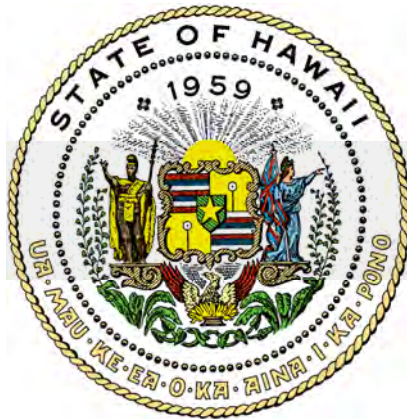


# **Report to the 2009 Hawai‘i State Legislature**

## **Lead by Example State of Hawai‘i Agencies’ Energy Initiatives FY 2007-2008**



State of Hawai‘i  
Department of Business, Economic Development & Tourism  
January 2009

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## TABLE OF CONTENTS

EXECUTIVE SUMMARY .....	1
LEAD BY EXAMPLE:	
STATE OF HAWAI‘I EXECUTIVE AGENCIES’ ACHIEVEMENTS IN ENERGY ....	4
The LBE Initiative .....	5
Executive Agency Electricity Consumption.....	7
Electricity Costs by State Agencies .....	12
Efficiency in Buildings .....	16
Utility Rebates Save Money at State Facilities.....	19
Highlights of Current State Energy Activities .....	24
Plans for Future LBE Activities.....	28
Individual Agency Responses.....	29
Consolidated LBE Reports from State of Hawai‘i Executive Agencies for Fiscal Year 2008 Relating to the Statutory Requirements of Act 96 and Act 160 of 2006 .....	31
APPENDICES	
Appendix 1: UH Community Colleges Waste and Pollution Prevention.....	A-1
Appendix 2: DHHL Vehicles and Fuel Data.....	A-6
Appendix 3: Department of Education Vehicles and Fuel Data .....	A-8
Appendix 4: DOT-Airports Efficiency Projects and Vehicles Data.....	A-13
Appendix 5 DOT-Harbors Vehicles and Fuel Data.....	A-12
Appendix 6: DOT-Highways Vehicles and Fuel Data.....	A-30
Appendix 7: Public Safety Division Vehicles and Fuel Data .....	A-58
Appendix 8: NELHA Vehicle Inventory and Fuel Economy.....	A-67

## **Lead by Example Report FY 2007-2008**

### **EXECUTIVE SUMMARY**

The Lead by Example (LBE) initiative began in 2006 in response to legislative and executive mandates to change the way state executive branch agencies use energy in operations and facilities. These efforts acknowledge the high cost of electricity in Hawai‘i, the energy security benefits of alternative fuel use, and the many opportunities for increasing energy efficiency in new and existing state offices, facilities and schools. The legislation also required incorporating environmentally preferable purchasing into state operations.

Fully implemented, the LBE initiative represents an important step in achieving long-term economic and environmental benefits for the state.

State executive branch agencies consumed slightly more electricity in each of the past two fiscal years, but that electricity has grown significantly more expensive due to the escalating price of oil, which hit a record high of \$147 in July, 2008. Between 2007 and 2008, kWh consumption decreased 1.2%, but costs increased 19.4% due to the cost of imported oil. The impact of the world oil market is more striking when comparing current figures to those of 2005: state agencies used only 3.6% more electricity in 2008 than in 2005, but that electricity cost 55.6% more. Hawai‘i relies on imported petroleum for about 88% of its primary energy.

State of Hawai‘i executive branch agencies made progress in efficiency, renewable energy, transportation, and environmentally preferable practices during 2008. Some highlights follow.

#### *Efficiency*

- Six state buildings have received Energy Star® awards, acknowledging that they rank in the top 25% of similar buildings nationwide.
- The Department of Accounting and General Services (DAGS) is working on four projects which are expected to receive a LEED Silver rating: Mānoa Public Library, Kohala Public Library, Keaukaha Military Reservation, and the Maui Regional Public Safety Complex.
- The Department of Public Safety (PSD) is relocating Maui CCC to Pu‘unene, a LEED Silver project.
- DAGS is retrocommissioning 11 buildings in pilot projects on four islands.
- The Airports Division of the Department of Transportation (DOT-Airports) has saved 600,000 kWh annually with taxiway lighting and signage improvements.
- DAGS’ Leeward Homeless Shelters feature solar water heating for 80 units plus the laundry.
- Solar water heating has been installed on facilities on Kaho‘olawe.
- Library lighting retrofits: 12 completed, 21 under design.

- The Department of Education (DOE) now designs all new facilities to meet the requirements of LEED Silver, and all consultants need a LEED Accredited Professional on the team. The 'Ewa Makai Middle School, scheduled to begin construction in early 2009, will be the first DOE new school where the entire campus is designed to meet LEED Silver certification.
- The Department of Agriculture secured funding, including general obligation bonds, for retrocommissioning, lighting improvements and window tinting.
- 'Iolani Palace's improved chiller system is being designed by consultants to the Department of Land and Natural Resources (DLNR); it will improve efficiency while preserving the Palace's priceless cultural and historical artifacts.
- DOT-Airports is considering a cold seawater air conditioning system for the enclosed areas of Kona International Airport.
- The Hawai'i Public Housing Authority has issued a request for proposals for performance contracting at 5,363 federally-funded housing units.
- State agencies have received more than \$4.2 million in efficiency rebates from the Hawaiian Electric Company (HECO) and its subsidiaries, with cumulative dollar savings totaling \$9.9 million and cumulative electricity savings of 55.3 million kilowatt-hours. This is enough to power 6,700 households for a year.

#### *Renewables*

- DAGS is negotiating with a third party provider to install photovoltaic (PV) arrays on its Central Services facilities
- DOT-Airports awarded a competitive contract to install photovoltaics at ten transportation facilities statewide, including seven airports, plus the Foreign Trade Zone.
- DOE will install 30-50 kW photovoltaic systems on schools on four islands, using third-party contracting.

#### *Transportation*

- State vehicles are utilizing E-10 Unleaded gasoline which contains 10% ethanol; state law requires its sale.
- Many state vehicles are also flexible-fuel capable, and could use higher percentages of ethanol if they became available.
- The state offers a pricing preference for biodiesel.

#### *Purchasing Practices*

- Most departments already utilize life-cycle cost analyses, purchase efficient equipment such as those with the Energy Star® label, and take advantage of utility rebates.
- The State Procurement Office (SPO) continues to provide price and vendor listings which include Energy Star®, recycled, or environmentally preferred products.

- For products and supplies not included on the SPO price lists, purchasing agencies are still required to preferentially order recycled products, oil products with greater recycled content, and biofuels.
- The Department of Business, Economic Development, and Tourism (DBEDT) Green Cleaning Project will demonstrate environmentally preferable cleaning projects at the University of Hawaii (UH), McKinley High School and Kapālama Elementary School.
- DAGS is incorporating environmentally preferable Green Seal and equivalent products in its custodial program.
- Information on recycled and environmentally preferable products has been prepared by DBEDT and is available to state agencies.

### *Leadership in Energy and Environmental Design*

Hawai‘i remains a member of the U.S. Green Buildings Council (USGBC), the non-profit entity which administers the Leadership in Energy and Environmental Design (LEED) program. DAGS is developing LEED application guidelines to be used by state agencies.

To date, four state facilities have been certified as meeting LEED standards; the UH John A. Burns School of Medicine building received confirmation as LEED Certified shortly after the close of FY07-08. In addition, buildings have been completed and are awaiting certification by USGBC: the UH-Hilo Student Life and Events Complex is pending confirmation as LEED Gold, and UH- Mānoa Frear Student Housing, is pending LEED Silver.

#### LEED Platinum

- Natural Energy Laboratory of Hawai‘i Authority Gateway Energy Center

#### LEED Certified

- DOE Waipahu Intermediate School Cafeteria
- UH-Hilo ‘Imiloa Astronomy Center of Hawai‘i
- UH-Mānoa John A. Burns School of Medicine

A significant number of additional buildings which are anticipated to meet LEED Silver standards are either being planned or are in the design phase, while the following state facilities are currently under construction or construction bids have been awarded, and are expected to be rated by LEED.

- North Kohala Public Library (Silver)
- Mānoa Public Library (Silver)
- UH-Hilo Sciences and Technology Center (Silver)
- Honolulu International Airport Lounge (Commercial Interiors)

**LEAD BY EXAMPLE:  
STATE OF HAWAI'I EXECUTIVE AGENCIES' ACHIEVEMENTS IN ENERGY**

This report responds to legislative and executive mandates issued in 2006 which require state agencies to implement a variety of energy programs now known as the Lead by Example (LBE) initiative. A number of requirements were established by Act 96, SLH 2006, Part III, which reflects Administrative Directive 06-01, issued by Governor Linda Lingle on January 20, 2006. This law directs state agencies to improve energy, water and resource efficiency in state facilities, increase fuel efficiency, and use alternative fuels in state vehicles.

In addition, Act 160, Section 168.5, SLH 2006, requires agencies to report their electricity consumption, the steps taken to reduce energy use, and their plans for future reductions. Although not mandated by law, the costs of purchasing utility electricity have also been compiled.

This Lead by Example report provides data on electricity use and costs as well as highlights of state agencies' energy activities under the LBE initiative. Executive agencies were invited to submit reports containing information required by the laws; these reports have been consolidated by the Department of Business, Economic Development, and Tourism (DBEDT). The consolidated reports, which are attached, list all agencies' actions under each section of Acts 96 and 160, SLH 2006.

The Lead by Example effort was kicked off at a meeting of all cabinet members, convened by DBEDT, on May 11, 2006. Since that initial meeting, agencies developed a framework for planning, implementing and reporting energy efficiency activities. State agency personnel have been trained and received technical assistance as needed. The agencies have set energy-savings targets and are developing tools which will enable their goals to be reached.

Agency representatives formed an LBE Leadership Group to coordinate these actions, supported by three Working Groups. These Working Groups address Buildings, Transportation, and Environmental Practices and Procurement. Each Working Group develops plans and recommendations to be reviewed by the Leadership Group, which is composed of high-level representatives of executive departments and the University of Hawai'i. The Leadership Group members have the authority to ensure efficient communication and the commitment to develop effective policies and plans for each department.

## The LBE Initiative

Fiscal year 2008, the third year of the LBE initiative, marked an increasing emphasis on energy efficiency which was made even more critical by soaring petroleum prices and resulting high electricity costs. New state buildings are being constructed to higher efficiency standards; existing ones are receiving equipment retrofits and being retrocommissioned to ensure proper operation of energy systems. Several agencies are adopting solar technologies, particularly photovoltaics and solar water heating.

Executive agencies continued training their personnel in subjects such as building commissioning, performance contracting, financing, green building design and construction, energy-efficient equipment, and photovoltaics. A total of 87 workshops and other events relating to Lead by Example topics were held in FY08, attracting at least 1,960 participants, including at least 251 from state agencies. In some cases, DBEDT provided funds so that other executive agencies' staff members could attend the training.

Among the challenges of the LBE initiative are consistency in data collection and ensuring both ease and accuracy in recordkeeping. For the first time this fiscal year, electricity consumption and billing information were acquired directly from the utilities and compiled by statisticians in DBEDT's Research and Economic Analysis Division. Previously, the agencies provided data from their own records. The change in data submission has resulted in some discrepancies with the reporting from previous years, but should improve consistency going forward. Fiscal Year 2005 data will continue to serve as the baseline for comparison purposes.

Table 1 outlines the targets for the Lead by Example which have been set in response to the legislative and administrative mandates noted above.

This report summarizes the achievements and activities of executive agencies as they "lead by example" in 2008. The 26 participating agencies include:

- Department of Accounting and General Services (DAGS)
- Department of Agriculture (DOA)
- Department of the Attorney General (AG)
- Department of Budget and Finance (B&F)
- Department of Business, Economic Development, and Tourism (DBEDT)
- Department of Commerce and Consumer Affairs (DCCA)
- Department of Education (DOE)
- Department of Hawaiian Home Lands (DHHL)
- Department of Health (DOH)
- Department of Human Resources Development (DHRD)
- Department of Human Services (DHS)
- Department of Labor and Industrial Relations (DLIR)
- Department of Land and Natural Resources (DLNR)
- Department of Public Safety (PSD)



Department of Taxation (DOTAX)  
 Department of Transportation—Airports Division (DOT-Air)  
 Department of Transportation—Harbors Division (DOT-Har)  
 Department of Transportation—Highways Division (DOT-Hwy)  
 Foreign Trade Zone (FTZ)  
 Hawai‘i Community Development Authority (HCDA)  
 Hawai‘i Health Systems Corporation (HHSC)  
 Hawai‘i Housing Finance and Development Corporation (HHFDC)  
 Hawai‘i State Public Library System (HSPLS)  
 Hawai‘i Tourism Authority—Convention Center (HTA/CC)  
 Natural Energy Laboratory of Hawai‘i Authority (NELHA)  
 University of Hawai‘i system (UH)

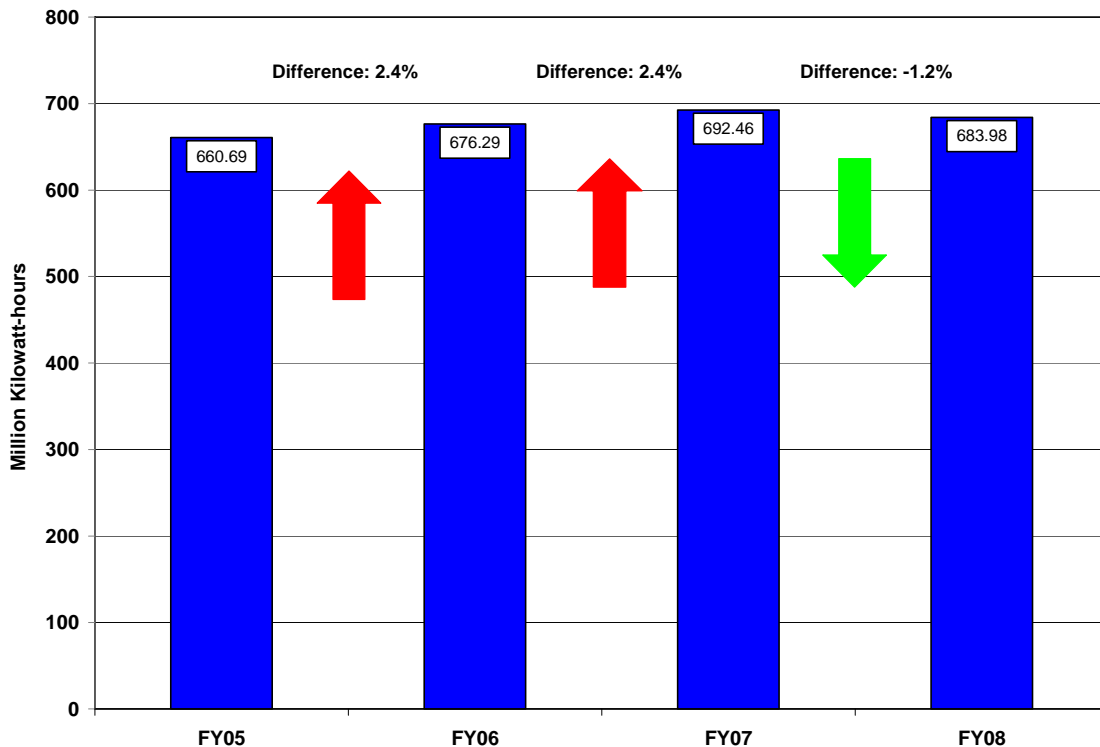
**Table 1. Lead by Example Targets (Baseline FY 2005)**

<b>Action Item</b>	<b>Impact Short Term 0-3 yrs. (FY08)</b>	<b>Impact Long Term 10 yrs (FY2015)</b>
Provide education programs on energy efficiency	3% reduction in kWh	6% reduction in kWh
R&M/O&M facilities in place as of FY05 (e.g., lighting retrofits, purchasing more efficient equipment)	6% reduction in kWh	20% reduction in kWh
LEED Silver for new construction	30% reduction in kWh for each new building built to LEED Silver	30% reduction in kWh for each new building built to LEED Silver
Increase energy efficiency and fuel diversification of State vehicles as of FY 05	5% reduction in petroleum consumption	12% reduction in petroleum consumption
Increase availability of environmentally preferable products to state agencies	3% increase in availability of environmentally preferable products	12% increase in availability of environmentally preferable products
Increase procurement of environmentally preferable products	5% increase in procurement of environmentally preferable products	12% increase in procurement of environmentally preferable products

## Executive Agency Electricity Consumption

Electricity use for State of Hawai‘i executive agencies is depicted in Figure 1<sup>1</sup>. In 2008, the agencies consumed a total of 683.98 million kilowatt-hours of electricity, compared to 692.46 million kWh in 2007, 676.29 million kWh in 2006 and 660.69 million kWh in 2005. This represents a decrease of 1.2% between 2007 and 2008, though electricity consumption increased by 3.6% between 2005, the baseline year, and 2008.

**Figure 1. Comparison of State Agencies’ kWh Consumption**



Energy use varies widely within individual agencies. Some agencies reported reductions in energy use; others noted minimal increases and a few used significantly more electricity. Each agency’s kWh consumption is summarized in Figure 2.

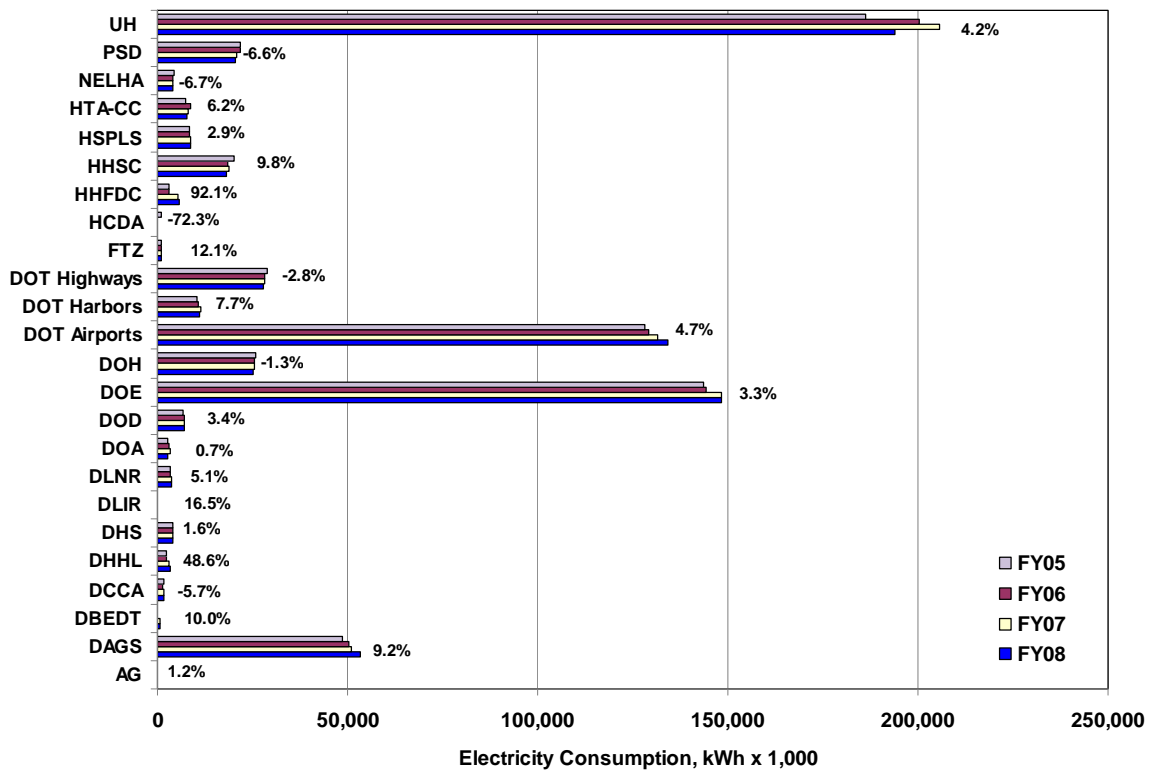
Many agencies have responsibility for their own electric bills, while others’ consumption are aggregated under the Department of Accounting and General Services (DAGS). Four agencies account for most of the electricity used by the executive branch: the University of Hawai‘i (UH) campuses, the Department of Education (DOE), the Airports Division of the Department of Transportation (DOT-Air), and DAGS.

<sup>1</sup> The data shown in Figure 1 and subsequent figures and tables exclude the Hawai‘i Public Housing Authority (HPHA) and the Hawai‘i Housing Finance and Development Corporation (HHFDC), as well as their predecessor agency, Housing and Community Development Corporation of Hawai‘i (HCDCH), due to difficulties interpreting billing data.

Roughly 80% of the more than 2,600 buildings owned and operated by the state government are on O‘ahu.

As shown in Figure 2, the four agencies which consume the most electricity show increases ranging from 3.3% to 9.2% since 2005. From FY 05-08, seven agencies were able to decrease their electricity consumption, and six others held their consumption increases at or below 3%. A few agencies showed much greater fluctuations.

**Figure 2. Comparison of Fiscal Year kWh Consumption, by Agency  
Showing Percentage Change from FY05 to FY08**



The FTZ’s 12.1% increase in electricity consumption is due in part to the construction in 2005 of 12,000 square feet of new office space, and to the addition of a new security system in 2008, including a \$100,000 investment in lighting.

A number of new capital improvement projects have added to DOE’s overall energy consumption. New portables were connected to existing schools’ electrical meters at 19 campuses on three islands, and new facilities—including an administration building, a cafeteria expansion, and two eight-classroom buildings—were connected to existing meters at four schools on O‘ahu. The resulting electricity consumption increases were somewhat offset by DOE’s ongoing lighting and HVAC retrofit programs.

It should be noted that several agencies' utility records are consolidated into DAGS' report since they are not separately billed. These include the departments of Budget and Finance (B&F), Human Resource Development (DHRD), Taxation (DOTAX), and some offices within the departments of Business, Economic Development, and Tourism (DBEDT).

Tables 2 and 3 provide information on individual agencies' electricity consumption and the changes from year to year since FY05. The reported number of kilowatt-hours consumed annually is provided in Table 2, while Table 3 presents the differences among years in kWh as well as percentage change.

**Table 2. Utility Electricity Consumption by State Agencies<sup>2</sup>**

<b>Agency</b>	<b>FY05 kWh</b>	<b>FY06 kWh</b>	<b>FY07 kWh</b>	<b>FY08 kWh</b>
AG	35,420	34,798	34,945	35,849
DAGS	48,747,915	50,265,161	50,874,228	53,238,727
DBEDT	496,413	358,760	610,347	546,138
DCCA	1,717,975	1,453,620	1,584,580	1,619,786
DHHL	2,283,061	2,494,168	2,989,292	3,391,736
DHS	3,860,312	4,013,572	4,046,352	3,922,472
DLIR	320,792	410,934	394,799	373,783
DLNR	3,470,071	3,448,349	3,635,056	3,648,777
DOA	2,825,754	2,920,780	3,309,250	2,845,190
DOD	6,703,102	6,900,527	7,143,118	6,927,797
DOE	143,577,331	144,166,024	148,219,684	148,275,306
DOH	25,671,439	25,625,754	25,404,687	25,332,669
DOT-Air	128,101,116	129,247,286	131,473,824	134,105,434
DOT-Har	10,436,590	10,708,555	11,364,562	11,237,166
DOT-Hwy	28,829,477	28,204,537	28,216,833	28,009,743
FTZ	921,920	1,044,160	1,011,840	1,033,600
HCDA	1,150,027	252,285	322,151	318,810
HHFDC	3,053,669	3,150,741	5,464,012	5,866,596
HHSC	20,127,174	18,553,340	18,804,930	18,146,647
HSPLS	8,483,680	8,512,526	8,879,387	8,726,116
HTA-CC	7,389,600	8,715,000	8,056,800	7,848,600
NELHA	4,477,349	3,917,223	4,035,528	4,178,093
PSD	21,877,323	21,673,132	20,839,695	20,431,439
UH	186,135,303	200,215,951	205,742,644	193,917,022
<b>Totals</b>	<b>660,692,813</b>	<b>676,287,183</b>	<b>692,458,544</b>	<b>683,977,496</b>

<sup>2</sup> Electricity consumption and cost data for the Hawai'i Department of Defense (DOD), the Hawai'i Public Housing Authority (HPHA) and the Hawai'i Housing Finance and Development Corporation (HHFDC) were obtained from the electric utilities. Due to difficulties interpreting the data for HPHA, HHFDC and the Housing and Community Development Corporation of Hawai'i (HCDCH) which preceded their formation, however, electricity and cost data for public housing agencies are not included in this year's report. Neither DOD nor HPHA submitted a Lead by Example report and are thus not included in the text of this combined state agencies' report.

**Table 3. Differences in Electricity Consumption (kWh) for Reported Years<sup>3</sup>**

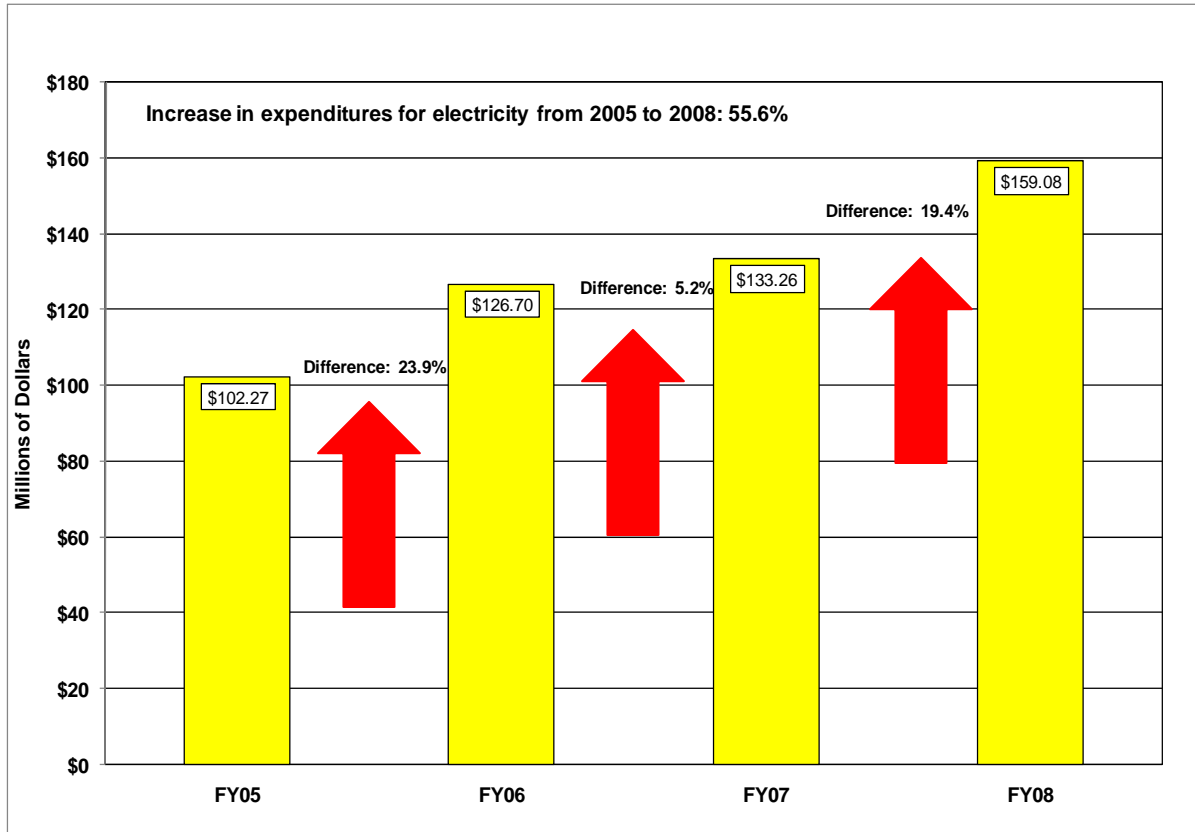
Agency	FY05- FY06	%	FY06- FY07	%	FY07- FY08	%	FY05- FY08	%
AG	-622	-1.8	147	0.4	904	2.6	429	1.2
DAGS	1,517,246	3.1	609,067	1.2	2,364,499	4.6	4,490,812	9.2
DBEDT	-137,653	-27.7	251,587	70.1	-64,209	-10.5	49,725	10.0
DCCA	-264,355	-15.4	130,960	9.0	35,206	2.2	-98,189	-5.7
DHHL	211,107	9.2	495,124	19.9	402,444	13.5	1,108,675	48.6
DHS	153,260	4.0	32,780	0.8	-123,880	-3.1	62,160	1.6
DLIR	90,142	28.1	-16,135	-3.9	-21,016	-5.3	52,991	16.5
DLNR	-21,722	-0.6	186,707	5.4	13,721	0.4	178,706	5.1
DOA	95,026	3.4	388,470	13.3	-464,060	-14.0	19,436	0.7
DOD	197,425	2.9	242,591	3.5	-215,321	-3.0	224,695	3.4
DOE	588,693	0.4	4,053,660	2.8	55,622	0.0	4,697,975	3.3
DOH	-45,685	-0.2	-221,067	-0.9	-72,018	-0.3	-338,770	-1.3
DOT-Airports	1,146,170	0.9	2,226,538	1.7	2,631,610	2.0	6,004,318	4.7
DOT-Harbors	271,965	2.6	656,007	6.1	-127,396	-1.1	800,576	7.7
DOT-Highways	-624,940	-2.2	12,296	0.0	-207,090	-0.7	-819,734	-2.8
FTZ	122,240	13.3	-32,320	-3.1	21,760	2.2	111,680	12.1
HCDA	-897,742	-78.1	69,866	27.7	-3,341	-1.0	-831,217	-72.3
HHFDC	97,072	3.2	2,313,271	73.4	402,584	7.4	2,812,927	92.1
HHSC	-1,573,834	-7.8	251,590	1.4	-658,283	-3.5	-1,980,527	-9.8
HSPLS	28,846	0.3	366,861	4.3	-153,271	-1.7	242,436	2.9
HTA-CC	1,325,400	17.9	-658,200	-7.6	-208,200	-2.6	459,000	6.2
NELHA	-560,126	-12.5	118,305	3.0	142,565	3.5	-299,256	-6.7
PSD	-204,191	-0.9	-833,437	-3.8	-408,256	-2.0	-1,445,884	-6.6
UH	14,080,648	7.6	5,526,693	2.8	-	-5.7	7,781,719	4.2

<sup>3</sup> Electricity consumption and cost data for the Hawai'i Department of Defense (DOD), the Hawai'i Public Housing Authority (HPHA) and the Hawai'i Housing Finance and Development Corporation (HHFDC) were obtained from the electric utilities. Due to difficulties interpreting the data for HPHA, HHFDC and the Housing and Community Development Corporation of Hawai'i (HCDCH) which preceded their formation, however, electricity and cost data for public housing agencies are not included in this year's report. Neither DOD nor HPHA submitted a Lead by Example report and are thus not included in the text of this combined state agencies' report.

### Electricity Costs by State Agencies

State executive branch agencies consumed 683.98 million kWh in fiscal year 2008, a 3.6% increase over 2005. However, this electricity was much more expensive than in previous years due to escalating worldwide oil prices. Electricity purchased from utilities cost \$102.27 million in 2005 but jumped to \$159.08 million in 2008, a 55.6% increase. The totals for the fiscal years from 2005 to 2008 are given in Figure 3.

**Figure 3. Comparison of State Executive Agency Utility Electricity Costs**

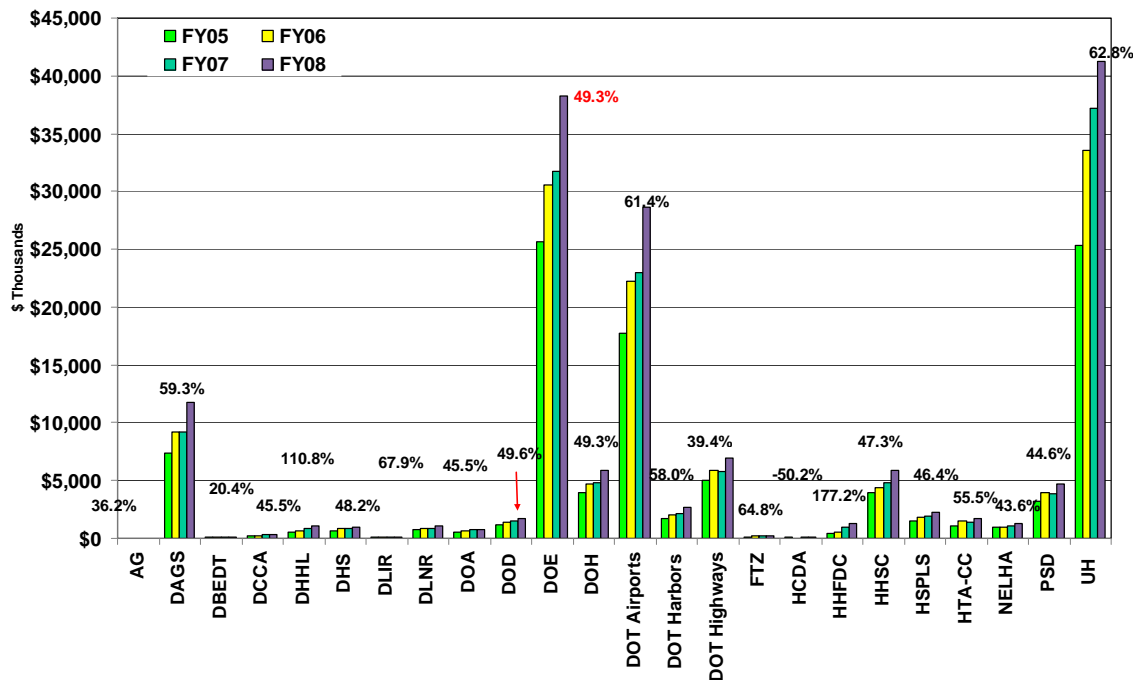


Individual agencies' energy bills reflected the higher oil costs, which translated to significant increases in utility charges per kilowatt-hour. As discussed above, energy consumption by certain agencies rose, but even the departments which were able to decrease total electricity use experienced increased costs. For example, DBEDT's Film Office, DLIR and the UH system were able to decrease their electricity consumption by 10.5%, 5.3% and 5.7%, respectively, between 2007 and 2008, but their electricity bills all rose 11%-12% during the same period.

Agencies are actively addressing their energy consumption with methods such as retrofitting lights, tinting windows, replacing aging air conditioning systems, and assessing the potential for solar water heating.

Electricity costs for each agency are reported by fiscal year in Figure 4.

**Figure 4. Cost of Purchased Electricity by Agency, Showing Percentage Change from FY05 to FY08**



Electricity cost state executive agencies \$24.4 million more in 2006 than in 2005, \$6.56 million more between 2006 and 2007, and an additional \$25.8 million between 2007 and 2008. Electricity expenses are clearly impacting the state government budget as well as the state's economy. Lack of control over the vagaries of the world oil market is a major incentive for reducing the use of petroleum-based energy by both improving efficiency and replacing fossil fuels with renewable resources.

Agencies' electricity costs for fiscal years 2005 through 2008 are shown in Table 4. Table 5 lists the differences in dollars paid for utility electricity from year to year, and the percentage change between years.



**Table 4. Cost of Electricity Purchased by State Agencies<sup>4</sup>**

<b>Agency</b>	<b>FY05</b>	<b>FY06</b>	<b>FY07</b>	<b>FY08</b>
AG	\$10,741	\$11,632	\$12,204	\$14,626
DAGS	\$7,410,397	\$9,165,691	\$9,184,704	\$11,804,444
DBEDT	\$115,698	\$89,907	\$124,219	\$139,262
DCCA	\$240,100	\$262,663	\$268,047	\$349,372
DHHL	\$489,457	\$628,026	\$811,507	\$1,031,764
DHS	\$682,659	\$848,950	\$869,092	\$1,011,391
DLIR	\$77,662	\$119,933	\$116,422	\$130,371
DLNR	\$709,075	\$839,955	\$890,562	\$1,057,839
DOA	\$545,360	\$647,465	\$789,674	\$793,691
DOD	\$1,163,250	\$1,419,457	\$1,495,511	\$1,740,097
DOE	\$25,610,926	\$30,615,253	\$31,766,931	\$38,227,400
DOH	\$3,939,563	\$4,747,817	\$4,759,608	\$5,882,869
DOT-Air	\$17,761,072	\$22,201,217	\$22,950,799	\$28,660,944
DOT-Har	\$1,670,117	\$2,045,415	\$2,134,196	\$2,638,632
DOT-Hwy	\$5,014,205	\$5,905,311	\$5,767,999	\$6,989,872
FTZ	\$134,290	\$180,726	\$174,446	\$221,373
HCDA	\$149,278	\$53,436	\$61,014	\$74,315
HHFDC	\$451,566	\$570,475	\$918,309	\$1,251,788
HHSC	\$3,982,094	\$4,415,497	\$4,801,818	\$5,866,179
HSPLS	\$1,534,826	\$1,808,919	\$1,891,008	\$2,246,677
HTA-CC	\$1,104,124	\$1,520,889	\$1,411,445	\$1,717,207
NELHA	\$914,711	\$1,015,139	\$1,071,918	\$1,313,291
PSD	\$3,242,882	\$3,972,605	\$3,848,077	\$4,689,674
UH	\$25,319,878	\$33,614,318	\$37,144,213	\$41,231,276
<b>Totals</b>	<b>\$102,273,932</b>	<b>\$126,700,695</b>	<b>\$133,263,724</b>	<b>\$159,084,352</b>

<sup>4</sup> Electricity consumption and cost data for the Hawai'i Public Housing Authority (HPHA) and the Hawai'i Housing Finance and Development Corporation (HHFDC) were obtained from the electric utilities. Due to difficulties interpreting the data for HPHA, HHFDC and the Housing and Community Development Corporation of Hawai'i (HCDCH) which preceded their formation, however, electricity and cost data for public housing agencies are not included in this year's report. Neither DOD nor HPHA submitted a Lead by Example report and are thus not included in the text of this combined state agencies' report.

**Table 5. Differences in Cost of Electricity for Reported Years (\$) <sup>6</sup>**

Agency	FY05- FY06	%	FY06- FY07	%	FY07- FY08	%	FY05- FY08	%
AG	892	8.3	571	4.9	2,422	19.8	3,885	36.2
DAGS	1,755,294	23.7	19,013	0.2	2,619,740	28.5	4,394,047	59.3
DBEDT	-25,792	-22.3	34,312	38.2	15,043	12.1	23,563	20.4
DCCA	22,563	9.4	5,384	2.0	81,325	30.3	109,272	45.5
DHHL	138,569	28.3	183,480	29.2	220,257	27.1	542,307	110.8
DHS	166,291	24.4	20,142	2.4	142,299	16.4	328,732	48.2
DLIR	42,271	54.4	-3,510	-2.9	13,948	12.0	52,709	67.9
DLNR	130,879	18.5	50,608	6.0	167,276	18.8	348,763	49.2
DOA	102,105	18.7	142,209	22.0	4,017	0.5	248,331	45.5
DOD	256,207	22.0	76,054	5.4	244,586	16.4	576,847	49.6
DOE	5,004,327	19.5	1,151,678	3.8	6,460,469	20.3	12,616,474	49.3
DOH	808,254	20.5	11,791	0.2	1,123,262	23.6	1,943,307	49.3
DOT-Airports	4,440,145	25.0	749,582	3.4	5,710,145	24.9	10,899,872	61.4
DOT-Harbors	375,298	22.5	88,781	4.3	504,436	23.6	968,515	58.0
DOT-Highways	891,106	17.8	-137,312	-2.3	1,221,873	21.2	1,975,666	39.4
FTZ	46,437	34.6	-6,281	-3.5	46,927	26.9	87,083	64.8
HCDA	-95,842	-64.2	7,579	14.2	13,301	21.8	-74,963	-50.2
HHFDC	118,910	26.3	347,834	61.0	333,478	36.3	800,222	177.2
HHSC	433,404	10.9	386,321	8.7	1,064,360	22.2	1,884,085	47.3
HSPLS	274,093	17.9	82,089	4.5	355,669	18.8	711,851	46.4
HTA-CC	416,764	37.7	-109,443	-7.2	305,761	21.7	613,082	55.5
NELHA	100,428	11.0	56,780	5.6	241,373	22.5	398,580	43.6
PSD	729,723	22.5	-124,527	-3.1	841,597	21.9	1,446,792	44.6
UH	8,294,440	32.8	3,529,894	10.5	4,087,063	11.0	15,911,398	62.8

<sup>6</sup> Electricity consumption and cost data for the Hawai'i Public Housing Authority (HPHA) and the Hawai'i Housing Finance and Development Corporation (HHFDC) were obtained from the electric utilities. Due to difficulties interpreting the data for HPHA, HHFDC and the Housing and Community Development Corporation of Hawai'i (HCDCH) which preceded their formation, however, electricity and cost data for public housing agencies are not included in this year's report. <sup>7</sup> DAGS' data include consumption by the Aloha Stadium plus that of agencies occupying buildings operated by DAGS, such as Dept. of Budget & Finance, Dept. of Human Resources Development, Dept. of Taxation, and most locations of Dept. of Business, Economic Development & Tourism.

## Efficiency in Buildings

In Hawai‘i, applying energy efficiency to the design, construction and operation of buildings is becoming a standard practice. The State of Hawai‘i is active in several “green building” initiatives and now requires LEED Silver certification, to the extent possible, for new construction and major renovation. In addition to energy savings, LEED Silver standards dictate improved indoor environmental quality, which has been linked to reduced absenteeism, 2%-16% increased productivity, 20% better test performance in schools, and 2½ day earlier discharge from hospitals.

LEED is a program of the U.S. Green Building Council (USGBC). DBEDT joined the Council in 2006; its membership on behalf of the State of Hawai‘i allows all state employees access to USGBC publications and training sessions at a reduced cost, as well as exclusive on-line reports, participation in local USGBC chapter events, and reduced LEED project registration and certification fees. Although certification provides independent, third-party verification of a building’s performance to LEED standards, some agencies are designing facilities to meet LEED criteria but do not plan to formally certify them because of cost considerations.

Five state agencies now have LEED Accredited Professionals on staff: DBEDT, DOE, DOT, DAGS and UH. Other employees are in training for this goal.

DBEDT continues to benchmark state buildings, a process which involves calculating the building’s annual energy consumption per square foot. This results in an “energy usage index” (EUI), allowing buildings to be quickly compared.

Benchmarking is one way of evaluating whether buildings are potential candidates for Energy Star® status. Energy Star® is a joint program of the U.S. Environmental Protection Agency (EPA) and the U.S. Department of Energy to protect the environment and reduce costs through energy efficient products and practices.

Energy Star® certified buildings rank in the top quartile of an EPA performance rating system calculated from actual energy use. Energy Star® certified buildings also must qualify for thermal comfort while meeting lighting, ventilation, and indoor air quality requirements.

Hawai‘i also has been an active member of EPA’s Energy Star® 10% Challenge program since 2005. The program identifies buildings where financially attractive energy efficiency improvements could reduce energy use by 10%, and then implements those changes through low-cost building tune-ups, lighting upgrades, and replacement of old equipment. Another benefit is the reduction of greenhouse gas emissions.

Six state facilities have achieved Energy Star® status; some of these have received annual certification repeatedly.

- Kakuhihewa Building (Kapolei State Building)
- Leiopapa A Kamehameha Building (State Office Tower)

- Abner Paki Hale Courthouse
- Hilo State Office Building
- Keoni Ana Building
- Waipahu Civic Center

To ensure that buildings function as efficiently as possible, commissioning and retrocommissioning processes are being employed. Commissioning is applied to new buildings, while retrocommissioning optimizes an existing building's operation and maintenance. DAGS, for example, is retrocommissioning 11 projects on four islands.

The following state buildings have either achieved LEED standards or are in process toward that goal. A number of these projects were already underway before the LBE initiative began.

#### LEED Platinum

- NELHA Hawai'i Gateway Energy Center (completed)
- NELHA Gateway Center office structure (planned)

#### LEED Gold

- UH-Hilo Student Life Complex (completed; certification pending)

#### LEED Silver

- DAGS Keaukaha Military Reservation Joint Military Center (design)
- DAGS Maui Public Safety Complex (design)
- DOE 'Ewa Makai Middle School campus (pending construction)
- DOE Kapa'a Elementary School library (design)
- DOE Kīhei High School campus (planned)
- DOE West Maui Elementary School Elementary School (pre-development)
- DOE Wailuku Elementary School II (pre-design)
- DOH Hawai'i State Hospital new forensic facility (funds to be requested)
- HSPLS North Kohala Public Library (construction bid awarded)
- HSPLS Mānoa Public Library (construction bid awarded)
- PSD Kaua'i Regional Complex (planned)
- PSD Maui Community Correctional Center relocation (design)
- PSD O'ahu Regional Complex (planned)
- PSD new transitional housing (planned)
- UH Information Technology Center (design)
- UH-Hilo Hawaiian Language Building (design)
- UH-Hilo Sciences and Technology Center (under construction)
- UH-Hilo Student Services Building addition and renovation (design)
- UH-Mānoa Campus Center renovation and addition (pre-design)
- UH-Mānoa College of Education (planned, pending funds)
- UH-Mānoa Edmonson Hall renovation (funded for design)

- UH-Mānoa Frear Hall Residence Building (completed; certification pending)
- UH-Mānoa Gartley Hall renovation (design)
- UH-Mānoa Kennedy Performance Arts Facilities (design; funds pending)
- UH-Mānoa Pacific Regional Biosafety Laboratory (funded for design and construction)
- UH- Mānoa Performing Arts Facility (design)
- UH-Mānoa School of Law addition and renovation (funded for planning)
- UH-Mānoa new classroom building (planning)
- UH-West O‘ahu new Kapolei campus development (design)
- Honolulu Community College Advanced Technology Training Center (funded for design)
- Kapi‘olani Community College Culinary Institute of the Pacific (design)
- Leeward Community College Education and Innovation Instructional Facility (project development phase)
- Maui Community College science facility (design)
- Windward Community College Library and Learning Center (design)

#### LEED Certified

- DOE Waipahu Intermediate School Cafeteria (completed)
- UH-Mānoa School of Medicine (completed)
- UH-Hilo ‘Imiloa Astronomy Center of Hawai‘i (completed)

#### LEED Commercial Interiors

- DOT-Airports Division renovation of Honolulu International Airport Lounge (awarded for construction)

In addition, sustainable design criteria similar to those of LEED are being incorporated by DAGS during the design phase of the Kapolei Judiciary Complex, within the constraints of project funding. DBEDT, working with DAGS, is developing guidelines for design and construction which can be applied toward meeting LEED requirements. DOE is also designing some school facilities to meet LEED Silver standards but will not pursue formal certification due to cost concerns. Hawai‘i High Performance School Guidelines, which provide guidance for design consultants, will still be used when applicable to achieve LEED requirements in school buildings.

DAGS is also the state’s lead agency for energy performance contracting, a proven method of implementing energy efficiency capital projects without requiring up-front funds.

### Utility Rebates Save Money at State Facilities

Since 1996, many public agencies have taken advantage of utility-sponsored demand-side-management (DSM) programs. Utilities have provided rebates for both retrofit and new construction in the areas of lighting, motors, and heating/ventilation/air conditioning (HVAC), and also have supported customized approaches.

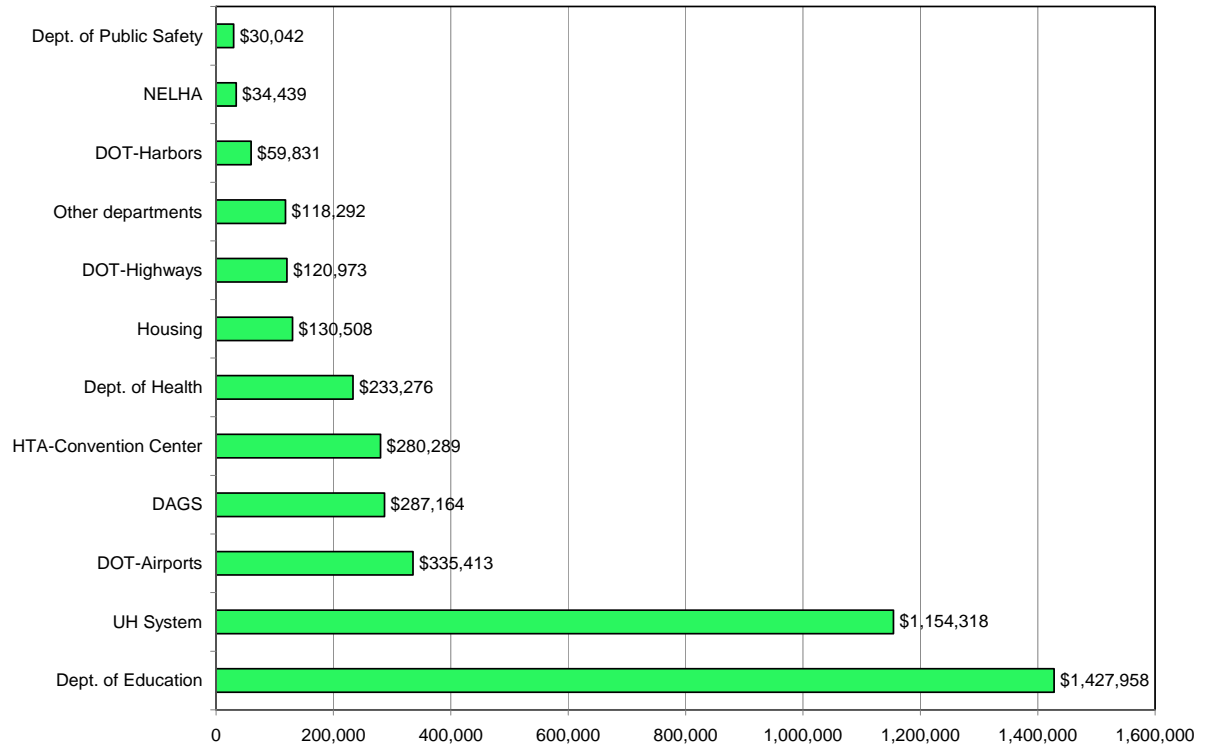
More than \$4.2 million in rebates have been provided by the Hawaiian Electric Company, Inc. (HECO) and its subsidiaries to State of Hawai'i executive agencies from 1996 through June 2008. In 2008, the cumulative energy savings from retrofits and new construction was 55,346 MWh, enough to power 6,700 homes in Hawaii for that year. The utility bill and energy savings are expected to grow to \$149 million and 830,204 MWh, respectively, over the life of the energy-efficient equipment. This is the equivalent of 100,557 households' annual electricity use.

Kaua'i Island Utility Cooperative (KIUC) also provides rebates. In early 2008, the Hawai'i National Guard received three rebates for efficient lighting retrofits installed in late 2007 totaling \$10,600. In addition, Wilcox Elementary School received a \$4,031 rebate for an air conditioning rebate in November 2008.

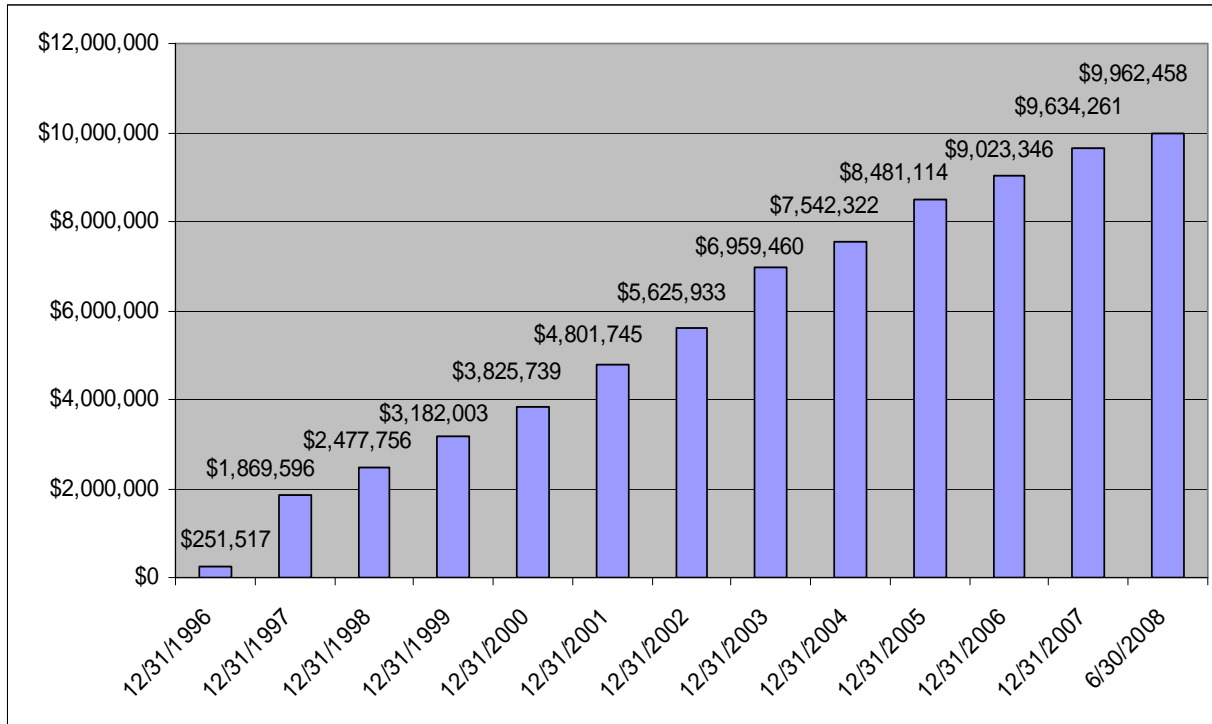
The Department of Education and the University of Hawai'i system were the largest beneficiaries of HECO rebates, receiving over \$1 million each as shown in Figure 5. The "Housing" rebates were provided to the Housing and Community Development Corporation of Hawaii which was reorganized in 2005 into two agencies, HPHA and HHFC. The state agencies which received DSM rebates from the three HECO utilities saved the equivalent of \$251,500 to \$1.6 million per year on their electricity bills from 1996 to June 30, 2008. Cumulatively, the agencies have saved \$9.9 million during the same period. Cost savings for state executive agencies as of June 30, 2008, are depicted in Figure 6. Equivalent savings are calculated using \$0.18/kWh as the average cost for commercial electricity for the sake of consistency.

Cumulatively, since 1996, 409,095 MWh have been saved at state facilities served by HECO utilities. Total demand savings for the period are 11.8 MW. Cumulative electricity savings due to utility efficiency rebate programs since 1996 are depicted for the executive agencies which participated in the programs in Figure 7.

**Figure 5. Selected State Facilities' DSM Rebates from HECO since 1996, by Agency**

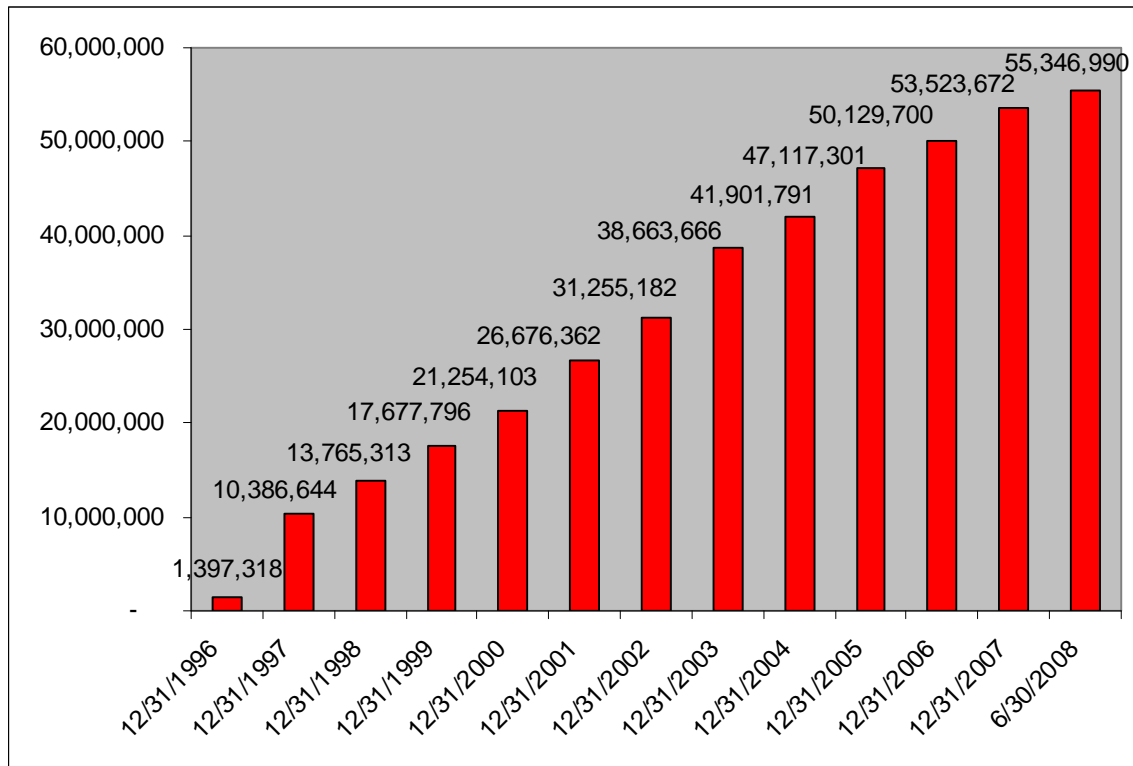


**Figure 6. Cumulative State Executive Facilities' DSM Rebate Savings (\$)  
from HECO since 1996**





**Figure 7. Cumulative State Executive Facilities' Energy Savings from HECO Rebate Programs (kWh), since 1996**

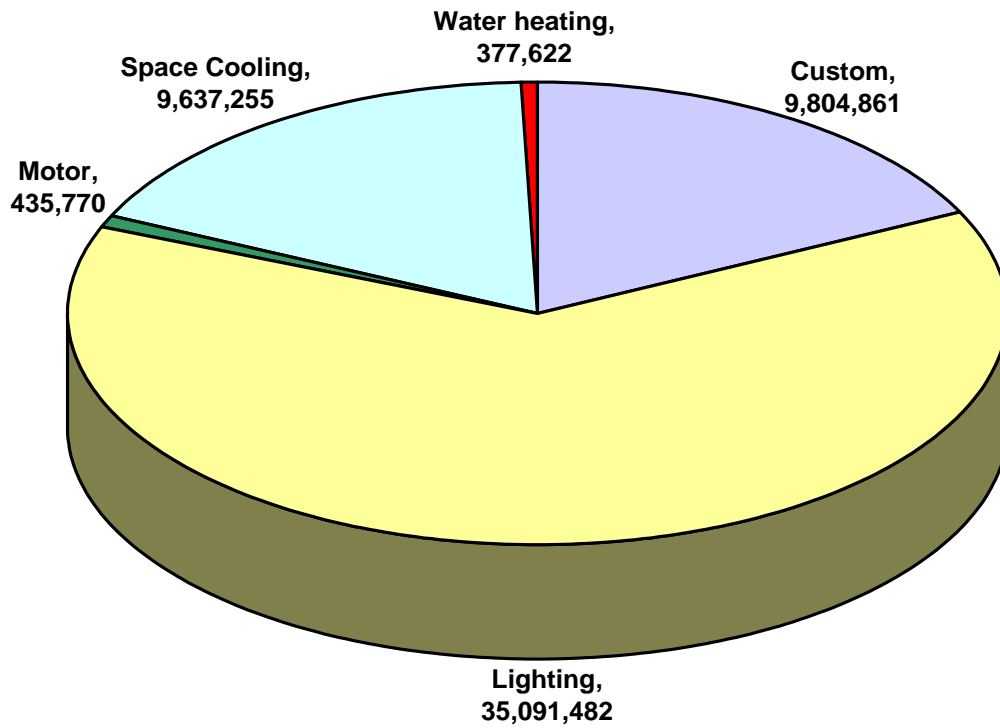


Most of the savings are from lighting retrofits: 35 million kWh per year of consumption, representing 63% of the total. Custom retrofits are a distant second, with 9.8 million kWh saved annually. Space cooling saves nearly as much: 9.6 million kWh per year. Other rebates were provided for motors and water heating. The annual energy savings due to utility DSM rebate programs for each technology are depicted in Figure 8.

