER SHOP	2135 MAKIKI HTS DR - HONOLULU, OAHU 96822	MAKIKI	2-5-19:8	1,200	OAHU	DLNR FORESTRY
GREEN HOUSE	2135 MAKIKI HTS DR - HONOLULU, OAHU 96822	MAKIKI	2-5-19:8	437	OAHU	DLNR FORESTRY
GAS SHACK	2135 MAKIKI HTS DR - HONOLULU, OAHU 96822	MAKIKI	2-5-19:8	18	OAHU	DLNR FORESTRY
FIRE TOOL SHED	2135 MAKIKI HTS DR - HONOLULU, OAHU 96822	MAKIKI	2-5-19:8	80	OAHU	DLNR FORESTRY
BASEYARD OFFICE	2135 MAKIKI HTS DR - HONOLULU, OAHU 96822	MAKIKI	2-5-19:8	593	OAHU	DLNR FORESTRY
WAREHOUSE/STORAGE	2135 MAKIKI HTS DR - HONOLULU, OAHU 96822	MAKIKI	2-5-19:8	1,650	OAHU	DLNR FORESTRY
EQUIPMENT SHED	2135 MAKIKI HTS DR - HONOLULU, OAHU 96822	MAKIKI	2-5-19:8	108	OAHU	DLNR FORESTRY
FORESTER'S RESIDENCE	2135 MAKIKI HTS DR - HONOLULU, OAHU 96822	MAKIKI	2-5-19:8	1,860	OAHU	DLNR FORESTRY
FORESTER'S GARAGE	2135 MAKIKI HTS DR - HONOLULU, OAHU 96822	MAKIKI	2-5-19:8	600	OAHU	DLNR FORESTRY
HOTHOUSE [DEMOLISHED]	2135 MAKIKI HTS DR - HONOLULU, OAHU 96822	MAKIKI	2-5-19:8	370	OAHU	DLNR FORESTRY
GAZEBO	2135 MAKIKI HTS DR - HONOLULU, OAHU 96822	MAKIKI	2-5-19:8	220	OAHU	DLNR FORESTRY
WILDLIFE WORKSHOP WAREHOUSE	2135 MAKIKI HTS DR - HONOLULU, OAHU 96822	MAKIKI	2-5-19:8	625	OAHU	DLNR FORESTRY
PAN ABODE SHELTER	ABOVE HALEMANO RD - WAHIAWA, OAHU 96786	POAMOHU TRAIL	7-2-01:6	144	OAHU	DLNR FORESTRY
6 POLE SHELTER	ABOVE ALANI DR - HONOLULU, OAHU 96822	MANOA VALLEY	2-9-51:2	180	OAHU	DLNR FORESTRY
6 POLE SHELTER	68-436 FARRINGTON HWY - WAIALUA, OAHU 96791	MOKULEIA	6-8-01:3	180	OAHU	DLNR FORESTRY
FIRE TOOL SHED	1 PALEHUA RD - EWA BEACH, OAHU 96706	PALEHUA	9-2-05:13	105	OAHU	DLNR FORESTRY
KAWAIOA FIRE TOOL SHED	OPAEUA RD - HALEIWA, OAHU 96712	OPAEUA	6-2-11:1	21	OAHU	DLNR FORESTRY
NIKE SITE ADMINISTRATION BUILDING	MOKULEIA - WAIALUA, OAHU 96791	MOKULEIA	6-8-01:4	2,781	OAHU	DLNR FORESTRY
NIKE SITE EQUIPMENT STORAGE 1	MOKULEIA - WAIALUA, OAHU 96791	MOKULEIA	6-8-01:4	144	OAHU	DLNR FORESTRY
NIKE SITE EQUIPMENT STORAGE 2	MOKULEIA - WAIALUA, OAHU 96791	MOKULEIA	6-8-01:4	144	OAHU	DLNR FORESTRY
NIKE SITE PERSONNEL BARRACKS	MOKULEIA - WAIALUA, OAHU 96791	MOKULEIA	6-8-01:4	3,103	OAHU	DLNR FORESTRY
ALA WAI BOAT HARBOR ATTENDANT'S OFFICE	1651 ALA MOANA BLVD - HONOLULU, OAHU 96815	ALA WAI	2-6-10:5	1,200	OAHU	DLNR BOATING
ALA WAI BOAT HARBOR COMFORT STATION #1 MOLE A	1651 ALA MOANA BLVD - HONOLULU, OAHU 96815	ALA WAI	2-6-10:5	704	OAHU	DLNR BOATING
ALA WAI BOAT HARBOR COMFORT STATION #2 MOLE B	1651 ALA MOANA BLVD - HONOLULU, OAHU 96815	ALA WAI	2-6-10:5	841	OAHU	DLNR BOATING
ALA WAI BOAT HARBOR NEW COMFORT STATION MOLE A	1651 ALA MOANA BLVD - HONOLULU, OAHU 96815	ALA WAI	2-6-10:5	721	OAHU	DLNR BOATING
HALEIWA BOAT HARBOR ATTENDANT'S OFFICE	66-105 HALEIWA RD - HALEIWA, OAHU 96712	HALEIWA	6-6-02:4	2,288	OAHU	DLNR BOATING
HALEIWA BOAT HARBOR RESTROOM	66-105 HALEIWA RD - HALEIWA, OAHU 96712	HALEIWA	6-6-02:4	100	OAHU	DLNR BOATING
HEEIA KEA BOAT HARBOR COMFORT STATION #1 (OLD)	46-499 KAMEHAMEHA HWY - KANEOHE, OAHU 67944	HEEIA KEA	4-6-06:2	50	OAHU	DLNR BOATING
HEEIA KEA BOAT HARBOR COMFORT STATION #2	46-499 KAMEHAMEHA HWY - KANEOHE, OAHU 67944	HEEIA KEA	4-6-06:2	413	OAHU	DLNR BOATING
KEEHI HARBOR ATTENDANT'S OFFICE	4 SAND ISLAND RD - HONOLULU, OAHU 96819	KALIHI KAI	1-2-25:25	880	OAHU	DLNR BOATING
KEEHI HARBOR COMFORT STATION	4 SAND ISLAND RD - HONOLULU, OAHU 96819	KALIHI KAI	1-2-25:41	880	OAHU	DLNR BOATING
WAIANAE BOAT HARBOR ATTENDANT'S OFFICE	83-371 FARRINGTON HWY - WAIANAE, OAHU 96792	WAIANAE	8-5-02:44	2,640	OAHU	DLNR BOATING
				<b>178,650</b>		
HAWAII YOUTH COR FACILITY AUTO MAINTENANCE SHOP	42-455 KALAIA'NAOLE HWY - KAILUA, OAHU 96734	KAILUA	4-2-03:4	0	OAHU	DHS
HAWAII YOUTH COR FACILITY FARM QUONSET	42-455 KALAIA'NAOLE HWY - KAILUA, OAHU 96734	KAILUA	4-2-03:4	0	OAHU	DHS
HAWAII YOUTH COR FACILITY GYMNASIUM	42-455 KALAIA'NAOLE HWY - KAILUA, OAHU 96734	KAILUA	4-2-03:4	0	OAHU	DHS
HAWAII YOUTH COR FACILITY HILLTOP COTTAGE	42-455 KALAIA'NAOLE HWY - KAILUA, OAHU 96734	KAILUA	4-2-03:4	0	OAHU	DHS
HAWAII YOUTH COR FACILITY INDUSTRIAL BUILDING	42-455 KALAIA'NAOLE HWY - KAILUA, OAHU 96734	KAILUA	4-2-03:4	0	OAHU	DHS
HAWAII YOUTH COR FACILITY KAALA COTTAGE	42-455 KALAIA'NAOLE HWY - KAILUA, OAHU 96734	KAILUA	4-2-03:4	0	OAHU	DHS
HAWAII YOUTH COR FACILITY MAUNAWILA	42-455 KALAIA'NAOLE HWY - KAILUA, OAHU 96734	KAILUA	4-2-03:4	0	OAHU	DHS
HAWAII YOUTH COR FACILITY OLAMANA	42-455 KALAIA'NAOLE HWY - KAILUA, OAHU 96734	KAILUA	4-2-03:4	0	OAHU	DHS
HALAWA HIGH SECURITY FACILITY	99-762 MOANALUA RD - AIEA, OAHU 96701	HALAWA	9-9-10:30	0	OAHU	PSD
WOMEN COM COR CTR CANOE HOUSE CHAPEL	42-470 KALAIA'NAOLE HWY - KAILUA, OAHU 96734	KAILUA	4-2-06:2	0	OAHU	PSD
WOMEN COM COR CTR CENTRAL CONTROL	42-470 KALAIA'NAOLE HWY - KAILUA, OAHU 96734	KAILUA	4-2-06:2	0	OAHU	PSD
WOMEN COM COR CTR CLASSROOM BUILDING	42-470 KALAIA'NAOLE HWY - KAILUA, OAHU 96734	KAILUA	4-2-06:2	0	OAHU	PSD
WOMEN COM COR CTR HOOPKA	42-470 KALAIA'NAOLE HWY - KAILUA, OAHU 96734	KAILUA	4-2-06:2	0	OAHU	PSD
WOMEN COM COR CTR INTERMIN ROOM	42-470 KALAIA'NAOLE HWY - KAILUA, OAHU 96734	KAILUA	4-2-06:2	0	OAHU	PSD
WOMEN COM COR CTR MALUHIA WOMENS FACILITY	42-470 KALAIA'NAOLE HWY - KAILUA, OAHU 96734	KAILUA	4-2-06:2	0	OAHU	PSD
WOMEN COM COR CTR P. C. COTTAGE	42-470 KALAIA'NAOLE HWY - KAILUA, OAHU 96734	KAILUA	4-2-06:2	0	OAHU	PSD
OAHU COM COR CENTER KEEHI ANNEX	2109 KAMEHAMEHA HWY - HONOLULU, OAHU 96819	KALIHI KAI	1-2-13:2	0	OAHU	PSD
OAHU COM COR CENTER MODULES	2109 KAMEHAMEHA HWY - HONOLULU, OAHU 96819	KALIHI KAI	1-2-13:2	0	OAHU	PSD
OAHU COM COR CENTER OLD ADMINISTRATION BUILDING	2109 KAMEHAMEHA HWY - HONOLULU, OAHU 96819	KALIHI KAI	1-2-13:2	0	OAHU	PSD
OAHU COM COR CENTER OLD CELL BLOCK	2109 KAMEHAMEHA HWY - HONOLULU, OAHU 96819	KALIHI KAI	1-2-13:2	0	OAHU	PSD
WAIAWA CORRECTIONAL FACIL KITCHEN/DINING BLDG	94-560 KAMEHAMEHA HWY - PEARL CITY, HAWAII 96782	WAIAWA	9-4-06:10	0	OAHU	PSD
WAIAWA CORRECTIONAL FACIL LIBRARY-EDUCATION BLDG	94-560 KAMEHAMEHA HWY - PEARL CITY, HAWAII 96782	WAIAWA	9-4-06:10	0	OAHU	PSD
WAIAWA CORRECTIONAL FACILITY BUILDING 4	94-560 KAMEHAMEHA HWY - PEARL CITY, HAWAII 96782	WAIAWA	9-4-06:10	0	OAHU	PSD
WAIAWA CORRECTIONAL FACILITY BUILDING 5	94-560 KAMEHAMEHA HWY - PEARL CITY, HAWAII 96782	WAIAWA	9-4-06:10	0	OAHU	PSD
WAIAWA CORRECTIONAL FACILITY BUILDING 6	94-560 KAMEHAMEHA HWY - PEARL CITY, HAWAII 96782	WAIAWA	9-4-06:10	0	OAHU	PSD
WAIAWA CORRECTIONAL FACILITY CHAPEL	94-560 KAMEHAMEHA HWY - PEARL CITY, HAWAII 96782	WAIAWA	9-4-06:10	0	OAHU	PSD
WAIAWA CORRECTIONAL FACILITY LAUNDRY BUILDING 3	94-560 KAMEHAMEHA HWY - PEARL CITY, HAWAII 96782	WAIAWA	9-4-06:10	0	OAHU	PSD
WAIAWA CORRECTIONAL FACILITY MEDICAL BUILDING	94-560 KAMEHAMEHA HWY - PEARL CITY, HAWAII 96782	WAIAWA	9-4-06:10	0	OAHU	PSD
WAIAWA CORRECTIONAL FACILITY ADMIN BUILDING	94-560 KAMEHAMEHA HWY - PEARL CITY, HAWAII 96782	WAIAWA	9-4-06:10	0	OAHU	PSD
WAIAWA CORRECTIONAL FACILITY MAINT/TUNNEL SYSTEM	94-560 KAMEHAMEHA HWY - PEARL CITY, HAWAII 96782	WAIAWA	9-4-06:10	0	OAHU	PSD
FAMILY DETENTION CENTER	902 ALDER ST - HONOLULU, OAHU 96814	HONOLULU	2-3-12:19	41,700	OAHU	JUDICIARY
WAIALUA DISTRICT COURTHOUSE (WAHIAWA)	1034 KILANI AVE - WAHIAWA, OAHU 96786	WAHIAWA	7-4-07:2	1,800	OAHU	JUDICIARY
DIAMOND HEAD HEALTH CENTER	3627 KILAUEA AVE - HONOLULU, OAHU 96816	KAIMUKI	3-2-31:15	53,000	OAHU	DOH
LEAHI HOSPITAL A & R YOUNG CHILDREN'S BUILDING	3675 KILAUEA AVE - HONOLULU, OAHU 96816	KAIMUKI	3-2-31:1	5,000	OAHU	DOH
LEAHI HOSPITAL ADMINISTRATION BUILDING	3675 KILAUEA AVE - HONOLULU, OAHU 96816	KAIMUKI	3-2-31:1	14,800	OAHU	DOH
LEAHI HOSPITAL ATHERTON BUILDING	3675 KILAUEA AVE - HONOLULU, OAHU 96816	KAIMUKI	3-2-31:1	15,970	OAHU	DOH
LEAHI HOSPITAL MAINTENANCE BUILDING	3675 KILAUEA AVE - HONOLULU, OAHU 96816	KAIMUKI	3-2-31:1	9,600	OAHU	DOH
LEAHI HOSPITAL SINCLAIR BUILDING	3675 KILAUEA AVE - HONOLULU, OAHU 96816	KAIMUKI	3-2-31:1	27,000	OAHU	DOH
LEAHI HOSPITAL TROTTER BUILDING	3675 KILAUEA AVE - HONOLULU, OAHU 96816	KAIMUKI	3-2-31:1	17,000	OAHU	DOH
LEAHI HOSPITAL YOUNG BUILDING	3675 KILAUEA AVE - HONOLULU, OAHU 96816	KAIMUKI	3-2-31:1	68,400	OAHU	DOH
				<b>210,770</b>		
ALA MOANA HEALTH CENTER ANNEX	591 ALA MOANA BLVD - HONOLULU, OAHU 96813	KAKAAKO	2-1-15:19	0	OAHU	DOH
ALA MOANA HEALTH CENTER BUILDING #1	591 ALA MOANA BLVD - HONOLULU, OAHU 96813	KAKAAKO	2-1-15:19	19,000	OAHU	DOH
HAW STATE HOSP. - AKAHI BUILDING	45-710 KEAAHALA RD - KANEOHE, OAHU 96744	KANEOHE	4-5-23:2	7,691	OAHU	DOH
HAW STATE HOSP. - BISHOP BUILDING	45-710 KEAAHALA RD - KANEOHE, OAHU 96744	KANEOHE	4-5-23:2	7,691	OAHU	DOH
HAW STATE HOSP. - BOILER HOUSE [DEMOLISHED]	45-710 KEAAHALA RD - KANEOHE, OAHU 96744	KANEOHE	4-5-23:2	1,280	OAHU	DOH
HAW STATE HOSP. - CENTRAL KITCHEN BUILDING	45-710 KEAAHALA RD - KANEOHE, OAHU 96744	KANEOHE	4-5-23:2	17,548	OAHU	DOH
HAW STATE HOSP. - COOKE BUILDING 003	45-710 KEAAHALA RD - KANEOHE, OAHU 96744	KANEOHE	4-5-23:2	7,434	OAHU	DOH
HAW STATE HOSP. - GARAGE REPAIR SHOP (NO REPORT)	45-710 KEAAHALA RD - KANEOHE, OAHU 96744	KANEOHE	4-5-23:2	0	OAHU	DOH
HAW STATE HOSP. - GODDARD BUILDING	45-710 KEAAHALA RD - KANEOHE, OAHU 96744	KANEOHE	4-5-23:2	112,475	OAHU	DOH
HAW STATE HOSP. - GUENSBURG BUILDING	45-710 KEAAHALA RD - KANEOHE, OAHU 96744	KANEOHE	4-5-23:2	50,205	OAHU	DOH
HAW STATE HOSP. - HALE AWA (ALSO INSP IN PH II)	45-710 KEAAHALA RD - KANEOHE, OAHU 96744	KANEOHE	4-5-23:2	2,414	OAHU	DOH
HAW STATE HOSP. - HALE AWA (SEE 20502001)	45-710 KEAAHALA RD - KANEOHE, OAHU 96744	KANEOHE	4-5-23:2	11,246	OAHU	DOH
HAW STATE HOSP. - LAUND/BOILER ROOM [DEMOLISHED]	45-710 KEAAHALA RD - KANEOHE, OAHU 96744	KANEOHE	4-5-23:2	2,017	OAHU	DOH
HAW STATE HOSP. - LAUNDRY BUILDING	45-710 KEAAHALA RD - KANEOHE, OAHU 96744	KANEOHE	4-5-23:2	9,800	OAHU	DOH
HAW STATE HOSP. - LOKAI BUILDING	45-710 KEAAHALA RD - KANEOHE, OAHU 96744	KANEOHE	4-5-23:2	7,434	OAHU	DOH
HAW STATE HOSP. - MAINTENANCE OFFICE	45-710 KEAAHALA RD - KANEOHE, OAHU 96744	KANEOHE	4-5-23:2	3,264	OAHU	DOH
HAW STATE HOSP. - MAINTENANCE SHOPS (NO REPORT)	45-710 KEAAHALA RD - KANEOHE, OAHU 96744	KANEOHE	4-5-23:2	0	OAHU	DOH
HAW STATE HOSP. - MED DIRECTOR'S QTRS, BLDG 3	45-710 KEAAHALA RD - KANEOHE, OAHU 96744	KANEOHE	4-5-23:2	2,964	OAHU	DOH
HAW STATE HOSP. - MEDICAL STAFF QTRS, UNIT #10	45-710 KEAAHALA RD - KANEOHE, OAHU 96744	KANEOHE	4-5-23:2	1,100	OAHU	DOH
HAW STATE HOSP. - MEDICAL STAFF QTRS, UNIT #11	45-710 KEAAHALA RD - KANEOHE, OAHU 96744	KANEOHE	4-5-23:2	1,412	OAHU	DOH
HAW STATE HOSP. - MEDICAL STAFF QTRS, UNIT #12	45-710					



STATE FACILITIES IN OAHU BUILDING AREA SQUATE FOOTAGE DATA PROVIDED BY DAGS IN 2001 (INCOMPLETE)

Statewide inventory 2001 (Approximate & Incomplete)

STATE BUILDINGS (INVENTORY MANAGEMENT)

DESCRIPTION - BUILDING	ADDRESS	LOCATION	TAX KEY	AREA SQ		DEPT
				FT	ISLAND	
HAW STATE HOSP. - MEDICAL STAFF QTRS, UNIT #14	45-710 KEAAHALA RD - KANEOHE, OAHU 96744	KANEOHE	4-5-23:2	1,100	OAHU	DOH
HAW STATE HOSP. - MEDICAL STAFF QTRS, UNIT #9	45-710 KEAAHALA RD - KANEOHE, OAHU 96744	KANEOHE	4-5-23:2	1,100	OAHU	DOH
HAW STATE HOSP. - NURSERY OFFICE	45-710 KEAAHALA RD - KANEOHE, OAHU 96744	KANEOHE	4-5-23:2	700	OAHU	DOH
HAW STATE HOSP. - PARKING AREA & OFFICE [DEM]	45-710 KEAAHALA RD - KANEOHE, OAHU 96744	KANEOHE	4-5-23:2	9,360	OAHU	DOH
HAW STATE HOSP. - WAREHOUSE	45-710 KEAAHALA RD - KANEOHE, OAHU 96744	KANEOHE	4-5-23:2	12,000	OAHU	DOH
HAW STATE HOSP. -CHLORINATION PLANT BUILDING 007	45-710 KEAAHALA RD - KANEOHE, OAHU 96744	KANEOHE	4-5-23:2	360	OAHU	DOH
HAW STATE HOSP. EMERGENCY GENERATOR BUILDING 002	45-710 KEAAHALA RD - KANEOHE, OAHU 96744	KANEOHE	4-5-23:2	174	OAHU	DOH
WINDWARD COMMUNITY COUNSELING CENTER	45-691 KEAAHALA RD - KANEOHE, OAHU 96744	KANEOHE	4-5-23:15	1,200	OAHU	DOH
WINDWARD HEALTH CENTER	45-691 KEAAHALA RD - KANEOHE, OAHU 96744	KANEOHE	4-5-23:15	1,200	OAHU	DOH
				<b>294,681</b>		
KAPAHULU HEALTH CENTER	548 KAPAHULU AVE - HONOLULU, OAHU 96815	KAPAHULU	2-7-36:4	7,050	OAHU	DOH
LANIKILA HEALTH CENTER BUILDING #1	1700 LANAKILA AVE - HONOLULU, OAHU 96817	PALAMA	1-6-09:5	32,000	OAHU	DOH
MALUHIA HOSPITAL	1027 HALA DR - HONOLULU, OAHU 96817	PALAMA	1-6-09:4	99,700	OAHU	DOH
LEEWARD HEALTH CENTER BUILDING #1	860 FOURTH ST - PEARL CITY, OAHU 96782	PEARL CITY	9-7-22:1	15,000	OAHU	DOH
WAIMANO HOME BUILDING A [HALE A]	2201 WAIMANO HOME RD - PEARL CITY, OAHU 96782	PEARL CITY	9-7-25:1	3,900	OAHU	DOH
WAIMANO HOME BUILDING a [MAINTENANCE SHOP]	2201 WAIMANO HOME RD - PEARL CITY, OAHU 96782	PEARL CITY	9-7-25:1	4,897	OAHU	DOH
WAIMANO HOME BUILDING b [AUTOMOTIVE SHOP]	2201 WAIMANO HOME RD - PEARL CITY, OAHU 96782	PEARL CITY	9-7-25:1	4,897	OAHU	DOH
WAIMANO HOME BUILDING B [HALE B]	2201 WAIMANO HOME RD - PEARL CITY, OAHU 96782	PEARL CITY	9-7-25:1	4,046	OAHU	DOH
WAIMANO HOME BUILDING c [CENTRAL SUPPLY]	2201 WAIMANO HOME RD - PEARL CITY, OAHU 96782	PEARL CITY	9-7-25:1	3,200	OAHU	DOH
WAIMANO HOME BUILDING C [HALE C]	2201 WAIMANO HOME RD - PEARL CITY, OAHU 96782	PEARL CITY	9-7-25:1	4,351	OAHU	DOH
WAIMANO HOME BUILDING D [HALE D]	2201 WAIMANO HOME RD - PEARL CITY, OAHU 96782	PEARL CITY	9-7-25:1	13,450	OAHU	DOH
WAIMANO HOME BUILDING d [SECURITY SHED]	2201 WAIMANO HOME RD - PEARL CITY, OAHU 96782	PEARL CITY	9-7-25:1	25	OAHU	DOH
WAIMANO HOME BUILDING E [HALE E]	2201 WAIMANO HOME RD - PEARL CITY, OAHU 96782	PEARL CITY	9-7-25:1	3,090	OAHU	DOH
WAIMANO HOME BUILDING F [HALE F]	2201 WAIMANO HOME RD - PEARL CITY, OAHU 96782	PEARL CITY	9-7-25:1	8,670	OAHU	DOH
WAIMANO HOME BUILDING G [B-1]	2201 WAIMANO HOME RD - PEARL CITY, OAHU 96782	PEARL CITY	9-7-25:1	8,331	OAHU	DOH
WAIMANO HOME BUILDING g [SUN PROJECT WAREHOUSE]	2201 WAIMANO HOME RD - PEARL CITY, OAHU 96782	PEARL CITY	9-7-25:1	13,000	OAHU	DOH
WAIMANO HOME BUILDING H [B-2]	2201 WAIMANO HOME RD - PEARL CITY, OAHU 96782	PEARL CITY	9-7-25:1	8,331	OAHU	DOH
WAIMANO HOME BUILDING h [SUN PROJECT SHED]	2201 WAIMANO HOME RD - PEARL CITY, OAHU 96782	PEARL CITY	9-7-25:1	290	OAHU	DOH
WAIMANO HOME BUILDING I [B-3]	2201 WAIMANO HOME RD - PEARL CITY, OAHU 96782	PEARL CITY	9-7-25:1	7,939	OAHU	DOH
WAIMANO HOME BUILDING j [THAYER HALL]	2201 WAIMANO HOME RD - PEARL CITY, OAHU 96782	PEARL CITY	9-7-25:1	5,340	OAHU	DOH
WAIMANO HOME BUILDING K [B-4, WI]	2201 WAIMANO HOME RD - PEARL CITY, OAHU 96782	PEARL CITY	9-7-25:1	20,243	OAHU	DOH
WAIMANO HOME BUILDING k [B-4, WI]	2201 WAIMANO HOME RD - PEARL CITY, OAHU 96782	PEARL CITY	9-7-25:1	20,243	OAHU	DOH
WAIMANO HOME BUILDING K [BOYS KITCHEN]	2201 WAIMANO HOME RD - PEARL CITY, OAHU 96782	PEARL CITY	9-7-25:1	7,726	OAHU	DOH
WAIMANO HOME BUILDING L [B-5]	2201 WAIMANO HOME RD - PEARL CITY, OAHU 96782	PEARL CITY	9-7-25:1	9,128	OAHU	DOH
WAIMANO HOME BUILDING I [BOYS KITCHEN BROILING]	2201 WAIMANO HOME RD - PEARL CITY, OAHU 96782	PEARL CITY	9-7-25:1	864	OAHU	DOH
WAIMANO HOME BUILDING M [B-6]	2201 WAIMANO HOME RD - PEARL CITY, OAHU 96782	PEARL CITY	9-7-25:1	8,683	OAHU	DOH
WAIMANO HOME BUILDING N [B-7]	2201 WAIMANO HOME RD - PEARL CITY, OAHU 96782	PEARL CITY	9-7-25:1	8,683	OAHU	DOH
WAIMANO HOME BUILDING n [MD HOUSE]	2201 WAIMANO HOME RD - PEARL CITY, OAHU 96782	PEARL CITY	9-7-25:1	3,000	OAHU	DOH
WAIMANO HOME BUILDING O [B-8]	2201 WAIMANO HOME RD - PEARL CITY, OAHU 96782	PEARL CITY	9-7-25:1	15,800	OAHU	DOH
WAIMANO HOME BUILDING o [BOOSTER PUMP STATION]	2201 WAIMANO HOME RD - PEARL CITY, OAHU 96782	PEARL CITY	9-7-25:1	250	OAHU	DOH
WAIMANO HOME BUILDING P [B-9]	2201 WAIMANO HOME RD - PEARL CITY, OAHU 96782	PEARL CITY	9-7-25:1	10,739	OAHU	DOH
WAIMANO HOME BUILDING p [SWIMMING POOL]	2201 WAIMANO HOME RD - PEARL CITY, OAHU 96782	PEARL CITY	9-7-25:1	1,000	OAHU	DOH
WAIMANO HOME BUILDING Q [B-10]	2201 WAIMANO HOME RD - PEARL CITY, OAHU 96782	PEARL CITY	9-7-25:1	8,638	OAHU	DOH
WAIMANO HOME BUILDING q [OLD ADMINISTRATION]	2201 WAIMANO HOME RD - PEARL CITY, OAHU 96782	PEARL CITY	9-7-25:1	12,663	OAHU	DOH
WAIMANO HOME BUILDING R [ANNEX]	2201 WAIMANO HOME RD - PEARL CITY, OAHU 96782	PEARL CITY	9-7-25:1	12,000	OAHU	DOH
WAIMANO HOME BUILDING r [MULTI-PURPOSE]	2201 WAIMANO HOME RD - PEARL CITY, OAHU 96782	PEARL CITY	9-7-25:1	5,076	OAHU	DOH
WAIMANO HOME BUILDING S [B-11]	2201 WAIMANO HOME RD - PEARL CITY, OAHU 96782	PEARL CITY	9-7-25:1	14,788	OAHU	DOH
WAIMANO HOME BUILDING s [DOCTOR'S HOUSE]	2201 WAIMANO HOME RD - PEARL CITY, OAHU 96782	PEARL CITY	9-7-25:1	2,275	OAHU	DOH
WAIMANO HOME BUILDING T [HALA OLA] LAMBERT BLDG	2201 WAIMANO HOME RD - PEARL CITY, OAHU 96782	PEARL CITY	9-7-25:1	41,557	OAHU	DOH
WAIMANO HOME BUILDING t [HALE ALOHA]	2201 WAIMANO HOME RD - PEARL CITY, OAHU 96782	PEARL CITY	9-7-25:1	1,280	OAHU	DOH
WAIMANO HOME BUILDING U [BOILER]	2201 WAIMANO HOME RD - PEARL CITY, OAHU 96782	PEARL CITY	9-7-25:1	1,440	OAHU	DOH
WAIMANO HOME BUILDING u [FOSTER GRANDPARENT]	2201 WAIMANO HOME RD - PEARL CITY, OAHU 96782	PEARL CITY	9-7-25:1	1,278	OAHU	DOH
WAIMANO HOME BUILDING v [CANTEEN]	2201 WAIMANO HOME RD - PEARL CITY, OAHU 96782	PEARL CITY	9-7-25:1	1,008	OAHU	DOH
WAIMANO HOME BUILDING V [LAUNDRY]	2201 WAIMANO HOME RD - PEARL CITY, OAHU 96782	PEARL CITY	9-7-25:1	4,247	OAHU	DOH
WAIMANO HOME BUILDING w [CLASSROOM]	2201 WAIMANO HOME RD - PEARL CITY, OAHU 96782	PEARL CITY	9-7-25:1	960	OAHU	DOH
WAIMANO HOME BUILDING W [KITCHEN/DINING]	2201 WAIMANO HOME RD - PEARL CITY, OAHU 96782	PEARL CITY	9-7-25:1	6,288	OAHU	DOH
WAIMANO HOME BUILDING X [BOYS DINING ROOM]	2201 WAIMANO HOME RD - PEARL CITY, OAHU 96782	PEARL CITY	9-7-25:1	1,800	OAHU	DOH
WAIMANO HOME BUILDING x [OLD CDC]	2201 WAIMANO HOME RD - PEARL CITY, OAHU 96782	PEARL CITY	9-7-25:1	1,625	OAHU	DOH
WAIMANO HOME BUILDING y [SEWING]	2201 WAIMANO HOME RD - PEARL CITY, OAHU 96782	PEARL CITY	9-7-25:1	1,625	OAHU	DOH
WAIMANO HOME DEEP WELL	2201 WAIMANO HOME RD - PEARL CITY, OAHU 96782	PEARL CITY	9-7-25:1	0	OAHU	DOH
WAIMANO HOME DR'S CARPORT	2201 WAIMANO HOME RD - PEARL CITY, OAHU 96782	PEARL CITY	9-7-25:1	0	OAHU	DOH
WAIMANO HOME HALE HAULI	2201 WAIMANO HOME RD - PEARL CITY, OAHU 96782	PEARL CITY	9-7-25:1	970	OAHU	DOH
WAIMANO HOME HOBBY SHOP	2201 WAIMANO HOME RD - PEARL CITY, OAHU 96782	PEARL CITY	9-7-25:1	1,500	OAHU	DOH
WAIMANO HOME MD GARAGE & LAUNDRY	2201 WAIMANO HOME RD - PEARL CITY, OAHU 96782	PEARL CITY	9-7-25:1	0	OAHU	DOH
WAIMANO HOME OLD MAINTENANCE YARD	2201 WAIMANO HOME RD - PEARL CITY, OAHU 96782	PEARL CITY	9-7-25:1	4,663	OAHU	DOH
WAIMANO HOME OLD MAINTENANCE YARD #2	2201 WAIMANO HOME RD - PEARL CITY, OAHU 96782	PEARL CITY	9-7-25:1	0	OAHU	DOH
WAIMANO HOME OLD MAINTENANCE YARD #3	2201 WAIMANO HOME RD - PEARL CITY, OAHU 96782	PEARL CITY	9-7-25:1	0	OAHU	DOH
WAIMANO HOME SUN PROJECT HOUSE	2201 WAIMANO HOME RD - PEARL CITY, OAHU 96782	PEARL CITY	9-7-25:1	0	OAHU	DOH
				<b>306,366</b>		
INFANT AND TODDLER DEVELOPMENT PROGRAM BUILDING	330 WALKER AVE - WAHIAWA, OAHU 96786	WAHIAWA	7-6-01:7	6,459	OAHU	DOH
WAIPAHU HEALTH CENTER	94-091 WAIPAO PT ACC RD - WAIPAHU, OAHU 96797	WAIPAHU	9-4-8:17	5,000	OAHU	DOH
BUILDING 300A (ARM)	3949 DIAMOND HEAD RD - HONOLULU, OAHU 96816	FORT RUGER	3-1-42:19	11,314	OAHU	DOD
BUILDING 90	3949 DIAMOND HEAD RD - HONOLULU, OAHU 96816	FORT RUGER	3-1-42:27	10,700	OAHU	DOD
BUILDING 90C	3949 DIAMOND HEAD RD - HONOLULU, OAHU 96816	FORT RUGER	3-1-42:27	1,188	OAHU	DOD
BUILDING 90D	3949 DIAMOND HEAD RD - HONOLULU, OAHU 96816	FORT RUGER	3-1-42:27	3,150	OAHU	DOD
BUILDING 262	3949 DIAMOND HEAD RD - HONOLULU, OAHU 96816	FORT RUGER	3-1-42:27	8,000	OAHU	DOD
BUILDING 264C	3949 DIAMOND HEAD RD - HONOLULU, OAHU 96816	FORT RUGER	3-1-42:27	196	OAHU	DOD
BUILDING 90E, STMP	3949 DIAMOND HEAD RD - HONOLULU, OAHU 96816	FORT RUGER	3-1-42:27	70	OAHU	DOD
BUILDING 264 BRIGADE ARMORY	3949 DIAMOND HEAD RD - HONOLULU, OAHU 96816	FORT RUGER	3-1-42:27	10,000	OAHU	DOD
BUILDING 264A BRIGADE ARMORY	3949 DIAMOND HEAD RD - HONOLULU, OAHU 96816	FORT RUGER	3-1-42:27	3,780	OAHU	DOD
BUILDING 265 BRIGADE ARMORY	3949 DIAMOND HEAD RD - HONOLULU, OAHU 96816	FORT RUGER	3-1-42:27	10,000	OAHU	DOD
BUILDING 300	3949 DIAMOND HEAD RD - HONOLULU, OAHU 96816	FORT RUGER	3-1-42:27	45,405	OAHU	DOD
BUILDING 301 CO D P BN	3949 DIAMOND HEAD RD - HONOLULU, OAHU 96816	FORT RUGER	3-1-42:27	14,232	OAHU	DOD
BUILDING 302	3949 DIAMOND HEAD RD - HONOLULU, OAHU 96816	FORT RUGER	3-1-42:27	32,896	OAHU	DOD
BUILDING 303 USPFO	3949 DIAMOND HEAD RD - HONOLULU, OAHU 96816	FORT RUGER	3-1-42:27	27,861	OAHU	DOD
BUILDING 303A, USPFO	3949 DIAMOND HEAD RD - HONOLULU, OAHU 96816	FORT RUGER	3-1-42:27	660	OAHU	DOD
BUILDING 303B USPFO	3949 DIAMOND HEAD RD - HONOLULU, OAHU 96816	FORT RUGER	3-1-42:27	960	OAHU	DOD
BUILDING 304 CSMS #1	3949 DIAMOND HEAD RD - HONOLULU, OAHU 96816	FORT RUGER	3-1-42:27	19,443	OAHU	DOD
BUILDING 304A CSMS #1	3949 DIAMOND HEAD RD - HONOLULU, OAHU 96816	FORT RUGER	3-1-42:27	439	OAHU	DOD
BUILDING 304D CSMS #1	3949 DIAMOND HEAD RD - HONOLULU, OAHU 96816	FORT RUGER	3-1-42:27	1,440	OAHU	DOD
BUILDING 305 OMS #1&2	3949 DIAMOND HEAD RD - HONOLULU, OAHU 96816	FORT RUGER	3-1-42:27	7,856	OAHU	DOD
BUILDING 305A OMSC #1&2	3949 DIAMOND HEAD RD - HONOLULU, OAHU 96816	FORT RUGER	3-1-42:27	100	OAHU	DOD
BUILDING 306	3949 DIAMOND HEAD RD - HONOLULU, OAHU 96816	FORT RUGER	3-1-42:27	11,314	OAHU	DOD
BUILDING 8 [BUILDING DEMOLISHED]	3949 DIAMOND HEAD RD - HONOLULU, OAHU 96816	FORT RUGER	3-1-42:27	800	OAHU	DOD
BUILDING 305G [BLDG DEMOLISHED]NOT DEM.	3949 DIAMOND HEAD RD - HONOLULU, OAHU 96816	FORT RUGER	3-1-42:27	500	OAHU	DOD
BIRKHEIMER 24	3949 DIAMOND HEAD RD - HONOLULU, OAHU 96816	FORT RUGER	3-1-42:27	20,000	OAHU	DOD
BATTERY HULING	3949 DIAMOND HEAD RD - HONOLULU, OAHU 96816	FORT RUGER	3-1-42:27	1,700	OAHU	DOD
BATTERY DODGE	3949 DIAMOND HEAD RD - HONOLULU, OAHU 96816	FORT RUGER	3-1-42:27	1,700	OAHU	DOD
MULE TUNNEL	3949 DIAMOND HEAD RD - HONOLULU, OAHU 96816	FORT RUGER	3-1-42:27	1,900	OAHU	DOD
BATTERY HARLOW	3949 DIAMOND HEAD RD - HONOLULU, OAHU 96816	FORT RUGER	3-1-42:27	12,800	OAHU	DOD
BATTERY 407	3949 DIAMOND HEAD RD - HONOLULU, OAHU 96816	FORT RUGER	3-1-42:27	17,100	OAHU	DOD
TUNNEL M-0	3949 DIAMOND HEAD RD - HONOLULU, OAHU 96816	FORT RUGER	3-1-42:27	2,500	OAHU	DOD
TUNNEL M-1	3949 DIAMOND HEAD RD - HONOLULU, OAHU 96816	FORT RUGER	3-1-42:27	3,000	OAHU	DOD
TUNNEL M-2	3949 DIAMOND HEAD RD - HONOLULU, OAHU 96816	FORT RUGER	3-1-42:27	4,000	OAHU	DOD
TUNNEL M-3	3949 DIAMOND HEAD RD - HONOLULU, OAHU 96816	FORT RUGER	3-1-42:27	3,900	OAHU	DOD
TUNNEL M-4	3949 DIAMOND HEAD RD - HONOLULU, OAHU 96816	FORT RUGER	3-1-42:27	3,600	OAHU	DOD
TUNNEL M-5	3949 DIAMOND HEAD RD - HONOLULU, OAHU 96816	FORT RUGER	3-1-42:27	4,500	OAHU	DOD
TUNNEL M-6	3949 DIAMOND HEAD RD - HONOLULU, OAHU 96816	FORT RUGER	3-1-42:27	5,100	OAHU	DOD
VAULT III	3949 DIAMOND HEAD RD - HONOLULU, OAHU 96816	FORT RUGER	3-1-42:27	172	OAHU	DOD
BUILDING 306A	3949 DIAMOND HEAD RD - HONOLULU, OAHU 96816	FORT RUGER	3-1-42:27	0	OAHU	DOD
		<b>(est. 2 meters half the load)</b>		<b>292,962</b>		<b>146481</b>
BUILDING 304E (OM7)	3949 DIAMOND HEAD RD - HONOLULU, OAHU 96816	FORT RUGER	3-1-42:6	150	OAHU	DOD
BUILDING 90F, FMBQ	3949 DIAMOND HEAD RD - HONOLULU, OAHU 96816	FORT RUGER	3-1-42:6	100	OAHU	DOD
BUILDING 90J, OM4 (94)	3949 DIAMOND HEAD RD - HONOLULU, OAHU 96816	FORT RUGER	3-1-42:6	170	OAHU	DOD
BUILDING 91	3949 DIAMOND HEAD RD - HONOLULU, OAHU 96816	FORT RUGER	3-1-42:6	156	OAHU	DOD
BUILDING 92	3949 DIAMOND HEAD RD - HONOLULU, OAHU 96816	FORT RUGER	3-1-42:6	343	OAHU	DOD
BUILDING 6 (HIENG)	3949 DIAMOND HEAD RD - HONOLULU, OAHU 96816	FORT RUGER	3-1-42:6	1,600	OAHU	DOD
BUILDING 18 (HIENG)	3949 DIAMOND HEAD RD - HONOLULU, OAHU 96816	FORT RUGER	3-1-42:6	1,200	OAHU	DOD
BUILDING 24 (HIENG)	3949 DIAMOND HEAD RD - HONOLULU, OAHU 96816	FORT RUGER	3-1-42:6	2,000	OAHU	DOD
BUILDING 96	3949 DIAMOND HEAD RD - HONOLULU, OAHU 96816	FORT RUGER	3-1-42:6	53	OAHU	DOD
BUILDING 93	3949 DIAMOND HEAD RD - HONOLULU, OAHU 96816	FORT RUGER	3-1-42:6	430	OAHU	DOD
BUILDING 95	3949 DIAMOND HEAD RD - HONOLULU, OAHU 96816	FORT RUGER	3-1-42:6	79	OAHU	DOD
ARMORY	46-151 KAMEHAMEHA HWY - KANEOHE, OAHU 96744	KANEOHE	4-6-04:3	31,564	OAHU	DOD
BUILDING 001	95-550 S. KAMEHAMEHA HWY - WAHIAWA, OAHU 96786	WAHIAWA	7-6-01:2	22,972	OAHU	DOD

STATE FACILITIES IN OAHU BUILDING AREA SQUARE FOOTAGE DATA PROVIDED BY DAGS IN 2001 (INCOMPLETE)

Statewide inventory 2001 (Approximate & Incomplete)

STATE BUILDINGS (INVENTORY MANAGEMENT)

DESCRIPTION - BUILDING	ADDRESS	LOCATION	TAX KEY	AREA SQ		DEPT
				FT	ISLAND	
BUILDING 002 MAINTENANCE	95-550 S. KAMEHAMEHA HWY - WAHIAWA, OAHU 96786	WAHIAWA	7-6-01:2	1,952	OAHU	DOD
BUILDING 003 POL	95-550 S. KAMEHAMEHA HWY - WAHIAWA, OAHU 96786	WAHIAWA	7-6-01:2	196	OAHU	DOD
BUILDING 004 291ST CONCRETE BUILDING	95-550 S. KAMEHAMEHA HWY - WAHIAWA, OAHU 96786	WAHIAWA	7-6-01:2	1,543	OAHU	DOD
BUILDING 005 CLASSROOM	95-550 S. KAMEHAMEHA HWY - WAHIAWA, OAHU 96786	WAHIAWA	7-6-01:2	1,024	OAHU	DOD
BUILDING 001 ARMORY	96-1176 WAIHONA ST - PEARL CITY, OAHU 96782	WAIAWA	9-6-4:15	0	OAHU	DOD
MESS HALL	96-1176 WAIHONA ST - PEARL CITY, OAHU 96782	WAIAWA	9-6-4:15	0	OAHU	DOD
BUILDING 013 STORAGE SHED	96-1176 WAIHONA ST - PEARL CITY, OAHU 96782	WAIAWA	9-6-4:15	26,176	OAHU	DOD
BUILDING 021 ADMIN/WORK BAY	96-1176 WAIHONA ST - PEARL CITY, OAHU 96782	WAIAWA	9-6-4:15	7,056	OAHU	DOD
BUILDING 022 ADMINISTRATION/WORK BAY	96-1176 WAIHONA ST - PEARL CITY, OAHU 96782	WAIAWA	9-6-4:15	10,919	OAHU	DOD
BUILDING 022A PETROLEUM STORAGE	96-1176 WAIHONA ST - PEARL CITY, OAHU 96782	WAIAWA	9-6-4:15	400	OAHU	DOD
BUILDING 025 TRAILER STORAGE	96-1176 WAIHONA ST - PEARL CITY, OAHU 96782	WAIAWA	9-6-4:15	19,565	OAHU	DOD
BUILDING 027 VEHICLE & EQUIPMENT	96-1176 WAIHONA ST - PEARL CITY, OAHU 96782	WAIAWA	9-6-4:15	32,851	OAHU	DOD
BUILDING 028 GROUND SUPPORT & EQUIPMENT	96-1176 WAIHONA ST - PEARL CITY, OAHU 96782	WAIAWA	9-6-4:15	19,747	OAHU	DOD
BUILDING 030 WAREHOUSE	96-1176 WAIHONA ST - PEARL CITY, OAHU 96782	WAIAWA	9-6-4:15	4,500	OAHU	DOD
BUILDING 030A WAREHOUSE	96-1176 WAIHONA ST - PEARL CITY, OAHU 96782	WAIAWA	9-6-4:15	2,275	OAHU	DOD
BUILDING 063 VEHICLE & EQUIPMENT	96-1176 WAIHONA ST - PEARL CITY, OAHU 96782	WAIAWA	9-6-4:15	19,747	OAHU	DOD
BUILDING 065 ALL VEHICLES	96-1176 WAIHONA ST - PEARL CITY, OAHU 96782	WAIAWA	9-6-4:15	19,747	OAHU	DOD
BUILDING 804	WHITEMAN RD - WAIMANALO, OAHU 96795	WAIMANALO	4-1-04:3	3,235	OAHU	DOD
BUILDING 806 ADMINISTRATION	WHITEMAN RD - WAIMANALO, OAHU 96795	WAIMANALO	4-1-04:3	2,947	OAHU	DOD
BUILDING 808	WHITEMAN RD - WAIMANALO, OAHU 96795	WAIMANALO	4-1-04:3	3,837	OAHU	DOD
BUILDING 827	1 WILIKINA DR. - WHEELER AFB WAHIAWA, OAHU 96786	WHEELER	7-7-01:2	1,068	OAHU	DOD
BUILDING 829	1 WILIKINA DR. - WHEELER AFB WAHIAWA, OAHU 96786	WHEELER	7-7-01:2	44,125	OAHU	DOD
BUILDING 832	1 WILIKINA DR. - WHEELER AFB WAHIAWA, OAHU 96786	WHEELER	7-7-01:2	17,692	OAHU	DOD
				<b>295,138</b>		

APPENDIX 6.0

Large State Facilities on Oahu Energy Survey Form  
and Responses to the Survey

STATE BUILDINGS ENERGY SURVEY FORM

GENERAL INFORMATION

State Department Name: D.A.G.S.
Building Name: No. 1 Capitol District Building
Building Address: 250 South Hotel Street
Contact Person name, Telephone, and E-mail: James Hisano, 831-6734, James.Hisano@Hawaii.gov
HECO Account Number(s) 8824-4189-078

BUILDING INFORMATION

Building Operation Hours: Weekdays: 7:45-4:30 Saturday: Sunday: Holiday:
Building type of occupancy: Office X School Warehouse Other (describe)
Building Year of Construction: ?
Building Occupied (Sq.Ft.) Area (excluding building perimeter and any parking area): 120,000
Building Gross (Sq.Ft.) Area (including any parking area): 129,000
Is there an attached parking garage/lot that you provide electricity? Yes
If yes, what is the parking garage/lot square footage? 9,300
Number of Floors: 4
Number of Occupants/Workers: 230
Number of Personal Computers: 220
Are windows tinted with solar reflective material? No
If Yes, What Percentage?

EQUIPMENT INFORMATION

Type of Lighting and Percentage: Incandescent 5% Fluorescent 95%
Has the Lighting been Retrofitted in the Last Five Years? (yes/no) No
If Yes, What Type, What Percentage?
Will There be Lighting Retrofits in the Next Five Years: No
Total Building Percentage Area Cooled 100%
Type of Main Air Conditioning Equipment Chilled Water A/C System
Has the Air Conditioning been Retrofitted in the Last Five years? (yes/no) Yes
If Yes, Describe Retrofit Details: Part of First and Most of Second floor remodeled for Art Gallery, New AHUs Only
Will There be Air Conditioning Retrofits in the Next Five Years: Maybe
Any Other Large Miscellaneous Equipment Electric Loads and Capacities?

Other comments

STATE BUILDINGS ENERGY SURVEY FORM

GENERAL INFORMATION

State Department Name: D.A.G.S.
Building Name: Kakuhihewa, Kapolei State Building
Building Address: 601 Kamokila Boulevard
Contact Person name, Telephone, and E-mail: James Hisano, 831-6734, James.Hisano@Hawaii.gov
HECO Account Number(s) 9800-1977-002

BUILDING INFORMATION

Building Operation Hours: Weekdays: 7:45-4:30 Saturday: Sunday: Holiday:
Building type of occupancy: Office X School Warehouse Other (describe)
Building Year of Construction: 1998
Building Occupied (Sq.Ft.) Area (excluding building perimeter and any parking area): 222,000
Building Gross (Sq.Ft.) Area (including any parking area): 408,000
Is there an attached parking garage/lot that you provide electricity? Yes
If yes, what is the parking garage/lot square footage? 186,000
Number of Floors: 16
Number of Occupants/Workers: 1,000
Number of Personal Computers: 7900
Are windows tinted with solar reflective material? Yes
If Yes, What Percentage? 100%

EQUIPMENT INFORMATION

Type of Lighting and Percentage: Incandescent 1% Fluorescent 99%
Has the Lighting been Retrofitted in the Last Five Years? (yes/no) No
If Yes, What Type, What Percentage?
Will There be Lighting Retrofits in the Next Five Years: No
Total Building Percentage Area Cooled 100%
Type of Main Air Conditioning Equipment Chilled Water A/C System
Has the Air Conditioning been Retrofitted in the Last Five years? (yes/no) No
If Yes, Describe Retrofit Details:
Will There be Air Conditioning Retrofits in the Next Five Years: No
Any Other Large Miscellaneous Equipment Electric Loads and Capacities?

Other comments

STATE BUILDINGS ENERGY SURVEY FORM

GENERAL INFORMATION

State Department Name: D.A.G.S.
Building Name: Leiopapa, State Office Tower
Building Address: 235 South Beretania Street
Contact Person name, Telephone, and E-mail: James Hisano, 831-6734, James.Hisano@Hawaii.gov
HECO Account Number(s) 8824-3048-076

BUILDING INFORMATION

Building Operation Hours: Weekdays: 7:45-4:30 Saturday: Sunday: Holiday:
Building type of occupancy: Office X School Warehouse Other (describe)

Building Year of Construction: 1991

Building Occupied (Sq.Ft.) Area (excluding building perimeter and any parking area): 172,000
Building Gross (Sq.Ft.) Area (including any parking area): 188,000

Is there an attached parking garage/lot that you provide electricity? Yes
If yes, what is the parking garage/lot square footage? 16,000

Number of Floors: 16

Number of Occupants/Workers: 365

Number of Personal Computers: 325

Are windows tinted with solar reflective material? No
If Yes, What Percentage?

EQUIPMENT INFORMATION

Type of Lighting and Percentage: Incandescent 5% Fluorescent 95%
Has the Lighting been Retrofitted in the Last Five Years? (yes/no) No
If Yes, What Type, What Percentage?
Will There be Lighting Retrofits in the Next Five Years: No

Total Building Percentage Area Cooled 100%
Type of Main Air Conditioning Equipment Chilled Water A/C System
Has the Air Conditioning been Retrofitted in the Last Five years? (yes/no) No
If Yes, Describe Retrofit Details:
Will There be Air Conditioning Retrofits in the Next Five Years: Maybe

Any Other Large Miscellaneous Equipment Electric Loads and Capacities?