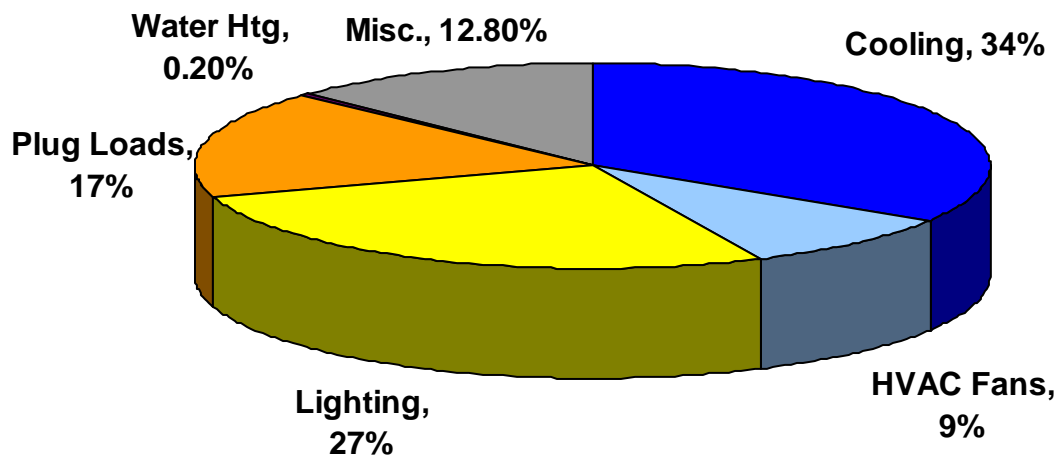
HECO's data show that a typical office building's electricity is primarily used for space conditioning: providing cooling and operating heating, ventilation and air-conditioning (HVAC) fans required 43% of a building's electricity. Lighting was a strong second at 27%. "Plug loads" such as computers, copiers and other equipment were responsible for 17% of the electricity consumed, and water heating was only 0.2%. Miscellaneous uses (e.g. elevators, water coolers) accounted for the remaining 12.8%. These data, shown in Figure 9, indicate some of the most promising targets for energy conservation.

When State of Hawai'i facilities on O'ahu are examined by type, it is evident that campuses consisting of classrooms and offices consume half of the electricity. Office buildings and the Honolulu International Airport respectively consume 17.7% and 17.6% of the total. The public hospital system is also a significant consumer, accounting for 6.3%. These data, provided by HECO, are shown in Figure 10.

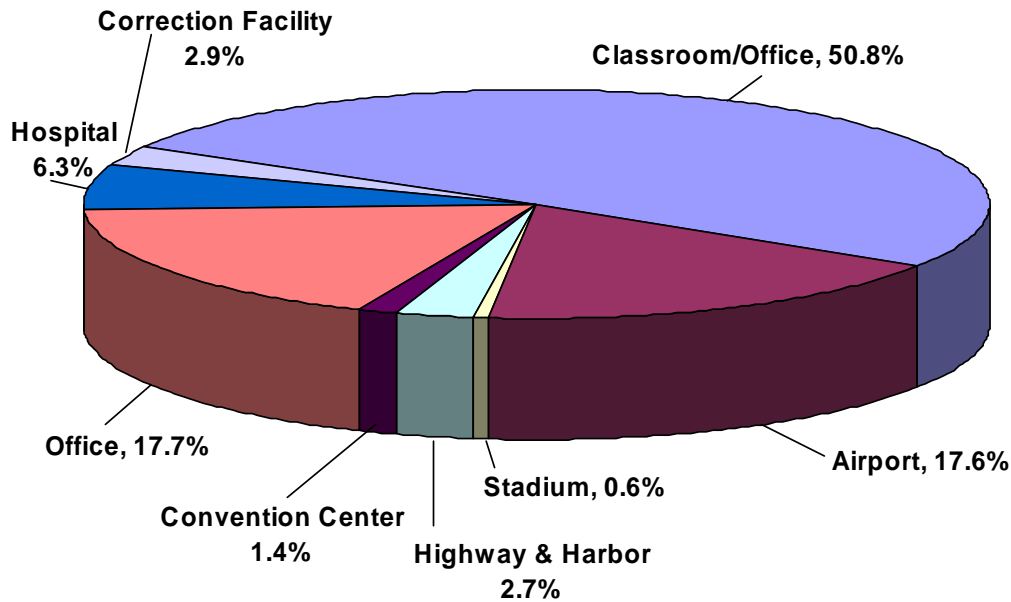
**Figure 8. Cumulative State Executive Facilities' Energy Savings from HECO Rebate Programs (kWh) by Technology, since 1996**



**Figure 9. Typical Office Building Energy Use Breakdown**



**Figure 10. State of Hawai'i Facilities on O'ahu,  
Electricity Consumption by Occupancy Type**



#### Highlights of Current State Energy Activities

Since the State of Hawai'i established its energy program in 1974, state agencies have undertaken myriad activities focusing on energy efficiency, conservation, and renewable energy. DBEDT's director, the state's Energy Resources Coordinator, is responsible for coordinating energy activities statewide.

These decades of programmatic action have positioned the Administration to rapidly implement the LBE initiative. The state's energy staff and many agencies' efforts have already built a solid foundation, completed some benchmarking and assessments, provided numerous opportunities for training, and executed a number of projects. Some of the recent achievements are described below.

#### *Efficiency*

DOE has developed an internal system that enables the comprehensive management of all utilities—electricity, water, sewage disposal and gas—for all schools through a central office. Payment for all utilities has been consolidated into one office, enabling the department to monitor utility use by the schools. Electrical submeters will be installed for all new facilities. Energy conservation measures for air conditioning and lighting have been implemented, and all appliances will be replaced with Energy Star®-rated appliances by June 15, 2009.

DOE has begun a number of projects to examine the feasibility of various heat abatement strategies other than air conditioning. These include pilot projects at 'Ewa Beach Elementary and at Kahuku High School's portable classrooms. As a result of a study, the department will include motion detectors for controlling classroom lighting in future energy service company work in the schools.

Several community colleges are also employing submetering for buildings, air conditioning and irrigation units to reduce operating costs. Several new buildings are using waterless urinals to reduce water consumption.

PSD received funding for a department-wide energy conservation program in 2007 and has selected a consultant to assess efficiency options. The Hawai'i Air National Guard replaced an inefficient air compressor system, saving \$37,000 in electricity and \$11,000 in water costs annually.

The Honolulu International Airport Modernization Program will incorporate sustainability goals and LEED guidelines for their projects. DOT-Airports' taxiway lighting system and guidance signs replacement projects have reduced annual electricity consumption by 600,000 kWh.

A large project to improve energy systems at 'Iolani Palace is in the design phase; construction is scheduled to begin in October 2009. The entire air conditioning system needs to be replaced to improve efficiency while preserving the priceless cultural and historic artifacts within the monument. The new system will be commissioned to ensure optimum performance.

During Fiscal Year 2008, DAGS initiated 11 pilot retrocommissioning projects on O'ahu, Hawai'i, Maui and Kaua'i to save energy. Some projects have completed the investigation phases and implemented minor repairs. Other recommended work will need to be included in future CIP budget requests.

Working with HSPLS, twelve libraries received energy efficiency retrofits, either from in-house DAGS crews or from contractors. DAGS currently has 21 library lighting retrofit projects under design which are expected to be bid and constructed in FY 2009. In 2008, HSPLS replaced two ageing air conditioning systems, improving efficiency.

DBEDT convened the State Facilities Energy Management Advisory Committee (EMAC) in 2007, which made recommendations for increasing the use of energy savings contracts, improving building design, reduction of energy consumption, expanding the use of renewable energy, and procuring energy efficient products. The report was submitted to the state Legislature in January 2008.

DBEDT also chaired the International Energy Conservation Code (IECC) committee of the State Building Code Council, preparing recommendations to modify the IECC to suit Hawai'i's unique conditions. DBEDT has applied to the U.S. Department of Energy to become an "early adopter" of the next iteration of the IECC.

A DBEDT technical consultant provided information on energy performance contracting mechanisms to the Hawai‘i Public Housing Authority as that agency developed a Request for Proposals and evaluated responses. HPHA’s project will include 5,363 federally-funded residential units to be retrofit with energy and water efficiency improvements. Major performance contracts statewide have already saved millions of dollars. DAGS is leading the state’s efforts in performance contracting.

DOT-Highways continues to install energy-efficient lamps in new or modified traffic signals. FTZ is replacing incandescent bulbs with compact fluorescents and was able to eliminate five 400W metal halide fixtures from its new perimeter lighting system as the result of a photometric survey.

The University of Hawai‘i has installed heat recovery systems for hot water at its Frear Resident Hall on the Mānoa campus and the UH-Hilo Student Life Center uses a heat pump for water heating. UH established two energy manager positions which will review renewable energy and efficiency technologies for possible application to existing Campus Renewal CIP projects. A campus-wide Energy Management Committee at UHM is responsible for implementing energy reduction projects. Among the initiatives is a “search and destroy” program to replace incandescent bulbs on campus.

The fossil fuel used to transport personnel, equipment, and materials to Kaho‘olawe has been significantly reduced by shifting from helicopters to a 40-foot ocean-borne landing craft. Installation of an efficient diesel generator at the base camp cut fuel use in half. The island’s reverse-osmosis system produces 1,500 gallons per day of fresh water, more than adequate for demand.

Solar water heaters are being installed on the Leeward Homeless Shelters Villages of Mā‘ili transitional housing which will produce hot water for 80 units and laundry facilities. Two of the four residential water heaters on Kaho‘olawe have been converted to solar by DLNR’s Kaho‘olawe Island Reserve Commission, with the remainder scheduled for conversion next year. NELHA employs solar water heating, and several of its buildings are also air conditioned using deep, cold seawater.

### *Renewables*

Two laws passed in the 2008 legislative session will help expedite the permitting of renewable energy projects in Hawai‘i. Act 207 gives the Energy Resources Coordinator responsibility for creating a streamlined permitting process that includes state and county permits required for the siting, development, construction, and operation of new renewable energy facilities of at least 200 megawatts capacity. Act 208 establishes a new renewable energy facilitator position in DBEDT who will facilitate existing permits, propose changes to the permit process and coordinate energy projects.

Photovoltaics (PV) are likely to be the first renewable energy technology widely adopted by state facilities. DAGS is negotiating with a power provider for photovoltaics to be installed on their Central Services buildings; electricity will be sold to DAGS at a

price lower than the utility rate. HHFDC is evaluating photovoltaics for its Pohulani Elderly Project building. NELHA hopes to issue RFPs for both photovoltaics and ocean thermal energy conversion, and has tenants installing concentrating solar facilities.

After issuing a Request for Proposals, DOT-Airports Division awarded a competitive contract in March 2008 to develop photovoltaic systems at 10 transportation facilities, including the Honolulu, Kona, Kalaeloa, Kahului, Līhu‘e, Moloka‘i and Lāna‘i Airports as well as the Foreign Trade Zone in Honolulu. The equipment will be installed over the next two years.

DOE has developed a Request for Proposals for the installation of photovoltaics on public schools on four islands. A third-party vendor will install and maintain the 30-50 kW systems, selling power to DOE at a discounted rate. The community colleges are discussing the installation of photovoltaics with third party providers. Maui Community College campus has received a donated wind turbine and is researching an appropriate site for installation.

DOT-Airports is planning to use cold deep seawater to cool enclosed areas at the Kona International Airport, and expects to install a new parking deck covered with photovoltaic modules.

### *Transportation*

Not all state agencies have vehicle fleets. Those that do must comply with federal and state regulations relating to the purchase of efficient vehicles, and to purchase the most fuel-efficient vehicles that meet the needs of their programs.

State vehicles are already utilizing E-10 Unleaded gasoline which contains 10% ethanol; state law requires its sale. Many state vehicles are also flexible-fuel capable, and could use higher percentages of ethanol if they became available. The UH has a small fleet of alternatively-fueled and hybrid vehicles.

The state is developing a pricing preference for biodiesel, and several agencies are prepared to use it. Currently, supplies of locally-produced biodiesel are very limited.

### *Purchasing Practices*

Most departments already utilize life-cycle cost analyses, purchase efficient equipment such as those with the Energy Star® label, and take advantage of utility rebates. DAGS already requires the projects which it manages to use highly efficient mechanical equipment. Utility rebates have typically been used to help offset the cost of purchasing and installing energy-efficient equipment.

The State Procurement Office (SPO) continues to provide price and vendor listings which include Energy Star®, recycled, or environmentally preferred products. For products and supplies not included on the SPO price lists, purchasing agencies are

still required to preferentially order recycled products, oil products with greater recycled content, and biofuels.

DBEDT conducted a Green Cleaning Products pilot program for McKinley High School, Kapālama Elementary School, and the University of Hawai‘i with the goal of expanding use throughout state facilities. Green cleaning products are concentrated, requiring less energy to transport as well as less water, are less toxic and thus may require less rinsing. DAGS is integrating cleaning products with the Green Seal or equal certification into its custodial program.

Information on recycled and environmentally preferable products (EPP) has been prepared by DBEDT and is available to state agencies. This includes lists of EPP available in Hawai‘i, a case study of successful EPP efforts, an evaluation of procurement practices, and recommendations for specifications and bid requests to address EPP concerns.

### Plans for Future LBE Activities

#### *Continued Efficiency Efforts*

Continued improvements in efficiency and the use of renewable energy in state facilities are expected. Building on the solid foundation of assessments, training, benchmarking, energy performance contracts and other activities undertaken in the past several decades, the administration will maintain its focus on modifying agency operations to improve efficiency. Gathering and assessing data, training staff, developing additional reference materials, enhancing interagency communications, identifying needs for additional skills and tools, and setting efficiency targets are all on the LBE agenda.

#### *Need for Adequate Implementation Resources*

State agencies are committed to the LBE effort, but future results depend on securing adequate implementation resources. Funds for capital improvements, maintenance, and retrofits must be appropriated for energy efficiency and renewable energy goals to be reached. High-priority projects include lighting, LEED commissioning, improvements such as window tints and energy management controls, and renewable energy installations.

#### *Agency Goals and Plans*

As part of the LBE initiative, state agencies have clarified and prioritized their plans for future energy improvements. These plans include new construction as well as retrofits and repairs. LBE Working Groups will be addressing the following tasks:

##### 1) Data Collection:

- Develop a standardized data collection system to establish and refine baselines for various target areas: buildings, transportation, environmental practices and procurement.
  - Develop standardized documents/formats for various data requirements.
  - Train personnel to use the data tools; collect data for the various target areas.
- 2) Training and Education Activities:
- Conduct training/education for the various Working Group members (e.g., speakers, selected discussion topics, inter-Working Group meetings to promote information/idea exchanges.)
  - Develop an education/promotional campaign for state personnel to implement and practice increased efficiency.
  - Continue technical training and education efforts to support LBE.
- 3) Technical Assistance:
- Development of LEED projects and identifying pilot projects.
  - Development of commissioning and retrocommissioning projects.
  - Building assessments, including walk-through audits.
  - Identify and certify Energy Star® state buildings.
- 4) Evaluation:
- Continue assessment and discussion process to identify future tasks such as development of evaluation criteria, data requirements, and training needs.
  - Develop evaluation tools, quantitative and qualitative, such as conducting post-occupancy evaluations (objective and subjective) of LEED Silver Buildings or buildings with selected technology installations for energy efficiency improvements.
- 5) Policy Review and Recommendations:
- Continue discussion on energy-efficiency-only budget requests to improve the request process and information provided.
  - Continue examination of potential policy recommendations from the Leadership Working Group, Buildings Working Group, Transportation Working Group, and the Environmental Practices and Procurement Working Group.

### Individual Agency Responses

A compilation of the responses from most State of Hawai‘i executive agencies may be found in the following section. Agencies were asked to report on their specific activities relating to Act 96 and Act 160, SLH 2006.

DBEDT issued invitations to participate in this compiled report to all state executive branch departments, including attached agencies. The Department of Defense and the Hawai‘i Public Housing Authority did not respond, nor did they provide statutorily required data.



The 26 departments and offices which did respond include:

AG: Department of the Attorney General  
B&F: Department of Budget and Finance  
DAGS: Department of Accounting and General Services  
DBEDT: Department of Business, Economic Development & Tourism  
DCCA: Department of Commerce and Consumer Affairs  
DHHL: Department of Hawaiian Home Lands  
DHRD: Department of Human Resource Development  
DHS: Department of Human Services  
DLIR: Department of Labor and Industrial Relations  
DLNR: Department of Land and Natural Resources  
DOA: Department of Agriculture  
DOE: Department of Education  
DOH: Department of Health  
DOT-Airports: Department of Transportation, Airports Division  
DOT-Harbors: Department of Transportation, Harbors Division  
DOT-Highways: Department of Transportation, Highways Division  
DOTAX: Department of Taxation  
FTZ: Foreign Trade Zone  
HCDA: Hawai'i Community Development Agency  
HHFDC: Hawai'i Housing Finance and Development Corporation  
HHSC: Hawai'i Health Systems Corporation  
HSPLS: Hawai'i State Public Library System  
HTA-CC: Hawai'i Tourism Authority, Convention Center  
NELHA: Natural Energy Laboratory of Hawai'i Authority  
PSD: Department of Public Safety  
UH: University of Hawai'i system

Selected details from specific responses, such as vehicle fleet data, are attached as appendices.

**Consolidated LBE Reports from State of Hawai'i Executive Agencies  
Fiscal Year 2008  
Relating to the Statutory Requirements of Act 96 and Act 160 of 2006**

**Act 96 SLH 2006: Buildings and Facilities**

- (1) Design and construct buildings meeting the Leadership in Energy and Environmental Design silver or two green globes rating system or another comparable state-approved, nationally recognized, and consensus-based guideline, standard, or system, except when the guideline, standard, or system interferes or conflicts with the use of the building or facility as an emergency shelter;

AG: Not applicable; the Department of the Attorney General (AG) does not design or construct buildings.

B&F: Not applicable. The department does not oversee the design, construction or maintenance of building facilities.

DAGS: The Division of Public Works (PWD) already implemented and constructed a pilot project, Waipahu Intermediate School Cafeteria, which received a LEED Certified rating. Construction of this project was completed under the DOE due to Act 51; however staff from the Division of Public Works were actively involved in project.

PWD has already gained experience and learned from the Waipahu Intermediate School Cafeteria project, including just becoming more familiar with LEED or sustainable design. Now the division has at least one source to identify potential costs impacts from this pilot project. The project only sought a LEED Certified rating due to budget constraints and to some degree the type of facility, which may not allow or provide for enough points in the LEED rating system without being unreasonable in the design and associated costs.

PWD currently is working on four designated projects to achieve a LEED Silver rating. The four projects are:

- Mānoa Public Library - Expansion and Site Improvements, DAGS Job No. 12-36-6364  
This project has been bid and a construction contract in the amount of \$8,159,000 has been awarded to Allied Pacific Builders, Inc. The project is currently pending building permit approvals and PWD anticipates starting construction in January 2009 and completing construction in mid 2010.
- New Kohala Public Library, DAGS Job No. 11-36-6367  
This project has been bid and a construction contract in the amount of \$6,895,900 has been awarded to Isemoto Contracting Co., Ltd. The project is currently pending building permit and zoning approvals and PWD anticipates starting construction in September 2008 and completing construction in late 2009.
- Keaukaha Military Reservation – Joint Military Center, Phase 1, DAGS Job No. 21-14-7292  
This is a design-build project which received design-build proposals on April 10, 2008. An award in the amount of \$50,768 to Nan, Inc. was made on June 10, 2008 and the notice to proceed was issued on August 11, 2008. The project is currently under design by the design-builder Nan, Inc. It is anticipated that the construction part of the design-build contract will start in mid 2009 with a completion date in early 2011.
- Maui Regional Public Safety Complex, DAGS Job No. 15-27-5562  
This project is currently starting design. Initially the project was planned to be accomplished in two phases, with Phase 1 estimated at approximately \$50 million and Phase 2 estimated at over \$150 million. The project now will be designed and constructed in one phase and the estimated cost is over \$200 million. The goal of this project will be to achieve a LEED Silver rating.

The projects above are part of developing our strategy. For the immediate strategy, the Division of Public Works will implement projects in accordance with Act 96, SLH 2006 “to the extent possible.” PWD’s general strategy in defining and applying “to the extent possible” is to take the following steps:

- 1<sup>st</sup> level: Look for and implement sustainable design practices and elements that PWD does already, thus no impact on operation/function and cost.
- 2<sup>nd</sup> level: Look for and implement sustainable design practices and elements that PWD may not have normally done, but can do without negative impact to cost and negative impact to operation/function of the facility.
- 3<sup>rd</sup> level: Look for and possibly implement sustainable design practices and elements that PWD may not currently do that are not very costly and improve operation/function of the facility. Associated costs, benefits, budget and maybe even schedule will start to become factors in deciding whether to implement.
- 4<sup>th</sup> level: Look for and possibly implement requirements that PWD may not currently do and will impact cost and will improve operation/function of the facility. Associated costs, benefits, budget and schedule will be factors in deciding whether to implement.
- 5<sup>th</sup> level: And so forth...

Part of the strategy also includes knowing what we do not want to do: PWD shouldn't implement sustainable design practices and elements that do not offer any real value. The division definitely does not want to implement sustainable design requirements to get LEED points just to achieve a rating that does not provide a real value even if the project budget would allow it. As PWD gains experience and knowledge from the projects that will occur over the year, the division intends to develop a LEED or generically state, Sustainable Design and Commissioning application guideline and programmatic support for PWD and possibly other state agencies.

DBEDT: On behalf of the State of Hawai'i, DBEDT renewed its membership with the U.S. Green Building Council (USGBC) in 2008. USGBC administers the Leadership in Energy and Environmental Design (LEED) rating system. DBEDT continues to cosponsor many LEED training sessions and continues to serve on the USGBC Hawai'i Provisional Chapter's Education Committee. There are now more State of Hawai'i LEED projects completed, under construction and consideration. This fiscal year, DAGS personnel planned to join DOT, DOE and DBEDT in having LEED-accredited professionals on staff. DBEDT has helped coordinate LEED workshops to prepare additional state personnel and others to take the USGBC examination and become LEED accredited professionals.

Through State of Hawai'i General Funds, DBEDT has a contract with USGBC to provide training assistance to State of Hawai'i agencies. Through this agreement, training and reference documents on implementing LEED projects will be provided on October 20-24, 2008, and in early 2009 by the USGBC to State of Hawai'i program and project managers.

Green Building Services, Inc. (GBS) has been providing State of Hawai'i agencies with green building-related technical assistance. GBS presented at a Consulting Engineers Council of Hawai'i Conference in February 2008 and conducted a LEED Commercial Interiors Assessment for a project with the Department of Transportation's Airports Division. GBS has met with and provided technical assistance to the State of Hawai'i's DOE providing portable classroom Request for Proposals (RFP) language, Construction Waste Management Specifications and a LEED for Existing Buildings assessment for DAGS, and reviewing Conservation Use Permit language with DLNR. GBS will also assist State of Hawai'i agencies such as HCDA, DAGS and others with an Implementation Guide for Project Managers on LEED Projects.

DBEDT convened the State Facilities Energy Management Advisory Committee (EMAC) in 2007, which made recommendations for increasing the use of energy savings contracts, improving building design, reduction of energy consumption, expanding the use of renewable energy, and procuring energy efficient products. The report was submitted to the state Legislature in January 2008.

DBEDT staff attended all meetings of the State Building Code Council, created by legislation to update and unify building codes statewide. Staff also:

- Chaired the International Energy Conservation Code (IECC) committee.
- Held ten meetings for the purpose of modifying the IECC to suit Hawai'i's unique conditions.
- Testified before the Honolulu City Council on Bill 87 which would require all new commercial construction on O'ahu to be LEED compliant.
- Applied to the U.S. Department of Energy for a grant to become an "early adopter" of the next iteration of the IECC.

DBEDT convened the Lead By Example initiative's Leadership Working Group to brief over 20 agency and departmental managers about energy and resource efficiency topics, including green building practices.

DCCA: Not applicable; DCCA did not construct or renovate any buildings.

DHHL: DHHL will encourage its Land Development Division to plan design and all future housing projects to meet LEED Silver or two green globes rating. DHHL will also encourage its Land Management Division to require all new general lessees and licensees to plan and design their facilities to meet the same requirement. All potential lessees are instructed to consider energy efficiency. DHHL will continue to work with DBEDT in a statewide effort on energy efficiency. DHHL is in the process of developing its own energy policy to enable native Hawaiians to lead in Hawai'i's effort to achieve energy self sufficiency and sustainability.

DHRD: Not applicable. The department does not design or construct buildings.

DHS: The Department of Human Services will continue to coordinate all building and facility projects with DAGS to ensure that all construction, and repairs and alterations projects are in compliance with the applicable standards and guidelines.

DLIR: The Department of Labor and Industrial Relations (DLIR) does not own or manage any buildings. The majority of DLIR personnel are housed in building facilities constructed and managed by DAGS. The remaining DLIR personnel are out-stationed in privately-owned buildings. The DAGS Leasing Branch secures all rental lease agreements for DLIR occupants housed in privately-owned buildings. In addition, DLIR does not have any plans to design or construct new buildings or facilities at this time. DLIR will continue to learn about energy efficiency and environmental designs. As DLIR staff gain more knowledge in energy efficiency and environmental designs, appropriate steps will be taken to incorporate these standards into DLIR standards. DLIR will work with the appropriate DAGS agencies to incorporate energy efficiency measures to reduce energy consumption.

DLNR: DLNR continues to work with DBEDT in a statewide collaboration on energy efficiency, as a member of DBEDT's Lead by Example Leadership Group. DLNR will continue to work with the Leadership Group on ideas to implement energy savings across the state. As department staff learns more about such initiatives, they will incorporate such guidelines into DLNR standards.

DLNR's facility portfolio is limited. Most of buildings owned by DLNR are composed of base yards, harbor facilities and park restrooms. DLNR incorporates energy saving concepts into all of its owned facilities as appropriate. Energy saving concepts include the use of solar water heaters, natural ventilation and lighting, use of energy efficient lights, and water savings using waterless urinals or low flush toilets. Additionally, DLNR has begun to incorporate energy savings practices into design projects such as recycling existing asphalt and concrete pavement into backfill material.

DLNR evaluates the feasibility of implementing energy conservation measures when capital improvement projects are designed. As DLNR staff learns more about energy efficiency and environmental design, they will incorporate these concepts into building and facility design and renovations.

DOA: This requirement is not applicable since the department utilizes the engineering services of the Public Works Division of DAGS and follows their guidelines and standards for designing and constructing buildings.

DOE: The Department of Education (DOE) now designs all new buildings or facilities to meet the requirements of LEED Silver. In addition, all consultants are now required to have a LEED Accredited Professional on the project team. 'Ewa Makai Middle School, scheduled to begin construction in early 2009, will be the first DOE new school where the entire campus will be designed to meet LEED Silver certification. DOE is also designing Wailuku Elementary II and Kihei High School to comply with LEED Silver standards. Single facility projects which are being designed to LEED standards include a new gymnasium for Pāhoa High, a new classroom building at Na'alehu, a new cafeteria for Lahainaluna High, a new classroom building for Campbell High and a new administration building for Kalāheo Elementary. Although not specifically covered by Act 96, DOE is moving toward applying the requirements for LEED for existing buildings for all major renovation and upgrade projects.

DOH: The Department of Accounting and General Services handles all capital improvement projects for the Department of Health. DOH coordinates its own small projects such as office renovations and minor improvements costing less than \$50,000. The department does not have any plans for the

construction of new buildings, however, it will design and construct for LEED Certification should funding become available.

**DOT-Airports:** The Airports Division has been designing and constructing buildings and facilities with energy efficient technology for over 12 years. The Honolulu International Airport Modernization Program will incorporate sustainability goals and LEED guidelines for their projects. The new maintenance projects will implement commissioning and apply energy saving designs throughout the system. Airfield taxiway lighting system and guidance signs replacement projects have annual kWh reductions of 600,000. DOT-Air received HECO rebates of \$33,000. The division is committed to design and construct buildings and facilities with energy efficiency technology and LEED standard for the Statewide Airport System.

**DOT-Harbors:** The division will: train staff on LEED methodology; require design consultants and construction contractors to be knowledgeable of and able to comply with Act 96 SLH 2006; ensure that all designs for new construction meet LEED Silver certification; and develop program milestones to encourage 100% implementation over a period of time.

**DOT-Highways:** The division will require design consultants to comply with Act 96, SLH 2006 and ensure that all new designs meet LEED Silver certification.

**DOTAX:** Department of Taxation (DOTAX) buildings are constructed and managed by DAGS.

**FTZ:** Not applicable; FTZ does not design or construct buildings.

**HCDA:** HCDA does not have plans to construct any buildings.

**HHFDC:** The HHFDC Asset Management staff attended a webinar concerning actions that could be taken towards gaining LEED Certification on older buildings, conducted by IREM. The plan is attend as many training webinars and seminars as possible to bring our asset properties to the highest level of efficiency and compliance.

**HHSC:** For all new construction, Hawai'i Health Systems Corporation will assess the cost of LEED building criteria. If the cost for LEED design exceeds the budget of the project, then the project will incorporate as many energy conservation measures as possible. For long range planning, HHSC will try to include LEED design costs whenever possible.

**HSPLS:** The Hawai'i State Public Library System (HSPLS) has been working directly with DAGS on the new North Kohala and Mānoa Public Libraries. These new projects are trying for a LEED Silver rating. The construction contract for the new North Kohala Public Library went out to bid and was awarded to Iseimoto Contracting Co., Ltd. for \$6,895,900. Construction is set to start in September 2008 and completed in late 2009. The construction contract for the new Mānoa Public Library went out to bid and was awarded to Allied Pacific Builders, Inc. This project is anticipated to start in November 2008 and be completed in mid 2010.

**HTA-CC:** HTA has no plans to design or construct any buildings at this time.

**NELHA:** NELHA is home to the Gateway Center, only one of eight LEED Platinum-rated buildings. This building has been the recipient of numerous international and national awards for its "greenness." Study groups from around the world are visiting it to gain knowledge and understanding of how they can implement green technologies as exemplified by this building into their designs. As yet, no Hawaiian groups come to see or visit for the same purpose except for a few very small ones led by the original architects. NELHA has not built any buildings since Gateway. NELHA is in continuing discussions with private investors to build a LEED Platinum office structure at the Gateway.

**PSD:** In collaboration with DAGS-Division of Public Works, PSD is directing the consulting architects and engineers selected for the Maui CCC Relocation to Pu'unene project (DAGS Job No. 15-27-5562) to prepare construction bidding documents based upon LEED Silver or better. Consultants selected have advised PSD and DAGS that members of their staff who are LEED accredited will be assigned in various capacities to this project. Additionally, for projects to develop PSD regional complexes on O'ahu and Kaua'i as well as new transitional housing, PSD is directing planning consultants to set the basis of design at LEED Silver or better.

**UH:** Systemwide, the University of Hawai'i will continue to apply the LEED rating system in all Capital Improvement Program new and major renovation projects. Sustainability guidelines are being included in the development for all campus long range development plans and project development reports. In general, the goal is for LEED Silver rating certification and, if the goal cannot be attained due to budget constraints, other sustainable design principles will be incorporated into the new or major renovation projects. The status of current projects is:

- UH Mānoa – School of Medicine has been completed; LEED Certification is pending U.S. Green Building Council (USGBC) approval.
- UH Mānoa – Frear Resident Housing has been completed; LEED Silver is pending USGBC approval.
- UH Mānoa – Kennedy Performance Arts Facilities currently under design with goal of LEED Silver.
- UH Mānoa – Campus Center Renovation and Addition currently under planning with goal of LEED Silver.
- UH Mānoa – Gartley Hall Renovation currently under design with goal of LEED Silver.
- UH Mānoa – New Classroom Building currently under planning with goal of LEED Silver.
- UH Mānoa – Pacific Regional Biosafety Laboratory funded for design and construction with a goal of LEED Silver.
- UH Mānoa – Edmondson Hall Renovation funded for design with goal of LEED Silver.
- UH West O‘ahu – New campus development in Kapolei currently under design and registered as a LEED project with the USGBC with goal of LEED Silver.
- UH Hilo – Student Life Center has been completed; LEED Gold pending USGBC approval.
- UH Hilo – Hawaiian Language Building currently under design with goal of LEED Silver.
- UH Hilo – Sciences and Technology building designed and currently under construction with goal of LEED Silver.
- UH Hilo – Student Services Building Addition and Renovation currently under design with goal of LEED Silver.
- Maui CC – Science Facility currently under design with goal of LEED Silver.
- Kapi‘olani CC – Culinary Institute of the Pacific facilities at the former Cannon Club site along Diamond Head currently under design with the goal of LEED Silver.
- Leeward CC – Education and Innovation Instructional Facility currently under planning and design with goal of LEED Silver.
- Windward CC – Library and Learning Center facility currently under design with goal of LEED Silver.
- Honolulu CC – Advanced Technology Training Center funded for design with a goal of LEED Silver.
- Systemwide – Information Technology Center currently under design with goal of LEED Silver.

## **Act 96 SLH 2006: Buildings and Facilities**

- (2) Incorporate energy-efficiency measures to prevent heat gain in residential facilities up to three stories in height to provide R-19 or equivalent on roofs, R-11 or equivalent in walls, and high-performance windows to minimize heat gain and, if air conditioned, minimize cool air loss. R-value is the constant time rate resistance to heat flow through a unit area of a body induced by a unit temperature difference between the surfaces. R-values measure the thermal resistance of building envelope components such as roof and walls. The higher the R-value, the greater the resistance to heat flow. Where possible, buildings shall be oriented to maximize natural ventilation and day-lighting without heat gain and to optimize solar for water heating. This provision shall apply to new residential facilities built using any portion of state funds or located on state lands;

AG: Not applicable; DAGS handles this.

B&F: Not applicable. The department does not oversee the design, construction or maintenance of building facilities.

DAGS: The PWD very rarely will be involved in residential facilities; however, energy-efficiency measures to prevent heat gain can apply to any facility. These measures are already taken into design consideration. One of the rare housing projects that is currently being accomplished by the PWD is the Leeward Homeless Shelters, Villages of Mā'ili transitional housing. Solar water heaters are being installed and will produce hot water for 80 units and laundry facilities. This work is being accomplished under the Governor's Emergency Proclamation to address the homeless situation on the Leeward Coast. The strategy for PWD on these measures is finding ways to improve, starting just simply by being more aware of these energy-efficiency measures, doing better review of designs, and considering new products and technologies.

DBEDT: DBEDT coordinated the May 2008 Build & Buy Green Conference & Expo at the Hawai'i Convention Center which was attended by about 500 people, including many from state agencies. The topics of R-19 insulation, radiant barriers, orientation, natural lighting, and natural ventilation were discussed at length.

DBEDT staff met with DHHL to incorporate Hawai'i BuiltGreen™ requirements into DHHL's request for proposals for new housing developments on O'ahu and other islands that include the above provisions for new residences.

DBEDT provided DOE with the results of a pilot project, in which DBEDT participated, which tested different passive cooling strategies at Waipahu High School. DOE will consider the least costly of the alternatives—painting the roofs and walls of portable classrooms with heat-reflective coatings. This strategy should lower interior temperatures by as much as 10 degrees, either eliminating or alleviating the need for air conditioning.

DCCA: DCCA buildings are maintained by DAGS.

DHHL: DHHL will continue to promote, design and build new affordable homes using the Hawai'i BuiltGreen™ and Energy Star® programs to ensure the designing and building of new energy and resource efficient homes in Hawai'i.

DHRD: Not applicable. The department does not own or operate residential facilities.

DHS: As applicable, DHS will continue to coordinate these activities with DAGS to effect energy efficient measures.

DLIR: DLIR does not manage, own, or construct residential facilities or buildings. All facilities occupied by DLIR are constructed and managed by DAGS or in private building leases promulgated by DAGS Leasing Branch. DLIR will work with DAGS to incorporate energy efficient measures into building facilities occupied by DLIR.

DLNR: DLNR does not have any residential facilities in its building inventory.

DOA: Not applicable since the department does not have any residential facilities.

DOE: DOE designs all roofs on new facilities to meet the R-19 or equivalent insulation standard. DOE also installs additional insulation when re-roofing older roofs to meet the R-19 standard or equivalent insulation standard where feasible. New schools are planned to meet LEED Silver requirements which should incorporate the use of insulation, orientation of buildings to maximize natural ventilation, use of daylighting, and possible implementation of solar water heating. DOE designs all new facilities to meet the R-11 or equivalent insulation standard but does not retrofit walls of existing buildings.

Schools being retrofitted for large air conditioning systems for multiple classrooms will be retrofitted with insulation and energy efficient windows to minimize heat gain and cool air loss where feasible. In addition, DOE has begun a number of pilot projects to look into the feasibility of various heat abatement strategies other than air conditioning. These include a heat abatement pilot at Kahuku High that looks at various options to cool portable classrooms, and a pilot involving possible heat abatement strategies at 'Ewa Beach Elementary.

DOH: Not applicable. The Department has no residential facilities except for historic homes at Kalaupapa Settlement. These buildings are being restored to their original condition by the National Park Service.

DOT-Airports: Not applicable at this time. DOT-Airports will apply this requirement if the division builds or funds any new construction or renovation to residential facilities. The Noise Attenuation Project in Hilo where homes are partially renovated has installed R-12.25 wall insulation and R-12.25 with R-38.4 attic insulation. The R value provided high heat resistance and sound insulation per requirements of FAA regulations.

DOT-Harbors: Not applicable to Harbors. Residential facilities are not within Harbors' scope of responsibilities.

DOT-Highways: Not applicable to the Highways Division.

DOTAX: DOTAX buildings are constructed and managed by DAGS.

FTZ: Not applicable; FTZ does not manage any residential facilities.

HCDA: HCDA has not constructed any residential buildings under three stories.

HHFDC: HHFDC has three high rise buildings: One building is completing major renovations and one more building is scheduled for major renovation to start in August 2008. Whenever possible and architecturally and economically feasible, the R-value is being checked and increased. When not renewing the entire membrane roof material, a seal coating with a more reflective color is being applied. HHFDC has six two-story complexes that are being surveyed for proper attic insulation and ventilation. As appropriate, the result will be addressed.

HHSC: When any renovations to existing residential facilities are planned, HHSC will incorporate energy efficiency measures to prevent heat gain whenever possible.

HSPLS: Not applicable; HSPLS has no residential facilities.

HTA-CC: HTA has not constructed, nor does it intend to construct any residential buildings under three stories.

NELHA: NELHA does not have any residential assets. NELHA is prohibited from having residential structures on its lands.

PSD: PSD obtained a \$500,000 G. O. Bond authorization (7/1/2007) from the 2007 Legislative Session for energy efficiency projects. It intends to conduct an energy efficiency assessment of all PSD facilities owned or leased by the department statewide. The DAGS/PSD consultant selection committee has recently recommended selecting InSynergy, Inc. to perform the aforementioned energy efficiencies assessments. Upon receipt of the planning "Notice-to-Proceed" (expected by 1/1/2009), the consultant will be tasked with completion of the assessments within 4 to 6 months. The majority of the subsequent efforts will be retrocommissioning. The initial assessment will provide retrocommissioning projects' scope[s] of work, estimate of probable costs, duration to complete retrofitting and project priority.

UH: UH Mānoa – Existing resident halls are not air conditioned. The new Frear Resident Housing recently completed includes air conditioning with individual unit controls to minimize energy consumption; building designed with long walls facing north and south, walls insulated, specified insulated glazing with low-e coating to minimize heat gain, and specified operable windows to minimize use of air conditioning. UH Hilo – Existing resident halls are not air conditioned. Maui CC – Existing resident halls are not air conditioned.

Systemwide, the University of Hawai'i will continue to apply the LEED rating system in all Capital Improvement Program new and major renovation projects. The design principles for energy-efficiency measures to prevent heat gain will be incorporated into the building to the extent possible.



## Act 96 SLH 2006: Buildings and Facilities

- (3) Install solar water heating systems where it is cost-effective, based on a comparative analysis to determine the cost-benefit of using a conventional water heating system or a solar water heating system. The analysis shall be based on the projected life cycle costs to purchase and operate the water heating system. If the life cycle analysis is positive, the facility shall incorporate solar water heating. If water heating entirely by solar is not cost-effective, the analysis shall evaluate the life cycle, cost-benefit of solar water heating for preheating water. If a multi-story building is centrally air conditioned, heat recovery shall be employed as the primary water heating system. Single family residential clients of the department of Hawaiian home lands and any agency or program that can take advantage of utility rebates shall be exempted from the requirements of this paragraph so they may continue to qualify for utility rebates for solar water heating;

AG: Not applicable; DAGS handles this.

B&F: Not applicable. The department does not oversee the design, construction or maintenance of building facilities.

DAGS: Typical DAGS-managed State Office Buildings do not utilize enough hot water to make installation of solar water heating systems cost-effective. The DAGS overall strategy is to continue encouraging our “clients” (other state agencies that seek technical support and assistance from DAGS) to consider using solar water heating systems in their projects, whenever feasible or advantageous to the state.

DBEDT: DBEDT coordinated the 2008 Build & Buy Green Conference & Expo at the Hawai‘i Convention Center which was attended by approximately 500 people, with many from state agencies. Solar water heating, life-cycle cost analysis, and heat recovery technologies were discussed at length.

DBEDT provided DHHL with brochures and other information on renewable energy, solar water heating, sustainable residential building design, and energy conservation at home to distribute to DHHL’s clients and to implement on DHHL projects.

DBEDT prepared a life-cycle cost benefit analysis of four water heating technologies for the County of Kaua‘i. Solar water heating achieved the least costly life cycle rating.

DCCA: Not applicable; DCCA does not use hot water.

DHHL: DHHL will continue to encourage beneficiaries to take advantage of utility rebates to install solar water heating systems. DHHL will identify efficient and conservation retrofit applications and develop a plan to assist the homesteaders to retrofit their homes (including solar water heater system, insulation/radiant barriers, low-heating systems, low-flow toilet and shower heads, Energy Star® appliances, etc).

DHRD: Not applicable. The department does not own or operate any buildings or facilities.

DHS: As applicable, DHS will continue to coordinate these activities with DAGS to maximize energy efficiency and cost effectiveness.

DLIR: DLIR does not manage, own, or construct residential facilities or buildings. All facilities occupied by DLIR are constructed and managed by DAGS or in private building leases promulgated by DAGS Leasing Branch. DLIR will work with DAGS to incorporate solar powered systems to improve the energy efficient measures in building facilities occupied by DLIR.

DLNR: DLNR’s facility portfolio is limited. Most of buildings owned by DLNR are composed of base yards, harbor facilities and park restrooms. DLNR incorporates energy saving concepts into all of its owned facilities as appropriate. Energy-saving concepts include the use of solar water heaters. DLNR evaluates the feasibility of implementing energy conservation measures such as use of solar water heaters when capital improvement projects are designed. As DLNR staff learns more about energy efficiency and solar water heating design, they will incorporate these concepts into building and facility design and renovations.

Kaho‘olawe Island Reserve Commission (KIRC): To reduce the electrical demands on Kaho‘olawe, KIRC has converted two of its four residential water heaters on Kaho‘olawe to solar power. KIRC is planning to convert the remaining water heaters and be fully solar-powered for hot water by the next fiscal year.

DOA: May not be applicable since very few HDOA facilities have a need for water heating systems, however, as part of our retro-commissioning projects we will review the cost-benefit of converting to a solar water heating system.

DOE: DOE school cafeteria kitchens use gas water heaters and boilers. This reduces the opportunities for savings by replacing existing systems with solar water heating. However, upon replacement of the existing water heating system, DOE will analyze the life cycle cost for solar water heating system.

DOH: The Department will strive to install solar water heating systems in its new buildings or retrofits. Presently, there are no plans to change any water heating systems at any of the health centers. An assessment will be done when a project of this nature is initiated to determine if the water heating system being changed can be converted to a solar system.

DOT-Airports: Not applicable at this time. DOT-Airports will apply this requirement if we build or fund any new construction or renovation to residential facilities.

DOT-Harbors: There is minimum need for hot water in the commercial harbor system. Therefore, this requirement is not applicable to the Harbors Division.

DOT-Highways: The Highways Division will perform life cycle cost analysis when replacing water heating systems. The division's Kaua'i District Office has installed an "on-demand" propane water heating system.

DOTAX: DOTAX buildings are constructed and managed by DAGS.

FTZ: Not applicable; FTZ does not have a water heating system for its facility.

HCDA: HCDA does not own any buildings where it has decision making responsibility over the heated water system.

HHFDC: Solar water heating panels are installed on one of our Big Island projects, La'ilani in the Kailua-Kona area. Presently, we are replacing units that have begun leaking. Of the 200 units available, approximately 10 % have been replaced.

Solar water heating is not an option at all properties. To maximize the efficiency that can be gained it is important that there be sufficient storage capacity for use at a later time. Replacement of already installed solar panels does not qualify for rebates. A survey will be conducted of the remaining outer island and O'ahu -based low-rise projects as to the suitability of installing solar water heating panels.

All three of HHFDC's high rise buildings have central air conditioning for the commercial tenants only. Presently, one, Pohulani Elderly, is being studied for a/c plant replacement and heat recovery is being considered.

HHSC: HHSC shall evaluate the benefit of solar water heating for their facilities whenever improvements are planned or funded.

HSPLS: Not applicable.

HTA-CC: HTA has reviewed with the Hawai'i Convention Center management its existing hot water systems to see if solar hot water could be added. Based on the limited frequency the hot water is needed and the large quantities that are needed on short notice during those periods of time, solar hot water isn't practical for their application. There would be no cost savings, only added cost.

NELHA: NELHA installed solar water heating systems many years ago. NELHA has also air conditioned all of its buildings for many years using cold deep seawater. NELHA is the world leader in implementing this strategy, which has been neglected by other agencies and private businesses in Hawai'i that prefer to use electricity for air conditioning requirements. The current estimate is that for four relatively small buildings, the use of seawater air conditioning saves \$20,000 - \$25,000 per month in electricity expense. In the past year, NELHA and the Kona International Airport have been in discussion about NELHA providing the airport with "cold" when its new enclosed terminals are opened in several years. The architects and engineers working on that project recognize the tremendous cost savings that can be garnered through use of this strategy.

PSD: With the collaboration of DAGS-Division of Public Works, the department intends to "piggyback" onto DAGS' Lead by Example projects, such as retrocommissioning and retrofitting. As mentioned earlier and throughout this FY 2008 PSD report, the department intends to survey all PSD facilities statewide, owned and/or leased, to identify opportunities that shall yield energy savings, optimize the usage of sustainable materials and replace/upgrade operating systems that result in measurable savings as called for in Act 96.

As mentioned in §2 above, a planning consultant has been selected. PSD anticipates needs assessment actions should be underway by January 2009 and retro-commissioning actions

commencing between 1<sup>st</sup> and 2<sup>nd</sup> quarter of FY 2010. Projects will be implemented via a prioritized matrix to be developed by InSynergy.

PSD and DAGS, as expending agency, are striving to pursue the assessment actions on an expedited tract; however, PSD believes that the care with which the initial assessment actions are done will ultimately lead to “streamlining” all subsequent implementation actions that follow.

UH: UH Mānoa – Frear Resident Hall completed with a hot water system utilizing a heat recovery system. UH Hilo – The Student Life Center completed with a heat pump system for hot water heating. CC – No new installation of hot water system. Systemwide, the University of Hawai‘i will continue to apply the LEED rating system in all Capital Improvement Program new and major renovation projects. The design principles for solar water heating systems where it is cost effective will be incorporated into the building to the extent possible.

## Act 96 SLH 2006: Buildings and Facilities

### (4) Implement water and energy efficiency practices in operations to reduce waste and increase conservation;

AG: All departmental staff have been provided tips on energy efficient practices and information on the benefits of energy efficiency. With the assistance of DAGS, signs have been posted to remind staff to turn off computers, lights, and other equipment when exiting. Water leaks are to be reported to the Administrative Services Office immediately, including sprinkler systems and outdoor faucets.

B&F: The department encourages employees to initiate and implement energy efficient practices (i.e. turning off office lights when not in use or when leaving for the day, turning off computer terminals at the end of the day, distributing Energy Star® saving tips, etc.). The department stresses the importance of energy saving efforts initiated by DAGS.

DAGS: As funding has become available, the department has initiated various energy conservation/efficiency projects for DAGS facilities statewide. The projects are in various stages of design and construction. These projects include: the replacement of aging air conditioning and elevator equipment; retrofitting with energy efficient electronic ballasts and super T-8 lamps; the installation of light sensor switches; and the installation of protective tinting on building windows to reduce heat gain.

A major pilot project that was initiated in FY 2008 is the Central Services Division Photovoltaic (PV) System. A Request for Proposals was solicited to provide PV/solar power via a Power Purchase Agreement (PPA). The power provider, through a PPA, would design, install, operate, maintain and sell power to the state at a rate that is anticipated to be lower than the HECO rate and the PV system would also reduce the consumption of energy generated by fossil fuels. Proposals were received and we are currently under negotiations.

The landscape irrigation system at the Kalanimoku Building has been replaced with a system that incorporates rain sensors and a sub-meter as water conservation measures.

During fiscal year '08, eleven pilot retrocommissioning projects have been initiated on O'ahu, Hawai'i, Maui and Kaua'i to develop strategies that would result in energy savings. Some projects have completed the investigation phases and implemented minor repairs. Other recommended work will need to be included in future CIP budget requests.

In addition to DAGS facilities, DAGS Central Services Division and PWD has worked with the Hawai'i State Public Library System (HSPLS) in implementing energy efficiency practices. Projects being accomplished by DAGS for the HSPLS include retrofitting with energy efficient electronic ballast and super T-8 lamps. In FY 2008, twelve libraries throughout the state were bid out for the retrofits and/or accomplished by DAGS in-house crews. DAGS currently has 21 library lighting retrofit projects under design in which are expected to be bid and constructed in FY 2009.

DAGS, on behalf of the HSPLS, also plans to implement retrocommissioning on all libraries statewide during FY 2009 subject to available funding. Qualifications from interested retrocommissioning consultants have been solicited and are currently pending selection for the various projects.

Other departmental initiatives to save water and electricity include:

- The Kakuhihewa Building in Kapolei uses non potable water for landscape irrigation.
- Low-flow plumbing fixtures are specified for new construction and renovation projects. Existing fixtures are being replaced with low-flow fixtures as replacement is required. Some ultra-low flow urinals (one pint per flush) have been installed to examine how well they work and future installations will be completed as funding becomes available.
- Sensor-type flush valves and faucets have been installed and future installations will be completed as funding becomes available.
- DAGS has recently completed a project to install a non-chemical filter system for the A/C System at the State Capitol Building. This is be the first of this type of system installed at a DAGS managed facility and should decrease domestic water usage and also provides the option of using the water for other non-potable ways.

DBEDT: DBEDT coordinated the 2008 Build & Buy Green Conference & Expo at the Hawai'i Convention Center, attended by many from state agencies. Water and energy efficiency practices were discussed at

length as a means of achieving LEED Silver and Hawai'i BuiltGreen™ 3-Star Level. Hawai'i BuiltGreen™ is a program of the Hawai'i Building Industry Association, a non-profit trade organization representing building developers, builders, suppliers and associates.

DBEDT developed documents, spreadsheets and other material to assist DAGS and other agencies with prioritizing energy conservation measures related to the building envelope, air conditioning, lighting, motors and other energy systems.

DBEDT staff are on the Building Owners and Managers Association of Hawai'i (BOMA) Energy Committee and participated in BOMA's Sustainability Week and Sustainability Summit in May 2008. DBEDT staff also developed a Green Office and Retail Checklist and Greening Tips for State of Hawai'i and private sector entities to promote and to implement water and energy efficiency practices to increase conservation and reduce waste.

DBEDT continued to meet with the Board of Water Supply (BWS) on water-saving technologies that might be used in BWS' on-going water efficiency program.

DBEDT convened the Lead By Example initiative's Leadership Working Group to brief over 20 agency and departmental managers about energy and resource efficiency topics.

DBEDT, with assistance of a consultant, EnviroSpec/Green Purchasing Institute, initiated a Green Cleaning Products pilot testing program for selected K-12 schools and the University of Hawai'i with the goal of expanding use throughout state facilities. One benefit of green cleaning products includes using concentrated products which require less energy to transport, and which use less water. Green cleaning products which are made of environmentally preferable materials sometimes require less water rinsing due to their reduced toxicity.

DCCA: Continued the practice of using water saving fixtures throughout the building. The building has a lighting system that utilizes motion sensors. All exterior bulbs have been replaced with compact fluorescents. DCCA has reviewed cost and consumption data for air conditioning usage and will implement a plan to reduce the air conditioning consumption where appropriate. The department implemented a schedule whereby the landscape is watered during the evening hours and only for 10 minutes. DCCA distributed a memorandum from DAGS outlining conservation actions. The department also solicited additional suggestions for conservation from staff; upon completion of review, DCCA will implement measures that are feasible.

DHHL: As indicated in item #3, above, every effort will be made to comply with the water and energy efficiency practices in operations to reduce waste and increase conservation.

DHRD: The department encourages all employees to implement energy conservation practices. Examples include turning off the lights in the restrooms and hallways at the end of the day; turning off copier machines and computers rather than leaving the equipment on sleep mode; using the stairs; and turning off office lights when going to meetings. In May, DAGS implemented the following energy reduction initiatives for the Leiopapa A Kamehameha building, which this department occupies: (a) adjusted the starting time for the building air conditioning system so that it turns on an hour later, and (b) conducted preliminary assessments for a retrocommissioning project.

DHS: DHS continues to issue water and energy conservation procedures for buildings and offices, in coordination with procedures issued by DAGS.

DLIR: An assessment of electricity usage was completed for nine of the DLIR offices that are not maintained by DAGS Central Services. The assessment of the nine offices covered the period July 1, 2005 through June 30, 2008. Based on the review, nine offices utilized a total of 905,325 kilowatt hours resulting in a total cost of \$270,521.52. Based on the energy usage, DLIR will work with DAGS to insure that best energy saving practices are incorporated into reminder memoranda as required to address energy conservation. DLIR will also work with DAGS to incorporate some of the following energy saving measures:

- Replace old toilets and sinks with low flow fixtures (toilets and sinks),
- Replace old lighting fixtures,
- Request that DAGS Leasing Branch conduct energy efficiency analyses in privately-leased buildings and work with landlords to replace old toilets, sinks, air conditioners, and lights.

DLNR: The department installs low-flow fixtures (toilets and sink faucets) to replace older fixtures, which use more water, as department facilities are renovated. Additionally, some remote restrooms use composting toilets, which require very little water. The department has installed waterless urinals in some boat harbor improvements. Additionally, the Commission on Water Resource Management (CWRM) recently received a donation of low-flush toilets from the Board of Water Supply. CWRM

provided this donation to DLNR Engineering Division to replace any damaged units which will allow DLNR facilities to continue to increase water efficiency.

Staff are reminded to turn off equipment when not in use, keep blinds closed, and report equipment malfunctions. Energy efficient light bulbs are used where feasible and timed sensors have been installed to allow automatic shutoff of lights. Additionally, natural ventilation and lighting are used in most comfort stations. When purchasing new equipment the department tries to purchase energy efficient machines when available, such as energy efficient copiers, etc. The department also tries to remind staff to turn off computers and other appliances that are not in use, or at the end of the day.

**Kaho‘olawe Island Reserve Commission (KIRC):** KIRC is planning to implement an energy conservation demonstration project by remodeling one of its six berthing facilities to reduce energy consumption. Through improved ventilation and innovative design features, KIRC hopes to improve the building’s natural air circulation, improve shielding from the hot, desert-like conditions of Kaho‘olawe thus reducing cooling cost significantly. If this project is successful, plans will then be developed to convert all remaining berthing facilities to this new design and significantly reduce energy requirements and cost.

Kaho‘olawe presents a unique opportunity for alternatives to reduce energy consumption due in part to the island’s small population and isolation. Additionally, because of the island’s unique status as a cultural and environmental preserve, the use of alternative water systems and energy resources is believed to be most appropriate and necessary. As part of KIRC’s mandated requirements under HRS 6-K, the restoration program brings 15 to 20 volunteers, adults and students, to the island on Mondays to assist in planting native plants as part of the restoration program. The students normally leave Kaho‘olawe on Thursday afternoon. To achieve the conservation of water and energy, KIRC recaptures all the water from the shower facilities. The Reverse Osmosis system produces about 1,500 gallons per day of fresh water, which is more than adequate for the demand.

There are no harbor facilities on Kaho‘olawe, in the past the majority of equipment, personnel and supplies have been transported by helicopter. Recently, KIRC has obtained and is operating a 40-foot landing craft that is now transporting the majority of its personnel, equipment and materials. KIRC has significantly reduced fossil fuel usage by shifting to ocean transport versus helicopter.

Additionally, the 11-acre base camp on Kaho‘olawe is not connected to the utility grid and operates with diesel generators. One of the steps recently taken was to install a more energy-efficient generator, which reduced diesel usage from 150 gallons per day to 75 gallons per day. As further energy savings projects are implemented, the energy requirements on Kaho‘olawe will decrease, at which time KIRC is planning to replace the current diesel generator with an even smaller unit that will further reduce diesel fuel usage.

DOA: DOA continued to identify energy efficiency projects and related costs. The department delegated \$80,000 in general obligation bond funds to DAGS to initiate retrocommissioning study of departmental facilities. Budget requests for funding to implement specific energy efficiency projects for FY09 were submitted. The legislature appropriated \$50,000 in general obligation bond funds in FY09 in the capital improvements project budget for one energy efficiency project.

The department continued to retrieve information electronically on gas consumption and odometer readings from DAGS Automotive Management Division, Tesoro and Hawai‘i Petroleum. DOA continues to use a vehicle refueling log for programs that have vehicles which refuel at places other than DAGS, Tesoro and Hawai‘i Petroleum. DOA continued to retrieve information electronically on gas consumption and odometer readings for each vehicle from DAGS Automotive Management Division, Tesoro and Hawai‘i Petroleum.

DOA monitored and compiled kWh consumption data and cost for electricity for FY08. The department distributed DAGS’ memo requesting employees to conserve energy and to report any water waste from open faucets, leaky plumbing fixtures, and broken and/or inefficiently run irrigation systems. DOA developed a spreadsheet to compare FY08 data to FY05, FY06, and FY07 on electricity kWh consumption and percentage increase/decrease from previous year, and distributed it to program managers for their review and information.

DOE: DOE has developed an internal system that enables the comprehensive managing of all utilities – electricity, water, sewage disposal, and gas – for all schools through a central office. As of March 1, 2007, the payment for all utilities was centralized into one office. The department is now able to

monitor utility use by schools, specifically identifying schools with higher than anticipated consumption.

DOE implemented a school energy conservation program on July 1, 2007. DOE has calculated the “unadjusted” allocation of kilowatt hours (kWh) for all schools using the average electricity consumption in the 36 months through June 2006 as a base. Beginning this school year, schools that reduce their consumption below the allocated amount will receive half the value of the savings; schools that fail to reduce their consumption below the allocated amount will be charged for half the value of the kWh used above the allocated amount. The state office will bear the risk of increases (and benefit from any reductions) in electricity rates. We will reconcile the school kWh usage against the allocation twice a year, in January for the preceding July through December, and in July for the preceding January through June. Schools earning a rebate will receive those funds via an allocation from the electricity funds and will be able to use those funds at their discretion. Schools requiring a charge back will receive a bill for collection from the Auxiliary Services Branch.

Immediate steps for conservation programs continue and are listed as follows:

- Continue with implementation of LEED Silver for new and major construction projects. Training for LEED New Construction has been completed by key DOE personnel. Supplemental training is required on “LEED for Schools” guidelines just recently released by US Green Building Council.
- Continue with installation of low-flow bathroom fixtures whenever fixtures require replacement.
- All incandescent lamps are being replaced with compact fluorescent lamps (CFL).
- A study for measuring the effectiveness of motion (occupancy) detectors for controlling classroom lighting has been completed. Future Energy Service Company (ESCO) work will include motion/occupancy detection switches for classroom lighting.
- Life Cycle Costs Analysis (LCCA) will be performed on school equipment and operations.
- LCCA results will be used to determine product selection for ESCO, Performance Contracting, Municipal Leasing, and/or Purchase Power Agreement activities.
- Continue meetings with vendors seeking new energy conserving technologies. Continuation with pilot (test) studies of new promising technologies.
- Establishment of an Energy and Water Conservation “Steering Committee” or “Task Force” within the School Facilities and Support Services to expedite and streamline multiple conservation activities between branches and within the DOE as a whole.
- Open discussion with the Board of Water Supply to seek innovation water conservation concepts, projects, and/or studies such as Irrigation Management Control System, plant species, drip irrigation, and captured rainwater.
- Install an electrical submeter all new facilities.

Immediate steps for school conservation are listed below:

Electricity:

- Set air conditioning so that the room temperature is 76 degrees.
- Do not turn on any air conditioning until 7:00 a.m. or (if the air conditioning unit is turned on and off manually) until the room temperature reaches 74 degrees, which ever comes later, and turn off all air conditioning no later than 4:30 p.m.
- Use timers to turn off 75 percent of night lights between the hours of 10:00 p.m. and 6:00 a.m.
- By June 15, 2009, replace all appliances (refrigerators, microwave ovens, toasters, coffee makers, rice cookers, etc.) in classrooms and offices with Energy Star®-rated appliances. Personal appliances should be limited to no more than one of each on each floor of a building. All other personal appliances shall be removed by December 31, 2008.
- Purchase or lease only Energy Star®-rated computers, copiers, printers, and servers.
- Turn off computers, printers, and copiers at the end of the day.

Water:

- All schools and offices shall cut back on water usage by at least 10 percent. Water lawns early in the morning or late in the afternoon or evening.
- Timers on automatic sprinklers should be adjusted to water the lawns on Sundays, Tuesdays, and Thursdays, either before 9:00 a.m. or after 5:00 p.m.

- Manually water lawns on Mondays, Wednesdays, and Fridays, either before 9:00 a.m. or after 5:00 p.m.
- Car wash fundraisers should be curtailed.
- Flooding water beds or shooting down lanai areas is highly discouraged.

DOH: The department encourages its employees to be energy efficient. Employees have been advised to conserve energy thru routine emails and signs posted in the building. There is music playing in the stairwells to encourage employees to use the stairs to conserve energy and improve their health.

DOT-Airports: The Airports Division must try to minimize water usage, but must also be mindful of the time constraints on passengers. The airport is exempt from rules on low-flush toilets to accommodate high use and passenger time restrictions, but implements sensors for toilet flushing and sink use to keep from wasting water. The Airports Division utilizes R-1 water where possible and non-potable water for landscape irrigation. As an example, Kona International Airport at Keāhole uses the effluent from their Wastewater Treatment Plant for irrigation, while Honolulu International Airport uses non-potable water from the Sumida Watercress Farm for irrigation. At Honolulu International Airport and Dillingham Airfield, the Airport has a contract with an outside firm to provide monitoring of the water system so leaks can be found and repaired quickly to keep from wasting water. Meters are also read and checked against prior usage to see if there is a spike in water usage, which may indicate a problem.

The airports must also try to conserve energy usage, but must also be mindful of the comfort level of the passengers and workers. At Honolulu International Airport, there is an Energy Monitoring and Control System to turn off lights in areas that are not in use and reduce or eliminate air conditioning in these same areas. Current projects at Honolulu International Airport include the elimination of older, less efficient chillers with new chillers and a chilled water loop system which will enable chillers to be shut down during low utilization periods and to operate on fewer chillers, but at a higher efficiency. At Kona International Airport at Keāhole, plans are continuing for the use of cold “deep sea” water for chilled water for cooling enclosed areas, and installing a new parking deck covered with photovoltaic cells to provide the airport with its current energy needs.

DOT-Harbors: Water efficiency:

- Install, where practical, low flow toilets, low flow shower heads, and faucet aerators.
- Install timers or require staff to conduct irrigation and watering of plants during early morning or evenings to reduce water lost to evaporation.
- Develop program milestones to encourage 100% implementation over a period of time.

Energy efficiency:

- Install timers onto HVAC and/or motion detectors onto lighting systems and other equipment as appropriate.
- Install tinting to windows and glass doors as appropriate.
- Monitor lighting levels and use natural window/skylight lighting if sufficient.
- Turn off lights in room not in use.
- Installed a more energy efficient a/c unit for the Harbors Division Administration building.
- Develop program milestones to encourage reduction of energy consumption over a period of time.

DOT-Highways: Water Efficiency –Design new xeriscape landscaping where possible. Energy Efficiency –The Highways Division continues to install energy efficient traffic signal lamps in new installations or when traffic signals are modified, and has programmed the replacement of computer equipment with Energy Star® compliant equipment.

DOTAX: DOTAX buildings are constructed and managed by DAGS.

FTZ: FTZ had two forty-ton chiller units installed about five years ago and one fifty-ton chiller unit installed two years ago. The chiller units were purchased and installed based on a 2001 Energy Feasibility Study of the Foreign-Trade Zone No. 9 prepared by Global Engineering & Construction, LLC. Approximately 40 new individual air conditioning units with high efficiency motors were purchased and installed last year, also based on the 2001 study. FTZ uses T8 fluorescent lights in its administrative and tenants’ offices.

FTZ had Mr. Howard Wiig, an Institutional Energy Analyst from DBEDT’s Strategic Industries Division brief FTZ staff on energy efficiency, specifically in the areas of lighting and HVAC. As



result, FTZ completed a photometric survey before installing a new perimeter lighting system. This eliminated five 400W metal halide fixtures which will provide substantial savings.

FTZ had a lighting specialist, Sterling Nakano, discuss with staff the options for replacing the incandescent light bulbs in the warehouse with energy efficient CFL bulbs. FTZ is taking steps to replace the 300W bulbs with much more energy efficient CFL bulbs. This project should be completed by the end of 2008.

HCDA: HCDA has installed moisture sensors on irrigation system in Kaka'ako Waterfront and Kaka'ako Makai Gateway Parks and contracted for Kewalo Basin Park to conserve water.

HHFDC: All property managers have been notified of water restriction hours and the number of days that green belt areas can be watered. This process is monitored with the use of Board of Water monthly figures. Each spike up or down is accounted for. Additionally, all properties are being inventoried for the need and installation of sub-meters. This should eliminate paying for run-off water that goes into the ground and down the storm drains and not back to the treatment plants.

HHSC: HHSC facilities are replacing existing water closets with low-flush water closets whenever possible. HHSC is also considering installation of non-chemical water treatment devices on the cooling towers to help reduce water usage.

HSPLS: HSPLS has replaced the aging air conditioning systems at Mililani and Salt Lake-Moanalua Public Libraries to improve operating and energy efficiency in FY08. HSPLS has executed contracts through DAGS to retrofit lighting fixtures at all 51 public libraries, statewide. These fixtures are being replaced with energy efficient electronic ballasts and super T-8 lamps.

HTA-CC: Water conservation practices continue to be in place at the Hawai'i Convention Center. HTA continues to look into other methods including rain catchment. Additionally, new super T-8 retrofits and replacement bulb and ballast packages have been installed in the exhibition halls, ballroom, administrative areas and the fire stairwells.

NELHA: NELHA uses seawater air conditioning wherever practicable, even in pump station control rooms. The cost of installing such equipment, most of which is built in NELHA's own shops, is negligible compared to the savings it can generate. NELHA uses timed irrigation systems, produces much of its own drinking water, and turns off lights when nobody is in a room. Computers are shut down when not in active use. In some areas, seawater instead of potable water is used to irrigate grass areas.

To the extent practicable, NELHA uses a flexible work week schedule – 4x10's for the water quality control laboratory and a similar schedule for CEROS employees. This has greatly reduced employee fatigue and helped to generate energy savings in terms of motor vehicle fuel for the island. NELHA would definitely be capable of introducing even more flexible hours for approximately one-half of the staff.

NELHA's average monthly HELCO electrical bill is about \$138,000. The only items in that bill over which NELHA has control are lights, computers, and a/c in its own buildings. All other electricity is used to pump and distribute seawater to the commercial tenants at NELHA, and NELHA has no control over their usage, which results in demand charges since use of water is unrestricted. NELHA can influence only about \$20,000 per month of the total energy consumption at the facility. The practices NELHA instituted years ago and still follows include: turning off bathroom lights when the room is not in use, turning off office lights during the lunch hour and whenever outside light is adequate, turning off computers when not in use, operating the Gateway buildings without inside lighting and relying on ambient outside light to the greatest possible extent.

PSD: PSD will collaborate with DAGS-Division of Public Works to contract for the retrocommissioning of Public Safety facilities, statewide. This is a process to verify whether or not the building environment is operating properly and where "sick" buildings are discovered, it is the process of providing fixes for them to create a better environment. Additionally, the department will request DAGS to scope opportunities for retrofitting various systems, such as lighting, to reduce the levels of energy consumption. Finally, as funding allows, a survey will be conducted to evaluate energy savings opportunities and strategies to implement same via widely used alternative financing strategies.

UH: Systemwide – Energy and water-efficient retrofits in routine renovations are applied where feasible. Windward CC – sub-metering all buildings, air conditioning, and irrigation to obtain lower operating costs. Kapi'olani, Leeward, and Honolulu CCs – planning sub-metering of air conditioning and irrigation units to obtain lower operating costs. Maui CC – new renovated Student Center Building includes waterless urinals. Waterless urinals are being incorporated into the design of the Nursing Portables and new Science Building projects.

Systemwide, the University of Hawai'i will continue to implement water conservation and energy efficiency practices in operations through its repairs and maintenance programs.

## Act 96 SLH 2006: Buildings and Facilities

- (5) Incorporate principles of waste minimization and pollution prevention, such as reducing, revising, and recycling as a standard operating practice in programs, including programs for waste management in construction and demolition projects and office paper and packaging recycling programs;

AG: All purchasing staff have been advised to first consider recycled materials, especially paper, when reviewing and processing purchase requisitions. AG offices continue to utilize the recycle bins in the copier rooms and within each division boxes are provided for recycling paper. Staff have also been trained to save and transmit documents electronically, whenever possible.

B&F: The department participates in an office paper recycling program whenever possible.

DAGS: Recycling programs for office paper and cardboard for 13 major state office buildings serviced by the department are in place. An informal program for recycling aluminum cans, glass and plastic bottles exists in each facility. These items are usually recycled by the custodial staff and/or building occupants. Also, reverse vending machines have been installed at the State Capitol by Reynolds Recycling as a pilot project. These machines allow individuals to redeem aluminum cans, glass and plastic bottles for cash. During this fiscal year, the recycling effort will be expanded to include the recycling of discarded computers, office equipment and furniture.

DBEDT: DBEDT coordinated the 2008 Build & Buy Green Conference & Expo at the Hawai'i Convention Center, attended by many from state agencies. Build It LEED from the Cascadia USGBC Chapter was presented during one of the breakout session tracks on Construction, and demolition waste management and pollution prevention practices were discussed at length as a means of achieving LEED Silver and Hawai'i BuiltGreen™ 3-Star Level.

GBS has met with and provided technical assistance to DAGS on model Construction Waste Management Specifications for use on State of Hawai'i projects.

DBEDT's agreement with Envirospec supported a green cleaning pilot project with State of Hawai'i agencies. Using green cleaning products reduces the volume of toxic chemicals entering the wastewater stream as well as the amount of volatile organic compounds and other toxic chemicals that may be released during the cleaning process. Green cleaning products are often packaged in easy-to-recycle and re-use containers. The pilot sites for this project were coordinated and selected with the Department of Education and the University of Hawai'i.

DBEDT, with others, recommended to DAGS that cardboard be included as a resource to be separated and recycled. The suggestion was implemented.

DBEDT introduced to DAGS an extremely fast-acting and energy efficient electric hand dryer which would eliminate the need for paper hand towels. Although that particular technology was not used, DAGS did later install electric hand dryers in state rest rooms.

The DOT Harbors Division utilized a marine debris recycling bin to recycle marine debris found on DOT-Harbors property. The bin was installed by a Marine Debris Task Force that includes DBEDT.

DBEDT convened the Lead By Example initiative's Environmentally Preferable Purchasing (EPP) Working Group to brief agency and departmental managers about how 'green purchasing' helps minimize waste and offers cost, energy, and resource efficiency benefits. DBEDT staff are working with the State Procurement Office to add more EPP products to the procurement list.

DCCA: DCCA sent a reminder memorandum to departmental staff regarding energy and water conservation, and recycling. The department encouraged the use of recycled paper and placed blue recycle bins in the building to facilitate recycling. Recycled paper is picked up weekly by Island Recycling, contracted through DAGS.

DHHL: DHHL will continue to encourage staff to recycle office paper and other recyclables when possible. DHHL plans to develop a comprehensive strategic plan for the protection, restoration, and preservation of our lands and facilities.

DHRD: The department participates in the office paper and telephone book recycling program coordinated by DAGS and also recycles used printer cartridges.

DHS: DHS continues to implement waste minimization and recycling procedures, consulting with the appropriate agencies such as DAGS and DOH.

DLIR: In FY08, DLIR received an Environmental Preferable Purchasing (EPP) survey and the results of the consolidated survey results will be forwarded to the Department of Health in accordance with the required deadline. The following are the mandated Federal and State laws, and the applicable Administrative Directives:

- Resource Conservation and Recovery Act (RCRA), Section 6002, 42 U.S.C. 6962. RCRA requires state and local government agencies and their contractors receiving appropriated federal funds to purchase EPA-designated recycled content products.
- Section 103D–1005(b) of the Hawai‘i Revised Statutes. Section 103D-1005(b) requires state purchasing agencies and encourages county purchasing agencies to: apply preferences to purchase of products with recycled content; be consistent with RCRA Section 6002, E/O. 13101 and its progeny; and ensure, to the maximum extent economically feasible, the purchase of materials that may be recycled or reused when discarded and to avoid the purchase of products deemed environmentally harmful.
- Administrative Directive 06-01, signed by Governor Lingle in January, 2006, requires state agencies to purchase environmentally preferable products that reduce their impact on the environment and improve indoor environmental quality. Also included are Energy Star® and low toxicity products.

DLIR will continue to utilize the SPO price list and require all programs to purchase recycled and environmentally preferable products.

DLNR: DLNR encourages its staff to implement office paper recycling and such a program is in place.

DLNR has begun to incorporate energy savings practices into design projects such as the recycling of existing asphalt and concrete pavement into backfill material. Kaho‘olawe Island Reserve Commission (KIRC): KIRC has very specific SOPs in place regarding recycling waste and is in the process of converting all of paper goods, specifically paper “china,” to biodegradable products.

DOA: DOA continued to work with DAGS to have Island Recycling on O‘ahu pick up two bins of white paper once a month that employees place in recycling bins. The department continued to use a container next to the vending machine to collect empty soda cans for recycling. Information was distributed to departmental employees regarding the University of Hawai‘i eWaste Disposal Day which provides an opportunity for Hawai‘i state departments and residents to dispose of computers and other unwanted electronic equipment by dropping them off at various UH campuses.

DOE: Construction projects which incorporate LEED standards require strategies for waste management and recycling of construction materials. The recycling of office paper and packaging is being explored; however, the additional cost of such programs does not make recycling feasible at this time due to budget restrictions. About 45 schools on O‘ahu participate in the Honolulu City and County community recycling bin program. In addition, schools are incorporating recycling activities into their fundraising programs.

DOH: All facilities are encouraged to recycle and reduce waste. Bins are available for recycling cans, bottles and paper. Programs are encouraged to go “paperless.” Two sided copying is a requirement.

DOT-Airports: The Airports Division has implemented a statewide dedicated unit for environmental compliance. This consists of Environment Health Specialists located at the major airports (Honolulu International Airport, Kona International Airport at Keāhole, Kahului Airport and Lihue Airport) to ensure compliance with all environmental regulations and provide training to tenants and employees with regards to environmental regulations. At all airports, white paper and cardboard are recycled and the amount recycled is monitored. Glass, newspaper, plastic and aluminum recycling is made difficult by security regulations at airport locations but recycling programs are in place at all major airports.

DOT-Harbors: The division requires double sided printing from copiers and printers as practical. Recycling bins for aluminum cans, bottles, plastic and papers are provided where convenient. DOT-Harbors will develop program milestones to encourage 100% implementation over a period of time.

DOT-Highways: The Highways Division has been using electronic documents where possible to eliminate the need for paper. The division is also working with industry to find a way to use recycled products in our pavements without losing quality.

DOTAX: DOTAX's standard operating practices include monthly paper recycling.

FTZ: FTZ recycles cans and paper products. Products to be recycled are captured and taken to the recycle center once a quarter.

HCDA: HCDA has incorporated recycling of bottles, cans, plastic and paper within its office. In demolition projects, the contractor is encouraged to separate and recycle materials whenever practical.

HHFDC: Most office paper used by HHFDC is labeled 30 % post-consumer content. HHFDC has recycle boxes throughout the offices for depositing non-sensitive paperwork and a shredder to dispose of sensitive paperwork. Either way, paper, as much as possible, is recycled. All restroom paper products are also labeled as containing recycled paper. This holds true for all the rental properties in the agency's portfolio. Most of HHFDC's construction is reconstruction. As specifications are being written it is suggested to the architects and engineers concerned that guidelines need to be given regarding recycling demolition materials. This will limit the amount of waste going to the landfills.

HHSC: HHSC facilities have implemented recycling as standard operating practice.

HSPLS: HSPLS continues to participate in recycling waste paper through the DAGS-contracted private disposal companies, statewide.

HTA-CC: The Hawai'i Convention Center continues to have an extensive recycling program for both administrative areas and events. The Center partners with show management to maximize the recycling of event material and donate excess food to charities that use it to feed the homeless.

NELHA: NELHA recycles everything that is recyclable. Recyclable trash from the adjacent beach park trash containers is stolen on a nightly basis by human scavengers. NELHA stores old equipment (including computers, software, pipe, pump parts, old vehicles, etc.) for potential reuse in view of how difficult it is to obtain authority for the purchase of new equipment. Everything that can be rebuilt and reused is rebuilt and reused (rebuilding the facility's own motors and pumps saves quite literally thousands of dollars annually, when one considers that a simple impeller for a 200 hp pump costs \$18,000, one can image the cost to have the overhaul done through outside services.) NELHA's boneyard is a source of much valuable material that can be used for patches, repairs, and other needs; for example, replacement parts as in many instances replacement parts of much of NELHA's equipment cannot even be purchased any longer as the manufacturers have ceased servicing the equipment.

PSD: PSD is recommending that the department's Inspection and Investigation Office (IIO) coordinate efforts with all PSD programs, writing the necessary Policies and Procedures and implementing practices to minimize the accumulation of waste and/or pollution reduction/prevention as a standard operating procedure throughout the department. PSD's Inspection and Investigation Officer has concurred with this recommendation and assigned his Environmental Health, Safety and Sanitation Specialist the duty of working with all PSD units to implement it.

UH: University of Hawai'i System – As part of a national program, Apple Computer e-cycled the University's electronics at no charge. University departments scheduled pickups which ran through July 31, 2008.

University of Hawai'i at Mānoa – 538 tons sent to the landfill; 953 tons sent to H-Power; 12.75 tons of computers recycled (not including ITS recycling days); 367 tons of metal recycled; 140 tons of paper and cardboard recycled; 375 tons of green waste recycled at Hawaiian Earth Products; approximately 200 tons of greenwaste turned into mulch and used on campus. Total waste: 2,585 tons, of which 1,094 tons were recycled, giving UHM a 42% recycling rate.

University of Hawai'i at Hilo – UHH participates in e-waste recycling by participating in both the Apple Computer recycling and County of Hawai'i recycling. For the times when no e-waste "drives" are scheduled, UHH takes old computer equipment to Bayside Computer Center for proper recycling. UHH has dozens of recycling bins on campus. Recycled items are sorted (white paper, newspaper, mixed paper, cardboard, glass, plastic, aluminum). Sorted recycled items are picked up by a local vendor (Business Services Hawai'i) and transported to a local processing plant. HI-5 redemption containers are emptied by University clubs as fund raisers. UHH Housing dormitories have seven different "collection locations" for recycling. UHH Main Campus has two major collection locations for recycling totes, and two cardboard dumpsters. As necessary, special arrangements are made to pick up enormous amount of shredded documents at the end of yearly cycles. UHH food vendors use reusable plates, glasses, tableware where practical for eat-in dining, and paper products where practical for carry out dining. Food by-products are used as slop for farm pigs.

University of Hawai'i -West O'ahu – UHWO faculty, staff and students do an informal voluntary recycling of HI-5 aluminum cans and plastic bottles. HI-5 cans and bottles are recycled by the janitorial staff. UHWO also recycled 1,326 pounds of e-waste (computers, monitors, keyboards, etc.) on October 26, 2007. UHWO continue to recycle white and mixed color paper collected in the

mailroom. Paper is recycled at the Community Recycling Center Program bin located at Leeward Community College. UHWO also purchased 4 recyclable plastic picnic tables and 6 recyclable plastic benches for their new E Building lanai. These products are 97% post consumer recycled HDPE (High Density Polyethylene), which qualifies these tables and benches as “green.”

Community Colleges – See Appendix 1 for report addressing the individual campuses’ efforts to minimize waste and prevent pollution.

## Act 96 SLH 2006: Buildings and Facilities

- (6) Use life cycle cost-benefit analysis to purchase energy efficient equipment such as Energy Star® products and use utility rebates where available to reduce purchase and installation costs; and

AG: All staff involved in purchasing equipment have been advised of the Energy Star® program and must document reasons for not purchasing Energy Star®, when available.

B&F: The department will include the use of life cycle cost-benefit analysis where applicable.

DAGS: Mechanical equipment (i.e., a/c, pumps, etc.) have long been required by DAGS to be of the high efficiency type and utility rebates have been used to help offset installation and higher pricing costs for the energy efficient products. DAGS worked with HECO to improve internal procedures to insure utility rebates are not missed. DAGS considers cost/benefit analysis for replacing existing a/c systems with new, more efficient, systems even prior to the existing systems reaching their expected life span. Energy Star® equipment, where available, will be a standard requirement for all construction.

DBEDT: DBEDT conducted or co-sponsored numerous seminars on energy efficiency for state employees and the private sector.

DBEDT continues to advocate Energy Star® Product Promotion and Procurement, which included the following activities:

- Conducting Energy Star® product procurement workshops to promote purchasing of Energy Star® products by State of Hawai‘i and local government housing as well as other state, federal agencies, and the territories.
- Providing technical assistance to housing, local government, state and/or federal agency representatives in purchasing Energy Star® products.
- Promoting other training opportunities such as on-line Energy Star® webcasts in areas such as Energy Star® Procurement and Products.
- Providing technical assistance to support labeling three Energy Star® State of Hawai‘i buildings.
- Coordinating participation and attendance of various state agency representatives at the training sessions.

DBEDT coordinated the 2008 Build & Buy Green Conference & Expo at the Hawai‘i Convention Center, attended by many from state agencies. Life-cycle cost analysis and Energy Star® products were discussed at length as a means of achieving Hawai‘i BuiltGreen™ 3-Star Level.

Governor Lingle joined the National Energy Star® Change a Light, Change the World Campaign and also proclaimed October 2006 Energy Awareness Month. A similar proclamation has been proposed for the 2008 Change a Light, Change the World Campaign. DBEDT coordinated Hawai‘i’s observance of the US Department of Energy’s Change a Light, Change the World program, including publicizing economic benefits via life-cycle costing.

DBEDT convened the State Facilities Energy Management Advisory Committee (EMAC) in 2007, which made recommendations for increasing the use of energy savings contracts, improving building design, reduction of energy consumption, expanding the use of renewable energy, and procuring energy efficient products.

DBEDT staff spoke to DOT-Harbors’ Planning Division about relighting state harbor areas and recommended photovoltaic-powered LED outdoor lamps as a means of reducing electricity use while complying with Homeland Security guidelines. Life cycle costing is included in calculating the avoided cost of not having to trench to bring in new electrical lines.

DBEDT staff helped to stage the International Illuminating Design Awards program. Awardees included two cost-effective lighting projects that reduced electricity consumption by as much as 70% while improving safety and visual acuity.

DBEDT convened the Lead By Example initiative’s Environmentally Preferable Purchasing (EPP) working group to brief agency and departmental managers about how ‘green purchasing,’ including electronic equipment, offers cost, energy, and resource efficiency benefits. DBEDT staff are working with the State Procurement Office to add more EPP products to the procurement list.

DCCA: DCCA purchased Energy Star® products for all available computer equipment, and as applicable will purchase Energy Star® products when replacing office equipment. Life cycle cost-benefit analysis was used to purchase computer equipment such as servers and PCs.

DHHL: DHHL will promote and design new affordable homes using the Energy Star® program to ensure the best energy and resource efficient homes and facilities.

DHRD: The department uses the State Procurement Office price/vendor lists for procurement of most of its equipment. Copiers that are leased and computers that are purchased are Energy Star® products.

DHS: DHS procurement procedures include requirements for purchasing energy efficient products such as Energy Star®, and as applicable will utilize available utility rebates.

DLIR: DLIR programs are required to purchase Energy Star® products and will continue to check whether utility rebates are available and can be utilized in the purchase of the products as part of the procurement procedure/policy.

DLNR: DLNR uses life cycle cost-benefit analysis to purchase energy efficient equipment such as Energy Star® products, and uses utility rebates where available to reduce purchase and installation costs.

DOA: ASO sent a reminder to staff in March and July 2008 of the department's Energy and Water Conservation and Resource Efficiency Program which provides policies, guidelines and practices with the goal of minimizing energy, fuel and water consumption and implementing resource-efficient operations, including purchasing energy efficient equipment such as Energy Star® products and using utility rebates where available.

DOE: DOE is encouraging all schools and offices to purchase Energy Star® or any energy efficient alternative equipment that passes life cycle cost-benefit analysis. DOE applies for and receives utility rebates for various energy efficient equipments being installed during construction projects. The total rebates DOE received for equipments installed in 2007 was about \$150,000 with an annual kWh reduction of 1,185,000. DOE will continue to seek utility rebates for on-going project work and seek establishment of utility rebates for new energy efficient technologies.

DOH: Mechanical and electrical equipment purchases are coordinated by the CIP office. It has been a standard practice to purchase energy efficient items. If any HECO programs are initiated in the future, the department will apply for them. Programs will be instructed to purchase Energy Star® products.

DOT-Airports: Energy efficiency in equipment is always a major consideration in cooling tower, chiller and other HVAC equipment at all airports. All appliance specifications and purchases are required to be the energy efficient type such as Energy Star® products whenever it is available.

DOT-Harbors: The division will train staff on life cycle cost analyses and on available Energy Star® technologies. Staff will replace existing equipment with comparable Energy Star® equipment.

DOT-Highways: The Highways Division continues to install energy efficient traffic signal lamps in new installations or when any traffic signals are modified, and has programmed the replacement of computer equipment with Energy Star® compliant equipment.

DOTAX: DOTAX uses life cycle costs to evaluate equipment procurements and will use utility rebates where available to reduce purchase and installation costs.

FTZ: FTZ purchased another Energy Star® copy machine during the last year. FTZ is in the process of purchasing new energy-efficient computers this year.

HCDA: HCDA has instructed property manager in projects where HCDA is general partner to replace light fixtures, air conditioners, stoves and refrigerators with energy efficient fixtures.

HHFDC: HHFDC rental projects are required to purchase Energy Star® products whenever applicable. All replacement items, if not Energy Star®, are evaluated for purchase on a cost / efficiency basis. HHFDC is contacting HECO regarding applicable rebate applications.

HHSC: Hawai'i Health Systems Corporation will incorporate in its procurement process the acquisition of Energy Star® products and other energy saving equipment.

HSPLS: HSPLS has incorporated life cycle cost benefit analysis through DAGS for new and replacement air conditioning system and equipment. HSPLS has been improving the process in working with HECO to receive the applicable and appropriate rebates for eligible equipment.

HTA-CC: Currently Energy Star® lighting products have been installed in the exhibition hall, ballroom, administrative areas and fire stairwells. New Energy Star® pumps have been installed on potable cold water system. All five projects have received HECO rebates.

NELHA: These steps have been taken by NELHA for many years. Recently, in spare staff time, NELHA installed wireless monitoring equipment at three pump stations and staff wrote a complex computer program to enable remote monitoring of the stations' activities. In time, being able to remotely control the operation of the pump stations may result in energy savings for the island through less staff travel to and from NELHA during non-working hours to restore service when a station(s) goes off line due to power interruptions or other causes. Utility rebates have been used whenever available.



PSD: The department has been challenging DAGS-Division of Public Works and the projects' consultants to plan and design new building operating systems that incorporate the highest provable energy efficiencies. Insofar as utility rebates are concerned, the consultants are reporting that utility rebates have not provided sufficient documented evidence of system efficiencies claimed by manufacturers and, further, that utilities have confirmed that neither they nor independent third parties have verified the accuracy of certain claims by manufacturers of such equipment and/or systems. Accordingly, the department has taken the position of accepting only independently documented efficiency claims and the consultants provide design solutions incorporating this requirement to the manufacturers.

UH: Systemwide - In all new and major renovation projects, a life cycle cost-benefit analysis for mechanical and electrical systems is included in the project basis of design report. Campuses continue to work with the local electric company in their rebate program to purchase energy efficient air conditioning and lighting through the campuses' repair and maintenance programs. Maui CC implemented a campus procurement policy where all purchases of appliances which are rated by the Energy Star® program must have the Energy Star® efficiency rating. The University of Hawai'i will continue to apply the LEED rating system systemwide in all Capital Improvement Program new and major renovation projects.

The University continues to purchase Energy Star® products from the SPO vendor lists for copier and facsimile machines and personal computers and printers.

UH Hilo continues to work with HELCO on energy efficient air conditioning and light fixtures on all renovation and new projects and replacement equipment. UHH has also purchased refrigerators, dehumidifiers and air conditioners (window and portable), that have the Energy Star® labels for efficient operation. In addition, UHH has energy efficient light fixtures and motion sensors to turn off lights when no one's around.

## Act 96 SLH 2006: Buildings and Facilities

- (7) Procure environmentally preferable products, including recycled and recycled-content, bio-based, and other resource-efficient products and materials.

AG: Recycled paper is required, unless previously approved by the Administrative Services Office. Staff are aware of the policy to utilize environmentally friendly products; however, there is very minimal use of hazardous materials within the department.

B&F: The department currently purchases environmentally preferred products as contained in the SPO price lists.

DAGS: Cleaning products with the Green Seal or equal certification are being integrated into the custodial program. The State Procurement Office (SPO) continues to provide to Executive Departments, other jurisdictions, and the counties, the SPO Price and Vendor List utilizing Energy Star®, recycled, or environmentally preferred products (EPP). Prior to re-solicitation for new contract terms, assessments of current contract specifications and review of market availability are conducted to ensure energy efficient products and supplies are made available through the SPO Price and Vendor lists.

For products and supplies not covered by SPO Price and Vendor list, purchasing agencies are required to utilize the following preferences:

- Recycled Products, HRS 103D-1005
- Biofuel preference, HRS 103D-1012
- Preference for oil products with greater recycled content, HRS Chapter 103D, Part XIII

DBEDT: DBEDT, through Lead By Example Environmentally Preferable Procurement Working Group meetings, provided information and training to executive agency leadership on state policies and procedures relating to green purchasing. These meetings broadened awareness of purchasing mandates and efficient means of identifying and selecting environmentally preferable products via the state procurement system.

DBEDT, as part of Lead By Example, contracted with EnviroSpec, Inc., an environmental health and environmentally preferable purchasing consultancy, to initiate a pilot program for testing environmentally preferred alternatives to industrial janitorial chemicals. The three schools selected were McKinley High School, Kapālama Elementary School, and the University of Hawai‘i. “Green” cleaning products and vendors were screened and selected based on rigorous criteria and tested in real-life settings for safety, efficacy and other attributes. Preliminary recommendations and a final report were completed in FY08.

DBEDT convened the State Facilities Energy Management Advisory Committee (EMAC) in 2007, which made recommendations for increasing the use of energy savings contracts, improving building design, reduction of energy consumption, expanding the use of renewable energy, and procuring energy efficient products.

DBEDT procured office and copy paper with 35% post-consumer recycled content.

DBEDT provided input into the EPP Survey sent out by DOH and DAGS SPO in August 2008 to assess the FY 2008 environmental purchasing efforts of the state agencies. Results from the DOH and DAGS SPO survey are expected in late 2008.

DBEDT coordinated the 2008 Build & Buy Green Conference & Expo at the Hawai‘i Convention Center, attended by many from State agencies. Environmentally preferred purchasing practices, including recycled, bio-based, and other resource-efficient products and materials, were discussed at length as a means of achieving Hawai‘i BuiltGreen™ 3-Star Level.

DBEDT continues to work with the State Departments of Accounting and General Services (DAGS) and Health (DOH), the University of Hawai‘i at Mānoa, and other agencies to expand the state’s buy-recycled purchasing efforts and examine opportunities to purchase other environmentally-preferable products. DBEDT developed and is working on updating, the following in support of the Environmentally Preferable Purchasing (EPP) - Resources, Outreach, and Technical Assistance Project:

- List of EP Products available in Hawai‘i - webpage and publication
- Fact Sheets on Federal Executive Orders, Hawai‘i Statutes and Resources - webpage and publication
- Case Study of Successful EPP Efforts - webpage and publication

- Evaluation and Report of present procurement practices and procedures
- Recommendations regarding procedural, specs, bid requests, etc., guidance to address EPP concerns
- Review and follow-up of technical assistance with summary of impact and degree of change in agency procurement practice as a result of the technical assistance

DCCA: DCCA purchased recycled paper products when available on and off bid list.

DHHL: Where possible, DHHL shall choose environmental friendly products and material and will continue to encourage contractors to use recycled products.

DHRD: The department purchases environmentally preferable products as contained in the State Procurement Office price/vendor lists. Office paper, paperboard and packaging products are examples of items purchased that are recycled content products.

DHS: DHS continues to coordinate with the State Procurement Office (SPO) to ensure that price list products satisfy environmentally preferable product requirements.

DLIR: The DLIR policy mandates the purchase of recycled paper and the utilization of the State Procurement Offices Price List (SPO PL) for all purchases where products are available through the SPO PL. DLIR issued a departmental instructional memo to insure conformance with the results of the EPP Survey.

DLNR: DLNR encourages the use of recycled products with contractors. DLNR also adheres to the allowed 10% price preference for bids using recycled products in accordance with Section 103D-1005, Hawai'i Revised Statutes.

Kaho'olawe Island Reserve Commission (KIRC): KIRC is in the process of converting all of their paper goods, specifically paper "china," to biodegradable products.

Division of Aquatic Resources (DAR): DAR purchases and uses biodegradable soaps. In particular, DAR uses these products in the Northwest Hawaiian Islands, where there are strict policies on this and any other discharge of durable wastes.

DOA: ASO sent a reminder to staff in March and July 2008 of the department's Energy and Water Conservation and Resource Efficiency Program which provides policies, guidelines and practices with the goal of minimizing energy, fuel and water consumption and implementing resource-efficient operations including promoting the 4 Rs – reduce, recycle, reuse and re-buy—and encouraging use of the DBEDT Environmental Product Guide which lists environmentally preferred products.

DOE: Recycled copier paper is an option for schools to purchase.

DOH: Presently, the department has not addressed this issue except through state sponsored programs. Programs will be advised to purchase these products, provided they are not mandated to purchase specific items from the statewide Bid List.

DOT-Airports: The Airports Division purchases their products through the state procurement system, but will consider the "Green Seal" products first.

DOT-Harbors: The division will implement environmentally preferable procurement. It is using recycled copier paper and will develop program milestones to encourage 100% implementation over a period of time.

DOT-Highways: Highways Division has been working with industry to find a way to use recycled products in our pavements without losing quality.

DOTAX: DOTAX coordinates with the State Procurement Office for the purchase of environmentally preferable products including recycled and recycled-content, bio-based, and other resource-efficient products and materials.

FTZ: All paper products, including copy and bond paper, paper towels and toilet paper, are purchased through the State Bid List and contain the recommended post consumer content.

HCDA: HCDA has not had occasion to procure such items.

HHFDC: As stated earlier, it is HHFDC's goal to continue recycling and using recycled paper products. Also it is the agency's goal to use biodegradable cleaning products.

HHSC: Hawai'i Health Systems Corporation will incorporate in its procurement process the acquisition of environmentally preferable products.

HSPLS: HSPLS continues to explore and include those environmentally preferable products in its supply lists for all libraries.

HTA-CC: The Hawai'i Convention Center continues to mandate that sustainable products be given preference in procurement so as to be environmental friendly at all times. Napkins and box lunch

bags made from recycled material are currently used. Cups, cutlery and clamshell containers are made from bio-compostable material.

NELHA: NELHA purchases recycled content paper products and has done so for many years. NELHA also has looked at refilling its own printer cartridges and/or changing out printers (when current ones are worn out) for models that require less ink. NELHA has cannibalized old computers for RAM and DRAM memory units in order to keep outdated equipment functional and avoid replacement.

NELHA personnel are extremely environmentally conscious and highly motivated to contribute to a better environment. Staff in some departments have asked for 4x10 workdays in order to economize on transportation fuel and reduce carbon emissions on the island.

Staff are encouraged to reuse paper by printing on the back side of previously printed paper for draft reports, etc.

NELHA is looking at purchasing just biodiesel to run its fleet of trucks and electrical generators, although the biodiesel will be quite a bit more expensive in the large quantities NELHA requires. Fortunately, one existing tenant and one prospective tenant intend to produce biodiesel for commercial testing purposes and production and as a result NELHA may in the near future have a source of this environmentally friendly product for use in generators and diesel equipment such as front end loaders, standby truck-mounted generators, and pump station stand-by generation equipment.

PSD: PSD utilizes SPO-generated price lists and vendor lists as required.

UH: LEED (Leadership in Energy & Environmental Design) requirements are included in all new construction projects. The University continues to participate in various SPO price and vendor lists that include recycled products. The University continues to participate in the SPO price list for bulk gasoline and gas credit card services. The University is a participant in the WSCA Industrial Supplies vendor list from which many environmentally preferable products have been purchased. All Invitations for Bids issued by the University of Hawai'i include a Recycled Products Preference (Reference: Section 103D-1005, HRS, and Subchapter 4, Chapter 3-124, HAR). UH Hilo purchases goods made out of post consumer recycled goods as much as practicable. Restroom paper products (toilet paper and hand towels) meet or exceed EPA's guideline for post consumer recycled content.

## **Act 96 SLH 2006: Transportation Vehicles and Fuel**

(1) Comply with Title 10, Code of Federal Regulations, Part 490, Subpart C, “Mandatory State Fleet Program”, if applicable;

AG: Not applicable; AG does not have a fleet.

B&F: Not applicable to B&F.

(a) DAGS: Agencies must be in compliance with federal regulations. DAGS AMD has determined it is compliance with the federal requirement by purchasing only new alternative fuel vehicles. Vehicle purchases continue to comply with 10 CFR, Part 490, on alternative fuel E85 vehicles. Covered Fleet Vehicle purchases conducted by SPO continue to comply with 10 CFR, Part 490, on alternative fuel E85 vehicles and Non-Covered Fleet Act 96 Part IV, HRS section 103D-412, Energy Efficient Vehicles.

DBEDT: Does not apply. DBEDT does not have a “covered fleet.”

DCCA: Not applicable; DCCA does not own any vehicles.

DHHL: DHHL is already in compliance and will continue to comply with Title 10.

DHRD: Not applicable. The department does not have any transportation vehicles.

DHS: DHS continues to coordinate with DAGS-Automotive Management Division (AMD) to ensure that vehicle purchases comply with the applicable requirements.

DLIR: DLIR currently owns two gas engine-operated vehicles and is not required to comply with Title 10, Code of Federal Regulations.

DLNR: Federal regulations are not currently applicable to DLNR.

DOA: The department is in compliance with Title 10, Code of Federal Regulations.

DOE: DOE has organized its fleet program by complex areas and offices. Based on this organization, only the Office of School Facilities and Support Services meets the requirements to be designated as a “covered fleet.”

DOH: The programs are in compliance.

DOT-Airports: The Airports Division is a covered fleet under the Federal Dept. of Energy Program and is compliant.

DOT-Harbors: More work needs to be done in this area. The division’s attempt to purchase an alternative energy vehicle ran into budget problems as these vehicles cost more than conventionally powered vehicles.

DOT-Highways: The Highways Division is currently in compliance.

DOTAX: DOTAX does not have a fleet of thirty vehicles or more.

FTZ: Not applicable; the State of Hawai‘i is responsible for developing a “Mandatory State Fleet Program.”

HCDA: HCDA does not maintain fleet of 30+ vehicles.

HHFDC: Not applicable.

HHSC: In compliance with Title 10, when purchasing new vehicles through DAGS, energy efficient models (such as hybrids and four cylinder models) will be acquired whenever possible.

HSPLS: HSPLS has determined that alternative fuel vehicles were either not available or not practical in replacing any library delivery vans. They did not meet the specifications for these heavily used and loaded vehicles.

HTA-CC: HTA does not maintain a fleet of 30+ vehicles as specified in the above ACT 96 SLH 2006.

NELHA: NELHA still does not have funding to replace its two ancient diesel trucks. The fleet has been updated (the youngest was a 1995 gasoline-powered truck) with 2005 and 2006 gasoline powered vehicles. However, it should be noted that as an operating entity, NELHA has need of heavy equipment, most of which is not yet even manufactured to meet the above specifications and would, if available, be very cost-prohibitive to purchase.

PSD: Under the Federal Register, Volume 61, Number 51, page 10631, the activities of State Corrections fall under the excluded “Law Enforcement” vehicle category. While our department’s vehicles are exempt from the requirements of Title 10 CFR, Part 490, Subpart C, the PSD has requested that flexible fuel compatible engines be used if available.

UH: University of Hawai‘i Transportation Services is currently in compliance.

## **Act 96 SLH 2006: Transportation Vehicles and Fuel**

### **(2) Comply with all applicable state laws regarding vehicle purchases;**

AG: Not applicable; AG does not purchase vehicles.

B&F: Not applicable to B&F.

DAGS: AMD and SPO review departmental requests to purchase passenger vehicles. HAR Section 3-122-13, Development of specifications and HRS Section 103D-412, Energy-efficient vehicles, provides guidance to state and county purchasing agencies on the purchase and leasing of vehicles. SPO, DAGS-AMD, and DBEDT have developed guidelines for the purchase of vehicles including energy-efficient vehicles. These guidelines are available on the DBEDT website at <http://hawaii.gov/dbedt/info/energy/efficiency/state/>

DBEDT: When available, vehicle procurement instructions will be distributed throughout the department.

DCCA: DCCA does not plan on purchasing any vehicles.

DHHL: DHHL will continue to comply with state laws when purchasing vehicles.

DHRD: Not applicable. The department does not have any transportation vehicles.

DHS: DHS continues to coordinate with AMD to ensure that vehicle purchases comply with the applicable requirements.

DLIR: DLIR owns the following vehicles: 1999 Ford Windstar; 1994 Chevrolet Astrovan. DLIR does not have immediate plans to purchase another vehicle in the near future; however, DLIR will adhere to the applicable state laws regarding vehicle purchases.

DLNR: DLNR will continue to work with DBEDT in a statewide collaboration on energy efficiency, as a member of DBEDT's Lead by Example Leadership Group. DLNR continues to seek the advice of other state agencies through DBEDT's Lead by Example Leadership Group and will implement internal procedures as appropriate.

DOA: The department is in compliance with all applicable state laws.

DOE: DOE is complying with all state laws regarding vehicle purchases.

DOH: The programs are in compliance.

DOT-Airports: The Airports Division is compliant under the Federal Program.

DOT-Harbors: SPO procedures are followed including purchasing using HePS.

DOT-Highways: The Highways Division is currently in compliance, and all vehicles purchased comply with the State Procurement Office rules.

DOTAX: DOTAX complies with all applicable state laws regarding vehicle purchases.

FTZ: No new vehicle purchases are projected for the near future.

HCDA: HCDA's two vehicles are procured and maintained by DAGS.

HHFDC: Not applicable.

HHSC: HHSC is in compliance with all state laws regarding vehicle purchases and will continue to comply with all applicable state laws.

HSPLS: The State Procurement Office (SPO) has revised HAR 3-122-13 to reference Act 96/2006, Part IV as amended in HRS 103D-412 for energy efficiency vehicles. HSPLS will be making all of its vehicle purchases through the SPO to ensure compliance with these state laws and rules.

HTA-CC: Not applicable. HTA has one vehicle procured and maintained by DAGS; the Hawai'i Convention Center has three vehicles that were procured as part of the outfitting of the building in 1997, registered by the State of Hawai'i and are maintained to the manufacturer's suggested specifications.

NELHA: All vehicles have been purchased in compliance with state laws. When any operating vehicles are purchased, NELHA always first checks with DAGS, SPO, DBEDT, etc. to ascertain the very latest requirements and procedures that must be used, thus saving personnel time and cost. Further DBEDT procurement procedures are followed in the purchase of vehicles.

PSD: As applicable to the needs of the department, PSD has solicited for E-85 compatible vehicles. Vehicles purchased for FY08 that were E-85 compatible included four mini-vans, one compact sedan, and two 12-passenger vans. As reported last year, PSD encourages the agency to drive its vehicles safely, and with fuel economy in mind.

UH: University of Hawai'i Transportation Services is currently in procurement compliance.

## Act 96 SLH 2006: Transportation Vehicles and Fuel

- (3) Once federal and state vehicle purchase mandates have been satisfied, purchase the most fuel-efficient vehicles that meet the needs of their programs; provided that life cycle cost-benefit analysis of vehicle purchases shall include projected fuel costs;

AG: Not applicable; AG does not have a fleet or purchase fuel.

B&F: Not applicable to B&F.

DAGS: The AMD and SPO review will provide opportunities to comply with the policy to procure the most fuel-efficient vehicles. This review will mandate agencies to be compliant with the law.

DBEDT: When available, vehicle procurement instructions will be distributed throughout the department.

DCCA: DCCA does not own any vehicles.

DHHL: DHHL will continue to consider fuel consumption, capacity and need in addition to price when purchasing new vehicles.

DHRD: Not applicable. The department does not purchase transportation vehicles at this time.

DHS: DHS continues to coordinate with AMD and SPO to ensure that vehicle purchases meet fuel efficiency requirements in relation to operational needs.

DLIR: DLIR's two vehicles are in sound operational condition, and thus DLIR has no plan to replace the vehicles in the near future. Prior to purchasing a vehicle in the future, DLIR will insure that any vehicle purchase satisfies federal and state mandates. In addition, DLIR will purchase the most fuel efficient vehicle that meets the needs of our program.

DLNR: DLNR will continue to work with DBEDT in a statewide collaboration on energy efficiency, as a member of DBEDT's Lead by Example Leadership Group. DLNR continues to seek the advice of other state agencies through DBEDT's Lead by Example Leadership Group and will implement internal procedures as appropriate.

DOA: ASO reminded staff of the department's Energy and Water Conservation and Resource Efficiency Program which provides policies, guidelines and practices with the goal of minimizing energy, fuel and water consumption and implementing resource-efficient operations, including purchasing the most fuel efficient vehicle that meets the needs of the program once federal and state vehicle purchase mandates have been met.

DOE: DOE is complying with all state laws regarding vehicle purchases through our Procurement and Contracts Branch.

DOH: This policy is not in effect. The programs will be advised of this strategy.

DOT-Airports: The Airports Division doesn't go outside the program; it keeps its purchases under the Federal Program.

DOT-Harbors: The division needs to do more research and develop an implementation plan.

DOT-Highways: The Highways Division is currently in compliance.

DOTAX: DOTAX will purchase the most fuel-efficient vehicle that meets the needs of its programs and will include a life cycle cost-benefit analysis, including projected fuel costs, in vehicle procurements.

FTZ: Not applicable.

HCD: Not applicable; see Item #2 immediately above.

HHFDC: Not applicable.

HHSC: HHSC continues to purchase the most fuel efficient vehicles whenever possible.

HSPLS: HSPLS has been working directly with the SPO to acquire the most fuel-efficient vehicles that meet the needs of our delivery service for all libraries.

HTA-CC: Not applicable: see Item #2, above.

NELHA: See item #1, above. No change from last year in this regard.

PSD: For most part, the vehicles utilized by the department are heavy-duty vehicles weighing over 8,500 pounds, for which EPA fuel mileage ratings are not available. For those vehicles which are light duty, awards are made on the basis on lowest price. The department is awaiting direction from the Comptroller or SPO with regard to a standardized method of evaluation.

UH: UH Transportation Services reviews all vehicle purchases for appropriateness. UH Transportation Services keeps historical information on all vehicles assigned to the Transportation Services Fleet. Individual departments keep their own vehicle records pertaining to department owned vehicles. A life cycle cost-benefit analysis has not been done on any vehicles. Vehicle fuel consumption is not tracked. Going forward, the strategy is to develop a web based program to record and compile

individual vehicle data during the current fiscal year. The program must allow departments that own vehicles the ability to enter their program's vehicle data via the web. The web will collect data for analysis to determine life cycle cost-benefit and fuel efficiency; providing historical reference for future purchases.



## Act 96 SLH 2006: Transportation Vehicles and Fuel

### (4) Purchase alternative fuels and ethanol blended gasoline when available;

AG: Not applicable; AG does not purchase fuel.

B&F: Not applicable to B&F.

DAGS: SPO Price List No. 07-20, Gas Fueling and Credit Card Services, includes the requirement to establish monthly reports from the vendors of purchases by each cardholder. SPO Price Lists for Bulk Fuel (07-06 O'ahu, 07-05 Hawai'i, 07-03 Maui and 07-04 Kaua'i) are for purchases of ethanol-blended gasoline, E-10 and Ultra Low Sulfur Diesel fuel, by all agencies. The available information will be used to determine total gasoline purchases and expenditures by each purchasing agency.

DBEDT: DBEDT intends to purchase alternative fuels when available.

DCCA: DCCA does not own any vehicles.

DHHL: DHHL intends to purchase alternative fuels and ethanol blended gasoline when available.

DHRD: Not applicable. The department does not purchase transportation fuels.

DHS: DHS continues to coordinate with SPO on purchasing alternative fuels from established price lists.

DLIR: The assessment performed by DLIR indicates that all alternative fuels were purchased from DAGS Automotive Management Division. The DAGS Automotive Management motor pool alternative fuel meets the alternative fuel ethanol blend requirement.

DLNR: DLNR purchases fuel from vendors as selected by the State Procurement Office in compliance with the Procurement Code. DLNR continues to seek the advice of other state agencies through DBEDT's Lead by Example Leadership Group and will implement internal procedures as appropriate.

DOA: ASO reminded staff of the department's Energy and Water Conservation and Resource Efficiency Program which provides policies, guidelines and practices with the goal of minimizing energy, fuel and water consumption and implementing resource-efficient operations including the purchase of alternative fuels and ethanol blended gasoline when available.

DOE: For light duty vehicles, only ethanol-blended gasoline is currently available. For diesel fuel vehicles, biodiesel fuel is being considered where practical.

DOH: This policy is not in effect. The programs will be advised of this strategy.

DOT-Airports: Yes.

DOT-Harbors: The division will purchase environmentally preferable fuels when available and practical.

DOT-Highways: The Highways Division currently purchases propane as an alternative fuel.

DOTAX: DOTAX purchases ethanol blended gasoline through DAGS' automotive division.

FTZ: All fuels are purchased from DAGS' automotive division.

HCDA: HCDA refuels at DAGS' central motor pool.

HHFDC: Not applicable.

HHSC: All HHSC facilities are using ethanol blended gasoline.

HSPLS: The State Procurement Price Lists include the purchase of ethanol-blended gasoline and alternative fuels when they are available. Comptroller Memorandum No. 2005-13 dated May 17, 2005 requires all state departments to purchase only regular 87 gasoline unless granted prior approval from DAGS to purchase premium or mid-grade gasoline.

HTA-CC: Not applicable: see Item #2, above.

NELHA: Ethanol blended gasoline is the only gasoline available on this island. NELHA is looking at purchasing biodiesel from its tenants who will be manufacturing it in the near future in great quantities.

PSD: Not applicable, currently only E-10 is available in the State of Hawai'i.

UH: UH Transportation Services does not purchase biodiesel and ethanol blended fuels. An evaluation is currently being undertaken to assess the feasibility of converting to biodiesel fuel and purchasing ethanol blend gasoline. If feasible, conversion to these fuels during the current fiscal year is desired.

### Fleet use of biodiesel (gallons purchased) and total cost (\$):

AG: Not applicable; AG does not purchase fuel.

B&F: Not applicable to B&F.

DAGS: None.

DBEDT: Not applicable.

DCCA: DCCA does not own any vehicles.

DHHL: No vehicles used biodiesel.  
DHRD: Not applicable. The department does not purchase transportation fuels.  
DHS: Zero.  
DLIR: Not applicable; no diesel fuel used.  
DLNR: Not applicable. DLNR purchased 150 gallons of biodiesel, but it was used for invasive species control and not vehicle fuel.  
DOA: No biodiesel was purchased in FY08.  
DOE: Biodiesel is not available due to state fuel pricelist. Also, limited locations for biodiesel purchasing make it very difficult to establish a purchasing program.  
DOH: Zero.  
DOT-Airports: The Airports Division does not have a separate tank for storage. No biodiesel.  
DOT-Harbors: None. The State Procurement Office Price List for "Bulk Deliveries for Gasoline and Diesel" only has diesel fuel #2.  
DOT-Highways: The Highways Division has not purchased any biodiesel.  
DOTAX: Not applicable; DOTAX does not purchase diesel fuel.  
FTZ: Not applicable.  
HCDA: Not applicable.  
HHFDC: Not applicable.  
HHSC: None.  
HSPLS: \$0.  
HTA-CC: Not applicable.  
NELHA: Zero.  
PSD: No biodiesel fuel was purchased for the last fiscal year.  
UH: None.

### **Act 96 SLH 2006: Transportation Vehicles and Fuel**

(5) Evaluate a purchase preference for biodiesel blends, as applicable to agencies with diesel fuel purchases;

Not applicable. Superseded by Act 240 of 2006, which established a 5¢ gallon preference for biodiesel. DAGS SPO and DBEDT's Strategic Industries Division are reviewing and drafting Hawai'i Administrative Rules to implement the preference provided in Act 240/SLH 2006 on the requirement of biofuel.

## Act 96 SLH 2006: Transportation Vehicles and Fuel

### (6) Promote efficient operation of vehicles;

AG: Not applicable; AG does not have a fleet.

B&F: Not applicable to B&F.

DAGS: DAGS provides guidelines in the general operation of vehicles including a compressive Preventive Maintenance (PM) Schedule for its vehicles. DAGS Motor pool offers PM services to all state vehicles under 8500 GVW.

DBEDT: Tips for efficient operation of vehicles will be distributed department-wide.

DCCA: DCCA does not own any vehicles.

DHHL: Driving and maintenance tips have been attached to each vehicle mileage log.

DHRD: Not applicable. The department does not have any transportation vehicles.

DHS: DHS continues to coordinate with AMD in the issuance of vehicle operation procedures.

DLIR: DLIR vehicles are serviced by DAGS Automotive Management Division Motor Pool on a regular basis. Both of the DLIR vehicles are in sound condition and they operate at maximum efficiency. The vehicles' operational efficiency can be certified and recertified by the DAGS Automotive Management Division.

DLNR: DLNR encourages maintenance and regular service of vehicles. DLNR continues to seek the advice of other state agencies through DBEDT's Lead by Example Leadership Group and will implement internal procedures as appropriate.

DOA: ASO reminded staff of department's Energy and Water Conservation and Resource Efficiency Program which provides policies, guidelines and practices with the goal of minimizing energy, fuel and water consumption and implementing resource-efficient operations including tips on efficient operation of vehicles.

DOE: No formal programs have been developed by DOE.

DOH: This policy is not in effect. The programs will be advised.

DOT-Airports: Yes.

DOT-Harbors: Need to do more research and develop implementation plan.

DOT-Highways: Highways Division is currently in compliance with both federal and state laws.

DOTAX: DOTAX will promote efficient operation of vehicles through an educational campaign.

FTZ: FTZ does not have a formal program, but follows the state plan for efficient use of vehicles.

HCDA: HCDA encourages staff to walk to properties/appointments whenever possible.

HHFDC: Not applicable.

HHSC: HHSC facilities perform required maintenance of vehicles conforming to manufacturer's recommendations.

HSPLS: HSPLS has guidelines for the general operation and efficient use of all our motor vehicles. We follow the manufacturer's recommended maintenance and servicing schedules for all vehicles. We provide information to all drivers on improving mileage and safety.

HTA-CC: HTA encourages car pooling when using a State of Hawai'i vehicle and HCC specifically logs all trips and mileage using its three assigned vehicles.

NELHA: One of the strategies utilized is having employees use their own vehicles for travel around NELHA, into town and back on business, and so forth. This eliminates the use of state vehicles and saves money as most employees are not willing to fill out the necessary paperwork to get reimbursement for their travels.

When it comes to work vehicular use, the use of solar powered golf carts is encouraged whenever possible. Use of trucks is encouraged only when long trips to Gateway or the 55" pump station are required or heavy equipment parts need to be transported. The solar-powered golf carts are not adequate for these types of trips. When trucks are used, NELHA asks that as many people fit into the cab of the truck as can be accommodated by existing seatbelts, thus saving on multiple vehicular usage to the greatest extent possible. One good practice is to put notices on the driver's side dash board: "Is this trip necessary?"

PSD: IOM No. 2006-2711, dated August 16, 2006, distributed FTC's "Good, Better, Best: How to Improve Gas Mileage" to department's divisions, programs and agencies.

UH: Information regarding the efficient operation of vehicles is currently not distributed. UH plans to develop information brochures and distribute to vehicle operators during the current fiscal year.

## **Act 96 SLH 2006: Transportation Vehicles and Fuel**

(7) Use the most appropriate minimum octane fuel; provided that vehicles shall use 87-octane fuel unless the owner's manual for the vehicle states otherwise or the engine experiences knocking or pinging;

AG: Not applicable; AG does not purchase fuel.

B&F: Not applicable to B&F.

DAGS: DAGS mandates that all vehicles operate on 87 octane fuel unless exempted by the Comptroller's Office. The department will continue to monitor fuel purchases of all agencies.

DBEDT: This instruction will be distributed department-wide.

DCCA: DCCA does not own any vehicles.

DHHL: DHHL will continue to use the most appropriate minimum octane fuels for its vehicles.

DHRD: Not applicable. The department does not have any transportation vehicles.

DHS: DHS continues the implementation of the present policy requiring the use of 87 octane fuel.

DLIR: DLIR vehicles are refueled at the DAGS Automotive Management Division Motor Pool. Neither DLIR vehicle has experienced problems with knocking or pinging.

DLNR: DLNR is in compliance with State Procurement Office bid list rules as stated above. DLNR continues to seek the advice of other state agencies through DBEDT's Lead by Example Leadership Group and will implement internal procedures as appropriate.

DOA: ASO reminded staff of department's Energy and Water Conservation and Resource Efficiency Program which provides policies, guidelines and practices with the goal of minimizing energy, fuel and water consumption and implementing resource-efficient operations including using the 87 octane fuel unless the owner's manual for the vehicle states otherwise or the engine experiences knocking or pinging.

DOE: DOE has instructed all offices to follow this standard.

DOH: The programs are mandated to purchase specific octane fuel from Tesoro, which has a contract with the State.

DOT-Airports: Yes.

DOT-Harbors: The division will purchase environmentally preferable fuels when available and practical.

DOT-Highways: O'ahu, Maui and Kaua'i are currently using 87-octane fuel. Hawai'i will switch to 87-octane fuel in 2009.

DOTAX: DOTAX uses the most appropriate minimum octane fuel, provided that vehicles shall use 87-octane fuel unless the owner's manual for the vehicle states otherwise or the engine experiences knocking and pinging.

FTZ: Fuels are purchased from DAGS automotive division.

HCDA: HCDA complies by refueling at DAGS' central motor pool.

HHFDC: Not applicable.

HHSC: Under the State Contract, all our vehicles are filled with 87 octane, 10% ethanol blended gasoline.

HSPLS: The State Procurement Price Lists include the purchase of ethanol-blended gasoline and alternative fuels when they are available. Comptroller Memorandum No. 2005-13 dated May 17, 2005 requires all State departments to purchase only regular 87 gasoline unless granted prior approval from DAGS to purchase premium or mid-grade gasoline.

HTA-CC: Both HTA and HCC comply with the above requirement.

NELHA: No vehicles require higher than 87 octane gasoline or 45 cetane diesel fuel. None of NELHA's diesel trucks can pass vehicle safety checks so are not authorized for use on state or county roads.

NELHA's diesel electric generators are stationary units, which with the off-highway trucks mean

NELHA purchases off-road diesel, saving a considerable sum as a result.

PSD: PSD follows the Comptroller's Memo 2005-13 on the use of regular grade gasoline.

UH: UH Transportation Services is in compliance.

## Act 96 SLH 2006: Transportation Vehicles and Fuel

(8) Beginning with fiscal year **2005-2006** as the baseline, collect and maintain, for the life of each vehicle acquired, the following data:

(A) Vehicle acquisition cost;

AG: Not applicable; AG does not purchase vehicles.

B&F: Not applicable to B&F.

DAGS: DAGS tracks this information for all its vehicles and will continue to keep accurate records.

DBEDT: Data will be collected if vehicles are acquired.

DCCA: DCCA does not own any vehicles.

DHHL: See Appendix 2.

DHRD: Not applicable. The department does not have any transportation vehicles.

DHS: DHS maintains the vehicle acquisition cost in the fixed asset inventory system.

DLIR: 1999 Ford Windstar acquired on 1-23-01 for \$17,500.00; 1994 Chevrolet Astrovan acquired on 5-3-01 for \$5,900.00.

DLNR: DLNR has a department-wide database that captures vehicle acquisition cost and is developing a program to track vehicle expenses and energy consumption for all cars in the department's inventory. Additionally, DLNR continues to seek the advice of other state agencies through DBEDT's Lead by Example Leadership Group and will implement internal procedures as appropriate.

DOA: The department continued to record vehicle acquisition cost for all new and existing vehicles in its Automotive Management System.

DOE: DOE has developed a database system (Maximo) to capture these data and is in the process of implementing and training users to input the data. See Appendix 3.