Other comments

STATE BUILDINGS ENERGY SURVEY FORM

GENERAL INFORMATION

State Department Name: D.A.G.S.
Building Name: State Capitol
Building Address: 415 South Beretania
Contact Person name, Telephone, and E-mail: James Hisano, 831-6734, James.Hisano@Hawaii.gov
HECO Account Number(s) 8800-6839-077

BUILDING INFORMATION

Building Operation Hours: Weekdays: 7:45-4:30 Saturday: Sunday: Holiday:
Building type of occupancy: Office X School Warehouse Other (describe)

Building Year of Construction: 1969

Building Occupied (Sq.Ft.) Area (excluding building perimeter and any parking area): 300,000
Building Gross (Sq.Ft.) Area (including any parking area): 460,000

Is there an attached parking garage/lot that you provide electricity? Yes
If yes, what is the parking garage/lot square footage? 160,000

Number of Floors: 6

Number of Occupants/Workers: 750

Number of Personal Computers: 700

Are windows tinted with solar reflective material? No
If Yes, What Percentage?

EQUIPMENT INFORMATION

Type of Lighting and Percentage: Incandescent 2% Fluorescent 98%
Has the Lighting been Retrofitted in the Last Five Years? (yes/no) No
If Yes, What Type, What Percentage?
Will There be Lighting Retrofits in the Next Five Years: No

Total Building Percentage Area Cooled 100%
Type of Main Air Conditioning Equipment Chilled Water A/C System
Has the Air Conditioning been Retrofitted in the Last Five years? (yes/no) No
If Yes, Describe Retrofit Details:
Will There be Air Conditioning Retrofits in the Next Five Years: No

Any Other Large Miscellaneous Equipment Electric Loads and Capacities?

Other comments

STATE BUILDINGS ENERGY SURVEY FORM

GENERAL INFORMATION

State Department Name: D.A.G.S.  
 Building Name: AAFES  
 Building Address: 919 Ala Moana Boulevard  
 Contact Person name, Telephone, and E-mail: James Hisano, 831-6734, James.Hisano@Hawaii.gov  
 HECO Account Number(s) 8819-2839-079

BUILDING INFORMATION

Building Operation Hours: Weekdays: 7:45-4:30 Saturday: \_\_\_\_\_ Sunday: \_\_\_\_\_ Holiday: \_\_\_\_\_  
 Building type of occupancy: Office X School \_\_\_\_\_ Warehouse \_\_\_\_\_ Other (describe) \_\_\_\_\_  
 Building Year of Construction: ?  
 Building Occupied (Sq.Ft.) Area (excluding building perimeter and any parking area): 108,000  
 Building Gross (Sq.Ft.) Area (including any parking area): 169,000  
 Is there an attached parking garage/lot that you provide electricity? Yes  
 If yes, what is the parking garage/lot square footage? 61,000  
 Number of Floors: 5  
 Number of Occupants/Workers: 200  
 Number of Personal Computers: 175  
 Are windows tinted with solar reflective material? No  
 If Yes, What Percentage? \_\_\_\_\_

EQUIPMENT INFORMATION

Type of Lighting and Percentage: Incandescent 5% Fluorescent 95%  
 Has the Lighting been Retrofitted in the Last Five Years? (yes/no) Yes  
 If Yes, What Type, What Percentage? \_\_\_\_\_  
 Will There be Lighting Retrofits in the Next Five Years: No  
 Total Building Percentage Area Cooled 100%  
 Type of Main Air Conditioning Equipment Chilled Water A/C System  
 Has the Air Conditioning been Retrofitted in the Last Five years? (yes/no) No  
 If Yes, Describe Retrofit Details: \_\_\_\_\_  
 Will There be Air Conditioning Retrofits in the Next Five Years: Maybe  
 Any Other Large Miscellaneous Equipment Electric Loads and Capacities? \_\_\_\_\_

Other comments

STATE BUILDINGS ENERGY SURVEY FORM

GENERAL INFORMATION

State Department Name: D.A.G.S.  
 Building Name: Kalanimoku  
 Building Address: 1151 Punchbowl Street  
 Contact Person name, Telephone, and E-mail: James Hisano, 831-6734, James.Hisano@Hawaii.gov  
 HECO Account Number(s) 8820-5318-076

BUILDING INFORMATION

Building Operation Hours: Weekdays: 7:45-4:30 Saturday: \_\_\_\_\_ Sunday: \_\_\_\_\_ Holiday: \_\_\_\_\_  
 Building type of occupancy: Office X School \_\_\_\_\_ Warehouse \_\_\_\_\_ Other (describe) \_\_\_\_\_  
 Building Year of Construction: 1976  
 Building Occupied (Sq.Ft.) Area (excluding building perimeter and any parking area): 203,000  
 Building Gross (Sq.Ft.) Area (including any parking area): 301,500  
 Is there an attached parking garage/lot that you provide electricity? Yes  
 If yes, what is the parking garage/lot square footage? 98,500  
 Number of Floors: 5  
 Number of Occupants/Workers: 400  
 Number of Personal Computers: 350  
 Are windows tinted with solar reflective material? No  
 If Yes, What Percentage? \_\_\_\_\_

EQUIPMENT INFORMATION

Type of Lighting and Percentage: Incandescent 5% Fluorescent 95%  
 Has the Lighting been Retrofitted in the Last Five Years? (yes/no) No  
 If Yes, What Type, What Percentage? \_\_\_\_\_  
 Will There be Lighting Retrofits in the Next Five Years: No  
 Total Building Percentage Area Cooled 100%  
 Type of Main Air Conditioning Equipment Chilled Water A/C System  
 Has the Air Conditioning been Retrofitted in the Last Five years? (yes/no) Yes  
 If Yes, Describe Retrofit Details: Replaced Chiller, Cooling Towers and Outside Air Pre-cooler AHU  
 Will There be Air Conditioning Retrofits in the Next Five Years: Maybe  
 Any Other Large Miscellaneous Equipment Electric Loads and Capacities? \_\_\_\_\_

Other comments

STATE BUILDINGS ENERGY SURVEY FORM

GENERAL INFORMATION

State Department Name: Department of Transportation
Building Name: Kapalama Military Reserves (40 Pier)
Building Address:
Contact Person name, Telephone, and E-mail: Manuel Lanuevo, 838-8804,
HECO Account Number(s) 0000-3507-002

BUILDING INFORMATION

METER DISCONNECTED

Building Operation Hours: Weekdays: Saturday: Sunday: Holiday:
Building type of occupancy: Office School Warehouse Other (describe)
Building Year of Construction:
Building Occupied (Sq.Ft.) Area (excluding building perimeter and any parking area):
Building Gross (Sq.Ft.) Area (including any parking area):
Is there an attached parking garage/lot that you provide electricity?
If yes, what is the parking garage/lot square footage?
Number of Floors:
Number of Occupants/Workers:
Number of Personal Computers:
Are windows tinted with solar reflective material?
If Yes, What Percentage?

EQUIPMENT INFORMATION

Type of Lighting and Percentage: Incandescent Fluorescent
Has the Lighting been Retrofitted in the Last Five Years? (yes/no)
If Yes, What Type, What Percentage?
Will There be Lighting Retrofits in the Next Five Years:
Total Building Percentage Area Cooled
Type of Main Air Conditioning Equipment
Has the Air Conditioning been Retrofitted in the Last Five years? (yes/no)
If Yes, Describe Retrofit Details:
Will There be Air Conditioning Retrofits in the Next Five Years:
Any Other Large Miscellaneous Equipment Electric Loads and Capacities?
Other comments

STATE BUILDINGS ENERGY SURVEY FORM

GENERAL INFORMATION

State Department Name: Department of Transportation
Building Name: Central Concourse Vlt "Y"
Building Address: 301 Rodgers BV
Contact Person name, Telephone, and E-mail: Manuel Lanuevo, 838-8804,
HECO Account Number(s) 8800-6364-076

BUILDING INFORMATION

Building Operation Hours: Weekdays: XX Saturday: XX Sunday: XX Holiday: XX
Building type of occupancy: Office School Warehouse Other (describe) Airport
Building Year of Construction: over 20 years
Building Occupied (Sq.Ft.) Area (excluding building perimeter and any parking area): 446,860
Building Gross (Sq.Ft.) Area (including any parking area): same as above
Is there an attached parking garage/lot that you provide electricity?
If yes, what is the parking garage/lot square footage?
Number of Floors: 2 levels
Number of Occupants/Workers: unknown
Number of Personal Computers: unknown
Are windows tinted with solar reflective material? No
If Yes, What Percentage?

EQUIPMENT INFORMATION

Type of Lighting and Percentage: Incandescent 40% Fluorescent 60%
Has the Lighting been Retrofitted in the Last Five Years? (yes/no) Yes
If Yes, What Type, What Percentage? T-8, 32 w.
Will There be Lighting Retrofits in the Next Five Years: Not sure
Total Building Percentage Area Cooled 85%
Type of Main Air Conditioning Equipment Chill water system, Air handling Units
Has the Air Conditioning been Retrofitted in the Last Five years? (yes/no) No
If Yes, Describe Retrofit Details:
Will There be Air Conditioning Retrofits in the Next Five Years: Yes in planning
Any Other Large Miscellaneous Equipment Electric Loads and Capacities? Elevators and Escalators
Other comments

STATE BUILDINGS ENERGY SURVEY FORM

GENERAL INFORMATION

State Department Name: Department of Transportation
Building Name: Ewa Chiller Plant
Building Address: 3651 Aolele Street
Contact Person name, Telephone, and E-mail: Manuel Lanuevo, 838-8804,
HECO Account Number(s) 9201-0482-002

BUILDING INFORMATION

Building Operation Hours: Weekdays: XX Saturday: XX Sunday: XX Holiday: XX
Building type of occupancy: Office School Warehouse Other (describe) Airport
Building Year of Construction: over 20 years
Building Occupied (Sq.Ft.) Area (excluding building perimeter and any parking area): 62,590
Building Gross (Sq.Ft.) Area (including any parking area): same as above
Is there an attached parking garage/lot that you provide electricity? no
If yes, what is the parking garage/lot square footage?
Number of Floors: 1 levels
Number of Occupants/Workers: unknown
Number of Personal Computers: unknown
Are windows tinted with solar reflective material? No
If Yes, What Percentage?

EQUIPMENT INFORMATION

Type of Lighting and Percentage: Incandescent 0% Fluorescent 100%
Has the Lighting been Retrofitted in the Last Five Years? (yes/no) Yes
If Yes, What Type, What Percentage? T-8, 32 w.
Will There be Lighting Retrofits in the Next Five Years: Not sure
Total Building Percentage Area Cooled 0%
Type of Main Air Conditioning Equipment Chill water system, Air handling Units
Has the Air Conditioning been Retrofitted in the Last Five years? (yes/no) No
If Yes, Describe Retrofit Details:
Will There be Air Conditioning Retrofits in the Next Five Years: Yes in planning
Any Other Large Miscellaneous Equipment Electric Loads and Capacities? None
Other comments:

STATE BUILDINGS ENERGY SURVEY FORM

GENERAL INFORMATION

State Department Name: Department of Transportation
Building Name: Commuter Terminal Building
Building Address: 300 Rodgers BV
Contact Person name, Telephone, and E-mail: Manuel Lanuevo, 838-8804,
HECO Account Number(s) 8800-6365-075

BUILDING INFORMATION

Building Operation Hours: Weekdays: XX Saturday: XX Sunday: XX Holiday: XX
Building type of occupancy: Office School Warehouse Other (describe) Airport
Building Year of Construction: over 15 years
Building Occupied (Sq.Ft.) Area (excluding building perimeter and any parking area): 87,510
Building Gross (Sq.Ft.) Area (including any parking area): same as above
Is there an attached parking garage/lot that you provide electricity? no
If yes, what is the parking garage/lot square footage?
Number of Floors: 2 levels
Number of Occupants/Workers: unknown
Number of Personal Computers: unknown
Are windows tinted with solar reflective material? No
If Yes, What Percentage?

EQUIPMENT INFORMATION

Type of Lighting and Percentage: Incandescent 40% Fluorescent 60%
Has the Lighting been Retrofitted in the Last Five Years? (yes/no) Yes
If Yes, What Type, What Percentage? T-8, 32 w.
Will There be Lighting Retrofits in the Next Five Years: Not sure
Total Building Percentage Area Cooled 55%
Type of Main Air Conditioning Equipment Chill water system, Air handling Units
Has the Air Conditioning been Retrofitted in the Last Five years? (yes/no) No
If Yes, Describe Retrofit Details:
Will There be Air Conditioning Retrofits in the Next Five Years: Yes in planning
Any Other Large Miscellaneous Equipment Electric Loads and Capacities? No
Other comments:



STATE BUILDINGS ENERGY SURVEY FORM

GENERAL INFORMATION

State Department Name: Department of Transportation
Building Name: Diamond Head Concourse
Building Address: 303 Rodgers BV #373
Contact Person name, Telephone, and E-mail: Manuel Lanuevo, 838-8804,
HECO Account Number(s) 8800-6360-075

BUILDING INFORMATION

Building Operation Hours: Weekdays: XX Saturday: XX Sunday: XX Holiday: XX
Building type of occupancy: Office School Warehouse Other (describe) Airport
Building Year of Construction: over 20 years
Building Occupied (Sq.Ft.) Area (excluding building perimeter and any parking area): 619,860
Building Gross (Sq.Ft.) Area (including any parking area): same as above
Is there an attached parking garage/lot that you provide electricity? no
If yes, what is the parking garage/lot square footage?
Number of Floors: 3 levels
Number of Occupants/Workers: unknown
Number of Personal Computers: unknown
Are windows tinted with solar reflective material? No
If Yes, What Percentage?

EQUIPMENT INFORMATION

Type of Lighting and Percentage: Incandescent 40% Fluorescent 60%
Has the Lighting been Retrofitted in the Last Five Years? (yes/no) Yes
If Yes, What Type, What Percentage? T-8, 32 w.
Will There be Lighting Retrofits in the Next Five Years: Not sure
Total Building Percentage Area Cooled 80%
Type of Main Air Conditioning Equipment Chill water system, Air handling Units
Has the Air Conditioning been Retrofitted in the Last Five years? (yes/no) No
If Yes, Describe Retrofit Details:
Will There be Air Conditioning Retrofits in the Next Five Years: Yes in planning
Any Other Large Miscellaneous Equipment Electric Loads and Capacities? Elevators and Escalators
Other comments:

STATE BUILDINGS ENERGY SURVEY FORM

GENERAL INFORMATION

State Department Name: Department of Transportation
Building Name: Diamond Head Extension
Building Address: 301 Rodgers BV#A
Contact Person name, Telephone, and E-mail: Manuel Lanuevo, 838-8804,
HECO Account Number(s) 8800-6358-076

BUILDING INFORMATION

Building Operation Hours: Weekdays: XX Saturday: XX Sunday: XX Holiday: XX
Building type of occupancy: Office School Warehouse Other (describe) Airport
Building Year of Construction: over 15 years
Building Occupied (Sq.Ft.) Area (excluding building perimeter and any parking area): 1,253,240
Building Gross (Sq.Ft.) Area (including any parking area): 0
Is there an attached parking garage/lot that you provide electricity? No
If yes, what is the parking garage/lot square footage? 0
Number of Floors: 3 levels and basement
Number of Occupants/Workers: unknown
Number of Personal Computers: unknown
Are windows tinted with solar reflective material? No
If Yes, What Percentage?

EQUIPMENT INFORMATION

Type of Lighting and Percentage: Incandescent 40% Fluorescent 60%
Has the Lighting been Retrofitted in the Last Five Years? (yes/no) Yes
If Yes, What Type, What Percentage? T-8, 32 w.
Will There be Lighting Retrofits in the Next Five Years: Not sure
Total Building Percentage Area Cooled 25%
Type of Main Air Conditioning Equipment Chill water system, Air handling Units
Has the Air Conditioning been Retrofitted in the Last Five years? (yes/no) No
If Yes, Describe Retrofit Details:
Will There be Air Conditioning Retrofits in the Next Five Years: Yes, in planning
Any Other Large Miscellaneous Equipment Electric Loads and Capacities? Elevators and Escalators
Other comments:

STATE BUILDINGS ENERGY SURVEY FORM

GENERAL INFORMATION

State Department Name: Department of Transportation
Building Name: Ewa Concourse Gates
Building Address: 3661 Aolele Street
Contact Person name, Telephone, and E-mail: Manuel Lanuevo, 838-8804,
HECO Account Number(s) 9300-4842-002

BUILDING INFORMATION

Building Operation Hours: Weekdays: XX Saturday: XX Sunday: XX Holiday: XX
Building type of occupancy: Office School Warehouse Other (describe) Airport
Building Year of Construction: over 20 years
Building Occupied (Sq.Ft.) Area (excluding building perimeter and any parking area): 333,000
Building Gross (Sq.Ft.) Area (including any parking area): same as above
Is there an attached parking garage/lot that you provide electricity? No
If yes, what is the parking garage/lot square footage?
Number of Floors: 3 levels
Number of Occupants/Workers: unknown
Number of Personal Computers: unknown
Are windows tinted with solar reflective material? No
If Yes, What Percentage?

EQUIPMENT INFORMATION

Type of Lighting and Percentage: Incandescent 40% Fluorescent 60%
Has the Lighting been Retrofitted in the Last Five Years? (yes/no) Yes
If Yes, What Type, What Percentage? T-8, 32 w.
Will There be Lighting Retrofits in the Next Five Years: Not sure
Total Building Percentage Area Cooled 75%
Type of Main Air Conditioning Equipment Chill water system, Air handling Units
Has the Air Conditioning been Retrofitted in the Last Five years? (yes/no) No
If Yes, Describe Retrofit Details:
Will There be Air Conditioning Retrofits in the Next Five Years: Yes in planning
Any Other Large Miscellaneous Equipment Electric Loads and Capacities? Elevators and Escalators
Other comments:

STATE BUILDINGS ENERGY SURVEY FORM

GENERAL INFORMATION

State Department Name: Department of Transportation
Building Name: IAB VAULT "B"
Building Address: 302 Rodgers BV#344
Contact Person name, Telephone, and E-mail: Manuel Lanuevo, 838-8804,
HECO Account Number(s) 8800-6352-076

BUILDING INFORMATION

Building Operation Hours: Weekdays: XX Saturday: XX Sunday: XX Holiday: XX
Building type of occupancy: Office School Warehouse Other (describe) Airport
Building Year of Construction: over 30 years
Building Occupied (Sq.Ft.) Area (excluding building perimeter and any parking area): 1,129,200
Building Gross (Sq.Ft.) Area (including any parking area): same as above
Is there an attached parking garage/lot that you provide electricity? no
If yes, what is the parking garage/lot square footage?
Number of Floors: 3 level and basement
Number of Occupants/Workers: unknown
Number of Personal Computers: unknown
Are windows tinted with solar reflective material? No
If Yes, What Percentage?

EQUIPMENT INFORMATION

Type of Lighting and Percentage: Incandescent 40% Fluorescent 60%
Has the Lighting been Retrofitted in the Last Five Years? (yes/no) Yes
If Yes, What Type, What Percentage? T-8, 32 w.
Will There be Lighting Retrofits in the Next Five Years: Not sure
Total Building Percentage Area Cooled 60%
Type of Main Air Conditioning Equipment Chill water system, Air handling Units
Has the Air Conditioning been Retrofitted in the Last Five years? (yes/no) No
If Yes, Describe Retrofit Details:
Will There be Air Conditioning Retrofits in the Next Five Years: Yes in planning
Any Other Large Miscellaneous Equipment Electric Loads and Capacities? Elevators and Escalators
Other comments:

STATE BUILDINGS ENERGY SURVEY FORM

GENERAL INFORMATION

State Department Name: Department of Transportation
Building Name: Inter - Island Terminal Building
Building Address: 3650 Aolele Street
Contact Person name, Telephone, and E-mail: Manuel Lanuevo, 838-8804,
HECO Account Number(s) 9300-0115-002

BUILDING INFORMATION

Building Operation Hours: Weekdays: XX Saturday: XX Sunday: XX Holiday: XX
Building type of occupancy: Office School Warehouse Other (describe) Airport
Building Year of Construction: over 10 years
Building Occupied (Sq.Ft.) Area (excluding building perimeter and any parking area): 692,041
Building Gross (Sq.Ft.) Area (including any parking area): 1,384,082
Is there an attached parking garage/lot that you provide electricity? yes
If yes, what is the parking garage/lot square footage? 692,041
Number of Floors: 7 levels
Number of Occupants/Workers: unknown
Number of Personal Computers: unknown
Are windows tinted with solar reflective material? No
If Yes, What Percentage?

EQUIPMENT INFORMATION

Type of Lighting and Percentage: Incandescent 30% Fluorescent 70%
Has the Lighting been Retrofitted in the Last Five Years? (yes/no) Yes
If Yes, What Type, What Percentage? T-8, 32 w.
Will There be Lighting Retrofits in the Next Five Years: Not sure
Total Building Percentage Area Cooled 35%
Type of Main Air Conditioning Equipment Chill water system, Air handling Units
Has the Air Conditioning been Retrofitted in the Last Five years? (yes/no) No
If Yes, Describe Retrofit Details:
Will There be Air Conditioning Retrofits in the Next Five Years: Yes in planning
Any Other Large Miscellaneous Equipment Electric Loads and Capacities? Elevators and Escalators
Other comments:

STATE BUILDINGS ENERGY SURVEY FORM

GENERAL INFORMATION

State Department Name: Department of Transportation
Building Name: SVC CRT VLT "C"
Building Address: 302 Rodgers BV#342
Contact Person name, Telephone, and E-mail: Manuel Lanuevo, 838-8804,
HECO Account Number(s) 8800-6359-076

BUILDING INFORMATION

Building Operation Hours: Weekdays: XX Saturday: XX Sunday: XX Holiday: XX
Building type of occupancy: Office School Warehouse Other (describe) Airport
Building Year of Construction: over 30 years
Building Occupied (Sq.Ft.) Area (excluding building perimeter and any parking area): 342,414
Building Gross (Sq.Ft.) Area (including any parking area): same as above
Is there an attached parking garage/lot that you provide electricity? no
If yes, what is the parking garage/lot square footage?
Number of Floors: 3 levels
Number of Occupants/Workers: unknown
Number of Personal Computers: unknown
Are windows tinted with solar reflective material? No
If Yes, What Percentage?

EQUIPMENT INFORMATION

Type of Lighting and Percentage: Incandescent 40% Fluorescent 60%
Has the Lighting been Retrofitted in the Last Five Years? (yes/no) Yes
If Yes, What Type, What Percentage? T-8, 32 w.
Will There be Lighting Retrofits in the Next Five Years: Not sure
Total Building Percentage Area Cooled 30%
Type of Main Air Conditioning Equipment Chill water system, Air handling Units
Has the Air Conditioning been Retrofitted in the Last Five years? (yes/no) No
If Yes, Describe Retrofit Details:
Will There be Air Conditioning Retrofits in the Next Five Years: Yes in planning
Any Other Large Miscellaneous Equipment Electric Loads and Capacities? Elevators and Escalators
Other comments:

STATE BUILDINGS ENERGY SURVEY FORM

GENERAL INFORMATION

State Department Name: Department of Transportation
Building Name: Ewa VLT "E"
Building Address: 304 Rodgers BV#360
Contact Person name, Telephone, and E-mail: Manuel Lanuevo, 838-8804,
HECO Account Number(s): 8800-6353-076

BUILDING INFORMATION

Building Operation Hours: Weekdays: XX Saturday: XX Sunday: XX Holiday: XX
Building type of occupancy: Office School Warehouse Other (describe) Airport
Building Year of Construction: over 30 years
Building Occupied (Sq.Ft.) Area (excluding building perimeter and any parking area): 651,060
Building Gross (Sq.Ft.) Area (including any parking area): same as above
Is there an attached parking garage/lot that you provide electricity? no
If yes, what is the parking garage/lot square footage?
Number of Floors: 3 levels
Number of Occupants/Workers: unknown
Number of Personal Computers: unknown
Are windows tinted with solar reflective material? No
If Yes, What Percentage?

EQUIPMENT INFORMATION

Type of Lighting and Percentage: Incandescent 40% Fluorescent 60%
Has the Lighting been Retrofitted in the Last Five Years? (yes/no) Yes
If Yes, What Type, What Percentage? T-8, 32 w.
Will There be Lighting Retrofits in the Next Five Years: Not sure
Total Building Percentage Area Cooled 86 %
Type of Main Air Conditioning Equipment Chill water system, Air handling Units
Has the Air Conditioning been Retrofitted in the Last Five years? (yes/no) No
If Yes, Describe Retrofit Details:
Will There be Air Conditioning Retrofits in the Next Five Years: Yes in planning
Any Other Large Miscellaneous Equipment Electric Loads and Capacities? Elevators and Escalators
Other comments:

STATE BUILDINGS ENERGY SURVEY FORM

GENERAL INFORMATION

State Department Name: Department of Transportation
Building Name: OST VLT "N"
Building Address: 302 Rodgers BV#336
Contact Person name, Telephone, and E-mail: Manuel Lanuevo, 838-8804,
HECO Account Number(s): 8800-6365-075

BUILDING INFORMATION

Building Operation Hours: Weekdays: XX Saturday: XX Sunday: XX Holiday: XX
Building type of occupancy: Office School Warehouse Other (describe) Airport
Building Year of Construction: over 30 years
Building Occupied (Sq.Ft.) Area (excluding building perimeter and any parking area): 531,516
Building Gross (Sq.Ft.) Area (including any parking area): same as above
Is there an attached parking garage/lot that you provide electricity? no
If yes, what is the parking garage/lot square footage?
Number of Floors: 1 to 3 levels and 11 floors tower with basement
Number of Occupants/Workers: unknown
Number of Personal Computers: unknown
Are windows tinted with solar reflective material? No
If Yes, What Percentage?

EQUIPMENT INFORMATION

Type of Lighting and Percentage: Incandescent 40% Fluorescent 60%
Has the Lighting been Retrofitted in the Last Five Years? (yes/no) Yes
If Yes, What Type, What Percentage? T-8, 32 w.
Will There be Lighting Retrofits in the Next Five Years: Not sure
Total Building Percentage Area Cooled 30%
Type of Main Air Conditioning Equipment Chill water system, Air handling Units
Has the Air Conditioning been Retrofitted in the Last Five years? (yes/no) No
If Yes, Describe Retrofit Details:
Will There be Air Conditioning Retrofits in the Next Five Years: Yes in planning
Any Other Large Miscellaneous Equipment Electric Loads and Capacities? Elevators and Escalators
Other comments:

**STATE BUILDINGS ENERGY SURVEY FORM**

GENERAL INFORMATION

State Department Name: Department of Transportation  
Building Name: Overseas Terminal Parking Structure  
Building Address: 300 Rodgers BV#355  
Contact Person name, Telephone, and E-mail: Manuel Lanuevo, 838-8804,  
HECO Account Number(s) 8800-6357-075

BUILDING INFORMATION

Building Operation Hours: Weekdays: XX Saturday: XX Sunday: XX Holiday: XX  
Building type of occupancy: Office      School      Warehouse      Other (describe) Airport

Building Year of Construction: over 30 years

Building Occupied (Sq.Ft.) Area (excluding building perimeter and any parking area): 0  
Building Gross (Sq.Ft.) Area (including any parking area): 950,000

Is there an attached parking garage/lot that you provide electricity? Yes  
If yes, what is the parking garage/lot square footage? 950,000

Number of Floors: 5 levels

Number of Occupants/Workers: unknown

Number of Personal Computers: unknown

Are windows tinted with solar reflective material? No  
If Yes, What Percentage?     

EQUIPMENT INFORMATION

Type of Lighting and Percentage: Incandescent 40% Fluorescent 60%  
Has the Lighting been Retrofitted in the Last Five Years? (yes/no) Yes  
If Yes, What Type, What Percentage? T-8, 32 w,  
Will There be Lighting Retrofits in the Next Five Years: Not sure

Total Building Percentage Area Cooled 0%  
Type of Main Air Conditioning Equipment       
Has the Air Conditioning been Retrofitted in the Last Five years? (yes/no) No  
If Yes, Describe Retrofit Details:     

Will There be Air Conditioning Retrofits in the Next Five Years:     

Any Other Large Miscellaneous Equipment Electric Loads and Capacities?     

Other comments:

APPENDIX 7.0

UH Manoa Campus Energy Benchmarking Study ECM Spreadsheet Analysis

UNIVERSITY OF HAWAII AT MANOA ENERGY BENCHMARK ANALYSIS

Building Name	Building Type	Oper. Sched. hr	Year-Built	Area (sq.ft.)	ECM I Interior and exterior lighting replacement							ECM II LED exit sign Installation							ECM III Window Tinting sc=0.4							ECM I, II & III Savings AUDIT				ECM I, II & III AUDIT Const. Cost		ECM I, II & III AUDIT Const. Cost/sf.		ECM I, II & III AUDIT Payback
					Est. Energy Savings (kWh/year)	Est. Cost Savings (kWh/sf.-year)	Est. Cost Savings (\$/year)	Est. Construction Costs (\$/sq.ft.-year)	Est. Construction Costs (\$)	Est. Construction Costs (\$/sq.ft.-year)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Cost Savings (kWh/sf.-year)	Est. Cost Savings (\$/year)	Est. Construction Costs (\$/sq.ft.-year)	Est. Construction Costs (\$)	Est. Construction Costs (\$/sq.ft.-year)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Cost Savings (kWh/sf.-year)	Est. Cost Savings (\$/year)	Est. Construction Costs (\$/sq.ft.-year)	Est. Construction Costs (\$)	Est. Construction Costs (\$/sq.ft.-year)	Payback (year)	kWh/year	(kWh/sf.ft.-year)	\$/year	(\$/sq.ft.-year)	Const. Cost \$	Const. Cost/sf. \$/sq.ft.	Payback year		
					(kWh/year)	(kWh/sf.ft.-year)	(\$/year)	(\$/sq.ft.-year)	(\$)	(\$/sq.ft.-year)	(year)	(kWh/year)	(kWh/sf.ft.-year)	(\$/year)	(\$/sq.ft.-year)	(\$)	(\$/sq.ft.-year)	(year)	(kWh/year)	(kWh/sf.ft.-year)	(\$/year)	(\$/sq.ft.-year)	(\$)	(\$/sq.ft.-year)	(year)	(kWh/year)	(kWh/sf.ft.-year)	\$/year	(\$/sq.ft.-year)	\$	\$/sq.ft.	year		
<b>LAB/ CLASS</b>																																		
<b>ENERGY AUDIT and ELECTRICITY METER AVAILABLE</b>																																		
Bilger Addition	lab/class	24	1975	55,745	97,565	1.75	9,173	0.16	105,203	1.89	11.47	14,249	0.26	3,911	0.07	9,914	0.18	2.53	--	--	--	--	--	--	111,814	2.01	13,084	0.23	118,156	2.12	9.03			
Sherman Lab	lab/class	24	1985	38,388	68,158	1.78	6,286	0.16	54,694	1.42	8.70	1,852	0.05	344	0.01	1,163	0.03	3.38	--	--	--	--	--	70,010	1.82	6,630	0.17	118,156	3.08	17.82				
<b>Sub-TOTAL</b>				<b>94,133</b>	<b>165,723</b>	<b>1.76</b>	<b>15,459</b>	<b>0.16</b>	<b>159,897</b>	<b>1.70</b>	<b>10.34</b>	<b>16,101</b>	<b>0.17</b>	<b>4,255</b>	<b>0.05</b>	<b>11,077</b>	<b>0.12</b>	<b>2.60</b>						<b>181,824</b>	<b>1.93</b>	<b>19,714</b>	<b>0.21</b>	<b>236,312</b>	<b>2.51</b>	<b>11.99</b>				
<b>ONLY ENERGY AUDIT AVAILABLE</b>																																		
<b>NONE</b>																																		
				<b>94,133</b>																														
<b>ONLY ELECTRICITY METER AVAILABLE</b>																																		
<b>NONE</b>																																		
<b>NO ELECTRICITY METER or ENERGY AUDIT AVAILABLE</b>																																		
<b>NONE</b>																																		
<b>TOTAL</b>				<b>94,133</b>	<b>165,723</b>	<b>1.76</b>	<b>15,459</b>	<b>0.16</b>	<b>159,897</b>	<b>1.70</b>	<b>10.34</b>	<b>16,101</b>	<b>0.17</b>	<b>4,255</b>	<b>0.05</b>	<b>11,077</b>	<b>0.12</b>	<b>2.60</b>						<b>181,824</b>	<b>1.93</b>	<b>19,714</b>	<b>0.21</b>	<b>236,312</b>	<b>2.51</b>	<b>11.99</b>				







UNIVERSITY OF HAWAII AT MANOA ENERGY BENCHMARK ANALYSIS

		ECM I Interior and exterior lighting replacement										ECM II LED exit sign Installation						ECM III Window Tinting sc=0.4						ECM I, II & III Savings AUDIT				ECM I, II & III AUDIT Const. Cost	ECM I, II & III AUDIT Const. Cost/sf.	ECM I, II & III AUDIT Payback year						
Building Name	Building Type	Oper. Sched. hr	Year-Built	Area (sq.ft.)	Est. Energy Savings			Est. Cost			Est. Construction Costs			Payback			Est. Energy Savings			Est. Cost			Est. Construction Costs			Payback			kWh/year	kWh/sf.ft.		\$/year	\$/sq.ft.	Cost \$	Cost/sf. \$/sq.ft.	Payback year
					(kWh/year)	(kWh/sf.ft. -year)	(\$/year)	(\$/sq.ft. -year)	(\$)	(\$/sq.ft. -year)	(year)	(kWh/year)	(kWh/sf.ft. -year)	(\$/year)	(\$/sq.ft. -year)	(\$)	(\$/sq.ft. -year)	(year)	(kWh/year)	(kWh/sf.ft. -year)	(\$/year)	(\$/sq.ft. -year)	(\$)	(\$/sq.ft. -year)	(year)											
<b>CLASS/ OFFICE</b>																																				
<b>ENERGY AUDIT and ELECTRICITY METER AVAILABLE</b>																																				
Speech Pathology Bldg-171E*	class/office	12	1976	7,615	4,302	0.56	401	0.05	6,510	0.85	16.24	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4,302	0.56	401	0.05	6,510	0.85	16.24
Keller Hall	class/office	24	1959	49,193	64,654	1.31	6,086	0.12	54,286	1.10	8.92	1,787	0.04	276	0.01	1,666	0.03	6.04	—	—	—	—	—	—	—	—	—	—	66,441	1.35	6,362	0.13	55,952	1.14	8.79	
Business Admin.	class/office	24	1972	129,143	168,689	1.31	16,454	0.13	172,509	1.34	10.48	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	168,689	1.31	16,454	0.13	172,509	1.34	10.48		
Architecture School	class/office	24	1993	50,020	74,063	1.48	7,222	0.14	46,350	0.93	6.42	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	74,063	1.48	7,222	0.14	46,350	0.93	6.42		
Webster Hall	class/office	24	1961	59,559	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Speech Pathology Bldg-171F*	class/office	12	1976	6,650	24,604	3.70	2,279	0.34	38,953	5.86	17.10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	24,604	3.70	2,279	0.34	38,953	5.86	17.10		
Sakamaki Hall	class/office	12	1974	58,230	128,179	2.20	14,984	0.26	137,186	2.36	9.16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	128,179	2.20	14,984	0.26	137,186	2.36	9.16		
Social Science	class/office	15	1973	126,738	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Miller Hall*	class/office	24	1939	19,273	13,644	0.71	971	0.05	10,752	0.56	11.07	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	13,644	0.71	971	0.05	10,752	0.56	11.07		
Physical Education	class/office	10	1970	45,238	78,322	1.73	7,597	0.17	77,729	1.72	10.23	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	78,322	1.73	7,597	0.17	77,729	1.72	10.23		
Moore Hall*	class/office	24	1966	80,882	192,741	2.38	18,461	0.23	140,687	1.74	7.62	13,374	0.17	5,840	0.07	18,411	0.23	3.15	—	—	—	—	—	—	—	—	—	206,115	2.55	24,301	0.30	159,098	1.97	6.55		
Law School*	class/office	24	1985	53,100	36,263	0.68	3,418	0.06	40,044	0.75	11.72	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	36,263	0.68	3,418	0.06	40,044	0.75	11.72		
Music Bldg #1 (1093A)*	class/office	10	1959	5,840	10,708	1.83	1,393	0.24	11,431	1.96	8.21	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10,708	1.83	1,393	0.24	11,431	1.96	8.21			
Kuykendall Hall	class/office	10	1964	86,492	130,690	1.51	13,468	0.16	69,107	0.80	5.13	8,382	0.10	3,050	0.04	9,064	0.10	2.97	3,995	0.05	388	0.00	2,656	0.03	6.85	—	—	143,067	1.65	16,906	0.20	80,827	0.93	4.78		
Music Bldg #3 (1093C)*	class/office	10	1959	1,950	5,925	3.04	981	0.50	3,650	1.87	3.72	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5,925	3.04	981	0.50	3,650	1.87	3.72			
Music Bldg #2 (1093B)*	class/office	10	1959	1,120	2,196	1.96	290	0.26	1,168	1.04	4.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2,196	1.96	290	0.26	1,168	1.04	4.03			
Orvis Auditorium*	class/office	10	1962	7,432	12,811	1.72	1,316	0.18	9,915	1.33	7.53	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12,811	1.72	1,316	0.18	9,915	1.33	7.53			
<b>Sub-TOTAL</b>				<b>788,475</b>	<b>947,791</b>	<b>1.20</b>	<b>95,320</b>	<b>0.12</b>	<b>820,278</b>	<b>1.04</b>	<b>8.61</b>	<b>23,543</b>	<b>0.03</b>	<b>9,166</b>	<b>0.01</b>	<b>29,141</b>	<b>0.04</b>	<b>3.18</b>	<b>81,620</b>	<b>0.10</b>	<b>5,124</b>	<b>0.01</b>	<b>36,384</b>	<b>0.05</b>	<b>7.10</b>		<b>1,052,954</b>	<b>1.34</b>	<b>109,610</b>	<b>0.14</b>	<b>885,803</b>	<b>1.12</b>	<b>8.08</b>			
<b>ONLY ENERGY AUDIT AVAILABLE</b>																																				
<b>NONE</b>				<b>788,475</b>																																
<b>ONLY ELECTRICITY METER AVAILABLE</b>																																				
Wist Hall	class/office		1930	24,591	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Wist Hall Annex Addition	class/office		1979	20,625	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
University High School #3*	class/office		1957	27,241	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Wist Annex 1, University High S. 1 & 2*	class/office		1943	26,292	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Burns Hall	class/office			55,000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
George Hall	class/office		1922	47,761	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Hawaiian Studies	class/office		1996	22,100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Dean Hall*	class/office		1989	18,764	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Lincoln Hall	class/office		1959	43,538	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Jefferson Hall	class/office		1963	61,558	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Klum Gym.	class/office		1958	23,884	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Spalding Hall	class/office		1961	33,012	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Crawford Hall	class/office		1938	24,663	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
New Music Building	class/office		1973	49,970	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Dance Building*	class/office		1978	4,188	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Kennedy Theatre	class/office		1963	46,752	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
<b>Sub-TOTAL</b>				<b>529,939</b>																																
<b>NO ELECTRICITY METER or ENERGY AUDIT AVAILABLE</b>																																				
East West Building # 1,5,6,3,7	class/office		1977	5,150	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
1881 East West PB # 1,2	class/office		1995	8,000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
University Elementary School*	class																																			

UNIVERSITY OF HAWAII AT MANOA ENERGY BENCHMARK ANALYSIS					ECM I Interior and exterior lighting replacement							ECM II LED exit sign Installation							ECM III Window Tinting sc=0.4							ECM I, II & III Savings AUDIT				ECM I, II & III AUDIT Const. Cost		ECM I, II & III AUDIT Const. Cost/sf.		ECM I, II & III AUDIT Payback
Building Name	Building Type	Oper. Sched. hr	Year-Built	Area (sq.ft.)	Est. Energy Savings (kWh/year)	Est. Cost (\$/year)	Est. Construction (\$/sq.ft.)	Est. Costs (\$)	Est. Construction (\$/sq.ft.)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Cost (\$/year)	Est. Construction (\$/sq.ft.)	Est. Costs (\$)	Est. Construction (\$/sq.ft.)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Cost (\$/year)	Est. Construction (\$/sq.ft.)	Est. Costs (\$)	Est. Construction (\$/sq.ft.)	Payback (year)	kWh/year	(kWh/sf.ft.)	(\$/year)	(\$/sq.ft.)	Const. Cost \$	Const. Cost/sf. \$/sq.ft.	Payback year					
<b>OFFICE</b>																																		
<b>ENERGY AUDIT and ELECTRICITY METER AVAILABLE</b>																																		
Student Services Center	office	24	1994	80,000	—	—	—	—	—	—	—	—	—	—	—	—	20,756	0.26	2,554	0.03	30,800	0.39	12.06	20,756	0.26	2,554	0.03	30,800	0.39	12.06				
Bachman Hall and Annexes	office	12	1977	28,070	32,295	1.15	3,974	0.14	19,959	0.71	5.02	—	—	—	—	—	—	—	—	—	—	—	—	32,295	—	3,974	0.14	19,959	0.71	5.02				
Sinclair Hall	office	12	1956	3,687	9,076	2.46	907	0.25	7,220	1.96	7.96	—	—	—	—	—	—	—	—	—	—	—	—	9,076	—	907	0.25	7,220	1.96	7.96				
Henke Hall	office	10	1957	20,886	68,244	3.30	7,715	0.37	56,557	2.73	7.33	—	—	—	—	—	6,044	0.29	586	0.03	3,008	0.15	5.13	74,288	3.59	8,301	0.40	59,565	2.88	7.18				
<b>Sub-TOTAL</b>				<b>132,443</b>	<b>109,615</b>	<b>0.83</b>	<b>12,596</b>	<b>0.10</b>	<b>83,736</b>	<b>0.63</b>	<b>6.65</b>						<b>26,800</b>	<b>0.20</b>	<b>3,140</b>	<b>0.02</b>	<b>33,808</b>	<b>0.26</b>	<b>10.77</b>	<b>136,415</b>	<b>1.03</b>	<b>15,736</b>	<b>0.12</b>	<b>117,544</b>	<b>0.89</b>	<b>7.47</b>				
<b>ONLY ENERGY AUDIT AVAILABLE</b>																																		
Krauss Hall and Annexes 1 & 2	office	14	1971	21,611	34,414	1.59	3,477	0.16	21,808	1.01	6.27	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
ROTC Building	office	10	1992	5,178	7,694	1.49	736	0.14	6,734	1.30	9.15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
<b>Sub-TOTAL</b>				<b>26,789</b>	<b>42,108</b>	<b>1.57</b>	<b>4,213</b>	<b>0.16</b>	<b>28,542</b>	<b>1.07</b>	<b>6.78</b>																							
				<b>159,232</b>																														
<b>ONLY ELECTRICITY METER AVAILABLE</b>																																		
Weather Bureau	office		1963	22,000																														
Building 37	office		1931	3,655																														
Center for Korean Studies	office		1980	16,569																														
Engineering Quad A+B	office		1928	7,007																														
Bilger Annex # 1 & 2	office		1971	3,624																														
<b>Sub-TOTAL</b>				<b>52,855</b>																														
<b>NO ELECTRICITY METER or ENERGY AUDIT AVAILABLE</b>																																		
Makai Campus Portable offices	office		1977	12,430																														
Hawaii Hall	office		1912	36,849																														
Financial Management B	office		1992	710																														
Financial Management C	office		1922	710																														
Fiscal Service A	office		1992	710																														
Fiscal Service Office	office		1977	1,303																														
PPMO/Accounting	office		1977	7,945																														
Contracts and Grants	office		1977	1,470																														
Keypunch Section	office		1977	1,295																														
Lunaili Freeway Building 1	office		1977	1,757																														
Lower Campus Portables	office		1976	7,768																														
Air Force ROTC	office		1977	3,769																														
National Marine Fisheries Srvc	Office			4,100																														
Lincoln Annexes 1&2	office		1971	3,530																														
Physical Plant Annex # 1, 2	office		1970	3,880																														
Physical Plant Building	office		1963	4,302																														
Malle Way Annexes	office		1967	1,859																														
Campus Security	office		1977	1,741																														
Diving Safety Program	office			700																														
Environmental Health and Safety Office	office		1995	2,530																														
Landscaping*	office			400																														
Transportation Service*	office		1984	1,400																														
Environmental Protection Service	office			1,300																														
Federal Credit Union	office		1914	1,309																														
Energy House*	office		1978	1,800																														
Maintenance Service Building*	office		1970	3,900																														
Parasitology Lab	office		1930	1,816																														
Castle Memorial Caretakers Cottage*	office		1941	1,678																														
Miller Hall Annex	office		1948	1,348																														
High School Locker Building*	office		1959	2,436																														
Center for Student Development	office		1952	13,733																														
Castle Annex*	office		1945	3,488																														
UH Press	office		1977	12,536																														
KITV	office		1973	20,803																														
Dole St. Offices	office		1940	7,400																														
Frear	office		1952	32,711																														
University Avenue Annexes	office		1977	6,994																														
<b>Sub-TOTAL</b>				<b>214,410</b>																														
				<b>426,497</b>	<b>151,723</b>	<b>0.36</b>	<b>16,809</b>	<b>0.04</b>	<b>112,278</b>	<b>0.26</b>	<b>6.68</b>						<b>26,800</b>	<b>0.06</b>	<b>3,140</b>	<b>0.01</b>	<b>33,808</b>	<b>0.08</b>	<b>0.08</b>	<b>136,415</b>	<b>0.32</b>	<b>15,736</b>	<b>1.27</b>	<b>117,544</b>	<b>9.46</b>	<b>7.47</b>				

\* Energy Benchmark Redistributed by Campus Walkthrough  
 \*\* Building year data was not available, the listed date is estimate.