DOH: These data are not available in one central file. Each program maintains its own records. Presently the Department has over 40 programs at 80 facilities throughout the State. A database must be created for the individual programs to input the information requested in items A thru F. This database should be web accessible.

DOT-Airports: See Appendix 4. Also, the Airports Division has a contract in progress for fuel pump replacement and an online program to further gather this information through computer program tracking.

DOT-Harbors: See Appendix 5.

DOT-Highways: The Highways Division is currently in the process of gathering data. See Appendix 6.

DOTAX: DOTAX will comply for each vehicle acquired beginning fiscal year 2005-2006.

FTZ: No vehicle was purchased in FY 2005-2006 and there is no intent to purchase any vehicle in the foreseeable future.

HCDA: Not applicable; maintained by DAGS.

HHFDC: Not applicable.

**HHSC: Lē'ahi Hospital**

FY 07 2001 Dodge Stratus - \$5,200

2001 Dodge Stratus - \$5,000

FY 08 2004 Chevy Malibu - \$8,200

2001 Dodge Caravan - \$4,500

**Hilo Medical Center**

FY 07 2002 Oldsmobile Alero - \$6,883

2002 Oldsmobile Alero - \$6,883

2002 Oldsmobile Alero - \$6,883

FY 08 2001 Dodge Stratus - \$4,992

2002 Oldsmobile Alero - \$5,192

2002 Dodge Intrepid - \$6,392

2003 Oldsmobile Alero - \$6,205

**Maui Memorial Medical Center**

FY 06 2002 Oldsmobile Alero - \$5,000

2003 Oldsmobile Alero - \$5,000

1998 Chevy Van - \$4,500

FY 07 2007 Ford E450 van - \$24,730  
 FY 08 2003 Oldsmobile Alero - \$5,500  
       2003 Oldsmobile Alero - \$5,500  
       2002 Oldsmobile Alero - \$5,000  
       2001 Chevy S-10 Pickup - \$4,700  
       2000 Ford 150 - \$6,000

HSPLS: HSPLS has this information included as part of its inventory of all fixed assets and equipment.

HTA-CC: HTA complies.

NELHA: 2005 Chevrolet ¾ ton pickup: \$20,390.00; 2006 Chevrolet ¾ ton pickup: \$22,245.00.

PSD: See Appendix 7 for FY 08 vehicle acquisition costs.

UH: This information is recorded on department hard copy files. The UH plans to convert hard copy data to computer file form during the current fiscal year to facilitate data analysis.

**(B) United States Environmental Protection Agency rated fuel economy;**

AG: Not applicable; AG does not have vehicles.

B&F: Not applicable to B&F.

DAGS: DAGS has this information on file for its vehicles and will continue to keep accurate records.

DBEDT: Data will be collected if vehicles are acquired.

DCCA: DCCA does not own any vehicles.

DHHL: See Appendix 2.

DHRD: Not applicable. The department does not have any transportation vehicles.

DHS: DHS continues to coordinate the issuance of applicable requirements with SPO.

DLIR: 1999 Ford Windstar: 17 mpg City and 23 mpg Highway; 1994 Chevrolet Astrovan: 17 mpg City and 22 mpg Highway.

DLNR: DLNR is developing a program to track vehicle expenses and energy consumption for all cars in the department's inventory. DLNR continues to seek the advice of other state agencies through DBEDT's Lead by Example Leadership Group and will implement internal procedures as appropriate.

DOA: DOA continued to compare actual mileage with U.S. EPA fuel economy rating for all new and existing vehicles in the department's Automotive Management System.

DOE: DOE has developed a database system (Maximo) to capture these data and is in the process of implementing and training users to input the data. See Appendix 3.

DOH: These data are not available in one central file. Each program maintains its own records. Presently the department has over 40 programs at 80 facilities throughout the state. A database must be created for the individual programs to input the information requested in items A thru F. This database should be web accessible.

DOT-Airports: See Appendix 4.

DOT-Harbors: See Appendix 5.

DOT-Highways: The Highways Division is currently in the process of gathering data. See Appendix 6.

DOTAX: DOTAX will comply for each vehicle acquired beginning fiscal year 2005-2006.

FTZ: No vehicle was purchased in FY 2005-2006 and there is no intent to purchase any vehicle in the foreseeable future.

HCDA: Not applicable; maintained by DAGS.

HHFDC: Not applicable.

**HHSC: Lē'ahi Hospital**

2001 Dodge Stratus – 20 to 28 MPG  
 2001 Dodge Stratus – 20 to 28 MPG  
 2004 Chevy Malibu – 22 to 30 MPG  
 2001 Dodge Caravan – 16 to 23 MPG

**Hilo Medical Center**

2002 Oldsmobile Alero - 21 to 32 MPG  
 2002 Oldsmobile Alero - 21 to 32 MPG  
 2002 Oldsmobile Alero - 21 to 32 MPG  
 2001 Dodge Stratus - 20 to 28 MPG  
 2002 Oldsmobile Alero - 21 to 32 MPG  
 2002 Dodge Intrepid - 18 to 26 MPG



2003 Oldsmobile Alero - 20 to 29 MPG  
**Maui Memorial Medical Center**  
2002 Oldsmobile Alero – 21 to 32 MPG  
2003 Oldsmobile Alero – 21 to 32 MPG  
1998 Chevy Van - 12 to 16 MPG  
2007 Ford E450 van - 16 to 23 MPG  
2003 Oldsmobile Alero - 21 to 32 MPG  
2003 Oldsmobile Alero - 21 to 32 MPG  
2002 Oldsmobile Alero - 21 to 32 MPG  
2001 Chevy S-10 Pickup - 18 to 26 MPG  
2000 Ford 150 - 12 to 16 MPG

HSPLS: This information is included with each vehicle at the time of acquisition from the dealers or manufacturers.

HTA-CC: HTA complies.

NELHA: See Appendix 8, “NELHA Vehicle Inventory and Fuel Economy.”

PSD: EPA fuel efficiency data are available for light duty vehicles only (< 8500 lbs GVWR).

UH: This information is not recorded in department files. UH will conduct research and record information on departments’ records in computer file form during the current fiscal year.

(C) Vehicle fuel configuration, such as gasoline, diesel, flex-fuel gasoline/E85, and dedicated propane;

AG: Not applicable; AG does not have vehicles.

B&F: Not applicable to B&F.

DAGS: DAGS has this information for each vehicle and will continue to track the data.

DBEDT: Data will be collected if vehicles are acquired.

DCCA: DCCA does not own any vehicles.

DHHL: See Appendix 2.

DHRD: Not applicable. The department does not have any transportation vehicles.

DHS: DHS continues to coordinate the issuance of applicable requirements with AMD.

DLIR: 1999 Ford Windstar – Gasoline/E85; 1994 Chevrolet Astrovan – Gasoline/E85.

DLNR: DLNR is developing a program to track vehicle expenses and energy consumption for all cars in the department’s inventory. DLNR continues to seek the advice of other state agencies through

DBEDT’s Lead by Example Leadership Group and will implement internal procedures as appropriate.

DOA: DOA continued to maintain fuel configuration for all new and existing vehicles in the department’s Automotive Management System.

DOE: DOE has developed a database system (Maximo) to capture these data and is in the process of implementing and training users to input the data. See Appendix 3.

DOH: These data are not available in one central file. Each program maintains its own records. Presently the Department has over 40 programs at 80 facilities throughout the State. A database must be created for the individual programs to input the information requested in items A thru F. This database should be web accessible.

DOT-Airports: See Appendix 4.

DOT-Harbors: See Appendix 5.

DOT-Highways: The Highways Division is currently in the process of gathering data. See Appendix 6.

DOTAX: DOTAX will comply for each vehicle acquired beginning fiscal year 2005-2006.

FTZ: No vehicle was purchased in FY 2005-2006 and there is no intent to purchase any vehicle in the foreseeable future.

HCDA: Not applicable; maintained by DAGS.

HHFDC: Not applicable.

HHSC: Gasoline is the fuel used for all vehicles.

HSPLS: This information is included with each vehicle at the time of acquisition from the dealers or manufacturers.

HTA-CC: HTA complies.

NELHA: See Appendix 8,, “NELHA Vehicle Inventory and Fuel Economy.”

PSD: See Appendix 7. Where vehicles are indicated with N/A, the programs did not provide the data.



UH: This information is recorded on department hard copy files. The UH plans to convert hard copy data to computer file form during the current fiscal year to facilitate data analysis.

**(D) Actual in-use vehicle mileage;**

AG: Not applicable; AG does not have vehicles.

B&F: Not applicable to B&F.

DAGS: DAGS has this information for each vehicle and will continue to track the data.

DBEDT: Data will be collected if vehicles are acquired.

DCCA: DCCA does not own any vehicles.

DHHL: See Appendix 2.

DHRD: Not applicable. The department does not have any transportation vehicles.

DHS: DHS continues to coordinate with AMD on the issuance of uniform procedures

DLIR: July 1, 2005 to June 30, 2006

1999 Ford Windstar – 2096.1 Miles

1994 Chevrolet Astrovan – 248.0 Miles

July 1, 2006 to June 30, 2007

1999 Ford Windstar – 1616.6 Miles

1994 Chevrolet Astrovan – 166.3 Miles

July 1, 2007 to June 30, 2008

1999 Ford Windstar – 1541.70 Miles

1994 Chevrolet Astrovan – 148.40 Miles

DLNR: DLNR is developing a program to track vehicle expenses and energy consumption for all cars in the department's inventory. DLNR continues to seek the advice of other state agencies through DBEDT's Lead by Example Leadership Group and will implement internal procedures as appropriate.

DOA: DOA continued to record in-use vehicle mileage for all new and existing vehicles in the department's Automotive Management System. The department continued to retrieve information electronically on gas consumption and odometer readings for each vehicle from DAGS Automotive Management Division, Tesoro and Hawai'i Petroleum for FY08. DOA continued to maintain vehicle refueling logs for programs that have vehicles which refuel at places other than DAGS, Tesoro and Hawai'i Petroleum. It also continued to retrieve information electronically on gas consumption and odometer readings for each vehicle from DAGS Automotive Management Division, Tesoro and Hawai'i Petroleum for FY08.

DOE: DOE is in the process of implementing and training users to input the data. See Appendix 3.

DOH: These data are not available in one central file. Each program maintains its own records. Presently the Department has over 40 programs at 80 facilities throughout the State. A database must be created for the individual programs to input the information requested in items A thru F. This database should be web accessible.

DOT-Airports: See Appendix 4.

DOT-Harbors: See Appendix 5.

DOT-Highways: The Highways Division is currently in the process of gathering data. See Appendix 6.

DOTAX: DOTAX will comply for each vehicle acquired beginning fiscal year 2005-2006.

FTZ: No vehicle was purchased in FY 2005-2006 and there is no intent to purchase any vehicle in the foreseeable future.

HCDA: HCDA complies.

HHFDC: Not applicable.

**HHSC: Lē'ahi Hospital**

2001 Dodge Stratus 4,249 miles

2001 Dodge Stratus 4,074 miles

2004 Chevy Malibu 992 miles

2001 Dodge Caravan 618 miles

**Hilo Medical Center**

2002 Oldsmobile Alero 18,845 miles

2002 Oldsmobile Alero 18,884 miles

2002 Oldsmobile Alero 19,649 miles

2001 Dodge Stratus 9,135 miles  
 2002 Oldsmobile Alero 8,550 miles  
 2002 Dodge Intrepid 10,376 miles  
 2003 Oldsmobile Alero 3,725 miles  
**Maui Memorial Medical Center**  
 2002 Oldsmobile Alero – 23,041 miles  
 2003 Oldsmobile Alero – 93,447 miles  
 1998 Chevy Van – 22,103 miles  
 2007 Ford E450 van – 18,499 miles  
 2003 Oldsmobile Alero – 8,314 miles  
 2003 Oldsmobile Alero – 5,784 miles  
 2002 Oldsmobile Alero – 17,504 miles  
 2001 Chevy S-10 Pickup – 27,647 miles  
 2000 Ford 150 – 10,779 miles

HSPLS: 152,068 total miles.

HTA-CC: HTA complies.

NELHA: See Appendix 8, “NELHA Vehicle Inventory and Fuel Economy.”

PSD: See Appendix 7. Where vehicles are indicated with N/A, the programs did not provide the data.

UH: This information is recorded on department hard copy files. The UH plans to convert hard copy data to computer file form during the current fiscal year to facilitate data analysis.

**(E) Actual in-use vehicle fuel consumption; and**

AG: Not applicable; AG does not have vehicles.

B&F: Not applicable to B&F.

DAGS: DAGS has this information for each vehicle and will continue to track the data.

DBEDT: Data will be collected if vehicles are acquired.

DCCA: DCCA does not own any vehicles.

DHHL: See Appendix 2.

DHRD: Not applicable. The department does not have any transportation vehicles.

DHS: DHS continues to coordinate with AMD on the issuance of applicable procedures.

DLIR: July 1, 2005 to June 30, 2006

1999 Ford Windstar – 226.7 Gallons

1994 Chevrolet Astrovan – 21.7 Gallons

July 1, 2006 to June 30, 2007

1999 Ford Windstar – 176.4 Gallons

1994 Chevrolet Astrovan – 20.6 Gallons

July 1, 2007 to June 30, 2008

1999 Ford Windstar – 169.00 Gallons

1994 Chevrolet Astrovan – 20.8 Gallons

DLNR: DLNR is developing a program to track vehicle expenses and energy consumption for all cars in the department's inventory. DLNR continues to seek the advice of other state agencies through DBEDT's Lead by Example Leadership Group and will implement internal procedures as appropriate.

DOA: DOA continued to record in-use vehicle fuel consumption for all vehicles in the department's Automotive Management System. It also continued to retrieve information electronically on gas consumption and odometer readings for each vehicle from DAGS Automotive Management Division, Tesoro and Hawai'i Petroleum for FY08. The department continued to maintain vehicle refueling logs for programs that have vehicles which refuel at places other than DAGS, Tesoro and Hawai'i Petroleum. DOA continued to retrieve information electronically on gas consumption and odometer readings for each vehicle from DAGS Automotive Management Division and Hawai'i Petroleum for FY08.

DOE: DOE is in the process of implementing and training users to input the data. See Appendix 3.

DOH: These data are not available in one central file. Each program maintains its own records. Presently the department has over 40 programs at 80 facilities throughout the state. A database must be created for the individual programs to input the information requested in items A thru F. This database should be web accessible.

DOT-Airports: See Appendix 4..

DOT-Harbors: See Appendix 5.

DOT-Highways: The Highways Division is currently in the process of gathering data. See Appendix 6.

DOTAX: DOTAX will comply for each vehicle acquired beginning fiscal year 2005-2006.

FTZ: No vehicle was purchased in FY 2005-2006 and there is no intent to purchase any vehicle in the foreseeable future.

HCDA: Not applicable; part of central motor pool data.

HHFDC: Not applicable.

**HHSC: Lē‘ahi Hospital**

2001 Dodge Stratus – 193 gallons

2001 Dodge Stratus – 194 gallons

2004 Chevy Malibu – 41 gallons

2001 Dodge Caravan – 34 gallons

**Hilo Medical Center**

2002 Oldsmobile Alero - 723 gallons

2002 Oldsmobile Alero - 739 gallons

2002 Oldsmobile Alero - 662 gallons

2001 Dodge Stratus - 330 gallons

2002 Oldsmobile Alero - 361 gallons

2002 Dodge Intrepid - 417 gallons

2003 Oldsmobile Alero – 128 gallons

**Maui Memorial Medical Center**

2002 Oldsmobile Alero – 1,280 gallons

2003 Oldsmobile Alero – 4,450 gallons

1998 Chevy Van – 1,842 gallons

2007 Ford E450 van – 1,028 gallons

2003 Oldsmobile Alero – 396 gallons

2003 Oldsmobile Alero – 275 gallons

2002 Oldsmobile Alero – 972 gallons

2001 Chevy S-10 Pickup – 1,455 gallons

2000 Ford 150 – 898 gallons

HSPLS: 10,490.37 gallons.

HTA-CC: HTA complies.

NELHA: See Appendix 8, “NELHA Vehicle Inventory and Fuel Economy.”

PSD: FY08 information is See Appendix 7. Where vehicles are indicated with N/A, the programs did not provide the data.

UH: This information is not recorded in department files. The UH will begin vehicle fuel usage data collection in computer file form during the current fiscal year to facilitate data analysis.

**(F) Actual in-use annual average vehicle fuel economy;**

AG: Not applicable; AG does not have vehicles.

B&F: Not applicable to B&F.

DAGS: DAGS has this information for each vehicle and will continue to track the data.

DBEDT: Data will be collected if vehicles are acquired.

DCCA: DCCA does not own any vehicles.

DHHL: See Appendix 2.

DHRD: Not applicable. The department does not have any transportation vehicles.

DHS: DHS continues to coordinate with AMD on issuing applicable procedures.

DLIR: July 1, 2005 to June 30, 2006

1999 Ford Windstar – 9.25 Miles Per Gallon

1994 Chevrolet Astrovan – 11.43 Miles Per Gallon

July 1, 2006 to June 30, 2007

1999 Ford Windstar – 9.16 Miles Per Gallon

1994 Chevrolet Astrovan – 8.07 Miles Per Gallon

A decrease of 3.36 miles per gallon resulted from mechanical problems with the vehicle. The mechanical problems reduced the vehicle total miles driven in FY07 by a total of 81.7 miles (248 miles in FY06 to 166.3 in FY07), a 33 percent reduction. The inability to drive the vehicle accounts for decrease in the miles per gallon of 33 percent. The mechanical problems which prohibited the use of vehicle has been repaired by the DAGS Automotive Division.

July 1, 2007 to June 30, 2008

1999 Ford Windstar – 9.12 Miles Per Gallon

1994 Chevrolet Astrovan – 8.87 Miles Per Gallon

DLNR: DLNR is developing a program to track vehicle expenses and energy consumption for all cars in the department's inventory. DLNR continues to seek the advice of other state agencies through DBEDT's Lead by Example Leadership Group and will implement internal procedures as appropriate.

DOA: DOA is calculating FY08 annual average vehicle fuel economy for each vehicle. Once completed, information will be distributed to program managers for their review and information.

DOE: DOE is in the process of implementing and training users to input the data. See Appendix 3.

DOH: These data are not available in one central file. Each program maintains its own records. Presently the department has over 40 programs at 80 facilities throughout the state. A database must be created for the individual programs to input the information requested in items A thru F. This database should be web accessible.

DOT-Airports: See Appendix 4.

DOT-Harbors: See Appendix 5.

DOT-Highways: The Highways Division is currently in the process of gathering data. See Appendix 6.

DOTAX: DOTAX will comply for each vehicle acquired beginning fiscal year 2005-2006.

FTZ: No vehicle was purchased in FY 2005-2006 and there is no intent to purchase any vehicle in the foreseeable future.

HCDA: Not applicable; part of central motor pool data.

HHFDC: Not applicable.

HHSC: **Lē'ahi Hospital**

2001 Dodge Stratus – 22 mpg

2001 Dodge Stratus – 21 mpg

2004 Chevy Malibu – 24 mpg

2001 Dodge Caravan – 18 mpg

**Hilo Medical Center**

2002 Oldsmobile Alero – 26 mpg

2002 Oldsmobile Alero – 25 mpg

2002 Oldsmobile Alero – 29 mpg

2001 Dodge Stratus – 27 mpg

2002 Oldsmobile Alero – 23 mpg

2002 Dodge Intrepid – 25 mpg

2003 Oldsmobile Alero – 29 mpg

**Maui Memorial Medical Center**

2002 Oldsmobile Alero – 18 mpg

2003 Oldsmobile Alero – 21 mpg

1998 Chevy Van – 12 mpg

2007 Ford E450 van – 18 mpg

2003 Oldsmobile Alero – 21 mpg

2003 Oldsmobile Alero – 21 mpg

2002 Oldsmobile Alero – 18 mpg

2001 Chevy S-10 Pickup – 19 mpg

2000 Ford 150 – 12 mpg

HSPLS: 14.5 miles per gallon.

HTA-CC: HTA complies.

NELHA: See Appendix 8, "NELHA Vehicle Inventory and Fuel Economy."

PSD: See Appendix 7.

UH: This information is not recorded in department files. The UH will facilitate data analysis during the current fiscal year.

## Act 96 SLH 2006: Transportation Vehicles and Fuel

(9) Beginning with fiscal year 2005-2006 as the baseline with respect to each agency that operates a fleet of thirty or more vehicles, collect and maintain, in addition to the data in paragraph (8), the following:

(A) Information on the vehicles in the fleet, including vehicle year, make, model, gross vehicle weight rating, and vehicle fuel configuration;

AG: Not applicable; AG does not have a fleet.

B&F: Not applicable to B&F.

DAGS: DAGS has this information for each vehicle and will continue to track the data.

DBEDT: Does not apply. DBEDT does not operate 30 or more vehicles.

DCCA: DCCA does not own any vehicles.

DHHL: DHHL does not operate a fleet of 30+ vehicles.

DHRD: Not applicable. The department does not operate a fleet of vehicles.

DHS: As applicable, DHS will coordinate the issuance of procedures with AMD.

DLIR: DLIR only owns two light-duty vehicles and these questions are not applicable.

DLNR: DLNR continues to gather the required information on its vehicle fleet. DLNR is developing a program to track vehicle expenses and energy consumption for all cars in the department's inventory. DLNR continues to seek the advice of other state agencies through DBEDT's Lead by Example Leadership Group and will implement internal procedures as appropriate.

DOA: DOA continued to maintain information on vehicle year, make, model, gross vehicle weight rating, and vehicle fuel configuration for all new and existing vehicles in the department's Automotive Management System.

DOE: DOE is in the process of implementing and training users to input the data. See Appendix 3.

DOH: These data are not available in one central file. Each program maintains its own records. Presently the department has over 40 programs at 80 facilities throughout the state. A database must be created for the individual programs to input the information requested in items A thru F. This database should be web accessible.

DOT-Airports: All this information is under the new contract in progress issued by Airport Division Engineering Facilities Maintenance Section. See Appendix 4.

DOT-Harbors: See Appendix 5.

DOT-Highways: The Highways Division is currently in the process of gathering data. See Appendix 6.

DOTAX: Not applicable; DOTAX does not have a fleet of thirty vehicles or more.

FTZ: Not applicable; FTZ does not operate a fleet of thirty or more vehicles.

HCDA: HCDA does not maintain fleet of 30+ vehicles.

HHFDC: Not applicable.

HHSC: None of the hospitals operates a fleet of thirty or more vehicles.

HSPLS: Not applicable; HSPLS does not operate a fleet of more than 30 vehicles.

HTA-CC: Not applicable.

NELHA: Not applicable; NELHA does not operate a fleet of thirty or more vehicles.

PSD: See Appendix 7.. The following classification was used to determine the gross vehicle weight rating (GVWR):

VEHICLE CLASSIFICATION	WEIGHT
Class 1	0 - 6,000 lbs
Class 2	6,001 - 10,000 lbs
Class 3	10,001 - 14,000 lbs
Class 4	14,001 - 16,000 lbs
Class 5	16,001 - 19,500 lbs
Class 6	19,501 - 26,000 lbs
Class 7	26,001 - 33,000 lbs
Class 8	33,001 lbs and over

UH: This information is recorded on department hard copy files. UH will convert hard copy data to computer files during the current fiscal year to facilitate data analysis.

(B) Fleet fuel usage, by fuel;

AG: Not applicable; AG does not have a fleet.

B&F: Not applicable to B&F.

DAGS: DAGS has this information for each vehicle and will continue to track the data.

DBEDT: Does not apply. DBEDT does not operate 30 or more vehicles.

DCCA: DCCA does not own any vehicles.

DHHL: DHHL does not operate a fleet of 30+ vehicles.

DHRD: Not applicable. The department does not operate a fleet of vehicles.

DHS: As applicable, DHS will coordinate the issuance of procedures with AMD.

DLIR: DLIR only owns two light-duty vehicles and these questions are not applicable.

DLNR: DLNR is developing a program to track vehicle expenses and energy consumption for all cars in the department's inventory. DLNR continues to seek the advice of other state agencies through DBEDT's Lead by Example Leadership Group and will implement internal procedures as appropriate.

DOA: DOA continued to record in-use vehicle fuel consumption for all vehicles in the department's Automotive Management System. It also continued to retrieve information electronically on gas consumption and odometer readings for each vehicle from DAGS Automotive Management Division, Tesoro and Hawai'i Petroleum for FY08. The department continued to use vehicle refueling logs for programs that have vehicles which refuel at places other than DAGS, Tesoro and Hawai'i Petroleum. DOA continued to retrieve information electronically on gas consumption and odometer readings for each vehicle from DAGS Automotive Management Division, Tesoro and Hawai'i Petroleum for FY08. Once completed, information will be distributed to program managers for their review and information. See Appendix 3.

DOE: DOE is in the process of implementing and training users to input the data.

DOH: These data are not available in one central file. Each program maintains its own records. Presently the department has over 40 programs at 80 facilities throughout the state. A database must be created for the individual programs to input the information requested in items A thru F. This database should be web accessible.

DOT-Airports: All under the new contract in progress issued by Airport Division Engineering Facilities Maintenance Section. See Appendix 4.

DOT-Harbors: See Appendix 5.

DOT-Highways: The Highways Division is currently in the process of gathering data. See Appendix 6.

DOTAX: Not applicable; DOTAX does not have a fleet of thirty vehicles or more.

FTZ: Not applicable; FTZ does not operate a fleet of thirty or more vehicles.

HCDA: HCDA does not maintain a fleet of 30+ vehicles.

HHFDC: Not applicable.

HHSC: None of the hospitals operates a fleet of thirty or more vehicles.

HSPLS: Not applicable; HSPLS does not operate a fleet of more than 30 vehicles.

HTA-CC: Not applicable.

NELHA: Not applicable; NELHA does not operate a fleet of thirty or more vehicles.

PSD: The following defines how much each program spent for fuel during the past fiscal year.

PROGRAM	COST OF FUEL
Kulani	\$54,032.34
HCCC	\$45,368.46
MCCC	\$16,769.35

OCCC	\$46,588.84
WCCC	\$12,859.99
Intake Service	\$1,846.84
Sheriff	\$136,561.96
Admin	\$12,251.92
HCF	\$23,387.73
WCF	\$8,537.72
KCCC	\$8,014.14
CPS	\$15,482.69
Health care	\$1,109.21
NED	\$19,005.95
HPA	none

UH: This information is not recorded on department hard copy files. UH will begin recording fleet fuel usage by fuel during the current fiscal year.

(C) Fleet mileage; and

AG: Not applicable; AG does not have a fleet.

B&F: Not applicable to B&F.

DAGS: DAGS has this information for each vehicle and will continue to track the data.

DBEDT: Does not apply. DBEDT does not operate 30 or more vehicles.

DCCA: DCCA does not own any vehicles.

DHHL: DHHL does not operate a fleet of 30+ vehicles.

DHRD: Not applicable. The department does not operate a fleet of vehicles.

DHS: As applicable, DHS will coordinate the issuance of procedures with AMD.

DLIR: DLIR only owns two light-duty vehicles and these questions are not applicable.

DLNR: DLNR is developing a program to track vehicle expenses and energy consumption for all cars in the department's inventory. DLNR continues to seek the advice of other state agencies through DBEDT's Lead by Example Leadership Group and will implement internal procedures as appropriate.

DOA: DOA continued to record in-use vehicle mileage for all new and existing vehicles in the department's Automotive Management System. It also continued to retrieve information electronically on gas consumption and odometer readings for each vehicle from DAGS Automotive Management Division, Tesoro and Hawai'i Petroleum for FY08. The department continued to maintain vehicle refueling logs for programs that have vehicles which refuel at places other than DAGS, Tesoro and Hawai'i Petroleum. DOA continued to retrieve information electronically on gas consumption and odometer readings for each vehicle from DAGS Automotive Management Division, Tesoro and Hawai'i Petroleum for FY08. Once completed, information will be distributed to program managers for their review and information.

DOE: DOE is in the process of implementing and training users to input the data. See Appendix 3.

DOH: These data are not available in one central file. Each program maintains its own records. Presently the department has over 40 programs at 80 facilities throughout the state. A database must be created for the individual programs to input the information requested in items A thru F. This database should be web accessible.

DOT-Airports: All this information is under the new contract in progress, issued by Airport Division Engineering Facilities Maintenance Section. See Appendix 4.

DOT-Harbors See Appendix 5.

DOT-Highways: The Highways Division is currently in the process of gathering data. See Appendix 6.

DOTAX: Not applicable; DOTAX does not have a fleet of thirty vehicles or more.

FTZ: Not applicable; FTZ does not operate a fleet of thirty or more vehicles.

HCDA: HCDA does not maintain a fleet of 30+ vehicles.

HHFDC: Not applicable.

HHSC: None of the hospitals operates a fleet of thirty or more vehicles.



HSPLS: Not applicable; HSPLS does not operate a fleet of more than 30 vehicles.  
HTA-CC: Not applicable.  
NELHA: Not applicable; NELHA does not operate a fleet of thirty or more vehicles.  
PSD: See Appendix 7. Where vehicles are indicated with N/A, the programs did not provide the data.  
UH: This information is recorded on department hard copy files. UH will compile and record data on computer file during current fiscal year.

(D) Overall annual average fleet fuel economy and average miles per gallon of gasoline and diesel.

AG: Not applicable; AG does not have a fleet.  
B&F: Not applicable to B&F.  
DAGS: DAGS has this information for each vehicle and will continue to track the data.  
DBEDT: Does not apply. DBEDT does not operate 30 or more vehicles.  
DCCA: DCCA does not own any vehicles.  
DHHL: DHHL does not operate a fleet of 30+ vehicles.  
DHRD: Not applicable. The department does not operate a fleet of vehicles.  
DHS: As applicable, DHS will coordinate the issuance of procedures with AMD.  
DLIR: DLIR only owns two light-duty vehicles and these questions are not applicable.  
DLNR: DLNR is developing a program to track vehicle expenses and energy consumption for all cars in the department's inventory. DLNR continues to seek the advice of other state agencies through DBEDT's Lead by Example Leadership Group and will implement internal procedures as appropriate.  
DOA: DOA is calculating FY08 annual average vehicle fuel economy for each vehicle. Once completed, the information will be distributed to program managers for their review and information.  
DOE: DOE is in the process of implementing and training users to input the data. See Appendix 3.  
DOH: These data are not available in one central file. Each program maintains its own records. Presently the department has over 40 programs at 80 facilities throughout the state. A database must be created for the individual programs to input the information.  
DOT-Airports: All this information is under the new contract in progress, issued by Airport Division Engineering Facilities Maintenance Section. See Appendix 4.  
DOT-Harbors: See Appendix 5.  
DOT-Highways: The Highways Division is currently in the process of gathering data. See Appendix 6.  
DOTAX: Not applicable; DOTAX does not have a fleet of thirty vehicles or more.  
FTZ: Not applicable; FTZ does not operate a fleet of thirty or more vehicles.  
HCDA: HCDA does not maintain fleet of 30+ vehicles.  
HHFDC: Not applicable.  
HHSC: None of the hospitals operates a fleet of thirty or more vehicles.  
HSPLS: Not applicable; HSPLS does not operate a fleet of more than 30 vehicles.  
HTA-CC: Not applicable.  
NELHA: Not applicable; NELHA does not operate a fleet of thirty or more vehicles.  
PSD: See Appendix 7. City MPG and highway MPG were accumulated based on the vehicle type and the GVWR.  
Article II. UH: This information is not recorded in department files. UH will begin data analysis to determine fleet fuel economy during the current fiscal year.

## Renewable Energy and Resource Development

**All affected agencies and programs** are directed to **review internal policies, rules, and practices regarding permitting requirements affecting renewable energy development.** To the extent possible, permitting policies and practices should be **streamlined to expedite implementation** of renewable energy projects. It is requested that agencies prepare a report to my office identifying the **specific steps they have taken to expedite** the approval of renewable energy projects.

**DBEDT:** DBEDT prepared a report outlining potential models for permit facilitation and streamlining as implemented by other states, in response to SCR 164 of the 2007 session of the Hawai'i State Legislature. The report is available on DBEDT's energy website.

During the 2008 session of the Hawai'i State Legislature, two bills were passed that help to expedite the permitting of renewable energy projects in Hawai'i. HB 2863 and HB 2505 were passed in FY 2008, and signed on July 1, 2008 as Act 207 and Act 208 respectively.

Act 207 establishes new responsibilities for the Director of DBEDT as the state's Energy Resources Coordinator. The Coordinator will create a streamlined permitting process that includes state and county permits required for the siting, development, construction, and operation of a new renewable energy facility of at least 200 megawatts capacity. The bill requires the Coordinator to hold a public meeting on the island where the project will be located to promote awareness and encourage public input.

Act 208 establishes a full-time renewable energy facilitator position in DBEDT. The facilitator will report to the Energy Resources Coordinator. The facilitator's duties will include facilitating existing permits, proposing changes to the permit process and coordinating energy projects.

**DLNR:** DLNR continues to review internal policies, rules, and practices regarding permitting requirements affecting renewable energy development. To the extent possible, DLNR streamlines permitting policies and practices to expedite implementation of renewable energy projects. Two of these permitting processes are detailed below.

**DLNR issuance of Conservation District Use Permits:** The Office of Conservation and Coastal Lands (OCCL) oversees activities within the Conservation District. OCCL rules state that "energy generation facilities utilizing the renewable resources of the area (e.g. hydroelectric or wind farms)...and other such land uses which are undertaken by non-governmental entities which benefit the public and are consistent with the purpose of the conservation district." Thus, renewable energy projects can be located within the Conservation District with approval by way of a Conservation District Use Permit.

**DLNR issuance of Incidental Take Licenses:** In order to be in compliance with both state and federal endangered species laws, energy and resource development projects that impact threatened and endangered species must be issued an Incidental Take License by both DLNR and the United States Fish and Wildlife Service (USFWS). Both agencies require that project proponents complete a Habitat Conservation Plan (HCP) prior to the issuance of the take licenses. In order to minimize procedural burdens on the applicants, DLNR works cooperatively with USFWS in concurrently processing the request for take licenses. After notice in the periodic bulletin of the Office of Environmental Quality Control, a public hearing is held on the islands affected, which is, whenever possible, held jointly with USFWS. The Board of Land and Natural Resources (BLNR) may approve the federal HCP without requiring a separate version if the federal HCP satisfies all the criteria of the state endangered species statutes. All state agencies, to the extent feasible, work cooperatively to process applications for HCPs on a consolidated basis including concurrent processing of any state land use permit application that may be required. In order to further streamline the process of approving an HCP and the issuance of an Incidental Take License, the state established the Endangered Species Recovery Committee that serves as a consultant to the BLNR by reviewing all HCPs and making recommendations regarding whether they should be approved.

**DLNR Revised Application to Lease State Lands:** For instances when renewable energy producers are interested in leasing state lands, the application form has been revised to comply with Section 171-95 (a) (2) (3) (c), HRS. Land Division takes steps to process the request in a timely manner. Staff coordinates the applicants' request for a lease with OCCL, DOFAW, OHA, and other

government agencies. Then, staff obtains approval from the Land Board for the issuance of a direct lease.

DOA: Research on renewable energy projects may require the importation of various types of microorganisms or plant materials that require permitting through the Plant Industry Division of DOA. During FY08, the Plant Industry Division has been upgrading its Invicta database software and its hardware platform which will make the import process more efficient. Governor Lingle signed Act 159 in FY07 which established an energy feedstock program within DOA to encourage the production of energy feedstock in Hawai'i and create milestones and objectives for energy feedstock to be grown in the state to meet its energy requirements. The legislature did not appropriate any funds for the program so DOA has been implementing and moving this program forward in FY 08 primarily thorough collaboration with the Strategic Industries Division in DBEDT.

FTZ: FTZ is supporting the efforts of the DBEDT Strategic Industries Division in this regard.

HCDA: There are no plans to expedite approval processes as HCDA already has Administrative Rules that mandate decisions be made within a set amount of time or else permits are automatically approved. However, HCDA is currently requiring, as a permit condition, private developers to consult with HECO, DBEDT Energy Division, and the Board of Water Supply on ways to conserve/preserve resources. HCDA is also considering, as part of its Mauka Area Plan & Rules incorporation of LEED standards as a requirement of all development – public or private – in its Kaka'ako Community Development District. Same is true at Kalaeloa. Neither will be complete before January 12, 2007, but this policy direction may be incorporated into report.

HHFDC: HHFDC is evaluating the possibility of installing a photovoltaic system at the Pohulani Elderly Project building.

HTA-CC: HTA and HCC continue reviewing all CIP projects to implement where possible renewable energy or energy efficient programs and projects whenever available.

UH: UH Mānoa – Established the positions of Energy Manager and Assistant Energy Manager to review the application of renewable energy and energy reduction technology to the existing Campus Renewal CIP projects.

## Act 160

(1) Energy consumption in kilowatt hours for the past year (July 1, 2007, to June 30, 2008) FY '08 (kWh consumption);

*Data were received directly from the electric utilities and are presented in Table 2.*

FY '08 (paid for kWh consumption);

*Data were received directly from the electric utilities and are presented in Table 4.*

## Act 160

(2) Steps taken to **inventory, investigate, plan, and implement** energy reduction efforts; and

AG: The department continues to issue reminders to staff to “Switch it Off,” keep blinds closed, and report equipment malfunctions. All new equipment purchases must be Energy Star®, or approved by Administrative Services Office if not Energy Star®.

B&F: Please see items 4, 5, 6 and 7 under “Act 96 SLH 2006: Buildings and Facilities.”

DAGS: DAGS is replacing mechanical equipment as the equipment reaches its expected life span or begins to cause problems, and as funding is available. The new equipment has higher efficiencies due to newer technologies and because the older equipment has decreased in efficiency due to age.

DAGS is working with the service and maintenance contractors to aid in the inventory process, which works well since they have the greatest knowledge of the operations and condition of the equipment because they physically see and inspect all of the major equipment on a quarterly basis, at minimum.

DAGS is preparing cost/benefit analyses for replacing existing a/c systems with new, more efficient, systems prior to the existing systems reaching their expected life span.

A cost/benefit analysis determined that replacing the existing energy efficient electronic ballasts and T-8 lamps with the new Super T-8 lighting ballasts and lamps is cost justified. Projects for lighting retrofits are being done with Super T-8s.

DAGS has been working closely with HECO to streamline the process for tracking projects to ensure and encourage maximum participation in rebate programs. HECO rebates are being submitted as projects get implemented.

During fiscal year '08, eleven pilot retrocommissioning projects were initiated on O'ahu, Hawai'i, Maui and Kaua'i to develop strategies that would result in energy savings. Some projects have completed work up to the investigation phases and implemented minor repairs. Other recommended work will need to be included in future CIP budget requests.

DAGS, on behalf of the HSPLS, also plans to implement retrocommissioning on all libraries statewide during FY 2009 subject to available funding. Qualifications from interested retrocommissioning consultants have been solicited and are currently pending selection for the various projects.

DBEDT: DBEDT worked with DOT- Airports Division to develop a statewide Request for Proposals (RFP) for photovoltaic systems. In March 2008, DOT awarded a competitive contract to develop these photovoltaic systems at 10 transportation facilities, including the Honolulu, Kona, Kalaeloa, Kahului, Līhu'e, Moloka'i and Lāna'i Airports as well as the Hawai'i Foreign Trade Zone in Honolulu. The solar systems are scheduled to be developed and installed at the 10 DOT facilities over the next two years.

**Conferences, Seminars and Meetings:** A total of 2,211 people attended DBEDT-sponsored energy-related conferences, seminars and meetings. The following are meetings and conferences not discussed above.

Rebuild Hawai'i Consortium. The Rebuild Hawai'i Consortium met on November 27, 2007. Topics included American Samoa Power Authority; Sustainability Planning/Projects at DOD; Hawai'i

BuiltGreen™ Certification; Workforce Education in Photovoltaic Design at HPU; SunEdison in Hawai'i; impact of UV on productivity, indoor air quality and energy savings; and City and County of Honolulu-Sustainability Plan. At the Consortium meeting held March 6, 2008, new officers were elected. The meeting topics included the HECO Home Energy Challenge video; the Hawai'i Clean Energy Initiative; the Ni'ihau PV project; the Hawai'i Air National Guard/Hickam AFB—Air Compressor project; preliminary research on Cold Seawater Agriculture Applications; Micro-Planet voltage regulator demonstrations; Johnson Controls' needs assessment tool; Sustainable Saunders project; and the proposed transfer of energy efficiency DSM programs to a third-party public benefits fund administrator. Another meeting of the Consortium was held June 13, 2008. Presentation topics included: USDOE-Hawai'i Clean Energy Initiative; HECO Efficiency Update; Update on Green House Gas Task Force and Climate Change Registry; Wave Energy; Restaurant Benchmarking Project; the latest on LED Lighting; Energy Systems Analysis. There were 51 participants.

2007 Pacific Coast Electrical Association Conference and Expo (PCEA-07). DBEDT and the US Department of Energy (USDOE) were co-sponsors of the HECO Pacific Coast Electrical Association conference and exposition held on Maui, September 6-8, 2007. More than 315 representatives of utilities, government, vendors, private sector and non-profit organizations attended this bi-annual event. The theme of the conference was "Today's Innovation....Tomorrow's Independence." There were 350 attendees, including energy managers, property managers, consultants, vendors, trade allies, utility personnel, and government representatives. The PCEA featured tracks on energy efficiency, facilities and plant engineering, renewable energy and sustainability, and new technologies. DBEDT received a grant from the USDOE to support Hawai'i State Energy Program personnel travel to this event. The USDOE also hosted an exhibit at the event.

2007 Pacific Peer Exchange. DBEDT organized the 2007 Pacific Peer Exchange Meeting held on September 4, 2007, in Honolulu. Representatives from the Territories of American Samoa and Guam, Commonwealth of the Northern Mariana Islands, State of Hawai'i, counties of Kaua'i and Hawai'i, and the U.S. Department of Energy Golden Field Office participated in the Peer Exchange meeting. Funding was provided by USDOE for the participation at this event for the Pacific entities. The agenda included updates on issues, funding opportunities, and procedures by the State of Hawai'i, NETL, Golden Project Management Center, as well as updates on current activities by other participants. The participants found the Pacific Peer Exchange valuable as it provided an opportunity to meet and interact with USDOE personnel as well as the Pacific entities and to learn from each other.

American Samoa Power Authority Board of Directors (ASPA) briefing. DBEDT-SID arranged for a briefing for the five members of the American Samoa Power Authority Board of Directors, Chief Executive Officer, Special Projects and Grants Manager, and Engineering Services Division by companies in Hawai'i that provide products and services that might be of interest to them. The Board of Directors also manages water and sewer and solid waste. The utility has a 30 MW base load. Imperium Hawai'i provided information on biodiesel and its development in Hawai'i. Sopogy, Inc. provided information on a modular concentrated solar thermal system that could have applications in the islands. Luis Vega discussed small wind and solar systems for Pacific Islands, based on his experience with village systems in Fiji, and also some cautions and parameters for an OTEC plant. Maurice Kaya spoke about Hawai'i energy policies and programs. The meeting ended with agreements for Hawai'i to continue to provide information to ASPA, especially in the area of energy efficiency.

West Coast Collaborative (RBA Cohort). Hawai'i is working with a collaborative of Western States (Alaska, California, Idaho, Oregon and Washington) to have a single voice on various projects that would impact the region. The group will work with regional and national goals to evaluate tools which benchmark building energy and impact on the environment. The first project will be to understand how Energy Star® Portfolio Manager works, its basic structure, and derivation of assumptions. This project will be funded by NASEO through Oregon. DBEDT is collaborating on a statement of work.

University of Washington Industrial Assessment Center. DBEDT-SID assisted the University of Washington Industrial Assessment Center with local contacts for energy audits of large manufacturing/industrial facilities in Hawai'i. The program is funded by USDOE.

Sustainability Design Tools Workshops. A workshop on Commissioning and LEED was held April 4, 2008. Featured presenters were Frank Shadpour, President of SC Engineers, Inc. and an

ASHRAE Fellow; Tim Jacoby, Vice President of Facilities, Plant Operations and Planning at Rady Children's Hospital in San Diego, California; and George Benda, CEO of Chelsea Group. The workshop covered the benefits of commissioning and retrocommissioning, what is involved and strategies for implementation. The emphasis was on LEED projects and utilization of controls. Real world examples of various commercial building projects were presented.

The last of a series of 13 Sustainability Workshops, a partnership between HECO and DBEDT, was held June 27, 2008. The purpose of the workshop was to define sustainability, provide case studies of Hawai'i business efforts, and discuss tools that businesses can use to direct their sustainability efforts. "Sustainability" was defined as "meeting the needs of the present without compromising the ability of future generations to meet their needs." The workshop reviewed basic issues, defined commonly used terminology, and presented methods used to achieve sustainability. Speakers included conference presenters Kirsten and David Turner; case study presenters from Punahou School, US Army Garrison, Maui Land & Pineapple Company, and Grace Pacific. Discussion of Tools included ecological foot printing, green house gas accounting, energy efficiency audits, financing energy efficiency, triple bottom line accounting, and workforce development. There were an estimated 100 participants.

U.S Department of Defense (DOD) Pacific Region Energy Management Forums. Staff attended the US Army/ USDOE sponsored forum at Fort Shafter on March 17 and 18, 2008. Information on environmental sustainability, strategic initiatives, renewable energy technologies, energy challenges, oil outlook. Information on initiatives for acquisition of on-site energy generation including production of renewable energy for all DOD installations in Hawai'i; Army privatized housing initiative; zero net energy installations; and sustainable design was presented. Staff met with representatives of the US Department of Energy Federal Management Training to lay the ground work for technical assistance and training for state facilities.

Staff attended a DOD Industry Forum on August 15-16, 2007 at the Marine Corps Base Hawai'i Officers' Club on O'ahu. The intent of the Forum was to educate and inform industry of DOD's procurement/acquisition process, opportunities, land assets, contractual and legal parameters, business and program goals and DOD's strategic and economic vision for distributed generation. It is understood that DOD is planning to issue requests for proposals for distributed generation, especially renewable energy in the State of Hawai'i, on a DOD-Hawai'i-wide basis.

**State Facilities Energy Management Advisory Committee:** DBEDT convened the State Facilities Energy Management Advisory Committee (EMAC) in 2007. The Committee was created by the Hawai'i State Legislature through Act 96 of 2006, Governor Lingle's comprehensive "Energy For Tomorrow" energy initiative. This legislation called for the State's Energy Resource Coordinator to appoint an advisory committee to provide input on State energy management in the following seven areas:

- (1) Improve the use of energy-savings contracts;
- (2) Improve procurement of Energy Star® and other energy efficient products;
- (3) Improve building design;
- (4) Reduce energy use;
- (5) Enhance applications of efficient and renewable energy technologies at state facilities;
- (6) Establish benchmarks and evaluate the State's progress in incorporating energy efficiency and conservation for state facilities, vehicles, and equipment; and
- (7) Make recommendations on how and when to conduct periodic energy audits.

The committee was composed of representatives from state agencies including the University of Hawai'i, energy service companies, utility companies, equipment manufacturers, construction and architectural companies, environmental, energy and consumer groups, and other energy related organizations. After meeting several times in the fall of 2007, the committee issued a final report the Legislature with recommendations on energy management, which included:

- Ask the State Legislature to provide to DBEDT funding to conduct energy audits of state facilities in accordance with American Society of Heating, Refrigerating, and Air Conditioning Engineers (ASHRAE) Standards.
- Adopt ASHRAE Standard 90.1, 2004, as the minimum energy standard for new and renovated buildings and facilities to bring buildings in compliance with the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED™) standards.

- Set up an “award” system by which agencies that implement energy savings projects receive a share of the savings in the next annual budget for pursuit of additional energy savings projects, as an incentive to actively pursue energy conservation.
- Provide DBEDT with funding to identify LEED projects, develop commissioning (enhanced and fundamental commissioning) and retrocommissioning guidelines as defined by LEED
- Consider establishing a State of Hawai‘i Department of Energy which would be given additional administrative powers in order to fulfill the energy mandates already established by the Administration and the State Legislature.

#### **Other Energy Efficiency Projects:**

Technical assistance for Energy Performance Contracting (EPC). DBEDT’s technical consultant provided information on EPC project financing mechanisms and processes, focusing on municipal tax-exempt leasing, and addressed in detail the substantial financial benefits to Hawai‘i Public Housing Authority (HPHA) associated with HUD’s frozen rolling base incentive. A representative of Budget and Finance met with the HPHA and provided assurances to the Chairman of the Board that HPHA would not be assuming a financial risk by proceeding with the investment grade audit portion of the RFP. He also provided information on HUD’s evolving asset management approach to their project-based accounting procedures and described how the new standards might affect HPHA’s ability to bundle EPC projects.

The consultant also provided technical assistance to state facilities including: developing guidelines to implement energy performance contracting; provided guidelines on how to select facilities; developed a spreadsheet to list building and selected conservation measures to use in collecting data to identify candidate projects; and provided guidelines for performance-based maintenance contracts.

The Rebuild Hawai‘i Coordinator program was established in 2004. The initial contract created the position of Rebuild Hawai‘i Coordinator to work with Hawai‘i Rebuild America partnerships, Rebuild Hawai‘i Consortium members, and other interested organizations to promote efficient energy resource utilization and provide technical assistance to Hawai‘i Rebuild America partners to encourage energy efficiency in buildings. A significant part of this program was to provide technical assistance to the Hawai‘i Public Housing Authority. A report on the potential of enhanced use leasing for state facilities projects was also prepared.

Commissioning and Retrocommissioning. The Energy Program Specialist was assigned the management of a consulting contract for Commissioning and Retrocommissioning upon the resignation of another staff member. Major effort was expended in updating contract files and becoming familiar with the project. A roadmap was developed for use by the Branch Manager to authorize further work by the consultant. There are two active projects to provide technical assistance to state agencies. One is for a retrocommissioning project at the University of Hawai‘i’s Coconut Island Laboratory; the other, to review the DAGS Design Consultant Criteria Manual.

Technical assistance from the U.S. Department of Energy (USDOE). On February 1, 2008, the Manager of the Energy Efficiency Branch and Energy Conservation Program Specialist met with David Rodgers, USDOE to discuss energy efficiency opportunities in buildings, educational facilities, challenges in Hawai‘i for energy service companies (ESCOs), and to stress the importance of more information on power purchase agreements and integrated efficiency/renewable energy financial tools. The Director of DAGS briefed Rodgers on the statewide solicitation for EPC.

On March 19, 2008, the Manager of the Energy Efficiency Branch and Energy Conservation Program Specialist met with David McAndrew, USDOE Federal Energy Management Program (FEMP) and representatives of Pacific Northwest National Laboratory and the National Renewable Energy Laboratory to share information on programs available and opportunities for mutual cooperation. Support to the Hawai‘i Clean Energy Initiative from FEMP and the labs could include training for energy auditors, use and understanding of monitoring and verification, and use and understanding of various financing alternatives for ESPC. USDOE has made technical assistance to Hawai‘i for ESPC a high priority and is offering various services through the State Energy Office. Mark Bailey is the contact at USDOE and Carilyn Shon is the Hawai‘i contact.

Preliminary discussions were held with the Energy Services Coalition (ESC) which has been provided funding by the USDOE through the National Association of State Energy Officials (NASEO) to assist State Energy Offices with high level and programmatic support to build the capability in the

state to support energy savings performance contracting. ESC was assigned by the Hawai'i Energy Office to assist DAGS to develop a statewide solicitation for EPC. The draft RFP for qualifying ESCOs was completed, submitted to DAGS for review, and subsequently advertised. Qualified companies are expected to be identified by September 2008.

DBEDT consultant Dave Birr provided sample EPC documents to DAGS and met with them and HPHA representatives to discuss issues in implementation of EPC. He also provided training to DAGS and state facilities through the National Association of Energy Services Companies (NAESCO) under a separate agreement with Lawrence Berkley National Laboratory/USDOE.

Hawai'i Public Housing Authority. DBEDT continued to provide technical assistance to the Hawai'i Public Housing Authority (HPHA). The project would include 5,363 federally-funded residential units that would be retrofit with energy and water efficiency improvements. Estimates of the value of the project are from \$10 - \$15 million with annual energy and water savings of \$1 to \$1.2 million. The project would be carried out under HUD requirements and would use third party financing. Two days of training for the HPHA evaluation committee were held April 21 and 22, at HPHA.

DBEDT staff was appointed a member of the evaluation committee for the HPHA EPC and attended meetings of the evaluation committee and oral interviews of three selected proposers on June 4, 5, and 6. The award is expected in August 2008.

State of Hawai'i Air National Guard (HIANG) Air Compressor System. The Rebuild Coordinator organized and led a partnership among DBEDT, Hawai'i Air National Guard, Hickam Air Force Base, and Hawaiian Electric Company (HECO), which resulted in a \$161,000 replacement of a very inefficient compressor system that was being used by HIANG at the Base. Resulting annual resource savings were approximately \$37,000 in electricity and \$11,000 in water costs. This savings is equivalent to 257,000 kilowatt-hours per year (kWh/yr) and 4 million gallons of water per year. Net of the HECO rebate, the simple payback of this project is 36 months. HECO provided \$10,000 for an audit/design study of the replacement compressor system, as well as a \$13,233 customized rebate; DBEDT provided over \$4,000 in in-kind services. The rebate is being used for additional energy efficient capital improvements at Hickam Air Force Base. In addition, copper windings from the old compressor have been recycled, and the proceeds are being used to enhance the Base's recycling program.

Garbage To Energy. DBEDT staff met with several garbage-to-energy companies featuring much-improved techniques for separating recyclables and producing both usable fuel and electricity from garbage. DBEDT arranged for meetings with regulatory and pollution-monitoring agencies to assess the environmental feasibility of the technologies and to expedite the permitting process. If deployed, these technologies could eliminate much of Hawai'i's garbage while supplying a significant fraction of each county's electricity in addition to supplying some gaseous and liquid fuel.

Integrated Resource Planning/Demand-side Management. SID staff attended a HECO Demand-side Management (DSM) Technical Meeting on August 3, 2007 which was focused on future DSM Program Design in light of the Decision and Order from the Hawai'i Public Utilities Commission transferring HECO's DSM programs to a Public Benefits Fund Administrator as of the end of December 2008. The meeting also discussed program development methodology and pilot programs and pricing initiatives. DBEDT provided comments/questions relating to HECO's July 23, 2007 request for "input on how to balance the DSM objectives to determine an optimal DSM portfolio." Technical questions were related to balancing the DSM objectives through an optimal portfolio, Maximum Achievable Potential results, proposed expenditure cap for DSM, and Ratepayer Impact Measure benefit cost ratio.

Staff also attended IRP Technical Sessions: August 30, 2007 on HECO's preliminary load forecast and distributed generation data; October 17, 2007 on incorporating as-available renewable energy onto the HECO system; April 15, 2008 to learn about the utility's approach to Greenhouse Gas analysis, load forecast, fuel price forecast, and supply-side resources.

This round of the IRP, IRP-4, is very complex with consideration of Greenhouse Gas (GHG) and biofuels impacts. HECO acknowledged the importance of the Hawai'i Clean Energy Initiative (HCEI) but stated that this IRP was to be provided to the Public Utilities Commission prior to the results of the initiative being known. HECO's efforts would be to work, within the time frame allowed, to ensure that the IRP and HCEI are not too detached from each other. The load forecast assumptions were broadened to include NYMEX contract prices (futures) as well as the EIA



forecasts and HECO historical trends. Discussion of GHG issues included complexity of including price increases related to GHG regulation such as carbon tax or cap and trade. Demand-side management savings were not included in the forecast, since their DSM programs would be seamlessly transferred to Public Benefits Fund administration in January 2009. On the supply-side, HECO indicated that they would not install or improve any additional fossil-fuel fired generation.

DBEDT is also participating in the IRP updates conducted by the other utilities, HELCO, MECO and KIUC.

Hawai'i Energy Efficiency Program (HEEP). The Public Utilities Commission opened a docket, February 19, 2008, to investigate issues and requirements raised by the Hawai'i Public Benefits Fund. The PUC will be selecting the HEEP Administrator to implement third-party administered programs (formerly utility DSM programs) by the end of 2008. An RFP will be issued to select prospective service providers. While DBEDT is not participating in this docket, it is monitoring activities. In response to inquiries from ESCOs, DBEDT provided contact information for further information at the utilities and PUC. SID staff attended a January 24, 2008, briefing by HECO explaining the proposed transfer and current status of its rebate program. HECO anticipates that current programs will be continued under the Administrator and that the transfer will be "seamless."

UH-TIM Restaurant Benchmarking Project. The University of Hawai'i Travel Industry Management School (UH-TIM) project provides services related to establishing a Hawai'i Center for Environmental Leadership in Tourism, developing outreach materials, conducting energy analysis, curriculum development, and workshop plans to affect real change and improvements to energy efficiency in present practices in the restaurant industry continues. The Project Manager submitted a research plan for the restaurant benchmarking portion of the project.

Reports and publications: A revision to the 2004 version of the *Guide for Energy Performance Contracting* is underway. *Comparison of Pennsylvania and Colorado Energy Performance Contracting Process* for state facilities is underway.

DCCA: DCCA consulted with DAGS to determine the optimum air conditioning temperature and the necessity of air conditioning certain areas. Reviewed air conditioning maintenance activities and schedules to ensure the proper maintenance of the air conditioning system. Surveyed staff practices in keeping doors closed in air conditioned areas, and made recommendations for proper practices where appropriate.

DHHL: DHHL will continue to keep an inventory of department electric meters, departmental operations and construction.

DHRD: The department encourages all employees to implement energy conservation practices. Examples include turning off the lights in the restrooms and hallways at the end of the day; turning off copier machines and computers rather than leaving the equipment on sleep mode; using the stairs; and turning off office lights when going to meetings. In May, DAGS implemented the following energy reduction initiatives for the Leiopapa A Kamehameha building, which this department occupies: (a) adjusted the starting time for the building air conditioning systems so that it turns on an hour later; and (b) conducted preliminary assessments for a retro commissioning project.

DHS: DHS is a participating department in the state's Lead by Example program. As a part of this statewide project, DHS is developing a plan to implement energy reduction efforts.

DLIR: An assessment of electricity use was completed for nine of the DLIR offices that are not maintained by DAGS Central Services. The assessment of the nine offices covered the period July 1, 2005 through June 30, 2008. Based on this review, the nine offices utilized a total of 1,328,613 kilowatt-hours, resulting in a total cost of \$421,856.68. Based on the energy usage, DLIR will consult with DAGS and issue a department memorandum reminding all offices of the need to adhere to energy efficiency practices such as turning off electrical lights, printers, copier machines, etc. when not in use. The department will continue to request assistance from DAGS to provide analysis of the nine affected DLIR program offices. Based on DAGS' analysis, DLIR will develop a plan work to with DAGS and DLIR offices to develop and implement energy saving measures to reduce electricity usage. DLIR will also assess each office's space need requirements and consider consolidation of offices.

DLIR participated in an Environmental Preferable Purchasing (EPP) survey mandated under the following Federal and State laws, and the applicable Administrative Directives:

1. Resource Conservation and Recovery Act (RCRA), Section 6002, 42 U.S.C. 6962. The RCRA requires state and local government agencies and their contractors receiving appropriated federal funds to purchase EPA-designated recycled content products.

2. Section 103D-1005(b) of the Hawai'i Revised Statutes. Section 103D-1005(b) requires state purchasing agencies and encourages county purchasing agencies to
  - Apply preferences to purchase of products with recycled content;
  - Be consistent with RCRA Section 6002, E/O. 13101 and its progeny;
  - Ensure, to the maximum extent economically feasible, the purchase of materials that may be recycled or reused when discarded and to avoid the purchase of products deemed environmentally harmful.
3. Administrative Directive 06-01 signed by Governor Lingle in January 2006 requires State agencies to purchase environmentally preferable products that reduce their impact on the environment and improve indoor environmental quality. Also included are Energy Star® and low toxic products as examples of environmentally preferable products.

The DLIR plan includes the following:

- DLIR will continue to utilize the results of the EPP survey to structure and plan for the period July 1, 2008 to June 30, 2009. In addition, DLIR will continue to utilize the SPO price list and require all programs to purchase recycled and environmentally preferable products.
- DLIR programs have not been major users of Energy Star® products; however, DLIR will continue to include Energy Star® products as part of the procurement approval process. In addition, the DLIR will also include in our procurement procedure a policy to check whether utility rebates are available and can be utilized in the purchase of the products.
- The DLIR policy mandates the purchase of recycled paper and utilization of the State Procurement Offices Price List (SPO PL) for all purchase where products are available through the SPO PL. The DLIR will issue a departmental instructional memo to continue to insure conformance with the results of the EPP Survey as an integral part of the procurement policy.

The gasoline usage and cost of fuel for the two vehicles owned by DLIR were derived by manually reviewing all invoices submitted by the DAGS Automotive Management Division and preparing a spreadsheet. The DLIR plan includes the following:

- DLIR owns the following vehicles: 1998 Ford Windstar; 1994 Chevrolet Astrovan. DLIR does not have immediate plans to purchase another vehicle in the near future; however, DLIR will adhere to the applicable state laws regarding vehicle purchases.
- DLIR's two current vehicles are in sound operational condition and thus DLIR has no plan to replace the vehicles in the near future. Prior to purchasing a vehicle in the future, DLIR will insure that any vehicle purchase satisfies federal and state mandates. In addition, DLIR will purchase the most fuel efficient vehicle that meets the needs of our program.

DLNR: DLNR continues to work with DBEDT in a statewide collaboration on energy efficiency, as a member of DBEDT's Lead by Example Leadership Group. DLNR will continue to work with the Leadership Group on ideas to implement energy savings across the state.

Act 96, SLH 2006, mandated that each state agency comply with a variety of energy directives involving buildings and facilities, transportation vehicles and fuels. To this extent, DLNR is developing a program to track vehicle expenses and energy consumption for all cars in the department's inventory. Additionally, DLNR is seeking the advice of other state agencies through DBEDT's Lead by Example Leadership Group and will implement internal procedures as appropriate.

DLNR's facility portfolio is limited. Most of buildings owned by DLNR are composed of base yards, harbor facilities and park restrooms. DLNR incorporates energy saving concepts into all of its owned facilities as appropriate. Energy saving concepts include the use of solar water heaters, natural ventilation and lighting, and use of energy-efficient lights. Additionally, DLNR has begun to incorporate energy savings practices into design projects such as the recycling of existing asphalt and concrete pavement into backfill material.

DLNR evaluates the feasibility of implementing energy conservation measures when capital improvement projects are designed. As DLNR staff learns more about energy efficiency and environmental design, they will incorporate these concepts into building and facility design and renovations.

For energy reduction efforts at non-DLNR owned offices and buildings, staff have implemented office paper recycling. Staff are also reminded to turn off equipment when not in use, keep blinds closed, and report equipment malfunctions. Energy efficient light bulbs are used where feasible and timed sensors have been installed to allow automatic shutoff off of lights.

DLNR uses life cycle cost-benefit analysis to purchase energy efficient equipment such as Energy Star® products and uses utility rebates where available to reduce purchase and installation costs.

DLNR further encourages the use of recycled products with contractors. DLNR also adheres to the allowed 10% price preference for bids using recycled products in accordance with Section 103D-1005, Hawai'i Revised Statutes.

**Kaho'olawe Island Reserve Commission (KIRC):** KIRC is planning to implement an energy conservation demonstration project by remodeling one of its six berthing facilities to reduce energy consumption. Through improved ventilation and innovative design features, KIRC hopes to improve the building's natural air circulation, improve shielding from the hot, desert-like conditions of Kaho'olawe thus reducing cooling cost significantly. If this project is successful, plans will then be developed to convert all remaining berthing facilities to this new design and significantly reduce energy requirements and cost.

To reduce the electrical demands on Kaho'olawe, KIRC has converted two of its four residential water heaters on Kaho'olawe to solar power. KIRC is planning to convert the remaining water heaters and be fully solar-powered for hot water by the next fiscal year.

Kaho'olawe presents a unique opportunity for alternatives to reduce energy consumption due in part to the island's small population and isolation. Additionally, because of the island's unique status as a cultural and environmental preserve, the use of alternative water systems and energy resources is believed to be most appropriate and necessary. As part of KIRC's mandated requirements under HRS 6-K, the restoration program brings 15 to 20 volunteers, adults and students, to the island on Mondays to assist in planting native plants as part of the restoration program. The students normally leave Kaho'olawe on Thursday afternoon. To achieve the conservation of water and energy, KIRC recaptures all the water from the shower facilities. The Reverse Osmosis system produces about 1,500 gallons per day of fresh water, which is more than adequate for the demand.

There are no harbor facilities on Kaho'olawe, in the past the majority of equipment, personnel and supplies have been transported by helicopter. Recently, KIRC has obtained and is operating a 40-foot landing craft that is now transporting the majority of its personnel, equipment and materials. KIRC has significantly reduced fossil fuel usage by shifting to ocean transport verses helicopter.

Additionally, the 11-acre base camp on Kaho'olawe is not connected to the utility grid and operates with diesel generators. One of the steps recently taken was to install a more energy-efficient generator, which reduced diesel usage from 150 gallons per day to 75 gallons per day. As further energy savings projects are implemented, the energy requirements on Kaho'olawe will decrease at which time KIRC is planning to replace the current diesel generator with an even smaller unit that will further reduce diesel fuel usage.

**DOA:**

- Previously identified retro-commissioning and specific energy efficiency projects and related costs for FY 2007-2009.
- Legislature appropriated a total of \$215,058 in general funds in FY08 in the department's operating budget for lighting and window tinting projects and \$79,434 in general obligation bond funds in FY08 in the department's capital improvement program budget for retro-commissioning projects.
- Continued to retrieve information electronically on gas consumption and odometer readings from DAGS Automotive Management Division, Tesoro and Hawai'i Petroleum for FY08. Continued to use vehicle refueling log for program that have vehicles that refuel at places other than DAGS, Tesoro and Hawai'i Petroleum.
- Continued to retrieve information electronically on gas consumption and odometer readings for each vehicle from DAGS Automotive Management Division, Tesoro and Hawai'i Petroleum for FY08.
- Monitored and compiled kWh consumption data and cost for electricity for FY08.
- Reminded staff of department's Energy and Water Conservation and Resource Efficiency Program which provides policies, guidelines and practices with goal to minimize energy, fuel and water consumption and implement resource-efficient operations. Includes department's target consumption goals for electricity, fuel and environmentally preferred products.
- Distributed DAGS' memo requesting employees to conserve energy and to report any water waste from open faucets, leaky plumbing fixtures, and broken and/or inefficiently run irrigation systems.

- Developed a spreadsheet to compare data in FY05, FY06, FY07, and FY08 on electricity kWh consumption and percentage increase/decrease from previous year and distributed to program managers for their review and information.

DOE: DOE has developed an internal system that enables the comprehensive management of all utilities – electricity, water, sewage disposal, and gas – for all schools through a central office. As of March 1, 2007, the payment for all utilities was centralized into one office. The office is now able to track DOE accounts to establish programs that monitor utility use by schools, specifically identifying schools with higher than anticipated consumption.

DOE implemented a school energy conservation program on July 1, 2007. DOE has calculated the “unadjusted” allocation of kilowatt hours (kWh) for all schools using the average electricity consumption in the 36 months through June 2006 as a base. Beginning this school year, schools that reduce their consumption below the allocated amount will receive half the value of the savings; schools that fail to reduce their consumption below the allocated amount will be charged for half the value of the kWh used above the allocated amount. The state office will bear the risk of increases (and benefit from any reductions) in electricity rates. The office will reconcile the school kWh usage against the allocation twice a year, in January for the preceding July through December, and in July for the preceding January through June. Schools earning a rebate will receive those funds via an allocation from the electricity funds and will be able to use those funds at their discretion. Schools requiring a charge back will receive a bill for collection from the Auxiliary Services Branch.

Immediate steps for conservation programs continue and are listed as follows:

- Continue with implementation of LEED Silver for new and major construction projects. Training for LEED New Construction has been completed by key DOE personnel. Supplemental training is required on “LEED for Schools” guidelines just recently released by USGBC.
- Continue with installation of low-flow bathroom fixtures whenever fixtures require replacement.
- All incandescent lamps are being replaced with compact fluorescent lamps (CFL).
- A study for measuring the effectiveness of motion (occupancy) detectors for controlling classroom lighting has been completed. Future ESCO work will include motion/occupancy detection switches for classroom lighting.
- Life Cycle Cost Analysis (LCCA) will be performed on school equipment and operations.
- LCCA results will be used to determine product selection for ESCO, Performance Contracting, Municipal Leasing, and/or Purchase Power Agreement activities.
- Continue meetings with vendors seeking new energy conserving technologies. Continuation with pilot (test) studies of new promising technologies.
- Establishment of an Energy and Water Conservation “Steering Committee” or “Task Force” within the Office of School Facilities and Support Services to expedite and streamline multiple conservation activities between branches and within the DOE as a whole.
- Open discussions with the Board of Water Supply to seek innovative water conservation concepts, projects, and/or studies such as an Irrigation Management Control System, plant species, drip irrigation, and captured rainwater.

Immediate steps for school electricity conservation are listed below:

- Set air conditioning so that the room temperature is 76 degrees.
- Do not turn on any air conditioning until 7:00 a.m. or (if the air conditioning unit is turned on and off manually) until the room temperature reaches 74 degrees, which ever comes later, and turn off all air conditioning no later than 4:30 p.m.
- Use timers to turn off 75 percent of night lights between the hours of 10:00 p.m. and 6:00 a.m.
- By June 15, 2009, replace all appliances (refrigerators, microwave ovens, toasters, coffee makers, rice cookers, etc.) in classrooms and offices with Energy Star®-rated appliances. Personal appliances should be limited to no more than one of each on each floor of a building. All other personal appliances shall be removed by December 31, 2008.
- Purchase or lease only Energy Star®-rated computers, copiers, printers, and servers.
- Turn off computers, printers, and copiers at the end of the day.

The following capital improvement projects (CIP) have added to DOE’s overall energy usage.

- New portables (connected to the existing school’s electrical meter):

- O'ahu: Mililani Ike Elementary (2); Campbell High (5); Moanalua High (2); Waipahu Elementary (3); 'Ewa Elementary (1); Kahuku High & Intermediate (1); Leilehua High-SPED (2); Kahuku High- SPED (1); Leilehua High- Stryker (3); Mililani High- Stryker (2); Mililani Middle- Stryker (3); Solomon Elementary- Stryker (4); Ka'ala Elementary- Stryker (1); 'Ānuenue Elementary (1)
- Hawai'i: DeSilva Elementary (1); Waimea Elementary (2)
- Maui: Maui High (2); King Kamehameha III Elementary (2)
- New facilities, all on O'ahu:
  - Mauka Lani Elementary- 8 classroom building connected to existing meter
  - Pearl Ridge Elementary- cafeteria expansion connected to existing meter
  - Sunset Beach Elementary- administration building connected to existing meter
  - Wai'anae High- 8 classroom building connected to existing meter

These increases were somewhat offset through DOE's ongoing program to retrofit classrooms with more energy efficient fluorescent light fixtures (conversion of T-12 light fixtures to T-8 light fixtures) and heating, ventilation and air conditioning (HVAC) equipment.

DOH: All future designs for renovations and construction will be LEED Certified. Air conditioning for the various health centers is shut off at 4:30 p.m. and on holidays and weekends. Window units have been installed in several offices to avoid having to turn on the central bldg units for those working late or on weekends. Air conditioning units for all DOH renovations are energy efficient and qualify for a HECO rebate. The air conditioning systems at Diamond Head Health Center and Leeward Health Center are being retrofitted due to their age. The new units are more energy efficient and this will reduce energy consumption. The air conditioning system at Ala Moana Health Center has just been retrofitted with more energy efficient units. This will reduce energy consumption. As light fixtures are retrofitted, lamps and ballasts are changed to more energy efficient ones.

DOT-Airports: The Airports Division is collecting data on the division's current construction projects in the design phase. The division will investigate the facilities' energy consumption to plan for reduction, and also plan for efficient design. The division is implementing energy efficient fixtures and equipment in its planned projects.

The Airports Division is investigating existing facilities for options to reduce energy use.

The replacement and relocation of the Diamond Head Chiller Plant project is under construction. The new equipment will have high energy reduction and efficiency.

Renovation of Airport Lounge project has been awarded for construction. This is the first LEED CI project.

DOT-Harbors: The division needs to develop a program to ensure that inventorying, investigations, and plans and implementations are effective and in compliance with regards to Act 160.

DOT-Highways: The Highways Division has an inventory of equipment and a baseline of energy consumption. The division has also started the replacement of traditional traffic signal lamps with the new LED lamps as well as a systematic replacement of older computer equipment with Energy Star® compliant equipment with LCD screens and variable speed CPUs.

DOTAX: DOTAX continues to follow energy conservation best practices as outlined by the Director of Taxation in his memorandum dated March 1, 2006. DOTAX continues to monitor and control usage of after-hour and weekend air conditioning.

FTZ: FTZ is in the process of replacing the current lighting system inside the warehouse by reducing the number of lights and replacing the 300 incandescent light bulbs with energy efficient 40-60 watt CFL bulbs. These bulbs are on back-order due to high national demand. FTZ may also install a relay to allow lights inside the warehouse to be turned on remotely and tied in with new security system.

HCDA: Not applicable.

HHFDC: HHFDC has taken steps to reduce energy consumption. Whenever possible, incandescent lamps are being replaced with fluorescent equivalents. Fluorescent T-12 lamp set-ups are continually being retrofitted with T-8 electronic ballasts and lamps. An electrical control timer has been installed on the air conditioning plant at our main office building to control the day and hours of operation.

HHSC: HHSC is looking into implementing energy audits on all of their facilities when funds are available. The energy audits will assist each facility with recommendations to reduce energy.

HSPLS: HSPLS has replaced the aging air conditioning systems at Mililani and Salt Lake-Moanalua Public Libraries to improve operating and energy efficiency in FY08. HSPLS has executed contracts through

DAGS to retrofit lighting fixtures at all 51 public libraries, statewide. These fixtures are being replaced with energy efficient electronic ballasts and super T-8 lamps.

HTA-CC: 1) Raise temperature setpoints by one degree, from 72 degrees to 73 degrees. 2) Monitor schedules to optimize use of AC in client and administration areas. 3) Reduce the amount of “conditioned” air being blown out thru Exhibit Hall doors.

NELHA: The Green Energy Zone concept was investigated and proposed to the legislature.

Implementation will proceed.

A substantial portion of NELHA’s energy costs is dependent upon tenant demand and consumption of seawater – NELHA has no control over these amounts. Therefore, to implement energy reductions, it is necessary to either create energy production projects for NELHA or to cease development of economic enhancement projects.

PSD: Under Act 213-07, the department received a capital appropriation of \$500,000 to perform initial planning efforts to identify, prioritize and seek funding to design and construct various retrofits to PSD facilities that would result in measurable savings in energy consumption and reflect the department’s efforts (as well as those of other state agencies) to comply with the intent of Act 160. PSD is currently awaiting approval of its FY 2009 CIP Expenditure Plan (transmitted in August, 2008) to the Office of the Governor. That, in turn, will enable DAGS to proceed with all post-Project Initiation activities. Presently, the department has, with the assistance of DAGS-DPW, made a selection of a consulting firm (InSynergy) to conduct an assessment of energy efficiency improvements throughout all PSD programs, statewide. Upon completion of these assessments, expected between 1<sup>st</sup> and 2<sup>nd</sup> Quarters of FY 2010, a series of retro-commissioning projects will be implemented using a number of financing strategies, as yet determined.

UH: UH Mānoa – the University has established a campus-wide Energy Management Committee that is responsible for identifying, evaluating, and implementing building level and departmental level energy reduction projects. The UH Sea Grant Center for Smart Building and Community Design and the Vice Chancellor for Administration, Finance and Operations support a staffer who works part-time on campus sustainability issues including lighting and air conditioning. The University has established a campus energy website to provide information on campus energy policies and projects, at [www.soest.hawaii.edu/UHMEnergy](http://www.soest.hawaii.edu/UHMEnergy). A “search and destroy” program has been established to replace incandescent light bulbs on campus. There are literally thousands of incandescent light bulbs on campus. Whenever someone finds an incandescent light, they can report its location at telephone number 956-2861 and someone will arrange for its immediate replacement.

UH Hilo – The University has no new initiatives; but continues to turn lights off when building occupants are vacated.

Honolulu CC, Kapi‘olani CC, Leeward CC, Windward CC, Hawai‘i CC, Kaua‘i CC – there are no new initiatives at these campuses; but the campuses continue to consolidate classes into filled buildings during evening, weekends, and summer to minimize air conditioning, lighting and other utility costs.

Maui CC – the campus is currently testing voltage regulators on the campus from a vendor, MicroPlanet. These voltage regulators might improve campus energy efficiency depending on how badly MCC’s power fluctuates. If the test results are positive, then Maui CC will purchase the voltage regulators. The campus exterior lights are connected on to the computerized EMS system to control timers more efficiently. Door sensors have been installed in the Science Building lecture halls which deactivate the air conditioning units when doors are left open for more than five minutes. In addition, the Science Building has been connected to the computerized EMS system to control air conditioning timers more efficiently.

## Act 160

### (3) A plan or alternatives to reduce energy consumption in the future;

AG: AG is looking to the Lead by Example policy group and DAGS for further ideas to implement for energy savings. The department is working with DAGS to have air conditioning systems evaluated and updated, if deemed necessary. The office is also working with DAGS to reduce lighting in lesser used areas and hallways.

B&F: The department previously issued a memorandum encouraging all employees to initiate and implement energy efficient practices (i.e., turning off office light when not in use or when leaving for the day, turning off computer terminals at the end of the day, distributing Energy Star® saving tips, etc. The department, as well as all other departments, is working with DBEDT and DAGS in this effort to identify and implement energy reduction initiatives.

DAGS: PWD efforts include: developing a LEED application guideline for state agencies; providing LEED and commissioning programmatic support; projects to apply for LEED Silver certification at New Mānoa Library, New Kohala Library, Keaukaha Military Reservation, Joint Military Center, and the Maui Regional Public Safety Complex; the Kamamalu Building Renovation which was previously listed as a LEED pilot project has been suspended indefinitely; retrocommissioning projects for various DAGS facilities statewide, including the State Capitol; on-going training and partnering with HECO and in conjunction with DBEDT; sub-metering where feasible; updating and implementing additional policies; and keeping abreast of the latest energy reducing innovations and practices.

A major pilot project that was initiated in FY 2008 is the Central Services Division Photovoltaic (PV) System. A Request for Proposals was issued to request PV/solar power via a Power Purchase Agreement (PPA). The power provider, through a PPA, would design, install, operate, maintain and sell power to the state at a rate that is anticipated to be lower than the HECO rate and PV system would also reduce the consumption of energy generated by fossil fuels. Proposals were received and are under negotiation.

DBEDT: DBEDT will continue to offer technical assistance and training opportunities to state facilities in assessing potential for energy, water, and renewable energy measures, financing considerations, and implementation. This will include continuing to invite state employees and consultants to seminars on energy efficiency.

DBEDT signed an agreement with the US Environmental Protection Agency on October 14, 2005 to participate in the Energy Star® 10% Challenge program. The goals are to improve the energy efficiency of state facilities by 10% and reduce greenhouse gas emissions. The State of Hawai'i's Partnership Plan includes: developing public and private partnerships to promote EPA's Portfolio Manager energy performance rating system; providing training for public and private partnerships to identify opportunities for improvements; participating in and promoting EPA's Energy Star® webcasts, programs, and resources; and incorporating Energy Star® products in state agency procurements.

DBEDT provided invitations to participate in the spring 2008 webcasts on Energy Star® programs and resources, as well as materials to state agencies on how to prioritize energy conservation measures, benchmark their buildings and conduct financial calculators on payback related to implementation of energy efficiency measures.

DBEDT's energy-related work is supported by federal funds, often the result of winning nationwide competitive grant solicitations. On February 1, 2008, the Manager of the Energy Efficiency Branch and Energy Conservation Program Specialist met with David Rodgers, USDOE to discuss energy efficiency opportunities in buildings, educational facilities, challenges in Hawai'i for energy service companies, and to stress the importance of more information on power purchase agreements and integrated efficiency/renewable energy financial tools. The Director of DAGS briefed Rodgers on the statewide solicitation for energy performance contracting services.

On March 19, the Manager of the Energy Efficiency Branch and Energy Conservation Program Specialist met with David McAndrew, U.S. DOE Federal Energy Management Program (FEMP) and representatives of Pacific Northwest National Laboratory and the National Renewable Energy Laboratory to share information on programs available and opportunities for mutual cooperation. Support to the state from FEMP and the labs could include training for energy auditors, use and

understanding of monitoring and verification, and use and understanding of various financing alternatives for energy performance contracts.

DBEDT has requested a one-year, no cost extension and amendment to the federal grant that funded 2007 PCEA, Peer Exchange, and Rebuild Hawai'i activities.

Hawai'i-EPA Clean Energy-Environment State Partnership. The state has agreed to work with the federal Environmental Protection Agency (EPA) in developing an action plan for clean energy as part of EPA's Clean Energy-Environment State Partnership. Hawai'i is at the forefront of clean energy and environmental initiatives. This partnership will strengthen the state's position as it undertakes new programs promoting energy efficiency and renewable energy sources.

The State Department of Health is an observer/advisor in the Hawai'i partnership. EPA provides partners with access to a comprehensive technical assistance package. Hawai'i's partnership focuses on Green Power Purchasing, Lead by Example (building efficiency, financing, Environmentally Preferable Purchasing, and biofuels), and Climate Change. This partnership will also give DBEDT the opportunity to learn from EPA and other states ways to measure impact of energy and resource efficiency programs on Hawai'i by determining multipliers for energy and cost-savings, energy system, greenhouse gas, air quality and human health, and economic and macroeconomic benefits.

Major work was organizing a priority task group teleconference for Lead by Example on October 10, 2007; and a general Partnership teleconference on October 23, 2007. The Climate Change Action Group held a meeting on February 20, 2008, to discuss the current status of climate change policy efforts in Hawai'i. Larry Lau, Department of Health, presented an update on the State Task Force and discussed the Climate Registry Board. Data needs, methodologies, and processes were also discussed.

A teleconference with EPA representatives on possible technical assistance for DBEDT's intervention in the "wheeling" docket was also held.

This year the following information and exchange was also provided by EPA on topics listed below.

- Models and programs that states have used to help low-income households implement energy efficiency measures;
- Models that can estimate the impacts of GHG mitigation policies and information on GHG inventory best practices from other states;
- Best practice guidance for Lead-By-Example activities;
- Best practice guidance for purchasing green power by facilitating contact between Hawai'i, EPA's Green Power Partnership, and EPA's Landfill Methane Outreach Program;
- Energy Star®'s Portfolio Manager and Target Finder;
- Financing options, as well as environmentally preferred product purchasing, and
- Approaches other states have used to finance energy efficiency projects and/or meet energy efficiency goals in schools.

DCCA: The department will continue its practice of using energy-saving light bulbs and maintaining its energy efficient lighting system that is activated by motion detectors. DCCA will evaluate its air conditioning system and discuss the suitability of a retrocommissioning project with DAGS. The department will continue to encourage energy conservation and share appropriate energy reduction tips submitted by staff.

DHHL: DHHL conducts in-house energy programs to inform all staff to reduce energy consumption using guidelines and recommendations from the educational leaflets from the US Department of Energy.

DHRD: The department will continue to encourage all employees to implement energy conservation practices and will work with DAGS to identify energy efficiency initiatives.

DHS: DHS is a participating department in the State's Lead by Example program. As a part of this statewide project, DHS is developing a plan to reduce future energy consumption.

DLIR: Based on its energy use, DLIR plans to do the following:

- Continue to consult with DAGS and issue a department memorandum reminding all offices of the need to adhere to energy efficiency practices such as turning off electrical lights, printers, personal computers, copier machines, etc. when not in use.
- Continue to request assistance from DAGS to provide analysis for the nine affected DLIR program offices. Based on DAGS' analysis, DLIR will continue to develop plans to develop and implement energy saving measures to reduce electricity use.
- Assess each office's space need requirements and consider consolidation of offices.



- Conduct self-audits of DLIR offices to identify and reduce energy consumers such as small appliances and electronic equipment.

DLNR: DLNR is currently in the design phase of a large project to improve energy systems at 'Iolani Palace that began in FY 2008 and which will serve as a demonstration for energy efficiency across the state. Construction is scheduled to begin in October 2009. 'Iolani Palace is not only a Hawaiian national treasure but is the only official state residence of royalty in the United States. Built in 1882, the Palace was the official residence of the Hawai'i kingdom's last two monarchs. Restoration in the 1970s included the installation of air-conditioning units to help preserve the building as well as the treasures held within.

Located in a humid environment, the Palace is highly susceptible to mold growth and other forms of biodeterioration. Inadequate air conditioning systems can lead to variations in relative humidity, which can further lead to chemical reactions. The negative results of these chemical reactions are that: metals may corrode; many dyes may fade; glass collections may be damaged; furniture joints may be loosened; paint chipping may emanate from canvases; and paper may be cockled. Thus, as with any historical site, 'Iolani Palace's air conditioning system is of great importance to the environment in which the collections are housed.

The existing air conditioning system has deteriorated and has failed to provide the necessary climate control for uniform temperature and humidity. The system continues to experience breakdowns and continued system failures will lead to eventual damage and loss of invaluable cultural artifacts.

Thus, the entire air conditioning system needs to be replaced. This creates an opportunity for DLNR to look toward energy efficiency in the development of a new air conditioning system for the Palace. Staff have begun to look at new technologies in air conditioning systems which utilize photovoltaic technology and recycled water. Additionally, commissioning of the chosen system will be included for optimum performance.

Taking into consideration its historic significance, the Palace's façade would not be altered. However, adjoining buildings could be utilized for alternative energy production, which could in turn be used at the Palace. With \$900,000 allocated in FY 2006 (Act 160) for design and construction, DLNR has begun to design an air conditioning and climate control system for the Palace. In 2007, the project was allocated \$4.5 million to continue and implement the project.

The state would benefit greatly from having 'Iolani Palace serve as a pilot project for energy efficient air conditioning technology while saving money and preserving Hawai'i's history.

DOA: DOA will initiate lighting and window tinting operating projects and retrocommissioning CIP projects. The department will send out reminders to employees to practice energy and water conservation measures. It will also replace air conditioning systems and units with energy efficient ones. DOA plans to upgrade to more energy efficient pumps and motors on irrigation systems as funds allow. It will install timers and other electronic controls on selected irrigation systems. DOA will promote car-pooling and bicycling, establish energy efficiency working groups, and establish maximum allowable air conditioning settings by building and by season.

DOE: Plans for future energy consumption reduction include both energy conservation measures and efforts with renewable energy.

#### A) Energy Conservation Measures

- Energy Audits: The Energy Conservation Coordinator will continue with on-site school assistance for energy audits and educational exchange.
- "Energy Conservation Program:" Investigative work will continue to establish feasibility and planning for a key program component – 3 year baseline. The baseline will allow for calculation of monetary incentives for schools that conserve energy and penalties for those who go beyond their baseline limit.
- Technology Pilot Studies: Various types of technologies are available that may reduce energy use for DOE. However, their adaptability, suitability, etc. for use with DOE remains an element of risk management.
- Education and Training: More education and training will be sought from energy conservation equipment vendors. There will be continuation with LEED education for DOE employees via on-the-job and USGBC product offerings.
- Energy Service Company (ESCO)-Utility Energy Services Contracts (UESC)-Power Purchase Agreements (PPA) Effort: Investigative work will continue in the areas financing energy

conservation equipment retrofitting with the assistance of ESCO, UESC, and PPA.

- Enhanced Energy Audit: Investigation into the possible expansion of the energy audit to go beyond school equipment inventory count to measurement and verification aspects of energy conservation enterprises.
- DOE Operations and Maintenance Best Practices: DOE will internally hold internal meetings among offices and branches that will align and focus energy conservation efforts. This can include product selection by committee based upon maintenance, performance, LEED, and cost benefits.
- DOE School Best Practices: An investigation for identification of school equipment and/or operations that may best benefit energy conservation with the least amount of negative impact to school operations and functions will be reviewed. This will also include procurement and availability of energy efficient products or products favoring LEED criteria.
- DOE is developing guidelines, standards, and best practices to meet new energy efficiency requirements for all CIP and repair and maintenance (R&M) projects.

#### B) Renewable Energy

The Legislature, through Act 96, SLH 2006, appropriated \$5 million to DOE for a pilot photovoltaic project. The specific objectives, as set forth in the Act, as they relate to this photovoltaic pilot project include:

- To have, at minimum, a project site at one of the public schools within each of the counties of O'ahu, Hawai'i, Kaua'i and Maui.
- Installation of photovoltaic (PV) system to be timed in conjunction with substantial roof repairs or roof replacement.
- To use net energy metering to offset the cost of the system.
- To recapture system cost within three quarters of the useful life of the PV system.
- When advantageous, to use energy-savings contract such as third party lease or purchase to maximize the objectives of this section.
- Report results and recommendations from this project.

The Governor released the funds for this project and DOE selected Energy Industries (EI) as the consultant to implement this program. Energy Industries is a Hawai'i based Energy Service Company (ESCO) that specializes in reducing the energy expenses of its clients by identifying and implementing energy conservation measures (ECMs) that reduce electrical demand load. EI also specializes in the integration of renewable and distributed energy systems along with energy conservation measures.

The contract with EI included the following deliverables:

- Rating and selection of project sites (schools) based on a weighted scorecard.
- Develop basis of design and determine optimal implementation.
- Project management and quality assurance during construction.
- Measurement, verification, and reporting of pilot results one year after PV installation.

Based on the life cycle analysis from EI, DOE determined that it is not economically feasible for the department to purchase and install PV systems without taking advantage of the federal and state tax credits. Therefore, a better strategy of obtaining PV systems for the schools would be to develop a power purchase agreement (PPA) and have a 3<sup>rd</sup> party vendor install and maintain the PV systems. DOE would purchase the kilowatts generated by the system at a discounted rate.

DOE has developed a Request For Proposal (RFP) for this project that will require the installation of one 30 - 50 kW system on the islands of Hawai'i, Maui, and Kaua'i, and four systems on O'ahu. The RFP is currently being reviewed by the Attorney General's Office before the DOE issues it. DOE hopes to get the proposal out by the end of November 2008.

DOH: All future designs for renovations and new construction will be LEED Certified. The department's fiscal office will insure that any appliance purchases by programs meet Energy Star® ratings. The department's fiscal office will insure that vehicle purchase meet all energy conservation requirements. The department will request CIP funds for installing a central energy management system to control the air conditioning units at all of its major buildings. Presently, the timers are located at each individual building and not controlled at one location. This is not an efficient way to control air conditioning for multiple buildings.

DOT-Airports: The Airports Division will inform its employees and tenants about saving energy. The Airports Division will educate its engineering staff regarding building green and using energy efficient

technology in order to implement whole-building design practices. The Airports Division will upgrade design and construction standards and guidelines according to the LEED standard.

DOT-Harbors: The division will increase awareness and training for employees on available energy conservation technology or practices. It will also develop program milestones or metrics to encourage reduction of energy consumption.

DOT-Highways: All future building projects will be designed to meet LEED Silver certification, all new traffic signals will use LED lamps, and all new computer equipment will be Energy Star® compliant.

DOTAX: DAGS is currently working on energy savings measures, including air conditioning retrocommissioning, for the Ke‘elikōlani Building in which the DOTAX O‘ahu District Office is located.

FTZ: FTZ is working with DOT-Airports to prepare a RFP for solar electricity generation for its 5A roof in downtown Honolulu. At this time, FTZ is anticipating generating approximately 0.3 MW.

HCDA: HCDA plans to incorporate energy savings devices and procedures in future developments as well as retrofit where appropriate.

HHFDC: HHFDC continues to monitor all energy uses. In conjunction with electrical use, the agency is monitoring synthetic natural gas and water. Upon seeing a change up or down, the reason for the change is investigated. The end plan is to use all the alternatives possible and maximize the amount of rebates and enticements for change to not only reduce energy consumption but to reduce the amount paid monthly and recoup as much of the initial up-front costs as possible.

HHSC: HHSC plans to use the approved ESCO list that DAGS is developing to implement energy reduction at all of their facilities.

HSPLS: HSPLS has been working directly with DAGS on the new North Kohala and Mānoa Public Libraries. These new projects are trying for a LEED Silver rating. The construction contract for the new North Kohala Public Library went out to bid and was awarded to Isemoto Contracting Co., Ltd. for \$6,895,900. Construction is set to start in September 2008 and completed in late 2009. The construction contract for the new Mānoa Public Library went out to bid and was awarded to Allied Pacific Builders, Inc. This project is anticipated to start in November 2008 and completed in mid 2010.

HTA-CC: 1) Get clients involved by posting “Green” signs at doorways to ask their help in keeping doors closed. 2) Educate employees and ask for their help in turning off room lights where possible. 3) Monitor daily consumption and demand.

NELHA: NELHA filed a Request for Proposals (RFP) on July 23, 2008 to construct and operate a very large PV project for its use. It is believed such a project could substantially reduce energy costs over the next twenty years. The RFP awaits issuance by DBEDT. An RFP for construction and operation of a 1 MWe OTEC plant is expected to be filed through DBEDT in the near future, with the same goal in mind.

PSD: As mentioned earlier in this report, the department will collaborate with DAGS-Division of Public Works to engage the services of an energy efficiency expert with specific familiarity with survey work performed at correctional facilities across the U. S. mainland to: assess PSD’s current energy usage dynamic, statewide; evaluate the current condition of the department’s building operating systems production and/or consumption of energy; evaluate the building systems’ impacts, favorable or otherwise, on the buildings’ energy usage proper; analyze the various options available that would enable the department to meet the goals set forth in Act 96; and make recommendations on the upgrade pathways the department should pursue, together with priority setting; project work scope and opinions of probable costs associated with each recommendation.

UH: UH Mānoa – The University is planning to design up to fifteen re-roofing projects so that they are capable of being retrofitted with up to 500kW photovoltaic systems.

UH Hilo – No new plans.

Honolulu CC – No new plans.

Kapi‘olani CC – No new plans.

Leeward CC – No new plans.

Windward CC – No new plans.

Hawai‘i CC – No new plans.

Maui CC – will be soliciting a Request for Proposals to establish a Power Purchase Agreement (PPA) for photovoltaics (PV) in the campus rear parking lot. The College is working with Maui Electric Company (MECO) with a pilot “Green Pricing” program which will allow MECO to install

PV systems on their buildings. Maui CC would purchase the power from MECO at a discount and all excess power would be sold to the community by MECO. This pilot program is in the early feasibility study stage. The Campus has received a donated wind turbine and is currently researching a location to install the wind turbine system.

Kaua'i CC – No new plans.

Community College System – The community colleges are in continuous discussion with various third parties regarding participating in a power purchase program using a PV system. The third party will install the PV system at no cost and in return the colleges will purchase the electricity generated by the PV system at a guaranteed rate lower than the local utility rate.

PROGRAM TO MINIMIZE WASTE PREVENT POLLUTION  
UNIVERSITY OF HAWAII - COMMUNITY COLLEGES  
08/07/08

Campus	Program Title	Description of Program	Vendor (if applicable)	Duration of Program	Materials Recycle	Quantity Recycled (Per Yr)	Any Other Information
Honolulu CC	AMT	Recycle used automobile oil	Commercial	Over 20 years			
	AMT	Recycle used solvents	Commercial	Over 20 years			
	AMT	Recycle coolants	Recycling Machine	1 year			
	AMT	Recycle training cars	Metal recycle	Over 20 years			
	AERO	Recycle engine oil	self cleaning by strainer	Over 10 years			
	Various	Recycle metals	Commercial	Over 20 years			
	Cafe	Recycle cooking oils & grease traps	Commercial	Over 20 years			
	Auto Body Diesel	Grease trap	Commercial	Over 20 years			
	Various	Aluminum cans, plastics, white paper, computer ink cartridges	Commercial	Over 10 years			
	Campus	E-cycle electronics					
Windward CC	Cans/Plastic Recycling	The Janitors at the college began recycling cans and plastics.	Apple Computer Janitors	To start 10/08 Approximately 7 years	Cans and Plastics		
	Paper recycling	A part of a paper recycling effort campuswide, faculty and staff use notepads that have been converted from used paper.	Campus Wide	Approximately 27 years	Paper		
	Green Waste recycling	WCC has designated a site on campus where green waste is collected and used by the grounds crew as mulch.	Groundskeeper	Approximately 27 years	Green waste, i.e., grass, leaves, plant trimmings, tree branches and prunings.		
	Telephone Books	The faculty and staff at the college turn in old telephone books in an effort to recycle the old books.		Approximately 7 years	Telephone Books		
	Campus	E-cycle electronics					
Maui CC	Maui County Recycling Site	Maui CC has agreed to allow usage of space on campus for a community recycling site run by Maui County. This site allows MCC a convenient location for the campus to recycle bottles, plastics, and paper waste. This is also a HI-5 redemption center.	Apple Computer Maui County who hires Maui Disposal to operate the recycling center.	To start 10/08 Approximately 4 years	Newspaper, plastics, bottles, cardboard, HI-5 redemption		
	Maui CC Campus Recycling Program	A Maui CC student club manages several recycling collection points on campus and transports recyclables from the collection points to the Maui County recycling/redemption site.	Hawai'i Institute for Human Rights	Approximately 3 years	Plastic bottles and cans		
Maui CC	Administrative Services shredded paper	Paper generated by the Administrative Services Unit at MCC is shredded and given to a local flower farmer who uses the shredded paper for their business.	Helani Farms Hāna and Maui Floral Farms in Kula	Approximately 3 years	Shredded paper	250 garbage bags a year	
	Recycled glass chips	Maui CC purchases large quantities of recycled glass chips to use in planter beds located throughout the various parking lots	Aloha Plastic Recycling Company	Approximately 7 years	Glass chips	50 tons of glass chips	
	Recycled Plastic Parking Curbs	Maui CC has constructed parking lot curbs that are molded with recycled plastic.	Aloha Plastic Recycling Company	Approximately 9 years	Recycled Plastics	100 Parking Lot curbs	

PROGRAM TO MINIMIZE WASTE PREVENT POLLUTION  
UNIVERSITY OF HAWAII - COMMUNITY COLLEGES  
06/07/08

Campus	Program Title	Description of Program	Vendor (if applicable)	Duration of Program	Materials Recycle	Quantity Recycled (Per Yr)	Any Other Information
Maui CC A-2	Telephone Books	When the new telephone books are issued, a staff member organizes a collection site on campus to collect the old phone books as part of an annual phone book recycling contest.	Judy Moon	4 years	Telephone Books	100-300	
	Reusable Coffee Mugs	When people purchase a MCC plastic reusable coffee mug in the campus cafeteria, they receive a discount on their beverage each time they use it.	Paina/Logo designed on campus	Started Spring 2006	Saves paper product use from landfill and saving for culinary dept. in purchases		
	Culinary Arts- Use of Recyclable Products	MCC Culinary converted to use of recyclable and reusable bags on campus and eliminating polypropylene containers and plastic bags from the MCC Culinary facility	NA	Began approximately 2 years ago			
	Culinary Arts - Use of re-usable plates and flatware	MCC Culinary converted to use of re-usable melamine plastic and stainless steel flatware in its Foodcourt dining facility	NA	Began approximately 4 years ago			
	Culinary Arts - Recycling Program	MCC Culinary recycles all glass, plastic and cardboard food and beverage containers	Maui Disposal	Began approximately 4 years ago			
	Culinary Arts - Biodegradable corn bags	MCC Culinary began using biodegradable corn bags in all garbage and compost bins	NA	Began approximately 2 years ago			
	Culinary Arts - Eliminated use of plastic spoons and utensils in kitchen labs	MCC Culinary eliminated use of plastic spoons and utensils in kitchen labs and educational settings.		Began approximately 2 years ago			
	Culinary Arts- Fine Dining Restaurant - Water	MCC Culinary Fine Dining Restaurant began service water upon request only.	NA	Began approximately 2 years ago			
	Culinary Arts - Kitchen Green Waste	MCC Culinary Arts provide their green waste to the local farmer for re-use.	NA	Began approximately 4 years ago			
	Culinary Arts - Cooking Oils and Fats	MCC Culinary Arts capture cooking oils and fats for local Biodiesel producers	NA	Began approximately 2 years ago			
	Culinary Arts - Composting	MCC Culinary Arts began a composting program where student learn and practice separating compostable matter in the kitchen labs	NA	Began approximately 2 years ago			
	Islands of the World	MCC hosted and is now an active member of the Small Islands of the World Conference who is consortium of island institutions around the world working towards island sustainability.	NA	Began approximately 3 years ago			

PROGRAM TO MINIMIZE WASTE PREVENT POLLUTION  
UNIVERSITY OF HAWAII - COMMUNITY COLLEGES  
08/07/08

Campus	Program Title	Description of Program	Vendor (if applicable)	Duration of Program	Materials Recycle	Quantity Recycled (Per Yr)	Any Other Information
Maui CC	MCC - MECO Partnership	MCC and MECO signed and executed a partnership to reduce MCC's institutional electrical consumption and to enhance MCC's Sustainable Technology curriculum	NA	Re-signed approximately 1 year ago.			
	MCC New Science Bldg	MCC's new Science Bldg is designed to meet a minimum of LEEDs Silver	Design Partners	Design 50% completed			
	MCC Wind Turbine	MCC received a donation of windturbine. MCC is assessing a location for the installation of the turbine					
	MCC PV Project	MCC has run a Sustainable Tech class to teach students how to assemble and install PV units. This class will be installing these units on to the College's rooftops incrementally, class by class.		Began Spring 2008.			
	MCC PV Rear Parking Lot	MCC RFP to solicit for a PPA for a PV system to cover the MCC rear parking lot	NA	RFP approximately 95% completed			
	MCC - Waterless Urinals	MCC's newly renovated Student Center Bldg was equipped with waterless urinals in both Men's room in the facility	Falcon Waterless Urinals	Opened in 2008		Saves approx 10,000 gallons of water per urinal	
	MCC - MECO Green Pricing Program	MCC and MECO is currently assessing engaging in a pilot Green Pricing Program, where MECO install PV panels on MCC rooftops and sells the power to MCC at a discount and MECO sells the excess power to the public as part of the green pricing program	NA	Assessing feasibility			
	VerDiem Power Management Software	MCC installed a power management software on to its network to control PC's and apparatus that are left on over night on the campus in labs, classrooms, etc	Ver Diem	Installed approximately 2 years ago			
	Micro-Planet Voltage Regulators	MCC is testing voltage regulators on the campus to test whether MCC's incoming power has fluctuations which these regulators would level out and therefore reduce overall power consumption on the campus	Micro-planet	MCC piloting the voltage regulators for 90 days. Install about 2 weeks ago			
	MCC - Chevron Partnership	Chevron is conducting a feasibility study of MCC's campus in order to propose a plan to assist MCC to reduce MCC's greenhouse gas generation	Chevron	Chevron conducting a free feasibility study.			
Maui CC	MCC - DBEDT Anemometer Loan Program	MCC was contracted by DBEDT to run a State-wide anemometer loan program for entities interested in wind energy and needing to test the wind factors in specific locations around the State.	DBEDT	Contract signed in 2008			

Campus	Program Title	Description of Program	Vendor (if applicable)	Duration of Program	Materials Recycle	Quantity Recycled (Per Yr)	Any Other Information
Kapi'olani CC	Community Recycling Center Program	Designed to provide convenient recycling drop-off services to campus and neighboring community.	City & County of Honolulu in conjunction with Honolulu Disposal	Approximately 4 years	Aluminum cans, glass, cardboard, newspapers, paper	Undetermined	
	Apple Computer E-Cycling Program	Recycling program for computers, monitors, peripherals from all computer manufacturers	Apple Computers	1 year	Personal computers, monitors and peripherals	17 pallets (approximately 400 pieces)	Program supported and staffed by KCC staff in CELTT and Auxiliary Services
	Campus Recycling Program	A KCC student group manages several recycling collection points for aluminum cans and transports them to the recycling bins.	None	Approximately 4 years	Aluminum cans	Undetermined	
	Community Mulch Program	KCC is designated as one of the City & County of Honolulu's recycled green waste sites, where mulch is delivered to various campus sites and is available for campus and community pickup and use.	City & County of Honolulu	Approximately 4 years	Green waste	Undetermined	
	Campuswide Recycling	Recycling bins (3) will be placed near the entry points to all major campus buildings.	None	Approximately 1 year	Aluminum cans, office paper, bottles	Undetermined	Program will be supported by KCC Auxiliary Services Staff.
Kapi'olani CC	Energy Management System	Integrate energy management systems for air conditioning	Web Control	Approximately 2 years	Energy Conservation	Undetermined	Administration
	Re-usable Coffee Mugs	To cut down on the use of foam cups, KCC will sell thermal mugs for use in purchasing discounted coffee. This is also to encourage the purchase of coffee in the cafeteria rather than have individuals use coffee pots in the offices to reduce power consumption.	None	Approximately 1 year	Sustainability, energy conservation	Undetermined	Sponsoring group is KCC Sustainability Committee
	Purchase "Green" Products	Purchase carpet meeting LEED standards	Interface FLOR	Approximately 1 year	Sustainability	Undetermined	Administration
Kaua'i CC	Recycle cooking oil and grease	Purchase disposable utensils which are biodegradable	Undetermined	Approximately 1 year	Sustainability	200 gallons	KCC Sustainability Committee
	Collection of waste oil from vehicles	Vegetable oil and grease is cleaned out of the grease traps by the vendor, the cooking oil is recycled.	Kaua'i Grease Trap Maintenance	Approximately 18 years	Vegetable oil and grease	100 gallons from Auto Technology, 25 gallons from Operations & Main.	
	White paper recycling program	Kaua'i CC students bring their cars to the automotive shop to learn how to properly change and collect the vehicle oil. The collection is given to the vendor.	Speedie Lube	Approximately 31 years	Engine Oil	1000 lbs.	
		Kaua'i CC faculty started a program recycling white paper. Facilities, the maintenance staff transports the paper to a collection dumpster where the vendor collects the paper to be recycled.	Garden Island Disposal	Approximately 7 years	White paper		



PROGRAM TO MINIMIZE WASTE PREVENT POLLUTION  
UNIVERSITY OF HAWAII - COMMUNITY COLLEGES  
08/07/06

Campus	Program Title	Description of Program	Vendor (if applicable)	Duration of Program	Materials Recycle	Quantity Recycled (Per Yr)	Any Other Information
Leeward CC	Community Recycling Center Program	Designed to provide convenient recycling drop-off services to campus community.	City & County of Honolulu in conjunction with Honolulu Disposal	on-going program	1) aluminum cans, glass 2) newspaper, corrugated cardboard, office paper Green waste	Undetermined	40-cubic yard roll-off container custom designed for recycling
	Community Mulch Program	Leeward CC is designated as one of the City & County of Honolulu's recycled green waste sites where mulch is available for campus & Community pick-up and use.	City & County of Honolulu in conjunction with Hawaiian Earth Products	Program went into effect in April 2006 & continues	Green waste	Undetermined	
Leeward CC	Used Library & Reference Books	Waianae campus donates unwanted reference & library books to students, community members, and the homeless shelter rather than discarding		Program inception - Summer 2007	Library & reference books	Undetermined	
	Green Waste	Native Hawaiian/Shade House program recycles all fresh green waste from the campus cafeteria into compost		On-going program	Green waste from cafeteria	Undetermined	
	Tree Pruning and Wood Chips	Tree and shrub pruning are converted to wood chips & recycled to use as mulch for the Native Hawaiian plant collection and the Halau Lei and Medicinal Garden	Akahi Services	On-going program	Tree & shrub pruning	Undetermined	
	Automotive Programs	Automotive program recycles metal, aluminum and oil parts/products/by-products through various recycling companies	Snitzer Steel, metals Lennox, aluminum, Unitek oil	On-going program	Metals, aluminum, oil	Undetermined	
	Cartridge Recycling	Leeward CC is in the preliminary stages of establishing a recycling program for used printer cartridges	Entrade Corporation	To be determined	Cartridges for printers, facsimiles, copiers, and multi-function machines		Program is currently being established - soon to be implemented
	Computer Recycling	Statewide computer recycling effort involving UH and the K-12 schools to be coordinated at the UH-Mānoa campus	Apple Computers	on-going program	Computers and monitors, all brands	Potentially hundreds of pounds	Program is supported by Apple Computer

DHHL Vehicle Inventory  
FY 2008

Oahu Vehicles

License Plate	Model	Vehicle Description	Serial Number	Model Year	Acquisition Cost	Mileage	As of Date	gallons per 100 miles (fuel economy)	average (gal)	actual fuel consum. (gal)	fuel
SH7297	Chevy	Van passenger	2GNEG25H8N4132080	1992	\$17,053.04	166,125	11/12/2008	6.667/5	5.84	9701.70	gasoline87
SH9412	Chevy	Corsica	1G1L055MISY264061	1995	\$5,900.00	69,443	11/10/2008	4.762/3.448	4.11	2854.11	gasoline87
SH9110	Ford	Ranger	1FTCR10U2NUDO6502	1992	\$4,500.00	93,832	11/10/2008	5.882/4.762	5.32	4991.86	gasoline87
SHB577	Ford	Explorer 4x4	1FMZU62K75ZA32343	2005	\$24,460.42	41,111	11/12/2008	7.143/5	6.07	2495.44	gasoline87
SHB268	Chevy	Tahoe	3GNEK18RXVG164830	1997	\$8,000.00	78,500	11/12/2008	7.692/5.882	6.79	5330.15	gasoline87
SHD 358	Dodge	Caravan	1B4GP25301B158589	2001	\$4,500.00	21,930	11/12/2008	5.556/4.167	4.86	1065.80	gasoline87
SHD 359	Dodge	Stratus	1B3EL36104N341974	2004	\$7,200	11,171	11/10/2008	4.545/3.333	3.94	440.14	gasoline87
SHD 319	Ford	E-350 12psgr	1FBNE31L88DA59307	2008	\$27,996.23	7,427	11/10/2008	no fuel rating available on vehicle			gasoline87

Maui Vehicles

License Plate	Model	Vehicle Description	Serial No.	Model Year	Acquisition Cost	Mileage	As of date	gallons per 100 miles (fuel economy)	average (gal)	actual fuel consum. (gal)	fuel
SH8652	Jeep	Cherokee SUV	1J4FJ28S3VL578912	1997	\$23,812.35	62,960	11/13/2008	6.667/5	5.84	3,677	gasoline 87

Kauai Vehicles

License Plate	Model	Vehicle Description	Serial Number	Model Year	Acquisition Cost	Mileage	As of Date	gallons per 100 miles (fuel economy)	average (gal)	fuel consum. (gal)	fuel
SH9218	Ford	Ford MPVH Explorer 4x4	1FMZU1	1999	\$24,943.59	32,585	11/19/2008	6.667/5.	5.97	1945.32	gasoline-87

DHHL Vehicle Inventory  
FY 2008

Oahu Vehicles

Molokai Vehicles

License Plate	Model	Description	Serial No.	Model Year	Acquisition Cost	Mileage	As of Date	gallons per 100 miles (fuel economy)	average fuel consump. (gal)	fuel
SH8310	Ford	Explorer 4x4	1FMDU34X8SUC34215	1995	\$24,424.04	114,081	11/14/2008	6.667/5.263	5.97	6810.6 gasoline
SH8369	Chevy	Cargo truck 2	1GCGD34J4EF343955	1984	\$1,600.00	41,529	11/14/2008	n/a		0.0 diesel
SH8558	GMC	GMC dump tr	1GDP7H1J0VJ501905	1997	\$55,434.00	27,170	11/14/2008	n/a		0.0 diesel
SHA305	Chevy	Silverado 4x4	1GBHK24U52E113017	2002	\$32,490.00	108,064	11/14/2008	7.143/5.882	6.52	7045.8 gasoline
SHA907	Ford	Explorer 4x4	1FMZU72K24A03031	2004	\$26,051.43	50,450	11/14/2008	5.263/5	5.13	2588.1 gasoline
SHC230	Ford	Ford pick up	1FTNF21566EC86474	2006	\$24,355.97	25,116	11/14/2008	6.667/5	5.84	1466.8 gasoline

West Hawaii Vehicles

License Plate	Model	Vehicle Description	Serial No.	Model Year	Acquisition Cost	Mileage	As of Date	gallons per 100 miles (fuel economy)	average fuel consump. (gal)	fuel
SHC612	Ford	Escape	1FMCU93167KA15624	2007	\$24,999.95	9,664	11/21/2008	7.143/5.556	6.35	613.664 gasoline
SH9064	Chevy	4x4 pick up tr	1GCGK24R9WE252855	1998	\$25,088.95	93,558	11/21/2008	6.667/5	5.84	5463.7872 gasoline
SH9054	GMC	Dump truck a	1WBUCJF8GH	1986	\$13,166.04	55,319	11/21/2008	6.667/5	5.84	3230.6296 gasoline
SHB591	Chrysler	1500 Quad ca	1D7HU18N45J516396	2005	\$26,568.59	79,520	11/21/2008	7.143/5.556	6.35	5049.52 gasoline
SH8514	Chevy	Flatbed truck	1GBHK34J4VF008123	1997	\$30,449.95	53,625	11/21/2008			0 gasoline
SH847	SnowBr	Trailer	2SWUW11456260072	2005		no mileage		n/a		gasoline

East Hawaii Vehicles

License Plate	Model	Description	Serial No.	Model Year	Acquisition Cost	Mileage	As of Date	gallons per 100 miles (fuel economy)	average fuel cons. (gal)	Fuel
SHA154	Mercury	Mountaineer	4M2ZU76E11UJ09823	2002	\$24,999.01	67,733	11/12/2008	6.667/5.263	5.97	4043.6601 gasoline -87
SHB897	Toyota	Tacoma 4x4	5TEUU42N55Z122690	2005	\$24,778.06	18,939	11/12/2008	5.882/4.762	5.32	1007.5548 gasoline -87
SH 337	Dodge	Ram 1500	1D7HU18218J178398	2008	\$31,381.05	15,991	11/12/2008	7.692/5.882	6.79	1085.7889 gasoline -87

## State of Hawaii Department of Education Vehicle Fuel Report FY 08

Make	Model	Year	License Plate #	VIN	GVWR	EPA Hwy Fuel	EPA City Fuel	Acq. Cost	Fuel Type	In-use Mileage	In-use Fuel Consum.	In-use Avg Fuel Econ	Annual Mileage	Annual Fuel Consum	Annual Avg Fuel Econ
INTL	XXX	1992	SH4208	1HTSCNPL5NH409720	19000			\$0.00	DIESEL	297.00	35.10	8.46			7.72
PTRB	XXX	2003	SHA653	1NPZH27X73D714835	14908			\$0.00	DIESEL	304.00	39.40	7.72	304.00	39.40	7.72
FORD	XXX	2003	SHA901	1FTNF20D33ED82433	XXXX			\$0.00	DIESEL	2,417.00	159.70	15.13	2,417.00	159.70	15.13
FORD	XXX	2005	SHB437	1FTSF20PX5EA36577	9400			\$0.00	DIESEL	816.00	84.50	9.66	816.00	84.50	9.66
FORD	XXX	2005	SHB438	1FTSF20P15EA36578	9400			\$0.00	DIESEL	2,040.00	138.00	14.78	2,040.00	138.00	14.78
FORD	XXX	2005	SHB440	1FTSF20PX5EA36580	9400			\$0.00	DIESEL	552.00	40.09	13.77	552.00	40.09	13.77
FORD	XXX	2006	SHC196	1FTSF20P96EB12579	9400			\$0.00	DIESEL	1,419.00	135.39	10.48	1,419.00	135.39	10.48
FORD	XXX	2006	SHC197	1FTSF20P56EB12580	9400			\$0.00	DIESEL	2,372.00	176.20	13.46	2,372.00	176.20	13.46
FORD	XXX	2006	SHC345	1FDWVF36P36EB24320	13000			\$0.00	DIESEL	202.00	30.64	6.59	202.00	30.64	6.59
FORD	XXX	2008	SHC719	1FDSX20R78EA28953	XXXX			\$0.00	DIESEL	35,517.00	341.93	103.87	35,319.00	319.21	110.65
FORD	XXX	2008	SHC741	1FDSX20R98EA28954	XXXX			\$0.00	DIESEL	9,752.00	768.44	12.69	8,448.00	692.93	12.19
GMC	XXX	1992	SHC759	J8DK7A1U2N3200748	XXXX			\$0.00	DIESEL	1,703.00	83.98	20.28	1,703.00	83.98	20.28
FORD	XXX	2008	SHC762	1FDWV36R28EA24355	XXXX			\$0.00	DIESEL	6,733.00	627.24	10.73	6,144.00	574.49	10.69
CHEV	XXX	2008	SHD163	1PDXF46R98EA09249	XXXX			\$0.00	DIESEL	667.00	51.02	13.07	1,670.00	25.64	6.51
CHEV	XXX	1999	SHD164	1GBHGC31F3X1153760	XXXX			\$0.00	DIESEL	2,157.00	206.06	10.47	1,569.00	154.41	10.16
CHEV	XXX	1992	SH4061	1GBGCG24K3NE197466	8000			\$0.00	GAS	8,950.00	768.65	11.64	8,338.00	728.68	11.44
CHEV	XXX	1992	SH4062	1GBGCG24K4NE198206	7200			\$0.00	GAS	1,052.00	16.20	64.94	1,052.00	16.20	64.94
CHEV	XXX	1992	SH4063	1GBGCG24K9NE198136	8600	17	13	\$0.00	GAS	5,833.00	530.87	10.99	5,253.00	480.46	10.93
CHEV	XXX	1992	SH4065	1GBGCG24K1NE196882	7200			\$0.00	GAS	2,690.00	268.70	10.01	2,386.00	241.70	9.87
DODGE	XXX	1991	SH4092	1B6KE3657MS321949	7100			\$0.00	GAS	479.00	781.04	0.61	400.00	730.64	0.55
GMC	SA14Z	1989	SH4107	1GT6CS1420K8528101	4900			\$0.00	GAS	492.00	24.70	19.92	492.00	24.70	19.92
CHEV	DAKOTA	1990	SH4135	1GCGR33KOLF304739	7200	18	15	\$0.00	GAS	27,996.00	312.50	89.59	27,996.00	312.50	89.59
CHEV	XXX	1990	SH4136	1GCGR33K8LF304617	9000	13	10	\$0.00	GAS	3,701.00	370.62	9.99	3,309.00	338.24	9.78
CHEV	XXX	1990	SH4138	1GBGCG24KXLE229696	8600	13	10	\$0.00	GAS	1,955.00	167.48	11.67	1,955.00	167.48	11.67
CHEV	XXX	1990	SH4140	1GBGCG24K2LE229689	8600			\$0.00	GAS	3,202.00	79.25	40.40	749.00	27.00	27.74
CHEV	XXX	1990	SH4142	1GBGCG24K4LE229709	8600			\$0.00	GAS	2,506.00	193.63	12.94	1,915.00	143.77	13.32
CHEV	XXX	1991	SH4143	1GBGCG33K4MF300604	9070			\$0.00	GAS	1,543.00	118.80	12.99	1,543.00	118.80	12.99
GMC	XXX	1986	SH4153	1GTDG14HXJ525747	5200			\$0.00	GAS	420.00	53.70	7.82	336.00	42.30	7.94
DODGE	XXX	1990	SH4180	2B7KB31Z3LK742669	8510			\$0.00	GAS	2,754.00	354.55	7.77	2,754.00	354.55	7.77
DODGE	XXX	1991	SH4207	1B6ME3656MS327606	10000			\$0.00	GAS	3,443.00	557.00	6.18	2,906.00	487.10	5.97
CHEV	XXX	1990	SH4212	1GBHC34K1LE232934	10000			\$0.00	GAS	4,336.00	563.90	7.69	3,811.00	504.50	7.55
FORD	XXX	1988	SH4219	1FDJF37G1JKA14207	8800			\$0.00	GAS	671.00	14.00	47.93	671.00	14.00	47.93
CHEV	XXX	1992	SH4229	1GBGCG24KXNE196864	7200			\$0.00	GAS	4,196.00	448.60	9.35	3,929.00	423.60	9.28
CHEV	XXX	1992	SH4230	1GBGCG24K2NE196907	8600			\$0.00	GAS	7,506.00	107.15	70.05	632.00	50.48	12.52
CHEV	XXX	1993	SH5748	1GBJ7H1M7PJ105062	24980			\$0.00	GAS	2,964.00	468.60	6.33	2,741.00	426.40	6.43
CHEV	XXX	1993	SH5946	1GCFG24K6PE196757	7200			\$0.00	GAS	972.00	62.20	15.63	972.00	62.20	15.63
CHEV	XXX	1993	SH5947	1GCFG24K1PE197377	7200			\$0.00	GAS	2,026.00	101.60	19.94	2,026.00	101.60	19.94
CHEV	XXX	1992	SH7663	1GCFG24H3NE113402	7200			\$0.00	GAS	1,291.00	67.16	19.22	1,291.00	67.16	19.22
CHEV	XXX	2000	SH7741	1GBJC34RZYF475443	7200			\$0.00	GAS	4,628.00	340.98	13.57	4,628.00	340.98	13.57
CHEV	XXX	1993	SH7750	1GCFG24H2P2139484	7200			\$0.00	GAS	10,749.00	884.33	12.15	9,601.00	785.68	12.22
CHEV	XXX	1992	SH7759	1GCFG24KXNE209619	7200			\$0.00	GAS	1,260.00	100.30	12.56	1,260.00	100.30	12.56
CHEV	XXX	1992	SH7760	1GCFG24K4NE212144	7200			\$0.00	GAS	3,208.00	211.21	15.19	3,208.00	211.21	15.19
CHEV	XXX	1991	SH7762	1GCFG24H6MZ120707	7200			\$0.00	GAS	1,233.00	98.70	12.49	1,233.00	98.70	12.49
CHEV	XXX	1991	SH7763	1GCFG24HXMZ120709	7200			\$0.00	GAS	657.00	108.90	6.03	657.00	108.90	6.03
CHEV	XXX	1991	SH7764	1GCFG24H3MZ154880	7200			\$0.00	GAS	3,550.00	207.40	17.12	3,550.00	207.40	17.12
CHEV	XXX	1991	SH7765	1GCFG24H3MZ153499	7200			\$0.00	GAS	169.00	23.00	7.35	169.00	23.00	7.35
DODGE	XXX	1987	SH7773	1B7HD24TOHS446401	6600			\$0.00	GAS	2,616.00	219.80	11.90	2,616.00	219.80	11.90