UNIVERSITY OF HAWAII AT MANOA ENERGY BENCHMARK ANALYSIS					ECM I Interior and exterior lighting replacement				ECM II LED exit sign Installation				ECM III Window Tinting sc=0.4				ECM I, II & III Savings AUDIT			ECM I, II & III AUDIT Const. Cost	ECM I, II & III AUDIT Const. Cost/sf.	ECM I, II & III AUDIT Payback year				
Building Name	Building Type	Oper. Sched. hr	Year-Built	Area (sq.ft.)	Est. Energy Savings	Est. Cost Savings	Est. Construction Costs		Payback	Est. Energy Savings	Est. Cost Savings	Est. Construction Costs		Payback	Est. Energy Savings	Est. Cost Savings	Est. Construction Costs		Payback	kWh/year	(kWh/sf.ft. -year)	(\$/year -year)	(\$/sq.ft. -year)	Cost \$	Cost/sf. \$/sq.ft.	Payback year
					(kWh/year)	(\$/year)	(\$/sq.ft. -year)	(\$)	(\$/sq.ft. -year)	(kWh/year)	(\$/year)	(\$/sq.ft. -year)	(\$)	(\$/sq.ft. -year)	(kWh/year)	(\$/year)	(\$/sq.ft. -year)	(\$)	(\$/sq.ft. -year)	(year)	(year)	(year)	(year)	(year)	(year)	(year)
<b>DORMITORY</b>																										
ENERGY AUDIT and ELECTRICITY METER AVAILABLE																										
NONE																										
ONLY ENERGY AUDIT AVAILABLE																										
NONE																										
ONLY ELECTRICITY METER AVAILABLE																										
Laulima	dorm		1968	38,446																						
Kahawaili	dorm		1963	37,578																						
Gateway	dorm		1963	65,283																						
Johnson Hall A	dorm		1962	26,830																						
Johnson Hall B	dorm		1958	22,951																						
Hale Aloha Lahua	dorm		1978	71,381																						
Hale Aloha Ilima	dorm		1977	71,315																						
Hale Aloha Mokihana	dorm		1978	71,315																						
Hale Aloha Lokelani	dorm		1978	71,381																						
Neolani	dorm		1978	107,800																						
Wainani	dorm		1978	203,361																						
Hale Kuahine	dorm		1963	31,752																						
Hale Manoa	dorm		1963	152,651																						
				<b>Sub-TOTAL</b>	<b>972,044</b>																					
NO ELECTRICITY METER or ENERGY AUDIT AVAILABLE																										
Hale Anuenue	dorm		1963	12,664																						
				<b>Sub-TOTAL</b>	<b>12,664</b>																					
				<b>TOTAL</b>	<b>984,708</b>																					

UNIVERSITY OF HAWAII AT MANOA ENERGY BENCHMARK ANALYSIS					ECM I Interior and exterior lighting replacement				ECM II LED exit sign Installation				ECM III Window Tinting sc=0.4				ECM I, II & III Savings AUDIT				ECM I, II & III AUDIT Const. Cost	ECM I, II & III AUDIT Const. Cost/sf.	ECM I, II & III AUDIT Payback										
Building Name	Building Type	Oper. Sched. hr	Year-Built	Area (sq.ft.)	Est. Energy Savings	Est. Cost Savings	Est. Construction Costs		Payback	Est. Energy Savings	Est. Cost Savings	Est. Construction Costs		Payback	Est. Energy Savings	Est. Cost Savings	Est. Construction Costs		Payback	kWh/year	(kWh/sf.-year)	\$/year	(\$/sq.ft.-year)	Cost \$	Cost/sf. \$/sq.ft.	Payback year							
					(kWh/year)	(kWh/sf.-year)	(\$/year)	(\$/sq.ft.-year)	Costs (\$)	(\$/sq.ft.-year)	(year)	(kWh/year)	(kWh/sf.-year)	(\$/year)	(\$/sq.ft.-year)	Costs (\$)	(\$/sq.ft.-year)	(year)	(kWh/year)	(kWh/sf.-year)	(\$/year)	(\$/sq.ft.-year)	Cost (\$)	Cost/sf. (\$/sq.ft.)	(\$/year)	(\$/sq.ft.-year)	Cost (\$)	Cost/sf. (\$/sq.ft.)	Payback year				
<b>FOOD/FACILITY/OFFICE</b>																																	
ENERGY AUDIT and ELECTRICITY METER AVAILABLE																																	
FOOD/FACILITY/OFFICE																																	
Auxiliary Services Building	food/facility/offc	24	1962	12,652	11,765	0.93	1,119	0.09	11,041	0.87	9.87	1,852	0.15	344	0.03	2,549	0.20	7.41	--	--	--	--	--	--	--	--	13,617	1.08	1,463	0.12	13,590	1.07	9.29
Sub-TOTAL					12,652	11,765	0.93	1,119	0.09	11,041	0.87	9.87	1,852	0.15	344	0.03	2,549	0.20	7.41	--	--	--	--	--	--	--	13,617	1.08	1,463	0.12	13,590	1.07	9.29
ONLY ENERGY AUDIT AVAILABLE																																	
NONE					12,652																												
ONLY ELECTRICITY METER AVAILABLE																																	
Campus Center	food/facility/offc		1974	133,342																													
Gateway Café	food/facility/offc		1963	10,000																													
Café Hale Aloha	food/facility/offc		1978	20,665																													
Paradise Palm	food/facility/offc		1964	9,439																													
Multipurpose Building	food/facility/offc		1963	12,664																													
Sub-TOTAL					186,110																												
<b>TOTAL</b>					198,762	11,765	0.06	1,119	0.01	11,041	0.06	9.87	1,852	0.01	344	0.00	2,549	0.01	7.41								13,617	0.07	1,463	0.01	13,590	0.07	9.29

UNIVERSITY OF HAWAII AT MANOA ENERGY BENCHMARK ANALYSIS

Building Name	Building Type	Oper. Sched. hr	Year-Built	Area (sq.ft.)	ECM I Interior and exterior lighting replacement							ECM II LED exit sign Installation							ECM III Window Tinting sc=0.4							ECM I, II & III Savings AUDIT				ECM I, II & III AUDIT Const. Cost	ECM I, II & III AUDIT Const. Cost/sf.	ECM I, II & III AUDIT Payback year
					Est. Energy Savings (kWh/year)	Est. Cost Savings (kWh/sf. -year)	Est. Construction Costs (\$/sq.ft. -year)	Est. Construction Costs (\$)	Est. Construction Costs (\$/sq.ft. -year)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Cost Savings (kWh/sf. -year)	Est. Construction Costs (\$/sq.ft. -year)	Est. Construction Costs (\$)	Est. Construction Costs (\$/sq.ft. -year)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Cost Savings (kWh/sf. -year)	Est. Construction Costs (\$/sq.ft. -year)	Est. Construction Costs (\$)	Est. Construction Costs (\$/sq.ft. -year)	Payback (year)	kWh/year	(kWh/sf. -year)	\$/year	(\$/sq.ft. -year)	\$	\$/sq.ft.	year			
<b>OTHER</b>																																
<b>ENERGY AUDIT and ELECTRICITY METER AVAILABLE</b>																																
<b>OTHER</b>																																
Stan Sherriff Multi Purpose Arena	arena	10	1977	190,000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Student Health B.D	clinic	10	1963	10,793	18,587	1.72	1,998	0.19	12,211	1.13	6.11	2,025	0.19	756	0.07	2,778	0.26	3.67	3,942	0.37	382	0.04	3,134	0.29	8.20	24,554	2.27	3,136	0.29	18,123	1.68	5.78
<b>Sub-TOTAL</b>				<b>200,793</b>	<b>18,587</b>	<b>0.09</b>	<b>1,998</b>	<b>0.01</b>	<b>12,211</b>	<b>0.06</b>	<b>6.11</b>	<b>2,025</b>	<b>0.19</b>	<b>756</b>	<b>0.07</b>	<b>2,778</b>	<b>0.26</b>	<b>3.67</b>	<b>3,942</b>	<b>0.37</b>	<b>382</b>	<b>0.04</b>	<b>3,134</b>	<b>0.29</b>	<b>8.20</b>	<b>24,554</b>	<b>0.12</b>	<b>3,136</b>	<b>0.02</b>	<b>18,123</b>	<b>0.09</b>	<b>5.78</b>
<b>ONLY ENERGY AUDIT AVAILABLE</b>																																
<b>NONE</b>																																
				<b>200,793</b>																												
<b>ONLY ELECTRICITY METER AVAILABLE</b>																																
UH Baseball (Murakami Stadium)	Stadium		1987	75,170																												
UH Parking	parking		1974	735,000																												
<b>Sub-TOTAL</b>				<b>810,170</b>																												
<b>NO ELECTRICITY METER or ENERGY AUDIT AVAILABLE</b>																																
Cottages 1, 3 and 4	residential		1914	3,465																												
College Hill	residential		1963	10,220																												
Waahila Ridge Housing	residential		1944	80,478																												
<b>Sub-TOTAL</b>				<b>94,163</b>																												
<b>TOTAL</b>				<b>1,105,126</b>	<b>18,587</b>	<b>0.02</b>	<b>1,998</b>	<b>0.00</b>	<b>12,211</b>	<b>0.01</b>	<b>6.11</b>	<b>2,025</b>	<b>0.00</b>	<b>756</b>	<b>0.00</b>	<b>2,778</b>	<b>0.00</b>	<b>3.67</b>	<b>3,942</b>	<b>0.00</b>	<b>382</b>	<b>0.00</b>	<b>3,134</b>	<b>0.00</b>	<b>8.20</b>	<b>24,554</b>	<b>0.02</b>	<b>3,136</b>	<b>0.00</b>	<b>18,123</b>	<b>0.02</b>	<b>5.78</b>







UNIVERSITY OF HAWAII AT MANOA ENERGY BENCHMARK ANALYSIS

Building Name	Building Type	Oper. Sched. hr	Year-Built	Area (sq.ft.)	ECM IV Chiller Retrofits					ECM V Variable Speed Drive Utilization					ECM VI OTHER					ECM VII Motor Replacement with High Efficiency - Pumps+Fans					ECO IV, V, VI & VII Savings AUDIT				ECO IV, V, VI & VII Const Cost AUDIT		ECO IV, V, VI & VII AUDIT			
					Est. Energy Savings (kWh/year)	Est. Cost (\$/year)	Est. Construction Costs (\$)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Cost (\$/year)	Est. Construction Costs (\$)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Cost (\$/year)	Est. Construction Costs (\$)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Cost (\$/year)	Est. Construction Costs (\$)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Cost (\$/year)	Est. Construction Costs (\$)	Payback (year)	kWh/year	(kWh/sf.ft. -year)	\$/year	(\$/sq.ft. -year)	Const. Cost \$	Const. Cost/\$sq.ft.	Payback year			
<b>LAB/CLASS/OFFICE</b>																																		
<b>ENERGY AUDIT and ELECTRICITY METER AVAILABLE</b>																																		
Watanabe Hall	lab/class/office	24	1972	52,609	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
Art Building	lab/class/office	24	1974	65,020	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--					
Holmes Hall	lab/class/office	24	1972	93,016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--					
Bilger Hall	lab/class/office	24	1952	51,750	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--					
St.John Lab (Building A+B)	lab/class/office	24	1967	101,300	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--					
Snyder Hall	lab/class/office	24	1962	51,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--					
Post Building	lab/class/office	24	1996	190,000	--	--	--	--	--	201,168	1.06	19,513	0.10	75,000	0.39	3.84	--	--	--	--	--	--	--	--	--	--	--	--	--					
Geophysics. Inst. Building	lab/class/office	24	1963	65,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--					
Gilmore Hall	lab/class/office	24	1978	64,500	454,586	7.05	44,095	0.68	180,000	2.79	4.08	78,545	1.22	7,619	0.12	20,000	0.31	2.63	--	--	--	--	--	--	--	201,168	1.06	19,513	0.10	75,000	0.39	3.8		
Physical Science B.D	lab/class/office	24	1960	42,873	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--					
<b>Sub-TOTAL</b>				<b>777,068</b>	<b>454,586</b>	<b>0.59</b>	<b>44,095</b>	<b>0.06</b>	<b>180,000</b>	<b>0.23</b>	<b>4.08</b>	<b>279,713</b>	<b>0.36</b>	<b>27,132</b>	<b>0.03</b>	<b>95,000</b>	<b>0.12</b>	<b>3.50</b>	--	--	--	--	--	--	--	--	156,622	1.68	9,555	0.10	103,000	1.11	10.8	
<b>ONLY ENERGY AUDIT AVAILABLE</b>																																		
Edmonson Building	lab/class/office	24	1963	43,840	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--					
<b>Sub-TOTAL</b>				<b>43,840</b>	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
<b>ONLY ELECTRICITY METER AVAILABLE</b>																																		
Hemmenway Hall	lab/class/office	24	1939	34,326	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--					
<b>Sub-TOTAL</b>				<b>34,326</b>	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
<b>NO ELECTRICITY METER or ENERGY AUDIT AVAILABLE</b>																																		
<b>NONE</b>				--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
<b>TOTAL</b>				<b>855,234</b>	<b>454,586</b>	<b>0.53</b>	<b>44,095</b>	<b>0.05</b>	<b>180,000</b>	<b>0.21047</b>	<b>4.08</b>	<b>279,713</b>	<b>0.33</b>	<b>27,132</b>	<b>0.03</b>	<b>95,000</b>	<b>0.11</b>	<b>3.50</b>	--	--	--	--	--	--	--	--	--	172,275	0.20	11,073	0.01	117,500	0.137389	10.61
																							<b>906,574</b>	<b>1.06</b>	<b>82,300</b>	<b>0.10</b>	<b>392,500</b>	<b>0.46</b>	<b>4.77</b>					

UNIVERSITY OF HAWAII AT MANOA ENERGY BENCHMARK ANALYSIS					ECM IV Chiller Retrofits							ECM V Variable Speed Drive Utilization							ECM VI OTHER							ECM VII Motor Replacement with High Efficiency - Pumps+Fans							ECO IV, V, VI & VII Savings AUDIT				ECO IV, V, VI & VII Const Cost AUDIT		ECO IV, V, VI & VII AUDIT		
Building Name	Building Type	Oper. Sched. hr	Year-Built	Area (sq.ft.)	Est. Energy Savings (kWh/year)	Est. Cost Savings (kWh/sf.ft. -year)	Est. Construction Savings (\$/year)	Est. Construction Costs (\$/sq.ft. -year)	Est. Construction Costs (\$)	Est. Construction Costs (\$/sq.ft. -year)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Cost Savings (kWh/sf.ft. -year)	Est. Construction Savings (\$/year)	Est. Construction Costs (\$/sq.ft. -year)	Est. Construction Costs (\$)	Est. Construction Costs (\$/sq.ft. -year)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Cost Savings (kWh/sf.ft. -year)	Est. Construction Savings (\$/year)	Est. Construction Costs (\$/sq.ft. -year)	Est. Construction Costs (\$)	Est. Construction Costs (\$/sq.ft. -year)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Cost Savings (kWh/sf.ft. -year)	Est. Construction Savings (\$/year)	Est. Construction Costs (\$/sq.ft. -year)	Est. Construction Costs (\$)	Est. Construction Costs (\$/sq.ft. -year)	Payback (year)	kWh/year	(kWh/sf.ft. -year)	\$/year	(\$/sq.ft. -year)	AUDIT Const. Cost \$	AUDIT Const. Cost/\$sq.ft.	Payback year		
<b>OFFICE / LAB</b>																																									
<b>ENERGY AUDIT and ELECTRICITY METER AVAILABLE</b>																																									
Biomedical Science Building	office/lab	24	1967	120,678	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Astronomy Building 1012 A*	office/lab																																								
Astronomy Building 1012 B*	office/lab	24	1976	46,340	337,330	7.28	32,721	0.71	289,000	6.24	8.83	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	337,330	7.28	32,721	0.71	289,000	6.24	8.8		
Astronomy Building 1012 C*	office/lab																																								
Marine Science Building	office/lab	24	1984	99,082	622,698	6.28	60,428	0.61	500,000	5.05	8.27	370,749	3.74	35,963	0.36	108,000	1.09	3.00	--	--	--	--	--	--	--	--	79,116	0.80	7,675	0.08	65,500	0.7	8.5	1,072,563	10.83	104,066	1.05	673,500	5.12	6.5	
<b>Sub-TOTAL</b>				<b>266,100</b>	<b>960,028</b>	<b>3.61</b>	<b>93,149</b>	<b>0.35</b>	<b>789,000</b>	<b>2.97</b>	<b>8.47</b>	<b>370,749</b>	<b>1.39</b>	<b>35,963</b>	<b>0.14</b>	<b>108,000</b>	<b>0.41</b>	<b>3.00</b>								<b>79,116</b>	<b>0.30</b>	<b>7,675</b>	<b>0.03</b>	<b>65,500</b>	<b>0.25</b>	<b>8.53</b>	<b>1,409,893</b>	<b>5.30</b>	<b>136,787</b>	<b>0.51</b>	<b>962,500</b>	<b>2.30</b>	<b>7.0</b>		
<b>ENERGY AUDIT AVAILABLE</b>																																									
Bekesy Lab	office/lab	24	1968	16,294	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
<b>Sub-TOTAL</b>				<b>16,294</b>																																					
<b>ONLY ELECTRICITY METER AVAILABLE</b>																																									
Agriculture Science	office/lab	24	1998	85,000																																					
Gartley Hall*	office/lab		1921	24,493																																					
Agriculture Engineering	office/lab	24	1975	15,689																																					
Pope Lab	office/lab	24	1972	37,500																																					
<b>Sub-TOTAL</b>				<b>162,682</b>																																					
<b>NO ELECTRICITY METER or ENERGY AUDIT AVAILABLE</b>																																									
Small Animal Care Facility	office/lab	24	1977	5,242																																					
Magoon Facility	office/lab			1,200																																					
Fruit Fly Lab*	office/lab		1972	4,240																																					
Argonomy & Soil*	office/lab		1968	6,593																																					
Food Science and Tech.	office/lab	24	1951	9,281																																					
Horticulture Headhouse*	office/lab		1976	4,749																																					
<b>Sub-TOTAL</b>				<b>31,305</b>																																					
<b>TOTAL</b>				<b>476,381</b>	<b>960,028</b>	<b>2.02</b>	<b>93,149</b>	<b>0.20</b>	<b>789,000</b>	<b>1.65624</b>	<b>8.47</b>	<b>370,749</b>	<b>0.78</b>	<b>35,963</b>	<b>0.08</b>	<b>108,000</b>	<b>0.23</b>	<b>3.00</b>								<b>79,116</b>	<b>0.17</b>	<b>7,675</b>	<b>0.02</b>	<b>65,500</b>	<b>0.14</b>	<b>8.53</b>	<b>1,409,893</b>	<b>2.96</b>	<b>136,787</b>	<b>0.29</b>	<b>962,500</b>	<b>2.02</b>	<b>7.04</b>		

\* Energy Benchmark Redistributed by Campus Walkthrough



UNIVERSITY OF HAWAII AT MANOA ENERGY BENCHMARK ANALYSIS					ECM IV Chiller Retrofits								ECM V Variable Speed Drive Utilization								ECM VI OTHER								ECM VII Motor Replacement with High Efficiency - Pumps+Fans								ECO IV, V, VI & VII Savings AUDIT				ECO IV, V, VI & VII Const Cost AUDIT		ECO IV, V, VI & VII AUDIT	
Building Name	Building Type	Oper. Sched. hr	Year-Built	Area (sq.ft.)	Est. Energy Savings (kWh/year)	Est. Cost Savings (kWh/sf.ft. -year)	Est. Construction Savings (\$/sq.ft. -year)	Est. Construction Costs (\$/sq.ft. -year)	Est. Construction Costs (\$)	Payback (\$/sq.ft. -year)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Cost Savings (kWh/sf.ft. -year)	Est. Construction Savings (\$/sq.ft. -year)	Est. Construction Costs (\$/sq.ft. -year)	Est. Construction Costs (\$)	Payback (\$/sq.ft. -year)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Cost Savings (kWh/sf.ft. -year)	Est. Construction Savings (\$/sq.ft. -year)	Est. Construction Costs (\$/sq.ft. -year)	Est. Construction Costs (\$)	Payback (\$/sq.ft. -year)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Cost Savings (kWh/sf.ft. -year)	Est. Construction Savings (\$/sq.ft. -year)	Est. Construction Costs (\$/sq.ft. -year)	Est. Construction Costs (\$)	Payback (\$/sq.ft. -year)	Payback (year)	ECO IV, V, VI & VII Savings AUDIT		ECO IV, V, VI & VII Const Cost AUDIT		ECO IV, V, VI & VII AUDIT							
																																	kWh/year	(kWh/sf.ft. -year)	\$/year	\$/sq.ft. -year	\$	year	kWh/year	(kWh/sf.ft. -year)	\$/year	\$/sq.ft. -year	\$	year
<b>OFFICE</b>																														ECO IV, V, VI & VII Savings AUDIT		ECO IV, V, VI & VII Const Cost AUDIT		ECO IV, V, VI & VII AUDIT										
<b>ENERGY AUDIT and ELECTRICITY METER AVAILABLE</b>																														kWh/year		\$/year		\$/sq.ft.										
Student Services Center	office	24	1994	80,000	236,564	2.96	22,945	0.29	90,000	1.13	3.92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	236,564	2.96	22,945	0.29	90,000	1.13	3.9						
Bachman Hall and Annexes	office	12	1977	28,070	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-							
Sinclair Hall	office	12	1956	3,687	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-							
Henke Hall	office	10	1957	20,686	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-							
<b>Sub-TOTAL</b>				<b>132,443</b>	<b>236,564</b>	<b>1.79</b>	<b>22,945</b>	<b>0.17</b>	<b>90,000</b>	<b>0.68</b>	<b>3.92</b>																							<b>236,564</b>	<b>1.60</b>	<b>22,945</b>	<b>0.16</b>	<b>90,000</b>	<b>0.61</b>	<b>3.9</b>				
<b>ONLY ENERGY AUDIT AVAILABLE</b>																														kWh/year		\$/year		\$/sq.ft.										
Krauss Hall and Annexes 1 & 2	office	14	1971	21,611	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
ROTC Building	office	10	1992	5,178	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
<b>Sub-TOTAL</b>				<b>26,789</b>																																								
<b>ONLY ELECTRICITY METER AVAILABLE</b>																														kWh/year		\$/year		\$/sq.ft.										
Weather Bureau	office		1963	22,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
Building 37	office		1931	3,655	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
Center for Korean Studies	office		1980	16,569	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
Engineering Quad A+B	office		1928	7,007	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
Bilger Annex # 1 & 2	office		1971	3,624	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
<b>Sub-TOTAL</b>				<b>52,855</b>																																								
<b>NO ELECTRICITY METER or ENERGY AUDIT AVAILABLE</b>																														kWh/year		\$/year		\$/sq.ft.										
Makai Campus Portable offices	office		1977	12,430	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
Hawaii Hall	office		1912	36,849	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
Financial Management B	office		1992	710	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
Financial Management C	office		1922	710	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
Fiscal Service A	office		1992	710	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
Fiscal Service Office	office		1977	1,303	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
PPMO/Accounting	office		1977	7,945	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
Contracts and Grants	office		1977	1,470	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
Keypunch Section	office		1977	1,295	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
Lunaliili Freeway Building 1	office		1977	1,757	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
Lower Campus Portables	office		1976	7,768	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
Air Force ROTC	office		1977	3,769	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
National Marine Fisheries Srv	Office			4,100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
Lincoln Annexes 1&2	office		1971	3,530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
Physical Plant Annex # 1, 2	office		1970	3,880	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
Physical Plant Building	office		1963	4,302	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
Malle Way Annexes	office		1967	1,859	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
Campus Security	office		1977	1,741	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
Diving Safety Program	office			700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
Environmental Health and Safety Office	office		1995	2,530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
Landscaping*	office			400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
Transportation Service*	office		1984	1,400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
Environmental Protection Service	office			1,300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
Federal Credit Union	office		1914	1,309	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
Energy House*	office		1978	1,800	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
Maintenance Service Building*	office		1970	3,900	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
Parasitology Lab	office		1930	1,816	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
Castle Memorial Caretakers Cottage*	office		1941	1,678	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
Miller Hall Annex	office		1948	1,348	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
High School Locker Building*																																												















UNIVERSITY OF HAWAII AT MANOA ENERGY BENCHMARK ANALYSIS

Building Name	Building Type	Oper. Sched. hr	Year-Built	Area (sq.ft.)	ECM VIII Waste Heat Recovery System				ECM IX Packaged Air Conditioning Unit Replacement				ECM X Energy Management System (EMS) Installation				ECM VIII, IX & X Savings AUDIT				ECM VIII, IX & X Const Cost AUDIT		ECM VIII, IX & X AUDIT									
					Est. Energy Savings (kWh/year)	(kWh/sf.ft.-year)	Est. Cost Savings (\$/year)	(\$/sq.ft.-year)	Est. Construction Costs (\$)	(\$/sq.ft.-year)	Payback (year)	Est. Energy Savings (kWh/year)	(kWh/sf.ft.-year)	Est. Cost Savings (\$/year)	(\$/sq.ft.-year)	Est. Construction Costs (\$)	(\$/sq.ft.-year)	Payback (year)	Est. Energy Savings (kWh/year)	(kWh/sf.ft.-year)	Est. Cost Savings (\$/year)	(\$/sq.ft.-year)	Est. Construction Costs (\$)	(\$/sq.ft.-year)	Payback (year)	kWh/year	(kWh/sf.ft.-year)	\$/year	(\$/sq.ft.-year)	AUDIT Const. Cost \$	AUDIT Const. Cost/sf. \$/sq.ft.	Payback year
<b>LAB/CLASS/OFFICE</b>																																
<b>ENERGY AUDIT and ELECTRICITY METER AVAILABLE</b>																																
Watanabe Hall	lab/class/office	24	1972	52,609	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
Art Building	lab/class/office	24	1974	65,020	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
Holmes Hall	lab/class/office	24	1972	93,016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
Bilger Hall	lab/class/office	24	1952	51,750	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
St.John Lab (Building A+B)	lab/class/office	24	1967	101,300	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
Snyder Hall	lab/class/office	24	1962	51,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
Post Building	lab/class/office	24	1996	190,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
Geophysics. Inst. Building	lab/class/office	24	1963	65,000	--	--	--	--	--	--	--	133,782	2.06	12,977	0.20	121,333	1.87	9.35	419,348	8	40,677	0.77	0	0.00	0.00	419,348	2.21	40,677	0.21	0	0.00	0.0
Gilmore Hall	lab/class/office	24	1978	64,500	--	--	--	--	--	--	--	161,050	2	15,622	0.17	96,000	1.03	6.15	161,050	2	15,622	0.17	96,000	1.03	6.15	161,050	2.50	15,622	0.24	96,000	1.49	6.1
Physical Science B.D	lab/class/office	24	1960	42,873	--	--	--	--	--	--	--	133,782	0.172162539	12,977	0.0167	121,333	0.156142	9.34984973	580,398	0.74690761	56,299	0.0724505	96,000	0.1235413	1.7051813	714,180	0.92	69,276	0.09	217,333	0.28	3.1
Sub-TOTAL				777,068																												
<b>ONLY ENERGY AUDIT AVAILABLE</b>																																
Edmonson Building	lab/class/office	24	1963	43,840	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Sub-TOTAL				43,840																												
<b>ONLY ELECTRICITY METER AVAILABLE</b>																																
Hemmenway Hall	lab/class/office	24	1939	34,326																												
Sub-TOTAL				34,326																												
<b>NO ELECTRICITY METER or ENERGY AUDIT AVAILABLE</b>																																
NONE																																
TOTAL				855,234								133,782	0.156427364	12,977	0.015174	121,333	0.141871	9.34984973	580,398	0.67864234	56,299	0.0658288	96,000	0.11225	1.7051813	714,180	0.84	69,276	0.08	217,333	0.25	3.14



UNIVERSITY OF HAWAII AT MANOA ENERGY BENCHMARK ANALYSIS					ECM VIII Waste Heat Recovery System					ECM IX Packaged Air Conditioning Unit Replacement					ECM X Energy Management System (EMS) Installation					ECM VIII, IX & X Savings AUDIT				ECM VIII, IX & X Const Cost AUDIT		ECM VIII, IX & X AUDIT			
Building Name	Building Type	Oper. Sched. hr	Year-Built	Area (sq.ft.)	Est. Energy	Est. Cost	Est. Construction		Payback	Est. Energy	Est. Cost	Est. Construction		Payback	Est. Energy	Est. Cost	Est. Construction		Payback	ECM VIII, IX & X Savings AUDIT				ECM VIII, IX & X Const Cost AUDIT		ECM VIII, IX & X AUDIT			
					Savings (kWh/year)	(kWh/sf.ft. -year)	Savings (\$/year)	(\$/sq.ft. -year)	Costs (\$)	(\$/sq.ft. -year)	(year)	Savings (kWh/year)	(kWh/sf.ft. -year)	Savings (\$/year)	(\$/sq.ft. -year)	Costs (\$)	(\$/sq.ft. -year)	(year)	Savings (kWh/year)	(kWh/sf.ft. -year)	Savings (\$/year)	(\$/sq.ft. -year)	Costs (\$)	(\$/sq.ft. -year)	(year)	kWh/year	(kWh/sf.ft. -year)	\$/year	(\$/sq.ft. -year)
<b>CLASS/ OFFICE</b>																													
<b>ENERGY AUDIT and ELECTRICITY METER AVAILABLE</b>																													
Speech Pathology Bldg-171E*	class/office	12	1976	7,615	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Keller Hall	class/office	24	1959	49,193	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Business Admin.	class/office	24	1972	129,143	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Architecture School	class/office	24	1993	50,020	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Webster Hall	class/office	24	1961	59,559	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Speech Pathology Bldg-171F*	class/office	12	1976	6,650	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Sakamaki Hall	class/office	12	1974	58,230	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Social Science	class/office	15	1973	126,738	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Miller Hall*	class/office	24	1939	19,273	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Physical Education	class/office	10	1970	45,238	90,495	2.0	8,778	0.2	15,313	0.3	1.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Moore Hall*	class/office	24	1966	80,882	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Law School*	class/office	24	1985	53,100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Music Bldg #1 (1093A)*	class/office	10	1959	5,840	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Kuykendall Hall	class/office	10	1964	86,492	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Music Bldg #3 (1093C)*	class/office	10	1959	1,950	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Music Bldg #2 (1093B)*	class/office	10	1959	1,120	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Orvis Auditorium*	class/office	10	1962	7,432	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Sub-TOTAL				<b>788,475</b>	<b>90,495</b>	<b>0.11</b>	<b>8,778</b>	<b>0.01</b>	<b>15,313</b>	<b>0.02</b>	<b>1.74</b>																		
<b>ONLY ENERGY AUDIT AVAILABLE</b>																													
<b>NONE</b>																													
				<b>788,475</b>																									
<b>ONLY ELECTRICITY METER AVAILABLE</b>																													
Wist Hall	class/office		1930	24,591																									
Wist Hall Annex Addition	class/office		1979	20,625																									
University High School #3*	class/office		1957	27,241																									
Wist Annex 1, University High S. 1 & 2*	class/office		1943	26,292																									
Burns Hall	class/office			55,000																									
George Hall	class/office		1922	47,761																									
Hawaiian Studies	class/office		1996	22,100																									
Dean Hall*	class/office		1989	18,764																									
Lincoln Hall	class/office		1959	43,538																									
Jefferson Hall	class/office		1963	61,558																									
Klum Gym.	class/office		1958	23,884																									
Spalding Hall	class/office		1961	33,012																									
Crawford Hall	class/office		1938	24,663																									
New Music Building	class/office		1973	49,970																									
Dance Building*	class/office		1978	4,188																									
Kennedy Theatre	class/office		1963	46,752																									
Sub-TOTAL				<b>529,939</b>																									
<b>NO ELECTRICITY METER or ENERGY AUDIT AVAILABLE</b>																													
East West Building # 1,5,6,3,7	class/office		1977	5,150																									
1881 East West PB # 1,2	class/office		1995	8,000																									
University Elementary School*	class/office		1939	20,099																									
Makai Campus Portable Classrooms	class/office		1977	4,100																									
Lunalili Freeway Building 2	class/office		1977	1,773																									
Newman Center*	class/office			4,000																									
Castle Memorial*	class/office		1941	28,484																									
Sub-TOTAL				<b>71,606</b>																									
<b>TOTAL</b>				<b>1,390,020</b>	<b>90,495</b>	<b>0.07</b>	<b>8,778</b>	<b>0.01</b>	<b>15,313</b>	<b>0.01</b>	<b>1.74</b>																		
																	<b>90,495</b>	<b>0.07</b>	<b>8,778</b>	<b>0.01</b>	<b>15,313</b>	<b>0.01</b>	<b>1.74</b>						

\* Energy Benchmark Redistributed by Campus Walkthrough

UNIVERSITY OF HAWAII AT MANOA ENERGY BENCHMARK ANALYSIS					ECM VIII Waste Heat Recovery System						ECM IX Packaged Air Conditioning Unit Replacement						ECM X Energy Management System (EMS) Installation						ECM VIII, IX & X Savings AUDIT				ECM VIII, IX & X Const Cost AUDIT		ECM VIII, IX & X AUDIT		
Building Name	Building Type	Oper. Sched. hr	Year-Built	Area (sq.ft.)	Est. Energy Savings (kWh/year)	Est. Cost Savings (kWh/sf.ft. -year)	Est. Construction Savings (\$/sq.ft. -year)	Costs (\$)	Est. Construction (\$/sq.ft. -year)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Cost Savings (kWh/sf.ft. -year)	Est. Construction Savings (\$/sq.ft. -year)	Costs (\$)	Est. Construction (\$/sq.ft. -year)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Cost Savings (kWh/sf.ft. -year)	Est. Construction Savings (\$/sq.ft. -year)	Costs (\$)	Est. Construction (\$/sq.ft. -year)	Payback (year)	kWh/year	(kWh/sf.ft. -year)	\$/year	(\$/sq.ft. -year)	Cost \$	AUDIT Const. Cost/ssf. \$/sq.ft.	Payback year		
<b>OFFICE</b>																															
<b>ENERGY AUDIT and ELECTRICITY METER AVAILABLE</b>																															
Student Services Center	office	24	1994	80,000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Bachman Hall and Annexes	office	12	1977	28,070	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Sinclair Hall	office	12	1956	3,687	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Henke Hall	office	10	1957	20,686	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
<b>Sub-TOTAL</b>				<b>132,443</b>																											
<b>ONLY ENERGY AUDIT AVAILABLE</b>																															
Krauss Hall and Annexes 1 & 2	office	14	1971	21,611	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
ROTC Building	office	10	1992	5,178	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
<b>Sub-TOTAL</b>				<b>26,789</b>																											
<b>Sub-TOTAL</b>				<b>159,232</b>																											
<b>ONLY ELECTRICITY METER AVAILABLE</b>																															
Weather Bureau	office		1963	22,000																											
Building 37	office		1931	3,655																											
Center for Korean Studies	office		1980	16,569																											
Engineering Quad A+B	office		1928	7,007																											
Bilger Annex # 1 & 2	office		1971	3,624																											
<b>Sub-TOTAL</b>				<b>52,855</b>																											
<b>NO ELECTRICITY METER or ENERGY AUDIT AVAILABLE</b>																															
Makai Campus Portable offices	office		1977	12,430																											
Hawaii Hall	office		1912	36,849																											
Financial Management B	office		1992	710																											
Financial Management C	office		1922	710																											
Fiscal Service A	office		1992	710																											
Fiscal Service Office	office		1977	1,303																											
PPMO/Accounting	office		1977	7,945																											
Contracts and Grants	office		1977	1,470																											
Keypunch Section	office		1977	1,295																											
Lunalili Freeway Building 1	office		1977	1,757																											
Lower Campus Portables	office		1976	7,768																											
Air Force ROTC	office		1977	3,769																											
National Marine Fisheries Srvc	Office			4,100																											
Lincoln Annexes 1&2	office		1971	3,530																											
Physical Plant Annex # 1, 2	office		1970	3,880																											
Physical Plant Building	office		1963	4,302																											
Malle Way Annexes	office		1967	1,859																											
Campus Security	office		1977	1,741																											
Diving Safety Program	office			700																											
Environmental Health and Safety Office	office		1995	2,530																											
Landscaping*	office			400																											
Transportation Service*	office		1984	1,400																											
Environmental Protection Service	office			1,300																											
Federal Credit Union	office		1914	1,309																											
Energy House*	office		1978	1,800																											
Maintenance Service Building*	office		1970	3,900																											
Parasitology Lab	office		1930	1,816																											
Castle Memorial Caretakers Cottage*	office		1941	1,678																											
Miller Hall Annex	office		1948	1,348																											
High School Locker Building*	office		1959	2,436																											
Center for Student Development	office		1952	13,733																											
Castle Annex*	office		1945	3,488																											
UH Press	office		1977	12,536																											
KITV	office		1973	20,803																											
Dole St. Offices	office		1940	7,400																											
Frear	office		1952	32,711																											
University Avenue Annexes	office		1977	6,994																											
<b>Sub-TOTAL</b>				<b>214,410</b>																											
<b>TOTAL</b>				<b>426,497</b>																											

\* Energy Benchmark Redistributed by Campus Walkthrough  
 \*\* Building year data was not available, the listed date is estimate.







UNIVERSITY OF HAWAII AT MANOA ENERGY BENCHMARK ANALYSIS					ECM VIII Waste Heat Recovery System					ECM IX Packaged Air Conditioning Unit Replacement					ECM X Energy Management System (EMS) Installation					ECM VIII, IX & X Savings AUDIT				ECM VIII, IX & X Const Cost AUDIT		ECM VIII, IX & X AUDIT			
Building Name	Building Type	Oper. Sched. hr	Year-Built	Area (sq.ft.)	Est. Energy Savings (kWh/year)	Est. Cost Savings (kWh/sf.ft. -year)	Est. Construction Savings (\$/sq.ft. -year)	Est. Construction Costs (\$)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Cost Savings (kWh/sf.ft. -year)	Est. Construction Savings (\$/sq.ft. -year)	Est. Construction Costs (\$)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Cost Savings (kWh/sf.ft. -year)	Est. Construction Savings (\$/sq.ft. -year)	Est. Construction Costs (\$)	Payback (year)	ECM VIII, IX & X Savings AUDIT		ECM VIII, IX & X Const Cost AUDIT		ECM VIII, IX & X AUDIT					
																				kWh/year	(kWh/sf.ft. -year)	\$/year	Cost	Cost	Cost	Cost	Cost	Cost	Cost
<b>FOOD/FACILITY/OFFICE</b>																													
ENERGY AUDIT and ELECTRICITY METER AVAILABLE																													
FOOD/FACILITY/OFFICE																													
Auxiliary Services Building	food/facility/offc	24	1962	12,652	-	-	-	-	-	48,462	3.83	4,701	0.37	40,958	3.24	8.71	-	-	-	-	-	48,462	3.83	4,701	0.37	40,958	3.24	8.7	
Sub-TOTAL					12,652					48,462	3.83	4,701	0.37	40,958	3.24	8.71						48,462	3.83	4,701	0.37	40,958	3.24	8.7	
ONLY ENERGY AUDIT AVAILABLE																													
NONE																													
ONLY ELECTRICITY METER AVAILABLE																													
Campus Center	food/facility/offc		1974	133,342																									
Gateway Café	food/facility/offc		1963	10,000																									
Café Hale Aloha	food/facility/offc		1978	20,665																									
Paradise Palm	food/facility/offc		1964	9,439																									
Multipurpose Building	food/facility/offc		1963	12,664																									
Sub-TOTAL					186,110																								
<b>TOTAL</b>					198,762					48,462	0.24	4,701	0.02	40,958	0.21	8.71						48,462	0.24	4,701	0.02	40,958	0.21	8.71	







UNIVERSITY OF HAWAII AT MANOA ENERGY BENCHMARK ANALYSIS					ECM XI Insulation Installation				ECM XII Convert Constant-Volume to VAV system				ECM XIII Repair VAV Control System				ECM XIV Install outside-air carbon dioxide sensors controlling outside-air dampers				ECM XI, XII, XIII & XIV Savings AUDIT				ECM XI, XII, XIII & XIV Const Cost AUDIT		ECM XI, XII, XIII & XIV AUDIT							
Building Name	Building Type	Oper. Sched. hr	Year-Built	Area (sq. ft.)	Est. Energy Savings	Est. Cost Savings	Est. Construction Costs		Payback	Est. Energy Savings	Est. Cost Savings	Est. Construction Costs		Payback	Est. Energy Savings	Est. Cost Savings	Est. Construction Costs		Payback	Est. Energy Savings	Est. Cost Savings	Est. Construction Costs		Payback	kWh/year		(\$/sq. ft.)		Const. Cost \$	AUDIT Const. Cost/\$sq. ft.	Payback year			
					(kWh/year)	(kWh/sf. ft. -year)	(\$/year)	(\$/sq. ft. -year)	(\$)	(\$/sq. ft. -year)	(year)	(kWh/year)	(kWh/sf. ft. -year)	(\$/year)	(\$/sq. ft. -year)	(\$)	(\$/sq. ft. -year)	(year)	(kWh/year)	(kWh/sf. ft. -year)	(\$/year)	(\$/sq. ft. -year)	(\$)	(\$/sq. ft. -year)	(year)	(kWh/year)	(kWh/sf. ft. -year)	(\$/year)	(\$/sq. ft. -year)					
<b>LAB/ CLASS/ OFFICE</b>																																		
<b>ENERGY AUDIT and ELECTRICITY METER AVAILABLE</b>																																		
Watanabe Hall	lab/class/office	24	1972	52,609	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
Art Building	lab/class/office	24	1974	65,020	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
Holmes Hall	lab/class/office	24	1972	93,016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
Bilger Hall	lab/class/office	24	1952	51,750	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
St. John Lab (Building A+B)	lab/class/office	24	1967	101,300	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
Snyder Hall	lab/class/office	24	1962	51,000	145,065	2.84	14,071	0.28	116,621	2.29	8.29	--	--	--	--	--	--	--	--	--	--	--	--	--	--	145,065	2.84	14,071	0.28	116,621	2.29	8.29		
Post Building	lab/class/office	24	1996	190,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
Geophysics. Inst. Building	lab/class/office	24	1963	65,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
Silmore Hall	lab/class/office	24	1978	64,500	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
Physical Science B.D	lab/class/office	24	1960	42,873	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
<b>Sub-TOTAL</b>				<b>777,068</b>	<b>145,065</b>	<b>0.19</b>	<b>14,071</b>	<b>0.02</b>	<b>116,621</b>	<b>0.15</b>	<b>8.29</b>															<b>145,065</b>	<b>0.22</b>	<b>14,071</b>	<b>0.02</b>	<b>116,621</b>	<b>0.18</b>	<b>8.29</b>		
<b>ONLY ENERGY AUDIT AVAILABLE</b>																																		
Edmonson Building	lab/class/office	24	1963	43,840	197,249	3.06	19,133	0.30	124,800	1.93	6.52	--	--	--	--	--	--	--	--	--	--	--	--	--	--	197,249	4.50	19,133	0.44	124,800	2.85	6.52		
<b>Sub-TOTAL</b>				<b>43,840</b>	<b>197,249</b>	<b>3.06</b>	<b>19,133</b>	<b>0.30</b>	<b>124,800</b>	<b>1.93</b>	<b>6.52</b>															<b>197,249</b>	<b>4.50</b>	<b>19,133</b>	<b>0.44</b>	<b>124,800</b>	<b>2.85</b>	<b>6.52</b>		
				<b>820,908</b>																														
<b>ONLY ELECTRICITY METER AVAILABLE</b>																																		
Hemmenway Hall	lab/class/office	24	1939	34,326	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
<b>Sub-TOTAL</b>				<b>34,326</b>																														
<b>NO ELECTRICITY METER or ENERGY AUDIT AVAILABLE</b>																																		
				<b>NONE</b>																														
<b>TOTAL</b>				<b>855,234</b>	<b>342,314</b>	<b>0.40</b>	<b>33,204</b>	<b>0.04</b>	<b>241,421</b>	<b>0.28</b>	<b>7.27</b>															<b>342,314</b>	<b>0.40</b>	<b>33,204</b>	<b>0.04</b>	<b>241,421</b>	<b>0.28</b>	<b>7.27</b>		

UNIVERSITY OF HAWAII AT MANOA ENERGY BENCHMARK ANALYSIS					ECM XI Insulation Installation				ECM XII Convert Constant-Volume to VAV system				ECM XIII Repair VAV Control System				ECM XIV Install outside-air carbon dioxide sensors controlling outside-air dampers				ECM XI, XII, XIII & XIV Savings AUDIT				ECM XI, XII, XIII & XIV Const Cost AUDIT		ECM XI, XII, XIII & XIV AUDIT		
Building Name	Building Type	Oper. Sched. hr	Year-Built	Area (sq. ft.)	Est. Energy Savings	Est. Cost Savings	Est. Construction Costs	Payback	Est. Energy Savings	Est. Cost Savings	Est. Construction Costs	Payback	Est. Energy Savings	Est. Cost Savings	Est. Construction Costs	Payback	Est. Energy Savings	Est. Cost Savings	Est. Construction Costs	Payback	kWh/year	(kWh/sf.ft. -year)	\$/year	\$/sq.ft. -year)	Const. Cost \$	Const. Cost/sf. \$/sq.ft.	Payback year		
					(kWh/year)	(\$/year)	(\$/sq.ft. -year)	(\$/sq.ft. -year)	(kWh/year)	(\$/year)	(\$/sq.ft. -year)	(\$/sq.ft. -year)	(kWh/year)	(\$/year)	(\$/sq.ft. -year)	(\$/sq.ft. -year)	(kWh/year)	(\$/year)	(\$/sq.ft. -year)	(\$/sq.ft. -year)									
<b>OFFICE / LAB</b>																													
<b>ENERGY AUDIT and ELECTRICITY METER AVAILABLE</b>																													
Biomedical Science Building	office/lab	24	1967	120,678	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Astronomy Building 1012 A*	office/lab				--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Astronomy Building 1012 B*	office/lab	24	1976	46,340	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Astronomy Building 1012 C*	office/lab				--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Marine Science Building	office/lab	24	1984	99,082	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
<b>Sub-TOTAL</b>					<b>266,100</b>																								
<b>ENERGY AUDIT AVAILABLE</b>																													
Bekesy Lab	office/lab	24	1968	16,294	80,942	4.97	8,823	0.54	52,310	3.21	5.93	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
<b>Sub-TOTAL</b>					<b>16,294</b>	<b>80,942</b>	<b>4.97</b>	<b>8,823</b>	<b>0.54</b>	<b>52,310</b>	<b>3.21</b>	<b>5.93</b>																	
<b>282,394</b>																													
<b>ONLY ELECTRICITY METER AVAILABLE</b>																													
Agriculture Science	office/lab	24	1998	85,000																									
Gartley Hall*	office/lab		1921	24,493																									
Agriculture Engineering	office/lab	24	1975	15,689																									
Pope Lab	office/lab	24	1972	37,500																									
<b>Sub-TOTAL</b>					<b>162,682</b>																								
<b>NO ELECTRICITY METER or ENERGY AUDIT AVAILABLE</b>																													
Small Animal Care Facility	office/lab	24	1977	5,242																									
Magoon Facility	office/lab		1972	1,200																									
Fruit Fly Lab*	office/lab		1972	4,240																									
Argonomy & Soil*	office/lab		1968	6,593																									
Food Science and Tech.	office/lab	24	1951	9,281																									
Horticulture Headhouse*	office/lab		1976	4,749																									
<b>Sub-TOTAL</b>					<b>31,305</b>																								
<b>TOTAL</b>					<b>476,381</b>	<b>80,942</b>	<b>4.97</b>	<b>8,823</b>	<b>0.54</b>	<b>52,310</b>	<b>3.21</b>	<b>5.93</b>										<b>80,942</b>	<b>0.17</b>	<b>8,823</b>	<b>0.02</b>	<b>52,310</b>	<b>0.11</b>	<b>5.93</b>	

\* Energy Benchmark Redistributed by Campus Walkthrough

UNIVERSITY OF HAWAII AT MANOA ENERGY BENCHMARK ANALYSIS					ECM XI Insulation Installation				ECM XII Convert Constant-Volume to VAV system				ECM XIII Repair VAV Control System				ECM XIV Install outside-air carbon dioxide sensors controlling outside-air dampers				ECM XI, XII, XIII & XIV Savings AUDIT				ECM XI, XII, XIII & XIV Const Cost AUDIT		ECM XI, XII, XIII & XIV AUDIT				
Building Name	Building Type	Oper. Sched. hr	Year-Built	Area (sq.ft.)	Est. Energy Savings	Est. Cost Savings	Est. Construction Costs	Payback	Est. Energy Savings	Est. Cost Savings	Est. Construction Costs	Payback	Est. Energy Savings	Est. Cost Savings	Est. Construction Costs	Payback	Est. Energy Savings	Est. Cost Savings	Est. Construction Costs	Payback	kWh/year	(kWh/sf.ft. -year)	\$/year	\$/sq.ft. -year	Const. Cost \$	Const. Cost/sf. \$/sq.ft.	Payback year				
					(kWh/year)	(\$/year)	(\$/sq.ft. -year)	(\$/sq.ft. -year)	(kWh/year)	(\$/year)	(\$/sq.ft. -year)	(\$/sq.ft. -year)	(kWh/year)	(\$/year)	(\$/sq.ft. -year)	(\$/sq.ft. -year)	(kWh/year)	(\$/year)	(\$/sq.ft. -year)	(\$/sq.ft. -year)											
<b>CLASS/ OFFICE</b>																															
<b>ENERGY AUDIT and ELECTRICITY METER AVAILABLE</b>																															
Speech Pathology Bldg-171E*	class/office	12	1976	7,615	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Keller Hall	class/office	24	1959	49,193	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Business Admin.	class/office	24	1972	129,143	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Architecture School	class/office	24	1993	50,020	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Webster Hall	class/office	24	1961	59,559	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Speech Pathology Bldg-171F*	class/office	12	1976	6,650	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Sakamaki Hall	class/office	12	1974	58,230	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Social Science	class/office	15	1973	126,738	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Miller Hall*	class/office	24	1939	19,273	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Physical Education	class/office	10	1970	45,238	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Moore Hall*	class/office	24	1966	80,882	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Law School*	class/office	24	1985	53,100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Music Bldg #1 (1093A)*	class/office	10	1959	5,840	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Kuykendall Hall	class/office	10	1964	86,492	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Music Bldg #3 (1093C)*	class/office	10	1959	1,950	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Music Bldg #2 (1093B)*	class/office	10	1959	1,120	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Orvis Auditorium*	class/office	10	1962	7,432	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
<b>Sub-TOTAL</b>				<b>788,475</b>													<b>97,702</b>	<b>0.12</b>	<b>10,866</b>	<b>0.01</b>	<b>67,700</b>	<b>0.09</b>	<b>6.23</b>	<b>97,702</b>	<b>7,242.76</b>	<b>10,866</b>	<b>805.51</b>	<b>67,700</b>	<b>5,018.68</b>	<b>6.2</b>	
<b>ONLY ENERGY AUDIT AVAILABLE</b>																															
<b>NONE</b>																															
				<b>788,475</b>																											
<b>ONLY ELECTRICITY METER AVAILABLE</b>																															
Wist Hall	class/office		1930	24,591																											
Wist Hall Annex Addition	class/office		1979	20,625																											
University High School #3*	class/office		1957	27,241																											
Wist Annex 1, University High S. 1 & 2*	class/office		1943	26,292																											
Burns Hall	class/office			55,000																											
George Hall	class/office		1922	47,761																											
Hawaiian Studies	class/office		1996	22,100																											
Dean Hall*	class/office		1989	18,764																											
Lincoln Hall	class/office		1959	43,538																											
Jefferson Hall	class/office		1963	61,558																											
Klum Gym.	class/office		1958	23,884																											
Spalding Hall	class/office		1961	33,012																											
Crawford Hall	class/office		1938	24,663																											
New Music Building	class/office		1973	49,970																											
Dance Building*	class/office		1978	4,188																											
Kennedy Theatre	class/office		1963	46,752																											
<b>Sub-TOTAL</b>				<b>529,939</b>																											
<b>NO ELECTRICITY METER or ENERGY AUDIT AVAILABLE</b>																															
East West Building # 1,5,6,3,7	class/office		1977	4,006																											
1881 East West PB # 1,2	class/office		1995	6,223																											
University Elementary School*	class/office		1939	7,008																											
Makai Campus Portable Classrooms	class/office		1977	3,189																											
Lunalili Freeway Building 2	class/office		1977	1,379																											
Newman Center*	class/office			1,395																											
Castle Memorial*	class/office		1941	9,931																											
<b>Sub-TOTAL</b>				<b>33,129</b>																											
<b>TOTAL</b>				<b>1,351,543</b>														<b>97,702</b>	<b>0.07</b>	<b>10,866</b>	<b>0.01</b>	<b>67,700</b>	<b>0.05</b>	<b>6.23</b>	<b>97,702</b>	<b>0.07</b>	<b>10,866</b>	<b>0.01</b>	<b>67,700</b>	<b>0.05</b>	<b>6.23</b>

\* Energy Benchmark Redistributed by Campus Walkthrough











UNIVERSITY OF HAWAII AT MANOA ENERGY BENCHMARK ANALYSIS					ECM XI Insulation Installation				ECM XII Convert Constant-Volume to VAV system				ECM XIII Repair VAV Control System				ECM XIV Install outside-air carbon dioxide sensors controlling outside-air dampers				ECM XI, XII, XIII & XIV Savings AUDIT				ECM XI, XII, XIII & XIV Const Cost AUDIT		ECM XI, XII, XIII & XIV AUDIT				
Building Name	Building Type	Oper. Sched. hr	Year-Built	Area (sq. ft.)	Est. Energy Savings	Est. Cost Savings	Est. Construction Costs	Payback	Est. Energy Savings	Est. Cost Savings	Est. Construction Costs	Payback	Est. Energy Savings	Est. Cost Savings	Est. Construction Costs	Payback	Est. Energy Savings	Est. Cost Savings	Est. Construction Costs	Payback	ECM XI, XII, XIII & XIV Savings AUDIT		ECM XI, XII, XIII & XIV Const Cost AUDIT		ECM XI, XII, XIII & XIV AUDIT						
					(kWh/year)	(kWh/sf.ft. -year)	(\$/year)	(\$/sq.ft. -year)	(\$)	(\$/sq.ft. -year)	(kWh/year)	(kWh/sf.ft. -year)	(\$/year)	(\$/sq.ft. -year)	(\$)	(\$/sq.ft. -year)	(kWh/year)	(kWh/sf.ft. -year)	(\$/year)	(\$/sq.ft. -year)	(\$)	(\$/sq.ft. -year)	(year)	kWh/year	(kWh/sf.ft. -year)	\$/year	(\$/sq.ft. -year)	Cost \$	Const. Cost/sf. \$/sq.ft.	Payback year	
<b>OTHER</b>																															
<b>ENERGY AUDIT and ELECTRICITY METER AVAILABLE</b>																															
OTHER																															
Stan Sherriff Multi Purpose Arena	arena	10	1977	190,000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Student Health B.D	clinic	10	1963	10,793	68,472	6.34	6,641	0.62	89,460	8.29	13.47	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
				<b>Sub-TOTAL</b>	<b>68,472</b>	<b>6.34</b>	<b>6,641</b>	<b>0.62</b>	<b>89,460</b>	<b>8.29</b>	<b>13.47</b>											<b>68,472</b>	<b>6.34</b>	<b>6,641</b>	<b>0.62</b>	<b>89,460</b>	<b>8.29</b>	<b>13.47</b>			
<b>ONLY ENERGY AUDIT AVAILABLE</b>																															
NONE																															
				<b>200,793</b>																											
<b>ONLY ELECTRICITY METER AVAILABLE</b>																															
UH Baseball (Murakami Stadium)	Stadium		1987	43,369																											
UH Parking	parking		1974	735,000																											
				<b>Sub-TOTAL</b>	<b>778,369</b>																										
<b>NO ELECTRICITY METER or ENERGY AUDIT AVAILABLE</b>																															
Cottages 1, 3 and 4	residential		1914	3,465																											
College Hill	residential		1963	10,220																											
Waahila Ridge Housing	residential		1944	80,478																											
				<b>Sub-TOTAL</b>	<b>94,163</b>																										
<b>TOTAL</b>				<b>1,073,325</b>	<b>68,472</b>	<b>6.34</b>	<b>6,641</b>	<b>0.62</b>	<b>89,460</b>	<b>8.29</b>	<b>13.47</b>											<b>68,472</b>	<b>6.34</b>	<b>6,641</b>	<b>0.62</b>	<b>89,460</b>	<b>8.29</b>	<b>13.47</b>			



APPENDIX 8.0

Baseline Benchmark Analysis Electricity Use

**STATE OF HAWAII FACILITIES IN OAHU ENERGY BENCHMARK BASELINE**

Building Name	Building Type	Operating Schedule hr.	Year Built	Area (sq.ft.)	Energy Use				Energy Savings Projects in the Past Eight Years									
					kWh/sq.ft.		\$/year	\$/sq.ft.-year	Lighting Savings		Water Heating		Motor Replacement		Space Cooling Retrofits		Custom Rebate	
					kWh/year	-year			kWh/year	-year	kWh/year	-year	kWh/year	-year	kWh/year	-year	kWh/year	-year
<b>DAGS</b>																		
<b>LARGE FACILITIES (BUILDING AREA KNOWN)</b>																		
400 SOUTH BERETANIA (STATE CAPITOL)	Office	10	1969	300,000	6,126,000	20.4	790,618	2.6										
919 ALA MOANA BLVD (AAFES)	Office	10		108,000	2,243,000	20.8	297,353	2.8										
1390 MILLER ST (QUEEN LILIOULANI)	Office	11.5	1943	94,528	2,534,000	26.8	333,361	3.5										
1151 PUNCHBOWL ST (KALANIMOKU)	Office	10	1976	203,000	7,037,400	34.7	877,507	4.3										
1250 PUNCHBOWL ST (KINAU HALE)	Office	11	1961	66,951	1,631,200	24.4	222,814	3.3										
250 S HOTEL ST (NO. 1-DISTRICT BLDG)	Office	10		120,000	2,567,040	21.4	321,188	2.7										
465 S KING ST (KEKUANAO'A BLDG)	Office	11		65,075	1,471,760	22.6	196,359	3.0										
235 S BERETANIA ST (OFFICE TOWER)	Office	10	1991	172,000	2,502,400	14.5	337,136	2.0										
830 PUNCHBOWL ST (KEELIKOLANI & AUHAU)	Office	12	1949	278,639	4,174,800	15.0	558,214	2.0										
601 KAMOKILA BV (KAKUIHEIWA KAPOLEI)	Office	10	1998	222,000	3,050,400	13.7	408,107	1.8										
99500 SALT LAKE BV (STADIUM AUTHORITY)	Stadium			300,000	3,416,400	11.4	532,406	1.8										
<b>Sub-TOTAL</b>				<b>1,930,193</b>	<b>36,754,400</b>	<b>19.0</b>	<b>4,875,063</b>	<b>2.5</b>										
<b>MEDIUM AND SMALL FACILITIES (BUILDING AREA ESTIMATED)<sup>1</sup></b>																		
<b>Sub-TOTAL</b>	Office			<b>407,072</b>	<b>7,751,400</b>	<b>19.0</b>	<b>1,129,000</b>	<b>2.5</b>										
<b>Sub-TOTAL</b>																		
<b>TOTAL</b>				<b>2,337,265</b>	<b>44,505,800</b>	<b>19.0</b>	<b>6,004,063</b>	<b>2.6</b>	<b>3,504,571</b>	<b>1.50</b>	<b>13,229</b>	<b>0.01</b>	<b>683,428</b>	<b>0.29</b>	<b>202,455</b>			

<sup>1</sup> Medium and small facilities electricity consumption is considered 17.4% of the corresponding department's total electricity consumption.  
<sup>1</sup> Medium and small facilities electricity consumption cost is considered 18.8% of the corresponding department's total electricity consumption.  
 NOTE: "MEDIUM AND SMALL FACILITIES" Area (sq.ft.) were estimated from their kWh/year divided by "LARGE FACILITIES (BUILDING AREA KNOWN)" kWh/sq.ft.-year.

**STATE OF HAWAII FACILITIES IN OAHU ENERGY BENCHMARK ANALYSIS**

Building Name	Building Type	Operating Schedule hr.	Year Built	Area (sq.ft.)	Energy Use				Energy Savings Projects in the Past Eight Years									
					kWh/sq.ft.		\$/year	\$/sq.ft.-year	Lighting Savings		Water Heating		Motor Replacement		Space Cooling Retrofits		Custom Rebate	
					kWh/year	-year			kWh/year	-year	kWh/year	-year	kWh/year	-year	kWh/year	-year	kWh/year	-year
<b>JUDICIARY</b>																		
<b>LARGE FACILITIES (BUILDING AREA KNOWN)</b>																		
777 PUNCHBOWL ST (KAAHUMANU HALE)	Office			212,000	3,946,000	18.6	495,030	2.3										
1111 ALAKEA ST (KAKUIHEIWA DIS CT 1ST C)	Office			187,000	4,683,000	25.0	580,849	3.1										
417 S KING ST (ALIOLANE HALE)	Office			62,200	1,639,680	26.4	213,991	3.4										
<b>Sub-TOTAL</b>				<b>461,200</b>	<b>10,268,680</b>	<b>22.3</b>	<b>1,289,870</b>	<b>2.8</b>										
<b>MEDIUM AND SMALL FACILITIES (BUILDING AREA ESTIMATED)<sup>1</sup></b>																		
<b>Sub-TOTAL</b>	Office			<b>75,639</b>	<b>1,684,117</b>	<b>22.3</b>	<b>245,294</b>	<b>2.8</b>										
<b>Sub-TOTAL</b>																		
<b>TOTAL</b>				<b>536,839</b>	<b>11,952,797</b>	<b>22.3</b>	<b>1,535,164</b>	<b>2.9</b>	<b>1,137,700</b>	<b>2.12</b>					<b>472,238</b>			

<sup>1</sup> Medium and small facilities electricity consumption is considered 14.1% of the corresponding department's total electricity consumption.  
<sup>1</sup> Medium and small facilities electricity consumption cost is considered 15.97% of the corresponding department's total electricity consumption.  
 NOTE: "MEDIUM AND SMALL FACILITIES" Area (sq.ft.) were estimated from their kWh/year divided by "LARGE FACILITIES (BUILDING AREA KNOWN)" kWh/sq.ft.-year.



STATE OF HAWAII FACILITIES IN OAHU ENERGY BENCHMARK ANALYSIS

Building Name	Building Type	Operating Schedule hr.	Year Built	Area (sq.ft.)	Energy Use				Energy Savings Projects in the Past Eight Years				
					kWh/sq.ft.				Lighting Savings kWh/year	Water Heating kWh/sq.ft. kWh/year	Motor Replacement kWh/sq.ft. kWh/year	Space Cooling Retrofits kWh/sq.ft. kWh/year	Custom Rebate kWh/sq.ft. kWh/year
					kWh/year	-year	\$/year	\$/sq.ft.-year					
<b>DBEDT</b>													
<b>LARGE FACILITIES (BUILDING AREA ESTIMATED)</b>													
1777 KAPIOLANI BV (HCC)	Conv. Centr.			354,554	7,894,200	22.3	1,129,227	3.2					
<b>Sub-TOTAL</b>				<b>354,554</b>	<b>7,894,200</b>	<b>22.3</b>	<b>1,129,227</b>	<b>3.2</b>					
<b>MEDIUM AND SMALL FACILITIES (BUILDING AREA ESTIMATED)<sup>1</sup></b>													
<b>Sub-TOTAL</b>	Office			265,489	5,911,140	22.3	860,965	3.2					
<b>Sub-TOTAL</b>													
<b>TOTAL</b>				<b>620,043</b>	<b>13,805,340</b>	<b>22.3</b>	<b>1,990,192</b>	<b>3.2</b>	<b>797,568</b>	<b>0</b>	<b>25,508</b>	<b>1,216,000</b>	<b>554,012</b>

<sup>1</sup> Medium and small facilities electricity consumption is considered 42.8% of the corresponding department's total electricity consumption.  
<sup>1</sup> Medium and small facilities electricity consumption cost is considered 43.3% of the corresponding department's total electricity consumption.  
 NOTE: \* LARGE FACILITIES\* and \*MEDIUM AND SMALL FACILITIES\* Area (sq.ft.) were estimated from their kWh/year divided by "JUDUCIARY" kWh/sq.ft.-year.

STATE OF HAWAII FACILITIES IN OAHU ENERGY BENCHMARK ANALYSIS

Building Name	Building Type	Operating Schedule hr.	Year Built	Area (sq.ft.)	Energy Use				Energy Savings Projects in the Past Eight Years				
					kWh/sq.ft.				Lighting Savings kWh/year	Water Heating kWh/sq.ft. kWh/year	Motor Replacement kWh/sq.ft. kWh/year	Space Cooling Retrofits kWh/sq.ft. kWh/year	Custom Rebate kWh/sq.ft. kWh/year
					kWh/year	-year	\$/year	\$/sq.ft.-year					
<b>DHS</b>													
<b>LARGE FACILITIES (BUILDING AREA ESTIMATED)</b>													
99132 KOHOMUA ST (HCDCH)	Office			115,849	2,579,400	22.3	329,819	2.8					
1541 KALAKAUA AV (HCDCH)	Office			89,175	1,985,500	22.3	240,419	2.7					
1545 LINAPUNI ST #BLDG B (HCDCH HHA)	Office			59,224	1,318,640	22.3	164,363	2.8					
1475 LINAPUNI ST #BLDG (HCDCH HHA)	Office			60,090	1,337,920	22.3	165,635	2.8					
<b>Sub-TOTAL</b>				<b>324,339</b>	<b>7,221,460</b>	<b>22.3</b>	<b>900,236</b>	<b>2.8</b>					
<b>MEDIUM AND SMALL FACILITIES (BUILDING AREA ESTIMATED)<sup>1</sup></b>													
<b>Sub-TOTAL</b>	Office			253,717	5,649,042	22.3	822,790	2.8					
<b>Sub-TOTAL</b>													
<b>TOTAL</b>				<b>578,056</b>	<b>12,870,502</b>	<b>22.3</b>	<b>1,723,026</b>	<b>3.0</b>	<b>32,042</b>	<b>270,226</b>	<b>978</b>	<b>0</b>	<b>35,856</b>

<sup>1</sup> Medium and small facilities electricity consumption is considered 43.9% of the corresponding department's total electricity consumption.  
<sup>1</sup> Medium and small facilities electricity consumption cost is considered 47.8% of the corresponding department's total electricity consumption.  
 NOTE: \* LARGE FACILITIES\* and \*MEDIUM AND SMALL FACILITIES\* Area (sq.ft.) were estimated from their kWh/year divided by "JUDUCIARY" kWh/sq.ft.-year.

STATE OF HAWAII FACILITIES IN OAHU ENERGY BENCHMARK ANALYSIS

Building Name	Building Type	Operating Schedule hr.	Year Built	Area (sq.ft.)	Energy Use				Energy Savings Projects in the Past Eight Years									
					kWh/sq.ft.		\$/year	\$/sq.ft.-year	Lighting Savings		Water Heating		Motor Replacement		Space Cooling Retrofits		Custom Rebate	
					kWh/year	-year			kWh/year	-year	kWh/year	-year	kWh/year	-year	kWh/year	-year	kWh/year	-year
<b>DOD</b>																		
<b>LARGE FACILITIES (BUILDING AREA KNOWN)</b>																		
3949 DIAMOND HEAD RD	Office			140,000	1,305,200	9.3	168,418	1.2										
<b>Sub-TOTAL</b>				<b>140,000</b>	<b>1,305,200</b>	<b>9.3</b>	<b>168,418</b>	<b>1.2</b>										
<b>MEDIUM AND SMALL FACILITIES (BUILDING AREA ESTIMATED)<sup>1</sup></b>																		
<b>Sub-TOTAL</b>	Office			388,803	3,624,756	9.3	527,950	1.2										
<b>Sub-TOTAL</b>																		
<b>TOTAL</b>				<b>528,803</b>	<b>4,929,956</b>	<b>9.3</b>	<b>696,368</b>	<b>1.3</b>	<b>26,143</b>	<b>0.05</b>			<b>1,195</b>	<b>0.00</b>				

<sup>1</sup> Medium and small facilities electricity consumption is considered 73.5% of the corresponding department's total electricity consumption.  
<sup>1</sup> Medium and small facilities electricity consumption cost is considered 75.8% of the corresponding department's total electricity consumption.  
 NOTE: "MEDIUM AND SMALL FACILITIES" Area (sq.ft.) were estimated from their kWh/year divided by "LARGE FACILITIES" kWh/sq.ft.-year.

STATE OF HAWAII FACILITIES IN OAHU ENERGY BENCHMARK ANALYSIS

Building Name	Building Type	Operating Schedule hr.	Year Built	Area (sq.ft.)	Energy Use				Energy Savings Projects in the Past Eight Years									
					kWh/sq.ft.		\$/year	\$/sq.ft.-year	Lighting Savings		Water Heating		Motor Replacement		Space Cooling Retrofits		Custom Rebate	
					kWh/year	-year			kWh/year	-year	kWh/year	-year	kWh/year	-year	kWh/year	-year	kWh/year	-year
<b>DOE</b>																		
<b>LARGE FACILITIES (BUILDING AREA ESTIMATED)</b>																		
915007 KAPOLEI PKWY	Classroom/Office			240,613	3,609,200	15.0	484,320	2.0										
46155 KAMEHAMEHA HY	Classroom/Office			80,672	1,210,080	15.0	173,242	2.1										
91884 FT WEAVER RD	Classroom/Office			136,608	2,049,120	15.0	278,670	2.0										
2460 WAIMANO HOME RD (PEARL CITY HIGH)	Classroom/Office			109,080	1,636,200	15.0	223,823	2.1										
89980 NANAKULI AV (NANAKULI HIGH & INTER)	Classroom/Office			98,800	1,482,000	15.0	207,595	2.1										
85271 FARRINGTON HY (WAIANA HIGH)	Classroom/Office			87,552	1,313,280	15.0	179,640	2.1										
951200 MEHEULA PARKWAY (MILILANI HIGH)	Classroom/Office			113,040	1,695,600	15.0	236,818	2.1										
45386 KANEHOE BAY DR (CASTLE HIGH)	Classroom/Office			87,600	1,314,000	15.0	177,772	2.0										
760 ILIAINA ST (KALAHEO)	Classroom/Office			72,949	1,094,240	15.0	155,445	2.1										
511 LUNALILO HOME RD (KAISER HIGH)	Classroom/Office			98,000	1,470,000	15.0	203,849	2.1										
4680 KALANIANAOLE HY (KALANI HIGH)	Classroom/Office			37,749	566,240	15.0	72,239	1.9										
2705 KAIMUKI AVE (KAIMUKI HIGH)	Classroom/Office			146,907	2,203,600	15.0	291,705	2.0										
1120 NEHOA ST (ROOSEVELT HIGH)	Classroom/Office			77,720	1,165,800	15.0	163,478	2.1										
1039 S KING ST (MCKINLEY HIGH)	Classroom/Office			160,107	2,401,600	15.0	331,155	2.1										
1185 ALA NAPUNANI ST (MOANALUA HIGH)	Classroom/Office			116,667	1,750,000	15.0	242,024	2.1										
911561 KEAUNUI RD HOLOMUA ELEMENTARY)	Classroom/Office			110,496	1,657,440	15.0	230,333	2.1										
951140 LEHIWA DR (MILILANI INTERMED)	Classroom/Office			157,653	2,364,800	15.0	327,725	2.1										
915335 KAPOLEI PKWY (KAPOLEI MID SCH)	Classroom/Office			139,600	2,094,000	15.0	282,619	2.0										
478 S KING ST (HAWAII STATE LIBRARY)	Classroom/Office			63,151	1,171,440	18.5	170,141	2.7										
<b>Sub-TOTAL</b>				<b>2,134,964</b>	<b>32,248,640</b>	<b>15.1</b>	<b>4,432,593</b>	<b>2.1</b>										
<b>MEDIUM AND SMALL FACILITIES (BUILDING AREA ESTIMATED)<sup>1</sup></b>																		
<b>Sub-TOTAL</b>	Classroom/Office			<b>5,694,686</b>	<b>86,018,235</b>	<b>15.1</b>	<b>12,528,661</b>	<b>2.1</b>										
<b>Sub-TOTAL</b>																		
<b>TOTAL</b>				<b>7,829,650</b>	<b>118,266,875</b>	<b>15.1</b>	<b>16,961,254</b>	<b>2.2</b>	<b>9,541,043</b>	<b>1.22</b>	<b>0</b>	<b>0</b>	<b>44,850</b>	<b>0.01</b>	<b>1,191,563</b>	<b>0.15</b>	<b>205,500</b>	<b>0.03</b>

<sup>1</sup> Medium and small facilities electricity consumption is considered 72.7% of the corresponding department's total electricity consumption.  
<sup>1</sup> Medium and small facilities electricity consumption cost is considered 73.9% of the corresponding department's total electricity consumption.  
 NOTE: "LARGE FACILITIES" and "MEDIUM AND SMALL FACILITIES" Area (sq.ft.) were estimated from their kWh/year divided by an estimated 15 kWh/sq.ft.-year.

STATE OF HAWAII FACILITIES IN OAHU ENERGY BENCHMARK ANALYSIS

Building Name	Building Type	Operating Schedule hr.	Year Built	Area (sq.ft.)	Energy Use				Energy Savings Projects in the Past Eight Years									
					kWh/sq.ft.		\$/year	\$/sq.ft.-year	Lighting Savings		Water Heating		Motor Replacement		Space Cooling Retrofits		Custom Rebate	
					kWh/year	-year			kWh/year	-year	kWh/year	-year	kWh/year	-year	kWh/year	-year	kWh/year	-year
<b>DOH</b>																		
<b>LARGE FACILITIES (BUILDING AREA KNOWN)</b>																		
45747 KEAAHALA RD (HAWAII STATE HOSP)	Hospital			226,475	4,632,000	20.5	541,435	2.4										
45633 KEAAHALA RD	Hospital			68,206	1,395,000	20.5	175,222	2.6										
3627 KILAUEA AV (ADMIN SRVC OFF)	Hospital			72,940	1,578,480	21.6	217,135	3.0										
3675 KILAUEA AV	Hospital			137,830	2,982,800	21.6	371,246	2.7										
1103 HALA DR (MALUHIA HOSP)	Hospital			99,700	2,486,400	24.9	299,056	3.0										
2725 WAIMANO HOME RD (ADMIN OFF)	Hospital			306,366	6,845,400	22.3	817,416	2.7										
	<b>Sub-TOTAL</b>			<b>911,517</b>	<b>19,920,080</b>	<b>21.9</b>	<b>2,421,510</b>	<b>2.7</b>										
<b>MEDIUM AND SMALL FACILITIES (BUILDING AREA ESTIMATED)<sup>1</sup></b>																		
	<b>Sub-TOTAL</b>			<b>695,353</b>	<b>15,196,091</b>	<b>21.9</b>	<b>2,213,329</b>	<b>2.7</b>										
	<b>Sub-TOTAL</b>																	
<b>TOTAL</b>				<b>1,606,870</b>	<b>35,116,171</b>	<b>21.9</b>	<b>4,634,839</b>	<b>2.9</b>	<b>526,000</b>	<b>0.33</b>								

<sup>1</sup> Medium and small facilities electricity consumption is considered 43.3% of the corresponding department's total electricity consumption.

<sup>1</sup> Medium and small facilities electricity consumption cost is considered 47.8% of the corresponding department's total electricity consumption.

NOTE: "MEDIUM AND SMALL FACILITIES" Area (sq.ft.) were estimated from their kWh/year divided by "LARGE FACILITIES (BUILDING AREA KNOWN)" kWh/sq.ft.-year.

STATE OF HAWAII FACILITIES IN OAHU ENERGY BENCHMARK ANALYSIS

Building Name	Building Type	Operating Schedule hr.	Year Built	Area (sq.ft.)	Energy Use				Energy Savings Projects in the Past Eight Years									
					kWh/sq.ft.		\$/year	\$/sq.ft.-year	Lighting Savings		Water Heating		Motor Replacement		Space Cooling Retrofits		Custom Rebate	
					kWh/year	-year			kWh/year	-year	kWh/year	-year	kWh/year	-year	kWh/year	-year	kWh/year	-year
<b>PSD</b>																		
<b>LARGE FACILITIES (BUILDING AREA ESTIMATED)</b>																		
94560 KAMEHAMEHA HY (WAIAWA CORR FAC)	Corr Fac			82,200	1,233,000	15.0	155,458	1.9										
5100 MOANALUA RD	Corr Fac			90,352	1,355,280	15.0	165,624	1.8										
99902 MOANALUA RD (HALAWA PRISON)	Corr Fac			339,800	5,097,000	15.0	617,725	1.8										
2199 KAMEHAMEHA HY (OCCC & HSE CORR)	Corr Fac			456,640	6,849,600	15.0	794,028	1.7										
42477 KALANIANA'OLE HY	Corr Fac			118,741	1,781,120	15.0	215,668	1.8										
	<b>Sub-TOTAL</b>			<b>1,087,733</b>	<b>16,316,000</b>	<b>15.0</b>	<b>1,948,503</b>	<b>1.8</b>										
<b>MEDIUM AND SMALL FACILITIES (BUILDING AREA ESTIMATED)<sup>1</sup></b>																		
	<b>Sub-TOTAL</b>			<b>0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>-</b>										
	<b>Sub-TOTAL</b>																	
<b>TOTAL</b>				<b>1,087,733</b>	<b>16,316,000</b>	<b>15.0</b>	<b>1,948,503</b>	<b>1.8</b>	<b>155</b>	<b>0.00</b>								

NOTE: "LARGE FACILITIES" and "MEDIUM AND SMALL FACILITIES" Area (sq.ft.) were estimated from their kWh/year divided by "DOH" kWh/sq.ft.-year.

STATE OF HAWAII FACILITIES IN OAHU ENERGY BENCHMARK ANALYSIS

Building Name	Building Type	Operating Schedule hr.	Year Built	Area (sq.ft.)	Energy Use				Energy Savings Projects in the Past Eight Years									
					kWh/sq.ft.		\$/year	\$/sq.ft.-year	Lighting Savings		Water Heating		Motor Replacement		Space Cooling Retrofits		Custom Rebate	
					kWh/year	-year			kWh/year	-year	kWh/year	-year	kWh/year	-year	kWh/year	-year	kWh/year	-year
<b>DOT</b>																		
<b>LARGE FACILITIES (BUILDING AREA KNOWN)</b>																		
40 PIER (KAPALAMA MIL RES)	Military Reserve			133,340	1,391,400	10.4	187,393	1.4										
869 PUNCHBOWL ST (TRANSPORTATION)	Office			55,854	1,247,520	22.3	166,588	3.0										
302 RODGERS BV #344 (IAB VAULT 'B')	Airport Terminal			269,775	12,936,000	48.0	1,453,504	5.4										
302 RODGERS BV #342 (SVC CRT VLT 'C')	Airport Terminal			150,904	7,236,000	48.0	803,431	5.3										
302 RODGERS BV #336 (OST VLT 'N')	Airport Terminal			353,110	16,932,000	48.0	1,905,754	5.4										
304 RODGERS BV #360 (EWA VLT '1E')	Airport Terminal			87,506	4,196,000	48.0	476,875	5.4										
300 RODGERS BV (COMM TERM ELEC)	Airport Terminal			25,101	1,203,600	48.0	142,471	5.7										
300 RODGERS BV #355 (OSPARK VLT 'A')	Airport Terminal			30,963	1,484,720	48.0	172,975	5.6										
301 RODGERS BV #A (DIA HD EXT)	Airport Terminal			263,118	12,616,800	48.0	1,396,833	5.3										
301 RODGERS BV (CEN CONC VLT 'Y')	Airport Terminal			118,771	5,695,200	48.0	675,038	5.7										
303 RODGERS BV #373 (DIA HD VLT '1D')	Airport Terminal			159,600	7,653,000	48.0	868,980	5.4										
3651 AOLELE ST (EWA CHILLER PLT)	Airport Terminal			254,109	12,184,800	48.0	1,408,012	5.5										
3650 AOLELE ST (NEW INTERISLE TERM)	Airport Terminal			251,156	12,043,200	48.0	1,364,261	5.4										
3661 AOLELE ST (EWA CONC GATES)	Airport Terminal			55,031	2,638,800	48.0	303,361	5.5										
<b>Sub-TOTAL</b>				<b>2,208,338</b>	<b>99,459,040</b>	<b>45.0</b>	<b>11,325,476</b>	<b>5.1</b>										
<b>LARGE FACILITIES (BUILDING AREA ESTIMATED)</b>																		
2 PALI HY (PRIMECO & ST LTS)	Highway Tunnel			17,511	788,640	45.0	102,437	5.9										
0 WILSON TUNNEL	Highway Tunnel			30,481	1,372,800	45.0	169,706	5.6										
0 H-3 TUNNEL HAIKU IB PORTAL (HE INT)	Highway Tunnel			88,459	3,984,000	45.0	592,960	6.7										
<b>Sub-TOTAL</b>				<b>136,450</b>	<b>6,145,440</b>	<b>45.0</b>	<b>865,103</b>	<b>6.3</b>										
<b>MEDIUM AND SMALL FACILITIES (BUILDING AREA ESTIMATED)<sup>1</sup></b>																		
<b>Sub-TOTAL</b>	Highway Tunnel			<b>196,129</b>	<b>8,833,250</b>	<b>45.0</b>	<b>1,286,573</b>	<b>6.3</b>										
<b>Sub-TOTAL</b>																		
<b>TOTAL</b>				<b>2,540,917</b>	<b>114,437,730</b>	<b>45.0</b>	<b>13,477,152</b>	<b>5.3</b>	<b>2,167,157</b>	<b>0.85</b>								

<sup>1</sup> Medium and small facilities electricity consumption is considered 7.7% of the corresponding department's total electricity consumption.

<sup>1</sup> Medium and small facilities electricity consumption cost is considered 9.5% of the corresponding department's total electricity consumption.

NOTE: \* LARGE FACILITIES (BUILDING AREA ESTIMATED) and \*MEDIUM AND SMALL FACILITIES\* Area (sq.ft.) were estimated from their kWh/year divided by "LARGE FACILITIES (BUILDING AREA KNOWN)" kWh/sq.ft.-year.

STATE OF HAWAII FACILITIES IN OAHU ENERGY BENCHMARK ANALYSIS

Building Name	Building Type	Operating Schedule hr.	Year Built	Area (sq.ft.)	Energy Use				Energy Savings Projects in the Past Eight Years									
					kWh/sq.ft.		\$/year	\$/sq.ft.-year	Lighting Savings		Water Heating		Motor Replacement		Space Cooling Retrofits		Custom Rebate	
					kWh/year	-year			kWh/year	-year	kWh/year	-year	kWh/year	-year	kWh/year	-year	kWh/year	-year
<b>UH MANOA</b>																		
<b>LARGE FACILITIES (BUILDING AREA KNOWN)</b>																		
1701 EAST WEST RD (FACILITIES MGMT)	Class/Office			6,122,395	129,300,000	21.1	14,786,615	2.4										
2680 WOODLAWN DR (ASTRONOMY FAC)	Class/Office			46,340	2,315,400	50.0	273,801	5.9										
<b>Sub-TOTAL</b>				<b>6,168,735</b>	<b>131,615,400</b>	<b>21.3</b>	<b>15,060,416</b>	<b>2.4</b>										
<b>LARGE FACILITIES (BUILDING AREA ESTIMATED)</b>																		
2777 KALAKAUA AV (WAIKIKI AQUARIUM)	Aquarium			62,194	1,326,960	21.3	161,912	2.6										
46007 LILIPUNA RD (HIMB)	Class/Office			77,709	1,658,000	21.3	202,771	2.6										
<b>Sub-TOTAL</b>				<b>139,903</b>	<b>2,984,960</b>	<b>21.3</b>	<b>364,683</b>	<b>2.6</b>										
<b>MEDIUM AND SMALL FACILITIES (BUILDING AREA ESTIMATED)<sup>1</sup></b>																		
<b>Sub-TOTAL</b>	Class/Office			<b>200,470</b>	<b>4,277,211</b>	<b>21.3</b>	<b>622,982</b>	<b>2.4</b>										
<b>Sub-TOTAL</b>																		
<b>TOTAL</b>				<b>6,509,109</b>	<b>138,877,571</b>	<b>21.3</b>	<b>16,048,081</b>	<b>2.5</b>	<b>27,057</b>	<b>0.00</b>	<b>142,676</b>	<b>0.02</b>	<b>125,976</b>	<b>0.02</b>				

<sup>1</sup> Medium and small facilities electricity consumption is considered 3.1% of the corresponding department's total electricity consumption.

<sup>1</sup> Medium and small facilities electricity consumption cost is considered 3.9% of the corresponding department's total electricity consumption.

NOTE: \* LARGE FACILITIES (BUILDING AREA ESTIMATED) and \*MEDIUM AND SMALL FACILITIES\* Area (sq.ft.) were estimated from their kWh/year divided by "LARGE FACILITIES (BUILDING AREA KNOWN)" kWh/sq.ft.-year.

STATE OF HAWAII FACILITIES IN OAHU ENERGY BENCHMARK ANALYSIS

Building Name	Building Type	Operating Schedule hr.	Year Built	Area (sq.ft.)	Energy Use				Energy Savings Projects in the Past Eight Years							
					kWh/sq.ft.				Lighting Savings kWh/year	Water Heating kWh/sq.ft. kWh/year	Motor Replacement kWh/sq.ft. kWh/year	Space Cooling Retrofits kWh/sq.ft. kWh/year	Custom Rebate kWh/sq.ft. kWh/year			
					kWh/year	-year	\$/year	\$/sq.ft.-year								
<b>COMM COLL</b>																
<b>LARGE FACILITIES (BUILDING AREA ESTIMATED)</b>																
96045 ALAIKE ST (LEEWARD)	Class/Office			269,630	5,752,800	21.3	730,218	2.7								
655 MAKAPUU AV (KAPIOLANI BUSINESS)	Class/Office			378,208	8,069,400	21.3	1,049,593	2.8								
874 DILLINGHAM BV (HONOLULU)	Class/Office			234,628	5,006,000	21.3	663,227	2.8								
45720 KEAAHALA RD (HALE IMILOA)	Class/Office			264,821	5,650,200	21.3	692,104	2.6								
<b>Sub-TOTAL</b>				<b>1,147,288</b>	<b>24,478,400</b>	<b>21.3</b>	<b>3,135,142</b>	<b>2.7</b>								
<b>MEDIUM AND SMALL FACILITIES (BUILDING AREA ESTIMATED)<sup>1</sup></b>																
<b>Sub-TOTAL</b>	Class/Office			<b>73,445</b>	<b>1,567,010</b>	<b>21.3</b>	<b>228,237</b>	<b>2.7</b>								
<b>Sub-TOTAL</b>																
<b>TOTAL</b>				<b>1,220,733</b>	<b>26,045,410</b>	<b>21.3</b>	<b>3,363,379</b>	<b>2.8</b>	<b>2,874,483</b>	<b>2.35</b>	<b>23,067</b>	<b>0.02</b>	<b>714,956</b>	<b>0.59</b>	<b>352,000</b>	<b>0.29</b>

<sup>1</sup> Medium and small facilities electricity consumption is considered 6.0 % of the corresponding department's total electricity consumption.  
<sup>1</sup> Medium and small facilities electricity consumption cost is considered 6.8% of the corresponding department's total electricity consumption.  
 NOTE: \* LARGE FACILITIES\* and \*MEDIUM AND SMALL FACILITIES\* Area (sq.ft.) were estimated from their kWh/year divided by "UH MANOA" kWh/sq.ft.-year.

STATE OF HAWAII FACILITIES IN OAHU ENERGY BENCHMARK ANALYSIS

Building Name	Building Type	Operating Schedule hr.	Year Built	Area (sq.ft.)	Energy Use				Energy Savings Projects in the Past Eight Years							
					kWh/sq.ft.				Lighting Savings kWh/year	Water Heating kWh/sq.ft. kWh/year	Motor Replacement kWh/sq.ft. kWh/year	Space Cooling Retrofits kWh/sq.ft. kWh/year	Custom Rebate kWh/sq.ft. kWh/year			
					kWh/year	-year	\$/year	\$/sq.ft.-year								
<b>OTHER</b>																
<b>LARGE FACILITIES DOES NOT EXIST</b>																
<b>MEDIUM AND SMALL FACILITIES (BUILDING AREA ESTIMATED)<sup>1</sup></b>																
<b>Sub-TOTAL</b>	Office			971,908	20,530,537	21.1	2,990,298	3.1								
<b>Sub-TOTAL</b>																
<b>TOTAL</b>				<b>971,908</b>	<b>20,530,537</b>	<b>21.1</b>	<b>2,990,298</b>	<b>3.1</b>	<b>8,517</b>	<b>0.01</b>						

NOTE:"MEDIUM AND SMALL FACILITIES" Area (sq.ft.) were estimated from their kWh/year divided by "AVERAGE kWh/sq.ft.-year OF REST OF THE SOH FACILITIES".  
 \* OTHER: Department of Attorney General  
 Department of Labor and Industrial Relations  
 Department of Land and Natural Resources  
 Department of Hawaiian Homelands  
 Department of Agriculture  
 Other Facilities

APPENDIX 9.0

Baseline Benchmark Analysis by End Use Electricity

STATE OF HAWAII FACILITIES IN OAHU ENERGY BENCHMARK ANALYSIS BY END USE

Building Name	Building Type	Operating Schedule hr.	Year Built	Area (sq.ft.)	Energy Use				Energy Use Distribution by Utility					
					kWh/year	kWh/sq.ft.-year	\$/year	\$/sq.ft.-year	HVAC		LIGHTING		MISCELLANEOUS	
									kWh/year	kWh/sq.ft.-year	kWh/year	kWh/sq.ft.-year	kWh/year	kWh/sq.ft.-year
<b>DAGS</b>														
<b>LARGE FACILITIES (BUILDING AREA KNOWN)</b>														
400 SOUTH BERETANIA (STATE CAPITOL)	Office	10	1969	300,000	6,126,000	20.4	790,618	2.6	3,185,520	10.62	1,837,800	6.13	1,102,680	3.68
919 ALA MOANA BLVD (AAFES)	Office	10		108,000	2,243,000	20.8	297,353	2.8	1,166,360	10.80	672,900	6.23	403,740	3.74
1390 MILLER ST (QUEEN LILIOULANI)	Office	11.5	1943	94,528	2,534,000	26.8	333,361	3.5	1,317,680	13.94	760,200	8.04	456,120	4.83
1151 PUNCHBOWL ST (KALANIMOKU)	Office	10	1976	203,000	7,037,400	34.7	877,507	4.3	3,659,448	18.03	2,111,220	10.40	1,266,732	6.24
1250 PUNCHBOWL ST (KINAU HALE)	Office	11	1961	66,951	1,631,200	24.4	222,814	3.3	848,224	12.67	489,360	7.31	293,616	4.39
250 S HOTEL ST (NO. 1-DISTRICT BLDG)	Office	10		120,000	2,567,040	21.4	321,188	2.7	1,334,861	11.12	770,112	6.42	462,067	3.85
465 S KING ST (KEKUANAO'A BLDG)	Office	11		65,075	1,471,760	22.6	196,359	3.0	765,315	11.76	441,528	6.78	264,917	4.07
235 S BERETANIA ST (OFFICE TOWER)	Office	10	1991	172,000	2,502,400	14.5	337,136	2.0	1,301,248	7.57	750,720	4.36	450,432	2.62
830 PUNCHBOWL ST (KEELIKOLANI & AUHAU)	Office	12	1949	278,639	4,174,800	15.0	558,214	2.0	2,170,896	7.79	1,252,440	4.49	751,464	2.70
601 KAMOKILA BV (KAKUIHEIWA KAPOLEI)	Office	10	1998	222,000	3,050,400	13.7	408,107	1.8	1,586,208	7.15	915,120	4.12	549,072	2.47
99500 SALT LAKE BV (STADIUM AUTHORITY)	Stadium			300,000	3,416,400	11.4	532,406	1.8	1,776,528	5.92	1,024,920	3.42	614,952	2.05
<b>Sub-TOTAL</b>				<b>1,930,193</b>	<b>36,754,400</b>	<b>19.0</b>	<b>4,875,063</b>	<b>2.5</b>	<b>19,112,288</b>	<b>9.90</b>	<b>11,026,320</b>	<b>5.71</b>	<b>6,615,792</b>	<b>3.43</b>
<b>MEDIUM AND SMALL FACILITIES (BUILDING AREA ESTIMATED)<sup>1</sup></b>														
<b>Sub-TOTAL</b>	Office			<b>407,072</b>	<b>7,751,400</b>	<b>19.0</b>	<b>1,129,000</b>	<b>2.5</b>	<b>4,030,728</b>	<b>9.90</b>	<b>2,325,420</b>	<b>5.71</b>	<b>1,395,252</b>	<b>3.43</b>
<b>Sub-TOTAL</b>														
<b>TOTAL</b>				<b>2,337,265</b>	<b>44,505,800</b>	<b>19.0</b>	<b>6,004,063</b>	<b>2.6</b>	<b>23,143,016</b>	<b>9.90</b>	<b>13,351,740</b>	<b>5.71</b>	<b>8,011,044</b>	<b>3.43</b>

<sup>1</sup> Medium and small facilities electricity consumption is considered 17.4% of the corresponding department's total electricity consumption.

<sup>1</sup> Medium and small facilities electricity consumption cost is considered 18.8% of the corresponding department's total electricity consumption.

NOTE: "MEDIUM AND SMALL FACILITIES" Area (sq.ft.) were estimated from their kWh/year divided by "LARGE FACILITIES (BUILDING AREA KNOWN)" kWh/sq.ft.-year.

STATE OF HAWAII FACILITIES IN OAHU ENERGY BENCHMARK ANALYSIS BY END USE

Building Name	Building Type	Operating Schedule hr.	Year Built	Area (sq.ft.)	Energy Use				Energy Use Distribution by Utility					
					kWh/year	kWh/sq.ft.-year	\$/year	\$/sq.ft.-year	HVAC		LIGHTING		MISCELLANEOUS	
									kWh/year	kWh/sq.ft.-year	kWh/year	kWh/sq.ft.-year	kWh/year	kWh/sq.ft.-year
<b>JUDICIARY</b>														
<b>LARGE FACILITIES (BUILDING AREA KNOWN)</b>														
777 PUNCHBOWL ST (KAAHUMANU HALE)	Office			212,000	3,946,000	18.6	495,030	2.3	2,051,920	9.68	1,183,800	5.58	710,280	3.35
1111 ALAKEA ST (KAUIKEAOULI DIS CT 1ST C)	Office			187,000	4,683,000	25.0	580,849	3.1	2,435,160	13.02	1,404,900	7.51	842,940	4.51
417 S KING ST (ALIOLANE HALE)	Office			62,200	1,639,680	26.4	213,991	3.4	852,634	13.71	491,904	7.91	295,142	4.75
<b>Sub-TOTAL</b>				<b>461,200</b>	<b>10,268,680</b>	<b>22.3</b>	<b>1,289,870</b>	<b>2.8</b>	<b>5,339,714</b>	<b>11.58</b>	<b>3,080,604</b>	<b>6.68</b>	<b>1,848,362</b>	<b>4.01</b>
<b>MEDIUM AND SMALL FACILITIES (BUILDING AREA ESTIMATED)<sup>1</sup></b>														
<b>Sub-TOTAL</b>	Office			<b>75,639</b>	<b>1,684,117</b>	<b>22.3</b>	<b>245,294</b>	<b>2.8</b>	<b>875,741</b>	<b>11.58</b>	<b>505,235</b>	<b>6.68</b>	<b>303,141</b>	<b>4.01</b>
<b>Sub-TOTAL</b>														
<b>TOTAL</b>				<b>536,839</b>	<b>11,952,797</b>	<b>22.3</b>	<b>1,535,164</b>	<b>2.9</b>	<b>6,215,455</b>	<b>11.58</b>	<b>3,585,839</b>	<b>6.68</b>	<b>2,151,503</b>	<b>4.01</b>

<sup>1</sup> Medium and small facilities electricity consumption is considered 14.1% of the corresponding department's total electricity consumption.

<sup>1</sup> Medium and small facilities electricity consumption cost is considered 15.97% of the corresponding department's total electricity consumption.

NOTE: "MEDIUM AND SMALL FACILITIES" Area (sq.ft.) were estimated from their kWh/year divided by "LARGE FACILITIES (BUILDING AREA KNOWN)" kWh/sq.ft.-year.

STATE OF HAWAII FACILITIES IN OAHU ENERGY BENCHMARK ANALYSIS BY END USE

Building Name	Building Type	Operating Schedule hr.	Year Built	Area (sq.ft.)	Energy Use				Energy Use Distribution by Utility					
					kWh/year	kWh/sq.ft.-year	\$/year	\$/sq.ft.-year	HVAC		LIGHTING		MISCELLANEOUS	
									kWh/year	kWh/sq.ft.-year	kWh/year	kWh/sq.ft.-year	kWh/year	kWh/sq.ft.-year
<b>DBEDT</b>														
<b>LARGE FACILITIES (BUILDING AREA ESTIMATED)</b>														
1777 KAPIOLANI BV (HCC)	Conv. Centr.			354,554	7,894,200	22.3	1,129,227	3.2	4,104,984	11.58	2,368,260	6.68	1,420,956	4.01
<b>Sub-TOTAL</b>				<b>354,554</b>	<b>7,894,200</b>	<b>22.3</b>	<b>1,129,227</b>	<b>3.2</b>	<b>4,104,984</b>	<b>11.58</b>	<b>2,368,260</b>	<b>6.68</b>	<b>1,420,956</b>	<b>4.01</b>
<b>MEDIUM AND SMALL FACILITIES (BUILDING AREA ESTIMATED)<sup>1</sup></b>														
<b>Sub-TOTAL</b>	Office			265,489	5,911,140	22.3	860,965	3.2	3,073,793	11.58	1,773,342	6.68	1,064,005	4.01
<b>Sub-TOTAL</b>														
<b>TOTAL</b>				<b>620,043</b>	<b>13,805,340</b>	<b>22.3</b>	<b>1,990,192</b>	<b>3.2</b>	<b>7,178,777</b>	<b>11.58</b>	<b>4,141,602</b>	<b>6.68</b>	<b>2,484,961</b>	<b>4.01</b>

<sup>1</sup> Medium and small facilities electricity consumption is considered 42.8% of the corresponding department's total electricity consumption.  
<sup>1</sup> Medium and small facilities electricity consumption cost is considered 43.3% of the corresponding department's total electricity consumption.  
 NOTE: "LARGE FACILITIES" and "MEDIUM AND SMALL FACILITIES" Area (sq.ft.) were estimated from their kWh/year divided by "JUDUCIARY" kWh/sq.ft.-year.

STATE OF HAWAII FACILITIES IN OAHU ENERGY BENCHMARK ANALYSIS BY END USE

Building Name	Building Type	Operating Schedule hr.	Year Built	Area (sq.ft.)	Energy Use				Energy Use Distribution by Utility					
					kWh/year	kWh/sq.ft.-year	\$/year	\$/sq.ft.-year	HVAC		LIGHTING		MISCELLANEOUS	
									kWh/year	kWh/sq.ft.-year	kWh/year	kWh/sq.ft.-year	kWh/year	kWh/sq.ft.-year
<b>DHS HCDCH</b>														
<b>LARGE FACILITIES (BUILDING AREA ESTIMATED)</b>														
99132 KOHOMUA ST (HCDCH)	Office			115,849	2,579,400	22.3	329,819	2.8	1,341,288	11.58	773,820	6.68	464,292	4.01
1541 KALAKAUA AV (HCDCH)	Office			89,175	1,985,500	22.3	240,419	2.7						
1545 LINAPUNI ST #BLDG B (HCDCH HHA)	Office			59,224	1,318,640	22.3	164,363	2.8	685,693	11.58	395,592	6.68	237,355	4.01
1475 LINAPUNI ST #BLDG (HCDCH HHA)	Office			60,090	1,337,920	22.3	165,635	2.8	695,718	11.58	401,376	6.68	240,826	4.01
<b>Sub-TOTAL</b>				<b>324,339</b>	<b>7,221,460</b>	<b>22.3</b>	<b>900,236</b>	<b>2.8</b>	<b>3,755,159</b>	<b>11.58</b>	<b>2,166,438</b>	<b>6.68</b>	<b>1,299,863</b>	<b>4.01</b>
<b>MEDIUM AND SMALL FACILITIES (BUILDING AREA ESTIMATED)<sup>1</sup></b>														
<b>Sub-TOTAL</b>	Office			253,717	5,649,042	22.3	822,790	2.8	2,937,502	11.58	1,694,713	6.68	1,016,828	4.01
<b>Sub-TOTAL</b>														
<b>TOTAL</b>				<b>578,056</b>	<b>12,870,502</b>	<b>22.3</b>	<b>1,723,026</b>	<b>3.0</b>	<b>6,692,661</b>	<b>11.58</b>	<b>3,861,151</b>	<b>6.68</b>	<b>2,316,690</b>	<b>4.01</b>

<sup>1</sup> Medium and small facilities electricity consumption is considered 43.9% of the corresponding department's total electricity consumption.  
<sup>1</sup> Medium and small facilities electricity consumption cost is considered 47.8% of the corresponding department's total electricity consumption.  
 NOTE: "LARGE FACILITIES" and "MEDIUM AND SMALL FACILITIES" Area (sq.ft.) were estimated from their kWh/year divided by "JUDUCIARY" kWh/sq.ft.-year.



**STATE OF HAWAII FACILITIES IN OAHU ENERGY BENCHMARK ANALYSIS BY END USE**

Building Name	Building Type	Operating Schedule hr.	Year Built	Area (sq.ft.)	Energy Use				Energy Use Distribution by Utility					
					kWh/year	kWh/sq.ft.-year	\$/year	\$/sq.ft.-year	HVAC		LIGHTING		MISCELLANEOUS	
									kWh/year	kWh/sq.ft.-year	kWh/year	kWh/sq.ft.-year	kWh/year	kWh/sq.ft.-year
<b>DOD</b>														
<b>LARGE FACILITIES (BUILDING AREA KNOWN)</b>														
3949 DIAMOND HEAD RD	Office			140,000	1,305,200	9.3	168,418	1.2	261,040	1.86	809,224	5.78	234,936	1.68
<b>Sub-TOTAL</b>				<b>140,000</b>	<b>1,305,200</b>	<b>9.3</b>	<b>168,418</b>	<b>1.2</b>	<b>261,040</b>	<b>1.86</b>	<b>809,224</b>	<b>5.78</b>	<b>234,936</b>	<b>1.68</b>
<b>MEDIUM AND SMALL FACILITIES (BUILDING AREA ESTIMATED)<sup>1</sup></b>														
<b>Sub-TOTAL</b>	Office			388,803	3,624,756	9.3	527,950	1.2	724,951	1.86	2,247,348	5.78	652,456	1.68
<b>Sub-TOTAL</b>														
<b>TOTAL</b>				<b>528,803</b>	<b>4,929,956</b>	<b>9.3</b>	<b>696,368</b>	<b>1.3</b>	<b>985,991</b>	<b>1.86</b>	<b>3,056,572</b>	<b>5.78</b>	<b>887,392</b>	<b>1.68</b>

<sup>1</sup> Medium and small facilities electricity consumption is considered 73.5% of the corresponding department's total electricity consumption.  
<sup>1</sup> Medium and small facilities electricity consumption cost is considered 75.8% of the corresponding department's total electricity consumption.  
 NOTE: "MEDIUM AND SMALL FACILITIES" Area (sq.ft.) were estimated from their kWh/year divided by "LARGE FACILITIES (BUILDING AREA KNOWN)" kWh/sq.ft.-year.

**STATE OF HAWAII FACILITIES IN OAHU ENERGY BENCHMARK ANALYSIS BY END USE**

Building Name	Building Type	Operating Schedule hr.	Year Built	Area (sq.ft.)	Energy Use				Energy Use Distribution by Utility					
					kWh/year	kWh/sq.ft.-year	\$/year	\$/sq.ft.-year	HVAC		LIGHTING		MISCELLANEOUS	
									kWh/year	kWh/sq.ft.-year	kWh/year	kWh/sq.ft.-year	kWh/year	kWh/sq.ft.-year
<b>DOE</b>														
<b>LARGE FACILITIES (BUILDING AREA ESTIMATED)</b>														
915007 KAPOLEI PKWY	Classroom/Office			240,613	3,609,200	15.0	484,320	2.0	721,840	3.00	2,237,704	9.30	649,656	2.70
46155 KAMEHAMEHA HY	Classroom/Office			80,672	1,210,080	15.0	173,242	2.1	242,016	3.00	750,250	9.30	217,814	2.70
91884 FT WEAVER RD	Classroom/Office			136,608	2,049,120	15.0	278,670	2.0	409,824	3.00	1,270,454	9.30	368,842	2.70
2460 WAIMANO HOME RD (PEARL CITY HIGH)	Classroom/Office			109,080	1,636,200	15.0	223,823	2.1	327,240	3.00	1,014,444	9.30	294,516	2.70
89980 NANAKULI AV (NANAKULI HIGH & INTER)	Classroom/Office			98,800	1,482,000	15.0	207,595	2.1	296,400	3.00	918,840	9.30	266,760	2.70
85271 FARRINGTON HY (WAIANAE HIGH)	Classroom/Office			87,552	1,313,280	15.0	179,640	2.1	262,656	3.00	814,234	9.30	236,390	2.70
951200 MEHEULA PARKWAY (MILILANI HIGH)	Classroom/Office			113,040	1,695,600	15.0	236,818	2.1	339,120	3.00	1,051,272	9.30	305,208	2.70
45386 KANEOHE BAY DR (CASTLE HIGH)	Classroom/Office			87,600	1,314,000	15.0	177,772	2.0	262,800	3.00	814,680	9.30	236,520	2.70
760 ILIAINA ST (KALAHEO)	Classroom/Office			72,949	1,094,240	15.0	155,445	2.1	218,848	3.00	678,429	9.30	196,963	2.70
511 LUNALILO HOME RD (KAISER HIGH)	Classroom/Office			98,000	1,470,000	15.0	203,849	2.1	294,000	3.00	911,400	9.30	264,600	2.70
4680 KALANIANA'OLE HY (KALANI HIGH)	Classroom/Office			37,749	566,240	15.0	72,239	1.9	113,248	3.00	351,069	9.30	101,923	2.70
2705 KAIMUKI AVE (KAIMUKI HIGH)	Classroom/Office			146,907	2,203,600	15.0	291,705	2.0	440,720	3.00	1,366,232	9.30	396,648	2.70
1120 NEHOA ST (ROOSEVELT HIGH)	Classroom/Office			77,720	1,165,800	15.0	163,478	2.1	233,160	3.00	722,796	9.30	209,844	2.70
1039 S KING ST (MCKINLEY HIGH)	Classroom/Office			160,107	2,401,600	15.0	331,155	2.1	480,320	3.00	1,488,992	9.30	432,288	2.70
1185 ALA NAPUNANI ST (MOANALUA HIGH)	Classroom/Office			116,667	1,750,000	15.0	242,024	2.1	350,000	3.00	1,085,000	9.30	315,000	2.70
911561 KEAUNUI RD HOLOMUA ELEMENTARY)	Classroom/Office			110,496	1,657,440	15.0	230,333	2.1	331,488	3.00	1,027,613	9.30	298,339	2.70
951140 LEHIWA DR (MILILANI INTERMED)	Classroom/Office			157,653	2,364,800	15.0	327,725	2.1	472,960	3.00	1,466,176	9.30	425,664	2.70
915335 KAPOLEI PKWY (KAPOLEI MID SCH)	Classroom/Office			139,600	2,094,000	15.0	282,619	2.0	418,800	3.00	1,298,280	9.30	376,920	2.70
478 S KING ST (HAWAII STATE LIBRARY)	Classroom/Office			63,151	1,171,440	18.5	170,141	2.7	234,288	3.71	726,293	11.50	210,859	3.34
<b>Sub-TOTAL</b>				<b>2,134,964</b>	<b>32,248,640</b>	<b>15.1</b>	<b>4,432,593</b>	<b>2.1</b>	<b>6,449,728</b>	<b>3.02</b>	<b>19,994,157</b>	<b>9.37</b>	<b>5,804,755</b>	<b>2.72</b>
<b>MEDIUM AND SMALL FACILITIES (BUILDING AREA ESTIMATED)<sup>1</sup></b>														
<b>Sub-TOTAL</b>	Classroom/Office			5,694,686	86,018,235	15.1	12,528,661	2.1	17,203,647	3.02	53,331,305	9.37	15,483,282	2.72
<b>Sub-TOTAL</b>														
<b>TOTAL</b>				<b>7,829,650</b>	<b>118,266,875</b>	<b>15.1</b>	<b>16,961,254</b>	<b>2.2</b>	<b>23,653,375</b>	<b>3.02</b>	<b>73,325,462</b>	<b>9.37</b>	<b>21,288,037</b>	<b>2.72</b>

<sup>1</sup> Medium and small facilities electricity consumption is considered 72.7% of the corresponding department's total electricity consumption.  
<sup>1</sup> Medium and small facilities electricity consumption cost is considered 73.9% of the corresponding department's total electricity consumption.  
 NOTE: "LARGE FACILITIES" and "MEDIUM AND SMALL FACILITIES" Area (sq.ft.) were estimated from their kWh/year divided by an estimated 15 kWh/sq.ft.-year.