## State of Hawaii Department of Education Vehicle Fuel Report FY 08

Make	Model	Year	License Plate #	VIN	GVWR	EPA Hwy Fuel	EPA City Fuel	Acq. Cost	Fuel Type	In-use Mileage	In-use Fuel Consum.	In-use Avg Fuel Econ	Annual Mileage	Annual Fuel Consum	Annual Avg Fuel Econ
CHEV	Prizm	1995	SH8077	1Y1SK5265SZ101563	2500			\$0.00	GAS	1,627.00	68.56	23.73	1,627.00	68.56	23.73
CHEV	Prizm	1995	SH8078	1Y1SK5267SZ101581	2500			\$0.00	GAS	3,491.00	108.73	32.11	3,491.00	108.73	32.11
CHEV	XXX	1995	SH8158	1GFC24H8SE283332	7200			\$0.00	GAS	1,939.00	108.70	17.84	1,939.00	108.70	17.84
CHEV	XXX	1995	SH8159	1GFC24H45E284641	7200			\$0.00	GAS	1,090.00	85.60	12.73	1,090.00	85.60	12.73
CHEV	XXX	1996	SH8289	1GFC24MXTE190844	7200			\$0.00	GAS	658.00	49.20	13.37	658.00	49.20	13.37
CHEV	XXX	1996	SH8290	1GFC24M3TE189888	7200			\$0.00	GAS	1,407.00	81.60	17.24	1,407.00	81.60	17.24
CHEV	XXX	1996	SH8291	1GFC24M8TE192804	7200			\$0.00	GAS	679.00	37.40	18.16	679.00	37.40	18.16
CHEV	XXX	1996	SH8292	1GFC24M9TE189538	7200			\$0.00	GAS	511.00	37.60	13.59	511.00	37.60	13.59
CHEV	XXX	1996	SH8293	1GFC24M1TE191770	7200			\$0.00	GAS	2,154.00	157.30	13.69	2,154.00	157.30	13.69
CHEV	Cavalier	1996	SH8411	1G1JC524XV7123532	2470			\$0.00	GAS	1,467.00	79.38	18.48	1,467.00	79.38	18.48
CHEV	XXX	1996	SH8465	1GFC24M3VE125997	7200			\$0.00	GAS	1,206.00	100.90	11.95	1,206.00	100.90	11.95
FORD	XXX	1993	SH8633	1FACP52U1PG260744	4695			\$0.00	GAS	3,416.00	94.10	36.30	3,416.00	94.10	36.30
FORD	XXX	1993	SH8634	1FALP5215PG266231	4695			\$0.00	GAS	6,271.00	191.60	32.73	6,271.00	191.60	32.73
CHEV	XXX	1991	SH8638	1GFC24H9MZ162191	8800			\$0.00	GAS	4,496.00	511.88	8.78	4,496.00	511.88	8.78
CHEV	XXX	1993	SH8667	1G1BL537XPR133210	5258			\$0.00	GAS	3,046.00	278.40	10.94	2,398.00	219.10	10.94
CHEV	XXX	1998	SH8778	1GFC24M5WZ127387	7200			\$0.00	GAS	1,925.00	176.70	10.89	1,925.00	176.70	10.89
CHEV	XXX	1998	SH8864	1GBHC34R3WFO15798	7200			\$0.00	GAS	513.00	64.58	7.94	513.00	64.58	7.94
CHEV	XXX	1991	SH8870	1GFC24H1MZ162749	7200			\$0.00	GAS	5,144.00	391.20	13.15	4,523.00	343.20	13.18
CHEV	XXX	1991	SH8871	1GFC24H6MZ161497	7200			\$0.00	GAS	4,566.00	413.17	11.05	4,566.00	413.17	11.05
HYUN	Elantra	1998	SH8961	KMJF24M3WU699195	2830			\$0.00	GAS	6,945.00	326.67	21.26	6,945.00	326.67	21.26
HYUN	Elantra	1998	SH8965	KMHJF24M8WU697555	2830			\$0.00	GAS	1,170.00	54.98	21.28	1,170.00	54.98	21.28
HYUN	Elantra	1998	SH8967	KMHJF24M2WU691251	2830			\$0.00	GAS	3,562.00	164.13	21.70	3,562.00	164.13	21.70
HYUN	Elantra	1998	SH8969	KMHJF24M4WU696113	2830			\$0.00	GAS	195.00	9.48	20.57	195.00	9.48	20.57
HYUN	Elantra	1998	SH8970	KMHJF24M7WU691259	2830			\$0.00	GAS	388.00	18.95	20.47	388.00	18.95	20.47
DODGE	XXX	1994	SH8978	2B4HB25Y4RK548003	8600			\$0.00	GAS	6,684.00	640.21	10.44	5,965.00	573.89	10.39
FORD	XXX	1991	SH8980	1FDNK64P9MVA06555	19660			\$0.00	GAS	488.00	73.00	6.68	488.00	73.00	6.68
CHEV	XXX	1991	SH9042	1GFC24H6MZ163394	8600			\$0.00	GAS	6,727.00	576.60	11.67	5,854.00	513.60	11.40
CHEV	XXX	1992	SH9043	1GFC24H1NE159682	7200			\$0.00	GAS	5,858.00	613.80	9.54	5,858.00	613.80	9.54
CHEV	XXX	1991	SH9044	1GFC24H4MZ175348	6000			\$0.00	GAS	33,309.00	519.97	64.06	33,309.00	519.97	64.06
GMC	XXX	1991	SH9069	1GDHC34K1ME5532840	10000			\$0.00	GAS	1,550.00	161.30	9.61	1,550.00	161.30	9.61
CHEV	XXX	1999	SH9301	1GBHC34FOX014518	10000			\$0.00	GAS	212.00	27.50	7.71	212.00	27.50	7.71
CHEV	XXX	1999	SH9458	1GCG24R5XRX716283	7200			\$0.00	GAS	2,828.00	166.28	17.01	2,828.00	166.28	17.01
CHEV	XXX	1993	SH9507	1GCGG35K5PF340970	8600			\$0.00	GAS	4,871.00	499.91	9.74	4,871.00	499.91	9.74
CHEV	Cavalier	2000	SH9527	3G1JC5240YS118569	2700			\$0.00	GAS	1,994.00	89.87	22.19	1,994.00	89.87	22.19
CHEV	Cavalier	2000	SH9528	3G1JC5243YS118212	2700			\$0.00	GAS	540.00	41.72	12.94	540.00	41.72	12.94
CHEV	Cavalier	2000	SH9529	3G1JC5246YS117829	2700			\$0.00	GAS	404.00	20.96	19.27	404.00	20.96	19.27
CHEV	Cavalier	2000	SH9531	3G1JC5240YS118491	2700			\$0.00	GAS	3,002.00	142.51	21.07	3,002.00	142.51	21.07
CHEV	Cavalier	2000	SH9534	3G1JC5243YS117433	2700			\$0.00	GAS	7,226.00	93.94	76.92	7,226.00	93.94	76.92
CHEV	Cavalier	2000	SH9535	3G1JC5249YS118117	2700			\$0.00	GAS	3,256.00	113.18	28.77	3,256.00	113.18	28.77
CHEV	Cavalier	2000	SH9537	3G1JC5245YS118101	2700			\$0.00	GAS	10,186.00	327.74	31.08	10,186.00	327.74	31.08
CHEV	XXX	2000	SH9559	1GBHC34R9VF409552	7200			\$0.00	GAS	4,642.00	193.47	23.99	4,642.00	193.47	23.99
DODGE	XXX	1993	SH9616	1B7MM3656P5268169	10100			\$0.00	GAS	161.00	16.17	9.96	161.00	16.17	9.96
DODGE	XXX	1992	SH9653	1B7ME3653NS646717	10100			\$0.00	GAS	884.00	110.75	7.98	884.00	110.75	7.98
CHEV	XXX	1994	SH9769	1GDC14Z2R2236018	5600			\$0.00	GAS	990.00	67.20	14.73	759.00	46.40	16.36
CHEV	XXX	1993	SH9770	1GFC24H3PZ139347	5060			\$0.00	GAS	9,311.00	919.10	10.13	8,281.00	819.10	10.11
CHEV	XXX	1994	SH9771	1GFC24Z5R2245617	7200	22	16	\$0.00	GAS	305.00	24.15	12.63	305.00	24.15	12.63
TOYOTA	Echo	2001	SH9804	JTDBT123810110695	2160			\$0.00	GAS	768.00	15.53	49.45	768.00	15.53	49.45

## State of Hawaii Department of Education Vehicle Fuel Report FY 08

Make	Model	Year	License Plate #	VIN	GVWR	EPA Hwy Fuel	EPA City Fuel	Acq. Cost	Fuel Type	In-use Mileage	In-use Fuel Consum.	In-use Avg Fuel Econ	Annual Mileage	Annual Fuel Consum	Annual Avg Fuel Econ
TOYOTA	Echo	2001	SH9806	JTDBT123410110029	2160			\$0.00	GAS	7,484.00	212.38	35.24	7,484.00	212.38	35.24
TOYOTA	Echo	2001	SH9808	JTDBT123810110101	2160			\$0.00	GAS	2,522.00	81.09	31.10	2,522.00	81.09	31.10
TOYOTA	Echo	2001	SH9809	JTDBT123X10110617	2160			\$0.00	GAS	9,088.00	285.27	31.86	9,088.00	285.27	31.86
TOYOTA	Echo	2001	SH9810	JTDBT123510110492	2160			\$0.00	GAS	2,442.00	91.22	26.77	2,442.00	91.22	26.77
TOYOTA	Echo	2001	SH9811	JTDBT123510110380	2160			\$0.00	GAS	4,127.00	147.31	28.02	4,127.00	147.31	28.02
TOYOTA	Echo	2001	SH9812	JTDBT123110110473	2160			\$0.00	GAS	1,686.00	52.52	32.10	1,686.00	52.52	32.10
TOYOTA	Echo	2001	SH9814	JTDBT123610110713	2160			\$0.00	GAS	2,993.00	109.05	27.45	2,993.00	109.05	27.45
TOYOTA	Echo	2001	SH9815	JTDBT123910110480	2160			\$0.00	GAS	6,824.00	226.07	30.19	6,824.00	226.07	30.19
CHEV	XXX	1994	SH9841	1GCF24H1R2266816	7200			\$0.00	GAS	5,529.00	503.02	10.99	5,339.00	479.54	11.13
DODGE	Dakota	1996	SH9842	1B7HL26X2TS682625	6150			\$0.00	GAS	3,488.00	235.90	14.79	3,130.00	211.50	14.80
FORD	XXX	1997	SH9843	1FTDF172XVKD55847	6000			\$0.00	GAS	5,874.00	528.70	11.11	5,320.00	482.70	11.02
CHEV	S-10	1994	SH9921	1GCGS14Z9R8226557	5300			\$0.00	GAS	11,112.00	709.00	15.67	10,044.00	629.70	15.95
CHEV	S-10	1994	SH9922	1GCGS19Z0R8226181	5300			\$0.00	GAS	5,616.00	391.40	14.35	5,189.00	362.10	14.33
CHEV	XXX	1994	SH9923	1GDC14Z9R2223993	5600			\$0.00	GAS	2,945.00	203.60	14.46	2,433.00	166.50	14.61
CHEV	XXX	1994	SH9928	1GCEC14Z2R2267791	6000			\$0.00	GAS	9,156.00	622.64	14.71	8,451.00	575.66	14.68
CHEV	XXX	1994	SH9977	1GNDM15Z6RB232081	5700			\$0.00	GAS	2,799.00	204.90	13.66	2,448.00	176.60	13.86
CHEV	XXX	1994	SH1120	1GCGS14Z9R8225523	5300			\$0.00	GAS	908.00	46.40	19.57	908.00	46.40	19.57
CHEV	XXX	1994	SH1121	1GCF24ZXR2245435	7200	22	16	\$0.00	GAS	4,081.00	342.52	11.91	3,311.00	288.54	11.48
FORD	Taurus	1997	SH1138	1FALP224VG223165	4722			\$0.00	GAS	3,243.00	174.30	18.61	2,646.00	143.80	18.40
FORD	Taurus	1997	SH1153	1FALP522OVG223163	4722			\$0.00	GAS	2,101.00	97.50	21.55	1,965.00	87.60	22.43
FORD	Taurus	1997	SH1174	1FALP522VG223166	4722			\$0.00	GAS	4,475.00	191.90	23.32	4,278.00	183.10	23.36
FORD	Taurus	1997	SH1175	1FALP522VG223164	4722			\$0.00	GAS	1,912.00	107.40	17.80	1,793.00	102.00	17.58
CHEV	XXX	1993	SH1220	1GCGG35KOPF340875	8600			\$0.00	GAS	7,463.00	690.80	10.80	7,463.00	690.80	10.80
CHEV	XXX	1993	SH1221	1GFGG35K6PF240704	8600			\$0.00	GAS	8,470.00	744.70	11.37	7,000.00	624.70	11.21
CHEV	XXX	1994	SH1222	1GBGC24KORE260917	8600			\$0.00	GAS	6,980.00	601.51	11.60	6,482.00	562.42	11.53
CHEV	XXX	1994	SH1229	1GBGC24K3RE261673	8600			\$0.00	GAS	5,183.00	428.63	12.09	4,555.00	401.25	11.35
CHEV	XXX	1993	SH1249	1GCF24H8P217190	7200			\$0.00	GAS	9,135.00	753.90	12.12	8,060.00	663.80	12.14
CHEV	S-10	1994	SH1284	1GCGS14Z3R8226201	4900			\$0.00	GAS	959.00	45.37	21.14	959.00	45.37	21.14
CHEV	XXX	1993	SH1297	1GCGG35K0PF339354	8600			\$0.00	GAS	4,224.00	388.55	10.87	3,921.00	355.50	11.03
FORD	Focus	2002	SH1300	1FAFP33PX2W107773	2700			\$0.00	GAS	637.00	29.94	21.28	637.00	29.94	21.28
TOYOTA	Corolla	2001	SH1328	1NXBR12E81Z493686	2430			\$0.00	GAS	1,807.00	75.34	23.98	1,807.00	75.34	23.98
FORD	Taurus	2000	SH1329	1FAFP5326YA142204	3300			\$0.00	GAS	474.00	28.79	16.46	474.00	28.79	16.46
CHEV	XXX	1994	SH1333	1GBHC34K2RE313546	8800			\$0.00	GAS	6,669.00	542.46	12.29	5,904.00	493.57	11.96
FORD	XXX	1995	SH1334	1FTEF15Y5SLB50325	6250			\$0.00	GAS	7,755.00	502.58	15.43	7,755.00	502.58	15.43
CHEV	XXX	1994	SH1337	1GBHC34K5RE176621	10000			\$0.00	GAS	8,564.00	946.55	9.05	7,901.00	895.11	8.83
CHEV	XXX	1994	SH1338	1GBGC24K6RE302619	8600			\$0.00	GAS	4,033.00	384.60	10.49	3,797.00	359.43	10.56
CHEV	XXX	1994	SH1339	1GBHC34K3RE176973	10000			\$0.00	GAS	5,840.00	663.10	8.81	5,416.00	611.10	8.86
CHEV	XXX	1994	SH1340	1GCF24H6R2267679	7200			\$0.00	GAS	5,351.00	424.95	12.59	4,709.00	398.06	11.83
CHEV	XXX	1994	SH1344	1GCF24HR2267583	7200			\$0.00	GAS	1,514.00	86.00	17.60	1,514.00	86.00	17.60
CHEV	XXX	1994	SH1352	1GCF24H8R2266579	7200			\$0.00	GAS	10,990.00	853.50	12.88	9,922.00	772.40	12.85
CHEV	XXX	1994	SH1367	1GCF24H8R2268123	7200			\$0.00	GAS	212.00	19.14	11.08	212.00	19.14	11.08
GMC	XXX	1994	SH1368	1GTF24H6RE550414	7200			\$0.00	GAS	896.00	66.70	13.43	896.00	66.70	13.43
GMC	XXX	1994	SH1383	1GTF24H3RE549494	7200			\$0.00	GAS	-29,970.00	496.67	-60.34	-30,322.00	458.23	-66.17
CHEV	XXX	1994	SH1384	1GBHC34KXRE177120	8600			\$0.00	GAS	8,111.00	902.60	8.99	7,422.00	828.30	8.96
FORD	XXX	1998	SH1447	1FAFP5222WG216116	4722			\$0.00	GAS	3,040.00	157.50	19.30	2,343.00	124.00	18.90
FORD	XXX	1998	SH1449	1FAFP5226WG216118	4722			\$0.00	GAS	3,120.00	167.00	18.68	3,120.00	167.00	18.68
FORD	XXX	1995	SH1547	1FTEF15Y7SLB50326	6250			\$0.00	GAS	7,329.00	537.95	13.62	6,752.00	493.68	13.68

## State of Hawaii Department of Education Vehicle Fuel Report FY 08

Make	Model	Year	License Plate #	VIN	GVWR	EPA Hwy Fuel	EPA City Fuel	Acq. Cost	Fuel Type	In-use Mileage	In-use Fuel Consum.	In-use Avg Fuel Econ	Annual Mileage	Annual Fuel Consum	Annual Avg Fuel Econ
FORD	XXX	1997	SHA548	1FTDF1721VKD55817	6000			\$0.00	GAS	7,375.00	593.22	12.43	6,882.00	546.26	12.60
CHEV	XXX	1995	SHA549	1GCGG35K2SF146082	8600			\$0.00	GAS	8,965.00	800.67	11.20	8,054.00	720.47	11.18
CHEV	XXX	1995	SHA674	1GCGG35K1SF147496	8600			\$0.00	GAS	4,595.00	407.50	11.28	3,527.00	301.50	11.70
CHEV	XXX	1995	SHA675	1GBHC34K6SE240588	10000			\$0.00	GAS	2,378.00	274.39	8.67	2,187.00	250.53	8.73
FORD	XXX	1995	SHA676	1FTEF15YXSLB50319	6250			\$0.00	GAS	6,333.00	425.60	14.88	6,333.00	425.60	14.88
CHEV	XXX	1995	SHA717	1GBHC34K9SE240665	10000			\$0.00	GAS	2,071.00	290.12	7.14	2,071.00	290.12	7.14
FORD	XXX	2003	SHA794	1FDXF46P23EC13754	15000			\$0.00	GAS	1,409.00	102.50	13.75	1,409.00	102.50	13.75
CHEV	XXX	1995	SHA820	1GBHC34K4SE203233	10000			\$0.00	GAS	7,336.00	670.88	10.93	6,606.00	620.49	10.65
CHEV	XXX	1994	SHA821	1GBHC34K9RE311406	5960			\$0.00	GAS	6,420.00	674.81	9.51	5,719.00	593.00	9.64
CHEV	XXX	1995	SHA822	1GBHC34K8SE117729	10000			\$0.00	GAS	1,734.00	195.47	8.87	1,734.00	195.47	8.87
FORD	XXX	1992	SHA838	1FDNK64P7NVA14185	19600			\$0.00	GAS	97.00	19.10	5.08	97.00	19.10	5.08
CHEV	XXX	1995	SHA839	1GBHC34K2SE204476	10000			\$0.00	GAS	9,192.00	971.83	9.46	8,559.00	899.43	9.52
CHEV	XXX	1991	SHA840	1GBHC34K7RE311047	5260			\$0.00	GAS	5,678.00	585.50	9.70	5,246.00	542.30	9.67
CHEV	XXX	1995	SHA841	1GBHC34K8SE203428	10000			\$0.00	GAS	4,505.00	451.51	9.98	4,242.00	425.32	9.97
FORD	XXX	1999	SHA869	1FAFP522OXG290362	4722			\$0.00	GAS	5,961.00	269.60	22.11	5,661.00	257.40	21.99
GMC	XXX	1999	SHA896	1GTGC33R3XF094531	9000			\$0.00	GAS	5,692.00	622.90	9.14	5,335.00	586.90	9.09
FORD	XXX	1998	SHA897	1FTRF27Z9WKB88228	6930			\$0.00	GAS	2,799.00	185.20	15.11	1,928.00	97.10	19.86
CHEV	Cavalier	2000	SHA928	3G1JC5240YS118488	2700			\$0.00	GAS	2,542.00	122.03	20.83	2,542.00	122.03	20.83
TOYOTA	Echo	2001	SHA929	JTDBT123910109989	2160			\$0.00	GAS	475.00	20.77	22.87	475.00	20.77	22.87
CHEV	XXX	1996	SHA999	1GBGC24R5TE125582	8600			\$0.00	GAS	11,529.00	1104.60	10.44	10,432.00	1,007.30	10.36
NISSAN	Sentra	2003	SHB130	3N1CB51D63L782093	2760			\$0.00	GAS	6,929.00	307.95	22.50	6,929.00	307.95	22.50
NISSAN	Sentra	2003	SHB131	3N1CB51D43L715136	2760			\$0.00	GAS	2,025.00	78.20	25.90	2,025.00	78.20	25.90
NISSAN	Sentra	2003	SHB132	3N1CB51D53L713783	2760			\$0.00	GAS	12,739.00	471.62	27.01	12,739.00	471.62	27.01
NISSAN	Sentra	2003	SHB133	3N1CB51D33L711417	2760			\$0.00	GAS	4,136.00	166.91	24.78	4,136.00	166.91	24.78
NISSAN	Sentra	2003	SHB134	3N1CB51D03L712850	2760			\$0.00	GAS	995.00	62.15	16.01	995.00	62.15	16.01
NISSAN	Sentra	2003	SHB135	3N1CB51D93L775266	2760			\$0.00	GAS	7,775.00	239.43	32.47	7,775.00	239.43	32.47
NISSAN	Sentra	2003	SHB136	3N1CB51D23L775254	2760			\$0.00	GAS	219.00	12.51	17.51	219.00	12.51	17.51
CHEV	XXX	1996	SHB191	1GBGC24ROTE122590	8600			\$0.00	GAS	6,791.00	640.30	10.61	6,791.00	640.30	10.61
CHEV	XXX	1996	SHB192	1GBGC24R5TE125033	8600			\$0.00	GAS	7,059.00	619.90	11.39	6,196.00	560.90	11.05
FORD	XXX	1996	SHB197	1FDHF25H8TEB77037	5600			\$0.00	GAS	6,823.00	625.24	10.91	6,225.00	565.20	11.01
CHEV	XXX	1996	SHB198	1GBGC24R9TE125648	9360			\$0.00	GAS	8,817.00	722.17	12.21	7,866.00	658.81	11.94
FORD	XXX	1996	SHB199	1FDHF25H8TEB77044	8600	16	15	\$0.00	GAS	5,760.00	561.36	10.26	5,160.00	505.54	10.21
CHEV	XXX	1996	SHB200	1GBGC24R7TE130380	8600	19	15	\$0.00	GAS	5,697.00	491.17	11.60	5,148.00	465.81	11.05
FORD	XXX	1996	SHB305	1FDHF25H8TEB77040	5620			\$0.00	GAS	7,780.00	802.20	9.70	6,929.00	700.20	9.90
CHEV	XXX	1996	SHB306	1GBJK34R3TE184368	10000			\$0.00	GAS	4,967.00	525.13	9.46	4,381.00	457.53	9.58
CHEV	XXX	1997	SHB339	1GCCS14X8V8190112	4400			\$0.00	GAS	748.00	46.50	16.09	748.00	46.50	16.09
CHEV	XXX	1997	SHB397	1GFCF24M9VE249787	7200			\$0.00	GAS	2,420.00	195.20	12.40	2,420.00	195.20	12.40
FORD	XXX	1997	SHB473	1FTJE34L9VHC12562	9500			\$0.00	GAS	7,065.00	764.98	9.24	6,259.00	694.94	9.01
FORD	XXX	1997	SHB474	1FTJE34L7VHC12561	9500			\$0.00	GAS	8,302.00	641.54	12.94	7,238.00	574.71	12.59
CHEV	XXX	1998	SHB764	1GFCF24M6WZ128077	7200			\$0.00	GAS	2,569.00	201.72	12.74	2,569.00	201.72	12.74
TOYOTA	Camry	2004	SHB943	JTDBF30K240157478	3420			\$0.00	GAS	-258.00	151.80	-1.70	2,337.00	126.70	18.45
TOYOTA	Camry	2004	SHB944	JTDBF30K140157942	3219			\$0.00	GAS	3,802.00	192.66	19.73	3,802.00	192.66	19.73
TOYOTA	Camry	2004	SHB945	JTDBF30K740157184	3219			\$0.00	GAS	5,760.00	284.55	20.24	5,760.00	284.55	20.24
TOYOTA	Camry	2004	SHB946	JTDBF30K140157956	3420			\$0.00	GAS	2,309.00	160.38	14.40	2,309.00	160.38	14.40
TOYOTA	Camry	2004	SHB949	JTDBF30KX40157230	3420			\$0.00	GAS	3,965.00	213.88	18.54	3,965.00	213.88	18.54
TOYOTA	Camry	2004	SHB950	JTDBF32K440157897	3219			\$0.00	GAS	17,927.00	729.79	24.56	17,927.00	729.79	24.56
TOYOTA	XXX	2005	SHC330	JTDBE32K653007292	XXXX			\$0.00	GAS	8,901.00	340.97	26.10	8,901.00	340.97	26.10

## State of Hawaii Department of Education Vehicle Fuel Report FY 08

Make	Model	Year	License Plate #	VIN	GVWR	EPA Hwy Fuel	EPA City Fuel	Acq. Cost	Fuel Type	In-use Mileage	In-use Fuel Consum.	In-use Avg Fuel Econ	Annual Mileage	Annual Fuel Consum	Annual Avg Fuel Econ
TOYOTA	XXX	2005	SHC331	JTDBE32K553007557	XXXX			\$0.00	GAS	2,407.00	100.35	23.99	2,407.00	100.35	23.99
TOYOTA	XXX	2005	SHC332	JTDBE32K753007852	XXXX			\$0.00	GAS	10,220.00	434.95	23.50	10,220.00	434.95	23.50
TOYOTA	XXX	2005	SHC335	JTDBE32K253008228	XXXX			\$0.00	GAS	359.00	23.81	15.08	359.00	23.81	15.08
TOYOTA	XXX	2005	SHC336	JTDBE32K853009612	XXXX			\$0.00	GAS	5,120.00	226.16	22.64	5,120.00	226.16	22.64
FORD	XXX	2006	SHC345	1FDWF36P36EB24320	13000			\$0.00	GAS	2,676.00	26.32	101.67	2,676.00	26.32	101.67
DODGE	XXX	1999	SHC350	3B6KC26Z0XM580704	8800			\$0.00	GAS	14,013.00	926.96	15.12	7,706.00	830.68	9.28
DODGE	XXX	1999	SHC351	3B6KC26Z7XM580702	8800			\$0.00	GAS	5,233.00	587.60	8.91	4,720.00	513.10	9.20
DODGE	XXX	1999	SHC352	3B6KC26Z8XM580708	8800			\$0.00	GAS	6,980.00	576.02	12.12	6,232.00	515.02	12.10
DODGE	XXX	1999	SHC353	3B6KC26Z5XM580701	8800			\$0.00	GAS	8,360.00	687.93	12.15	7,739.00	628.11	12.32
DODGE	XXX	1999	SHC354	3B6KC26Z2XM580705	8800			\$0.00	GAS	5,974.00	619.18	9.65	5,656.00	577.96	9.79
CHEV	XXX	1997	SHC365	1GCCS14X6V8188441	XXXX			\$0.00	GAS	83.00	7.78	10.67	83.00	7.78	10.67
FORD	XXX	1999	SHC378	2B7KB31Z1MK431016	10000			\$0.00	GAS	5,868.00	1000.30	5.87	5,146.00	875.60	5.88
DODGE	RAM	1999	SHC383	3B6KC26Z6XM580707	8800			\$0.00	GAS	7,592.00	744.86	10.19	6,968.00	674.23	10.33
CHEV	XXX	2005	SHC397	1FAHP53U65A265636	XXXX			\$0.00	GAS	3,567.00	178.14	20.02	3,567.00	178.14	20.02
DODGE	XXX	1999	SHC449	3B6KC26Z7XM580697	XXXX			\$0.00	GAS	7,562.00	750.87	10.07	6,912.00	684.92	10.09
DODGE	XXX	1999	SHC450	3B6KC26Z6XM580710	XXXX			\$0.00	GAS	8,708.00	770.31	11.30	7,912.00	720.42	10.98
DODGE	XXX	1999	SHC451	3B6KC26Z3XM580714	XXXX			\$0.00	GAS	3,191.00	301.10	10.60	2,895.00	273.10	10.60
DODGE	XXX	1999	SHC452	3B6MF3654XM572026	XXXX			\$0.00	GAS	6,947.00	740.70	9.38	5,956.00	678.90	8.77
DODGE	XXX	1999	SHC453	3B6KC26Z9XM579034	XXXX			\$0.00	GAS	5,308.00	545.60	9.73	4,803.00	492.60	9.75
DODGE	XXX	2000	SHC454	2B7KB31Y7YK147516	XXXX			\$0.00	GAS	6,346.00	558.15	11.37	5,544.00	489.58	11.32
DODGE	XXX	1998	SHC580	3B6KF26Z5WM269551	XXXX			\$0.00	GAS	9,387.00	989.10	9.49	8,806.00	934.10	9.43
FORD	XXX	2008	SHC719	1FDSX20R78EA28953	XXXX			\$0.00	GAS	41,489.00	396.85	104.55	41,489.00	396.85	104.55
FORD	XXX	2008	SHC742	1FDSX20R58EA28952	XXXX			\$0.00	GAS	5,861.00	567.50	10.33	5,601.00	543.50	10.31
FORD	XXX	2008	SHC749	1FDSX20R38EA28951	XXXX			\$0.00	GAS	1,643.20	113.30	14.50	1,643.20	113.30	14.50
FORD	XXX	2000	SHC761	2FTRF7Z5YCA40773	XXXX			\$0.00	GAS	7,493.00	652.50	11.48	6,573.00	582.50	11.28
FORD	XXX	2008	SHC762	1FDWX36R28EA24355	XXXX			\$0.00	GAS	2,702.00	257.96	10.47	2,702.00	257.96	10.47
FORD	XXX	1999	SHC800	1FTYR10V5XPB66509	XXXX			\$0.00	GAS	6,509.00	340.50	19.12	6,065.00	316.50	19.16
FORD	XXX	2002	SHC801	1FAFP53262A202988	XXXX			\$0.00	GAS	1,862.00	103.40	18.01	1,560.00	87.30	17.87
FORD	XXX	2001	SHC802	1FAFP53221A226171	XXXX			\$0.00	GAS	1,923.00	135.80	14.16	1,756.00	124.60	14.09
CHEV	XXX	2000	SHC876	1GDDS1455Y8298268	XXXX			\$0.00	GAS	2,500.00	146.60	17.05	1,847.00	108.70	16.99
CHEV	XXX	2000	SHC877	1GCHK33J0YF488233	XXXX			\$0.00	GAS	4,711.00	529.79	8.89	4,711.00	529.79	8.89
CHEV	XXX	2000	SHC878	1GCS1450Y8301593	XXXX			\$0.00	GAS	3,187.00	81.20	39.25	2,961.00	67.38	43.94
CHRY	XXX	2007	SHC915	1C3LC46R17N676511	XXXX			\$0.00	GAS	137.00	11.91	11.50	137.00	11.91	11.50
CHRY	XXX	2007	SHC916	1C3LC46R17N676508	XXXX			\$0.00	GAS	4,471.00	229.22	19.51	4,471.00	229.22	19.51
CHRY	XXX	2007	SHC917	1C3LC46R37N676512	XXXX			\$0.00	GAS	1,375.00	63.52	21.65	1,375.00	63.52	21.65
CHRY	XXX	2007	SHC919	1C3LC46R77N676514	XXXX			\$0.00	GAS	4,470.00	226.01	19.78	4,470.00	226.01	19.78
CHRY	XXX	2007	SHC920	1C3LC46R7N676510	XXXX			\$0.00	GAS	483.00	23.93	20.18	483.00	23.93	20.18
CHRY	XXX	2007	SHC921	1C3LC46R57N676513	XXXX			\$0.00	GAS	7,664.00	340.28	22.52	7,664.00	340.28	22.52
CHEV	XXX	2000	SHD165	1GCHG35R5Y1270788	XXXX			\$0.00	GAS	2,366.00	237.40	9.97	1,752.00	174.40	10.05
DODGE	XXX	2000	SHD166	3B6KC26Z31M558641	XXXX			\$0.00	GAS	2,213.00	215.64	10.26	1,777.00	175.53	10.12



# POWERLINES



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## Energy Efficiency Takes-Off at the Honolulu International Airport

Energy Efficiency Tips 4

Focus on Safety: GFCIs & AFCIs 6

Energy Expo Update 8

Energy Solutions Update 9

Maui Harness Wave Energy 10

Business Engagement 13



## Departure Gates

## Honolulu

HONOLULU INTERNATIONAL AIRPORT





## To Our Valued Commercial Customers

ALOHA! Our Spring Issue is packed full of helpful tips on staying safe and saving energy.

- Honolulu International Airport utilizes high-intensity LED technology in the taxiway light fixtures and guidance signs.
- Top ten tips to assist commercial and residential customers become more energy efficient
- Learn how GFCIs and AFCIs can help to prevent electric shock and fire.
- MECO and Oceanlinx partner to develop an innovative and environmentally based wave energy project.

Mark your calendars for HECO's 2008 Efficient Electro-Technology Exposition & Conference, which will be held on Thursday, September 18, 2008 at the Hawai'i Convention Center. We look forward to seeing you!

Mahalo,

Dr. Karl E. Stahlkopf  
Senior Vice President of Energy  
Solutions and Chief  
Technology Officer

# Energy Efficiency Takes-Off at the Honolulu International Airport

As part of a bold and strategic energy plan that encourages and supports market-based development of reliable, cost-effective, and self-reliant energy for Hawai'i, Governor Linda Lingle issued Administrative Directive No. 06-01 (Energy and Resource Efficiency and Renewable Energy and Resource Development) in January 20, 2006. This directive states in part that State agencies must assess their practices and programs to reduce energy use in order to establish a secure energy and economic future for the people of Hawai'i. Honolulu International Airport, one of the most energy-intensive facilities on the island of Oahu was the first State of Hawai'i – Department of Transportation (DOT) Airports Division's facility to take action towards saving energy, cutting costs, and improving its sustainability. With \$4 million

in funds, energy efficiency projects took off in 2007 with the replacement of the airfield taxiway light fixtures and guidance signs.



Taking advantage of the increased performance and lowered cost of high-intensity Lighting Emitting Diode (LED) technology, the DOT Airports Division's team of engineers were able to replace all of the 30-watt

incandescent taxiway lamps with 1-watt high-intensity LED lamps. Along with the lamps, the 30/45-watt isolation transformers were also replaced with lower wattage more efficient transformers. Each taxiway light fixture uses an isolation transformer to isolate low-voltage in the lamp from the high operating voltage present on the airfield series of lighting circuits. When one of the lamps fails, the isolation transformer plays a key role in helping to prevent the interruption of power to the remaining loads.



The overall wattage reduction for the entire taxiway lighting system (lamp and isolation transformer) was estimated to be 36-watt per fixture. This is based upon efficiencies listed under the Siemens Elevated Taxiway Edge Light product specifications. With the retrofit of 1755 taxiway lights and isolation transformers, Honolulu International Airport was able to achieve a reduction in energy consumption of nearly 300,000 kWh per year and savings of more than \$27,000 on their annual electric bill. In addition to the energy and dollar savings, Hawaiian Electric Company, Inc. (HECO) Energy\$olutions<sup>SM</sup> for Business program provided a customized rebate of over \$19,000.

Benefits from using this new class of high-intensity LED comes from the extensive lifetime of the lamp. The

LEDs used in the taxiway light fixtures at Honolulu International Airport have an average life of 100,000 hours under high-intensity conditions and more than 200,000 hours under actual operating conditions. With a far greater life expectancy than conventional incandescent lamps (i.e., 1000 hours), there is a significant potential for savings in both maintenance costs as well as reduction in operational disruptions.



Additional energy efficiency measures implemented at the airport were the retrofit of 286 guidance signs. The main purpose of these signs is to guide pilots to a particular point on the

airfield, identify holding positions, identify taxiway and runway intersections, and prohibit aircraft entry into designated areas. The old guidance signs, internally illuminated by two or more 50-watt high-pressure sodium (HPS) lamps, were replaced with new Siemens' Signature Series guidance signs, which use 18-watt pin mount compact fluorescent lamps (CFLs). Each new guidance sign is made of two to four modules containing two lamps per module, thus the total number of CFL lamps installed for 286 guidance signs is 1422 CFLs.

As a result of these new energy efficient guidance signs replacement, Honolulu International Airport saved an additional 300,000 kWh in energy consumption per year and received a standard rebate of over \$14,000 under HECO's Energy\$olutions<sup>SM</sup> for Business program. The CFL provides a more uniform distribution of light, making guidance signs more readable.

Siemens Signature Series™  
L-861T LED Elevated Taxiway Edge Light



The next energy efficiency "arrival" from Honolulu International Airport is the replacement and relocation of the Diamond Head Chiller Plant. The new chiller plant will have the capability to air-condition the entire airport while the Ewa and Overseas/Main Terminal Chiller Plants undergo separate renovations. In fact, the three chiller plants will be consolidated into one central plant. This project is already on its way and it will be the subject of a future Powerlines publication.

#### Energy Savings Highlights:

Annual Savings	\$54,000
Annual kWh Reduction	600,000
HECO Rebates	\$33,000

Location (Island)	Sub unit (VIP, OMF, etc.)	Vehicle Type (Light, under 8500 lbs., Medium, 8500-15000, Heavy 15000+)	YEAR	MAKE, MODEL, Vehicle Identification Number	License Plate	Vehicle Acquisition Cost	GVMR	FUEL CONFIG	FUEL USAGE	TYPE FUEL	EPA RATED MPG	VEHICLE MILEAGE	VEHICLE FUEL CONSUMPTI ON	AVERAGE VEHICLE MPG
12 1 7 1	100	Fire	2000	FIRE ENGINE - DONATION FROM BARBERS PT		125,000.00		Diesel	Diesel					
12 1 7 1	100	Fire	2000	FIRE ENGINE - DONATION FROM BARBERS PT		125,000.00		Diesel	Diesel					
12 1 4 1	995	Fire	2007	TRUCK, ARRF STKR # 10TBKAK1X7S094493		472,204.00		Diesel	Diesel					
12 1 4 1	995	Fire	2007	TRUCK, ARRF STKR #10TBKAK1X7S094493		157,402.00		Diesel	Diesel					
12 1 7 1	995	Fire	2006	TRUCK, CF UTILITY, #1FDSX34Y36EB20064		65,445.58								
12 1 4 1	325	Fire	1988	TRUCK PUMP PIERCE 1P9CT01D6JA040266	SH4435	232,795.00		Diesel	Diesel					
12 1 4 1	325	Fire	1990	TRUCK GMC RESCUE E-1 1GDDR33J9LF700631	SH4441	176,949.75		Diesel	Diesel			957.4	133.3	7.18
12 1 4 1	325	Fire	1991	TRUCK CF OSHKOSH TA1500 SN41741	SH4459	74,205.25		Diesel	Diesel					
12 1 4 1	325	Fire	1991	TRUCK CF OSHKOSH TA1500 SN41741	SH4459	223,694.75		Diesel	Diesel					
12 1 4 1	330	Fire	1988	TRUCK CF T3000 VIN# 10T9L5EHXJ1033606	SH4851	167,511.00		Diesel	Diesel					
12 1 4 1	330	Fire	1988	TRUCK CF T3000 VIN# 10T9L5EHXJ1033606	SH4851	79,241.20		Diesel	Diesel					
12 1 4 1	330	Fire	1991	TRUCK CF OSHKOSH TA1500 SN41742	SH4852	74,205.26		Diesel	Diesel					
12 1 4 1	330	Fire	1991	TRUCK CF OSHKOSH TA1500 SN41742	SH4852	223,694.74		Diesel	Diesel					
12 1 7 1	100	Fire	1987	TRUCK CF T1500 VIN# 10T9L5BH1G1028551	SH4854	224,334.11		Diesel	Diesel					
12 1 7 1	100	Fire	1987	TRUCK CF T1500 VIN# 10T9L5BH1G1028551	SH4854	75,300.99		Diesel	Diesel					
12 1 4 1	325	Fire	2005	TRUCK, FORD VIN# 1FMNU40S35EB36907 Y2	SHB722	58,355.87		Gas	E-10			4139	564.4	7.33
12 1 4 1	325	Fire	2005	TRUCK, FORD VIN# 1FMNU40S35EB36908 Y-1	SHB723	58,355.88		Gas	E-10			1121	181.1	6.19
12 1 4 1	325	Fire	2005	TRUCK, OSHKOSH 1500, VIN #10TBKAK135S08	SHC128	568,195.50		Diesel	Diesel					
12 1 4 1	325	Fire	2005	TRUCK, OSHKOSH 1500 VIN#10TBKAK135S0855	SHC129	568,195.50		Diesel	Diesel					
12 1 4 1	325	Fire	2005	TRUCK, OSHKOSH 3000 VIN#10TDKAK165S0855	SHC130	814,746.00		Diesel	Diesel			7685	2397.4	3.21
12 1 3 1	175	Heavy	1993	SWEPPER ELGIN G-2030D 1FDXH70P5NVA08324	SH4048	103,111.93		Diesel	Diesel					
12 1 4 1	520	Heavy	1991	TRACTOR BUS 1C9CA2DS2LW077532 L-1832	SH4391	142,484.00		Diesel	Diesel					
12 1 4 1	520	Heavy	1991	TRACTOR BUS 1C9CA2DS3LW077538 L-1838	SH4394	142,484.00		Diesel	Diesel					
12 1 4 1	520	Heavy	1991	TRACTOR BUS 1C9CA2DS4LW077547 L-1847	SH4397	142,484.00		Diesel	Diesel					
12 1 4 1	520	Heavy	1991	TRACTOR BUS 1C9CA2DS5LW077550 L-1850	SH4398	142,484.00		Diesel	Diesel					
12 1 4 1	520	Heavy	1991	TRACTOR BUS 1C9CA2DS5LW077556 L-1856	SH4400	142,484.00		Diesel	Diesel					
12 1 4 1	520	Heavy	1991	TRACTOR BUS 1C9CA2DS3LW077562 L-1862	SH4402	142,484.00		Diesel	Diesel					
12 1 4 1	520	Heavy	1991	TRACTOR BUS 1C9CM2DS4MW077565 L-1865	SH4404	142,484.00		Diesel	Diesel					
12 1 3 1	175	Heavy	1989	TANKER WATER KEN 1NKLW59XOKS525225	SH4437	87,412.00		Diesel	Diesel			639.2	256	2.50
12 1 3 1	175	Heavy	1991	TRUCK INTL DUMP 2MSFBG3R7LC038210	SH4440	71,031.44		Diesel	Diesel					
12 1 3 1	175	Heavy	1991	TRUCK TRACTOR KEN 1XKDD20X2MS557716	SH4451	73,537.00		Diesel	Diesel			1133	275.5	4.11
12 1 3 1	175	Heavy	1983	TRUCK INT AP 1HTAA1952CHA21031	SH4874	96,316.56		Diesel	Diesel					
12 1 4 1	520	Heavy	1993	BUS PARATRANSIT 2B7KKB31ZONK170351	SH5241	39,015.74		Diesel	Diesel					
12 1 4 1	520	Heavy	1995	TRACTOR BUS #1C9M3ABS7RW535716 L-2070	SH7120	197,985.00		Diesel	Diesel					
12 1 4 1	520	Heavy	1995	TRACTOR BUS #1C9M3ABS0RW535718 L-2072	SH7122	197,985.00		Diesel	Diesel					
12 1 3 1	175	Heavy	1995	TRUCK FORD DUMP F800 1FDXF80EXSVA16909	SH7232	48,165.00		Diesel	Diesel			1609.4	242.5	6.64
12 1 3 1	175	Heavy	2002	BUS, 1994, FORD 1FDKE30G0RB02840	SH286	500.00		Diesel	Diesel					insuff data
12 1 3 1	175	Heavy	2003	SWEPPER JOHN ELGIN #1HTSCABN52H534097	SHA382	125,671.70		Diesel	Diesel			988	332	2.98
12 1 3 1	175	Heavy	2003	SWEPPER INTL CYCLONE#H582061	SHA868	172,861.39		Diesel	Diesel			635	272.8	2.33
12 1 4 1	520	Heavy	2004	SHUTTLE EL25 VIN# 1EEEL25X93A043881	SHB234	166,965.19		Diesel	Diesel					
12 1 4 1	520	Heavy	2004	SHUTTLE EL25 VIN# 1EEEL25X13A043888	SHB235	164,239.12		Diesel	Diesel					
12 1 4 1	520	Heavy	2004	SHUTTLE EL25 VIN# 1EEEL25X33A043889	SHB236	164,239.12		Diesel	Diesel					
12 1 4 1	520	Heavy	2004	SHUTTLE EL25 VIN# 1EEEL25XX3A043890	SHB237	164,239.12		Diesel	Diesel					
12 1 4 1	520	Heavy	2004	TRACTOR EL 100 VIN#1EEEL25X94A043896	SHB259	178,690.47		Diesel	Diesel					
12 1 3 1	175	Heavy	2006	SWEPPER TENNANT CENT 1GDM7F1305F516772	SHC165	214,581.96		Diesel	Diesel					
12 1 3 1	175	Heavy	2006	SWEPPER TENNANT CENT 1GDM7F1305F518151	SHC166	214,581.96		Diesel	Diesel			11598	3346.1	3.47
12 1 3 1	175	Heavy	2007	SWEPPER TENNANT CENT 1GDM7F1325F533444	SHC315	218,748.60		Diesel	Diesel			2250	673.7	3.34
12 1 3 1	181	Heavy	2008	SWEPPER, FRGHTLNR, 1FVAB6BV37DX09507	SHD101	200,957.68		Diesel	Diesel			2224	835.8	2.66
12 1 3 1	181	Heavy	2008	TRUCK, DUMP, 1HTWYAH78J642411	SHD295	144,973.35		Diesel	Diesel			135	89	1.52
12 1 3 1	181	Heavy	2008	TRUCK, INTL, 2008, 1HSXRAPT08J663219	SHD325	128,517.00		Diesel	Diesel					new
12 1 4 1	310	Law	2003	SEDAN FORD CROWN VIC #2FAHP71W13X150057	SHA729	32,513.07		Gas	E-10			14738	1332.6	11.06

Location (Island)	Sub unit (VIP, OMF, etc.)	Vehicle Type (Light, under 8500 lbs., Medium, 8500-15000, Heavy 15000+)	YEAR	MAKE, MODEL, Vehicle Identification Number	License Plate	Vehicle Acquisition Cost	GWR	FUEL CONFIG	FUEL USAGE	TYPE FUEL	EPA RATED MPG	VEHICLE MILEAGE	VEHICLE FUEL CONSUMPTI ON	AVERAGE VEHICLE MPG
12 1 4 1	310	Law	2003	SEDAN FORD CROWN VIC #2FAHP71W13X150060	SHA730	32,513.07		Gas	E-10			9035	835.2	10.82
12 1 4 1	310	Law	2003	SEDAN FORD CROWN VIC #2FAHP71W53X150062	SHA731	32,513.07		Gas	E-10			109238.6	1446	75.55
12 1 4 1	310	Law	2003	SEDAN FORD CROWN VIC #2FAHP71W53X150059	SHA732	32,513.07		Gas	E-10			6130	590.4	10.38
12 1 4 1	310	Law	2003	SEDAN FORD CROWN VIC #2FAHP71W33X150061	SHA733	32,513.07		Gas	E-10			16137	1513.1	10.66
12 1 4 1	310	Law	2003	SEDAN FORD CROWN VIC #2FAHP71W33X150058	SHA748	32,513.07		Gas	E-10			14792	1401.9	10.55
12 1 4 1	315	Law	2006	JEEP CHEROKEE 1J4FJ28SOWL239641	SHB972	6,000.00		Gas	E-10			19544	2319.9	8.42
12 1 3 1	180	Law	2000	SUV, 2000 Ford Expedition	SHC341			Gas	E-10					
12 1 4 1	310	Law	2006	SUV, 1999, DODG, 1B4HS28XXF670302	SHC423	7,000.00		Gas	E-10					
12 1 4 1	310	Law	2007	SUV 2007 FORD 1FMPU16L2YL873440	SHC678	7,500.00		Gas	E-10			12499.4	1389	9.00
12 1 4 1	310	Law	2007	SEDAN CROWN VIC 2FAHP71W87X153401	SHC806	33,160.16		Gas	E-10			9855.5	881.6	11.18
12 1 4 1	310	Law	2007	SEDAN CROWN VIC 2FAHP71W7X153402	SHC807	33,160.16		Gas	E-10			6341.5	565.2	11.22
12 1 4 1	310	Law	2007	SEDAN CROWN VIC 2FAHP71W17X153403	SHC808	33,160.16		Gas	E-10			6705.3	588.1	11.40
12 1 4 1	310	Law	2007	SEDAN CROWN VIC 2FAHP71W37X153404	SHC809	33,160.16		Gas	E-10			9649.8	844.6	11.43
12 1 5 1	110	Light	1993	VAN GMC SAFARI XT 1GKDM19Z4NB546331	SH4049	17,979.95		Gas	E-10			671	73.5	9.13
12 1 7 1	100	Light	1979	WAGON STN. 4DR CHEV MALIBU, 1T35H9Z4157	SH4356	6,539.59		Gas	E-10					
12 1 3 1	170	Light	1985	WAGON STN FORD 1FABP44F2E184232	SH4364	10,328.84		Gas	E-10			398	40.8	9.75
12 1 5 1	110	Light	1987	S/W CHEV CELEBRITY 1G1AW81W486180038	SH4379	12,082.56		Gas	E-10			242	26.7	9.06
12 1 3 1	131	Light	1988	WAGON STN FORD 1FABP55U1JG192119	SH4381	13,451.73		Gas	E-10					
12 1 3 1	110	Light	1992	WAGON STA FORD 1FACP55U5NG188181	SH4408	18,260.48		Gas	E-10			834.5	72	11.59
12 1 1 1	100	Light	1993	WGN STN CHEV 1G1JC849N7323946	SH4817	11,310.90		Gas	E-10			2013	119	16.92
12 1 3 1	131	Light	1991	WAGON STA CHEV. 2G1AW84T6L2116465	SH4824	18,418.00		Gas	E-10					
12 1 7 1	100	Light	1989	WAGON CHEV CELEBRITY 1G1AW81W2J6260928	SH4826	13,348.57		Gas	E-10					
12 1 1 1	122	Light	1991	TRK CHEV PU S10 1GCCS14Z3M8192740	SH4884	12,395.87		Gas	E-10			3376	213	15.85
12 1 3 1	176	Light	1991	TRUCK CHEV PU 2GCEC19Z1L1239179	SH4885	17,798.00		Gas	E-10			302.3	46.5	6.50
12 1 1 1	122	Light	1991	TRK CHEV PU S10 1GCCS14Z2M8192731	SH4886	12,395.87		Gas	E-10			1733	138.8	12.49
12 1 3 1	172	Light	1991	TRUCK CHEV UBDY 1GBGC24K9ME119952	SH4887	19,218.81		Gas	E-10			1300	210	6.19
12 1 3 1	110	Light	1991	TRUCK CHEV UBDY 1GDCD14H3L2226824	SH4888	15,174.00		Gas	E-10			4526	368	12.30
12 1 2 1	160	Light	1991	TRUCK P/U CREW CAB 1GTRG33KXMF700484	SH4889	17,828.69								
12 1 1 1	315	Light	1991	TRUCK-CHEV 1GNDT13Z4M2218954	SH4890	21,542.00								
12 1 3 1	173	Light	1993	TRUCK GMC P/U 1G1TDC14Z7NZ537684	SH4893	15,145.00		Gas	E-10			3159	208	15.19
12 1 3 1	110	Light	1993	TRUCK CHEV PU 1GDCD14ZXXNZ03178	SH4894	16,409.28		Gas	E-10			1007	84.5	11.92
12 1 3 1	110	Light	1989	TRUCK DODGE P/U 1B7FN14XQJ5735902	SH4896	13,429.30		Gas	E-10					
12 1 3 1	177	Light	1991	TRUCK GMC PU 1GTC514EXM8512651	SH4897	10,566.00		Gas	E-10					
12 1 3 1	131	Light	1991	TRUCK CHEV PU 1GCCS14E6M8142797	SH4898	10,150.00		Gas	E-10			5234	325	16.10
12 1 3 1	110	Light	1989	TRUCK CHEV PU 1GDCD14H5JZ270692	SH4899	13,140.62								
12 1 3 1	131	Light	1989	TRUCK CHEV PU 1GCCS14R7J8205131	SH4900	10,762.57		Gas	E-10			2385	230.3	10.36
12 1 2 1	160	Light	1988	TRUCK FORD P/U 1FTFF25H8HPA97387	SH4902	14,558.38		Gas	E-10			282	46.5	6.06
12 1 4 1	240	Light	1993	SEDAN CHEV LUMINA 2G1WN54T8N9269253	SH5492	16,249.00		Gas	E-10					
12 1 7 1	100	Light	1980	WAGON STN CHEV 1T35JAZ405238	SH5493	7,883.44		Gas	E-10					
12 1 3 1	177	Light	1994	TRUCK GMC SIERRA #1GTG33KXPJ749901	SH6112	20,649.50		Gas	E-10			3763	550.5	6.84
12 1 3 1	177	Light	1994	TRUCK GMC SIERRA #1GTG33K4P5749859	SH6114	20,649.50		Gas	E-10			2298	305.7	7.52
12 1 3 1	174	Light	1994	TRUCK GMC COUP P/U P#1GDBGK29K3PE556773	SH6324	23,259.00		Gas	E-10			6286	883.7	7.11
12 1 3 1	174	Light	1994	TRUCK GMC TC P/U P#1GTGEC19H3PE556716	SH6326	16,908.40		Gas	E-10			2733	319	8.57
12 1 2 1	160	Light	1994	VAN FORD 1FMEE11H7PHB23772	SH6339	14,019.00		Gas	E-10					
12 1 3 1	110	Light	1995	TRUCK CHEV P/U 1GDCD14H3RZ259279	SH7257	17,543.89		Gas	E-10			6793	781	8.70
12 1 3 1	172	Light	1995	TRUCK CHEV P/U 1GDCD14H1RZ259040	SH7258	17,543.89		Gas	E-10			1404	153.5	9.15
12 1 3 1	175	Light	1995	TRUCK CHEV P/U 1GDCD14ZQJ244915	SH7371	6,100.00		Gas	E-10			457	94.5	4.84
12 1 3 1	177	Light	2000	TRUCK GMC #1GTC514WTY8123335	SH7712	15,869.36		Gas	E-10			5998	460.2	13.03
12 1 3 1	172	Light	1995	TRUCK CHEV P/U S-10 1GCCS14Z3K8215141	SH7787	4,900.00		Gas	E-10			2263	206	10.99
12 1 3 1	170	Light	1995	SEDAN OLD CIERA 4DR 1G3AG55M5R6430433	SH7933	16,539.95		Gas	E-10			779	71.3	10.93
12 1 3 1	177	Light	1995	TRUCK CHEV P/U #1GDCD14ZXKZ232708	SH8055	6,200.00		Gas	E-10			2799	263.5	10.62

## Appendix 4. DOT- Airports Efficiency Projects and Vehicles Data

Location (Island)	Sub unit (VIP, OMF, etc.)	Vehicle Type (Light, under 8500 lbs., Medium, 8500-15000, Heavy 15000+)	YEAR	MAKE, MODEL, Vehicle Identification Number	License Plate	Vehicle Acquisition Cost	GVMR	FUEL CONFIG	FUEL USAGE	TYPE FUEL	EPA RATED MPG	VEHICLE MILEAGE	VEHICLE FUEL CONSUMPTI ON	AVERAGE VEHICLE MPG
12 1 3 1	175	Light	1995	TRUCK CHEV P/U P RACK #1GCGC3K35SF001049	SH8080	26,043.51		Gas	E-10			375	65.4	5.73
12 1 3 1	177	Light	1995	TRUCK CHEV P/U #1GCGC3K31SF001016	SH8081	26,043.51		Gas	E-10			4229	552.3	7.66
12 1 3 1	110	Light	1996	TRUCK CHEV P/U C10F5 1GDCD14Z6KZ233550	SH8282	5,400.00		Gas	E-10			4000	345.4	11.58
12 1 3 1	110	Light	1996	SEDAN FORD TEMPO 1FACP36X2PK174767	SH8314	5,200.00		Gas	E-10			253	27	9.37
12 1 3 1	177	Light	1996	TRUCK CHEV 1500 1GDCD142KZ229321	SH8315	4,500.00		Gas	E-10			1504	178	8.45
12 1 3 1	177	Light	1996	SEDAN FORD TEMPO 1FACP36X7PK160752	SH8321	5,200.00		Gas	E-10			1695	126	13.45
12 1 1 1	100	Light	1996	CHEV 4DSD 1G1JC246V7136732	SH8476	13,041.61		Gas	E-10			2282	123.5	18.48
12 1 1 1	122	Light	1996	VAN PASSENGER CHEV 1GNDM19WXVB139106	SH8477	20,129.56		Gas	E-10			1416	118	12.00
12 1 3 1	172	Light	1997	TRUCK CHEV CS-10 #1GCCS1446V8112112	SH8478	17,500.00		Gas	E-10			1379	116	11.89
12 1 3 1	110	Light	1997	TRUCK DODGE P/U D150 1B7GE16X7MS297546	SH8658	5,200.00		Gas	E-10			2093	202.5	10.34
12 1 1 1	122	Light	1997	FORD 2DSW 2FMDA51U8WBB57680	SH8774	18,311.21		Gas	E-10			1786	120	14.88
12 1 1 1	100	Light	1997	FORD 2DSW 2FMDA51U1WBB57679	SH8775	18,311.21		Gas	E-10			1584	140.2	11.30
12 1 1 1	122	Light	1997	FORD 2DSW 2FMDA51UXWBB57681	SH8776	18,311.21		Gas	E-10			1695	114.5	14.80
12 1 4 1	315	Light	1998	VAN CHEV FR WACKENHUT 1GCDM19W0VB229969	SH8874	21,667.11		Gas	E-10					
12 1 4 1	315	Light	1998	P/U CHEV FR WACKENHUT 1GCCS144XWK114899	SH8876	13,599.17		Gas	E-10					
12 1 1 1	101	Light	1998	FORD TAURUS-4DR. 1FAFP52U1WG196328	SH8906	15,680.94		Gas	E-10			1309	88.7	14.76
12 1 3 1	131	Light	1998	WGN STA HYUN ELE KPMHJW24M3WU109447	SH8926	17,745.72		Gas	E-10			1854	104.3	17.78
12 1 4 1	501	Light	1998	VAN CARGO FORD E-150 1FTRE1468WHB60537	SH9029	19,715.28		Gas	E-10			494	94.5	5.23
12 1 5 1	110	Light	1999	VAN GMC SAFARI 7 PX 1GKDM19W5XB536318	SH9436	19,173.44		Gas	E-10			1461	149.3	9.79
12 1 4 1	100	Light	2000	MPVH.1999JEEP 1J4FF28S2YL122051	SH9569	28,645.65		Gas	E-10					
12 1 6 1	900	Light	2000	TRUCK, P/U CHEV 1GCCS14W6YK117111	SH9593	17,640.00		Gas	E-10			1872	55.8	33.55
12 1 4 1	310	Light	2000	CHEVROLET IMPALAS 2G1WF55E0Y9152168	SH9594	27,400.00		Gas	E-10			683	66.1	10.33
12 1 3 1	177	Light	2000	TRUCK CHEV S-10 #1GCCS14W2YK192338	SH9600	15,842.46		Gas	E-10			8106	418	19.39
12 1 4 1	310	Light	2000	FORD TAURUS LX 4DR MODP52 1FAFP5221YG2	SH9794	22,770.66		Gas	E-10			758	61.1	12.41
12 1 3 1	110	Light	2003	TRUCK FORD RAN X P/U #1TYR14V02PB36000	SHA473	16,853.60			E-10			869	75.6	11.49
12 1 4 1	315	Light	2003	VAN 02 CHEV ASTRO #1GCDM19XX2B150572	SHA499	20,785.00			E-10					
12 1 4 1	315	Light	2003	VAN 02 CHEV ASTRO #1GCDM19XX2B150662	SHA500	20,785.00			E-10					
12 1 4 1	103	Light	2003	CHEVROLET TAHOE, 4 DR, #1GNEK13Z32R1873	SHA515	41,318.28		Gas	E-10			2436	217	11.23
12 1 4 1	310	Light	2003	EXPLORER FORD # 1FMZU73W02ZC61841	SHA557	23,894.58		Gas	E-10			6056.2	619.6	9.77
12 1 4 1	310	Light	2003	EXPLORER FORD # 1FMZU73W02ZC61840	SHA558	23,894.58		Gas	E-10			18097.5	1770.6	10.22
12 1 4 1	104	Light	2003	FORD EXPLORER SPORT, 1FMZU77E93UA80431	SHA604	22,634.79			E-10			1686	148	11.39
12 1 1 1	122	Light	2003	VAN P DODGE 1D4GP253138101035 Friction Tester	SHA630	152,408.00		E-85	E-10			3954	352.8	11.21
12 1 4 1	301	Light	2003	FORD EXPLORER 1FMZU72K93ZA12274	SHA710	31,817.81		E-85	E-10					
12 1 4 1	520	Light	2005	TRACTOR EL 100 VIN#1EEEL25X04A043916	SHB451	174,131.85		Diesel	Diesel					
12 1 3 1	175	Light	2005	TRUCK FORD EXPLORER 1FMZU72K75UA28828	SHB592	32,810.97		E-85	E-10			4678	513.3	9.11
12 1 3 1	175	Light	2005	TRUCK DODG 1500 1D7HA16P55J556399	SHB623	29,165.44		E-85	E-10			5129	632.9	8.10
12 1 3 1	110	Light	2006	SUV DODGE DURANGO 1D4HB38P46F178177	SHC236	31,680.01		E-85	E-10			882	105.5	8.36
12 1 3 1	175	Light	2006	SUV DODGE DURANGO 1D4HB38P66F178178	SHC237	31,680.01		E-85	E-10			2412	280.5	8.60
12 1 3 1	131	Light	2005	SUV DODG DURANGO 1D4HB38P26F178176	SHC286	31,680.01		E-85	E-10			7663	606.2	12.64
12 1 2 1	160	Light	2006	VAN DODGE 1999 2B4GP44G3XR410524	SHC301	5,500.00		E-85	E-10			10967	1044.7	10.50
12 1 2 1	160	Light	2006	VAN DODGE 1999 2B4GP44G3XR410527	SHC302	5,500.00		E-85	E-10			7586	748	10.14
12 1 5 1	110	Light	2006	VAN DODGE CARAVAN 2B4GP44G8XR411586 '99	SHC303	5,500.00		E-85	E-10			2399	206	11.65
67 1 3 1	110	Light	2006	TRUCK FORD RANGER 1FTYR10V2XUA36382	SHC305	5,000.00		E-85	E-10			1631	161	10.13
12 1 3 1	175	Light	2006	TRUCK, 1999, FORD, 1FTSW30L7XEB29918	SHC421	9,500.00		E-85	E-10			3923	503.5	7.79
12 1 3 1	131	Light	2006	TRUCK, 1999, FORD, 1FTYR10V5XPB58636	SHC422	5,000.00						3891	305.3	12.74
12 1 3 1	175	Light	2007	TRUCK DODGE 1500 #1D7HA16P96J171039	SHC531	28,769.61						3697	494.2	7.48
12 1 3 1	181	Light	2004	2004 Ford Explorer, ORC 1FMZU73KX4ZA61905	SHC565			E-85	E-10			29104	2234.5	13.02
12 1 3 1	131	Light	2007	TRUCK, 1998, FORD, 1FTYR10VXXPB58633	SHC594	5,000.00		Propane/ Gas	E-10			1939	139	13.95
12 1 3 1	170	Light	2007	SUV SATURN VUE-6 5GZCZ53417S824102	SHC662	24,821.98		Gas	E-10			3687	236.9	15.56
12 1 3 1	174	Light	2007	SUV DODG DURANG 2007 1D8HB38P07F512611	SHC676	35,899.06		E-85	E-10			1612	183.3	8.79