STATE OF HAWAII FACILITIES IN OAHU ENERGY BENCHMARK ANALYSIS BY END USE

Building Name	Building Type	Operating Schedule hr.	Year Built	Area (sq.ft.)	Energy Use				Energy Use Distribution by Utility					
					kWh/sq.ft.		\$/year	\$/sq.ft.-year	HVAC		LIGHTING		MISCELLANEOUS	
					kWh/year	-year			kWh/year	-year	kWh/year	-year	kWh/year	-year
<b>DOH</b>														
<b>LARGE FACILITIES (BUILDING AREA KNOWN)</b>														
45747 KEAAHALA RD (HAWAII STATE HOSP)	Hospital			226,475	4,632,000	20.5	541,435	2.4	2,408,640	10.64	1,389,600	6.14	833,760	3.68
45633 KEAAHALA RD	Hospital			68,206	1,395,000	20.5	175,222	2.6	725,400	10.64	418,500	6.14	251,100	3.68
3627 KILAUEA AV (ADMIN SRVC OFF)	Hospital			72,940	1,578,480	21.6	217,135	3.0	820,810	11.25	473,544	6.49	284,126	3.90
3675 KILAUEA AV	Hospital			137,830	2,982,800	21.6	371,246	2.7	1,551,056	11.25	894,840	6.49	536,904	3.90
1103 HALA DR (MALUHIA HOSP)	Hospital			99,700	2,486,400	24.9	299,056	3.0	1,292,928	12.97	745,920	7.48	447,552	4.49
2725 WAIMANO HOME RD (ADMIN OFF)	Hospital			306,366	6,845,400	22.3	817,416	2.7	3,559,608	11.62	2,053,620	6.70	1,232,172	4.02
	<b>Sub-TOTAL</b>			<b>911,517</b>	<b>19,920,080</b>	<b>21.9</b>	<b>2,421,510</b>	<b>2.7</b>	<b>10,358,442</b>	<b>11.36</b>	<b>5,976,024</b>	<b>6.56</b>	<b>3,585,614</b>	<b>3.93</b>
<b>MEDIUM AND SMALL FACILITIES (BUILDING AREA ESTIMATED)<sup>1</sup></b>														
	<b>Sub-TOTAL</b>			<b>695,353</b>	<b>15,196,091</b>	<b>21.9</b>	<b>2,213,329</b>	<b>2.7</b>	<b>7,901,967</b>	<b>11.36</b>	<b>4,558,827</b>	<b>6.56</b>	<b>2,735,296</b>	<b>3.93</b>
	<b>Sub-TOTAL</b>													
<b>TOTAL</b>				<b>1,606,870</b>	<b>35,116,171</b>	<b>21.9</b>	<b>4,634,839</b>	<b>2.9</b>	<b>18,260,409</b>	<b>11.36</b>	<b>10,534,851</b>	<b>6.56</b>	<b>6,320,911</b>	<b>3.93</b>

<sup>1</sup> Medium and small facilities electricity consumption is considered 43.3% of the corresponding department's total electricity consumption.

<sup>1</sup> Medium and small facilities electricity consumption cost is considered 47.7% of the corresponding department's total electricity consumption.

NOTE: "MEDIUM AND SMALL FACILITIES" Area (sq.ft.) were estimated from their kWh/year divided by "LARGE FACILITIES (BUILDING AREA KNOWN)" kWh/sq.ft.-year.

STATE OF HAWAII FACILITIES IN OAHU ENERGY BENCHMARK ANALYSIS BY END USE

Building Name	Building Type	Operating Schedule hr.	Year Built	Area (sq.ft.)	Energy Use				Energy Use Distribution by Utility					
					kWh/sq.ft.		\$/year	\$/sq.ft.-year	HVAC		LIGHTING		MISCELLANEOUS	
					kWh/year	-year			kWh/year	-year	kWh/year	-year	kWh/year	-year
<b>PSD</b>														
<b>LARGE FACILITIES (BUILDING AREA ESTIMATED)</b>														
94560 KAMEHAMEHA HY (WAIAWA CORR FAC)	Corr Fac			82,200	1,233,000	15.0	155,458	1.9	246,600	3.00	764,460	9.30	221,940	2.70
5100 MOANALUA RD	Corr Fac			90,352	1,355,280	15.0	165,624	1.8	271,056	3.00	840,274	9.30	243,950	2.70
99902 MOANALUA RD (HALAWA PRISON)	Corr Fac			339,800	5,097,000	15.0	617,725	1.8	1,019,400	3.00	3,160,140	9.30	917,460	2.70
2199 KAMEHAMEHA HY (OCCC & HSE CORR)	Corr Fac			456,640	6,849,600	15.0	794,028	1.7	1,369,920	3.00	4,246,752	9.30	1,232,928	2.70
42477 KALANIANA'OLE HY	Corr Fac			118,741	1,781,120	15.0	215,668	1.8	356,224	3.00	1,104,294	9.30	320,602	2.70
	<b>Sub-TOTAL</b>			<b>1,087,733</b>	<b>16,316,000</b>	<b>15.0</b>	<b>1,948,503</b>	<b>1.8</b>	<b>3,263,200</b>	<b>3.00</b>	<b>10,115,920</b>	<b>9.30</b>	<b>2,936,880</b>	<b>2.70</b>
<b>MEDIUM AND SMALL FACILITIES (BUILDING AREA ESTIMATED)<sup>1</sup></b>														
	<b>Sub-TOTAL</b>			<b>0</b>	<b>0</b>	<b>0.0</b>	<b>-</b>	<b>-</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>
	<b>Sub-TOTAL</b>													
<b>TOTAL</b>				<b>1,087,733</b>	<b>16,316,000</b>	<b>15.0</b>	<b>1,948,503</b>	<b>1.8</b>	<b>3,263,200</b>	<b>3.00</b>	<b>10,115,920</b>	<b>9.30</b>	<b>2,936,880</b>	<b>2.70</b>

NOTE: "LARGE FACILITIES" and "MEDIUM AND SMALL FACILITIES" Area (sq.ft.) were estimated from their kWh/year divided by "DOH" kWh/sq.ft.-year.

**STATE OF HAWAII FACILITIES IN OAHU ENERGY BENCHMARK ANALYSIS BY END USE**

Building Name	Building Type	Operating Schedule hr.	Year Built	Area (sq.ft.)	Energy Use				Energy Use Distribution by Utility					
					kWh/sq.ft.		\$/year	\$/sq.ft.-year	HVAC		LIGHTING		MISCELLANEOUS	
					kWh/year	-year			kWh/year	-year	kWh/year	-year	kWh/year	-year
<b>DOT</b>														
<b>LARGE FACILITIES (BUILDING AREA KNOWN)</b>														
40 PIER (KAPALAMA MIL RES)	Military Reserve			133,340	1,391,400	10.4	187,393	1.4	723,528	5.43	417,420	3.13	250,452	1.88
869 PUNCHBOWL ST (TRANSPORTATION)	Office			55,854	1,247,520	22.3	166,588	3.0	648,710	11.61	374,256	6.70	224,554	4.02
302 RODGERS BV #344 (IAB VAULT "B")	Airport Terminal			269,775	12,936,000	48.0	1,453,504	5.4	6,726,720	24.93	3,880,800	14.39	2,328,480	8.63
302 RODGERS BV #342 (SVC CRT VLT "C")	Airport Terminal			150,904	7,236,000	48.0	803,431	5.3	3,762,720	24.93	2,170,800	14.39	1,302,480	8.63
302 RODGERS BV #336 (OST VLT "N")	Airport Terminal			353,110	16,932,000	48.0	1,905,754	5.4	8,804,640	24.93	5,079,600	14.39	3,047,760	8.63
304 RODGERS BV #360 (EWA VLT "IE")	Airport Terminal			87,506	4,196,000	48.0	476,875	5.4	2,181,920	24.93	1,258,800	14.39	755,280	8.63
300 RODGERS BV (COMM TERM ELEC)	Airport Terminal			25,101	1,203,600	48.0	142,471	5.7	625,872	24.93	361,080	14.39	216,648	8.63
300 RODGERS BV #355 (OSPAK VLT "A")	Airport Terminal			30,963	1,484,720	48.0	172,975	5.6	772,054	24.93	445,416	14.39	267,250	8.63
301 RODGERS BV #A (DIA HD EXT)	Airport Terminal			263,118	12,616,800	48.0	1,396,833	5.3	6,560,736	24.93	3,785,040	14.39	2,271,024	8.63
301 RODGERS BV (CEN CONC VLT "Y")	Airport Terminal			118,771	5,695,200	48.0	675,038	5.7	2,961,504	24.93	1,708,560	14.39	1,025,136	8.63
303 RODGERS BV #373 (DIA HD VLT "1D")	Airport Terminal			159,600	7,653,000	48.0	868,980	5.4	3,979,560	24.93	2,295,900	14.39	1,377,540	8.63
3651 AOOLELE ST (EWA CHILLER PLT)	Airport Terminal			254,109	12,184,800	48.0	1,408,012	5.5	6,336,096	24.93	3,655,440	14.39	2,193,264	8.63
3650 AOOLELE ST (NEW INTERISLE TERM)	Airport Terminal			251,156	12,043,200	48.0	1,364,261	5.4	6,262,464	24.93	3,612,960	14.39	2,167,776	8.63
3661 AOOLELE ST (EWA CONC GATES)	Airport Terminal			55,031	2,638,800	48.0	303,361	5.5	1,372,176	24.93	791,640	14.39	474,984	8.63
	<b>Sub-TOTAL</b>			<b>2,208,338</b>	<b>99,459,040</b>	<b>45.0</b>	<b>11,325,476</b>	<b>5.1</b>	<b>51,718,701</b>	<b>23.42</b>	<b>29,837,712</b>	<b>13.51</b>	<b>17,902,627</b>	<b>8.11</b>
<b>LARGE FACILITIES (BUILDING AREA ESTIMATED)</b>														
2 PALI HY (PRIMECO & ST LTS)	Highway Tunnel			17,511	788,640	45.0	102,437	5.9	410,093	23.42	236,592	13.51	141,955	8.11
0 WILSON TUNNEL	Highway Tunnel			30,481	1,372,800	45.0	169,706	5.6	713,856	23.42	411,840	13.51	247,104	8.11
0 H-3 TUNNEL HAIKU IB PORTAL (HE INT)	Highway Tunnel			88,459	3,984,000	45.0	592,960	6.7	2,071,680	23.42	1,195,200	13.51	717,120	8.11
	<b>Sub-TOTAL</b>			<b>136,450</b>	<b>6,145,440</b>	<b>45.0</b>	<b>865,103</b>	<b>6.3</b>	<b>3,195,629</b>	<b>23.42</b>	<b>1,843,632</b>	<b>13.51</b>	<b>1,106,179</b>	<b>8.11</b>
<b>MEDIUM AND SMALL FACILITIES (BUILDING AREA ESTIMATED)<sup>1</sup></b>														
	<b>Sub-TOTAL</b>			<b>196,129</b>	<b>8,833,250</b>	<b>45.0</b>	<b>1,286,573</b>	<b>6.3</b>	<b>4,593,290</b>	<b>23.42</b>	<b>2,649,975</b>	<b>13.51</b>	<b>1,589,985</b>	<b>8.11</b>
	<b>Sub-TOTAL</b>													
<b>TOTAL</b>				<b>2,540,917</b>	<b>114,437,730</b>	<b>45.0</b>	<b>13,477,152</b>	<b>5.3</b>	<b>59,507,620</b>	<b>23.42</b>	<b>34,331,319</b>	<b>13.51</b>	<b>20,598,791</b>	<b>8.11</b>

<sup>1</sup> Medium and small facilities electricity consumption is considered 7.7% of the corresponding department's total electricity consumption.

<sup>1</sup> Medium and small facilities electricity consumption cost is considered 9.5% of the corresponding department's total electricity consumption.

NOTE: "LARGE FACILITIES (BUILDING AREA ESTIMATED)" and "MEDIUM AND SMALL FACILITIES" Area (sq.ft.) were estimated from their kWh/year divided by "LARGE FACILITIES (BUILDING AREA KNOWN)" kWh/sq.ft.-year.

**STATE OF HAWAII FACILITIES IN OAHU ENERGY BENCHMARK ANALYSIS BY END USE**

Building Name	Building Type	Operating Schedule hr.	Year Built	Area (sq.ft.)	Energy Use				Energy Use Distribution by Utility					
					kWh/sq.ft.		\$/year	\$/sq.ft.-year	HVAC		LIGHTING		MISCELLANEOUS	
					kWh/year	-year			kWh/year	-year	kWh/year	-year	kWh/year	-year
<b>UH MANOA</b>														
<b>LARGE FACILITIES (BUILDING AREA KNOWN)</b>														
1701 EAST WEST RD (FACILITIES MGMT)	Class/Office			6,122,395	129,300,000	21.1	14,786,615	2.4	67,236,000	10.98	38,790,000	6.34	23,274,000	3.80
2680 WOODLAWN DR (ASTRONOMY FAC)	Class/Office			46,340	2,315,400	50.0	273,801	5.9	1,204,008	25.98	694,620	14.99	416,772	8.99
	<b>Sub-TOTAL</b>			<b>6,168,735</b>	<b>131,615,400</b>	<b>21.3</b>	<b>15,060,416</b>	<b>2.4</b>	<b>68,440,008</b>	<b>11.09</b>	<b>39,484,620</b>	<b>6.40</b>	<b>23,690,772</b>	<b>3.84</b>
<b>LARGE FACILITIES (BUILDING AREA ESTIMATED)</b>														
2777 KALAKAUA AV (WAIKIKI AQUARIUM)	Aquarium			62,194	1,326,960	21.3	161,912	2.6	690,019	11.09	398,088	6.40	238,853	3.84
46007 LILIPUNA RD (HIMB)	Class/Office			77,709	1,658,000	21.3	202,771	2.6	862,160	11.09	497,400	6.40	298,440	3.84
	<b>Sub-TOTAL</b>			<b>139,903</b>	<b>2,984,960</b>	<b>21.3</b>	<b>364,683</b>	<b>2.6</b>	<b>1,552,179</b>	<b>11.09</b>	<b>895,488</b>	<b>6.40</b>	<b>537,293</b>	<b>3.84</b>
<b>MEDIUM AND SMALL FACILITIES (BUILDING AREA ESTIMATED)<sup>1</sup></b>														
	<b>Sub-TOTAL</b>			<b>200,470</b>	<b>4,277,211</b>	<b>21.3</b>	<b>622,982</b>	<b>2.4</b>	<b>2,224,150</b>	<b>11.09</b>	<b>1,283,163</b>	<b>6.40</b>	<b>769,898</b>	<b>3.84</b>
	<b>Sub-TOTAL</b>													
<b>TOTAL</b>				<b>6,509,109</b>	<b>138,877,571</b>	<b>21.3</b>	<b>16,048,081</b>	<b>2.5</b>	<b>72,216,337</b>	<b>11.09</b>	<b>41,663,271</b>	<b>6.40</b>	<b>24,997,963</b>	<b>3.84</b>

<sup>1</sup> Medium and small facilities electricity consumption is considered 3.1% of the corresponding department's total electricity consumption.

<sup>1</sup> Medium and small facilities electricity consumption cost is considered 3.9% of the corresponding department's total electricity consumption.

NOTE: "LARGE FACILITIES (BUILDING AREA ESTIMATED)" and "MEDIUM AND SMALL FACILITIES" Area (sq.ft.) were estimated from their kWh/year divided by "LARGE FACILITIES (BUILDING AREA KNOWN)" kWh/sq.ft.-year.

STATE OF HAWAII FACILITIES IN OAHU ENERGY BENCHMARK ANALYSIS BY END USE

Building Name	Building Type	Operating Schedule hr.	Year Built	Area (sq.ft.)	Energy Use				Energy Use Distribution by Utility					
					kWh/sq.ft.		\$/year	\$/sq.ft.-year	HVAC		LIGHTING		MISCELLANEOUS	
					kWh/year	-year			kWh/year	-year	kWh/year	-year	kWh/year	-year
<b>DOE COMM COLL</b>														
<b>LARGE FACILITIES (BUILDING AREA ESTIMATED)</b>														
96045 ALAIKE ST (LEEWARD)	Class/Office			269,630	5,752,800	21.3	\$730,218.00	2.7	2,991,456	11.09	1,725,840	6.40	1,035,504	3.84
655 MAKAPUU AV (KAPIOLANI BUSINESS)	Class/Office			378,208	8,069,400	21.3	\$1,049,593.00	2.8	4,196,088	11.09	2,420,820	6.40	1,452,492	3.84
874 DILLINGHAM BV (HONOLULU)	Class/Office			234,628	5,006,000	21.3	\$663,227.00	2.8	2,603,120	11.09	1,501,800	6.40	901,080	3.84
45720 KEAAHALA RD (HALE IMILOA)	Class/Office			264,821	5,650,200	21.3	\$692,104.00	2.6	2,938,104	11.09	1,695,060	6.40	1,017,036	3.84
<b>Sub-TOTAL</b>				<b>1,147,288</b>	<b>24,478,400</b>	<b>21.3</b>	<b>3,135,142</b>	<b>2.7</b>	<b>12,728,768</b>	<b>11.09</b>	<b>7,343,520</b>	<b>6.40</b>	<b>4,406,112</b>	<b>3.84</b>
<b>MEDIUM AND SMALL FACILITIES (BUILDING AREA ESTIMATED)<sup>1</sup></b>														
<b>Sub-TOTAL</b>	Class/Office			<b>73,445</b>	<b>1,567,010</b>	<b>21.3</b>	<b>228,237</b>	<b>2.7</b>	<b>814,845</b>	<b>11.09</b>	<b>470,103</b>	<b>6.40</b>	<b>282,062</b>	<b>3.84</b>
<b>Sub-TOTAL</b>														
<b>TOTAL</b>				<b>1,220,733</b>	<b>26,045,410</b>	<b>21.3</b>	<b>3,363,379</b>	<b>2.8</b>	<b>13,543,613</b>	<b>11.09</b>	<b>7,813,623</b>	<b>6.40</b>	<b>4,688,174</b>	<b>3.84</b>

<sup>1</sup> Medium and small facilities electricity consumption is considered 6.0 % of the corresponding department's total electricity consumption.  
<sup>1</sup> Medium and small facilities electricity consumption cost is considered 6.8% of the corresponding department's total electricity consumption.  
 NOTE: \* LARGE FACILITIES\* and \*MEDIUM AND SMALL FACILITIES\* Area (sq.ft.) were estimated from their kWh/year divided by \*UH MANOA\* kWh/sq.ft.-year.

STATE OF HAWAII FACILITIES IN OAHU ENERGY BENCHMARK ANALYSIS BY END USE

Building Name	Building Type	Operating Schedule hr.	Year Built	Area (sq.ft.)	Energy Use				Energy Use Distribution by Utility					
					kWh/sq.ft.		\$/year	\$/sq.ft.-year	HVAC		LIGHTING		MISCELLANEOUS	
					kWh/year	-year			kWh/year	-year	kWh/year	-year	kWh/year	-year
<b>OTHER</b>														
<b>LARGE FACILITIES DOES NOT EXIST</b>														
<b>MEDIUM AND SMALL FACILITIES (BUILDING AREA ESTIMATED)<sup>1</sup></b>														
<b>Sub-TOTAL</b>	Office			<b>971,908</b>	<b>20,530,537</b>	<b>21.1</b>	<b>2,990,298</b>	<b>3.1</b>	<b>10,675,879</b>	<b>10.98</b>	<b>6,159,161</b>	<b>6.34</b>	<b>3,695,497</b>	<b>3.80</b>
<b>Sub-TOTAL</b>														
<b>TOTAL</b>				<b>971,908</b>	<b>20,530,537</b>	<b>21.1</b>	<b>2,990,298</b>	<b>3.1</b>	<b>10,675,879</b>	<b>10.98</b>	<b>6,159,161</b>	<b>6.34</b>	<b>3,695,497</b>	<b>3.80</b>

NOTE: \*MEDIUM AND SMALL FACILITIES\* Area (sq.ft.) were estimated from their kWh/year divided by \*AVERAGE kWh/sq.ft.-year OF REST OF THE SOH FACILITIES\*.

\* OTHER: Department of Attorney General  
 Department of Labor and Industrial Relations  
 Department of Land and Natural Resources  
 Department of Hawaiian Homelands  
 Department of Agriculture  
 Other Facilities

APPENDIX 10.0

Energy Conservation Measure Benchmark Analysis

**ENERGY CONSERVATION MEASURE  
STATE OF HAWAII FACILITIES IN OAHU ENERGY ECM BENCHMARK**

Building Name	Building Type	Operating Schedule hr.	Year-Built	Area (sq.ft.)	ECM I Interior and exterior lighting replacement						ECM II LED exit sign Installation						ECM III Reflective Solar Window Tinting								
					Est. Energy Savings (kWh/year)	(kWh/sf.ft.-year)	Est. Cost Savings (\$/year)	(\$/sq.ft.-year)	Est. Construction Costs (\$)	(\$/sq.ft.-year)	Payback (year)	Est. Energy Savings (kWh/year)	(kWh/sf.ft.-year)	Est. Cost Savings (\$/year)	(\$/sq.ft.-year)	Est. Construction Costs (\$)	(\$/sq.ft.-year)	Payback (year)	Est. Energy Savings (kWh/year)	(kWh/sf.ft.-year)	Est. Cost Savings (\$/year)	(\$/sq.ft.-year)	Est. Construction Costs (\$)	(\$/sq.ft.-year)	Payback (year)
<b>DAGS</b>																									
<b>LARGE FACILITIES (BUILDING AREA KNOWN)</b>																									
415 SOUTH BERETANIA (STATE CAPITOL)	Office	10	1969	300,000	284,700	0.949	40,800	0.136	276,300	0.921	6.8	16,500	0.055	6,300	0.021	25,500	0.085	4.0	41,700	0.139	5,400	0.018	33,000	0.110	6.1
919 ALA MOANA BLVD (AAFES)	Office	10		108,000	102,492	0.949	14,688	0.136	99,468	0.921	6.8	5,940	0.055	2,268	0.021	9,180	0.085	4.0	15,012	0.139	1,944	0.018	11,880	0.110	6.1
1390 MILLER ST (QUEEN LILIOULANI)	Office	11.5	1943	94,528	0	0.000	0	0.000	0	0.000	0.0	5,199	0.055	1,985	0.021	8,035	0.085	4.0	13,139	0.139	1,702	0.018	10,398	0.110	6.1
1151 PUNCHBOWL ST (KALANIMOKU)	Office	10	1976	203,000	192,647	0.949	27,608	0.136	186,963	0.921	6.8	11,165	0.055	4,263	0.021	17,255	0.085	4.0	28,217	0.139	3,654	0.018	22,330	0.110	6.1
1250 PUNCHBOWL ST (KINAU HALE)	Office	11	1961	66,951	0	0.000	0	0.000	0	0.000	0.0	3,682	0.055	1,406	0.021	5,691	0.085	4.0	9,306	0.139	1,205	0.018	7,365	0.110	6.1
250 S HOTEL ST (NO. 1-DISTRICT BLDG)	Office	10		120,000	113,880	0.949	16,320	0.136	110,520	0.921	6.8	6,600	0.055	2,520	0.021	10,200	0.085	4.0	16,680	0.139	2,160	0.018	13,200	0.110	6.1
465 S KING ST (KEKUANAO'A BLDG)	Office	11		65,075	61,756	0.949	8,850	0.136	59,934	0.921	6.8	3,579	0.055	1,367	0.021	5,531	0.085	4.0	9,045	0.139	1,171	0.018	7,158	0.110	6.1
235 S BERETANIA ST (OFFICE TOWER)	Office	10	1991	172,000	163,228	0.949	23,392	0.136	158,412	0.921	6.8	9,460	0.055	3,612	0.021	14,620	0.085	4.0	23,908	0.139	3,096	0.018	18,920	0.110	6.1
830 PUNCHBOWL ST (KEELIKOLANI & AUHAU)	Office	12	1949	278,639	0	0.000	0	0.000	0	0.000	0.0	15,325	0.055	5,851	0.021	23,684	0.085	4.0	38,731	0.139	5,016	0.018	30,650	0.110	6.1
601 KAMOKILA BV (KAKUIHEIWA KAPOLEI)	Office	10	1998	222,000	210,678	0.949	30,192	0.136	204,462	0.921	6.8	12,210	0.055	4,662	0.021	18,870	0.085	4.0	30,858	0.139	3,996	0.018	24,420	0.110	6.1
99500 SALT LAKE BV (STADIUM AUTHORITY)	Stadium			300,000	284,700	0.949	40,800	0.136	276,300	0.921	6.8	16,500	0.055	6,300	0.021	25,500	0.085	4.0	41,700	0.139	5,400	0.018	33,000	0.110	6.1
<b>Sub-TOTAL</b>				<b>1,930,193</b>	<b>1,414,081</b>	<b>0.733</b>	<b>202,650</b>	<b>0.105</b>	<b>1,372,359</b>	<b>0.711</b>	<b>6.8</b>	<b>106,161</b>	<b>0.055</b>	<b>40,534</b>	<b>0.021</b>	<b>164,066</b>	<b>0.085</b>	<b>4.0</b>	<b>268,297</b>	<b>0.139</b>	<b>34,743</b>	<b>0.018</b>	<b>212,321</b>	<b>0.110</b>	<b>6.1</b>
<b>MEDIUM AND SMALL FACILITIES (BUILDING AREA ESTIMATED)</b>																									
<b>Sub-TOTAL</b>	Office			407,072	298,226	0.733	42,738	0.105	289,427	0.711	6.8	22,389	0.055	8,549	0.021	34,601	0.085	4.0	56,583	0.139	7,327	0.018	44,778	0.110	6.1
<b>Sub-TOTAL</b>																									
<b>TOTAL</b>				<b>2,337,265</b>	<b>1,712,307</b>	<b>0.733</b>	<b>245,389</b>	<b>0.105</b>	<b>1,661,786</b>	<b>0.711</b>	<b>6.8</b>	<b>128,550</b>	<b>0.055</b>	<b>49,083</b>	<b>0.021</b>	<b>198,668</b>	<b>0.085</b>	<b>4.0</b>	<b>324,880</b>	<b>0.139</b>	<b>42,071</b>	<b>0.018</b>	<b>257,099</b>	<b>0.110</b>	<b>6.1</b>

NOTES:  
 Energy savings per sq.ft.-year, energy savings cost \$ per sq.ft.-year, and construction cost \$ per sq.ft.-year are based on UH Energy Benchmarking Study with modifications and re-adjustments.  
 Zero ECM savings in the table indicate that the ECM has already been implemented. HECO Rebate history from 1997 through 2004, and ESPC upgrade analysis conducted in 2004 were used to identify buildings with already implemented ECMs.  
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**ENERGY CONSERVATION MEASURE  
STATE OF HAWAII FACILITIES IN OAHU ENERGY ECM BENCHMARK**

Building Name	Building Type	Operating Schedule hr.	Year-Built	Area (sq.ft.)	ECM I Interior and exterior lighting replacement				ECM II LED exit sign Installation				ECM III Reflective Solar Window Tinting												
					Est. Energy Savings (kWh/year)	Est. Cost Savings (kWh/sf.-year)	Est. Construction Costs (\$/sq.ft.-year)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Cost Savings (\$/year)	Est. Construction Costs (\$)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Cost Savings (\$/year)	Est. Construction Costs (\$)	Payback (year)									
<b>JUDICIARY</b>																									
<b>LARGE FACILITIES (BUILDING AREA KNOWN)</b>																									
777 PUNCHBOWL ST (KAAHUMANU HALE)	Office			212,000	0	0.000	0	0.000	0	0.000	0.0	11,660	0.055	4,452	0.021	18,020	0.085	4.0	29,468	0.139	3,816	0.018	23,320	0.110	6.1
1111 ALAKEA ST (KAUIKEAOULI DIS CT 1ST C)	Office			187,000	0	0.000	0	0.000	0	0.000	0.0	10,285	0.055	3,927	0.021	15,895	0.085	4.0	25,993	0.139	3,366	0.018	20,570	0.110	6.1
417 S KING ST (ALIOLANE HALE)	Office			62,200	0	0.000	0	0.000	0	0.000	0.0	3,421	0.055	1,306	0.021	5,287	0.085	4.0	8,646	0.139	1,120	0.018	6,842	0.110	6.1
<b>Sub-TOTAL</b>				<b>461,200</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0.0</b>	<b>25,366</b>	<b>0.055</b>	<b>9,685</b>	<b>0.021</b>	<b>39,202</b>	<b>0.085</b>	<b>4.0</b>	<b>64,107</b>	<b>0.139</b>	<b>8,302</b>	<b>0.018</b>	<b>50,732</b>	<b>0.110</b>	<b>6.1</b>
<b>MEDIUM AND SMALL FACILITIES (BUILDING AREA ESTIMATED)</b>																									
<b>Sub-TOTAL</b>	Office			<b>75,639</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0.0</b>	<b>4,160</b>	<b>0.055</b>	<b>1,588</b>	<b>0.021</b>	<b>6,429</b>	<b>0.085</b>	<b>4.0</b>	<b>10,514</b>	<b>0.139</b>	<b>1,362</b>	<b>0.018</b>	<b>8,320</b>	<b>0.110</b>	<b>6.1</b>
<b>Sub-TOTAL</b>																									
<b>TOTAL</b>				<b>536,839</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0.0</b>	<b>29,526</b>	<b>0.055</b>	<b>11,274</b>	<b>0.021</b>	<b>45,631</b>	<b>0.085</b>	<b>4.0</b>	<b>74,621</b>	<b>0.139</b>	<b>9,663</b>	<b>0.018</b>	<b>59,052</b>	<b>0.110</b>	<b>6.1</b>

NOTES:  
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**ENERGY CONSERVATION MEASURE  
STATE OF HAWAII FACILITIES IN OAHU ENERGY ECM BENCHMARK**

Building Name	Building Type	Operating Schedule hr.	Year-Built	Area (sq.ft.)	ECM I Interior and exterior lighting replacement						ECM II LED exit sign Installation						ECM III Reflective Solar Window Tinting								
					Est. Energy Savings (kWh/year)	Est. Energy Savings (kWh/sf.-year)	Est. Cost Savings (\$/year)	Est. Cost Savings (\$/sq.ft.-year)	Est. Construction Costs (\$)	Est. Construction Costs (\$/sq.ft.-year)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Energy Savings (kWh/sf.-year)	Est. Cost Savings (\$/year)	Est. Cost Savings (\$/sq.ft.-year)	Est. Construction Costs (\$)	Est. Construction Costs (\$/sq.ft.-year)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Energy Savings (kWh/sf.-year)	Est. Cost Savings (\$/year)	Est. Cost Savings (\$/sq.ft.-year)	Est. Construction Costs (\$)	Est. Construction Costs (\$/sq.ft.-year)	Payback (year)
<b>DBEDT</b>																									
<b>LARGE FACILITIES (BUILDING AREA ESTIMATED)</b>																									
1777 KAPIOLANI BV (HCC)	Conv. Centr.			354,554	0	0.000	0	0.000	0	0.000	0.0	19,500	0.055	7,446	0.021	30,137	0.085	4.0	49,283	0.139	6,382	0.018	39,001	0.110	6.1
<b>Sub-TOTAL</b>				<b>354,554</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0.0</b>	<b>19,500</b>	<b>0.055</b>	<b>7,446</b>	<b>0.021</b>	<b>30,137</b>	<b>0.085</b>	<b>4.0</b>	<b>49,283</b>	<b>0.139</b>	<b>6,382</b>	<b>0.018</b>	<b>39,001</b>	<b>0.110</b>	<b>6.1</b>
<b>MEDIUM AND SMALL FACILITIES (BUILDING AREA ESTIMATED)</b>																									
<b>Sub-TOTAL</b>	Office			265,489	251,949	0.949	36,106	0.136	244,515	0.921	6.8	14,602	0.055	5,575	0.021	22,567	0.085	4.0	36,903	0.139	4,779	0.018	29,204	0.110	6.1
<b>Sub-TOTAL</b>																									
<b>TOTAL</b>				620,043	251,949	0.406	36,106	0.058	244,515	0.394	6.8	34,102	0.055	13,021	0.021	52,704	0.085	4.0	86,186	0.139	11,161	0.018	68,205	0.110	6.1

NOTES:  
 Energy savings per sq.ft.-year, energy savings cost \$ per sq.ft.-year, and construction cost \$ per sq.ft.-year are based on UH Energy Benchmarking Study with modifications and re-adjustments.  
 Zero ECM savings in the table indicate that the ECM has already been implemented. HECO Rebate history from 1997 through 2004, and ESPC upgrade analysis conducted in 2004 were used to identify buildings with already implemented ECMs.  
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**ENERGY CONSERVATION MEASURE  
STATE OF HAWAII FACILITIES IN OAHU ENERGY ECM BENCHMARK**

Building Name	Building Type	Operating Schedule hr.	Year-Built	Area (sq.ft.)	ECM I Interior and exterior lighting replacement						ECM II LED exit sign Installation						ECM III Reflective Solar Window Tinting								
					Est. Energy Savings (kWh/year)	(kWh/sf.-year)	Est. Cost Savings (\$/year)	(\$/sq.ft.-year)	Est. Construction Costs (\$)	(\$/sq.ft.-year)	Payback (year)	Est. Energy Savings (kWh/year)	(kWh/sf.-year)	Est. Cost Savings (\$/year)	(\$/sq.ft.-year)	Est. Construction Costs (\$)	(\$/sq.ft.-year)	Payback (year)	Est. Energy Savings (kWh/year)	(kWh/sf.-year)	Est. Cost Savings (\$/year)	(\$/sq.ft.-year)	Est. Construction Costs (\$)	(\$/sq.ft.-year)	Payback (year)
<b>DHS</b>																									
<b>LARGE FACILITIES (BUILDING AREA ESTIMATED)</b>																									
1541 KALAKAUA AV (HCDCH)	Office			89,175	84,627	0.949	12,128	0.136	82,130	0.921	6.8	4,905	0.055	1,873	0.021	7,580	0.085	4.0	12,395	0.139	1,605	0.018	9,809	0.110	6.1
99132 KOHOMUA ST (HCDCH)	Office			115,849	109,941	0.949	15,756	0.136	106,697	0.921	6.8	6,372	0.055	2,433	0.021	9,847	0.085	4.0	16,103	0.139	2,085	0.018	12,743	0.110	6.1
1545 LINAPUNI ST #BLDG B (HCDCH HHA)	Office			59,224	56,204	0.949	8,055	0.136	54,546	0.921	6.8	3,257	0.055	1,244	0.021	5,034	0.085	4.0	8,232	0.139	1,066	0.018	6,515	0.110	6.1
1475 LINAPUNI ST #BLDG (HCDCH HHA)	Office			60,090	57,026	0.949	8,172	0.136	55,343	0.921	6.8	3,305	0.055	1,262	0.021	5,108	0.085	4.0	8,353	0.139	1,082	0.018	6,610	0.110	6.1
	<b>Sub-TOTAL</b>			<b>324,339</b>	<b>307,798</b>	<b>0.949</b>	<b>44,110</b>	<b>0.136</b>	<b>298,717</b>	<b>0.921</b>	<b>6.8</b>	<b>17,839</b>	<b>0.055</b>	<b>6,811</b>	<b>0.021</b>	<b>27,569</b>	<b>0.085</b>	<b>4.0</b>	<b>45,083</b>	<b>0.139</b>	<b>5,838</b>	<b>0.018</b>	<b>35,677</b>	<b>0.110</b>	<b>6.1</b>
<b>MEDIUM AND SMALL FACILITIES (BUILDING AREA ESTIMATED)</b>																									
	<b>Sub-TOTAL</b>			253,717	240,777	0.949	34,506	0.136	233,673	0.921	6.8	13,954	0.055	5,328	0.021	21,566	0.085	4.0	35,267	0.139	4,567	0.018	27,909	0.110	6.1
	<b>Sub-TOTAL</b>																								
<b>TOTAL</b>				<b>578,056</b>	<b>548,575</b>	<b>0.949</b>	<b>78,616</b>	<b>0.136</b>	<b>532,390</b>	<b>0.921</b>	<b>6.8</b>	<b>31,793</b>	<b>0.055</b>	<b>12,139</b>	<b>0.021</b>	<b>49,135</b>	<b>0.085</b>	<b>4.0</b>	<b>80,350</b>	<b>0.139</b>	<b>10,405</b>	<b>0.018</b>	<b>63,586</b>	<b>0.110</b>	<b>6.1</b>

**NOTES:**

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**ENERGY CONSERVATION MEASURE  
STATE OF HAWAII FACILITIES IN OAHU ENERGY ECM BENCHMARK**

Building Name	Building Type	Operating Schedule hr.	Year-Built	Area (sq.ft.)	ECM I Interior and exterior lighting replacement							ECM II LED exit sign Installation							ECM III Reflective Solar Window Tinting						
					Est. Energy Savings (kWh/year)	Est. Energy Savings (kWh/sf.-year)	Est. Cost Savings (\$/year)	Est. Cost Savings (\$/sq.ft.-year)	Est. Construction Costs (\$)	Est. Construction Costs (\$/sq.ft.-year)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Energy Savings (kWh/sf.-year)	Est. Cost Savings (\$/year)	Est. Cost Savings (\$/sq.ft.-year)	Est. Construction Costs (\$)	Est. Construction Costs (\$/sq.ft.-year)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Energy Savings (kWh/sf.-year)	Est. Cost Savings (\$/year)	Est. Cost Savings (\$/sq.ft.-year)	Est. Construction Costs (\$)	Est. Construction Costs (\$/sq.ft.-year)	Payback (year)
<b>DOD</b>																									
<b>LARGE FACILITIES (BUILDING AREA KNOWN)</b>																									
3949 DIAMOND HEAD RD	Office			140,000	132,860	0.949	19,040	0.136	128,940	0.921	6.8	7,700	0.055	2,940	0.021	11,900	0.085	4.0	19,460	0.139	2,520	0.018	15,400	0.110	6.1
	Sub-TOTAL			140,000	132,860	0.949	19,040	0.136	128,940	0.921	6.8	7,700	0.055	2,940	0.021	11,900	0.085	4.0	19,460	0.139	2,520	0.018	15,400	0.110	6.1
<b>MEDIUM AND SMALL FACILITIES (BUILDING AREA ESTIMATED)</b>																									
	Sub-TOTAL			388,803	368,974	0.949	52,877	0.136	358,088	0.921	6.8	21,384	0.055	8,165	0.021	33,048	0.085	4.0	54,044	0.139	6,998	0.018	42,768	0.110	6.1
	Sub-TOTAL																								
<b>TOTAL</b>				528,803	501,834	0.949	71,917	0.136	487,028	0.921	6.8	29,084	0.055	11,105	0.021	44,948	0.085	4.0	73,504	0.139	9,518	0.018	58,168	0.110	6.1

**NOTES:**

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**ENERGY CONSERVATION MEASURE  
STATE OF HAWAII FACILITIES IN OAHU ENERGY ECM BENCHMARK**

Building Name	Building Type	Operating Schedule hr.	Year-Built	Area (sq.ft.)	ECM I Interior and exterior lighting replacement						ECM II LED exit sign Installation						ECM III Reflective Solar Window Tinting								
					Est. Energy Savings (kWh/year)	(kWh/sf. -year)	Est. Cost Savings (\$/year)	(\$/sq.ft. -year)	Est. Construction Costs (\$)	(\$/sq.ft. -year)	Payback (year)	Est. Energy Savings (kWh/year)	(kWh/sf. -year)	Est. Cost Savings (\$/year)	(\$/sq.ft. -year)	Est. Construction Costs (\$)	(\$/sq.ft. -year)	Payback (year)	Est. Energy Savings (kWh/year)	(kWh/sf. -year)	Est. Cost Savings (\$/year)	(\$/sq.ft. -year)	Est. Construction Costs (\$)	(\$/sq.ft. -year)	Payback (year)
<b>DOE</b>																									
<b>LARGE FACILITIES (BUILDING AREA ESTIMATED)</b>																									
915007 KAPOLEI PKWY	Classroom/Office			240,613	0	0.000	0	0.000	0	0.000	0.0	13,234	0.055	5,053	0.021	20,452	0.085	4.0	33,445	0.139	4,331	0.018	26,467	0.110	6.1
46155 KAMEHAMEHA HY	Classroom/Office			80,672	0	0.000	0	0.000	0	0.000	0.0	4,437	0.055	1,694	0.021	6,857	0.085	4.0	11,213	0.139	1,452	0.018	8,874	0.110	6.1
91884 FT WEAVER RD	Classroom/Office			136,608	129,641	0.949	18,579	0.136	125,816	0.921	6.8	7,513	0.055	2,869	0.021	11,612	0.085	4.0	18,989	0.139	2,459	0.018	15,027	0.110	6.1
2460 WAIMANO HOME RD (PEARL CITY HIGH)	Classroom/Office			109,080	103,517	0.949	14,835	0.136	100,463	0.921	6.8	5,999	0.055	2,291	0.021	9,272	0.085	4.0	15,162	0.139	1,963	0.018	11,999	0.110	6.1
89980 NANAKULI AV (NANAKULI HIGH & INTER)	Classroom/Office			98,800	93,761	0.949	13,437	0.136	90,995	0.921	6.8	5,434	0.055	2,075	0.021	8,398	0.085	4.0	13,733	0.139	1,778	0.018	10,868	0.110	6.1
85271 FARRINGTON HY (WAIANAЕ HIGH)	Classroom/Office			87,552	83,087	0.949	11,907	0.136	80,635	0.921	6.8	4,815	0.055	1,839	0.021	7,442	0.085	4.0	12,170	0.139	1,576	0.018	9,631	0.110	6.1
951200 MEHEULA PARKWAY(MILILANI HIGH)	Classroom/Office			113,040	0	0.000	0	0.000	0	0.000	0.0	6,217	0.055	2,374	0.021	9,608	0.085	4.0	15,713	0.139	2,035	0.018	12,434	0.110	6.1
45386 KANEOHE BAY DR (CASTLE HIGH)	Classroom/Office			87,600	0	0.000	0	0.000	0	0.000	0.0	4,818	0.055	1,840	0.021	7,446	0.085	4.0	12,176	0.139	1,577	0.018	9,636	0.110	6.1
760 ILIAINA ST (KALAHEO)	Classroom/Office			72,949	69,229	0.949	9,921	0.136	67,186	0.921	6.8	4,012	0.055	1,532	0.021	6,201	0.085	4.0	10,140	0.139	1,313	0.018	8,024	0.110	6.1
511 LUNALILO HOME RD (KAISER HIGH)	Classroom/Office			98,000	93,002	0.949	13,328	0.136	90,258	0.921	6.8	5,390	0.055	2,058	0.021	8,330	0.085	4.0	13,622	0.139	1,764	0.018	10,780	0.110	6.1
4680 KALANIANA'OLE HY (KALANI HIGH)	Classroom/Office			37,749	0	0.000	0	0.000	0	0.000	0.0	2,076	0.055	793	0.021	3,209	0.085	4.0	5,247	0.139	679	0.018	4,152	0.110	6.1
2705 KAIMUKI AVE (KAIMUKI HIGH)	Classroom/Office			146,907	139,414	0.949	19,979	0.136	135,301	0.921	6.8	8,080	0.055	3,085	0.021	12,487	0.085	4.0	20,420	0.139	2,644	0.018	16,160	0.110	6.1
1120 NEHOA ST (ROOSEVELT HIGH)	Classroom/Office			77,720	0	0.000	0	0.000	0	0.000	0.0	4,275	0.055	1,632	0.021	6,606	0.085	4.0	10,803	0.139	1,399	0.018	8,549	0.110	6.1
1039 S KING ST (MCKINLEY HIGH)	Classroom/Office			160,107	151,941	0.949	21,775	0.136	147,458	0.921	6.8	8,806	0.055	3,362	0.021	13,609	0.085	4.0	22,255	0.139	2,882	0.018	17,612	0.110	6.1
1185 ALA NAPUNANI ST (MOANALUA HIGH)	Classroom/Office			116,667	110,717	0.949	15,867	0.136	107,450	0.921	6.8	6,417	0.055	2,450	0.021	9,917	0.085	4.0	16,217	0.139	2,100	0.018	12,833	0.110	6.1
911561 KEAUNUI RD HOLOMUA ELEMENTARY)	Classroom/Office			110,496	0	0.000	0	0.000	0	0.000	0.0	6,077	0.055	2,320	0.021	9,392	0.085	4.0	15,359	0.139	1,989	0.018	12,155	0.110	6.1
951140 LEHIWA DR (MILILANI INTERMED)	Classroom/Office			157,653	0	0.000	0	0.000	0	0.000	0.0	8,671	0.055	3,311	0.021	13,401	0.085	4.0	21,914	0.139	2,838	0.018	17,342	0.110	6.1
915335 KAPOLEI PKWY (KAPOLEI MID SCH)	Classroom/Office			139,600	0	0.000	0	0.000	0	0.000	0.0	7,678	0.055	2,932	0.021	11,866	0.085	4.0	19,404	0.139	2,513	0.018	15,356	0.110	6.1
478 S KING ST (HAWAII STATE LIBRARY)	Classroom/Office			63,151	59,930	0.949	8,589	0.136	58,162	0.921	6.8	3,473	0.055	1,326	0.021	5,368	0.085	4.0	8,778	0.139	1,137	0.018	6,947	0.110	6.1
<b>Sub-TOTAL</b>				<b>2,134,964</b>	<b>1,034,239</b>	<b>0.484</b>	<b>148,216</b>	<b>0.069</b>	<b>1,003,725</b>	<b>0.470</b>	<b>6.8</b>	<b>117,423</b>	<b>0.055</b>	<b>44,834</b>	<b>0.021</b>	<b>181,472</b>	<b>0.085</b>	<b>4.0</b>	<b>296,760</b>	<b>0.139</b>	<b>38,429</b>	<b>0.018</b>	<b>234,846</b>	<b>0.110</b>	<b>6.1</b>
<b>MEDIUM AND SMALL FACILITIES (BUILDING AREA ESTIMATED)</b>																									
<b>Sub-TOTAL</b>	Classroom/Office			<b>5,694,686</b>	<b>2,758,673</b>	<b>0.484</b>	<b>395,342</b>	<b>0.069</b>	<b>2,677,279</b>	<b>0.470</b>	<b>6.8</b>	<b>313,208</b>	<b>0.055</b>	<b>119,588</b>	<b>0.021</b>	<b>484,048</b>	<b>0.085</b>	<b>4.0</b>	<b>791,561</b>	<b>0.139</b>	<b>102,504</b>	<b>0.018</b>	<b>626,415</b>	<b>0.110</b>	<b>6.1</b>
<b>Sub-TOTAL</b>																									
<b>TOTAL</b>				<b>7,829,650</b>	<b>3,792,913</b>	<b>0.484</b>	<b>543,558</b>	<b>0.069</b>	<b>3,681,004</b>	<b>0.470</b>	<b>6.8</b>	<b>430,631</b>	<b>0.055</b>	<b>164,423</b>	<b>0.021</b>	<b>665,520</b>	<b>0.085</b>	<b>4.0</b>	<b>1,088,321</b>	<b>0.139</b>	<b>140,934</b>	<b>0.018</b>	<b>861,261</b>	<b>0.110</b>	<b>6.1</b>

**NOTES:**

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Zero ECM savings in the table indicate that the ECM has already been implemented. HECO Rebate history from 1997 through 2004, and ESPC upgrade analysis conducted in 2004 were used to identify buildings with already implemented ECMs.  
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**ENERGY CONSERVATION MEASURE  
STATE OF HAWAII FACILITIES IN OAHU ENERGY ECM BENCHMARK**

Building Name	Building Type	Operating Schedule hr.	Year-Built	Area (sq.ft.)	ECM I Interior and exterior lighting replacement							ECM II LED exit sign Installation							ECM III Reflective Solar Window Tinting						
					Est. Energy Savings (kWh/year)	(kWh/sf.-year)	Est. Cost Savings (\$/year)	(\$/sq.ft.-year)	Est. Construction Costs (\$)	(\$/sq.ft.-year)	Payback (year)	Est. Energy Savings (kWh/year)	(kWh/sf.-year)	Est. Cost Savings (\$/year)	(\$/sq.ft.-year)	Est. Construction Costs (\$)	(\$/sq.ft.-year)	Payback (year)	Est. Energy Savings (kWh/year)	(kWh/sf.-year)	Est. Cost Savings (\$/year)	(\$/sq.ft.-year)	Est. Construction Costs (\$)	(\$/sq.ft.-year)	Payback (year)
<b>DOH</b>																									
<b>LARGE FACILITIES (BUILDING AREA KNOWN)</b>																									
45747 KEAAHALA RD (HAWAII STATE HOSP)	Hospital			226,475	214,925	0.949	30,801	0.136	208,583	0.921	6.8	12,456	0.055	4,756	0.021	19,250	0.085	4.0	31,480	0.139	4,077	0.018	24,912	0.110	6.1
45633 KEAAHALA RD	Hospital			68,206	64,727	0.949	9,276	0.136	62,818	0.921	6.8	3,751	0.055	1,432	0.021	5,798	0.085	4.0	9,481	0.139	1,228	0.018	7,503	0.110	6.1
3627 KILAUEA AV (ADMIN SRVC OFF)	Hospital			72,940	69,220	0.949	9,920	0.136	67,178	0.921	6.8	4,012	0.055	1,532	0.021	6,200	0.085	4.0	10,139	0.139	1,313	0.018	8,023	0.110	6.1
3675 KILAUEA AV	Hospital			137,830	0	0.000	0	0.000	0	0.000	0.0	7,581	0.055	2,894	0.021	11,716	0.085	4.0	19,158	0.139	2,481	0.018	15,161	0.110	6.1
1103 HALA DR (MALUHIA HOSP)	Hospital			99,700	0	0.000	0	0.000	0	0.000	0.0	5,484	0.055	2,094	0.021	8,475	0.085	4.0	13,858	0.139	1,795	0.018	10,967	0.110	6.1
2725 WAIMANO HOME RD (ADMIN OFF)	Hospital			306,366	290,741	0.949	41,666	0.136	282,163	0.921	6.8	16,850	0.055	6,434	0.021	26,041	0.085	4.0	42,585	0.139	5,515	0.018	33,700	0.110	6.1
<b>Sub-TOTAL</b>				<b>911,517</b>	<b>639,614</b>	<b>0.702</b>	<b>91,662</b>	<b>0.101</b>	<b>620,742</b>	<b>0.681</b>	<b>6.8</b>	<b>50,133</b>	<b>0.055</b>	<b>19,142</b>	<b>0.021</b>	<b>77,479</b>	<b>0.085</b>	<b>4.0</b>	<b>126,701</b>	<b>0.139</b>	<b>16,407</b>	<b>0.018</b>	<b>100,267</b>	<b>0.110</b>	<b>6.1</b>
<b>MEDIUM AND SMALL FACILITIES (BUILDING AREA ESTIMATED)</b>																									
<b>Sub-TOTAL</b>				695,353	487,931	0.702	69,925	0.101	473,535	0.681	6.8	38,244	0.055	14,602	0.021	59,105	0.085	4.0	96,654	0.139	12,516	0.018	76,489	0.110	6.1
<b>Sub-TOTAL</b>																									
<b>TOTAL</b>				1,606,870	1,127,545	0.702	161,587	0.101	1,094,277	0.681	6.8	88,378	0.055	33,744	0.021	136,584	0.085	4.0	223,355	0.139	28,924	0.018	176,756	0.110	6.1

NOTES:  
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**ENERGY CONSERVATION MEASURE  
STATE OF HAWAII FACILITIES IN OAHU ENERGY ECM BENCHMARK**

Building Name	Building Type	Operating Schedule hr.	Year-Built	Area (sq.ft.)	ECM I Interior and exterior lighting replacement						ECM II LED exit sign Installation						ECM III Reflective Solar Window Tinting								
					Est. Energy Savings (kWh/year)	(kWh/sf.-year)	Est. Cost Savings (\$/year)	(\$/sq.ft.-year)	Est. Construction Costs (\$)	(\$/sq.ft.-year)	Payback (year)	Est. Energy Savings (kWh/year)	(kWh/sf.-year)	Est. Cost Savings (\$/year)	(\$/sq.ft.-year)	Est. Construction Costs (\$)	(\$/sq.ft.-year)	Payback (year)	Est. Energy Savings (kWh/year)	(kWh/sf.-year)	Est. Cost Savings (\$/year)	(\$/sq.ft.-year)	Est. Construction Costs (\$)	(\$/sq.ft.-year)	Payback (year)
<b>PSD</b>																									
<b>LARGE FACILITIES (BUILDING AREA ESTIMATED)</b>																									
94560 KAMEHAMEHA HY (WAIAWA CORR FAC)	Corr Fac			82,200	78,008	0.949	11,179	0.136	75,706	0.921	6.8	4,521	0.055	1,726	0.021	6,987	0.085	4.0	11,426	0.139	1,480	0.018	9,042	0.110	6.1
5100 MOANALUA RD	Corr Fac			90,352	85,744	0.949	12,288	0.136	83,214	0.921	6.8	4,969	0.055	1,897	0.021	7,680	0.085	4.0	12,559	0.139	1,626	0.018	9,939	0.110	6.1
99902 MOANALUA RD (HALAWA PRISON)	Corr Fac			339,800	322,470	0.949	46,213	0.136	312,956	0.921	6.8	18,689	0.055	7,136	0.021	28,883	0.085	4.0	47,232	0.139	6,116	0.018	37,378	0.110	6.1
2199 KAMEHAMEHA HY (OCCC & HSE CORR)	Corr Fac			456,640	433,351	0.949	62,103	0.136	420,565	0.921	6.8	25,115	0.055	9,589	0.021	38,814	0.085	4.0	63,473	0.139	8,220	0.018	50,230	0.110	6.1
42477 KALANIANAOLE HY	Corr Fac			118,741	112,686	0.949	16,149	0.136	109,361	0.921	6.8	6,531	0.055	2,494	0.021	10,093	0.085	4.0	16,505	0.139	2,137	0.018	13,062	0.110	6.1
	Sub-TOTAL			1,087,733	1,032,259	0.949	147,932	0.136	1,001,802	0.921	6.8	59,825	0.055	22,842	0.021	92,457	0.085	4.0	151,195	0.139	19,579	0.018	119,651	0.110	6.1
<b>MEDIUM AND SMALL FACILITIES (BUILDING AREA ESTIMATED)</b>																									
	Sub-TOTAL			0	0	0.000	0	0.000	0	0.000	0.0	0	0.000	0	0.000	0	0.000	0.0	0	0.000	0	0.000	0	0.000	0.0
	Sub-TOTAL																								
<b>TOTAL</b>				1,087,733	1,032,259	0.949	147,932	0.136	1,001,802	0.921	6.8	59,825	0.055	22,842	0.021	92,457	0.085	4.0	151,195	0.139	19,579	0.018	119,651	0.110	6.1

**NOTES:**

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**ENERGY CONSERVATION MEASURE  
STATE OF HAWAII FACILITIES IN OAHU ENERGY ECM BENCHMARK**

Building Name	Building Type	Operating Schedule hr.	Year-Built	Area (sq.ft.)	ECM I Interior and exterior lighting replacement						ECM II LED exit sign Installation						ECM III Reflective Solar Window Tinting								
					Est. Energy Savings	(kWh/sf.ft. -year)	Est. Cost Savings	(\$/sq.ft. -year)	Est. Construction Costs	(\$/sq.ft. -year)	Payback (year)	Est. Energy Savings	(kWh/sf.ft. -year)	Est. Cost Savings	(\$/sq.ft. -year)	Est. Construction Costs	(\$/sq.ft. -year)	Payback (year)	Est. Energy Savings	(kWh/sf.ft. -year)	Est. Cost Savings	(\$/sq.ft. -year)	Est. Construction Costs	(\$/sq.ft. -year)	Payback (year)
					(kWh/year)		(\$/year)		(\$)			(kWh/year)		(\$/year)		(\$)			(kWh/year)		(\$/year)		(\$)		
<b>DOT</b>																									
<b>LARGE FACILITIES (BUILDING AREA KNOWN)</b>																									
40 PIER (KAPALAMA MIL RES)	Military Reserve			133,340	126,540	0.949	18,134	0.136	122,806	0.921	6.8	7,334	0.055	2,800	0.021	11,334	0.085	4.0	18,534	0.139	2,400	0.018	14,667	0.110	6.1
869 PUNCHBOWL ST (TRANSPORTATION)	Office			55,854	0	0.000	0	0.000	0	0.000	0.0	3,072	0.055	1,173	0.021	4,748	0.085	4.0	7,764	0.139	1,005	0.018	6,144	0.110	6.1
302 RODGERS BV #344 (IAB VAULT "B")	Airport Terminal			269,775	0	0.000	0	0.000	0	0.000	0.0	14,838	0.055	5,665	0.021	22,931	0.085	4.0	37,499	0.139	4,856	0.018	29,675	0.110	6.1
302 RODGERS BV #342 (SVC CRT VLT "C")	Airport Terminal			150,904	143,208	0.949	20,523	0.136	138,983	0.921	6.8	8,300	0.055	3,169	0.021	12,827	0.085	4.0	20,976	0.139	2,716	0.018	16,599	0.110	6.1
302 RODGERS BV #336 (OST VLT "N")	Airport Terminal			353,110	335,101	0.949	48,023	0.136	325,214	0.921	6.8	19,421	0.055	7,415	0.021	30,014	0.085	4.0	49,082	0.139	6,356	0.018	38,842	0.110	6.1
304 RODGERS BV #360 (EWA VLT "1E")	Airport Terminal			87,506	0	0.000	0	0.000	0	0.000	0.0	4,813	0.055	1,838	0.021	7,438	0.085	4.0	12,163	0.139	1,575	0.018	9,626	0.110	6.1
300 RODGERS BV (COMM TERM ELEC)	Airport Terminal			25,101	23,821	0.949	3,414	0.136	23,118	0.921	6.8	1,381	0.055	527	0.021	2,134	0.085	4.0	3,489	0.139	452	0.018	2,761	0.110	6.1
300 RODGERS BV #355 (OSPAK VLT "A")	Airport Terminal			30,963	29,384	0.949	4,211	0.136	28,517	0.921	6.8	1,703	0.055	650	0.021	2,632	0.085	4.0	4,304	0.139	557	0.018	3,406	0.110	6.1
301 RODGERS BV #A (DIA HD EXT)	Airport Terminal			263,118	249,699	0.949	35,784	0.136	242,332	0.921	6.8	14,471	0.055	5,525	0.021	22,365	0.085	4.0	36,573	0.139	4,736	0.018	28,943	0.110	6.1
301 RODGERS BV (CEN CONC VLT "Y")	Airport Terminal			118,771	0	0.000	0	0.000	0	0.000	0.0	6,532	0.055	2,494	0.021	10,096	0.085	4.0	16,509	0.139	2,138	0.018	13,065	0.110	6.1
303 RODGERS BV #373 (DIA HD VLT "1D")	Airport Terminal			159,600	0	0.000	0	0.000	0	0.000	0.0	8,778	0.055	3,352	0.021	13,566	0.085	4.0	22,184	0.139	2,873	0.018	17,556	0.110	6.1
3651 AOOLE ST (EWA CHILLER PLT)	Airport Terminal			254,109	241,149	0.949	34,559	0.136	234,034	0.921	6.8	13,976	0.055	5,336	0.021	21,599	0.085	4.0	35,321	0.139	4,574	0.018	27,952	0.110	6.1
3650 AOOLE ST (NEW INTERISLE TERM)	Airport Terminal			251,156	0	0.000	0	0.000	0	0.000	0.0	13,814	0.055	5,274	0.021	21,348	0.085	4.0	34,911	0.139	4,521	0.018	27,627	0.110	6.1
3661 AOOLE ST (EWA CONC GATES)	Airport Terminal			55,031	52,224	0.949	7,484	0.136	50,684	0.921	6.8	3,027	0.055	1,156	0.021	4,678	0.085	4.0	7,649	0.139	991	0.018	6,053	0.110	6.1
<b>Sub-TOTAL</b>				<b>2,208,338</b>	<b>596,278</b>	<b>0.270</b>	<b>82,038</b>	<b>0.037</b>	<b>555,567</b>	<b>0.252</b>	<b>6.8</b>	<b>121,459</b>	<b>0.055</b>	<b>46,375</b>	<b>0.021</b>	<b>187,709</b>	<b>0.085</b>	<b>4.0</b>	<b>306,959</b>	<b>0.139</b>	<b>39,750</b>	<b>0.018</b>	<b>242,917</b>	<b>0.110</b>	<b>6.1</b>
<b>LARGE FACILITIES (BUILDING AREA ESTIMATED)</b>																									
2 PALI HY (PRIMECO & ST LTS)	Highway Tunnel			17,511	16,618	0.949	2,381	0.136	16,127	0.921	6.8	963	0.055	368	0.021	1,488	0.085	4.0	2,434	0.139	315	0.018	1,926	0.110	6.1
0 WILSON TUNNEL	Highway Tunnel			30,481	28,926	0.949	4,145	0.136	28,073	0.921	6.8	1,676	0.055	640	0.021	2,591	0.085	4.0	4,237	0.139	549	0.018	3,353	0.110	6.1
0 H-3 TUNNEL HAIKU IB PORTAL (HE INT)	Highway Tunnel			88,459	83,947	0.949	12,030	0.136	81,470	0.921	6.8	4,865	0.055	1,858	0.021	7,519	0.085	4.0	12,296	0.139	1,592	0.018	9,730	0.110	6.1
<b>Sub-TOTAL</b>				<b>136,450</b>	<b>129,491</b>	<b>0.949</b>	<b>18,557</b>	<b>0.136</b>	<b>125,671</b>	<b>0.921</b>	<b>6.8</b>	<b>7,505</b>	<b>0.055</b>	<b>2,865</b>	<b>0.021</b>	<b>11,598</b>	<b>0.085</b>	<b>4.0</b>	<b>18,967</b>	<b>0.139</b>	<b>2,456</b>	<b>0.018</b>	<b>15,010</b>	<b>0.110</b>	<b>6.1</b>
<b>MEDIUM AND SMALL FACILITIES (BUILDING AREA ESTIMATED)</b>																									
<b>Sub-TOTAL</b>	Highway Tunnel			196,129	186,126	0.949	26,674	0.136	180,635	0.921	6.8	10,787	0.055	4,119	0.021	16,671	0.085	4.0	27,262	0.139	3,530	0.018	21,574	0.110	6.1
<b>Sub-TOTAL</b>																									
<b>TOTAL</b>				<b>2,540,917</b>	<b>911,895</b>	<b>0.359</b>	<b>127,269</b>	<b>0.050</b>	<b>861,872</b>	<b>0.339</b>	<b>6.8</b>	<b>139,750</b>	<b>0.055</b>	<b>53,359</b>	<b>0.021</b>	<b>215,978</b>	<b>0.085</b>	<b>4.0</b>	<b>353,187</b>	<b>0.139</b>	<b>45,737</b>	<b>0.018</b>	<b>279,501</b>	<b>0.110</b>	<b>6.1</b>

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STATE OF HAWAII FACILITIES IN OAHU ENERGY ECM BENCHMARK**

Building Name	Building Type	Operating Schedule hr.	Year-Built	Area (sq.ft.)	ECM I Interior and exterior lighting replacement						ECM II LED exit sign Installation						ECM III Reflective Solar Window Tinting								
					Est. Energy Savings (kWh/year)	(kWh/sf.ft. -year)	Est. Cost Savings (\$/year)	(\$/sq.ft. -year)	Est. Construction Costs (\$)	(\$/sq.ft. -year)	Payback (year)	Est. Energy Savings (kWh/year)	(kWh/sf.ft. -year)	Est. Cost Savings (\$/year)	(\$/sq.ft. -year)	Est. Construction Costs (\$)	(\$/sq.ft. -year)	Payback (year)	Est. Energy Savings (kWh/year)	(kWh/sf.ft. -year)	Est. Cost Savings (\$/year)	(\$/sq.ft. -year)	Est. Construction Costs (\$)	(\$/sq.ft. -year)	Payback (year)
<b>UH MANOA</b>																									
<b>LARGE FACILITIES (BUILDING AREA KNOWN)</b>																									
1701 EAST WEST RD (FACILITIES MGMT)	Class/Office			6,122,395	5,810,153	0.949	832,646	0.136	5,638,726	0.921	6.8	336,732	0.055	128,570	0.021	520,404	0.085	4.0	851,013	0.139	110,203	0.018	673,463	0.110	6.1
2680 WOODLAWN DR (ASTRONOMY FAC)	Class/Office			46,340	43,977	0.949	6,302	0.136	42,679	0.921	6.8	2,549	0.055	973	0.021	3,939	0.085	4.0	6,441	0.139	834	0.018	5,097	0.110	6.1
<b>Sub-TOTAL</b>				<b>6,168,735</b>	<b>5,854,130</b>	<b>0.949</b>	<b>838,948</b>	<b>0.136</b>	<b>5,681,405</b>	<b>0.921</b>	<b>6.8</b>	<b>339,280</b>	<b>0.055</b>	<b>129,543</b>	<b>0.021</b>	<b>524,342</b>	<b>0.085</b>	<b>4.0</b>	<b>857,454</b>	<b>0.139</b>	<b>111,037</b>	<b>0.018</b>	<b>678,561</b>	<b>0.110</b>	<b>6.1</b>
<b>LARGE FACILITIES (BUILDING AREA ESTIMATED)</b>																									
2777 KALAKAUA AV (WAIKIKI AQUARIUM)	Aquarium			62,194	59,022	0.949	8,458	0.136	57,281	0.921	6.8	3,421	0.055	1,306	0.021	5,286	0.085	4.0	8,645	0.139	1,119	0.018	6,841	0.110	6.1
46007 LILIPUNA RD (HIMB)	Class/Office			77,709	73,746	0.949	10,568	0.136	71,570	0.921	6.8	4,274	0.055	1,632	0.021	6,605	0.085	4.0	10,802	0.139	1,399	0.018	8,548	0.110	6.1
<b>Sub-TOTAL</b>				<b>139,903</b>	<b>132,768</b>	<b>0.949</b>	<b>19,027</b>	<b>0.136</b>	<b>128,851</b>	<b>0.921</b>	<b>6.8</b>	<b>7,695</b>	<b>0.055</b>	<b>2,938</b>	<b>0.021</b>	<b>11,892</b>	<b>0.085</b>	<b>4.0</b>	<b>19,447</b>	<b>0.139</b>	<b>2,518</b>	<b>0.018</b>	<b>15,389</b>	<b>0.110</b>	<b>6.1</b>
<b>MEDIUM AND SMALL FACILITIES (BUILDING AREA ESTIMATED)</b>																									
<b>Sub-TOTAL</b>	Class/Office			<b>200,470</b>	<b>190,246</b>	<b>0.949</b>	<b>27,264</b>	<b>0.136</b>	<b>184,633</b>	<b>0.921</b>	<b>6.8</b>	<b>11,026</b>	<b>0.055</b>	<b>4,210</b>	<b>0.021</b>	<b>17,040</b>	<b>0.085</b>	<b>4.0</b>	<b>27,865</b>	<b>0.139</b>	<b>3,608</b>	<b>0.018</b>	<b>22,052</b>	<b>0.110</b>	<b>6.1</b>
<b>Sub-TOTAL</b>																									
<b>TOTAL</b>				<b>6,509,109</b>	<b>6,177,144</b>	<b>0.949</b>	<b>885,239</b>	<b>0.136</b>	<b>5,994,889</b>	<b>0.921</b>	<b>6.8</b>	<b>358,001</b>	<b>0.055</b>	<b>136,691</b>	<b>0.021</b>	<b>553,274</b>	<b>0.085</b>	<b>4.0</b>	<b>904,766</b>	<b>0.139</b>	<b>117,164</b>	<b>0.018</b>	<b>716,002</b>	<b>0.110</b>	<b>6.1</b>

NOTES:  
 Energy savings per sq.ft.-year, energy savings cost \$ per sq.ft.-year, and construction cost \$ per sq.ft.-year are based on UH Energy Benchmarking Study with modifications and re-adjustments.  
 Zero ECM savings in the table indicate that the ECM has already been implemented. HECO Rebate history from 1997 through 2004, and ESPC upgrade analysis conducted in 2004 were used to identify buildings with already implemented ECMs.  
 Refer to the State Energy Benchmarking Study text Section 5.0 for a detailed discussion.

**ENERGY CONSERVATION MEASURE  
STATE OF HAWAII FACILITIES IN OAHU ENERGY ECM BENCHMARK**

Building Name	Building Type	Operating Schedule hr.	Year-Built	Area (sq.ft.)	ECM I Interior and exterior lighting replacement						ECM II LED exit sign Installation						ECM III Reflective Solar Window Tinting								
					Est. Energy Savings (kWh/year)	Est. Cost (kWh/sf.-year)	Est. Savings (\$/year)	Est. Construction Costs (\$/sq.ft.-year)	Est. Construction Costs (\$)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Cost (kWh/sf.-year)	Est. Savings (\$/year)	Est. Construction Costs (\$/sq.ft.-year)	Est. Construction Costs (\$)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Cost (kWh/sf.-year)	Est. Savings (\$/year)	Est. Construction Costs (\$/sq.ft.-year)	Est. Construction Costs (\$)	Payback (year)			
					(kWh/year)	(kWh/sf.-year)	(\$/year)	(\$/sq.ft.-year)	(\$)	(year)	(kWh/year)	(kWh/sf.-year)	(\$/year)	(\$/sq.ft.-year)	(\$)	(year)	(kWh/year)	(kWh/sf.-year)	(\$/year)	(\$/sq.ft.-year)	(\$)	(year)			
<b>COMM COLL</b>																									
<b>LARGE FACILITIES (BUILDING AREA ESTIMATED)</b>																									
96045 ALAIKE ST (LEEWARD)	Class/Office			269,630	0	0.000	0	0.000	0	0.000	0.0	14,830	0.055	5,662	0.021	22,919	0.085	4.0	37,479	0.139	4,853	0.018	29,659	0.110	6.1
655 MAKAPUU AV (KAPIOLANI BUSINESS)	Class/Office			378,208	0	0.000	0	0.000	0	0.000	0.0	20,801	0.055	7,942	0.021	32,148	0.085	4.0	52,571	0.139	6,808	0.018	41,603	0.110	6.1
874 DILLINGHAM BV (HONOLULU)	Class/Office			234,628	0	0.000	0	0.000	0	0.000	0.0	12,905	0.055	4,927	0.021	19,943	0.085	4.0	32,613	0.139	4,223	0.018	25,809	0.110	6.1
45720 KEAAHALA RD (HALE IMILOA)	Class/Office			264,821	0	0.000	0	0.000	0	0.000	0.0	14,565	0.055	5,561	0.021	22,510	0.085	4.0	36,810	0.139	4,767	0.018	29,130	0.110	6.1
	<b>Sub-TOTAL</b>			<b>1,147,288</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0.0</b>	<b>63,101</b>	<b>0.055</b>	<b>24,093</b>	<b>0.021</b>	<b>97,519</b>	<b>0.085</b>	<b>4.0</b>	<b>159,473</b>	<b>0.139</b>	<b>20,651</b>	<b>0.018</b>	<b>126,202</b>	<b>0.110</b>	<b>6.1</b>
<b>MEDIUM AND SMALL FACILITIES (BUILDING AREA ESTIMATED)</b>																									
	<b>Sub-TOTAL</b>			<b>73,445</b>	<b>69,699</b>	<b>0.949</b>	<b>9,988</b>	<b>0.136</b>	<b>67,643</b>	<b>0.921</b>	<b>6.8</b>	<b>4,039</b>	<b>0.055</b>	<b>1,542</b>	<b>0.021</b>	<b>6,243</b>	<b>0.085</b>	<b>4.0</b>	<b>10,209</b>	<b>0.139</b>	<b>1,322</b>	<b>0.018</b>	<b>8,079</b>	<b>0.110</b>	<b>6.1</b>
	<b>Sub-TOTAL</b>																								
<b>TOTAL</b>				<b>1,220,733</b>	<b>69,699</b>	<b>0.057</b>	<b>9,988</b>	<b>0.008</b>	<b>67,643</b>	<b>0.055</b>	<b>6.8</b>	<b>67,140</b>	<b>0.055</b>	<b>25,635</b>	<b>0.021</b>	<b>103,762</b>	<b>0.085</b>	<b>4.0</b>	<b>169,682</b>	<b>0.139</b>	<b>21,973</b>	<b>0.018</b>	<b>134,281</b>	<b>0.110</b>	<b>6.1</b>

**NOTES:**

Energy savings per sq.ft.-year, energy savings cost \$ per sq.ft.-year, and construction cost \$ per sq.ft.-year are based on UH Energy Benchmarking Study with modifications and re-adjustments.  
Zero ECM savings in the table indicate that the ECM has already been implemented. HECO Rebate history from 1997 through 2004, and ESPC upgrade analysis conducted in 2004 were used to identify buildings with already implemented ECMs.  
Refer to the State Energy Benchmarking Study text Section 5.0 for a detailed discussion.



**ENERGY CONSERVATION MEASURE  
STATE OF HAWAII FACILITIES IN OAHU ENERGY ECM BENCHMARK**

Building Name	Building Type	Operating Schedule hr.	Year-Built	Area (sq.ft.)	ECM I Interior and exterior lighting replacement					ECM II LED exit sign Installation					ECM III Reflective Solar Window Tinting											
					Est. Energy Savings (kWh/year)	Est. Cost (\$/sq.ft.-year)	Est. Construction Costs (\$/sq.ft.)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Cost (\$/sq.ft.-year)	Est. Construction Costs (\$/sq.ft.)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Cost (\$/sq.ft.-year)	Est. Construction Costs (\$/sq.ft.)	Payback (year)										
<b>OTHER</b>																										
LARGE FACILITIES DOES NOT EXIST																										
MEDIUM AND SMALL FACILITIES (BUILDING AREA ESTIMATED)																										
	Sub-TOTAL	Office		971,908	922,340	0.949	132,179	0.136	895,127	0.921	6.8	53,455	0.055	20,410	0.021	82,612	0.085	4.0	135,095	0.139	17,494	0.018	106,910	0.110	6.1	
	Sub-TOTAL																									
<b>TOTAL</b>					<b>971,908</b>	<b>922,340</b>	<b>0.949</b>	<b>132,179</b>	<b>0.136</b>	<b>895,127</b>	<b>0.921</b>	<b>6.8</b>	<b>53,455</b>	<b>0.055</b>	<b>20,410</b>	<b>0.021</b>	<b>82,612</b>	<b>0.085</b>	<b>4.0</b>	<b>135,095</b>	<b>0.139</b>	<b>17,494</b>	<b>0.018</b>	<b>106,910</b>	<b>0.110</b>	<b>6.1</b>

NOTES:  
 Energy savings per sq.ft.-year, energy savings cost \$ per sq.ft.-year, and construction cost \$ per sq.ft.-year are based on UH Energy Benchmarking Study with modifications and re-adjustments.  
 Zero ECM savings in the table indicate that the ECM has already been implemented. HECO Rebate history from 1997 through 2004, and ESPC upgrade analysis conducted in 2004 were used to identify buildings with already implemented ECMs.  
 Refer to the State Energy Benchmarking Study text Section 5.0 for a detailed discussion.

**ENERGY CONSERVATION MEASURE  
STATE OF HAWAII FACILITIES IN OAHU ENERGY ECM BENCHMARK**

Building Name	Building Type	Operating Schedule hr.	Year-Built	Area (sq.ft.)	ECM IV Chiller Retrofits							ECM V Variable Speed Drive Utilization							ECM VI Motor Replacement with High Efficiency - Pumps+Fans							ECM VII Waste Heat Recovery System						
					Est. Energy Savings (kWh/year)	Est. Cost (kWh/sf.-year)	Est. Savings (\$/year)	Est. Cost (\$/sq.ft.-year)	Est. Construction Costs (\$)	Est. Construction (\$/sq.ft.-year)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Cost (kWh/sf.-year)	Est. Savings (\$/year)	Est. Cost (\$/sq.ft.-year)	Est. Construction Costs (\$)	Est. Construction (\$/sq.ft.-year)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Cost (kWh/sf.-year)	Est. Savings (\$/year)	Est. Cost (\$/sq.ft.-year)	Est. Construction Costs (\$)	Est. Construction (\$/sq.ft.-year)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Cost (kWh/sf.-year)	Est. Savings (\$/year)	Est. Cost (\$/sq.ft.-year)	Est. Construction Costs (\$)	Est. Construction (\$/sq.ft.-year)	Payback (year)
<b>DAGS</b>																																
<b>LARGE FACILITIES (BUILDING AREA KNOWN)</b>																																
415 SOUTH BERETANIA (STATE CAPITOL)	Office	10	1969	300,000	502,500	1.675	64,200	0.214	858,000	2.860	13.4	219,600	0.732	28,200	0.094	131,700	0.439	4.7	40,500	0.135	5,100	0.017	35,400	0.118	6.9	16,560	0.055	2,130	0.007	4,800	0.016	2.3
919 ALA MOANA BLVD (AAFES)	Office	10		108,000	180,900	1.675	23,112	0.214	308,880	2.860	13.4	79,056	0.732	10,152	0.094	47,412	0.439	4.7	0	0.000	0	0.000	0	0.000	0.0	5,962	0.055	767	0.007	1,728	0.016	2.3
1390 MILLER ST (QUEEN LILIOULULANI)	Office	11.5	1943	94,528	0	0.000	0	0.000	0	0.000	0.0	0	0.000	0	0.000	0	0.000	0.0	12,761	0.135	1,607	0.017	11,154	0.118	6.9	5,218	0.055	671	0.007	1,512	0.016	2.3
1151 PUNCHBOWL ST (KALANIMOKU)	Office	10	1976	203,000	340,025	1.675	43,442	0.214	580,580	2.860	13.4	148,596	0.732	19,082	0.094	89,117	0.439	4.7	27,405	0.135	3,451	0.017	23,954	0.118	6.9	11,206	0.055	1,441	0.007	3,248	0.016	2.3
1250 PUNCHBOWL ST (KINAU HALE)	Office	11	1961	66,951	0	0.000	0	0.000	0	0.000	0.0	0	0.000	0	0.000	0	0.000	0.0	9,038	0.135	1,138	0.017	7,900	0.118	6.9	3,696	0.055	475	0.007	1,071	0.016	2.3
250 S HOTEL ST (NO. 1-DISTRICT BLDG)	Office	10		120,000	201,000	1.675	25,680	0.214	343,200	2.860	13.4	87,840	0.732	11,280	0.094	52,680	0.439	4.7	16,200	0.135	2,040	0.017	14,160	0.118	6.9	6,624	0.055	852	0.007	1,920	0.016	2.3
465 S KING ST (KEKUANAO'A BLDG)	Office	11		65,075	0	0.000	0	0.000	0	0.000	0.0	0	0.000	0	0.000	0	0.000	0.0	8,785	0.135	1,106	0.017	7,679	0.118	6.9	3,592	0.055	462	0.007	1,041	0.016	2.3
235 S BERETANIA ST (OFFICE TOWER)	Office	10	1991	172,000	288,100	1.675	36,808	0.214	491,920	2.860	13.4	125,904	0.732	16,168	0.094	75,508	0.439	4.7	23,220	0.135	2,924	0.017	20,296	0.118	6.9	9,494	0.055	1,221	0.007	2,752	0.016	2.3
830 PUNCHBOWL ST (KEELIKOLANI & AUHAU)	Office	12		278,639	0	0.000	0	0.000	0	0.000	0.0	0	0.000	0	0.000	0	0.000	0.0	37,616	0.135	4,737	0.017	32,879	0.118	6.9	15,381	0.055	1,978	0.007	4,458	0.016	2.3
601 KAMOKILA BV (KAKUIHEIWA KAPOLEI)	Office	10	1998	222,000	371,850	1.675	47,508	0.214	634,920	2.860	13.4	162,504	0.732	20,868	0.094	97,458	0.439	4.7	29,970	0.135	3,774	0.017	26,196	0.118	6.9	12,254	0.055	1,576	0.007	3,552	0.016	2.3
99500 SALT LAKE BV (STADIUM AUTHORITY)	Stadium			300,000	502,500	1.675	64,200	0.214	858,000	2.860	13.4	219,600	0.732	28,200	0.094	131,700	0.439	4.7	40,500	0.135	5,100	0.017	35,400	0.118	6.9	16,560	0.055	2,130	0.007	4,800	0.016	2.3
<b>Sub-TOTAL</b>				<b>1,930,193</b>	<b>2,386,875</b>	<b>1.237</b>	<b>304,950</b>	<b>0.158</b>	<b>4,075,500</b>	<b>2.111</b>	<b>13.4</b>	<b>1,043,100</b>	<b>0.540</b>	<b>133,950</b>	<b>0.069</b>	<b>625,575</b>	<b>0.324</b>	<b>4.7</b>	<b>245,996</b>	<b>0.127</b>	<b>30,977</b>	<b>0.016</b>	<b>215,019</b>	<b>0.111</b>	<b>6.9</b>	<b>106,547</b>	<b>0.055</b>	<b>13,704</b>	<b>0.007</b>	<b>30,883</b>	<b>0.016</b>	<b>2.3</b>
<b>MEDIUM AND SMALL FACILITIES (BUILDING AREA ESTIMATED)</b>																																
<b>Sub-TOTAL</b>	Office			<b>407,072</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0.0</b>	<b>219,987</b>	<b>0.540</b>	<b>28,250</b>	<b>0.069</b>	<b>131,932</b>	<b>0.324</b>	<b>4.7</b>	<b>51,880</b>	<b>0.127</b>	<b>6,533</b>	<b>0.016</b>	<b>45,347</b>	<b>0.111</b>	<b>6.9</b>	<b>22,470</b>	<b>0.055</b>	<b>2,890</b>	<b>0.007</b>	<b>6,513</b>	<b>0.016</b>	<b>2.3</b>
<b>Sub-TOTAL</b>																																
<b>TOTAL</b>				<b>2,337,265</b>	<b>2,386,875</b>	<b>1.021</b>	<b>304,950</b>	<b>0.130</b>	<b>4,075,500</b>	<b>1.744</b>	<b>13.4</b>	<b>1,263,087</b>	<b>0.540</b>	<b>162,200</b>	<b>0.069</b>	<b>757,507</b>	<b>0.086</b>	<b>4.7</b>	<b>297,876</b>	<b>0.127</b>	<b>37,510</b>	<b>0.016</b>	<b>260,366</b>	<b>0.111</b>	<b>6.9</b>	<b>129,017</b>	<b>0.055</b>	<b>16,595</b>	<b>0.007</b>	<b>37,396</b>	<b>0.016</b>	<b>2.3</b>

NOTES:  
 Energy savings per sq.ft.-year, energy savings cost \$ per sq.ft.-year, and construction cost \$ per sq.ft.-year are based on UH Energy Benchmarking Study with modifications and re-adjustments.  
 Zero ECO savings in the table indicate that the ECO has already been implemented. HECO Rebate history from 1997 through 2004, and ESPC upgrade analysis conducted in 2004 were used to identify buildings with already implemented ECOs.  
 Refer to the State Energy Benchmarking Study text Section 5.0 for a detailed discussion.

**ENERGY CONSERVATION MEASURE  
STATE OF HAWAII FACILITIES IN OAHU ENERGY ECM BENCHMARK**

Building Name	Building Type	Operating Schedule hr.	Year-Built	Area (sq.ft.)	ECM IV Chiller Retrofits						ECM V Variable Speed Drive Utilization						ECM VI Motor Replacement with High Efficiency - Pumps+Fans						ECM VII Waste Heat Recovery System													
					Est. Energy Savings (kWh/year)	Est. Cost Savings (kWh/sf.ft. -year)	Est. Cost Savings (\$/year)	Est. Construction Costs (\$/sq.ft. -year)	Est. Construction Costs (\$/year)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Cost Savings (kWh/sf.ft. -year)	Est. Cost Savings (\$/year)	Est. Construction Costs (\$/sq.ft. -year)	Est. Construction Costs (\$/year)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Cost Savings (kWh/sf.ft. -year)	Est. Cost Savings (\$/year)	Est. Construction Costs (\$/sq.ft. -year)	Est. Construction Costs (\$/year)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Cost Savings (kWh/sf.ft. -year)	Est. Cost Savings (\$/year)	Est. Construction Costs (\$/sq.ft. -year)	Est. Construction Costs (\$/year)	Payback (year)								
<b>JUDICIARY</b>																																				
<b>LARGE FACILITIES (BUILDING AREA KNOWN)</b>																																				
777 PUNCHBOWL ST (KAAHUMANU HALE)	Office			212,000	0	0.000	0	0.000	0	0.000	0.0	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0.0	28,620	0.135	3,604	0.017	25,016	0.118	6.9	11,702	0.055	1,505	0.007	3,392	0.016	2.3
1111 ALAKEA ST (KAUIKEAOULI DIS CT 1ST C)	Office			187,000	0	0.000	0	0.000	0	0.000	0.0	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0.0	25,245	0.135	3,179	0.017	22,066	0.118	6.9	10,322	0.055	1,328	0.007	2,992	0.016	2.3
417 S KING ST (ALILOLANE HALE)	Office			62,200	104,185	1.675	13,311	0.214	177,892	2.860	13.4	45,530	0.732	5,847	0.094	27,306	0.439	4.7	8,397	0.135	1,057	0.017	7,340	0.118	6.9	3,433	0.055	442	0.007	995	0.016	2.3				
<b>Sub-TOTAL</b>				<b>461,200</b>	<b>104,185</b>	<b>0.226</b>	<b>13,311</b>	<b>0.029</b>	<b>177,892</b>	<b>0.386</b>	<b>13.4</b>	<b>45,530</b>	<b>0.099</b>	<b>5,847</b>	<b>0.013</b>	<b>27,306</b>	<b>0.059</b>	<b>4.7</b>	<b>62,262</b>	<b>0.135</b>	<b>7,840</b>	<b>0.017</b>	<b>54,422</b>	<b>0.118</b>	<b>6.9</b>	<b>25,458</b>	<b>0.055</b>	<b>3,275</b>	<b>0.007</b>	<b>7,379</b>	<b>0.016</b>	<b>2.3</b>				
<b>MEDIUM AND SMALL FACILITIES (BUILDING AREA ESTIMATED)</b>																																				
<b>Sub-TOTAL</b>	Office			<b>75,639</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0.0</b>	<b>7,467</b>	<b>0.099</b>	<b>959</b>	<b>0.013</b>	<b>4,478</b>	<b>0.059</b>	<b>4.7</b>	<b>10,211</b>	<b>0.135</b>	<b>1,286</b>	<b>0.017</b>	<b>8,925</b>	<b>0.118</b>	<b>6.9</b>	<b>4,175</b>	<b>0.055</b>	<b>537</b>	<b>0.007</b>	<b>1,210</b>	<b>0.016</b>	<b>2.3</b>				
<b>Sub-TOTAL</b>																																				
<b>TOTAL</b>				<b>536,839</b>	<b>104,185</b>	<b>0.194</b>	<b>13,311</b>	<b>0.025</b>	<b>177,892</b>	<b>0.331</b>	<b>13.4</b>	<b>52,998</b>	<b>0.099</b>	<b>6,806</b>	<b>0.013</b>	<b>31,784</b>	<b>0.059</b>	<b>4.7</b>	<b>72,473</b>	<b>0.135</b>	<b>9,126</b>	<b>0.017</b>	<b>63,347</b>	<b>0.118</b>	<b>6.9</b>	<b>29,634</b>	<b>0.055</b>	<b>3,812</b>	<b>0.007</b>	<b>8,589</b>	<b>0.016</b>	<b>2.3</b>				

**NOTES:**

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**ENERGY CONSERVATION MEASURE  
STATE OF HAWAII FACILITIES IN OAHU ENERGY ECM BENCHMARK**

Building Name	Building Type	Operating Schedule hr.	Year-Built	Area (sq.ft.)	ECM IV Chiller Retrofits						ECM V Variable Speed Drive Utilization						ECM VI Motor Replacement with High Efficiency - Pumps+Fans						ECM VII Waste Heat Recovery System													
					Est. Energy Savings (kWh/year)	Est. Cost Savings (kWh/sf.ft.-year)	Est. Cost Savings (\$/year)	Est. Construction Costs (\$/sq.ft.-year)	Est. Construction Costs (\$)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Cost Savings (kWh/sf.ft.-year)	Est. Cost Savings (\$/year)	Est. Construction Costs (\$/sq.ft.-year)	Est. Construction Costs (\$)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Cost Savings (kWh/sf.ft.-year)	Est. Cost Savings (\$/year)	Est. Construction Costs (\$/sq.ft.-year)	Est. Construction Costs (\$)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Cost Savings (kWh/sf.ft.-year)	Est. Cost Savings (\$/year)	Est. Construction Costs (\$/sq.ft.-year)	Est. Construction Costs (\$)	Payback (year)								
<b>DBEDT</b>																																				
<b>LARGE FACILITIES (BUILDING AREA ESTIMATED)</b>																																				
1777 KAPIOLANI BV (HCC)	Conv. Centr.			354,554	0	0.000	0	0.000	0	0.000	0.0	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0.0	0	0.000	0	0.000	0	0.000	0.0	19,571	0.055	2,517	0.007	5,673	0.016	2.3
<b>Sub-TOTAL</b>				<b>354,554</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0.0</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0.0</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0.0</b>	<b>19,571</b>	<b>0.055</b>	<b>2,517</b>	<b>0.007</b>	<b>5,673</b>	<b>0.016</b>	<b>2.3</b>		
<b>MEDIUM AND SMALL FACILITIES (BUILDING AREA ESTIMATED)</b>																																				
<b>Sub-TOTAL</b>	Office			<b>265,489</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0.0</b>	<b>194,338</b>	<b>0.732</b>	<b>24,956</b>	<b>0.094</b>	<b>116,550</b>	<b>0.439</b>	<b>4.7</b>	<b>35,841</b>	<b>0.135</b>	<b>4,513</b>	<b>0.017</b>	<b>31,328</b>	<b>0.118</b>	<b>6.9</b>	<b>14,655</b>	<b>0.055</b>	<b>1,885</b>	<b>0.007</b>	<b>4,248</b>	<b>0.016</b>	<b>2.3</b>				
<b>Sub-TOTAL</b>																																				
<b>TOTAL</b>				<b>620,043</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>#DIV/0!</b>	<b>194,338</b>	<b>0.313</b>	<b>24,956</b>	<b>0.040</b>	<b>116,550</b>	<b>0.188</b>	<b>4.7</b>	<b>35,841</b>	<b>0.058</b>	<b>4,513</b>	<b>0.007</b>	<b>31,328</b>	<b>0.051</b>	<b>6.9</b>	<b>34,226</b>	<b>0.055</b>	<b>4,402</b>	<b>0.007</b>	<b>9,921</b>	<b>0.016</b>	<b>2.3</b>				

NOTES:  
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**ENERGY CONSERVATION MEASURE  
STATE OF HAWAII FACILITIES IN OAHU ENERGY ECM BENCHMARK**

Building Name	Building Type	Operating Schedule hr.	Year-Built	Area (sq.ft.)	ECM IV Chiller Retrofits						ECM V Variable Speed Drive Utilization						ECM VI Motor Replacement with High Efficiency - Pumps+Fans						ECM VII Waste Heat Recovery System									
					Est. Energy Savings (kWh/year)	Est. Cost Savings (kWh/sf.ft. -year) (\$/year)	Est. Construction Costs (\$/sq.ft. -year) (\$)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Cost Savings (kWh/sf.ft. -year) (\$/year)	Est. Construction Costs (\$/sq.ft. -year) (\$)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Cost Savings (kWh/sf.ft. -year) (\$/year)	Est. Construction Costs (\$/sq.ft. -year) (\$)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Cost Savings (kWh/sf.ft. -year) (\$/year)	Est. Construction Costs (\$/sq.ft. -year) (\$)	Payback (year)												
<b>DHS</b>																																
<b>LARGE FACILITIES (BUILDING AREA ESTIMATED)</b>																																
1541 KALAKAUA AV (HCDCH)	Office			89,175	149,369	1.675	19,084	0.214	255,041	2.860	13.4	65,276	0.732	8,382	0.094	39,148	0.439	4.7	12,039	0.135	1,516	0.017	10,523	0.118	6.9	4,922	0.055	633	0.007	1,427	0.016	2.3
99132 KOHOMUA ST (HCDCH)	Office			115,849	194,048	1.675	24,792	0.214	331,329	2.860	13.4	84,802	0.732	10,890	0.094	50,858	0.439	4.7	15,640	0.135	1,969	0.017	13,670	0.118	6.9	6,395	0.055	823	0.007	1,854	0.016	2.3
1545 LINAPUNI ST #BLDG B (HCDCH HHA)	Office			59,224	99,201	1.675	12,674	0.214	169,382	2.860	13.4	43,352	0.732	5,567	0.094	26,000	0.439	4.7	7,995	0.135	1,007	0.017	6,988	0.118	6.9	3,269	0.055	420	0.007	948	0.016	2.3
1475 LINAPUNI ST #BLDG (HCDCH HHA)	Office			60,090	100,651	1.675	12,859	0.214	171,858	2.860	13.4	43,986	0.732	5,648	0.094	26,380	0.439	4.7	8,112	0.135	1,022	0.017	7,091	0.118	6.9	3,317	0.055	427	0.007	961	0.016	2.3
<b>Sub-TOTAL</b>				<b>324,339</b>	<b>543,268</b>	<b>1.675</b>	<b>69,409</b>	<b>0.214</b>	<b>927,611</b>	<b>2.860</b>	<b>13.4</b>	<b>237,416</b>	<b>0.732</b>	<b>30,488</b>	<b>0.094</b>	<b>142,385</b>	<b>0.439</b>	<b>4.7</b>	<b>43,786</b>	<b>0.135</b>	<b>5,514</b>	<b>0.017</b>	<b>38,272</b>	<b>0.118</b>	<b>6.9</b>	<b>17,904</b>	<b>0.055</b>	<b>2,303</b>	<b>0.007</b>	<b>5,189</b>	<b>0.016</b>	<b>2.3</b>
<b>MEDIUM AND SMALL FACILITIES (BUILDING AREA ESTIMATED)</b>																																
<b>Sub-TOTAL</b>	Office			253,717	0	0.000	0	0.000	0	0.000	0.0	185,721	0.732	23,849	0.094	111,382	0.439	4.7	34,252	0.135	4,313	0.017	29,939	0.118	6.9	14,005	0.055	1,801	0.007	4,059	0.016	2.3
<b>Sub-TOTAL</b>																																
<b>TOTAL</b>				<b>578,056</b>	<b>543,268</b>	<b>0.940</b>	<b>69,409</b>	<b>0.120</b>	<b>927,611</b>	<b>1.605</b>	<b>13.4</b>	<b>423,137</b>	<b>0.732</b>	<b>54,337</b>	<b>0.094</b>	<b>253,767</b>	<b>0.439</b>	<b>4.7</b>	<b>78,038</b>	<b>0.135</b>	<b>9,827</b>	<b>0.017</b>	<b>68,211</b>	<b>0.118</b>	<b>6.9</b>	<b>31,909</b>	<b>0.055</b>	<b>4,104</b>	<b>0.007</b>	<b>9,249</b>	<b>0.016</b>	<b>2.3</b>

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**ENERGY CONSERVATION MEASURE  
STATE OF HAWAII FACILITIES IN OAHU ENERGY ECM BENCHMARK**

Building Name	Building Type	Operating Schedule hr.	Year-Built	Area (sq.ft.)	ECM IV Chiller Retrofits							ECM V Variable Speed Drive Utilization							ECM VI Motor Replacement with High Efficiency - Pumps+Fans							ECM VII Waste Heat Recovery System						
					Est. Energy Savings (kWh/year)	Est. Cost Savings (kWh/sf.ft. -year)	Est. Cost Savings (\$/year)	Est. Construction Costs (\$/sq.ft. -year)	Est. Construction Costs (\$)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Cost Savings (kWh/sf.ft. -year)	Est. Cost Savings (\$/year)	Est. Construction Costs (\$/sq.ft. -year)	Est. Construction Costs (\$)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Cost Savings (kWh/sf.ft. -year)	Est. Cost Savings (\$/year)	Est. Construction Costs (\$/sq.ft. -year)	Est. Construction Costs (\$)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Cost Savings (kWh/sf.ft. -year)	Est. Cost Savings (\$/year)	Est. Construction Costs (\$/sq.ft. -year)	Est. Construction Costs (\$)	Payback (year)				
<b>DOD</b>																																
<b>LARGE FACILITIES (BUILDING AREA KNOWN)</b>																																
3949 DIAMOND HEAD RD	Office			140,000	234,500	1.675	29,960	0.214	400,400	2.860	13.4	102,480	0.732	13,160	0.094	61,460	0.439	4.7	18,900	0.135	2,380	0.017	16,520	0.118	6.9	7,728	0.055	994	0.007	2,240	0.016	2.3
	Sub-TOTAL			140,000	234,500	1.675	29,960	0.214	400,400	2.860	13.4	102,480	0.732	13,160	0.094	61,460	0.439	4.7	18,900	0.135	2,380	0.017	16,520	0.118	6.9	7,728	0.055	994	0.007	2,240	0.016	2.3
<b>MEDIUM AND SMALL FACILITIES (BUILDING AREA ESTIMATED)</b>																																
	Sub-TOTAL	Office		388,803	0	0.000	0	0.000	0	0.000	0.0	284,604	0.732	36,547	0.094	170,685	0.439	4.7	52,488	0.135	6,610	0.017	45,879	0.118	6.9	21,462	0.055	2,761	0.007	6,221	0.016	2.3
	Sub-TOTAL																															
<b>TOTAL</b>				528,803	234,500	0.443	29,960	0.057	400,400	0.757	13.4	387,084	0.732	49,707	0.094	232,145	0.439	4.7	71,388	0.135	8,990	0.017	62,399	0.118	6.9	29,190	0.055	3,755	0.007	8,461	0.016	2.3

**NOTES:**

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STATE OF HAWAII FACILITIES IN OAHU ENERGY ECM BENCHMARK**

Building Name	Building Type	Operating Schedule hr.	Year-Built	Area (sq.ft.)	ECM IV Chiller Retrofits						ECM V Variable Speed Drive Utilization						ECM VI Motor Replacement with High Efficiency - Pumps+Fans						ECM VII Waste Heat Recovery System							
					Est. Energy Savings		Est. Cost Savings		Est. Construction Costs		Payback	Est. Energy Savings		Est. Cost Savings		Est. Construction Costs		Payback	Est. Energy Savings		Est. Cost Savings		Est. Construction Costs		Payback					
					(kWh/year)	(kWh/sf.ft.-year)	(\$/year)	(\$/sq.ft.-year)	(\$)	(\$/sq.ft.-year)	(year)	(kWh/year)	(kWh/sf.ft.-year)	(\$/year)	(\$/sq.ft.-year)	(\$)	(\$/sq.ft.-year)	(year)	(kWh/year)	(kWh/sf.ft.-year)	(\$/year)	(\$/sq.ft.-year)	(\$)	(\$/sq.ft.-year)	(year)					
<b>DOE</b>																														
<b>LARGE FACILITIES (BUILDING AREA ESTIMATED)</b>																														
915007 KAPOLEI PKWY	Classroom/Office			240,613	0	0.000	0	0.000	0	0.000	0.0	0	0.000	0	0.000	0.0	0	0.000	0	0.000	0	0.000	0.0	0	0.000	0	0.000	0.0		
46155 KAMEHAMEHA HY	Classroom/Office			80,672	0	0.000	0	0.000	0	0.000	0.0	0	0.000	0	0.000	0.0	10,891	0.135	1,371	0.017	9,519	0.118	6.9	0	0.000	0	0.000	0	0.000	0.0
91884 FT WEAVER RD	Classroom/Office			136,608	0	0.000	0	0.000	0	0.000	0.0	0	0.000	0	0.000	0.0	18,442	0.135	2,322	0.017	16,120	0.118	6.9	0	0.000	0	0.000	0	0.000	0.0
2460 WAIMANO HOME RD (PEARL CITY HIGH)	Classroom/Office			109,080	0	0.000	0	0.000	0	0.000	0.0	0	0.000	0	0.000	0.0	14,726	0.135	1,854	0.017	12,871	0.118	6.9	0	0.000	0	0.000	0	0.000	0.0
89980 NANAKULI AV (NANAKULI HIGH & INTER)	Classroom/Office			98,800	0	0.000	0	0.000	0	0.000	0.0	0	0.000	0	0.000	0.0	13,338	0.135	1,680	0.017	11,658	0.118	6.9	0	0.000	0	0.000	0	0.000	0.0
85271 FARRINGTON HY (WAIANAE HIGH)	Classroom/Office			87,552	0	0.000	0	0.000	0	0.000	0.0	0	0.000	0	0.000	0.0	11,820	0.135	1,488	0.017	10,331	0.118	6.9	0	0.000	0	0.000	0	0.000	0.0
951200 MEHEULA PARKWAY(MILILANI HIGH)	Classroom/Office			113,040	0	0.000	0	0.000	0	0.000	0.0	0	0.000	0	0.000	0.0	15,260	0.135	1,922	0.017	13,339	0.118	6.9	0	0.000	0	0.000	0	0.000	0.0
45386 KANEHOE BAY DR (CASTLE HIGH)	Classroom/Office			87,600	0	0.000	0	0.000	0	0.000	0.0	0	0.000	0	0.000	0.0	11,826	0.135	1,489	0.017	10,337	0.118	6.9	0	0.000	0	0.000	0	0.000	0.0
760 ILIAINA ST (KALAHOE)	Classroom/Office			72,949	0	0.000	0	0.000	0	0.000	0.0	0	0.000	0	0.000	0.0	9,848	0.135	1,240	0.017	8,608	0.118	6.9	0	0.000	0	0.000	0	0.000	0.0
511 LUNALILO HOME RD (KAISER HIGH)	Classroom/Office			98,000	0	0.000	0	0.000	0	0.000	0.0	0	0.000	0	0.000	0.0	13,230	0.135	1,666	0.017	11,564	0.118	6.9	0	0.000	0	0.000	0	0.000	0.0
4680 KALANIANAOLE HY (KALANI HIGH)	Classroom/Office			37,749	0	0.000	0	0.000	0	0.000	0.0	0	0.000	0	0.000	0.0	5,096	0.135	642	0.017	4,454	0.118	6.9	0	0.000	0	0.000	0	0.000	0.0
2705 KAIMUKI AVE (KAIMUKI HIGH)	Classroom/Office			146,907	0	0.000	0	0.000	0	0.000	0.0	0	0.000	0	0.000	0.0	19,832	0.135	2,497	0.017	17,335	0.118	6.9	0	0.000	0	0.000	0	0.000	0.0
1120 NEHOA ST (ROOSEVELT HIGH)	Classroom/Office			77,720	0	0.000	0	0.000	0	0.000	0.0	0	0.000	0	0.000	0.0	10,492	0.135	1,321	0.017	9,171	0.118	6.9	0	0.000	0	0.000	0	0.000	0.0
1039 S KING ST (MCKINLEY HIGH)	Classroom/Office			160,107	0	0.000	0	0.000	0	0.000	0.0	0	0.000	0	0.000	0.0	21,614	0.135	2,722	0.017	18,893	0.118	6.9	0	0.000	0	0.000	0	0.000	0.0
1185 ALA NAPUNANI ST (MOANALUA HIGH)	Classroom/Office			116,667	0	0.000	0	0.000	0	0.000	0.0	0	0.000	0	0.000	0.0	15,750	0.135	1,983	0.017	13,767	0.118	6.9	0	0.000	0	0.000	0	0.000	0.0
911561 KEAUNUI RD HOLOMUA ELEMENTARY)	Classroom/Office			110,496	0	0.000	0	0.000	0	0.000	0.0	0	0.000	0	0.000	0.0	14,917	0.135	1,878	0.017	13,039	0.118	6.9	0	0.000	0	0.000	0	0.000	0.0
951140 LEHIWA DR (MILILANI INTERMED)	Classroom/Office			157,653	0	0.000	0	0.000	0	0.000	0.0	0	0.000	0	0.000	0.0	21,283	0.135	2,680	0.017	18,603	0.118	6.9	0	0.000	0	0.000	0	0.000	0.0
915335 KAPOLEI PKWY (KAPOLEI MID SCH)	Classroom/Office			139,600	0	0.000	0	0.000	0	0.000	0.0	0	0.000	0	0.000	0.0	0	0.000	0	0.000	0	0.000	0.0	0	0.000	0	0.000	0	0.000	0.0
478 S KING ST (HAWAII STATE LIBRARY)	Classroom/Office			63,151	0	0.000	0	0.000	0	0.000	0.0	0	0.000	0	0.000	0.0	8,525	0.135	1,074	0.017	7,452	0.118	6.9	0	0.000	0	0.000	0	0.000	0.0
<b>Sub-TOTAL</b>				<b>2,134,964</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0.0</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0.0</b>	<b>236,891</b>	<b>0.111</b>	<b>29,831</b>	<b>0.014</b>	<b>207,061</b>	<b>0.097</b>	<b>6.9</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0.0</b>
<b>MEDIUM AND SMALL FACILITIES (BUILDING AREA ESTIMATED)</b>																														
<b>Sub-TOTAL</b>	Classroom/Office			<b>5,694,686</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0.0</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0.0</b>	<b>631,871</b>	<b>0.111</b>	<b>79,569</b>	<b>0.014</b>	<b>552,302</b>	<b>0.097</b>	<b>6.9</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0.0</b>
<b>Sub-TOTAL</b>																														
<b>TOTAL</b>				<b>7,829,650</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0.0</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0.0</b>	<b>868,762</b>	<b>0.111</b>	<b>109,400</b>	<b>0.014</b>	<b>759,363</b>	<b>0.097</b>	<b>6.9</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0.0</b>

**NOTES:**

Energy savings per sq.ft.-year, energy savings cost \$ per sq.ft.-year, and construction cost \$ per sq.ft.-year are based on UH Energy Benchmarking Study with modifications and re-adjustments.  
Zero ECO savings in the table indicate that the ECO has already been implemented. HECO Rebate history from 1997 through 2004, and ESPC upgrade analysis conducted in 2004 were used to identify buildings with already implemented ECOs.  
Refer to the State Energy Benchmarking Study text Section 5.0 for a detailed discussion.