## Appendix 4. DOT- Airports Efficiency Projects and Vehicles Data

Location (Island)	Sub unit (VIP, OMF, etc.)	Vehicle Type (Light, under 8500 lbs., Medium, 8500-15000, Heavy 15000+)	YEAR	MAKE, MODEL, Vehicle Identification Number	License Plate	Vehicle Acquisition Cost	GWR	FUEL CONFIG	FUEL USAGE	TYPE FUEL	EPA RATED MPG	VEHICLE MILEAGE	VEHICLE FUEL CONSUMPTI ON	AVERAGE VEHICLE MPG
12 1 7 1	1	400	2007	SUV/2007 DODGE 1D8HB38P97F512610 OKA	SHC677	35,899.06		E-85	E-10					
12 1 1 1	1	100	2007	MPV/DODGE VIN 1D8HD38P87F512477	SHC695	51,679.88		E-85	E-10			3165	251.2	12.60
12 1 3 1	176	Light	2006	TRUCK CHEVY 2007 1GCEC14Z3Z166577	SHC711	19,498.00		E-85	E-10			2594	224	11.58
12 1 3 1	175	Light	2006	TRUCK CHEVY 2007 1GCHC23U57F124339	SHC712	31,833.00		E-85	E-10			13537	1721	7.87
67 1 3 1	177	Light	2008	TRUCK CHEV S-10 2000 1GCCS1451Y8300985	SHC870	5,000.00		E-85	E-10			1508	176.3	8.55
67 1 3 1	175	Light	2008	TRUCK CHEV S-10 2000 1GCCS1453Y8302771	SHC871	5,000.00		E-85	E-10			3318	240.5	13.80
12 1 3 1	131	Light	2008	TRUCK CHEV TAHOE 2002 1GNEK13Z42J314531	SHC872	13,500.00		E-85	E-10			1547	132	11.72
67 1 1 1	125	Light	2008	TRUCK CHEVY S-10 1GCCS1450Y8276534	SHC903	5,000.00		E-85	E-10			1423	81	17.57
12 1 3 1	173	Light	2008	TRUCK FORD F150 1FTPX12V07KC98170	SHC904	22,437.92		E-85	E-10			1818.2	180.8	10.06
12 1 3 1	177	Light	2008	TRUCK FORD F150 1FTPX12V27KC98171	SHC905	22,437.91		E-85	E-10			1943.8	214.7	9.05
12 1 4 1	246	Light	2008	TRUCK FORD F150 1FTPW14V07KC95012	SHC906	50,622.61		E-85	E-10			5016.8	448.1	11.20
12 1 1 1	101	Light	2008	TRUCK FORD MPVH 1FMPU16L2YL73437	SHD176	8,000.00		Gas	E-10			insuff data		
12 1 1 1	125	Light	2008	MPV/DODGE 2008 1D8HD38N78F118291	SHD293	27,584.28		E-85	E-10			277	36.5	7.59
12 1 6 1	900	Light	2008	TRUCK, DODGE, 1D3HE32NX8S536699	SHD294	24,557.06		E-85	E-10			3388		new
12 1 3 1	181	Light	2008	SUV, DODGE, 1D8HD38N98F118292	SHD323	35,530.88		E-85	E-10					new
12 1 1 1	131	Light	2008	TRUCK DODGE 08 VIN 1D3HA18N08J174251	SHD324	28,485.85		E-85	E-10					new
12 1 1 1	100	Light	2008	DODGE STRATUS 2004 VIN 1B3EL36794N34162	SHD414	7,200.00		E-85	E-10					
12 1 1 1	100	Light	2008	DODGE STRATUS 2004 VIN 1B3EL367X4N34162	SHD416	7,200.00		E-85	E-10					
12 1 3 1	181	Light	2008	SEDAN, FORD TAURUS #1FAFP53205A114037	SHD417	7,000.00		E-85	E-10					
12 1 3 1	181	Light	2008	SEDAN, FORD TAURUS #1FAFP53225A114038	SHD418	7,000.00		E-85	E-10					
12 1 3 1	181	Light	2008	SEDAN, FORD TAURUS #1FAFP53245A114039	SHD419	7,000.00		E-85	E-10					
12 1 3 1	175	Medium	1991	TRUCK CHEV CAB/DUMP 1GBHR33K8MF300447	SH4830	20,592.00								
12 1 3 1	131	Medium	1995	TRUCK CHEV P/U 3/4 1GCF24K4SZ112338	SH7988	19,199.00		Gas	E-10			3430	365	9.40
12 1 6 1	900	Medium	1995	TRUCK P/U CHEV 1GCHC34K5SE108529	SH8005	35,500.00								
12 1 3 1	175	Medium	1995	TRUCK FORD F350 1FTJW35H5XSEA26906	SH8056	24,639.01		Gas	E-10			910.3	163	5.58
12 1 3 1	176	Medium	1995	TRUCK FORD P/U 1FTJW35H8SEA26905	SH8058	28,542.11		Gas	E-10			1967	318.8	6.17
12 1 3 1	174	Medium	1995	TRUCK FORD 250 COUP 1FTHX26H2SKC15782	SH8195	32,736.26		Gas	E-10			6627	822.8	8.05
12 1 3 1	176	Medium	1995	TRUCK FORD P/U 1FTJW35H9SEA63574	SH8200	28,785.21		Gas	E-10			4232	450.6	9.39
12 1 3 1	177	Medium	1995	TRUCK FORD P/U 1FTJW35H2SEA77073	SH8201	25,267.82		Gas	E-10			1212	193.7	6.26
12 1 3 1	174	Medium	1997	VAN FORD BOOM 5.4L 1FTJE34L0VHA28854	SH8491	56,487.00		Gas	E-10			255	77.5	3.29
12 1 3 1	175	Medium	1997	TRUCK GMC AERIAL 1GDM7H1J2VJ502749	SH8571	147,384.00		Gas	E-10			183	104	1.76
12 1 3 1	177	Medium	1997	VAN DODGE RAM 250 #434035	SH8659	7,500.00		Gas	E-10					
12 1 3 1	177	Medium	1997	TRUCK FORD #1FTJW35H5VECO3723	SH8728	27,269.84		Gas	E-10			2724	691.2	3.94
12 1 3 1	175	Medium	1998	TRUCK CHEV P/U 1GCHC34R2VF048768	SH8729	23,007.20		Gas	E-10			3108	703.5	4.42
12 1 3 1	174	Medium	1997	TRUCK FORD P/U F250 1FDHX26H3VECO3722	SH8730	36,229.44		Gas	E-10			7051	855.6	8.24
12 1 3 1	175	Medium	1998	TRUCK CHEV FLAT 1GBHC34R5VF054830	SH8773	27,295.00		Gas	E-10			2340	427.8	5.47
12 1 3 1	110	Medium	1998	VAN CHEV BUCKET #1GCHG39R2W101387	SH8905	49,218.43		Gas	E-10			483	108	4.47
12 1 3 1	173	Medium	1999	TRUCK GMC 1GTEC14T3XE509651	SH9187	34,292.96								
12 1 3 1	172	Medium	2000	TRUCK GMC UTILITY #1GTHC34R1YF425112	SH9621	36,157.41		Gas	E-10			4265.8	445.5	9.58
12 1 7 1	200	Medium	2000	TRUCK FORD PUP CAB #X818517	SH9677	21,728.77		Gas	E-10			7654.5	302.5	25.30
12 1 2 1	160	Medium	2001	TRUCK/P/U 1GCGC33R1YF47889	SH9678	21,728.77		Gas	E-10			928	134	6.93
12 1 3 1	172	Medium	2000	TRUCK CHEV TOW # 1GBLC34F2UF469586	SH9679	55,250.00		Diesel	Diesel			254	51.5	4.93
12 1 3 1	172	Medium	2000	TRUCK CHEV FLAT BOOM #1GBLC34FPU459753	SH9680	43,625.00		Diesel	Diesel			0	34.4	0.00
12 1 3 1	175	Medium	2001	TRUCK CHEV 1GBGC33R4YF481787	SH9701	32,808.19		Gas	E-10			25392	852.9	29.77
12 1 7 1	100	Medium	2001	TRUCK, CHEVROLET 2000, 1GBJG31R9Y121065	SH9829	68,778.05		Gas	E-10					
12 1 4 1	105	Medium	2001	HANDI VAN 2000, LT-250 BUS, 1FDE35F8YH	SH9855	98,099.00		Diesel	Diesel					
12 1 4 1	105	Medium	2001	HANDI VAN 2000, LT-250 BUS, 1FDE35F4YH	SH9881	98,099.00		Diesel	Diesel					
12 1 4 1	105	Medium	2001	HANDI VAN 2000, LT-250 BUS, 1FDE35F3YH	SH9882	98,099.00		Diesel	Diesel					
12 1 4 1	105	Medium	2001	HANDI VAN 2000, LT-250 BUS, 1FDE35F2YH	SH9898	98,099.00		Diesel	Diesel					
12 1 3 1	175	Medium	2001	TRUCK FORD F350 3FTSW30S31MA51811	SH9929	31,093.42		Gas	E-10			7894	1071.1	7.37
12 1 6 1	900	Medium	2001	CAB CREW,FORD,SRW HX2AND VHF	SH9991	30,322.68		Gas	E-10			35402	30344	1.17



Location (Island)	Sub unit (VIP, OMF, etc.)	Vehicle Type (Light, under 8500 lbs., Medium, 8500-15000, Heavy 15000+)	YEAR	MAKE, MODEL, Vehicle Identification Number	License Plate	Vehicle Acquisition Cost	GWR	FUEL CONFIG	FUEL USAGE	TYPE FUEL	EPA RATED MPG	VEHICLE MILEAGE	VEHICLE FUEL CONSUMPTI ON	AVERAGE VEHICLE MPG
12 1 4 1	310	Medium	2003	SUV FORD EXCURSION # 1FMNU41S83EA28116	SHA559	29,940.44		Gas	E-10			11110	1794.3	6.19
12 1 4 1	310	Medium	2003	TRUCK FORD F-350 # 1FTSW31S72ED24254	SHA560	25,418.67		Gas	E-10			2830.1	362.7	7.80
12 1 4 1	310	Medium	2003	VAN FORD CUSTODY # 1FBSS31S92HB64439	SHA709	21,867.51		Gas	E-10			2702	554	4.88
12 1 7 1	100	Medium	2005	FORD EXCURSION, 1FMNU40S35EB92362	SHB720	58,355.87		Gas	E-10					
12 1 7 1	100	Medium	2005	FORD EXCURSION, 1FMNU40S35EB92361	SHB721	58,355.88		Gas	E-10					
12 1 3 1	179	Medium	2006	TRUCK FORD F-250 1998 #1FTRF27Z5WK8822	SHB780	7,500.00		Propane/ Gas	E-10			5183	522.5	9.92
12 1 2 1	160	Medium	2005	TRUCK FORD F350 1FTWW30Y85EB15939	SHB959	34,496.40		Gas	E-10			1692	236.7	7.15
12 1 3 1	131	Medium	2005	TRUCK F-250 1998 1FTRF27Z0WK88229	SHC103	5,500.00		Propane/ Gas	E-10			3401	437.8	7.77
12 1 4 1	325	Medium	2006	TRUCK F350 CAB CREW 1FTSW31P96EC37831	SHC227	58,088.29		Gas	E-10			4748	147.5	32.19
12 1 4 1	325	Medium	2006	TRUCK F350 CAB CREW 1FTSW31P76EC37830	SHC228	58,088.29		Gas	E-10			5146	291.1	17.68
12 1 3 1	177	Medium	2006	TRUCK F250 1998 1FTRF27Z8XKC12553	SHC304	7,000.00		Propane/ Gas	E-10			2389	337	7.09
12 1 3 1	110	Medium	2006	TRUCK F250 1FTRF27Z6WK88218	SHC306	5,500.00		Propane/ Gas	E-10			1066	124.5	8.56
12 1 3 1	110	Medium	2006	TRUCK F250 1FTRF27Z2WK88216	SHC307	6,000.00		Propane/ Gas	E-10			2476	254.7	9.72
12 1 3 1	175	Medium	2006	TRUCK FORD F350 HEIL #1FDWW36PXBEB89214	SHC316	43,619.93		Gas	E-10			7291	1083	6.73
12 1 4 1	310	Medium	2006	AMB, 1997, FORD, 1FDKF38F1VED04655	SHC319	8,500.00		Diesel	Diesel			386.7	60	6.45
12 1 3 1	110	Medium	2006	TRUCK, 1998, FORD, 1FTRF27Z1WK88224	SHC340	5,500.00		Propane/ Gas	E-10			2146	235.5	9.11
12 1 3 1	110	Medium	2006	TRUCK, 1999, DODG, 3B8KC26Z4XM580706	SHC418	7,500.00		Gas	E-10			1094	182	6.01
12 1 3 1	110	Medium	2006	TRUCK, 1999, DODG, 3B8KC26Z3XM580700	SHC419	7,500.00		Gas	E-10			1882	287.5	6.55
12 1 2 1	160	Medium	2007	VAN FORD VIN 1FBSS31L7WHCO7187	SHC420	5,500.00		Gas	E-10			2503	354.1	7.07
12 1 3 1	175	Medium	2008	TRUCK CHEV 2000 1GCGC33R2YF488250	SHC873	9,000.00		E-85	E-10			7045	959.3	7.34
12 1 3 1	177	Medium	2008	TRUCK CHEV 2000 1GCGC33R0YF490403	SHC874	9,000.00		Gas	E-10			1422	205	6.94
12 1 3 1	175	Medium	2008	VAN FORD 99 1FCJE39LXXHC01209	SHC902	9,500.00		Gas	E-10			232	76	3.05
12 1 2 1	160	Medium	2008	TRUCK FORD F350 1FTSW30538EB49537	SHC937	31,114.47		Gas	E-10			3363.2	414.5	8.11
12 1 3 1	181	Medium	2008	TRUCK, FORD FLTBD 1FDXW46R6EB77558	SHC949	64,064.01		Diesel	Diesel			1027.5	239.9	4.28
12 1 3 1	181	Medium	2008	TRUCK, FORD F350 1FDWW36Y68EC19174	SHD242	53,473.29		Gas	E-10			613.7	108	5.68
12 1 3 1	181	Medium	2008	TRUCK, FORD F350 1FDWW36Y68EC19175	SHD243	53,473.29		Gas	E-10			915	197	4.64
12 1 3 1	181	Medium	2008	TRUCK, FORD F350 1FDWW36Y68EC19176	SHD244	53,473.27		Gas	E-10			463	90	5.03
12 1 3 1	181	Medium	2008	TRUCK, FORD F350 1FDWW36Y68EC19177	SHD245	53,473.29		Gas	E-10			580	118.5	4.89
12 1 3 1	181	Medium	2008	TRUCK, 08 DODGE, # 3D6WG36A18G131429	SHD440	32,669.10		Diesel	Diesel					
12 1 3 1	181	Medium	2008	TRUCK, 08 DODGE # 3D6WG36AX8G131428	SHD441	47,821.97		Diesel	Diesel					
12 1 3 1	181	Medium	2008	TRUCK, FORD F250 #1FTSW20Y48EC19180	SHD442	37,498.42		Gas	E-10					
12 1 3 1	181	Medium	2008	TRUCK, FORD F250 #1FTSW20Y88EC19179	SHD443	37,498.42		Gas	E-10					
12 1 3 1	181	Medium	2008	TRUCK, FORD F250 #1FTSW20Y68EC19178	SHD444	37,498.42		Gas	E-10					
12 1 3 1	181	Medium	2008	TRUCK, FORD F250 # 1FTSX20558EB73099	SHD445	36,708.57		Gas	E-10					
12 1 1 1	100		Dodge	DODGE STRATUS 2004 VIN 1B3EL36TX4N34162	division									
12 1 1 1	100		Dodge	DODGE STRATUS 2004 VIN 1B3EL36T94N34162	division									
12 1 3 1	175		1991	TRUCK FORD F/B 1FDWK64PTM/AO1441	SH4454	34,880.60						154	49.4	3.12
12 1 3 1	175		1990	AUTO CHEV 1G1AW51W0K624888	SH4819	20,449.94		Gas	E-10					
12 1 3 1	172		1987	TRUCK FORD P/U 1FTDF15NXXGPB32162	SH4861	10,269.64								
12 1 3 1	131		1985	TRUCK CHEV P/U, 1GCCC14D1EJ175415	SH4871	8,264.88		Gas	E-10			818	81.5	10.04
12 1 3 1	174		1982	TRUCK FORD 1FTCF10E3CRA17954	SH4875	10,684.93								
12 1 3 1	175		1993	TRUCK GMC P/U 1GTEK14Z9NZ535684	SH4892	18,625.95		Gas	E-10			80442.4	118	681.72
12 1 7 1	995		1990	TRUCK, CHEV P/U, #1GCCS19R3J8209900	SH4895	18,650.88								
12 1 7 1	172		1988	TRUCK FORD P/U 1FTFF25HXP97388	SH4901	14,734.42		Gas	E-10					
12 1 2 1	160		1989	TRUCK CHEVEROLET PICK UP	SH5402	5,925.00								



Location (Island)	Sub unit (VIP, OMF, etc.)	Vehicle Type (Light, under 8500 lbs., Medium, 8500-15000, Heavy 15000+)	YEAR	MAKE, MODEL, Vehicle Identification Number	License Plate	Vehicle Acquisition Cost	GWR	FUEL CONFIG	FUEL USAGE	TYPE FUEL	EPA RATED MPG	VEHICLE MILEAGE	VEHICLE FUEL CONSUMPTI ON	AVERAGE VEHICLE MPG
12 1 7 1	200		2000	TRUCK CHEV P/U/P #278836	SH9620	21,020.17								
12 1 4 1	125		2006	SUV, 2006, DODG, 1D4HB38P86F178179	SHC532	59,692.33						8276	836	9.90
12 2 0 3	180	Fire	1989	TRUCK OSHKOSH T-3000	SH4436	246,153.89		Diesel	Diesel					
12 2 0 3	180	Fire	1989	TRUCK OSHKOSH T-3000	SH4436	81,606.18		Diesel	Diesel					
12 2 5 3	180	Fire	1990	TRUCK CF 3000 VIN#10T9L5EH4L1039999	SH4837	375,932.98		Diesel	Diesel					
12 2 5 3	180	Fire	1990	TRUCK OSHKOSH 1500	SH4838	326,182.20		Diesel	Diesel					
12 2 5 3	180	Fire	1988	TRUCK OSHKOSH 1988 10T965BH8J1032846	SH4842	277,517.00		Diesel	Diesel					
12 2 5 3	180	Fire	1990	TRUCK CRYV 3,000 SN006724	SH4964	209,754.00		Diesel	Diesel					
12 2 0 3	180	Fire	1990	TRUCK CF P3000 VIN# 10T9L5EH5L1039994	SH4966	37,592.98		Diesel	Diesel					
12 2 0 3	180	Fire	1990	TRUCK CF P3000 VIN# 10T9L5EH5L1039994	SH4966	338,340.00		Diesel	Diesel					
12 2 0 3	180	Fire	1990	TRUCK CF P19 VIN# 10T9L5BE1L1039579	SH4967	28,394.08		Diesel	Diesel					
12 2 0 3	180	Fire	1990	TRUCK CF P19 VIN# 10T9L5BE1L1039579	SH4967	255,541.00		Diesel	Diesel					
12 2 5 3	180	Fire	2006	TRUCK OSHKOSH STI-1500 10TDBKAK1X5S08560	SHC323	578,308.00		Diesel	Diesel					
12 2 5 3	180	Fire	2007	TRUCK OSHKOSH STI-3000 10TDBKAK126S08982	SHC530	49,099.00								
12 2 5 3	180	Fire	2007	TRUCK OSHKOSH STI-3000 10TDBKAK126S08982	SHC530	816,845.00								
12 2 5 3	180	Fire	2007	TRUCK OSHKOSH STI-3000 10TDBKAK146S08982	SHC533	863,959.00								
12 2 5 3	180	Fire	2007	TRUCK OSHKOSH STI-1500 10TDBKAK117S094494	SHC869	31,578.00		Diesel	Diesel					
12 2 5 3	180	Fire	2007	TRUCK OSHKOSH STI-1500 10TDBKAK117S094494	SHC869	599,975.00		Diesel	Diesel					
12 2 5 3	179	Heavy		TRUCK 91 FORD F800 1FDXK84A4MVA08570	SH4839									
12 2 5 3	179	Heavy		SWEeper ELGIN STREET VACUUM	SH4845									
12 2 5 3	179	Heavy	1983	TRUCK 1-1/2T DOD DUMP 1B6WD34T1CS280903	SH4418	15,411.48		Diesel	Diesel					
12 2 5 3	179	Heavy	1991	TRUCK 91 FORD F800 1FDXK84A4MVA08570	SH4839	44,512.60		Diesel	Diesel					
12 2 5 3	179	Heavy	1987	SWEeper ELGIN STREET VACUUM	SH4845	81,233.00		Diesel	Diesel					
12 2 0 3	179	Heavy	2000	SWEeper JOHNSTON 770 1FVAB7BV85DN91764	SH9510	121,811.72		Diesel	Diesel					
12 2 0 3	170	Heavy	2000	BOOM TRUCK INTERNATIONAL 0299CT0165	SHB908	159,894.81		Diesel	Diesel					
12 2 0 3	170	Light	1991	90' CHEVY BLAZER 4 WHEEL DRIVE LT 10506	SH4389	225,621.48								
12 2 5 3	180	Light	1990	AUTO DODGE DYNASTY 1B3XC46R3LD848259	SH4823	18,560.00		Gas	E-10					
12 2 0 3	170	Light	1989	BLAZER 2DR 4WD CHEV 1GNCT1829K8117925	SH4954	22,910.05		Gas	E-10					
12 2 0 3	180	Light	1984	TRUCK CHEV CHAS CAB 1GBHK34J1EV139599	SH4957	22,240.00		Gas	E-10					
12 2 0 3	170	Light	1988	TRUCK P/U CHEV 1GCGV24K6HS158303	SH4958	18,337.04								
12 2 0 3	176	Light	1989	TRUCK P/U 3/4T CHEV 1GCFK24K2KE110968	SH4960	18,556.84								
12 2 0 3	170	Light	1991	TRUCK CHEVY S-10 1GCCS14Z1M8251817	SH5170	16,667.20		Gas	E-10					
12 2 5 3	180	Light	1951	JEEP WILLY'S (G)CJ3A39065	SH5567	12,390.58		Gas	E-10					
12 2 5 3	101	Light	1993	BLAZER CHEVY 93 1GNDT13W8P2161295	SH5942	2,825.00		Gas	E-10					
12 2 0 3	101	Light	1993	CHEVY BLAZER 93' 1GNDT13W1P2161297	SH5943	21,560.78		Gas	E-10					
12 2 0 3	170	Light	1994	WAGON STATION GMC 94 1GKDT13W4R2512915	SH6839	21,561.77		Gas	E-10					
12 2 5 3	179	Light	1995	TRUCK 95 GMC SONOMA 1G1TDT19Z4SK528180	SH7931	19,085.00		Gas	E-10					
12 2 4 3	100	Light	1998	TRUCK 91 DODGE DAKOTA 1B7GG26X6MS291706	SH8690	23,380.00		Gas	E-10					
12 2 5 3	101	Light	1998	JEEP CHEROKEE '92 1J4FJ28S2NL218899	SH9030	7,900.00		Gas	E-10					
12 2 0 3	116	Light	2001	SEDAN FORD FOCUS 1FAFP34301W206614	SH9870	8,300.00		Gas	E-10					
12 2 5 3	101	Light	2002	FORD EXPEDITION XLT SUV	SH9870	14,260.33		Gas	E-10					
12 2 5 3	179	Light	2003	TRUCK FORD RANGER 1FTYR44V93PA20989	SHA349	36,695.68		Gas	E-10					
12 2 5 3	101	Light	2003	FORD EXPLORER 1FMZU72K53UA20868	SHA688	21,722.08		E-85	E-10					
12 2 0 3	101	Light	2007	TRUCK FORD CREW CAB W/DUMP 1FDWW37Y67EB	SHA689	27,287.68		E-85	E-10					
12 2 0 3	170	Light	2007	DODGE DURANGO 07' 1D8HB48PXF7537201	SHC697	41,918.79		E-85	E-10					
12 2 0 3	101	Light	2007	DODGE 1500 QUAD CAB P/U 1D7HU18P97J5324	SHC714	32,247.71		E-85	E-10					
12 2 5 3	101	Light	2008	FORD EXPEDITION SN#1FMPU16L3YLB73432	SHD175	30,813.34		E-85	E-10					
12 2 0 3	170	Light	2008	TRUCK FORD F-150 1FTFRF14V18K23873	SHD290	8,500.00		E-85	E-10					
12 2 0 3	170	Light	2008	TRUCK FORD F-150 1FTFRF14V38KB23874	SHD291	34,563.00		E-85	E-10					
12 2 5 3	101	Light	2008	FORD F150 PICKUP 2FTFPF17733CA80284	SHD346	27,771.80		E-85	E-10					

Location (Island)	Sub unit (VIP, OMF, etc.)	Vehicle Type (Light, under 8500 lbs., Medium, 8500-15000, Heavy 15000+)	YEAR	MAKE, MODEL, Vehicle Identification Number	License Plate	Vehicle Acquisition Cost	GVWR	FUEL CONFIG	FUEL USAGE	TYPE FUEL	EPA RATED MPG	VEHICLE MILEAGE	VEHICLE FUEL CONSUMPTI ON	AVERAGE VEHICLE MPG
12 2 5 3	101	Light	2008	FORD EXPEDITION SUV 1FMPU16L4YLB73441	SHD347	7,500.00		E-85	E-10					
12 2 5 3	101	Light	2008	FORD F150 CREW CAB 1FTRW07603KD09797	SHD348	12,000.00		E-85	E-10					
12 2 0 3	101	Light	2008	FORD EXPLORER 2000 1FMDUJ72X0YZC45716	SHD355	5,500.00		Gas	E-10					new
12 2 4 3	100	Medium		TRUCK P/U 3/4T FORD 1FTHF26GIDPB08738	SH3417									
12 2 5 3	179	Medium		TRUCK 1-1/2T DOD DUMP 1B6WD34T1CS280903	SH4418									
12 2 5 3	179	Medium		TRUCK 91 FORD F350 CREWCAB 2FTJWBGH3MCA	SH4464									
12 2 5 3	179	Medium		TRUCK FORD F-250 2004 4X4 W/DUMP BED	SHB114									
12 2 5 3	101	Medium	Ford	FORD EXPEDITION SUV 1FMPU16L4YLB73441	SHD347									
12 2 4 3	100	Medium	1984	TRUCK P/U 3/4T FORD 1FTHF26GIDPB08738	SH3417	12,696.52								
12 2 5 3	179	Medium	1991	TRUCK 91 FORD F350 CREWCAB 2FTJWBGH3MCA	SH4464	21,557.98								
12 2 0 3	170	Medium	1995	TRUCK FORD FLATBED 1FTJW35H7SEA10470	SH8057	29,160.54		Gas	E-10			4588	566.2	8.10
12 2 0 3	170	Medium	1995	TRUCK FORD 350 1FTJW35H1SEA77078	SH8199	32,714.28		Gas	E-10			732.4	125	5.86
12 2 0 3	170	Medium	1999	TRUCK GMC 1GTG33R1XFO17110	SH9188	23,371.92						4545	479.5	9.48
12 2 5 3	179	Medium	2004	TRUCK FORD F-250 2004 4X4 W/DUMP BED	SHB114	30,963.92		Gas	E-10					
12 2 0 3	170	Medium	2007	TRUCK FLATBED FORD 1FDWF36587EA6V963	SHC596	35,001.75								
12 2 4 3	179	Medium	2008	TRUCK FORD 2008 F250 1FDSF21R48ED07178	SHD354	39,560.16		Gas	E-10					new
12 2 4 3	179	Medium		TRUCK FORD 86 1FTHF26GPB29549	SH4422									
12 2 5 3	179	Medium		TRUCK 87 FORD 1FTCR11T7HUC58456	SH4431									
12 2 5 3	179	Medium		TRUCK 91 FORD UTILITY 1FDHF38G3MKA81327	SH4460									
12 2 5 3	180	Medium		TRUCK PU CHEVROLET 1G8HJ34W7CS161343	SH4905									
12 2 4 3	179	Medium		TRUCK CHEV 86 1GCEK14C5GJ166447	SH4909									
12 2 0 3	180	Medium		TRUCK UTIL. GMC 4X4 1CKDT13W9R0513487 1	SH7231									
12 2 4 3	179	Medium		TRUCK CHEV 89 1GBJV34J2K121141	SH8689									
12 2 5 3	115	Medium	GMC	GMC VAN #1GKDM19WXXB536329	SH9469									
67 2 0 3	179	Medium		TRUCK FORD 1FTEF15ZTLB95484	SHA952									
12 2 4 3	179	Medium		TRUCK FORD 2007 1FTSF21P77EA50163	SHC595									
12 2 4 3	179	Medium	1987	TRUCK FORD 86 1FTHF26GPB29549	SH4422	17,217.99								
12 2 5 3	179	Medium	1988	TRUCK 87 FORD 1FTCR11T7HUC58456	SH4431	13,716.67								
12 2 5 3	179	Medium	1991	TRUCK 91 FORD UTILITY 1FDHF38G3MKA81327	SH4460	22,303.32								
12 2 0 3	170	Medium	1992	TRUCK P/U FORD 1FTCR10A7NJC27896	SH4462	9,677.40								
12 2 5 3	180	Medium	1983	TRUCK PU CHEVROLET 1G8HJ34W7CS161343	SH4905	17,201.60								
12 2 4 3	179	Medium	1986	TRUCK CHEV 86 1GCEK14C5GJ166447	SH4909	14,920.14								
12 2 0 3	180	Medium	1995	TRUCK UTIL. GMC 4X4 1CKDT13W9R0513487 1	SH7231	35,295.00								
12 2 5 3	179	Medium	1995	TRUCK CHEV P/U 1GDC1421RZ259063	SH7606	9,725.00								
12 2 0 3	170	Medium	1995	TRUCK CHEV P/U 1GDC1421RZ259006	SH7607	9,725.00								
12 2 0 3	172	Medium	1995	TRUCK FORD PU 2FTEF15N9SCA29961	SH7820	17,799.60								
12 2 4 3	179	Medium	1998	TRUCK CHEV 89 1GBJV34J2K121141	SH8689	7,400.00								
12 2 5 3	115	Medium	2000	GMC VAN #1GKDM19WXXB536329	SH9469	19,277.44								
12 2 0 3	170	Medium	2002	TRUCK CHEVY P/U 2002 1GCCS195628167902	SHA361	18,450.00								
67 2 0 3	179	Medium	2004	TRUCK FORD 1FTEF15ZTLB95484	SHA952	4,500.00								
12 2 4 3	179	Medium	2007	TRUCK FORD 2007 1FTSF21P77EA50163	SHC595	34,267.17								
12 3 1 2	180	Fire	2006	TRUCK OSHKOSH T-1500 10TBKAK125S081535		576,846.50		Diesel	Diesel					
12 3 1 2	180	Fire	2006	TRUCK OSHKOSH T-3000 10TDKAK125S081534		871,570.50		Diesel	Diesel					
12 3 1 2	180	Fire		TRUCK OSHKOSH T-1500 10T9L5BH2L1039553	SH4832									
12 3 1 2	180	Fire		TRUCK CF T-3000 VIN# 10T9L5EHOL1040521	SH4833									
12 3 1 2	180	Fire		TRUCK CF T-1500 VIN# 10T9L5BH3L1039559	SH4834									
12 3 1 2	180	Fire		TRUCK CF T-1500 VIN#10T9L5BH3L1039559	SH4834									
12 3 3 5	180	Fire		TRUCK FIRE Y/W BGFL 1500 VIN #006721	SH5494									
12 3 3 5	180	Fire		TRUCK FIRE Y/W BGFL 1500 VIN #006721	SH5494									
12 3 1 2	180	Fire		TRUCK FIRE PIERCE #4P1CT02M2XA001148	SH9243									
12 3 1 2	180	Fire		TRUCK STA1500 STRKER 10TBKAK187S094492	SHC914									

## Appendix 4. DOT- Airports Efficiency Projects and Vehicles Data

Location (Island)	Sub unit (VIP, OMF, etc.)	Vehicle Type (Light, under 8500 lbs, Medium, 8500-15000, Heavy 15000+)	YEAR	MAKE, MODEL, Vehicle Identification Number	License Plate	Vehicle Acquisition Cost	GWR	FUEL CONFIG	FUEL USAGE	TYPE FUEL	EPA RATED MPG	VEHICLE MILEAGE	VEHICLE FUEL CONSUMPTI ON	AVERAGE VEHICLE MPG
12 3 1 2	180	Fire		TRUCK STA1500 STRKER 10TBKAK187S094492	SHC914									
12 3 1 2	180	Fire	1991	TRUCK OSHKOSH T-1500 10T9L5BH2L1039553	SH4832	316,669.37		Diesel	Diesel					
12 3 1 2	180	Fire	1990	TRUCK CF T-3000 VIN#10T9L5EHOL1040521	SH4833	166,814.76		Diesel	Diesel					
12 3 1 2	180	Fire	1990	TRUCK CF T-3000 VIN# 10T9L5EHOL1040521	SH4833	275,948.80		Diesel	Diesel					
12 3 1 2	180	Fire	1990	TRUCK CF T-1500 VIN# 10T9L5BH3L1039559	SH4834	233,855.80		Diesel	Diesel					
12 3 1 2	180	Fire	1990	TRUCK CF T-1500 VIN#10T9L5BH3L1039559	SH4834	76,418.80		Diesel	Diesel					
12 3 1 2	180	Fire	1988	TRUCK CF P-19 VIN# 10T9L5BE6J1032866	SH4843	390,859.00		Diesel	Diesel					
12 3 6 2	170	Fire	1987	TRUCK CF T1500 VIN# 10T9L5BH2G1028574	SH4855	75,301.00		Diesel	Diesel					
12 3 6 2	170	Fire	1987	TRUCK CF T1500 VIN# 10T9L5BH2G1028574	SH4855	224,334.11		Diesel	Diesel					
12 3 6 2	180	Fire	1973	TRUCK YANKEE WALTER CR QRV500 SN725616	SH4858	41,150.00		Diesel	Diesel					
12 3 5 6	180	Fire	1969	TRUCK FIRE YW 695612	SH4859	49,899.00		Diesel	Diesel					
12 3 3 5	180	Fire	1976	TRUCK FIRE YW BGFL 1500 VIN #006721	SH5494	3,000.00		Diesel	Diesel					
12 3 3 5	180	Fire	1977	TRUCK FIRE YW BGFL 1500 VIN #006721	SH5494	135,881.00		Diesel	Diesel					
12 3 1 2	180	Fire	1999	TRUCK FIRE PIERCE #4P1C02M2XA001148	SH9243	197,432.00		Diesel	Diesel					
12 3 3 5	180	Fire	2001	TRUCK FIRE MAJOR1500 4ENDAAA8XY1001848	SH9856	34,280.85		Diesel	Diesel					
12 3 3 5	180	Fire	2001	TRUCK FIRE MAJOR1500 4ENDAAA8XY1001848	SH9856	308,522.00		Diesel	Diesel					
12 3 5 6	180	Fire	2001	TRUCK FIRE MAJOR1500 4ENDAAA8XY1001847	SH9857	34,280.85		Diesel	Diesel					
12 3 5 6	180	Fire	2001	TRUCK FIRE MAJOR1500 4ENDAAA8XY1001847	SH9857	308,522.00		Diesel	Diesel					
12 3 1 2	180	Fire	2007	TRUCK STA1500 STRKER 10TBKAK187S094492	SHC914	632,135.00		Diesel	Diesel					
12 3 1 2	174	Fire	2008	AERIAL BUCKET TRUCK	SHD292	260,140.66								
12 3 1 2	182	Heavy		TRK FORD AERIAL BCKT 1FDYL90AXKVA38831	SH4841									
12 3 1 2	174	Heavy		AERIAL BUCKET TRUCK	SHD292									
12 3 1 2	182	Heavy	1992	TRUCK INTL DUMP 1HTSCNML6NH412551	SH4831	40,259.84		Diesel	Diesel					
12 3 1 2	182	Heavy	1989	TRK FORD AERIAL BCKT 1FDYL90AXKVA38831	SH4841	143,455.00		Diesel	Diesel					
12 3 1 2	175	Heavy	2007	TRUCK #2NPRH28X67M731141, 8-CUBIC DUMP	SHC628	119,780.29		Diesel	Diesel					
12 3 1 2	995	Light	2008	TRUCK, FORD F150 #2FTFPF17Z53CA80285		8,500.00		E-85	E-10					
12 3 1 2	995	Light	2008	TRUCK, FORD F150 #2FTFPF17Z83CA80281		8,500.00		E-85	E-10					
12 3 1 2	995	Light	2008	TRUCK, FORD F150 #2FTFPF17Z3CA80282		8,500.00		E-85	E-10					
12 3 4 5	170	Light	1987	TRUCK TOYOTA HLUX P/U JT4RN50R6G0158471	SH4021	7,499.52								
12 3 1 2	115	Light	1987	WAGON CHEV CELEBRITY 1G1AW81W1H6116975	SH4266	11,032.13		Gas	E-10					
12 3 1 2	180	Light	1988	TRUCK FORD BRONCO II 1FMCU14T6HUC72273	SH4380	15,393.98		Gas	E-10					
12 3 1 2	162	Light	1991	VAN, FORD AEROSTAR 1FMDA31US5MZA18329	SH4403	20,570.00		Gas	E-10					
12 3 1 2	111	Light	1991	VAN CHEV ASTRO 1GNDM15Z2MB121908	SH4407	16,006.85		Gas	E-10					
12 3 1 2	120	Light	1991	VAN FORD AEROSTAR 1FMDA118NZA04964	SH4409	16,170.00		Gas	E-10					
12 3 1 2	100	Light	1991	VAN FORD AEROSTAR 1FMDA11UXNZA04965	SH4410	16,170.00		Gas	E-10					
12 3 1 2	180	Light	1981	TRUCK P/U CHEV LUV AIR-M #01-02	SH4411	6,228.65		Gas	E-10					
12 3 1 2	172	Light	1987	TRUCK P/U FORD RANGER 1FTCR11T7GUC95179	SH4426	9,678.33								
12 3 2 2	180	Light	1998	TRUCK DODGE RAM 150 #1B7GDI4Y7J5718028	SH4433	10,439.60		Gas	E-10					
12 3 5 6	170	Light	1989	TRUCK FORD F-350 1FDJF37H2KKB15038	SH4438	16,594.00		Gas	E-10					
12 3 2 2	170	Light	1991	TRUCK P/U CHEV 1/2T 1GDDC14H7L2Z30598	SH4442	13,772.36		Gas	E-10					
12 3 1 2	178	Light	1991	TRUCK P/U CHEV 1/2T 1GDDC14H8L2Z31680	SH4443	13,772.36		Gas	E-10					
12 3 1 2	174	Light	1991	TRUCK P/U CHEV 1/2T 1GDDC14H9L2Z30117	SH4444	13,772.36		Gas	E-10					
12 3 1 2	178	Light	1991	TRUCK P/U CHEV 1/2T 1GDDC14H7L2Z29998	SH4445	13,772.36		Gas	E-10					
12 3 1 2	140	Light	1991	TRUCK P/U CHEV 1/2T 1GDDC14H9L2Z30989	SH4447	13,772.36		Gas	E-10					
12 3 1 2	175	Light	1991	TRUCK, P/U CHEV 1/2T 1GDDC14H9L2229615	SH4448	13,772.36		Gas	E-10					
12 3 1 2	178	Light	1991	TRUCK P/U CHEV 1/2T 1GDDC14H6L2Z30334	SH4449	13,772.36		Gas	E-10					
12 3 3 5	170	Light	1991	TRUCK P/U CHEV 1/2T 1GDDC14H3L2Z13828	SH4450	13,772.36		Gas	E-10					
12 3 5 6	180	Light	1991	TRUCK P/U FORD F150 1FTEF14N1MKA35320 A	SH4453	19,486.00		Gas	E-10					
12 3 1 2	175	Light	1991	TRUCK P/U CHEV 1/2T 1GDDK14H6MZ130027	SH4456	19,177.05		Gas	E-10					
12 3 5 6	170	Light	1991	TRUCK CHEV 1/2T 1GDDK14H1MZ130503	SH4457	18,535.39		Gas	E-10					
12 3 1 2	175	Light	1991	TRUCK P/U CHEV 1/2T 1GDDK14H1MZ130985	SH4458	19,177.05		Gas	E-10					

## Appendix 4. DOT- Airports Efficiency Projects and Vehicles Data

Location (Island)	Sub unit (VIP, OMF, etc.)	Vehicle Type (Light, under 8500 lbs., Medium, 8500-15000, Heavy 15000+)	YEAR	MAKE, MODEL, Vehicle Identification Number	License Plate	Vehicle Acquisition Cost	GWR	FUEL CONFIG	FUEL USAGE	TYPE FUEL	EPA RATED MPG	VEHICLE MILEAGE	VEHICLE FUEL CONSUMPTI ON	AVERAGE VEHICLE MPG
12 3 1 2	175	Light	1991	TRUCK P/U CHEV 1/2 T 1GDCD14H5NZ112763	SH4461	14,757.08		Gas	E-10					
12 3 3 5	170	Light	1983	TRUCK DODGE DUMP 1B6WD34T5CS280905	SH4904	15,105.24		Diesel	Diesel					
12 3 1 2	175	Light	1985	TRUCK P/U FORD RANGER 1FTCR105SUD23900	SH4906	10,588.43		Gas	E-10					
12 3 6 2	180	Light	1983	TRUCK DODGE RAM350 1B7LD34WDS410748	SH4907	11,492.00								
12 3 1 2	111	Light	1993	TRUCK P/U CHEV 1/2T 1GDCD14H9PZ119489	SH5472	14,327.00		Gas	E-10					
12 3 1 2	176	Light	1983	TRUCK P/U FORD RANGER 1FTCR10S8DUC13870	SH5489	10,327.61		Gas	E-10					
12 3 1 2	171	Light	1991	STATION WAGON FORD 2FACP79F3MX119540	SH5490	26,196.00		Gas	E-10					
12 3 1 2	186	Light	1991	STATION WAGON FORD #2FACP77F1MX138591	SH5491	25,398.00		Gas	E-10					
12 3 3 5	170	Light	1991	TRUCK P/U CHEV 1/2T 1GCDK14HXMZ129253	SH5496	19,177.06		Gas	E-10					
12 3 3 5	180	Light	1991	TRK P/U FORD F150 1FTFR14N3MKA35321 A	SH5500	22,396.00		Gas	E-10					
12 3 1 2	175	Light	1993	TRUCK P/U CHEV 1/2T 1GDCD14H4PZ184329	SH5568	13,608.81		Gas	E-10					
12 3 1 2	170	Light	1991	TRUCK P/U CHEV 1/2T 1GDCD14JH0PZ18426	SH5569	13,608.81		Gas	E-10					
12 3 1 2	100	Light	1991	SEDAN CHEV CELEBRITY #1G1AW51W1J622609	SH5898	4,500.00		Gas	E-10					
12 3 1 2	130	Light	1993	TRUCK P/U CHEV 1/2T 1GCF24H2PE173805	SH5941	17,381.75		Gas	E-10					
12 3 1 2	102	Light	1994	CHEV LUMINA 4 DR 2G1WL54T9P1129591	SH6338	18,383.26		Gas	E-10					
12 3 6 2	180	Light	1993	TRUCK NISSAN 4 X 4 AIR-M 0U.01	SH6340	4,460.32		Gas	E-10					
12 3 6 2	170	Light	1994	TRUCK P/U CHEV 1/2T 1GCEK14H6RZ138172	SH6527	16,599.74		Gas	E-10					
12 3 3 5	170	Light	1994	TRUCK P/U CHEV 1/2T 1GDCD14H5RZ130931	SH6528	16,452.95		Gas	E-10					
12 3 1 2	172	Light	1994	TRUCK P/U CHEV 1/2T 1GDCD14H6RZ131098	SH6529	14,262.13		Gas	E-10					
12 3 1 2	101	Light	1996	CUTLASS, CIERRA 4DSD	SH7165	20,807.72		Gas	E-10					
12 3 1 2	185	Light	2003	EXPLORER FORD 2002 #1FMZU72K22UD17580	SHA514	24,920.67		Gas	E-10					
12 3 1 2	185	Light	2003	EXPLORER FORD 2002 #1FMZU72K42UD17581	SHA527	24,920.67		Gas	E-10					
12 3 1 2	175	Light	2005	TRUCK DODGE DR150 1D7HU16P15J521463	SHB546	29,060.23		E-85	E-10					
12 3 1 2	175	Light	2005	TRUCK DODGE DR150 1D7HU16P35J521464	SHB547	29,060.23		E-85	E-10					
12 3 1 2	100	Light	2006	VAN DODGE GR CARAVAN SN 1D4GPP24E76B6254	SHB991	24,331.09		E-85	E-10					
12 3 1 2	101	Light	2006	SEDAN DODGE STRATON SN 1B3EL46T16N11280	SHB992	18,825.92			E-10					
12 3 1 2	115	Light	2006	SEDAN, #1B3EL46T6N215241, 2006 DODGE	SHC278	14,479.07			E-10					
12 3 3 5	170	Light	2007	TRUCK P/U CHEV 1GCEK14Z7Z150301	SHC674	27,463.00								
12 3 3 5	170	Light	2007	TRUCK P/U CHEV 1GCEK14Z17Z150106	SHC675	27,463.00								
12 3 1 2	995	Medium	2008	TRUCK FORD F250, #1FTSF21R08EC19183		35,239.90		Gas	E-10					
12 3 1 2	995	Medium	2008	TRUCK FORD F250, #1FTSF21R78EC19181		35,239.90		Gas	E-10					
12 3 1 2	995	Medium	2008	TRUCK FORD F250, #1FTSF21R08EC19182		35,239.90		Gas	E-10					
12 3 3 5	995	Medium	2008	TRUCK, FORD F350, #1FDWF36Y48EC71435		32,530.00		Gas	E-10					
12 3 3 5	170	Medium	2007	TRUCK P/U DODGE 1D7HU18PG67J544866		31,141.47								
12 3 1 2	175	Medium		TRUCK #2NPRH28X67M731141, 8-CUBIC DUMP	SHC628									
12 3 4 5	180	Medium	1979	TRK PU CHEV CCT248Z190101 AIR-M 92-03	SH2520	5,851.29		Gas	E-10					
12 3 1 2	175	Medium	1983	TRK DDG DUMP RAM350 1B6WD34T3CS280904	SH4417	15,205.24								
12 3 1 2	180	Medium	1985	TRUCK FORD F350 1FDHF38L4EKA83943	SH4420	17,223.11								
12 3 1 2	175	Medium	1988	TRK DODGE RAM250 4X4 1B7JW24W3HSA34541	SH4430	14,248.00								
12 3 1 2	175	Medium	1991	TRUCK P/U CHEV 3/4T 1GCFK24HXMZ130661	SH5498	22,807.79								
12 3 1 2	173	Medium	1994	TRUCK P/U CHEV 3/4 T 1GFCF24H6RE127106	SH6707	16,645.42								
12 3 1 2	170	Medium	2006	TRUCK #1D7HU18P36J171204, '06 DODGE	SHC276	30,628.97								
12 3 1 2	170	Medium	2006	TRUCK #1D7HU16P76J174030, '06 DODGE	SHC277	30,072.72								
12 3 1 2	170	Medium	2007	TRUCK #1D7HU18P46J174029, '06 DODGE	SHC363	36,670.60								
12 3 1 2	170	Medium	2007	TRUCK #1D7HU18P56J171205, '06 DODGE	SHC396	36,670.60								
12 3 1 2	170	Medium	2006	TRUCK, #1D7HU16P96J174031, '06 DODGE RAM	SHC566	30,072.72								
12 3 1 2	180	Medium	2007	TRUCK 07 DODGE VIN# 1D8HD38P47F514887	SHC804	66,174.57								
12 4 0 4	180	Fire	2006	TRK OSHKOSH STI 3000S 10TDKAK105S085601		577,500.00		Diesel	Diesel					
12 4 0 4	180	Fire	2006	TRK OSHKOSH STI 3000S 10TDKAK105S085601		261,714.00		Diesel	Diesel					
12 4 0 4	995	Fire	2008	DODGE 2008, 1D8HB38N38F118052 Y2		29,641.48		Gas	E10	GAS		427	53.2	8.03
12 4 0 4	180	Fire	2006	TRK OSHKOSH STI 1500S 10TDKAK105S085601 Y8		261,714.00		DIESEL	DIESEL	DIESEL		72	13.4	5.37

## Appendix 4. DOT- Airports Efficiency Projects and Vehicles Data

Location (Island)	Sub unit (VIP, OMF, etc.)	Vehicle Type (Light, under 8500 lbs., Medium, 8500-15000, Heavy 15000+)	YEAR	MAKE, MODEL, Vehicle Identification Number	License Plate	Vehicle Acquisition Cost	GVWR	FUEL CONFIG	FUEL USAGE	TYPE FUEL	EPA RATED MPG	VEHICLE MILEAGE	VEHICLE FUEL CONSUMPTI ON	AVERAGE VEHICLE MPG
12 4 0 4	180	Fire		TRK OSHKOSH STI 3000S 10TDKAK105S085601										
12 4 0 4	180	Fire		TRK OSHKOSH STI 3000S 10TDKAK105S085601										
12 4 0 4	180	Fire	1987	TRUCK P/U CHEV 1GCHK33J9GS166518 Y9	SH4429	20,910.12		DIESEL	DIESEL	DIESEL		463.9	87.2	5.32
12 4 0 4	180	Fire		TRUCK CF T3000 VIN# 10T9L5EH8L1040508	SH4835									
12 4 0 4	180	Fire		TRUCK OSHKOSH T-1500 10T9L5BHOL1039549	SH4836									
12 4 0 4	180	Fire	1990	TRUCK OSHKOSH T3000 10T9L5EH8L1040508	SH4835	371,912.04		Diesel	Diesel			657.5	120.3	5.47
12 4 0 4	180	Fire	1990	TRUCK OSHKOSH T-1500 10T9L5BHOL1039549	SH4836	322,058.64		DIESEL	DIESEL	DIESEL		471.3	91.2	5.17
12 4 0 4	180	Fire	1988	TRUCK INTL STRUC PUMP 1HTLDTVN4HHA23940	SH4884	171,901.33		DIESEL	DIESEL	DIESEL		425.4	85.7	4.96
12 4 0 4	180	Fire	1986	TRUCK CF P-19 VIN# 1079L5BE2T1028595	SH4853	238,486.31		Diesel	Diesel					
12 4 0 4	180	Fire	1986	TRUCK CF P-19 VIN# 1079L5BE2T1028595	SH4853	178,864.74		Diesel	Diesel					
12 4 0 4	180	Fire	2002	TRUCK P/U FORD 450 VIN: 1FDXW47F1YED455 Y3	SHA3231	63,675.63		DIESEL	DIESEL	DIESEL		1520	264.9	5.74
12 4 0 4	180	Fire	2006	TRK OSHKOSH STI 3000S 10TDKAK105S085601 Y7	SHC465	577,500.00		DIESEL	DIESEL	DIESEL		417	82	5.09
12 4 0 4	995	Fire	2008	DODGE, 2007, VIN 1D8HD38P67F514888 Y1	SHC990	66,174.58		GAS	E10	GAS		2228.4	118.2	18.85
12 4 0 4	170	Heavy		SWEeper TENNANT 6600-26167	DFL1479									
12 4 0 4	170	Heavy	1991	TRUCK INTL DUMP 1HTSDZ7N9MH335254	SH4840	48,381.18		Diesel	Diesel					
12 4 0 4	170	Heavy	1999	SWEeper ATHEY 1A9X27DK6WR059009	SH9158	148,118.27		Gas	E-10			1895	118	16.06
12 4 0 4	995	Light	2008	TRUCK, FORD F150, 1FTRF12V18KCB29966		21,558.22		E-85	E-10					
12 4 0 4	995	Light	2008	DODGE, 2007, VIN 1D8HD38P67F514888		66,174.58								
12 4 0 4	995	Light	2008	DODGE, 2008, 1D8HB38N38F118052		29,641.48								
12 4 0 4	170	Light	1994	WAGON STA CHEV 1G1BL82P3SR133674	SH7950	29,198.00		GAS	E10	GAS		11284	571	19.76
12 4 0 4	180	Light	1996	WAGON SPORT CHEV 4WD 1GNDT13W32242505	SH8093	32,295.00		Gas	E-10			5664	411	13.78
12 4 0 4	170	Light	1996	WAGON SPORT CHEV 4WD 1GNDT13W4S2242044	SH8097	31,498.00		Gas	E-10			2079.4	147	14.15
12 4 0 4	170	Light	1997	FORD TAURUS 4DR WHITE 1FALP52UXA281883	SH8650	16,971.76		Gas	E-10			3423	165	20.75
12 4 0 4	170	Light	1998	SEDAN CHEV LUMINA 2G1WL52K7W9188651	SH8886	25,450.00		Gas	E-10			1493	98	15.23
12 4 0 4	170	Light	1998	VAN CHEV ASTRO 1GNDM19W6WB130629	SH8887	21,000.00		Gas	E-10			7984	467	17.10
12 4 0 4	111	Light	2000	TRUCK P/U GMC 1GTEC14T7Y147835	SH9580	20,137.52		Gas	E-10			4043	309	13.08
12 4 0 4	111	Light	2000	VAN FORD E150 SN 1FTRE1426YHA14184	SH9625	23,391.42		Gas	E-10			11426.6	497	22.99
67 4 0 4	170	Light	2005	TRUCK, FORD 150 VIN:1FTEF15Z1TLB95465	SHB358	4,500.00		GAS	E10	GAS				
12 4 0 4	115	Light	2007	SEDAN DODGE STRATUS 1B3EL46T86N21542	SHC308	14,949.90		E-85	E-10			2153	147	14.65
12 4 0 4	101	Light	2007	TRUCK FORD F-150 CREW 4X4 1FTPW14V86KD9	SHC688	32,923.21		Gas	E10	GAS		0		
12 4 0 4	995	Light	2008	TRUCK, FORD F150, 1FTRF12V18KCB29966	SSHD127	21,558.22		GAS	E10	GAS		0		
12 4 0 4	170	Medium	2005	TRUCK W/DUMPBED GAS UTILITY S/NRG044746	DFL 1391	5,500.00		GAS	E10	GAS				
12 4 0 4	180	Medium	1987	TRUCK P/U CHEV 1GCHK33J9GS166518	SH4429	20,910.12		Traded in						insuff data
12 4 0 4	170	Medium	1994	TRUCK MSTR CHEV 1GBM7H1J4PJ108956	SH6530	104,513.18								
12 4 0 4	170	Medium	1994	TRUCK CHEVY 1TON CAB 1GBHC34K9PE197016	SH6864	18,788.51								
12 4 0 4	170	Medium	1994	TRUCK CHAS CAB 1GBGK24KORE304417	SH7389	20,944.97		GAS	E10	GAS		7896	471	16.76
12 4 0 4	170	Medium	1994	TRUCK P/U CHEV 1GCEC14Z3SZ131272	SH8019	14,399.00		GAS	E10	GAS		8120	501	16.21
12 4 0 4	170	Medium	1999	TRUCK YUKON GMC 1GKEK13R5XJ791571	SH9493	34,559.20		Gas	E-10			7333	487	15.06
12 4 0 4	170	Medium	2001	TRUCK P/U CHEV 1GBGK24R4YF486578	SH9726	27,031.08		Gas	E-10			8055	475	16.96
12 4 0 4	170	Medium	2001	TRUCK P/U FORD F350 SN1FDWVF36S51EA30310	SH9893	60,000.00		Gas	E-10			8014	451	17.77
12 4 0 4	180	Medium	2002	TRUCK P/U FORD 450 VIN: 1FDXW47F1YED455	SHA231	63,675.63								
12 4 0 4	170	Medium	2006	TRUCK, FORD P/U-F250 3/4 TON 1FTSX21Y95	SHB836	45,861.16		GAS	E10	GAS		6048	255	23.72
12 4 0 4	170	Medium	2006	TRUCK P/U FORD F250 1FTNF20Y45EB36549	SHC168	43,284.10		GAS	E10	GAS		1060	87	12.18
12 4 0 4	170	Medium	2007	TRUCK FORD F350 1FDWVF36Y97EA52338	SHC567	33,236.50		GAS	E10	GAS		1241	91	13.64