**ENERGY CONSERVATION MEASURE  
STATE OF HAWAII FACILITIES IN OAHU ENERGY ECM BENCHMARK**

Building Name	Building Type	Operating Schedule hr.	Year-Built	Area (sq.ft.)	ECM IV Chiller Retrofits						ECM V Variable Speed Drive Utilization						ECM VI Motor Replacement with High Efficiency - Pumps+Fans						ECM VII Waste Heat Recovery System									
					Est. Energy Savings (kWh/year)	Est. Cost (kWh/sf.ft. -year)	Est. Savings (\$/year)	Est. Construction Costs (\$/sq.ft. -year)	Est. Construction Costs (\$)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Cost (kWh/sf.ft. -year)	Est. Savings (\$/year)	Est. Construction Costs (\$/sq.ft. -year)	Est. Construction Costs (\$)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Cost (kWh/sf.ft. -year)	Est. Savings (\$/year)	Est. Construction Costs (\$/sq.ft. -year)	Est. Construction Costs (\$)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Cost (kWh/sf.ft. -year)	Est. Savings (\$/year)	Est. Construction Costs (\$/sq.ft. -year)	Est. Construction Costs (\$)	Payback (year)				
<b>DOH</b>																																
<b>LARGE FACILITIES (BUILDING AREA KNOWN)</b>																																
45747 KEAAHALA RD (HAWAII STATE HOSP)	Hospital			226,475	379,346	1.675	48,466	0.214	647,719	2.860	13.4	165,780	0.732	21,289	0.094	99,423	0.439	4.7	30,574	0.135	3,850	0.017	26,724	0.118	6.9	12,501	0.055	1,608	0.007	3,624	0.016	2.3
45633 KEAAHALA RD	Hospital			68,206	114,245	1.675	14,596	0.214	195,069	2.860	13.4	49,927	0.732	6,411	0.094	29,942	0.439	4.7	9,208	0.135	1,160	0.017	8,048	0.118	6.9	3,765	0.055	484	0.007	1,091	0.016	2.3
3627 KILAUEA AV (ADMIN SRVC OFF)	Hospital			72,940	122,175	1.675	15,609	0.214	208,608	2.860	13.4	53,392	0.732	6,856	0.094	32,021	0.439	4.7	9,847	0.135	1,240	0.017	8,607	0.118	6.9	4,026	0.055	518	0.007	1,167	0.016	2.3
3675 KILAUEA AV	Hospital			137,830	230,865	1.675	29,496	0.214	394,194	2.860	13.4	100,892	0.732	12,956	0.094	60,507	0.439	4.7	18,607	0.135	2,343	0.017	16,264	0.118	6.9	7,608	0.055	979	0.007	2,205	0.016	2.3
1103 HALA DR (MALUHIA HOSP)	Hospital			99,700	166,998	1.675	21,336	0.214	285,142	2.860	13.4	72,980	0.732	9,372	0.094	43,768	0.439	4.7	13,460	0.135	1,695	0.017	11,765	0.118	6.9	5,503	0.055	708	0.007	1,595	0.016	2.3
2725 WAIMANO HOME RD (ADMIN OFF)	Hospital			306,366	513,163	1.675	65,562	0.214	876,207	2.860	13.4	224,260	0.732	28,798	0.094	134,495	0.439	4.7	41,359	0.135	5,208	0.017	36,151	0.118	6.9	16,911	0.055	2,175	0.007	4,902	0.016	2.3
<b>Sub-TOTAL</b>				<b>911,517</b>	<b>1,526,791</b>	<b>1.675</b>	<b>195,065</b>	<b>0.214</b>	<b>2,606,939</b>	<b>2.860</b>	<b>13.4</b>	<b>667,230</b>	<b>0.732</b>	<b>85,683</b>	<b>0.094</b>	<b>400,156</b>	<b>0.439</b>	<b>4.7</b>	<b>123,055</b>	<b>0.135</b>	<b>15,496</b>	<b>0.017</b>	<b>107,559</b>	<b>0.118</b>	<b>6.9</b>	<b>50,316</b>	<b>0.055</b>	<b>6,472</b>	<b>0.007</b>	<b>14,584</b>	<b>0.016</b>	<b>2.3</b>
<b>MEDIUM AND SMALL FACILITIES (BUILDING AREA ESTIMATED)</b>																																
<b>Sub-TOTAL</b>	Hospital			<b>695,353</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0.0</b>	<b>508,999</b>	<b>0.732</b>	<b>65,363</b>	<b>0.094</b>	<b>305,260</b>	<b>0.439</b>	<b>4.7</b>	<b>93,873</b>	<b>0.135</b>	<b>11,821</b>	<b>0.017</b>	<b>82,052</b>	<b>0.118</b>	<b>6.9</b>	<b>38,384</b>	<b>0.055</b>	<b>4,937</b>	<b>0.007</b>	<b>11,126</b>	<b>0.016</b>	<b>2.3</b>
<b>Sub-TOTAL</b>																																
<b>TOTAL</b>				<b>1,606,870</b>	<b>1,526,791</b>	<b>0.950</b>	<b>195,065</b>	<b>0.121</b>	<b>2,606,939</b>	<b>1.622</b>	<b>13.4</b>	<b>1,176,229</b>	<b>0.732</b>	<b>151,046</b>	<b>0.094</b>	<b>705,416</b>	<b>0.439</b>	<b>4.7</b>	<b>216,928</b>	<b>0.135</b>	<b>27,317</b>	<b>0.017</b>	<b>189,611</b>	<b>0.118</b>	<b>6.9</b>	<b>88,699</b>	<b>0.055</b>	<b>11,409</b>	<b>0.007</b>	<b>25,710</b>	<b>0.016</b>	<b>2.3</b>

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**ENERGY CONSERVATION MEASURE  
STATE OF HAWAII FACILITIES IN OAHU ENERGY ECM BENCHMARK**

Building Name	Building Type	Operating Schedule hr.	Year-Built	Area (sq.ft.)	ECM IV Chiller Retrofits						ECM V Variable Speed Drive Utilization						ECM VI Motor Replacement with High Efficiency - Pumps+Fans						ECM VII Waste Heat Recovery System							
					Est. Energy Savings (kWh/year)	Est. Cost Savings (kWh/sf.ft.-year)	Est. Cost Savings (\$/year)	Est. Construction Costs (\$/sq.ft.-year)	Est. Construction Costs (\$)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Cost Savings (kWh/sf.ft.-year)	Est. Cost Savings (\$/year)	Est. Construction Costs (\$/sq.ft.-year)	Est. Construction Costs (\$)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Cost Savings (kWh/sf.ft.-year)	Est. Cost Savings (\$/year)	Est. Construction Costs (\$/sq.ft.-year)	Est. Construction Costs (\$)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Cost Savings (kWh/sf.ft.-year)	Est. Cost Savings (\$/year)	Est. Construction Costs (\$/sq.ft.-year)	Est. Construction Costs (\$)	Payback (year)		
<b>PSD</b>																														
<b>LARGE FACILITIES (BUILDING AREA ESTIMATED)</b>																														
94560 KAMEHAMEHA HY (WAIAWA CORR FAC)	Corr Fac			82,200	0	0.000	0	0.000	0	0.000	0.0	0	0.000	0	0.000	0.0	0	0.000	1,397	0.017	9,700	0.118	6.9	0	0.000	0	0.000	0	0.000	0.0
5100 MOANALUA RD	Corr Fac			90,352	0	0.000	0	0.000	0	0.000	0.0	0	0.000	0	0.000	0.0	0	0.000	1,536	0.017	10,662	0.118	6.9	0	0.000	0	0.000	0	0.000	0.0
99902 MOANALUA RD (HALAWA PRISON)	Corr Fac			339,800	0	0.000	0	0.000	0	0.000	0.0	0	0.000	0	0.000	0.0	0	0.000	5,777	0.017	40,096	0.118	6.9	0	0.000	0	0.000	0	0.000	0.0
2199 KAMEHAMEHA HY (OCCC & HSE CORR)	Corr Fac			456,640	0	0.000	0	0.000	0	0.000	0.0	0	0.000	0	0.000	0.0	0	0.000	7,763	0.017	53,884	0.118	6.9	0	0.000	0	0.000	0	0.000	0.0
42477 KALANIANA'OLE HY	Corr Fac			118,741	0	0.000	0	0.000	0	0.000	0.0	0	0.000	0	0.000	0.0	0	0.000	2,019	0.017	14,011	0.118	6.9	0	0.000	0	0.000	0	0.000	0.0
	<b>Sub-TOTAL</b>			<b>1,087,733</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0.0</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0.0</b>	<b>0</b>	<b>0.000</b>	<b>18,491</b>	<b>0.017</b>	<b>128,353</b>	<b>0.118</b>	<b>6.9</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0.0</b>
<b>MEDIUM AND SMALL FACILITIES (BUILDING AREA ESTIMATED)</b>																														
	<b>Sub-TOTAL</b>			<b>0</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0.0</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0.0</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0.0</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0.0</b>
	<b>Sub-TOTAL</b>			<b>0</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0.0</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0.0</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0.0</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0.0</b>
				<b>TOTAL</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0.0</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0.0</b>	<b>0</b>	<b>0.000</b>	<b>18,491</b>	<b>0.017</b>	<b>128,353</b>	<b>0.118</b>	<b>6.9</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0.0</b>

**NOTES:**

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**ENERGY CONSERVATION MEASURE  
STATE OF HAWAII FACILITIES IN OAHU ENERGY ECM BENCHMARK**

Building Name	Building Type	Operating Schedule hr.	Year-Built	Area (sq.ft.)	ECM IV Chiller Retrofits							ECM V Variable Speed Drive Utilization							ECM VI Motor Replacement with High Efficiency - Pumps+Fans							ECM VII Waste Heat Recovery System						
					Est. Energy Savings (kWh/year)	Est. Cost Savings (kWh/sf.ft. -year)	Est. Construction Costs (\$/sq.ft. -year)	Est. Construction Costs (\$/year)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Cost Savings (kWh/sf.ft. -year)	Est. Construction Costs (\$/sq.ft. -year)	Est. Construction Costs (\$/year)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Cost Savings (kWh/sf.ft. -year)	Est. Construction Costs (\$/sq.ft. -year)	Est. Construction Costs (\$/year)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Cost Savings (kWh/sf.ft. -year)	Est. Construction Costs (\$/sq.ft. -year)	Est. Construction Costs (\$/year)	Payback (year)								
					(KWh/year)	(\$/year)	(\$/year)	(year)	(KWh/year)	(\$/year)	(\$/year)	(year)	(KWh/year)	(\$/year)	(\$/year)	(year)	(KWh/year)	(\$/year)	(\$/year)	(year)	(KWh/year)	(\$/year)	(\$/year)	(year)								
<b>DOT</b>																																
<b>LARGE FACILITIES (BUILDING AREA KNOWN)</b>																																
40 PIER (KAPALAMA MIL RES)	Military Reserve			133,340	223,345	1.675	28,535	0.214	381,352	2,860	13.4	97,605	0.732	12,534	0.094	58,536	0.439	4.7	18,001	0.135	2,267	0.017	15,734	0.118	6.9	7,360	0.055	947	0.007	2,133	0.016	2.3
869 PUNCHBOWL ST (TRANSPORTATION)	Office			55,854	93,555	1.675	11,953	0.214	159,742	2,860	13.4	40,885	0.732	5,250	0.094	24,520	0.439	4.7	7,540	0.135	950	0.017	6,591	0.118	6.9	3,083	0.055	397	0.007	894	0.016	2.3
302 RODGERS BV #344 (IAB VAULT "B")	Airport Terminal			269,775	451,873	1.675	57,732	0.214	771,557	2,860	13.4	197,475	0.732	25,359	0.094	118,431	0.439	4.7	36,420	0.135	4,586	0.017	31,833	0.118	6.9	14,892	0.055	1,915	0.007	4,316	0.016	2.3
302 RODGERS BV #342 (SVC CRT VLT "C")	Airport Terminal			150,904	252,764	1.675	32,293	0.214	431,585	2,860	13.4	110,462	0.732	14,185	0.094	66,247	0.439	4.7	20,372	0.135	2,565	0.017	17,807	0.118	6.9	8,330	0.055	1,071	0.007	2,414	0.016	2.3
302 RODGERS BV #336 (OST VLT "N")	Airport Terminal			353,110	591,459	1.675	75,566	0.214	1,009,895	2,860	13.4	258,477	0.732	33,192	0.094	155,015	0.439	4.7	47,670	0.135	6,003	0.017	41,667	0.118	6.9	19,492	0.055	2,507	0.007	5,650	0.016	2.3
304 RODGERS BV #360 (EWA VLT "1E")	Airport Terminal			87,506	146,573	1.675	18,726	0.214	250,267	2,860	13.4	64,054	0.732	8,226	0.094	38,415	0.439	4.7	11,813	0.135	1,488	0.017	10,326	0.118	6.9	4,830	0.055	621	0.007	1,400	0.016	2.3
300 RODGERS BV (COMM TERM ELEC)	Airport Terminal			25,101	42,044	1.675	5,372	0.214	71,789	2,860	13.4	18,374	0.732	2,359	0.094	11,019	0.439	4.7	3,389	0.135	427	0.017	2,962	0.118	6.9	1,386	0.055	178	0.007	402	0.016	2.3
300 RODGERS BV #355 (OSPAK VLT "A")	Airport Terminal			30,963	51,863	1.675	6,626	0.214	88,554	2,860	13.4	22,665	0.732	2,911	0.094	13,593	0.439	4.7	4,180	0.135	526	0.017	3,654	0.118	6.9	1,709	0.055	220	0.007	495	0.016	2.3
301 RODGERS BV #A (DIA HD EXT)	Airport Terminal			263,118	440,723	1.675	56,307	0.214	752,517	2,860	13.4	192,602	0.732	24,733	0.094	115,509	0.439	4.7	35,521	0.135	4,473	0.017	31,048	0.118	6.9	14,524	0.055	1,868	0.007	4,210	0.016	2.3
301 RODGERS BV (CEN CONC VLT "Y")	Airport Terminal			118,771	198,941	1.675	25,417	0.214	339,685	2,860	13.4	86,940	0.732	11,164	0.094	52,140	0.439	4.7	16,034	0.135	2,019	0.017	14,015	0.118	6.9	6,556	0.055	843	0.007	1,900	0.016	2.3
303 RODGERS BV #373 (DIA HD VLT "1D")	Airport Terminal			159,600	267,330	1.675	34,154	0.214	456,456	2,860	13.4	116,827	0.732	15,002	0.094	70,064	0.439	4.7	21,546	0.135	2,713	0.017	18,833	0.118	6.9	8,810	0.055	1,133	0.007	2,554	0.016	2.3
3651 AOLELE ST (EWA CHILLER PLT)	Airport Terminal			254,109	425,633	1.675	54,379	0.214	726,752	2,860	13.4	186,008	0.732	23,886	0.094	111,554	0.439	4.7	34,305	0.135	4,320	0.017	29,985	0.118	6.9	14,027	0.055	1,804	0.007	4,066	0.016	2.3
3650 AOLELE ST (NEW INTERISLE TERM)	Airport Terminal			251,156	420,686	1.675	53,747	0.214	718,306	2,860	13.4	183,846	0.732	23,609	0.094	110,257	0.439	4.7	33,906	0.135	4,270	0.017	29,636	0.118	6.9	13,864	0.055	1,783	0.007	4,018	0.016	2.3
3661 AOLELE ST (EWA CONC GATES)	Airport Terminal			55,031	92,177	1.675	11,777	0.214	157,389	2,860	13.4	40,283	0.732	5,173	0.094	24,159	0.439	4.7	7,429	0.135	936	0.017	6,494	0.118	6.9	3,038	0.055	391	0.007	880	0.016	2.3
<b>Sub-TOTAL</b>				<b>2,208,338</b>	<b>3,698,966</b>	<b>1.675</b>	<b>472,584</b>	<b>0.214</b>	<b>6,315,847</b>	<b>2,860</b>	<b>13.4</b>	<b>1,616,503</b>	<b>0.732</b>	<b>207,584</b>	<b>0.094</b>	<b>969,460</b>	<b>0.439</b>	<b>4.7</b>	<b>298,126</b>	<b>0.135</b>	<b>37,542</b>	<b>0.017</b>	<b>260,584</b>	<b>0.118</b>	<b>6.9</b>	<b>121,900</b>	<b>0.055</b>	<b>15,679</b>	<b>0.007</b>	<b>35,333</b>	<b>0.016</b>	<b>2.3</b>
<b>LARGE FACILITIES (BUILDING AREA ESTIMATED)</b>																																
2 PALI HY (PRIMECO & ST LTS)	Highway Tunnel			17,511	0	0.000	0	0.000	0	0.000	0.0	0	0.000	0	0.000	0	0.000	0.0	2,364	0.135	298	0.017	2,066	0.118	6.9	0	0.000	0	0.000	0	0.000	0.0
0 WILSON TUNNEL	Highway Tunnel			30,481	0	0.000	0	0.000	0	0.000	0.0	0	0.000	0	0.000	0	0.000	0.0	4,115	0.135	518	0.017	3,597	0.118	6.9	0	0.000	0	0.000	0	0.000	0.0
0 H-3 TUNNEL HAIKU IB PORTAL (HE INT)	Highway Tunnel			88,459	0	0.000	0	0.000	0	0.000	0.0	0	0.000	0	0.000	0	0.000	0.0	11,942	0.135	1,504	0.017	10,438	0.118	6.9	0	0.000	0	0.000	0	0.000	0.0
<b>Sub-TOTAL</b>				<b>136,450</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0.0</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0.0</b>	<b>18,421</b>	<b>0.135</b>	<b>2,320</b>	<b>0.017</b>	<b>16,101</b>	<b>0.118</b>	<b>6.9</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0.0</b>
<b>MEDIUM AND SMALL FACILITIES (BUILDING AREA ESTIMATED)</b>																																
<b>Sub-TOTAL</b>	Highway Tunnel			<b>196,129</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0.0</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0.0</b>	<b>26,477</b>	<b>0.135</b>	<b>3,334</b>	<b>0.017</b>	<b>23,143</b>	<b>0.118</b>	<b>6.9</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0.0</b>
<b>Sub-TOTAL</b>																																
<b>TOTAL</b>				<b>2,540,917</b>	<b>3,698,966</b>	<b>1.456</b>	<b>472,584</b>	<b>0.186</b>	<b>6,315,847</b>	<b>2,486</b>	<b>13.4</b>	<b>1,616,503</b>	<b>0.636</b>	<b>207,584</b>	<b>0.082</b>	<b>969,460</b>	<b>0.382</b>	<b>4.7</b>	<b>343,024</b>	<b>0.135</b>	<b>43,196</b>	<b>0.017</b>	<b>299,828</b>	<b>0.118</b>	<b>6.9</b>	<b>121,900</b>	<b>0.048</b>	<b>15,679</b>	<b>0.006</b>	<b>35,333</b>	<b>0.014</b>	<b>2.3</b>

NOTES:

Energy savings per sq.ft.-year, energy savings cost \$ per sq.ft.-year, and construction cost \$ per sq.ft.-year are based on UH Energy Benchmarking Study with modifications and re-adjustments.  
 Zero ECO savings in the table indicate that the ECO has already been implemented. HECO Rebate history from 1997 through 2004, and ESPC upgrade analysis conducted in 2004 were used to identify buildings with already implemented ECOs.  
 Refer to the State Energy Benchmarking Study text Section 5.0 for a detailed discussion.

**ENERGY CONSERVATION MEASURE  
STATE OF HAWAII FACILITIES IN OAHU ENERGY ECM BENCHMARK**

Building Name	Building Type	Operating Schedule hr.	Year-Built	Area (sq.ft.)	ECM IV Chiller Retrofits							ECM V Variable Speed Drive Utilization							ECM VI Motor Replacement with High Efficiency - Pumps+Fans							ECM VII Waste Heat Recovery System						
					Est. Energy Savings (kWh/year)	Est. Cost Savings (kWh/sf.ft.-year)	Est. Savings (\$/year)	Est. Construction Costs (\$/sq.ft.-year)	Est. Costs (\$)	Est. Payback (year)	Est. Energy Savings (kWh/year)	Est. Cost Savings (kWh/sf.ft.-year)	Est. Savings (\$/year)	Est. Construction Costs (\$/sq.ft.-year)	Est. Costs (\$)	Est. Payback (year)	Est. Energy Savings (kWh/year)	Est. Cost Savings (kWh/sf.ft.-year)	Est. Savings (\$/year)	Est. Construction Costs (\$/sq.ft.-year)	Est. Costs (\$)	Est. Payback (year)	Est. Energy Savings (kWh/year)	Est. Cost Savings (kWh/sf.ft.-year)	Est. Savings (\$/year)	Est. Construction Costs (\$/sq.ft.-year)	Est. Costs (\$)	Est. Payback (year)				
<b>UH MANOA</b>																																
<b>LARGE FACILITIES (BUILDING AREA KNOWN)</b>																																
1701 EAST WEST RD (FACILITIES MGMT)	Class/Office			6,122,395	10,255,012	1.675	1,310,193	0.214	17,510,050	2.860	13.4	4,481,593	0.732	575,505	0.094	2,687,731	0.439	4.7	0	0.000	0	0.000	0	0.000	0.0	337,956	0.055	43,469	0.007	97,958	0.016	2.3
2680 WOODLAWN DR (ASTRONOMY FAC)	Class/Office			46,340	77,620	1.675	9,917	0.214	132,532	2.860	13.4	33,921	0.732	4,356	0.094	20,343	0.439	4.7	0	0.000	0	0.000	0	0.000	0.0	2,558	0.055	329	0.007	741	0.016	2.3
	<b>Sub-TOTAL</b>			<b>6,168,735</b>	<b>10,332,631</b>	<b>1.675</b>	<b>1,320,109</b>	<b>0.214</b>	<b>17,642,582</b>	<b>2.860</b>	<b>13.4</b>	<b>4,515,514</b>	<b>0.732</b>	<b>579,861</b>	<b>0.094</b>	<b>2,708,075</b>	<b>0.439</b>	<b>4.7</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0.0</b>	<b>340,514</b>	<b>0.055</b>	<b>43,798</b>	<b>0.007</b>	<b>98,700</b>	<b>0.016</b>	<b>2.3</b>
<b>LARGE FACILITIES (BUILDING AREA ESTIMATED)</b>																																
2777 KALAKAUA AV (WAIKIKI AQUARIUM)	Aquarium			62,194	104,175	1.675	13,309	0.214	177,874	2.860	13.4	45,526	0.732	5,846	0.094	27,303	0.439	4.7	8,396	0.135	1,057	0.017	7,339	0.118	6.9	3,433	0.055	442	0.007	995	0.016	2.3
46007 LILIPUNA RD (HIMB)	Class/Office			77,709	130,163	1.675	16,630	0.214	222,249	2.860	13.4	56,883	0.732	7,305	0.094	34,114	0.439	4.7	10,491	0.135	1,321	0.017	9,170	0.118	6.9	4,290	0.055	552	0.007	1,243	0.016	2.3
	<b>Sub-TOTAL</b>			<b>139,903</b>	<b>234,338</b>	<b>1.675</b>	<b>29,939</b>	<b>0.214</b>	<b>400,123</b>	<b>2.860</b>	<b>13.4</b>	<b>102,409</b>	<b>0.732</b>	<b>13,151</b>	<b>0.094</b>	<b>61,418</b>	<b>0.439</b>	<b>4.7</b>	<b>18,887</b>	<b>0.135</b>	<b>2,378</b>	<b>0.017</b>	<b>16,509</b>	<b>0.118</b>	<b>6.9</b>	<b>7,723</b>	<b>0.055</b>	<b>993</b>	<b>0.007</b>	<b>2,238</b>	<b>0.016</b>	<b>2.3</b>
<b>MEDIUM AND SMALL FACILITIES (BUILDING AREA ESTIMATED)</b>																																
	<b>Sub-TOTAL</b>			<b>200,470</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0.0</b>	<b>146,744</b>	<b>0.732</b>	<b>18,844</b>	<b>0.094</b>	<b>88,006</b>	<b>0.439</b>	<b>4.7</b>	<b>27,063</b>	<b>0.135</b>	<b>3,408</b>	<b>0.017</b>	<b>23,655</b>	<b>0.118</b>	<b>6.9</b>	<b>11,066</b>	<b>0.055</b>	<b>1,423</b>	<b>0.007</b>	<b>3,208</b>	<b>0.016</b>	<b>2.3</b>
	<b>Sub-TOTAL</b>																															
<b>TOTAL</b>				<b>6,509,109</b>	<b>10,566,969</b>	<b>1.623</b>	<b>1,350,049</b>	<b>0.207</b>	<b>18,042,706</b>	<b>2.772</b>	<b>13.4</b>	<b>4,764,668</b>	<b>0.732</b>	<b>611,856</b>	<b>0.094</b>	<b>2,857,499</b>	<b>0.439</b>	<b>4.7</b>	<b>45,950</b>	<b>0.007</b>	<b>5,786</b>	<b>0.001</b>	<b>40,164</b>	<b>0.006</b>	<b>6.9</b>	<b>359,303</b>	<b>0.055</b>	<b>46,215</b>	<b>0.007</b>	<b>104,146</b>	<b>0.016</b>	<b>2.3</b>

**NOTES:**

Energy savings per sq.ft.-year, energy savings cost \$ per sq.ft.-year, and construction cost \$ per sq.ft.-year are based on UH Energy Benchmarking Study with modifications and re-adjustments.  
Zero ECO savings in the table indicate that the ECO has already been implemented. HECO Rebate history from 1997 through 2004, and ESPC upgrade analysis conducted in 2004 were used to identify buildings with already implemented ECOs.  
Refer to the State Energy Benchmarking Study text Section 5.0 for a detailed discussion.

**ENERGY CONSERVATION MEASURE  
STATE OF HAWAII FACILITIES IN OAHU ENERGY ECM BENCHMARK**

Building Name	Building Type	Operating Schedule hr.	Year-Built	Area (sq.ft.)	ECM IV Chiller Retrofits					ECM V Variable Speed Drive Utilization					ECM VI Motor Replacement with High Efficiency - Pumps+Fans					ECM VII Waste Heat Recovery System												
					Est. Energy Savings (kWh/year)	Est. Cost Savings (kWh/sf.ft. -year)	Est. Cost Savings (\$/year)	Est. Construction Costs (\$/sq.ft. -year)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Cost Savings (kWh/sf.ft. -year)	Est. Cost Savings (\$/year)	Est. Construction Costs (\$/sq.ft. -year)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Cost Savings (kWh/sf.ft. -year)	Est. Cost Savings (\$/year)	Est. Construction Costs (\$/sq.ft. -year)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Cost Savings (kWh/sf.ft. -year)	Est. Cost Savings (\$/year)	Est. Construction Costs (\$/sq.ft. -year)	Payback (year)								
					(kWh/year)	(kWh/sf.ft. -year)	(\$/year)	(\$/sq.ft. -year)	(year)	(kWh/year)	(kWh/sf.ft. -year)	(\$/year)	(\$/sq.ft. -year)	(year)	(kWh/year)	(kWh/sf.ft. -year)	(\$/year)	(\$/sq.ft. -year)	(year)	(kWh/year)	(kWh/sf.ft. -year)	(\$/year)	(\$/sq.ft. -year)	(year)								
<b>COMM COLL</b>																																
<b>LARGE FACILITIES (BUILDING AREA ESTIMATED)</b>																																
96045 ALAIKE ST (LEEWARD)	Class/Office			269,630	451,631	1.675	57,701	0.214	771,143	2.860	13.4	197,369	0.732	25,345	0.094	118,368	0.439	4.7	0	0.000	0	0.000	0	0.000	0.0	14,884	0.055	1,914	0.007	4,314	0.016	2.3
655 MAKAPUU AV (KAPIOLANI BUSINESS)	Class/Office			378,208	633,498	1.675	80,937	0.214	1,081,675	2.860	13.4	276,848	0.732	35,552	0.094	166,033	0.439	4.7	51,058	0.135	6,430	0.017	44,629	0.118	6.9	20,877	0.055	2,685	0.007	6,051	0.016	2.3
874 DILLINGHAM BV (HONOLULU)	Class/Office			234,628	0	0.000	0	0.000	0	0.000	0.0	0	0.000	0	0.000	0	0.000	0.0	31,675	0.135	3,989	0.017	27,686	0.118	6.9	12,951	0.055	1,666	0.007	3,754	0.016	2.3
45720 KEAAHALA RD (HALE IMILOA)	Class/Office			264,821	443,576	1.675	56,672	0.214	757,389	2.860	13.4	193,849	0.732	24,893	0.094	116,257	0.439	4.7	0	0.000	0	0.000	0	0.000	0.0	14,618	0.055	1,880	0.007	4,237	0.016	2.3
<b>Sub-TOTAL</b>				<b>1,147,288</b>	<b>1,528,705</b>	<b>1.332</b>	<b>195,309</b>	<b>0.170</b>	<b>2,610,207</b>	<b>2.275</b>	<b>13.4</b>	<b>668,067</b>	<b>0.582</b>	<b>85,790</b>	<b>0.075</b>	<b>400,658</b>	<b>0.349</b>	<b>4.7</b>	<b>82,733</b>	<b>0.072</b>	<b>10,418</b>	<b>0.009</b>	<b>72,315</b>	<b>0.063</b>	<b>6.9</b>	<b>63,330</b>	<b>0.055</b>	<b>8,146</b>	<b>0.007</b>	<b>18,357</b>	<b>0.016</b>	<b>2.3</b>
<b>MEDIUM AND SMALL FACILITIES (BUILDING AREA ESTIMATED)</b>																																
<b>Sub-TOTAL</b>	Class/Office			73,445	0	0.000	0	0.000	0	0.000	0.0	42,767	0.582	5,492	0.075	25,649	0.349	4.7	5,296	0.072	667	0.009	4,629	0.063	6.9	4,054	0.055	521	0.007	1,175	0.016	2.3
<b>Sub-TOTAL</b>																																
<b>TOTAL</b>				<b>1,220,733</b>	<b>1,528,705</b>	<b>1.252</b>	<b>195,309</b>	<b>0.160</b>	<b>2,610,207</b>	<b>2.138</b>	<b>13.4</b>	<b>710,834</b>	<b>0.582</b>	<b>91,282</b>	<b>0.075</b>	<b>426,306</b>	<b>0.349</b>	<b>4.7</b>	<b>88,029</b>	<b>0.072</b>	<b>11,085</b>	<b>0.009</b>	<b>76,944</b>	<b>0.063</b>	<b>6.9</b>	<b>67,384</b>	<b>0.055</b>	<b>8,667</b>	<b>0.007</b>	<b>19,532</b>	<b>0.016</b>	<b>2.3</b>

**NOTES:**

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Zero ECO savings in the table indicate that the ECO has already been implemented. HECO Rebate history from 1997 through 2004, and ESPC upgrade analysis conducted in 2004 were used to identify buildings with already implemented ECOs.  
Refer to the State Energy Benchmarking Study text Section 5.0 for a detailed discussion.

**ENERGY CONSERVATION MEASURE  
STATE OF HAWAII FACILITIES IN OAHU ENERGY ECM BENCHMARK**

Building Name	Building Type	Operating Schedule hr.	Year-Built	Area (sq.ft.)	ECM IV Chiller Retrofits				ECM V Variable Speed Drive Utilization				ECM VI Motor Replacement with High Efficiency - Pumps+Fans				ECM VII Waste Heat Recovery System															
					Est. Energy Savings (kWh/year)	Est. Cost Savings (kWh/sf.ft.-year)	Est. Construction Costs (\$/year)	Est. Construction Costs (\$/sq.ft.-year)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Cost Savings (kWh/sf.ft.-year)	Est. Construction Costs (\$/year)	Est. Construction Costs (\$/sq.ft.-year)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Cost Savings (kWh/sf.ft.-year)	Est. Construction Costs (\$/year)	Est. Construction Costs (\$/sq.ft.-year)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Cost Savings (kWh/sf.ft.-year)	Est. Construction Costs (\$/year)	Est. Construction Costs (\$/sq.ft.-year)	Payback (year)								
<b>OTHER</b>																																
LARGE FACILITIES DOES NOT EXIST																																
MEDIUM AND SMALL FACILITIES (BUILDING AREA ESTIMATED)																																
Sub-TOTAL	Office			971,908	0	0.000	0	0.000	0	0.000	0.0	711,436	0.732	91,359	0.094	426,667	0.439	4.7	131,208	0.135	16,522	0.017	114,685	0.118	6.9	53,649	0.055	6,901	0.007	15,551	0.016	2.3
Sub-TOTAL																																
<b>TOTAL</b>				<b>971,908</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0.0</b>	<b>711,436</b>	<b>0.732</b>	<b>91,359</b>	<b>0.094</b>	<b>426,667</b>	<b>0.439</b>	<b>4.7</b>	<b>131,208</b>	<b>0.135</b>	<b>16,522</b>	<b>0.017</b>	<b>114,685</b>	<b>0.118</b>	<b>6.9</b>	<b>53,649</b>	<b>0.055</b>	<b>6,901</b>	<b>0.007</b>	<b>15,551</b>	<b>0.016</b>	<b>2.3</b>

**NOTES:**

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 Zero ECO savings in the table indicate that the ECO has already been implemented. HECO Rebate history from 1997 through 2004, and ESPC upgrade analysis conducted in 2004 were used to identify buildings with already implemented ECOs.  
 Refer to the State Energy Benchmarking Study text Section 5.0 for a detailed discussion.

**ENERGY CONSERVATION MEASURE  
STATE OF HAWAII FACILITIES IN OAHU ENERGY ECM BENCHMARK**

Building Name	Building Type	Operating Schedule hr.	Year-Built	Area (sq.ft.)	ECM VIII Packaged Air Conditioning Unit Replacement							ECM IX Facility Management System (FMS) Installation							ECM X Insulation Installation							ECM XI Other (Convert Constant-Volume to VAV system, Repair VAV Control System, Install outside-air carbon dioxide sensors controlling outside-air dampers)						
					Est. Energy Savings (kWh/year)	Est. Energy Savings (kWh/sf.-year)	Est. Cost Savings (\$/year)	Est. Cost Savings (\$/sq.ft.-year)	Est. Construction Costs (\$)	Est. Construction Costs (\$/sq.ft.-year)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Energy Savings (kWh/sf.-year)	Est. Cost Savings (\$/year)	Est. Cost Savings (\$/sq.ft.-year)	Est. Construction Costs (\$)	Est. Construction Costs (\$/sq.ft.-year)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Energy Savings (kWh/sf.-year)	Est. Cost Savings (\$/year)	Est. Cost Savings (\$/sq.ft.-year)	Est. Construction Costs (\$)	Est. Construction Costs (\$/sq.ft.-year)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Energy Savings (kWh/sf.-year)	Est. Cost Savings (\$/year)	Est. Cost Savings (\$/sq.ft.-year)	Est. Construction Costs (\$)	Est. Construction Costs (\$/sq.ft.-year)	Payback (year)
<b>DAGS</b>																																
<b>LARGE FACILITIES (BUILDING AREA KNOWN)</b>																																
415 SOUTH BERETANIA (STATE CAPITOL)	Office	10	1969	300,000	0	0.000	0	0.000	0	0.000	0.0	130,200	0.434	16,800	0.056	20,100	0.067	1.2	61,620	0.205	7,800	0.026	57,600	0.192	7.4	75,600	0.252	9,600	0.032	89,700	0.299	9.3
919 ALA MOANA BLVD (AAFES)	Office	10		108,000	0	0.000	0	0.000	0	0.000	0.0	46,872	0.434	6,048	0.056	7,236	0.067	1.2	22,183	0.205	2,808	0.026	20,736	0.192	7.4	27,216	0.252	3,456	0.032	32,292	0.299	9.3
1390 MILLER ST (QUEEN LILIOULULANI)	Office	11.5	1943	94,528	0	0.000	0	0.000	0	0.000	0.0	41,025	0.434	5,294	0.056	6,333	0.067	1.2	19,416	0.205	2,458	0.026	18,149	0.192	7.4	23,821	0.252	3,025	0.032	28,264	0.299	9.3
1151 PUNCHBOWL ST (KALANIMOKU)	Office	10	1976	203,000	0	0.000	0	0.000	0	0.000	0.0	88,102	0.434	11,368	0.056	13,601	0.067	1.2	41,696	0.205	5,278	0.026	38,976	0.192	7.4	51,156	0.252	6,496	0.032	60,697	0.299	9.3
1250 PUNCHBOWL ST (KINAU HALE)	Office	11	1961	66,951	0	0.000	0	0.000	0	0.000	0.0	29,057	0.434	3,749	0.056	4,486	0.067	1.2	13,752	0.205	1,741	0.026	12,855	0.192	7.4	16,872	0.252	2,142	0.032	20,018	0.299	9.3
250 S HOTEL ST (NO. 1-DISTRICT BLDG)	Office	10		120,000	0	0.000	0	0.000	0	0.000	0.0	52,080	0.434	6,720	0.056	8,040	0.067	1.2	24,648	0.205	3,120	0.026	23,040	0.192	7.4	30,240	0.252	3,840	0.032	35,880	0.299	9.3
465 S KING ST (KEKUJANAO'A BLDG)	Office	11		65,075	0	0.000	0	0.000	0	0.000	0.0	28,243	0.434	3,644	0.056	4,360	0.067	1.2	13,366	0.205	1,692	0.026	12,494	0.192	7.4	16,399	0.252	2,082	0.032	19,457	0.299	9.3
235 S BERETANIA ST (OFFICE TOWER)	Office	10	1991	172,000	0	0.000	0	0.000	0	0.000	0.0	74,648	0.434	9,632	0.056	11,524	0.067	1.2	35,329	0.205	4,472	0.026	33,024	0.192	7.4	43,344	0.252	5,504	0.032	51,428	0.299	9.3
830 PUNCHBOWL ST (KEELIKOLANI & AUHAU)	Office	12	1949	278,639	0	0.000	0	0.000	0	0.000	0.0	120,929	0.434	15,604	0.056	18,669	0.067	1.2	57,232	0.205	7,245	0.026	53,499	0.192	7.4	70,217	0.252	8,916	0.032	83,313	0.299	9.3
601 KAMOKILA BV (KAKUIHEIWA KAPOLEI)	Office	10	1998	222,000	0	0.000	0	0.000	0	0.000	0.0	96,348	0.434	12,432	0.056	14,874	0.067	1.2	45,599	0.205	5,772	0.026	42,624	0.192	7.4	55,944	0.252	7,104	0.032	66,378	0.299	9.3
99500 SALT LAKE BV (STADIUM AUTHORITY)	Stadium			300,000	0	0.000	0	0.000	0	0.000	0.0	130,200	0.434	16,800	0.056	20,100	0.067	1.2	61,620	0.205	7,800	0.026	57,600	0.192	7.4	75,600	0.252	9,600	0.032	89,700	0.299	9.3
Sub-TOTAL				1,930,193	0	0.000	0	0.000	0	0.000	0.0	837,704	0.434	108,091	0.056	129,323	0.067	1.2	396,462	0.205	50,185	0.026	370,597	0.192	7.4	410,809	0.213	61,766	0.032	577,128	0.299	9.3
<b>MEDIUM AND SMALL FACILITIES (BUILDING AREA ESTIMATED)</b>																																
Sub-TOTAL	Office			407,072	48,035	0.118	6,106	0.015	51,291	0.126	8.4	176,669	0.434	22,796	0.056	27,274	0.067	1.2	83,613	0.205	10,584	0.026	78,158	0.192	7.4	0	0.000	0	0.000	0	0.000	0.0
Sub-TOTAL																																
<b>TOTAL</b>				2,337,265	48,035	0.021	6,106	0.003	51,291	0.022	8.4	1,014,373	0.434	130,887	0.056	156,597	0.067	1.2	480,074	0.205	60,769	0.026	448,755	0.192	7.4	410,809	0.176	61,766	0.026	577,128	0.247	9.3

**NOTES:**

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Zero ECO savings in the table indicate that the ECO has already been implemented. HECO Rebate history from 1997 through 2004, and ESPC upgrade analysis conducted in 2004 were used to identify buildings with already implemented ECOs.  
Refer to the State Energy Benchmarking Study text Section 5.0 for a detailed discussion.

**ENERGY CONSERVATION MEASURE  
STATE OF HAWAII FACILITIES IN OAHU ENERGY ECM BENCHMARK**

Building Name	Building Type	Operating Schedule hr.	Year-Built	Area (sq.ft.)	ECM VIII Packaged Air Conditioning Unit Replacement							ECM IX Facility Management System (FMS) Installation							ECM X Insulation Installation							ECM XI Other (Convert Constant-Volume to VAV system, Repair VAV Control System, Install outside-air carbon dioxide sensors controlling outside-air dampers)						
					Est. Energy Savings		Est. Cost Savings		Est. Construction Costs		Payback	Est. Energy Savings		Est. Cost Savings		Est. Construction Costs		Payback	Est. Energy Savings		Est. Cost Savings		Est. Construction Costs		Payback	Est. Energy Savings		Est. Cost Savings		Est. Construction Costs		Payback
					(kWh/year)	(kWh/sf.ft.-year)	(\$/year)	(\$/sq.ft.-year)	(\$)	(\$/sq.ft.-year)	(year)	(kWh/year)	(kWh/sf.ft.-year)	(\$/year)	(\$/sq.ft.-year)	(\$)	(\$/sq.ft.-year)	(year)	(kWh/year)	(kWh/sf.ft.-year)	(\$/year)	(\$/sq.ft.-year)	(\$)	(\$/sq.ft.-year)	(year)	(kWh/year)	(kWh/sf.ft.-year)	(\$/year)	(\$/sq.ft.-year)	(\$)	(\$/sq.ft.-year)	(year)
<b>JUDICIARY</b>																																
<b>LARGE FACILITIES (BUILDING AREA KNOWN)</b>																																
777 PUNCHBOWL ST (KAAHUMANU HALE)	Office			212,000	0	0.000	0	0.000	0	0.000	0.0	92,008	0.434	11,872	0.056	14,204	0.067	1.2	43,545	0.205	5,512	0.026	40,704	0.192	7.4	53,424	0.252	6,784	0.032	63,388	0.299	9.3
1111 ALAKEA ST (KAUIKEAOULI DIS CT 1ST C)	Office			187,000	0	0.000	0	0.000	0	0.000	0.0	81,158	0.434	10,472	0.056	12,529	0.067	1.2	38,410	0.205	4,862	0.026	35,904	0.192	7.4	47,124	0.252	5,984	0.032	55,913	0.299	9.3
417 S KING ST (ALILOLANE HALE)	Office			62,200	0	0.000	0	0.000	0	0.000	0.0	26,995	0.434	3,483	0.056	4,167	0.067	1.2	12,776	0.205	1,617	0.026	11,942	0.192	7.4	15,674	0.252	1,990	0.032	18,598	0.299	9.3
<b>Sub-TOTAL</b>				<b>461,200</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0.0</b>	<b>200,161</b>	<b>0.434</b>	<b>25,827</b>	<b>0.056</b>	<b>30,900</b>	<b>0.067</b>	<b>1.2</b>	<b>94,730</b>	<b>0.205</b>	<b>11,991</b>	<b>0.026</b>	<b>88,550</b>	<b>0.192</b>	<b>7.4</b>	<b>116,222</b>	<b>0.252</b>	<b>14,758</b>	<b>0.032</b>	<b>137,899</b>	<b>0.299</b>	<b>9.3</b>
<b>MEDIUM AND SMALL FACILITIES (BUILDING AREA ESTIMATED)</b>																																
<b>Sub-TOTAL</b>	Office			<b>75,639</b>	<b>8,925</b>	<b>0.118</b>	<b>1,135</b>	<b>0.015</b>	<b>9,531</b>	<b>0.126</b>	<b>8.4</b>	<b>32,827</b>	<b>0.434</b>	<b>4,236</b>	<b>0.056</b>	<b>5,068</b>	<b>0.067</b>	<b>1.2</b>	<b>15,536</b>	<b>0.205</b>	<b>1,967</b>	<b>0.026</b>	<b>14,523</b>	<b>0.192</b>	<b>7.4</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0.0</b>
<b>Sub-TOTAL</b>																																
<b>TOTAL</b>				<b>536,839</b>	<b>8,925</b>	<b>0.017</b>	<b>1,135</b>	<b>0.002</b>	<b>9,531</b>	<b>0.018</b>	<b>8.4</b>	<b>232,988</b>	<b>0.434</b>	<b>30,063</b>	<b>0.056</b>	<b>35,968</b>	<b>0.067</b>	<b>1.2</b>	<b>110,267</b>	<b>0.205</b>	<b>13,958</b>	<b>0.026</b>	<b>103,073</b>	<b>0.192</b>	<b>7.4</b>	<b>116,222</b>	<b>0.216</b>	<b>14,758</b>	<b>0.027</b>	<b>137,899</b>	<b>0.257</b>	<b>9.3</b>

**NOTES:**

Energy savings per sq.ft.-year, energy savings cost \$ per sq.ft.-year, and construction cost \$ per sq.ft.-year are based on UH Energy Benchmarking Study with modifications and re-adjustments. Zero ECO savings in the table indicate that the ECO has already been implemented. HECO Rebate history from 1997 through 2004, and ESPC upgrade analysis conducted in 2004 were used to identify buildings with already implemented ECOs. Refer to the State Energy Benchmarking Study text Section 5.0 for a detailed discussion.

**ENERGY CONSERVATION MEASURE  
STATE OF HAWAII FACILITIES IN OAHU ENERGY ECM BENCHMARK**

Building Name	Building Type	Operating Schedule hr.	Year-Built	Area (sq.ft.)	ECM VIII Packaged Air Conditioning Unit Replacement						ECM IX Facility Management System (FMS) Installation						ECM X Insulation Installation						ECM XI Other (Convert Constant-Volume to VAV system, Repair VAV Control System, Install outside-air carbon dioxide sensors controlling outside-air dampers)									
					Est. Energy Savings (kWh/year)	Est. Energy Savings (kWh/sf.ft.-year)	Est. Cost Savings (\$/year)	Est. Cost Savings (\$/sq.ft.-year)	Est. Construction Costs (\$)	Est. Construction Costs (\$/sq.ft.-year)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Energy Savings (kWh/sf.ft.-year)	Est. Cost Savings (\$/year)	Est. Cost Savings (\$/sq.ft.-year)	Est. Construction Costs (\$)	Est. Construction Costs (\$/sq.ft.-year)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Energy Savings (kWh/sf.ft.-year)	Est. Cost Savings (\$/year)	Est. Cost Savings (\$/sq.ft.-year)	Est. Construction Costs (\$)	Est. Construction Costs (\$/sq.ft.-year)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Energy Savings (kWh/sf.ft.-year)	Est. Cost Savings (\$/year)	Est. Cost Savings (\$/sq.ft.-year)	Est. Construction Costs (\$)	Est. Construction Costs (\$/sq.ft.-year)	Payback (year)
<b>DBEDT</b>																																
<b>LARGE FACILITIES (BUILDING AREA ESTIMATED)</b>																																
1777 KAPIOLANI BV (HCC)	Conv. Centr.			354,554	0	0.000	0	0.000	0	0.000	0.0	153,877	0.434	19,855	0.056	23,755	0.067	1.2	72,825	0.205	9,218	0.026	68,074	0.192	7.4	89,348	0.252	11,346	0.032	106,012	0.299	9.3
<b>Sub-TOTAL</b>				<b>354,554</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0.0</b>	<b>153,877</b>	<b>0.434</b>	<b>19,855</b>	<b>0.056</b>	<b>23,755</b>	<b>0.067</b>	<b>1.2</b>	<b>72,825</b>	<b>0.205</b>	<b>9,218</b>	<b>0.026</b>	<b>68,074</b>	<b>0.192</b>	<b>7.4</b>	<b>89,348</b>	<b>0.252</b>	<b>11,346</b>	<b>0.032</b>	<b>106,012</b>	<b>0.299</b>	<b>9.3</b>
<b>MEDIUM AND SMALL FACILITIES (BUILDING AREA ESTIMATED)</b>																																
<b>Sub-TOTAL</b>	Office			<b>265,489</b>	<b>31,328</b>	<b>0.118</b>	<b>3,982</b>	<b>0.015</b>	<b>33,452</b>	<b>0.126</b>	<b>8.4</b>	<b>115,222</b>	<b>0.434</b>	<b>14,867</b>	<b>0.056</b>	<b>17,788</b>	<b>0.067</b>	<b>1.2</b>	<b>54,425</b>	<b>0.205</b>	<b>6,903</b>	<b>0.026</b>	<b>50,974</b>	<b>0.192</b>	<b>7.4</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0.0</b>
<b>Sub-TOTAL</b>																																
<b>TOTAL</b>				<b>620,043</b>	<b>31,328</b>	<b>0.051</b>	<b>3,982</b>	<b>0.006</b>	<b>33,452</b>	<b>0.054</b>	<b>8.4</b>	<b>269,099</b>	<b>0.434</b>	<b>34,722</b>	<b>0.056</b>	<b>41,543</b>	<b>0.067</b>	<b>1.2</b>	<b>127,251</b>	<b>0.205</b>	<b>16,121</b>	<b>0.026</b>	<b>119,048</b>	<b>0.192</b>	<b>7.4</b>	<b>89,348</b>	<b>0.144</b>	<b>11,346</b>	<b>0.018</b>	<b>106,012</b>	<b>0.171</b>	<b>9.3</b>

**NOTES:**

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**ENERGY CONSERVATION MEASURE  
STATE OF HAWAII FACILITIES IN OAHU ENERGY ECM BENCHMARK**

Building Name	Building Type	Operating Schedule hr.	Year-Built	Area (sq.ft.)	ECM VIII Packaged Air Conditioning Unit Replacement						ECM IX Facility Management System (FMS) Installation						ECM X Insulation Installation						ECM XI Other (Convert Constant-Volume to VAV system, Repair VAV Control System, Install outside-air carbon dioxide sensors controlling outside-air dampers)									
					Est. Energy Savings (kWh/year)	Est. Cost Savings (kWh/sf.-year)	Est. Cost Savings (\$/year)	Est. Construction Costs (\$/sq.ft.-year)	Est. Construction Costs (\$)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Cost Savings (kWh/sf.-year)	Est. Cost Savings (\$/year)	Est. Construction Costs (\$/sq.ft.-year)	Est. Construction Costs (\$)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Cost Savings (kWh/sf.-year)	Est. Cost Savings (\$/year)	Est. Construction Costs (\$/sq.ft.-year)	Est. Construction Costs (\$)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Cost Savings (kWh/sf.-year)	Est. Cost Savings (\$/year)	Est. Construction Costs (\$/sq.ft.-year)	Est. Construction Costs (\$)	Payback (year)				
<b>DHS</b>																																
<b>LARGE FACILITIES (BUILDING AREA ESTIMATED)</b>																																
1541 KALAKAUA AV (HCDCH)	Office			89,175	0	0.000	0	0.000	0	0.000	0.0	38,702	0.434	4,994	0.056	5,975	0.067	1.2	18,317	0.205	2,319	0.026	17,122	0.192	7.4	22,472	0.252	2,854	0.032	26,663	0.299	9.3
99132 KOHOMUA ST (HCDCH)	Office			115,849	0	0.000	0	0.000	0	0.000	0.0	50,279	0.434	6,488	0.056	7,762	0.067	1.2	23,795	0.205	3,012	0.026	22,243	0.192	7.4	29,194	0.252	3,707	0.032	34,639	0.299	9.3
1545 LINAPUNI ST #BLDG B (HCDCH HHA)	Office			59,224	0	0.000	0	0.000	0	0.000	0.0	25,703	0.434	3,317	0.056	3,968	0.067	1.2	12,165	0.205	1,540	0.026	11,371	0.192	7.4	14,925	0.252	1,895	0.032	17,708	0.299	9.3
1475 LINAPUNI ST #BLDG (HCDCH HHA)	Office			60,090	0	0.000	0	0.000	0	0.000	0.0	26,079	0.434	3,365	0.056	4,026	0.067	1.2	12,343	0.205	1,562	0.026	11,537	0.192	7.4	15,143	0.252	1,923	0.032	17,967	0.299	9.3
<b>Sub-TOTAL</b>				<b>324,339</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0.0</b>	<b>140,763</b>	<b>0.434</b>	<b>18,163</b>	<b>0.056</b>	<b>21,731</b>	<b>0.067</b>	<b>1.2</b>	<b>66,619</b>	<b>0.205</b>	<b>8,433</b>	<b>0.026</b>	<b>62,273</b>	<b>0.192</b>	<b>7.4</b>	<b>81,734</b>	<b>0.252</b>	<b>10,379</b>	<b>0.032</b>	<b>96,977</b>	<b>0.299</b>	<b>9.3</b>
<b>MEDIUM AND SMALL FACILITIES (BUILDING AREA ESTIMATED)</b>																																
<b>Sub-TOTAL</b>	Office			253,717	29,939	0.118	3,806	0.015	31,968	0.126	8.4	110,113	0.434	14,208	0.056	16,999	0.067	1.2	52,113	0.205	6,597	0.026	48,714	0.192	7.4	0	0.000	0	0.000	0	0.000	0.0
<b>Sub-TOTAL</b>																																
<b>TOTAL</b>				<b>578,056</b>	<b>29,939</b>	<b>0.052</b>	<b>3,806</b>	<b>0.007</b>	<b>31,968</b>	<b>0.055</b>	<b>8.4</b>	<b>250,876</b>	<b>0.434</b>	<b>32,371</b>	<b>0.056</b>	<b>38,730</b>	<b>0.067</b>	<b>1.2</b>	<b>118,733</b>	<b>0.205</b>	<b>15,029</b>	<b>0.026</b>	<b>110,987</b>	<b>0.192</b>	<b>7.4</b>	<b>81,734</b>	<b>0.141</b>	<b>10,379</b>	<b>0.018</b>	<b>96,977</b>	<b>0.168</b>	<b>9.3</b>

**NOTES:**

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**ENERGY CONSERVATION MEASURE  
STATE OF HAWAII FACILITIES IN OAHU ENERGY ECM BENCHMARK**

Building Name	Building Type	Operating Schedule hr.	Year-Built	Area (sq.ft.)	ECM VIII Packaged Air Conditioning Unit Replacement							ECM IX Facility Management System (FMS) Installation							ECM X Insulation Installation							ECM XI Other (Convert Constant-Volume to VAV system, Repair VAV Control System, Install outside-air carbon dioxide sensors controlling outside-air dampers)						
					Est. Energy Savings (kWh/year)	Est. Energy Savings (kWh/sf.ft.-year)	Est. Cost Savings (\$/year)	Est. Cost Savings (\$/sq.ft.-year)	Est. Construction Costs (\$)	Est. Construction Costs (\$/sq.ft.-year)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Energy Savings (kWh/sf.ft.-year)	Est. Cost Savings (\$/year)	Est. Cost Savings (\$/sq.ft.-year)	Est. Construction Costs (\$)	Est. Construction Costs (\$/sq.ft.-year)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Energy Savings (kWh/sf.ft.-year)	Est. Cost Savings (\$/year)	Est. Cost Savings (\$/sq.ft.-year)	Est. Construction Costs (\$)	Est. Construction Costs (\$/sq.ft.-year)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Energy Savings (kWh/sf.ft.-year)	Est. Cost Savings (\$/year)	Est. Cost Savings (\$/sq.ft.-year)	Est. Construction Costs (\$)	Est. Construction Costs (\$/sq.ft.-year)	Payback (year)
<b>DOD</b>																																
<b>LARGE FACILITIES (BUILDING AREA KNOWN)</b>																																
3949 DIAMOND HEAD RD	Office			140,000	0	0.000	0	0.000	0	0.000	0.0	60,760	0.434	7,840	0.056	9,380	0.067	1.2	28,756	0.205	3,640	0.026	26,880	0.192	7.4	35,280	0.252	4,480	0.032	41,860	0.299	9.3
	<b>Sub-TOTAL</b>			<b>140,000</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0.0</b>	<b>60,760</b>	<b>0.434</b>	<b>7,840</b>	<b>0.056</b>	<b>9,380</b>	<b>0.067</b>	<b>1.2</b>	<b>28,756</b>	<b>0.205</b>	<b>3,640</b>	<b>0.026</b>	<b>26,880</b>	<b>0.192</b>	<b>7.4</b>	<b>35,280</b>	<b>0.252</b>	<b>4,480</b>	<b>0.032</b>	<b>41,860</b>	<b>0.299</b>	<b>9.3</b>
<b>MEDIUM AND SMALL FACILITIES (BUILDING AREA ESTIMATED)</b>																																
	<b>Sub-TOTAL</b>			<b>388,803</b>	<b>45,879</b>	<b>0.118</b>	<b>5,832</b>	<b>0.015</b>	<b>48,989</b>	<b>0.126</b>	<b>8.4</b>	<b>168,741</b>	<b>0.434</b>	<b>21,773</b>	<b>0.056</b>	<b>26,050</b>	<b>0.067</b>	<b>1.2</b>	<b>79,860</b>	<b>0.205</b>	<b>10,109</b>	<b>0.026</b>	<b>74,650</b>	<b>0.192</b>	<b>7.4</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0.0</b>
	<b>Sub-TOTAL</b>																															
				<b>TOTAL</b>	<b>45,879</b>	<b>0.087</b>	<b>5,832</b>	<b>0.011</b>	<b>48,989</b>	<b>0.093</b>	<b>8.4</b>	<b>229,501</b>	<b>0.434</b>	<b>29,613</b>	<b>0.056</b>	<b>35,430</b>	<b>0.067</b>	<b>1.2</b>	<b>108,616</b>	<b>0.205</b>	<b>13,749</b>	<b>0.026</b>	<b>101,530</b>	<b>0.192</b>	<b>7.4</b>	<b>35,280</b>	<b>0.067</b>	<b>4,480</b>	<b>0.008</b>	<b>41,860</b>	<b>0.079</b>	<b>9.3</b>

**NOTES:**

Energy savings per sq.ft.-year, energy savings cost \$ per sq.ft.-year, and construction cost \$ per sq.ft.-year are based on UH Energy Benchmarking Study with modifications and re-adjustments.

Zero ECO savings in the table indicate that the ECO has already been implemented. HECO Rebate history from 1997 through 2004, and ESPC upgrade analysis conducted in 2004 were used to identify buildings with already implemented ECOs.

Refer to the State Energy Benchmarking Study text Section 5.0 for a detailed discussion.

**ENERGY CONSERVATION MEASURE  
STATE OF HAWAII FACILITIES IN OAHU ENERGY ECM BENCHMARK**

Building Name	Building Type	Operating Schedule hr.	Year-Built	Area (sq.ft.)	ECM VIII Packaged Air Conditioning Unit Replacement						ECM IX Facility Management System (FMS) Installation						ECM X Insulation Installation						ECM XI Other (Convert Constant-Volume to VAV system, Repair VAV Control System, Install outside-air carbon dioxide sensors controlling outside-air dampers)											
					Est. Energy Savings		Est. Cost Savings		Est. Construction Costs		Payback		Est. Energy Savings		Est. Cost Savings		Est. Construction Costs		Payback		Est. Energy Savings		Est. Cost Savings		Est. Construction Costs		Payback							
					(kWh/year)	(kWh/sf.ft.-year)	(\$/year)	(\$/sq.ft.-year)	(\$)	(\$/sq.ft.-year)	(year)	(kWh/year)	(kWh/sf.ft.-year)	(\$/year)	(\$/sq.ft.-year)	(\$)	(\$/sq.ft.-year)	(year)	(kWh/year)	(kWh/sf.ft.-year)	(\$/year)	(\$/sq.ft.-year)	(\$)	(\$/sq.ft.-year)	(year)	(kWh/year)	(kWh/sf.ft.-year)	(\$/year)	(\$/sq.ft.-year)	(\$)	(\$/sq.ft.-year)	(year)		
<b>DOE</b>																																		
<b>LARGE FACILITIES (BUILDING AREA ESTIMATED)</b>																																		
915007 KAPOLEI PKWY	Classroom/Office			240,613	28,392	0.118	3,609	0.015	30,317	0.126	8.4	104,426	0.434	13,474	0.056	16,121	0.067	1.2	49,422	0.205	6,256	0.026	46,198	0.192	7.4	0	0.000	0	0.000	0	0.000	0	0.000	0.0
46155 KAMEHAMEHA HY	Classroom/Office			80,672	9,519	0.118	1,210	0.015	10,165	0.126	8.4	35,012	0.434	4,518	0.056	5,405	0.067	1.2	16,570	0.205	2,097	0.026	15,489	0.192	7.4	0	0.000	0	0.000	0	0.000	0	0.000	0.0
91884 FT WEAVER RD	Classroom/Office			136,608	16,120	0.118	2,049	0.015	17,213	0.126	8.4	59,288	0.434	7,650	0.056	9,153	0.067	1.2	28,059	0.205	3,552	0.026	26,229	0.192	7.4	0	0.000	0	0.000	0	0.000	0	0.000	0.0
2460 WAIMANO HOME RD (PEARL CITY HIGH)	Classroom/Office			109,080	12,871	0.118	1,636	0.015	13,744	0.126	8.4	47,341	0.434	6,108	0.056	7,308	0.067	1.2	22,405	0.205	2,836	0.026	20,943	0.192	7.4	0	0.000	0	0.000	0	0.000	0	0.000	0.0
89980 NANAKULI AV (NANAKULI HIGH & INTER)	Classroom/Office			98,800	11,658	0.118	1,482	0.015	12,449	0.126	8.4	42,879	0.434	5,533	0.056	6,620	0.067	1.2	20,294	0.205	2,569	0.026	18,970	0.192	7.4	0	0.000	0	0.000	0	0.000	0	0.000	0.0
85271 FARRINGTON HY (WAIANAE HIGH)	Classroom/Office			87,552	0	0.000	0	0.000	0	0.000	0.0	37,998	0.434	4,903	0.056	5,866	0.067	1.2	17,983	0.205	2,276	0.026	16,810	0.192	7.4	0	0.000	0	0.000	0	0.000	0	0.000	0.0
951200 MEHEULA PARKWAY(MILILANI HIGH)	Classroom/Office			113,040	13,339	0.118	1,696	0.015	14,243	0.126	8.4	49,059	0.434	6,330	0.056	7,574	0.067	1.2	23,218	0.205	2,939	0.026	21,704	0.192	7.4	0	0.000	0	0.000	0	0.000	0	0.000	0.0
45386 KANEHOE BAY DR (CASTLE HIGH)	Classroom/Office			87,600	10,337	0.118	1,314	0.015	11,038	0.126	8.4	38,018	0.434	4,906	0.056	5,869	0.067	1.2	17,993	0.205	2,278	0.026	16,819	0.192	7.4	0	0.000	0	0.000	0	0.000	0	0.000	0.0
760 ILIAINA ST (KALAHEO)	Classroom/Office			72,949	8,608	0.118	1,094	0.015	9,192	0.126	8.4	31,660	0.434	4,085	0.056	4,888	0.067	1.2	14,984	0.205	1,897	0.026	14,006	0.192	7.4	0	0.000	0	0.000	0	0.000	0	0.000	0.0
511 LUNALILO HOME RD (KAISER HIGH)	Classroom/Office			98,000	11,564	0.118	1,470	0.015	12,348	0.126	8.4	42,532	0.434	5,488	0.056	6,566	0.067	1.2	20,129	0.205	2,548	0.026	18,816	0.192	7.4	0	0.000	0	0.000	0	0.000	0	0.000	0.0
4680 KALANIANAOLE HY (KALANI HIGH)	Classroom/Office			37,749	4,454	0.118	566	0.015	4,756	0.126	8.4	16,383	0.434	2,114	0.056	2,529	0.067	1.2	7,754	0.205	981	0.026	7,248	0.192	7.4	0	0.000	0	0.000	0	0.000	0	0.000	0.0
2705 KAIMUKI AVE (KAIMUKI HIGH)	Classroom/Office			146,907	17,335	0.118	2,204	0.015	18,510	0.126	8.4	63,757	0.434	8,227	0.056	9,843	0.067	1.2	30,175	0.205	3,820	0.026	28,206	0.192	7.4	0	0.000	0	0.000	0	0.000	0	0.000	0.0
1120 NEHOA ST (ROOSEVELT HIGH)	Classroom/Office			77,720	9,171	0.118	1,166	0.015	9,793	0.126	8.4	33,730	0.434	4,352	0.056	5,207	0.067	1.2	15,964	0.205	2,021	0.026	14,922	0.192	7.4	0	0.000	0	0.000	0	0.000	0	0.000	0.0
1039 S KING ST (MCKINLEY HIGH)	Classroom/Office			160,107	0	0.000	0	0.000	0	0.000	0.0	69,486	0.434	8,966	0.056	10,727	0.067	1.2	32,886	0.205	4,163	0.026	30,740	0.192	7.4	0	0.000	0	0.000	0	0.000	0	0.000	0.0
1185 ALA NAPUNANI ST (MOANALUA HIGH)	Classroom/Office			116,667	13,767	0.118	1,750	0.015	14,700	0.126	8.4	50,633	0.434	6,533	0.056	7,817	0.067	1.2	23,963	0.205	3,033	0.026	22,400	0.192	7.4	0	0.000	0	0.000	0	0.000	0	0.000	0.0
911561 KEAUNUI RD HOLOMUA ELEMENTARY)	Classroom/Office			110,496	0	0.000	0	0.000	0	0.000	0.0	47,955	0.434	6,188	0.056	7,403	0.067	1.2	22,696	0.205	2,873	0.026	21,215	0.192	7.4	0	0.000	0	0.000	0	0.000	0	0.000	0.0
951140 LEHIWA DR (MILILANI INTERMED)	Classroom/Office			157,653	18,603	0.118	2,365	0.015	19,864	0.126	8.4	68,422	0.434	8,829	0.056	10,563	0.067	1.2	32,382	0.205	4,099	0.026	30,269	0.192	7.4	0	0.000	0	0.000	0	0.000	0	0.000	0.0
915335 KAPOLEI PKWY (KAPOLEI MID SCH)	Classroom/Office			139,600	0	0.000	0	0.000	0	0.000	0.0	60,586	0.434	7,818	0.056	9,353	0.067	1.2	28,674	0.205	3,630	0.026	26,803	0.192	7.4	0	0.000	0	0.000	0	0.000	0	0.000	0.0
478 S KING ST (HAWAII STATE LIBRARY)	Classroom/Office			63,151	7,452	0.118	947	0.015	7,957	0.126	8.4	27,408	0.434	3,536	0.056	4,231	0.067	1.2	12,971	0.205	1,642	0.026	12,125	0.192	7.4	0	0.000	0	0.000	0	0.000	0	0.000	0.0
Sub-TOTAL				2,134,964	193,191	0.090	24,558	0.012	206,288	0.097	8.4	926,575	0.434	119,558	0.056	143,043	0.067	1.2	438,522	0.205	55,509	0.026	409,913	0.192	7.4	0	0.000	0	0.000	0	0.000	0	0.000	0.0
<b>MEDIUM AND SMALL FACILITIES (BUILDING AREA ESTIMATED)</b>																																		
Sub-TOTAL	Classroom/Office			5,694,686	515,306	0.090	65,505	0.012	550,242	0.097	8.4	2,471,494	0.434	318,902	0.056	381,544	0.067	1.2	1,169,688	0.205	148,062	0.026	1,093,380	0.192	7.4	0	0.000	0	0.000	0	0.000	0	0.000	0.0
Sub-TOTAL																																		
<b>TOTAL</b>				<b>7,829,650</b>	<b>708,497</b>	<b>0.090</b>	<b>90,063</b>	<b>0.012</b>	<b>756,531</b>	<b>0.097</b>	<b>8.4</b>	<b>3,398,068</b>	<b>0.434</b>	<b>438,460</b>	<b>0.056</b>	<b>524,587</b>	<b>0.067</b>	<b>1.2</b>	<b>1,608,210</b>	<b>0.205</b>	<b>203,571</b>	<b>0.026</b>	<b>1,503,293</b>	<b>0.192</b>	<b>7.4</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0.0</b>

**NOTES:**  
Energy savings per sq.ft.-year, energy savings cost \$ per sq.ft.-year, and construction cost \$ per sq.ft.-year are based on UH Energy Benchmarking Study with modifications and re-adjustments.  
Zero ECO savings in the table indicate that the ECO has already been implemented. HECO Rebate history from 1997 through 2004, and ESPC upgrade analysis conducted in 2004 were used to identify buildings with already implemented ECOs.  
Refer to the State Energy Benchmarking Study text Section 5.0 for a detailed discussion.

**ENERGY CONSERVATION MEASURE  
STATE OF HAWAII FACILITIES IN OAHU ENERGY ECM BENCHMARK**

Building Name	Building Type	Operating Schedule hr.	Year-Built	Area (sq.ft.)	ECM VIII Packaged Air Conditioning Unit Replacement						ECM IX Facility Management System (FMS) Installation						ECM X Insulation Installation						ECM XI Other (Convert Constant-Volume to VAV system, Repair VAV Control System, Install outside-air carbon dioxide sensors controlling outside-air dampers)									
					Est. Energy Savings (kWh/year)	Est. Energy Savings (kWh/sf.ft.-year)	Est. Cost Savings (\$/year)	Est. Cost Savings (\$/sq.ft.-year)	Est. Construction Costs (\$)	Est. Construction Costs (\$/sq.ft.-year)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Energy Savings (kWh/sf.ft.-year)	Est. Cost Savings (\$/year)	Est. Cost Savings (\$/sq.ft.-year)	Est. Construction Costs (\$)	Est. Construction Costs (\$/sq.ft.-year)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Energy Savings (kWh/sf.ft.-year)	Est. Cost Savings (\$/year)	Est. Cost Savings (\$/sq.ft.-year)	Est. Construction Costs (\$)	Est. Construction Costs (\$/sq.ft.-year)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Energy Savings (kWh/sf.ft.-year)	Est. Cost Savings (\$/year)	Est. Cost Savings (\$/sq.ft.-year)	Est. Construction Costs (\$)	Est. Construction Costs (\$/sq.ft.-year)	Payback (year)
<b>DOH</b>																																
<b>LARGE FACILITIES (BUILDING AREA KNOWN)</b>																																
45747 KEAAHALA RD (HAWAII STATE HOSP)	Hospital			226,475	0	0.000	0	0.000	0	0.000	0.0	98,290	0.434	12,683	0.056	15,174	0.067	1.2	46,518	0.205	5,888	0.026	43,483	0.192	7.4	57,072	0.252	7,247	0.032	67,716	0.299	9.3
45633 KEAAHALA RD	Hospital			68,206	0	0.000	0	0.000	0	0.000	0.0	29,601	0.434	3,820	0.056	4,570	0.067	1.2	14,010	0.205	1,773	0.026	13,096	0.192	7.4	17,188	0.252	2,183	0.032	20,394	0.299	9.3
3627 KILAUEA AV (ADMIN SRVC OFF)	Hospital			72,940	0	0.000	0	0.000	0	0.000	0.0	31,656	0.434	4,085	0.056	4,887	0.067	1.2	14,982	0.205	1,896	0.026	14,004	0.192	7.4	18,381	0.252	2,334	0.032	21,809	0.299	9.3
3675 KILAUEA AV	Hospital			137,830	0	0.000	0	0.000	0	0.000	0.0	59,818	0.434	7,718	0.056	9,235	0.067	1.2	28,310	0.205	3,584	0.026	26,463	0.192	7.4	34,733	0.252	4,411	0.032	41,211	0.299	9.3
1103 HALA DR (MALUHIA HOSP)	Hospital			99,700	0	0.000	0	0.000	0	0.000	0.0	43,270	0.434	5,583	0.056	6,680	0.067	1.2	20,478	0.205	2,592	0.026	19,142	0.192	7.4	25,124	0.252	3,190	0.032	29,810	0.299	9.3
2725 WAIMANO HOME RD (ADMIN OFF)	Hospital			306,366	0	0.000	0	0.000	0	0.000	0.0	132,963	0.434	17,156	0.056	20,527	0.067	1.2	62,928	0.205	7,966	0.026	58,822	0.192	7.4	77,204	0.252	9,804	0.032	91,603	0.299	9.3
Sub-TOTAL				911,517	0	0.000	0	0.000	0	0.000	0.0	395,598	0.434	51,045	0.056	61,072	0.067	1.2	187,226	0.205	23,699	0.026	175,011	0.192	7.4	229,702	0.252	29,169	0.032	272,544	0.299	9.3
<b>MEDIUM AND SMALL FACILITIES (BUILDING AREA ESTIMATED)</b>																																
Sub-TOTAL	Hospital			695,353	82,052	0.118	10,430	0.015	87,615	0.126	8.4	301,783	0.434	38,940	0.056	46,589	0.067	1.2	142,826	0.205	18,079	0.026	133,508	0.192	7.4	0	0.000	0	0.000	0	0.000	0.0
Sub-TOTAL																																
<b>TOTAL</b>				1,606,870	82,052	0.051	10,430	0.006	87,615	0.055	8.4	697,382	0.434	89,985	0.056	107,660	0.067	1.2	330,051	0.205	41,779	0.026	308,519	0.192	7.4	229,702	0.143	29,169	0.018	272,544	0.170	9.3

NOTES:  
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Zero ECO savings in the table indicate that the ECO has already been implemented. HECO Rebate history from 1997 through 2004, and ESPC upgrade analysis conducted in 2004 were used to identify buildings with already implemented ECOs.  
Refer to the State Energy Benchmarking Study text Section 5.0 for a detailed discussion.

**ENERGY CONSERVATION MEASURE  
STATE OF HAWAII FACILITIES IN OAHU ENERGY ECM BENCHMARK**

Building Name	Building Type	Operating Schedule hr.	Year-Built	Area (sq.ft.)	ECM VIII Packaged Air Conditioning Unit Replacement						ECM IX Facility Management System (FMS) Installation						ECM X Insulation Installation						ECM XI Other (Convert Constant-Volume to VAV system, Repair VAV Control System, Install outside-air carbon dioxide sensors controlling outside-air dampers)									
					Est. Energy Savings (kWh/year)	Est. Cost Savings (kWh/sf.ft. -year)	Est. Cost Savings (\$/year)	Est. Construction Costs (\$/sq.ft. -year)	Est. Construction Costs (\$/sq.ft. -year)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Cost Savings (kWh/sf.ft. -year)	Est. Cost Savings (\$/year)	Est. Construction Costs (\$/sq.ft. -year)	Est. Construction Costs (\$/sq.ft. -year)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Cost Savings (kWh/sf.ft. -year)	Est. Cost Savings (\$/year)	Est. Construction Costs (\$/sq.ft. -year)	Est. Construction Costs (\$/sq.ft. -year)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Cost Savings (kWh/sf.ft. -year)	Est. Cost Savings (\$/year)	Est. Construction Costs (\$/sq.ft. -year)	Est. Construction Costs (\$/sq.ft. -year)	Payback (year)				
<b>PSD</b>																																
<b>LARGE FACILITIES (BUILDING AREA ESTIMATED)</b>																																
94560 KAMEHAMEHA HY (WAIAWA CORR FAC)	Corr Fac			82,200	9,700	0.118	1,233	0.015	10,357	0.126	8.4	35,675	0.434	4,603	0.056	5,507	0.067	1.2	16,884	0.205	2,137	0.026	15,782	0.192	7.4	0	0.000	0	0.000	0	0.000	0.0
5100 MOANALUA RD	Corr Fac			90,352	10,662	0.118	1,355	0.015	11,384	0.126	8.4	39,213	0.434	5,060	0.056	6,054	0.067	1.2	18,558	0.205	2,349	0.026	17,348	0.192	7.4	0	0.000	0	0.000	0	0.000	0.0
99902 MOANALUA RD (HALAWA PRISON)	Corr Fac			339,800	40,096	0.118	5,097	0.015	42,815	0.126	8.4	147,473	0.434	19,029	0.056	22,767	0.067	1.2	69,795	0.205	8,835	0.026	65,242	0.192	7.4	0	0.000	0	0.000	0	0.000	0.0
2199 KAMEHAMEHA HY (OCCC & HSE CORR)	Corr Fac			456,640	53,884	0.118	6,850	0.015	57,537	0.126	8.4	198,182	0.434	25,572	0.056	30,595	0.067	1.2	93,794	0.205	11,873	0.026	87,675	0.192	7.4	0	0.000	0	0.000	0	0.000	0.0
42477 KALANIANA'OLE HY	Corr Fac			118,741	14,011	0.118	1,781	0.015	14,961	0.126	8.4	51,534	0.434	6,650	0.056	7,956	0.067	1.2	24,389	0.205	3,087	0.026	22,798	0.192	7.4	0	0.000	0	0.000	0	0.000	0.0
<b>Sub-TOTAL</b>				<b>1,087,733</b>	<b>128,353</b>	<b>0.118</b>	<b>16,316</b>	<b>0.015</b>	<b>137,054</b>	<b>0.126</b>	<b>8.4</b>	<b>472,076</b>	<b>0.434</b>	<b>60,913</b>	<b>0.056</b>	<b>72,878</b>	<b>0.067</b>	<b>1.2</b>	<b>223,420</b>	<b>0.205</b>	<b>28,281</b>	<b>0.026</b>	<b>208,845</b>	<b>0.192</b>	<b>7.4</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0.0</b>
<b>MEDIUM AND SMALL FACILITIES (BUILDING AREA ESTIMATED)</b>																																
<b>Sub-TOTAL</b>				<b>0</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0.0</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0.0</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0.0</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0.0</b>
<b>Sub-TOTAL</b>																																
<b>TOTAL</b>				<b>1,087,733</b>	<b>128,353</b>	<b>0.118</b>	<b>16,316</b>	<b>0.015</b>	<b>137,054</b>	<b>0.126</b>	<b>#DIV/0!</b>	<b>472,076</b>	<b>0.434</b>	<b>60,913</b>	<b>0.056</b>	<b>72,878</b>	<b>0.067</b>	<b>1.2</b>	<b>223,420</b>	<b>0.205</b>	<b>28,281</b>	<b>0.026</b>	<b>208,845</b>	<b>0.192</b>	<b>7.4</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0.0</b>

**NOTES:**

Energy savings per sq.ft.-year, energy savings cost \$ per sq.ft.-year, and construction cost \$ per sq.ft.-year are based on UH Energy Benchmarking Study with modifications and re-adjustments. Zero ECO savings in the table indicate that the ECO has already been implemented. HECO Rebate history from 1997 through 2004, and ESPC upgrade analysis conducted in 2004 were used to identify buildings with already implemented ECOs. Refer to the State Energy Benchmarking Study text Section 5.0 for a detailed discussion.

**ENERGY CONSERVATION MEASURE  
STATE OF HAWAII FACILITIES IN OAHU ENERGY ECM BENCHMARK**

Building Name	Building Type	Operating Schedule hr.	Year-Built	Area (sq.ft.)	ECM VIII Packaged Air Conditioning Unit Replacement				ECM IX Facility Management System (FMS) Installation				ECM X Insulation Installation				ECM XI Other (Convert Constant-Volume to VAV system, Repair VAV Control System, Install outside-air carbon dioxide sensors controlling outside-air dampers)															
					Est. Energy Savings	Est. Cost Savings	Est. Construction Costs	Payback	Est. Energy Savings	Est. Cost Savings	Est. Construction Costs	Payback	Est. Energy Savings	Est. Cost Savings	Est. Construction Costs	Payback	Est. Energy Savings	Est. Cost Savings	Est. Construction Costs	Payback												
					(kWh/year)	(\$/year)	(\$/year)	(year)	(kWh/year)	(\$/year)	(\$/year)	(year)	(kWh/year)	(\$/year)	(\$/year)	(year)	(kWh/year)	(\$/year)	(\$/year)	(year)	(kWh/year)	(\$/year)	(\$/year)	(year)								
<b>DOT</b>																																
<b>LARGE FACILITIES (BUILDING AREA KNOWN)</b>																																
40 PIER (KAPALAMA MIL RES)	Military Reserve			133,340	0	0.000	0	0.000	0	0.000	0.000	57,870	0.434	7,467	0.056	8,934	0.067	1.2	27,388	0.205	3,467	0.026	25,601	0.192	7.4	33,602	0.252	4,267	0.032	39,869	0.299	9.3
869 PUNCHBOWL ST (TRANSPORTATION)	Office			55,854	0	0.000	0	0.000	0	0.000	0.000	24,241	0.434	3,128	0.056	3,742	0.067	1.2	11,472	0.205	1,452	0.026	10,724	0.192	7.4	14,075	0.252	1,787	0.032	16,700	0.299	9.3
302 RODGERS BV #344 (IAB VAULT "B")	Airport Terminal			269,775	0	0.000	0	0.000	0	0.000	0.000	117,082	0.434	15,107	0.056	18,075	0.067	1.2	55,412	0.205	7,014	0.026	51,797	0.192	7.4	67,983	0.252	8,633	0.032	80,663	0.299	9.3
302 RODGERS BV #342 (SVC CRT VLT "C")	Airport Terminal			150,904	0	0.000	0	0.000	0	0.000	0.000	65,492	0.434	8,451	0.056	10,111	0.067	1.2	30,996	0.205	3,924	0.026	28,974	0.192	7.4	38,028	0.252	4,829	0.032	45,120	0.299	9.3
302 RODGERS BV #336 (OST VLT "N")	Airport Terminal			353,110	0	0.000	0	0.000	0	0.000	0.000	153,250	0.434	19,774	0.056	23,658	0.067	1.2	72,529	0.205	9,181	0.026	67,797	0.192	7.4	88,984	0.252	11,300	0.032	105,580	0.299	9.3
304 RODGERS BV #360 (EWA VLT "1E")	Airport Terminal			87,506	0	0.000	0	0.000	0	0.000	0.000	37,978	0.434	4,900	0.056	5,863	0.067	1.2	17,974	0.205	2,275	0.026	16,801	0.192	7.4	22,052	0.252	2,800	0.032	26,164	0.299	9.3
300 RODGERS BV (COMM TERM ELEC)	Airport Terminal			25,101	0	0.000	0	0.000	0	0.000	0.000	10,894	0.434	1,406	0.056	1,682	0.067	1.2	5,156	0.205	653	0.026	4,819	0.192	7.4	6,325	0.252	803	0.032	7,505	0.299	9.3
300 RODGERS BV #355 (OSPARK VLT "A")	Airport Terminal			30,963	0	0.000	0	0.000	0	0.000	0.000	13,438	0.434	1,734	0.056	2,075	0.067	1.2	6,360	0.205	805	0.026	5,945	0.192	7.4	7,803	0.252	991	0.032	9,258	0.299	9.3
301 RODGERS BV #A (DIA HD EXT)	Airport Terminal			263,118	0	0.000	0	0.000	0	0.000	0.000	114,193	0.434	14,735	0.056	17,629	0.067	1.2	54,044	0.205	6,841	0.026	50,519	0.192	7.4	66,306	0.252	8,420	0.032	78,672	0.299	9.3
301 RODGERS BV (CEN CONC VLT "Y")	Airport Terminal			118,771	0	0.000	0	0.000	0	0.000	0.000	51,547	0.434	6,651	0.056	7,958	0.067	1.2	24,396	0.205	3,088	0.026	22,804	0.192	7.4	29,930	0.252	3,801	0.032	35,513	0.299	9.3
303 RODGERS BV #373 (DIA HD VLT "1D")	Airport Terminal			159,600	0	0.000	0	0.000	0	0.000	0.000	69,266	0.434	8,938	0.056	10,693	0.067	1.2	32,782	0.205	4,150	0.026	30,643	0.192	7.4	40,219	0.252	5,107	0.032	47,720	0.299	9.3
3651 AOOLELE ST (EWA CHILLER PLT)	Airport Terminal			254,109	0	0.000	0	0.000	0	0.000	0.000	110,283	0.434	14,230	0.056	17,025	0.067	1.2	52,194	0.205	6,607	0.026	48,789	0.192	7.4	64,035	0.252	8,131	0.032	75,979	0.299	9.3
3650 AOOLELE ST (NEW INTERISLE TERM)	Airport Terminal			251,156	0	0.000	0	0.000	0	0.000	0.000	109,002	0.434	14,065	0.056	16,827	0.067	1.2	51,587	0.205	6,530	0.026	48,222	0.192	7.4	63,291	0.252	8,037	0.032	75,096	0.299	9.3
3661 AOOLELE ST (EWA CONC GATES)	Airport Terminal			55,031	0	0.000	0	0.000	0	0.000	0.000	23,883	0.434	3,082	0.056	3,687	0.067	1.2	11,303	0.205	1,431	0.026	10,566	0.192	7.4	13,868	0.252	1,761	0.032	16,454	0.299	9.3
<b>Sub-TOTAL</b>				<b>2,208,338</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0.0</b>	<b>958,419</b>	<b>0.434</b>	<b>123,667</b>	<b>0.056</b>	<b>147,959</b>	<b>0.067</b>	<b>1.2</b>	<b>453,593</b>	<b>0.205</b>	<b>57,417</b>	<b>0.026</b>	<b>424,001</b>	<b>0.192</b>	<b>7.4</b>	<b>556,501</b>	<b>0.252</b>	<b>70,667</b>	<b>0.032</b>	<b>660,293</b>	<b>0.299</b>	<b>9.3</b>
<b>LARGE FACILITIES (BUILDING AREA ESTIMATED)</b>																																
2 PALI HY (PRIMECO & ST LTS)	Highway Tunnel			17,511	0	0.000	0	0.000	0	0.000	0.0	7,600	0.434	981	0.056	1,173	0.067	1.2	3,597	0.205	455	0.026	3,362	0.192	7.4	0	0.000	0	0.000	0	0.000	0.0
0 WILSON TUNNEL	Highway Tunnel			30,481	0	0.000	0	0.000	0	0.000	0.0	13,229	0.434	1,707	0.056	2,042	0.067	1.2	6,261	0.205	793	0.026	5,852	0.192	7.4	0	0.000	0	0.000	0	0.000	0.0
0 H-3 TUNNEL HAIKU IB PORTAL (HE INT)	Highway Tunnel			88,459	0	0.000	0	0.000	0	0.000	0.0	38,391	0.434	4,954	0.056	5,927	0.067	1.2	18,169	0.205	2,300	0.026	16,984	0.192	7.4	0	0.000	0	0.000	0	0.000	0.0
<b>Sub-TOTAL</b>				<b>136,450</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0.0</b>	<b>59,219</b>	<b>0.434</b>	<b>7,641</b>	<b>0.056</b>	<b>9,142</b>	<b>0.067</b>	<b>1.2</b>	<b>28,027</b>	<b>0.205</b>	<b>3,548</b>	<b>0.026</b>	<b>26,198</b>	<b>0.192</b>	<b>7.4</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0.0</b>
<b>MEDIUM AND SMALL FACILITIES (BUILDING AREA ESTIMATED)</b>																																
<b>Sub-TOTAL</b>	Highway Tunnel			<b>196,129</b>	<b>23,143</b>	<b>0.118</b>	<b>2,942</b>	<b>0.015</b>	<b>24,712</b>	<b>0.126</b>	<b>8.4</b>	<b>85,120</b>	<b>0.434</b>	<b>10,983</b>	<b>0.056</b>	<b>13,141</b>	<b>0.067</b>	<b>1.2</b>	<b>40,285</b>	<b>0.205</b>	<b>5,099</b>	<b>0.026</b>	<b>37,657</b>	<b>0.192</b>	<b>7.4</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0.0</b>
<b>Sub-TOTAL</b>																																
<b>TOTAL</b>				<b>2,540,917</b>	<b>23,143</b>	<b>0.009</b>	<b>2,942</b>	<b>0.001</b>	<b>24,712</b>	<b>0.010</b>	<b>8.4</b>	<b>1,102,758</b>	<b>0.434</b>	<b>142,291</b>	<b>0.056</b>	<b>170,241</b>	<b>0.067</b>	<b>1.2</b>	<b>521,904</b>	<b>0.205</b>	<b>66,064</b>	<b>0.026</b>	<b>487,856</b>	<b>0.192</b>	<b>7.4</b>	<b>556,501</b>	<b>0.219</b>	<b>70,667</b>	<b>0.028</b>	<b>660,293</b>	<b>0.260</b>	<b>9.3</b>

NOTES:  
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 Zero ECO savings in the table indicate that the ECO has already been implemented. HECO Rebate history from 1997 through 2004, and ESPC upgrade analysis conducted in 2004 were used to identify buildings with already implemented ECOs.  
 Refer to the State Energy Benchmarking Study text Section 5.0 for a detailed discussion.

**ENERGY CONSERVATION MEASURE**  
**STATE OF HAWAII FACILITIES IN OAHU ENERGY ECM BENCHMARK**

Building Name	Building Type	Operating Schedule hr.	Year-Built	Area (sq.ft.)	ECM VIII Packaged Air Conditioning Unit Replacement				ECM IX Facility Management System (FMS) Installation				ECM X Insulation Installation				ECM XI Other (Convert Constant-Volume to VAV system, Repair VAV Control System, Install outside-air carbon dioxide sensors controlling outside-air dampers)																
					Est. Energy Savings	Est. Cost Savings	Est. Construction Costs	Payback	Est. Energy Savings	Est. Cost Savings	Est. Construction Costs	Payback	Est. Energy Savings	Est. Cost Savings	Est. Construction Costs	Payback	Est. Energy Savings	Est. Cost Savings	Est. Construction Costs	Payback													
					(kWh/year)	(\$/year)	(\$)	(year)	(kWh/year)	(\$/year)	(\$)	(year)	(kWh/year)	(\$/year)	(\$)	(year)	(kWh/year)	(\$/year)	(\$)	(year)	(kWh/year)	(\$/year)	(\$)	(year)									
<b>UH MANOA</b>																																	
<b>LARGE FACILITIES (BUILDING AREA KNOWN)</b>																																	
1701 EAST WEST RD (FACILITIES MGMT)	Class/Office			6,122,395	0	0.000	0	0.000	0	0.000	0.000	2,657,119	0.434	342,854	0.056	410,200	0.067	1.2	1,257,540	0.205	159,182	0.026	1,175,500	0.192	7.4	1,542,844	0.252	195,917	0.032	1,830,596	0.299	9.3	
2680 WOODLAWN DR (ASTRONOMY FAC)	Class/Office			46,340	0	0.000	0	0.000	0	0.000	0.000	20,112	0.434	2,595	0.056	3,105	0.067	1.2	9,518	0.205	1,205	0.026	8,897	0.192	7.4	11,678	0.252	1,483	0.032	13,856	0.299	9.3	
<b>Sub-TOTAL</b>				<b>6,168,735</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0.000</b>	<b>2,677,231</b>	<b>0.434</b>	<b>345,449</b>	<b>0.056</b>	<b>413,305</b>	<b>0.067</b>	<b>1.2</b>	<b>1,267,058</b>	<b>0.205</b>	<b>160,387</b>	<b>0.026</b>	<b>1,184,397</b>	<b>0.192</b>	<b>7.4</b>	<b>1,554,521</b>	<b>0.252</b>	<b>197,400</b>	<b>0.032</b>	<b>1,844,452</b>	<b>0.299</b>	<b>9.3</b>	
<b>LARGE FACILITIES (BUILDING AREA ESTIMATED)</b>																																	
2777 KALAKAUA AV (WAIKIKI AQUARIUM)	Aquarium			62,194	0	0.000	0	0.000	0	0.000	0.000	26,992	0.434	3,483	0.056	4,167	0.067	1.2	12,775	0.205	1,617	0.026	11,941	0.192	7.4	15,673	0.252	1,990	0.032	18,596	0.299	9.3	
46007 LILIPUNA RD (HIMB)	Class/Office			77,709	0	0.000	0	0.000	0	0.000	0.000	33,726	0.434	4,352	0.056	5,207	0.067	1.2	15,962	0.205	2,020	0.026	14,920	0.192	7.4	19,583	0.252	2,487	0.032	23,235	0.299	9.3	
<b>Sub-TOTAL</b>				<b>139,903</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0.000</b>	<b>60,718</b>	<b>0.434</b>	<b>7,835</b>	<b>0.056</b>	<b>9,374</b>	<b>0.067</b>	<b>1.2</b>	<b>28,736</b>	<b>0.205</b>	<b>3,637</b>	<b>0.026</b>	<b>26,861</b>	<b>0.192</b>	<b>7.4</b>	<b>35,256</b>	<b>0.252</b>	<b>4,477</b>	<b>0.032</b>	<b>41,831</b>	<b>0.299</b>	<b>9.3</b>	
<b>MEDIUM AND SMALL FACILITIES (BUILDING AREA ESTIMATED)</b>																																	
<b>Sub-TOTAL</b>	Class/Office			<b>200,470</b>	<b>23,655</b>	<b>0.118</b>	<b>3,007</b>	<b>0.015</b>	<b>25,259</b>	<b>0.126</b>	<b>8.4</b>	<b>87,004</b>	<b>0.434</b>	<b>11,226</b>	<b>0.056</b>	<b>13,432</b>	<b>0.067</b>	<b>1.2</b>	<b>41,177</b>	<b>0.205</b>	<b>5,212</b>	<b>0.026</b>	<b>38,490</b>	<b>0.192</b>	<b>7.4</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0.0</b>	
<b>Sub-TOTAL</b>																																	
<b>TOTAL</b>				<b>6,509,109</b>	<b>23,655</b>	<b>0.004</b>	<b>3,007</b>	<b>0.000</b>	<b>25,259</b>	<b>0.004</b>	<b>8.4</b>	<b>2,824,953</b>	<b>0.434</b>	<b>364,510</b>	<b>0.056</b>	<b>436,110</b>	<b>0.067</b>	<b>1.2</b>	<b>1,336,971</b>	<b>0.205</b>	<b>169,237</b>	<b>0.026</b>	<b>1,249,749</b>	<b>0.192</b>	<b>7.4</b>	<b>1,589,777</b>	<b>0.244</b>	<b>201,876</b>	<b>0.031</b>	<b>1,886,283</b>	<b>0.290</b>	<b>9.3</b>	

**NOTES:**

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 Zero ECO savings in the table indicate that the ECO has already been implemented. HECO Rebate history from 1997 through 2004, and ESPC upgrade analysis conducted in 2004 were used to identify buildings with already implemented ECOs.  
 Refer to the State Energy Benchmarking Study text Section 5.0 for a detailed discussion.

**ENERGY CONSERVATION MEASURE  
STATE OF HAWAII FACILITIES IN OAHU ENERGY ECM BENCHMARK**

Building Name	Building Type	Operating Schedule hr.	Year-Built	Area (sq.ft.)	ECM VIII Packaged Air Conditioning Unit Replacement						ECM IX Facility Management System (FMS) Installation						ECM X Insulation Installation						ECM XI Other (Convert Constant-Volume to VAV system, Repair VAV Control System, Install outside-air carbon dioxide sensors controlling outside-air dampers)									
					Est. Energy Savings (kWh/year)	Est. Cost (\$/sq.ft. -year)	Est. Construction Costs (\$/sq.ft. -year)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Cost (\$/sq.ft. -year)	Est. Construction Costs (\$/sq.ft. -year)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Cost (\$/sq.ft. -year)	Est. Construction Costs (\$/sq.ft. -year)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Cost (\$/sq.ft. -year)	Est. Construction Costs (\$/sq.ft. -year)	Payback (year)												
<b>COMM COLL</b>																																
<b>LARGE FACILITIES (BUILDING AREA ESTIMATED)</b>																																
96045 ALAIKE ST (LEEWARD)	Class/Office			269,630	0	0.000	0	0.000	0	0.000	0.000	117,020	0.434	15,099	0.056	18,065	0.067	1.2	55,382	0.205	7,010	0.026	51,769	0.192	7.4	67,947	0.252	8,628	0.032	80,619	0.299	9.3
655 MAKAPUU AV (KAPIOLANI BUSINESS)	Class/Office			378,208	0	0.000	0	0.000	0	0.000	0.000	164,142	0.434	21,180	0.056	25,340	0.067	1.2	77,684	0.205	9,833	0.026	72,616	0.192	7.4	95,308	0.252	12,103	0.032	113,084	0.299	9.3
874 DILLINGHAM BV (HONOLULU)	Class/Office			234,628	0	0.000	0	0.000	0	0.000	0.000	101,829	0.434	13,139	0.056	15,720	0.067	1.2	48,193	0.205	6,100	0.026	45,049	0.192	7.4	59,126	0.252	7,508	0.032	70,154	0.299	9.3
45720 KEAAHALA RD (HALE IMILOA)	Class/Office			264,821	0	0.000	0	0.000	0	0.000	0.000	114,933	0.434	14,830	0.056	17,743	0.067	1.2	54,394	0.205	6,885	0.026	50,846	0.192	7.4	66,735	0.252	8,474	0.032	79,182	0.299	9.3
<b>Sub-TOTAL</b>				<b>1,147,288</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0.000</b>	<b>497,923</b>	<b>0.434</b>	<b>64,248</b>	<b>0.056</b>	<b>76,868</b>	<b>0.067</b>	<b>1.2</b>	<b>235,653</b>	<b>0.205</b>	<b>29,829</b>	<b>0.026</b>	<b>220,279</b>	<b>0.192</b>	<b>7.4</b>	<b>289,117</b>	<b>0.252</b>	<b>36,713</b>	<b>0.032</b>	<b>343,039</b>	<b>0.299</b>	<b>9.3</b>
<b>MEDIUM AND SMALL FACILITIES (BUILDING AREA ESTIMATED)</b>																																
<b>Sub-TOTAL</b>	Class/Office			<b>73,445</b>	<b>8,666</b>	<b>0.118</b>	<b>1,102</b>	<b>0.015</b>	<b>9,254</b>	<b>0.126</b>	<b>8.4</b>	<b>31,875</b>	<b>0.434</b>	<b>4,113</b>	<b>0.056</b>	<b>4,921</b>	<b>0.067</b>	<b>1.2</b>	<b>15,086</b>	<b>0.205</b>	<b>1,910</b>	<b>0.026</b>	<b>14,101</b>	<b>0.192</b>	<b>7.4</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0.0</b>
<b>Sub-TOTAL</b>																																
<b>TOTAL</b>				<b>1,220,733</b>	<b>8,666</b>	<b>0.007</b>	<b>1,102</b>	<b>0.001</b>	<b>9,254</b>	<b>0.008</b>	<b>8.4</b>	<b>529,798</b>	<b>0.434</b>	<b>68,361</b>	<b>0.056</b>	<b>81,789</b>	<b>0.067</b>	<b>1.2</b>	<b>250,739</b>	<b>0.205</b>	<b>31,739</b>	<b>0.026</b>	<b>234,381</b>	<b>0.192</b>	<b>7.4</b>	<b>289,117</b>	<b>0.237</b>	<b>36,713</b>	<b>0.030</b>	<b>343,039</b>	<b>0.281</b>	<b>9.3</b>

**NOTES:**

Energy savings per sq.ft.-year, energy savings cost \$ per sq.ft.-year, and construction cost \$ per sq.ft.-year are based on UH Energy Benchmarking Study with modifications and re-adjustments.  
Zero ECO savings in the table indicate that the ECO has already been implemented. HECO Rebate history from 1997 through 2004, and ESPC upgrade analysis conducted in 2004 were used to identify buildings with already implemented ECOs.  
Refer to the State Energy Benchmarking Study text Section 5.0 for a detailed discussion.



**ENERGY CONSERVATION MEASURE**  
**STATE OF HAWAII FACILITIES IN OAHU ENERGY ECM BENCHMARK**

Building Name	Building Type	Operating Schedule hr.	Year-Built	Area (sq.ft.)	ECM VIII Packaged Air Conditioning Unit Replacement				ECM IX Facility Management System (FMS) Installation				ECM X Insulation Installation				ECM XI Other (Convert Constant-Volume to VAV system, Repair VAV Control System, Install outside-air carbon dioxide sensors controlling outside-air dampers)															
					Est. Energy Savings (kWh/year)	Est. Cost (\$/sq.ft. -year)	Est. Construction Costs (\$/sq.ft. -year)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Cost (\$/sq.ft. -year)	Est. Construction Costs (\$/sq.ft. -year)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Cost (\$/sq.ft. -year)	Est. Construction Costs (\$/sq.ft. -year)	Payback (year)	Est. Energy Savings (kWh/year)	Est. Cost (\$/sq.ft. -year)	Est. Construction Costs (\$/sq.ft. -year)	Payback (year)												
					(kWh/yr)	(\$/yr)	(\$/yr)	(yr)	(kWh/yr)	(\$/yr)	(\$/yr)	(yr)	(kWh/yr)	(\$/yr)	(\$/yr)	(yr)	(kWh/yr)	(\$/yr)	(\$/yr)	(yr)												
<b>OTHER</b>																																
LARGE FACILITIES DOES NOT EXIST																																
MEDIUM AND SMALL FACILITIES (BUILDING AREA ESTIMATED)																																
Sub-TOTAL	Office			971,908	114,685	0.118	14,579	0.015	122,460	0.126	8.4	421,808	0.434	54,427	0.056	65,118	0.067	1.2	199,241	0.205	25,270	0.026	186,606	0.192	7.4	0	0.000	0	0.000	0	0.000	0.0
Sub-TOTAL																																
<b>TOTAL</b>				<b>971,908</b>	<b>114,685</b>	<b>0.118</b>	<b>14,579</b>	<b>0.015</b>	<b>122,460</b>	<b>0.126</b>	<b>8.4</b>	<b>421,808</b>	<b>0.434</b>	<b>54,427</b>	<b>0.056</b>	<b>65,118</b>	<b>0.067</b>	<b>1.2</b>	<b>199,241</b>	<b>0.205</b>	<b>25,270</b>	<b>0.026</b>	<b>186,606</b>	<b>0.192</b>	<b>7.4</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0</b>	<b>0.000</b>	<b>0.0</b>

**NOTES:**

Energy savings per sq.ft.-year, energy savings cost \$ per sq.ft.-year, and construction cost \$ per sq.ft.-year are based on UH Energy Benchmarking Study with modifications and re-adjustments. Zero ECO savings in the table indicate that the ECO has already been implemented. HECO Rebate history from 1997 through 2004, and ESPC upgrade analysis conducted in 2004 were used to identify buildings with already implemented ECOs. Refer to the State Energy Benchmarking Study text Section 5.0 for a detailed discussion.