## Appendix 5. DOT - Harbors Vehicles and Fuel Data

HARBORS DIVISION / ACT 96 / FY 07

1 of 4

DC	DEPT		DC	DEPT
A	Agriculture		M8	DAGS - PW
B	Business & Economic Development		M9	DAGS - ADMIN
C	DLNR - State Parks		MF	DAGS - ICSD
C1	DLNR - Admin, LM, HP		N	Attorney General
C2	DLNR - DOFAW		O	Dept. of Budget & Finance
C3	DLNR - DOCARE		P	Dept. of Human Resources
C4	DLNR - Water Resource		Q	Governor's Office
C5	DLNR - Aquatic Resources		R	Dept. of Commerce & Consumer Affairs
C6	DOBOR		S	Lieutenant Governor
D	DOT - Admin		T	Dept. of Taxation
D1	DOT - Air - Oahu		V1	Dept. of Public Safety
D2	DOT - Air - Maui		Z	Office of Hawaiian Affairs
D3	DOT - Air - Hawaii (Hilo)			
D4	DOT - Air - Kauai		<b>CLASS CODE</b>	<b>VEHICLE DESCRIPTION</b>
D5	DOT - Air - Maui (Molokai)		3110	Sedan, Coupe, Station wagon, SUV
D6	DOT - Air - Maui (Lanai)		3111	Van (passenger, cargo)
D7	DOT - Harbors		3113	Bus (0 - 30 passengers)
D8	DOT - Air - Keahole		3114	Bus (31 - 60 passengers)
DA	DOT - HWYS - Oahu		3115	Bus (over 60 passengers)
DB	DOT - HWYS - Maui		3120	Truck ( 0 - 10,000 GVW)
DC	DOT - HWYS - Hawaii		3121	Truck (10,000 - 20,000 GVW)
DD	DOT - HWYS - Kauai		3122	Truck (20,000 - 45,000 GVW)
DE	DOT - HWYS - Maui (Molokai)		3123	Truck (over 45,000 GVW)
DF	DOT - HWYS - Maui (Lanai)		3130	Trailer
E	Dept of Education		3140	Amulance (hospital)
E1	DOE - Drivers' Education		3141	Ambulance (rescue)
E2	HSPLS		3145	Fire appratus
F	University of Hawaii		3150	Tractor
F1	Research Corporation of University of Hawaii		3170	Misc.
G	Dept. of Defense			
H	Dept. of Health		<b>ISLAND CODES</b>	<b>ISLAND</b>
HH	Hawaii Health System Corporation		1	OAHU
I	Hawaiian Home Lands		2	MAUI
J	Judiciary		3	HAWAII
K	Dept. of Human Services		4	KAUAI
K1	HCDCH		5	MOLOKAI
L	Dept. of Labor and Industrial Relations		6	LANAI
M	DAGS - Surplus Property			
M1	DAGS - AM (Oahu)		<b>OWNER</b>	
M2	DAGS - CSD (Oahu)		S - STATE	
M3	DAGS - Hawaii District		L - LEASED	
M4	DAGS - Stadium		O - OTHER	
M5	DAGS - Maui District			
M6	DAGS - Kauai District			
M7	DAGS - SFCA			

HARBORS DIVISION  
ACT 96 Vehicle Baseline Data  
FY 2007 (July 2007 - June 2008)

LIC. NO.	DESCRIPTION	VIN	YR	Class	Island	Vehicle Acquisition Cost (\$)	EPA Rated Fuel Economy (MPG) (city/hwy)	Type of Fuel	Milage (Miles)	Fuel Consumption (GAL)	Actual Fuel Economy (MPG)
SH 4070	P/U TRUCK CHEV FLEETSIDE	1GCCS14R9J2175844	88	Truck (0 - 10,000 GVW)	HAWAII	\$10,094	no listing	unl	1,272	101.15	12.58
SH 4076	P/U TRUCK 90 GMC	2GTDC14H4L1506485	90	Truck (0 - 10,000 GVW)	HAWAII	13,675	no listing	unl	No Longer in use		
SH 4077	P/U TRUCK CHEVY	1GDC13H4JE173023	88	Truck (0 - 10,000 GVW)	HAWAII	10,672	no listing	unl	No Longer in use		
SH 4078	P/U TRUCK 92 FORD F-150	2FTDF15N1NCA39867	92	Truck (0 - 10,000 GVW)	HAWAII	\$15,556	no listing	unl	561	92.61	6.06
SH 4955	TRUCK INT'L CRANE	D1225GGB13195	77	Truck (10,000 - 20,000 GVW)	HAWAII	\$72,959	no listing	diesel	No Longer in use		
SH 6901	P/U CHEV FLATBED	1GBG6H1P9RJ104067	94	Truck (20,000 - 45,000 GVW)	HAWAII	\$30,871	no listing	unl	78	28.87	2.70
SH 7027	P/U TRUCK CHEV	1GDC14H6RZ207273	94	Truck (0 - 10,000 GVW)	HAWAII	\$13,595	no listing	unl	1,720	194.94	8.82
SH 9716	SUV ISUZU MPVH	4S2DM58W0Y4331777	00	Truck (0 - 10,000 GVW)	HAWAII	\$22,362		unl	7,084	503.06	14.08
SH A865	P/U TRUCK 250 FORD F-250	1FTNW21L73ED60351	03	Truck (0 - 10,000 GVW)	HAWAII	\$24,673		unl	3,871	350.03	11.06
SH B632	SUV FORD ESCAPE	1FMYU93135KC92881	05	Truck (0 - 10,000 GVW)	HAWAII	\$26,924		unl	8,056	518.33	15.54
SH C815	PRERUNNER TOYOTA	5TEJU62NXZ408584	07	Truck (0 - 10,000 GVW)	HAWAII	\$25,099		unl	14,357	644.17	22.29
SH C893	P/U DODGE DAKOTA	1D7HE22K67S152786	07	Truck (0 - 10,000 GVW)	HAWAII	\$18,726		unl	2,344	175.79	13.33
A830	FORD P/U TRUCK	1FTYR10U41PA92546	01	Truck (0 - 10,000 GVW)	KAUAI	\$15,375	21	unl	2,581.56	209.20	12.34
C294	TOYOTA TACOMA P/UP	5TENX22N66Z	06	Truck (0 - 10,000 GVW)	KAUAI	\$17,682	19	unl	3,512.00	269.30	13.04
C901	TOYOTA HIGHLANDER H.BRID	JTEGW21A470015	07	SUV (0 - 10,000 GVW)	KAUAI	\$35,989	32	unl/Hybrid	516.00	30.50	16.92
SH 7091	TRUCK FORD STYLESIDE	1FTJW36H3REA44107	94	Truck (0 - 10,000 GVW)	KAUAI	\$29,036	13	GAS	2,518.00	489.10	5.15
SH 7094	TRUCK CHEV STYLESIDE	1GCCS19Z2R8199520	94	Truck (0 - 10,000 GVW)	KAUAI	\$16,249	19	GAS	No Longer in use		#VALUE!
SH 8084	SUV CHEV BLAZER	1GNCS13W1S2243585	95	Truck (0 - 10,000 GVW)	KAUAI	\$22,769	17	GAS	4,194.00	292.70	14.33
SH 9245	P/U CHEV FLATBED	1GBHC34R7XF016843	99	Truck (0 - 10,000 GVW)	KAUAI	\$26,680	14	GAS	2,191.00	273.90	8.00
SH 9260	SUV CHEV BLAZER	1GNCS13W2XK159671	99	Truck (0 - 10,000 GVW)	KAUAI	\$32,019	16	GAS	3,046.00	272.00	11.20
SH 9261	P/U TRUCK CHEV	1BGGC24R1CF015029	99	Truck (0 - 10,000 GVW)	KAUAI	\$27,350	14	GAS	6,679.00	435.60	15.33
SH 9671	TRUCK CHEV	1BGGC24R2XF067253	99	Truck (0 - 10,000 GVW)	KAUAI	\$26,817	14	GAS	6,240.00	404.80	15.42
SH 9902	P/U TRUCK FORD	1FTYR10U41PA92546	01	Truck (0 - 10,000 GVW)	KAUAI	\$15,375	21	GAS	4,342.00	337.90	12.85
SH 4007	P/U TRUCK FORD	1FTEX15H8NKB27063	92	Truck (0 - 10,000 GVW)	MAUI	\$19,621	12/17	Gas	2,823.00	237.30	11.90
SH 4261	INTL STAKE	1HTLBD4K2EHA61438	84	Truck (10,000 - 20,000 GVW)	MAUI	\$20,661	N/A	Gas	1,366.00	304.94	4.48
SH 4265	P/U FORD	1FTEF15YXGPA10688	86	Truck (0 - 10,000 GVW)	MAUI	\$9,550	18/24	Gas	-	84.05	0.00
SH 4267	P/U TRUCK GMC SONOMA	1GTC19Z9M8509359	91	Truck (0 - 10,000 GVW)	MAUI	\$17,405	18/24	Gas	1,215.00	139.68	8.70
SH 7090	SDN OLDS CUTLASS CRUISER	1G3AJ85M3R6428263	95	Sedan, Coupe, Station wagon, SUV	MAUI	\$14,765	19/29	Gas	5,763.00	337.69	17.07
SH 7596	TRUCK GMC	1GTFC24Z0S2511129	95	Truck (0 - 10,000 GVW)	MAUI	\$20,182	16/21	Gas	2,901.00	353.98	8.20
SH 7597	TRUCK GMC	1GTEC14Z3S2511132	95	Truck (0 - 10,000 GVW)	MAUI	\$15,954	16/21	Gas	8,633.00	655.54	13.17
SH 8408	P/U CHEV	1GCCS14XXVK115298	97	Truck (0 - 10,000 GVW)	MAUI	\$15,625	17/23	Gas	1,101.00	111.51	9.87
SH 8954	SUV CHEV BLAZER	1GNCS13W8W2228684	98	Truck (0 - 10,000 GVW)	MAUI	\$31,100	16/20	Gas	-	779.03	0.00
SH C447					MAUI				2,649.00	379.39	6.98
SH C611					MAUI				1,755.00	244.18	7.19

HARBORS DIVISION  
ACT 96 Vehicle Baseline Data  
FY 2007 (July 2007 - June 2008)

3 of 4

Appendix 5. DOT - Harbors Vehicles and Fuel Data

LIC. NO.	DESCRIPTION	VIN	YR	Class	Island	Vehicle Acquisition Cost (\$)	EPA Rated Fuel Economy (city/hwy)	Type of Fuel	Milage (Miles)	Fuel Consumption (GAL)	Actual Fuel Economy (MPG)
Sweeper	Sweeper				MAUI				1,092.00	671.50	1.63
SH 4004	SDN FORD TAURUS	1FACP57U5PA115878	93	Sedan, Coupe, Station wagon, SUV	OAHU	\$18,148	19/27	unleaded	1037.5	89.3	11.6
SH 4005	SDN FORD TAURUS	1FACP57U7PA115879	93	Sedan, Coupe, Station wagon, SUV	OAHU	\$18,148	19/27	unleaded	1061.1	91.9	11.5
SH 4055	VAN CHEV	1GCGG35K4N7101482	92	Van (passenger, cargo)	OAHU	\$23,799	14/18	unleaded	4045.0	576.0	7.0
SH 4239	P/U GMC	1GTDG14N0GF706090	86	Truck (0 - 10,000 GVW)	OAHU	\$9,006	no listing	unleaded	533.0	63.3	8.4
SH 4244	P/U CHEV	1GBGC24M4EJ146308	84	Truck (0 - 10,000 GVW)	OAHU	\$12,785	no listing	unleaded	566.0	104.8	5.4
SH 4246	P/U TRUCK 91 GMC	1GDGR33KXMF701050	91	Truck (0 - 10,000 GVW)	OAHU	\$21,443	15/19	unleaded	vehicle was idle		
SH 4253	P/U CHEV	1GBGC24M8EJ146277	84	Truck (0 - 10,000 GVW)	OAHU	\$12,785	no listing	unleaded	vehicle was idle		
SH 4254	P/U CHEV	1GBGC24MXEJ146300	84	Truck (0 - 10,000 GVW)	OAHU	\$12,785	no listing	unleaded	2101.0	259.1	8.1
SH 4262	TRUCK INT'L FTBD	1HTSHNHROMH354189	91	Truck (over 45,000 GVW)	OAHU	\$62,857	no listing	diesel	n/a	63.6	n/a
SH 4269	P/U DODGE D250	1B6KD245H5H446454	87	Truck (0 - 10,000 GVW)	OAHU	\$16,026	11/13	unleaded	1408.0	196.3	7.2
SH 4270	TRUCK GMC TC 10703	1GTDC14ZXLZ544867	90	Truck (0 - 10,000 GVW)	OAHU	\$13,724	18/21	unleaded	n/a	82.3	n/a
SH 4325	TRUCK AERIAL LADDER INTL	1HTAA17B2BHB25932	81	Truck (20,000 - 45,000 GVW)	OAHU	\$36,381	no listing	unleaded	n/a	5.9	n/a
SH 4326	TRUCK FORD F600 W/LIFT	1FDMF60KXLA39248	90	Truck (10,000 - 20,000 GVW)	OAHU	\$47,618	11/15	unleaded	289.0	115.6	2.5
SH 4330	P/U GMC FLATBED	1GJD7D1F8GV505206	86	Truck (10,000 - 20,000 GVW)	OAHU	\$28,576	no listing	diesel	vehicle was idle		
SH 4331	TRUCK INT'L 4900 W/BM & JIB	1HTSDZ3R9LH280523	90	Truck (20,000 - 45,000 GVW)	OAHU	\$95,229	no listing	diesel	n/a	5.2	n/a
SH 5483	TRUCK INT'L AERIAL LIFT	1HTAA19580HAZ1017	82	Truck (20,000 - 45,000 GVW)	OAHU	\$97,017	no listing	diesel	vehicle was idle		
SH 5485	TRUCK FLATBED GMC	1GDGR33K9MF701055	91	Truck (0 - 10,000 GVW)	OAHU	\$21,443	15/19	unleaded	652.2	652.2	n/a
SH 6822	TRUCK CHEV FLTSIDE	1GCFD24HXRE121390	94	Truck (0 - 10,000 GVW)	OAHU	\$16,838	14/19	unleaded	3374.5	378.8	8.9
SH 6823	VAN CHEV	1GCDG15HORF115936	94	Truck (0 - 10,000 GVW)	OAHU	\$13,687	14/19	unleaded	1578.1	176.2	9.0
SH 7031	VAN CHEV ASTRO	1GNDM15Z9JB193006	88	Van (passenger, cargo)	OAHU	\$5,900	17/22	unleaded	362.3	50.9	7.1
SH 7244	TRUCK CHEV CAB	1GBGC24K9RE303358	94	Truck (0 - 10,000 GVW)	OAHU	\$18,192	13/17	unleaded	n/a	143.8	n/a
SH 7245	TRUCK CHEV CAB	1GBGC24K5RE306404	94	Truck (0 - 10,000 GVW)	OAHU	\$18,192	13/17	unleaded	3912.0	470.0	8.3
SH 7246	TRUCK CHEV CAB	1GBGC24K5RE304040	94	Truck (0 - 10,000 GVW)	OAHU	\$18,192	13/17	unleaded	4323.5	526.7	8.2
SH 8249	P/U CHEV	1GBHC33R6TF004193	96	Truck (0 - 10,000 GVW)	OAHU	\$25,187	15/19	unleaded	4958.0	704.9	7.0
SH 9328	INT'L MSTR KOMATSU PAY LDR	1HTSCABL4XH683803	99	Truck (20,000 - 45,000 GVW)	OAHU	\$69,695	no listing	diesel	1620.0	195.2	8.3
SH 9419	SDN CHEV CORSICA	1G1LD55M9SY273574	95	Sedan, Coupe, Station wagon, SUV	OAHU	\$6,300	21/29	unleaded	used by OCG		
SH 9420	SDN CHEV CORSICA	1G1LD55M3SY267785	95	Sedan, Coupe, Station wagon, SUV	OAHU	\$6,300	21/29	unleaded	875.0	72.6	12.1
SH 9421	SDN CHEV CORSICA	1G1LD55M2SY272900	95	Sedan, Coupe, Station wagon, SUV	OAHU	\$6,300	21/29	unleaded	4199.4	43.8	95.8
SH 9650	P/U CHEV	1GBHC33J6XF003240	99	Truck (0 - 10,000 GVW)	OAHU	\$36,145	12/16	unleaded	5878.0	911.6	6.4
SH 9739	TRUCK PETERBILT	1NPGN08X2Y0527575	00	Truck (20,000 - 45,000 GVW)	OAHU	\$81,932	no listing	diesel	n/a	228.7	n/a
SH 9899	VAN CARGO CHEV	1GCHG39F911133293	01	Van (passenger, cargo)	OAHU	\$56,655	no listing	diesel	2197.0	245.3	9.0
SH D103	TRUCK CHEV	1GCFD24K5PE221052	93	Truck (0 - 10,000 GVW)	OAHU	\$15,450	15/20	unleaded	n/a	48.1	n/a
SH D272	TRUCK FORD	2FTPF17Z63CA80280	03	Truck (0 - 10,000 GVW)	OAHU	\$8,000	11/15	unleaded	809	115.7	7.0



HARBORS DIVISION  
 ACT 96 Vehicle Baseline Data  
 FY 2007 (July 2007 - June 2008)

LIC. NO.	DESCRIPTION	VIN	YR	Class	Island	Vehicle Acquisition Cost (\$)	EPA Rated Fuel Economy (MPG) (city/hwy)	Type of Fuel	Milage (Miles)	Fuel Consumption (GAL)	Actual Fuel Economy (MPG)
SH D273	TRUCK FORD	2FTPF17Z73CA80286	03	Truck ( 0 - 10,000 GVW)	OAHU	\$8,000	11/15	unleaded	340.4	59.3	5.7

## Appendix 6. DOT - Highways Vehicles and Fuel Data

HIGHWAYS - KAUAI DISTRICT OFFICE

E/U ALTERNATIVE FUEL REPORT BY FUEL TYPE 9/10/08

PERIOD: 07/01/07 THRU 06/30/08

EQUIPMENT		DESCRIPTION.....	SERIAL NUMBER.....	GVW	FUEL.....	-----ACQUISITION-----	
						COST	DATE
91812	512	96 GMC SAFARI VAN	1GKDM15Z1RB542846	0	GASOLINE	.00	
91812	579	00 CHVY ASTRO VAN	1GNDM19W1YB181166	0	GASOLINE	.00	
98812	161	91 CHEVY 4WD BLAZER	1GNCT18Z7M0120050	0	GASOLINE	15,729.22	
98812	165	92 FORD MP UH EXPLORER AUTO	1FMDU34X3NUC83665	0	GASOLINE	21,219.04	
98812	170	92 FORD F150 PICKUP TRUCK	1FTDF15Y9NPA55985	0	GASOLINE	7,732.17	
98812	171	92 FORD SEDAN TEMPO	1FAPP36X2NK126779	0	GASOLINE	6,142.87	
98812	173	94 DODGE SHADOW SEDAN	1B3AP28D6RN219792	0	GASOLINE	11,356.68	
98812	174	94 PONTIAC GRAND PRIX SEDAN	1G2WJ52M6RF258025	0	GASOLINE	14,077.82	
98812	175	94 GMC PICKUP TRUCK 1/2 TON	1GTDC14H8RZ523807	0	GASOLINE	15,198.00	
98812	176	94 GMC CREWCAB PICKUP TRUCK	1GTGC33KSRJ727985	0	GASOLINE	20,500.07	
98812	177	94 GMC CREWCAB PICKUP TRUCK	1GTGC33KXKJ728002	0	GASOLINE	20,942.77	
98812	178	94 GMC CREWCAB PICKUP TRUCK	1GTGC33KLRJ738160	0	GASOLINE	20,942.77	
98812	179	94 GMC CREWCAB PICKUP TRUCK	1GTGC33KSRJ738341	0	GASOLINE	20,942.77	
98812	180	95 FORD RANGER PICKUP TRUCK	1FTCR14X6SPA12888	0	GASOLINE	13,969.87	
98812	181	95 FORD TAURUS 4DR SEDAN	1FALP52U9SG207105	0	GASOLINE	14,761.76	
98812	182	95 FORD CREWCAB PICKUP TRUCK	1FTJW35H7SEA34977	0	GASOLINE	22,239.65	
98812	183	95 FORD CREWCAB PICKUP TRUCK	1FTJW35H5SEA34976	0	GASOLINE	22,239.65	
98812	184	95 FORD CREWCAB PICKUP TRUCK	1FTJW35H3SEA34975	0	GASOLINE	22,239.65	
98812	186	96 CUSHMAN REFUSE	1CUMH3273TL001507	0	GASOLINE	18,899.45	
98812	187	96 CUSHMAN REFUSE	1CUMH3275TL001508	0	GASOLINE	18,881.23	
98812	188	97 CHEVROLET CREWCAB PICKUP	1GCGC33F5VF027514	0	GASOLINE	27,633.18	
98812	189	97 CHEVROLET CREWCAB PICKUP	1GCGC33F3VF027964	0	GASOLINE	27,633.18	
98812	190	97 CHEVROLET PICKUP TRUCK	1GCCS14X3V8170091	0	GASOLINE	14,961.94	
98812	192	98 CHEVROLET S10 PICKUP TRUCK	1GCCS14X4W8236486	0	GASOLINE	16,455.00	
98812	193	98 CHEVROLET S10 PICKUP TRUCK	1GCCS14X2W8237569	0	GASOLINE	16,455.00	
98812	194	98 CHEVROLET CAVALIER 4-DOOR SEDAN	1G1JC5244W7335716	0	GASOLINE	13,922.79	
98812	198	99 FORD RANGE PICKUP TRUCK	1FTYR10V7XUB36560	4,740	GASOLINE	16,989.48	
98812	199	99 FORD RANGER PICKUP TRUCK	1FTYR10V9XUB36561	4,740	GASOLINE	16,997.81	
98812	200	99 CUSHMAN 3-WHEEL REFUSE VEHICLE	1CHMH3274XL002508	2,315	GASOLINE	21,800.00	
98812	201	00 CHEV PICKUP TRUCK	1GCCS19W4Y8243134	3,620	GASOLINE	20,277.73	
98812	202	00 CHEV MALIBU 4-DR SEDAN	1G1ND52J6Y6258330	3,080	GASOLINE	17,648.48	
98812	203	00 CHEV MALIBU 4-DR SEDAN	1G1ND52J2Y6257434	3,080	GASOLINE	17,648.48	
98812	204	01 FORD EXP SPTS UTIL 4WHR	1FMRU16W51LB44913	5,250	GASOLINE	32,588.84	
98812	205	02 CHEVY MALIBU 4-DR SEDAN	1G1ND52J72M722857	0	GASOLINE	16,784.16	
98812	206	03 CHEVY SILVERADO PICKUP TRUCK	1GCEC14V53Z327146	0	GASOLINE	21,170.00	
98812	218	06 FORD PICKUP TRUCK	1FTSF20P66ED83910	0	GASOLINE	38,148.25	
98812	219	06 FORD RANGER PICKUP TRUCK	1FTYR44U77PA10586	0	GASOLINE	19,809.33	
98812	222	07 FORD F150 PU TRUCK	1FTRF12V97KD42209	0	GASOLINE	25,183.04	
98812	223	02 CHEVROLET PASSENGER VAN	1GAHG39R121196067	0	GASOLINE	8,300.00	
98812	224	08 FORD EXPEDITION	1FMFK16578LA08809	0	GASOLINE	40,872.52	
98812	225	08 FORD F150 PICKUP	1FTPX12V08KC83976	0	GASOLINE	34,430.89	
98812	226	08 FORD F150 PICK UP	1FTPX12V28KC83977	0	GASOLINE	34,430.89	
98812	227	08 FORD F150 PICK UP	1FTPX12V48KC83978	0	GASOLINE	34,430.90	
98842	127	94 KELLY-CRESWELL STRIPPING MACHINE (B4-2T)	7319	0	GASOLINE	19,552.45	
98842	133	99 MB STRIPING MACHINE	3-1276	0	GASOLINE	18,934.28	
98842	134	01 CUB CADET 60" ROT MOWER	4G190Z80001	0	GASOLINE	7,573.91	
98842	135	01 CUB CADET 60" ROT MOWER	4G190Z80021	0	GASOLINE	7,573.91	
98842	142	06 YAMAHA 6KW GENERATOR	253259	0	GASOLINE	2,905.19	
98842	143	06 MULTIQUIP 9.7KW W/WHEELS GENERATOR	5556151	0	GASOLINE	4,494.76	
98842	146	06 CEMENT MIXER MQ WHITEMAN	AT752965	0	GASOLINE	3,619.77	
98852	122	94 HYSTER H45XM FORKLIFT	D177807282R	0	GASOLINE	18,935.48	

HIGHWAYS DIVISION - OAHU DISTRICT  
E/U ALTERNATIVE FUEL REPORT BY FUEL TYPE 9/10/08

PERIOD: 07/01/07 THRU 06/30/08

EQUIPMENT	DESCRIPTION.....	SERIAL NUMBER.....	GVW	FUEL.....	-----ACQUISITION-----	
					COST	DATE
91812 343	86 TRUCK: FORD RANGER PICKUP	1FTBR10T1GUC95174	0	GASOLINE	8,404.65	07/01/86
91812 348	87 VAN: FORD E150 CLUBWAGON	1FMEE11HXHBB41247	0	GASOLINE	15,226.09	
91812 368	88 TRUCK: CHEVY FLEETSIDE PICKUP	1GCGC34K1JE208184	0	GASOLINE	14,078.62	09/04/88
91812 371	86 TRUCK: CHEVY PICKUP	1GCDCL4H9GJ119460	0	GASOLINE	5,925.00	08/01/88
91812 376	89 TRUCK: DODGE D350 RAM FLATBED	1B6ME3650KS042168	0	GASOLINE	25,402.60	03/01/89
91812 378	87 SEDAN: CHEV CAVALIER	1GLJCS110HK140543	0	GASOLINE	5,850.00	04/01/89
91812 381	89 TRUCK: GMC S15 PICKUP	1GTCS19Z5K8528099	0	GASOLINE	11,487.87	06/01/89
91812 385	88 WAGON: TOYOTA LAND CRUISER STATION	JT3FJ62G8J0090489	0	GASOLINE	12,069.79	09/01/89
91812 389	90 VAN: DODGE B350 RAM	2B4KB35Z8LK766974	0	GASOLINE	19,333.07	07/01/90
91812 391	07 SEDAN: CHEV LU	2G1WL54TXL9235401	0	GASOLINE	12,367.83	07/23/90
91812 393	90 SEDAN: CHEV LUMINA	2G1WL54T2L9239149	0	GASOLINE	12,367.83	07/01/90
91812 396	91 TRUCK: CHEVY BLAZER	1GNCS18Z7M0120262	0	GASOLINE	13,936.96	07/01/90
91812 398	90 TRUCK: FORD F350 CREWCAB PICKUP	2FTJW35HXLCA97059	0	GASOLINE	18,518.81	07/01/90
91812 402	91 TRUCK: CHEV S-10 PICKUP	1GCCS19Z3M8133650	0	GASOLINE	11,871.03	07/01/90
91812 407	88 TRUCK: FORD F150 PICKUP	1FTDF15Y1JPA33828	0	GASOLINE	5,500.00	08/01/90
91812 408	88 SEDAN: FORD TEMPO GL	1FAPP36XXJK107875	0	GASOLINE	3,000.00	08/01/90
91812 409	84 VAN: DODGE RAM 250	2B4HB21H8EK265362	0	GASOLINE	1,300.00	
91812 410	85 VAN: CHEVY G20	1G8EG25N3F7167870	0	GASOLINE	1,300.00	
91812 418	91 TRUCK: CHEV S-10 PICKUP	1GCCS19Z6M2301283	0	GASOLINE	12,175.00	
91812 420	01 TRUCK: CHEV SUBURBAN 4 WD	1GNQV26K7MF138634	0	GASOLINE	19,589.00	07/22/91
91812 425	91 SEDAN: DODGE DYNASTY	1B3XC46R7MD259412	0	GASOLINE	12,434.48	09/01/91
91812 426	91 VAN: CHEVY ASTRO	1GNDM19Z6MB212142	0	GASOLINE	17,437.00	10/14/91
91812 432	92 TRUCK: SONOMA S19Z PICKUP	1GTCS19ZXXN8515479	0	GASOLINE	11,965.00	05/01/92
91812 435	92 TRUCK: CHEV SUBURBAN 4 WD W/AIR	1GNQK26KXNJ334168	0	GASOLINE	21,875.07	07/01/92
91812 436	92 TRUCK: CHEV SUBURBAN 4 WD W/AIR	1GNQK26KXNJ334854	0	GASOLINE	21,875.07	07/01/92
91812 437	92 TRUCK: CHEV SUBURBAN 4 WD W/AIR	1GNQK26K3NJ335039	0	GASOLINE	21,875.07	07/01/92
91812 438	92 SUBURBAN: CHEV 4W/D W/AIR	1GNQK26K1NJ340876	0	GASOLINE	21,875.07	07/01/92
91812 440	92 SUBURBAN: CHEV 4W/D W/AIR	1GNQK26K1NJ341476	0	GASOLINE	21,875.07	07/01/92
91812 441	92 SUBURBAN: CHEV 4W/D W/AIR	1GNQK26K9NJ341354	0	GASOLINE	21,875.07	07/01/92
91812 443	92 VAN: CHEVY SPORT	2GNDGL5K7N4164196	0	GASOLINE	16,602.59	08/01/92
91812 445	92 TRUCK: CHEV CREWCAB PICKUP	1GCGC33K6NJ350383	0	GASOLINE	19,962.98	12/01/92
91812 449	93 TRUCK: FORD F150 PICKUP	1FTDF15Y2PLA66160	0	GASOLINE	10,365.84	05/18/93
91812 450	93 TRUCK: FORD F150 PICKUP	1FTDF15Y4PLA66161	0	GASOLINE	10,369.84	04/01/93
91812 451	93 TRUCK: FORD F150 PICKUP	1FTDF15Y6PLA66162	0	GASOLINE	10,369.84	04/01/93
91812 452	93 TRUCK: FORD F150 PICKUP	1FTDF15Y8PLA66163	0	GASOLINE	10,369.84	04/01/93
91812 453	93 TRUCK: FORD F150 PICKUP	1FTDF15Y5PLA66167	0	GASOLINE	10,853.44	04/01/93
91812 454	93 VAN: FORD AEROSTAR	1FMCAL1U1PZB27844	0	GASOLINE	13,801.84	05/01/93
91812 455	93 VAN: FORD AEROSTAR	1FMCAL1U5PZB27846	0	GASOLINE	14,351.00	05/01/93
91812 458	93 STATION WAGON: FORD TAURUS	1FACP57UXPG245846	0	GASOLINE	13,488.80	05/01/93
91812 459	93 SEDAN: CHEVROLET LUMINA 4 DR	2G1WL54T3P9206344	0	GASOLINE	11,890.70	05/01/93
91812 460	93 SEDAN: CHEVROLET LUMINA 4DR	2G1WL54T1P9204866	0	GASOLINE	11,890.70	05/01/93
91812 461	93 SEDAN: CHEVROLET LUMINA 4 DR	2G1WL54T8P9205142	0	GASOLINE	11,890.70	05/01/93
91812 462	93 SEDAN: CHEVROLET LUMINA 4 DR	2G1WL54T0P9208147	0	GASOLINE	11,916.75	05/01/93
91812 468	93 TRUCK: FORD RANGER PICKUP	1FTCR10X7PUC48318	0	GASOLINE	11,059.36	07/01/93
91812 472	93 TRUCK: FORD RANGER PICKUP	1FTCR10A1PUC48312	0	GASOLINE	9,393.28	05/01/93
91812 475	93 TRUCK: FORD RANGER PICKUP	1FTCR10A7PUC48315	0	GASOLINE	9,393.28	05/01/93
91812 477	93 SEDAN: CHEV CAVALIER 4DSD	1GLJCS443P7315150	0	GASOLINE	8,888.00	08/01/93
91812 480	93 SEDAN: CHEV CAVALIER 4DSD	1GLJCS441P7317057	0	GASOLINE	8,888.00	08/01/93
91812 481	93 SEDAN: CHEV CAVALIER 4DSD	1GLJCS443P7318341	0	GASOLINE	8,888.00	08/01/93
91812 482	93 SEDAN: CHEV CAVALIER 4DSD	1GLJCS444XP7319129	0	GASOLINE	9,663.00	08/01/93
91812 483	93 SEDAN: CHEV CAVALIER 4DSD	1GLJCS445P7319183	0	GASOLINE	8,888.00	08/01/93

## Appendix 6. DOT - Highways Vehicles and Fuel Data

HIGHWAYS - KAUAI DISTRICT OFFICE  
E/U ALTERNATIVE FUEL REPORT BY FUEL TYPE 9/10/08

PERIOD: 07/01/07 THRU 06/30/08

EQUIPMENT	DESCRIPTION	SERIAL NUMBER	GVW	FUEL	-----ACQUISITION----- COST	DATE
98862 103	85 STOW CONCRETE MIXER	850275	0	GASOLINE	2,597.92	
98862 109	00 SPRAYER JOHN BEAN CHEMICAL	DM10E300FE	0	GASOLINE	12,780.43	
98862 110	00 SPRAYER JOHN BEAN CHEMICAL	JB02338NJ	0	GASOLINE	12,780.43	
98862 121	02 MOTOR OUTBOARD NISSAN 18-HP	07262	0	GASOLINE	2,694.78	
98862 124	06 HOT WATER PRESSURE WASHER, SHARK 3500	S0106-117175	0	GASOLINE	4,999.97	
					FUEL TYPE TOTAL	
91822 204	94 INTERNATIONAL DUMP TRUCK	1HTGGA2T6RH571307	0	DIESEL	.00	
91822 208	94 TRUCK; INT'L UNDERBRIDGE REACHALL CRANE	1HTGGA6T2RH548438	77,000	DIESEL	428,900.34	
91822 218	95 INTERNATIONAL DUMP TRUCK	1HTGGAUT6SH641780	0	DIESEL	.00	
95822 158	03 PETERBILT TRUCK W/ASPEN AERIAL BODY	1NPZX0TX53D714739	0	DIESEL	607,831.53	
98812 172	94 CHEVY FLEETSIDE 4WD PICKUP TRUCK	1GCHK34F4RE122826	0	DIESEL	27,914.67	
98812 191	97 97 CHEVY CHASSIS CAB P/U	1GBGC24F5VE242247	8,600	DIESEL	27,027.95	
98812 195	99 CHEVROLET VAN (PASSENGER)	1GAHG39F7X1037504	0	DIESEL	32,261.00	
98812 196	99 CHEVROLET SUBURBAN WAGON	3GNFK16R0XG153863	0	DIESEL	31,391.42	
98812 197	99 CHEVROLET VAN (CARGO EXT.)	1GCHG39FXK1039531	0	DIESEL	51,983.00	
98812 207	04 DODGE CREWCAB PU TRUCK	3D7MA48C14G117954	0	DIESEL	33,560.20	
98812 208	04 DODGE CREWCAB PU TRUCK	3D7MA48C34G117955	0	DIESEL	33,560.20	
98812 209	04 FORD EXCURSION 4X4 SUV	1FMSU41P04ED77884	0	DIESEL	40,372.64	
98812 210	04 FORD F350 CREWCAB PU TRUCK	1FTWW32P74ED29680	0	DIESEL	33,129.15	
98812 211	04 FORD F350 CREWCAB PU TRUCK	1FTWW32P44ED29684	0	DIESEL	33,129.15	
98812 212	04 STAR TIGER 3-WHEEL UTILITY DUMP TRUCK	LSCAA10D53A038841	0	DIESEL	29,982.10	
98812 213	05 FORD TAURUS 4-DR SEDAN	1FAFP53225A303675	0	DIESEL	16,343.64	
98812 214	05 FORD RANGER P/U TRUCK	1FTYR44U05PA81710	0	DIESEL	21,345.00	
98812 215	06 FORD F350 CREW CAB P/U	1FTWW30P56EA03205	0	DIESEL	33,836.52	
98812 216	05 FORD F350 CREW CAB P/U	1FTWW30P36EA03204	0	DIESEL	33,836.52	
98812 217	05 FORD F350 CREW CAB P/U	1FTWW30P16EA03203	0	DIESEL	33,836.52	
98812 220	06 FORD F350 PICKUP TRUCK	1FTWW30P26ED69946	0	DIESEL	38,601.87	
98812 221	06 FORD F350 PICKUP TRUCK	1FTWW30946ED69933	0	DIESEL	38,601.87	
98822 117	90 INTERNATIONAL DUMP TRUCK 2-1/2 C.Y.	1HTSAZPL0LH229524	0	DIESEL	39,666.89	
98822 118	91 INTERNATIONAL 7 C.Y. DUMP	1HTSDZ7N3MH326954	0	DIESEL	43,635.69	
98822 119	91 INTERNATIONAL 7 C.Y. DUMP	1HTSDPBR2NH405984	0	DIESEL	47,843.74	
98822 120	91 INTERNATIONAL FLATBED DUMP W/CRANE	1HTGELGR9MH395506	0	DIESEL	103,972.68	
98822 121	92 CHEVY FLATBED STAKE TRUCK	1GBJC34J6NE208530	0	DIESEL	25,442.36	
98822 122	92 CHEVY FLATBED STAKE TRUCK	1GBJC34JXNE207896	0	DIESEL	25,442.36	
98822 123	92 INTERNATIONAL 2000 GAL TANK TRUCK	1HTGEA2R4PH471407	0	DIESEL	77,831.50	
98822 124	94 INTERNATIONAL TRUCK TRACTOR 9300	2HSFBBGR2RC087207	0	DIESEL	77,353.42	
98822 125	94 GMC FLATBED STAKE TRUCK	1GDKC34F0RJ510450	0	DIESEL	27,474.84	
98822 126	99 INTL DUMP TRUCK 2.50 CY	1HTSCABL8XH649041	0	DIESEL	59,689.32	
98822 127	99 INTL W/ AERIAL BUCKET TRUCK	1HTSDAAR0XH646699	0	DIESEL	152,787.63	
98822 128	00 INTERNATIONAL CAB & CHASSIS	1HTSDADR4YH218406	0	DIESEL	78,971.04	
98822 129	02 GMC DUMP TRUCK	1GDK7H1CX2J502518	0	DIESEL	82,154.60	
98822 130	02 GMC DUMP TRUCK	1GDP7H1C92J515444	35,000	DIESEL	100,376.85	
98822 131	04 INTERNATIONAL TANK TRUCK	1HTWKADR24J091021	20,100	DIESEL	114,895.88	
98822 132	03 FORD FLATBED CAB/CHASSIS STAKE TRUCK	1FDXFP46P63ED88427	0	DIESEL	41,328.90	
98822 133	05 TRUCK PETERBILT DUMP	2NPLH28X45M856061	0	DIESEL	102,608.29	
98822 134	05 GMC FLATBED TRUCK	1GDE5C1265F528165	0	DIESEL	57,894.68	
98822 135	05 GMC FLATBED TRUCK	1GDE5C1225F528454	0	DIESEL	57,894.68	
98822 136	06 GMC SERVICE TRUCK	1GDM7C1326F429665	0	DIESEL	198,643.00	
98822 137	07 PETERBILT TRUCK TRACTOR	1XPFD40X47D673734	0	DIESEL	134,190.05	
98842 114	81 INTERNATIONAL TRACTOR W/BROOM	CHAB006811	0	DIESEL	19,418.49	

## Appendix 6. DOT - Highways Vehicles and Fuel Data

HIGHWAYS - KAUAI DISTRICT OFFICE

E/U ALTERNATIVE FUEL REPORT BY FUEL TYPE 9/10/08

PERIOD: 07/01/07 THRU 06/30/08

EQUIPMENT	DESCRIPTION.....	SERIAL NUMBER.....	GVW	FUEL.....	-----ACQUISITION-----	
					COST	DATE
98842 116	83 MILLER ARC WELD MACHINE W/TRAILER	JD688685	0	DIESEL	5,460.00	
98842 125	92 CASE UTILITY TRACTOR W/MOWER	JJE0025508	0	DIESEL	3,544.91	
98842 126	93 KUBOTA W/SIDE AND REAR FLAIL	20353	0	DIESEL	35,344.88	
98842 128	93 FORD TRACTOR W/ROTARY MOWER	BD61180	0	DIESEL	32,200.73	
98842 129	93 CASE TRACTOR W/SIDE AND REAR FLAIL	JJE0032530	0	DIESEL	42,244.92	
98842 130	94 MILLER ARC WELDING GENERATOR TRAILER MTD	700619	0	DIESEL	9,533.35	
98842 131	96 CASE TRACTOR W/ SIDE & REAR FLAIL MOWER	JJE0924453	0	DIESEL	59,697.54	
98842 132	98 CASE TRACTOR MOWER W/SIDE REAR FLAIL	JJE0929986	0	DIESEL	61,410.02	
98842 136	02 TRACTOR CASE W/FLAIL MOWER	JJE1018545	0	DIESEL	64,062.09	
98842 137	04 KUBOTA 4X4 W/REAR MOWER TRACTOR	55707	0	DIESEL	45,040.85	
98842 138	04 KUBOTA W/REAR MOWER TRACTOR	11066	0	DIESEL	45,327.82	
98842 139	04 CUB CADET 54" MOWER	2H253Z80004	0	DIESEL	7,300.00	
98842 140	05 NEW HOLLAND UTIL TRCTR W/REAR ROT MOWER	HJS035642	0	DIESEL	44,791.38	
98842 141	05 NEW HOLLAND UTIL TRCTR W/REAR ROT MOWER	HJS035653	0	DIESEL	44,791.38	
98842 144	06 MILLER WELDER GENERATOR, TRLR MOUNTED		0	DIESEL	36,830.00	
98842 147	94 JOHN DEERE 6200 TRACTOR W/FLAIL MOWER		0	DIESEL	.00	
98842 148	07 UTILITY TRACTOR WITH SIDE AND REAR MOWER	HJT101851	0	DIESEL	86,301.53	
98842 149	07 UTILITY TRACTOR WITH SIDE AND REAR MOWER	HJT104966	0	DIESEL	86,301.53	
98852 119	88 MOTOR GRADER - CAT 120G	087V08556	0	DIESEL	90,732.07	
98852 120	90 CASE 621 FRONT END LOADER	JAK0021304	0	DIESEL	67,588.76	
98852 121	91 CASE LOADER/BACKHOE 4X4	JJG0071106	0	DIESEL	61,913.74	
98852 123	94 CAT 214 ROLLER VIBRATORY	09XK00136	0	DIESEL	29,744.00	
98852 124	94 JOHNSON SWEEPER	1JSVM4H21RC041016	0	DIESEL	139,500.45	
98852 125	96 LOADER/BACKHOE JOHN DEERE 310D	T0310DB824852	0	DIESEL	60,033.00	
98852 126	98 PORTABLE AIR COMPRESSOR W/TRAILER	289280UDI219	0	DIESEL	14,000.94	
98852 127	85 INTL SWR HYPRO JET VACUUM TRUCK	1HTLDTVR4FHA62673	0	DIESEL	108,923.36	
98852 128	00 CHAMPION MOTOR GRADER	30826	0	DIESEL	111,250.35	
98852 130	02 CASE 521D LOADER	JER0134193	0	DIESEL	99,061.86	
98852 131	04 BOMAG BW120 VIBRATORY ROLLER	101170519763	0	DIESEL	32,291.46	
98852 132	04 LEEBOY 685 COMPACT GRADER	68541778	0	DIESEL	94,009.82	
98852 133	04 GMC SWEEPER	1GDM7F1395F500635	0	DIESEL	211,069.46	
98852 134	05 CASE LOADER/BACKHOE	N5C386017	0	DIESEL	87,499.44	
98852 135	05 KOMATSU WHEEL LOADER	65912	0	DIESEL	96,353.55	
98852 136	07 PETERBILT HYDRO JET VACUUM TRUCK	1NPAL00X37D673739	0	DIESEL	326,148.08	
98852 137	06 GMC SWEEPER TRUCK	1GDM7F1386F431454	0	DIESEL	219,109.96	
98852 138	06 HAMM VIBRATORY ROLLER	1395680	0	DIESEL	.00	
98852 139	07 EXCAVATOR TAKEUCHI TB175	17516092	0	DIESEL	106,978.78	
98862 108	99 MORBARK BRUSH CHIPPER TRLR MNTD	03327	0	DIESEL	30,103.97	
98862 116	04 LIGHT TOWER ALLMAND	1380PRO03	0	DIESEL	8,700.00	
98862 117	04 LIGHT TOWER ALLMAND	1381PRO03	0	DIESEL	8,700.00	
98862 118	06 LIGHT TOWER ALLMAND	P0505090008	0	DIESEL	10,863.64	
98862 119	06 LIGHT TOWER ALLMAND	P0506140011	0	DIESEL	10,863.65	
					FUEL TYPE TOTAL	
98842 145	06 TRANTEX THERMOPLASTIC STRIPING MACHINE	K8548	0	PROPANE	37,988.00	
					FUEL TYPE TOTAL	
98812 991	07 MISCELLANEOUS DIESEL FUEL CHARGE		0	NOT APPLICABLE	.00	
98812 992	07 MISCELLANEOUS REGULAR GAS CHARGE		0	NOT APPLICABLE	.00	
98822 991	07 MISCELLANEOUS DIESEL FUEL CHARGE		0	NOT APPLICABLE	.00	
98822 992	07 MISCELLANEOUS REGULAR GAS CHARGE		0	NOT APPLICABLE	.00	

HIGHWAYS - KAUAI DISTRICT OFFICE  
E/U ALTERNATIVE FUEL REPORT BY FUEL TYPE 9/10/08

PERIOD: 07/01/07 THRU 06/30/08

EQUIPMENT	DESCRIPTION.....	SERIAL NUMBER.....	GVW	FUEL.....	-----ACQUISITION-----	
					COST	DATE
98832 107	91 LOAD KING LOWBOY TRAILER	1B4L48230M2116751	0	NOT APPLICABLE	29,594.74	
98832 108	94 ZIEMAN MSTL TRAILER	1ZCT18S14RZP17739	0	NOT APPLICABLE	4,687.65	
98832 110	96 SHOPBUILT WEIGHT SCALE TRAILER	1S9EC1613TH364445	0	NOT APPLICABLE	16,110.93	
98832 111	99 TRAIL KING DUMP TRAILER	1TKFT3023XM085139	0	NOT APPLICABLE	46,549.86	
98832 112	02 HOMADE UTILITY TRAILER	UNKNOWN147KXSKNL	1,200	NOT APPLICABLE	9,200.00	
98832 113	04 ZIEMAN TRAILER	1ZCE21E224ZP25185	2,340	NOT APPLICABLE	6,734.33	
98832 114	04 ZIEMAN TRAILER	1ZCE20E274ZP25371	0	NOT APPLICABLE	8,854.11	
98832 115	04 BRIMAR DUMP TRAILER	43YDC10275C039431	0	NOT APPLICABLE	8,437.45	
98832 116	03 CHILTON UTILITY TRAILER	14DAC08123C001097	0	NOT APPLICABLE	2,500.00	
98832 117	05 CARNAI GALV BOAT TRAILER	5FMBT2J1151507317	0	NOT APPLICABLE	1,015.62	
98832 118	07 TRAIL KING TRAILER	1TKJ047207M077305	17,180	NOT APPLICABLE	72,382.15	
98832 119	06 ECONOLINE TRAILER	42ETPN4261001080	0	NOT APPLICABLE	.00	
98832 120	07 TRAILER ZIEMAN UTILITY	1ZCT21S247ZP27732	0	NOT APPLICABLE	9,143.69	
98832 121	07 TRAILER ZIEMAN UTILITY	1ZCT21E217ZP27666	0	NOT APPLICABLE	11,856.00	
98832 122	07 TRAILER ZIEMAN RAMP	1ZCE34E2X7ZP27771	0	NOT APPLICABLE	22,031.10	
98832 991	07 MISCELLANEOUS DIESEL FUEL CHARGE		0	NOT APPLICABLE	.00	
98832 992	07 MISCELLANEOUS REGULAR GAS CHARGE		0	NOT APPLICABLE	.00	
98842 991	07 MISCELLANEOUS DIESEL FUEL CHARGE		0	NOT APPLICABLE	.00	
98842 992	07 MISCELLANEOUS REGULAR GAS CHARGE		0	NOT APPLICABLE	.00	
98852 115	02 MESSAGE BOARD, TRAILER MOUNTED	4GM2M151321408505	0	NOT APPLICABLE	24,921.28	
98852 116	87 JD 544D FRONT END LOADER	513368	0	NOT APPLICABLE	58,289.01	
98852 117	87 S4-6B TANDEM ROLLER	R25002U061757	0	NOT APPLICABLE	30,527.18	
98852 129	00 COMPRESSOR NAPA 80 GAL	075438	0	NOT APPLICABLE	2,029.74	
98852 991	07 MISCELLANEOUS DIESEL FUEL CHARGE		0	NOT APPLICABLE	.00	
98852 992	07 MISCELLANEOUS REGULAR GAS CHARGE		0	NOT APPLICABLE	.00	
98862 111	01 ITCP SPEED CONTROL MONITOR TRLR MTD		0	NOT APPLICABLE	11,999.00	
98862 112	01 ITCP SPEED CONTROL MONITOR TRLR MTD		0	NOT APPLICABLE	11,999.00	
98862 113	02 MESSAGE BOARD, TRAILER MOUNTED	4GM2M151X21408503	0	NOT APPLICABLE	24,921.28	
98862 114	02 MESSAGE BOARD, TRAILER MOUNTED	4GM2M151121408504	0	NOT APPLICABLE	24,921.28	
98862 115	02 MESSAGE BOARD, TRAILER MOUNTED	4GM2M151321408505	0	NOT APPLICABLE	24,921.28	
98862 120	04 BOAT KIAMATH 14' ALUMINUM	KLOBO308L304	0	NOT APPLICABLE	4,576.02	
98862 122	06 MESSAGE BOARD, TRAILER MOUNTED 3027		0	NOT APPLICABLE	24,753.00	
98862 123	06 MESSAGE BOARD, TRAILER MOUNTED 3028		0	NOT APPLICABLE	24,753.00	
98862 125	06 PORTABLE TRAFFIC SIGNAL-TRAILER MOUNTED	1C9B1A0A361496011	0	NOT APPLICABLE	33,834.51	
98862 991	07 MISCELLANEOUS DIESEL FUEL CHARGE		0	NOT APPLICABLE	.00	
98862 992	07 MISCELLANEOUS REGULAR GAS CHARGE		0	NOT APPLICABLE	.00	

FUEL TYPE TOTAL

HIGHWAYS - MAUI DISTRICT OFFICE  
E/U ALTERNATIVE FUEL REPORT BY FUEL TYPE 9/10/08

PERIOD: 07/01/07 THRU 06/30/08

EQUIPMENT	DESCRIPTION.....	SERIAL NUMBER.....	GVW	FUEL.....	-----ACQUISITION-----	
					COST	DATE
93812 102	01 FORD F-150 P/UP TRUCK	1FTRX17W31KB07259	0	GASOLINE	25,271.17	08/10/01
93812 103	94 TRUCK, GMC 3/4 TON PICK UP	1GTGC24K4RE510557	0	GASOLINE	23,500.00	
94812 110	99 FORD F-150 PICKUP TRUCK	1FTRF17W0XKB67057	0	GASOLINE	21,261.96	06/25/99
94812 112	04 JEEP LIBERTY 4 DR SUV	1J4GL48K34W285101	0	GASOLINE	23,480.06	
94832 103	80 TRAILER, TANK SPRAYER ETNYRE BIT M3269	M-3269	0	GASOLINE	9,591.00	08/23/80
94842 101	75 WELDER, AIRCO ARC GAS	HF838958	0	GASOLINE	2,340.00	09/20/75
94862 104	02 300 EL CHEMICAL SPRAYER, TRAILER	4PBTCL191113000078	0	GASOLINE	9,028.87	07/02/01
95812 157	91 TRUCK, CUSHMAN REFUSE DUMP UT	1CUMH327011000718	0	GASOLINE	14,063.10	01/07/91
95812 159	91 SEDAN, CHEV SPECTRUM 4DR	J81RG5172J7542099	0	GASOLINE	3,400.00	01/14/91
95812 168	93 SEDAN, CHEV LUMINA 4 DR	2G1WL54T6N9253039	0	GASOLINE	15,853.56	07/01/93
95812 178	94 WAGON, JEEP CHEROKEE UTILITY 4X4	1J4FJ28SRL169641	0	GASOLINE	18,594.35	02/18/94
95812 179	94 WAGON, CHER SP	1J4FJ28SRL169642	0	GASOLINE	18,594.35	02/18/94
95812 182	95 WAGON, CHEVROLET SUBURBAN 4X4	1GNGK26K4RJ395960	0	GASOLINE	25,260.57	07/15/94
95812 184	95 TRUCK, CHEVROLET S-10 1/2TON PICKUP	1GCCS14Z6S8254239	0	GASOLINE	12,715.13	08/09/95
95812 188	98 CHEV PICK-UP EXT. CAB	1FCCEC19M7WE252235	0	GASOLINE	22,469.00	08/24/98
95812 191	98 CHEV S-10 PICK UP TRUCK	1GCCS14X6WK251560	0	GASOLINE	16,101.98	10/22/98
95812 192	98 CHEV S-10 PICK-UP TRUCK	1GCCS14X9WK253125	0	GASOLINE	16,101.98	10/22/98
95812 193	98 CHEV S-10 PICK-UP TRUCK	1GCCS14X1WK253197	0	GASOLINE	16,101.98	10/22/98
95812 194	98 CHEV S-10 PICK-UP TRUCK	1GCCS14XWK254302	0	GASOLINE	16,101.98	10/22/98
95812 197	99 CHEV SILVERADO 1/2 TON PICK UP	1GCEC14T9XZ121977	0	GASOLINE	20,148.00	22/22/99
95812 198	99 CHEV SILVERADO 1/2 TON PICK UP	1GCEC14T2XZ124137	0	GASOLINE	20,148.00	02/22/99
95812 199	99 JEEP CHEROKEE 4 DR S/W	1J4FT2850XL578122	0	GASOLINE	23,977.97	04/08/99
95812 200	99 JEEP CHEROKEE 4 DR S/W	1J4FT28S9XL578121	0	GASOLINE	23,977.97	04/08/99
95812 201	99 JEEP CHEROKEE 2 DOOR S/W	1J4FT27S2XL578124	0	GASOLINE	23,487.35	04/08/99
95812 202	99 FORD RANGER PICKUP TRUCK	1FTYR10V0XUB36559	0	GASOLINE	16,497.81	06/15/99
95812 203	99 FORD F-150 PICKUP TRUCK	1FTRF17W9XKB67056	0	GASOLINE	21,261.96	06/21/99
95812 205	99 CHEV P/UP W/EXT. CAB	1GCCS14X9X8198182	0	GASOLINE	19,739.46	07/29/99
95812 207	00 CHEV 1/2 TON PICKUP TRUCK	1GCEC14V5YZ295015	0	GASOLINE	19,955.44	07/21/00
95812 208	00 CHEV 1/2 TON PICKUP TRUCK	1GCEC14V7YZ296649	0	GASOLINE	19,955.42	07/21/00
95812 209	00 CHEV 1/2 TON PICKUP TRUCK	1GCEC14V8YZ295171	0	GASOLINE	19,955.42	07/21/00
95812 211	02 FORD RANGER 4X4 P/UP TRUCK	1FTYR45E52PB00478	0	GASOLINE	23,114.75	09/20/02
95812 214	05 FORD F150 FLEETSIDE	1FTRF12W85NA04806	0	GASOLINE	20,828.39	
95812 215	04 FORD RANGER S/C P/UP 4 DR	1FTZR44V24PB43451	0	GASOLINE	22,744.55	
95812 216	06 DODGE PICK-UP TRUCK	1D7HA18N56J201603	0	GASOLINE	27,936.28	
95812 217	06 FORD ESCAPE MPVH	1FMYU96H96KD56285	0	GASOLINE	34,826.58	
95812 220	08 FORD F-150 PICK-UP TRUCK	1FTRF14W87LD42210	0	GASOLINE	26,720.93	
95812 221	08 FORD ESCAPE HYBRID SUV 4WD	1FMCU59H68KB80071	0	GASOLINE	34,251.87	
95812 222	08 FORD ESCAPE HYBRID SUV 4WD	1FMCU59H48KB80070	0	GASOLINE	34,251.86	
95812 224	08 CHEV MALIBU 4 DR SEDAN	1GL2G57E78F165648	3,440	GASOLINE	26,235.00	
95822 120	81 TRUCK, INT 1724 CREWCAB STAKE DUMP	1HTAA17B0BHB33852	0	GASOLINE	22,944.36	03/23/82
95832 107	94 TRAILER, ZIEMAN TILT	1ZCT31A21P2P17416	0	GASOLINE	15,890.07	08/27/93
95832 114	06 TRAIL KING TRAILER	1TKJ047227M077306	0	GASOLINE	69,894.15	
95842 146	94 STRIPER, KELLY-CRESSWELL W/TRACTION BDC	7440	0	GASOLINE	11,190.00	01/07/94
95842 150	96 ERADICATOR	ROBIN 1098158	0	GASOLINE	7,209.00	11/08/96
95842 151	96 GENERATOR HONDA	5/37583	0	GASOLINE	2,945.00	11/08/96
95842 157	99 MD DOUBLE GUN STRIPER MACHINE W/TRAILER	1ADAC0819XC000230	0	GASOLINE	13,667.00	08/26/99
95842 182	06 MCGREGGOR HERBICIDE SPAYER TRAILER	RS335708	0	GASOLINE	25,812.33	
95842 183	06 MCGREGGOR HERBICIDE SPRAYER, SKID MNTD	RS300702	0	GASOLINE	21,979.03	
95862 113	02 300 EL CHEMICAL SPRAYER, TRAILER	4PBTCL191X13000080	0	GASOLINE	9,028.87	09/25/01
95862 114	02 300 EL CHEMICAL SPRAYER, TRAILER	4PBTCL191313000079	0	GASOLINE	9,028.88	09/25/01
95862 115	02 STONE CONCRETE MIXER W/TRAILER	092002139	0	GASOLINE	5,208.30	06/28/02

## Appendix 6. DOT - Highways Vehicles and Fuel Data

HIGHWAYS - MAUI DISTRICT OFFICE

E/U ALTERNATIVE FUEL REPORT BY FUEL TYPE 9/10/08

PERIOD: 07/01/07 THRU 06/30/08

EQUIPMENT	DESCRIPTION.....	SERIAL NUMBER.....	GVW	FUEL.....	-----ACQUISITION-----	
					COST	DATE
					FUEL TYPE TOTAL	
93822 104	97 INTERN'L 2 1/2 CY DUMP TRK(TRANS FM MAUI	1HTSCABL1VH453066	0	DIESEL	46,598.86	03/24/97
93842 106	06 CASE IH TRACTOR MOWER	HFJ038654	0	DIESEL	52,708.00	
93842 107	06 CASE IH TRACTOR MOWER	HFJ038662	0	DIESEL	46,353.87	
93852 102	00 JCB WHEEL LOADER W/FRONT BUCKET & DOZER	SLP41100YB0527687	0	DIESEL	70,520.38	09/25/00
94812 109	99 CHEV CREWCAB 1 TON PICKUP	1GCGC33F9XF061524	0	DIESEL	30,390.43	05/27/99
94812 111	92 CHEVY 3/4 TON PICK-UP TRUCK	1GBGK24J9NE194985	0	DIESEL	27,871.81	11/06/92
94822 108	94 TRUCK, GMC KODIAK 7CY	1GBP7HIJ3RJ104008	0	DIESEL	45,411.69	02/11/94
94822 109	95 TRUCK, INT'L 4700 2 1/2CY DUMP	1HTSCABL2SH658116	0	DIESEL	37,476.51	01/27/95
94822 110	97 INTERNATIONAL 2 1/2 CY DUMP TRUCK	1HTSCABL5VH453068	0	DIESEL	46,807.19	03/24/97
94822 112	04 TRUCK, PETERBUILT WATER TANKER	1NPLH28X95M852586	0	DIESEL	119,255.32	
94822 113	06 PETERBUILT DUMP TRUCK	2NPLH28X37M673737	0	DIESEL	119,353.59	
94842 108	93 TRACTOR, KUBOTA W/FLAIL MOWER	12944	0	DIESEL	18,499.60	03/19/93
94842 109	95 TRACTOR, JOHN DEERE W/EXT. FLAIL MOWER	157-1709-23666	0	DIESEL	45,458.25	08/16/95
94842 110	96 MORBARK TRAILER MOUNTED BRUSH CHIPPER	2771	0	DIESEL	24,656.33	12/20/96
94842 111	01 KUBOTA TRACTOR MOWER W/FLAIL MOWER	10775	0	DIESEL	74,873.28	11/01/01
94852 106	90 LOADER, BACKHOE JOHN DEERE W/BKT	T0310CF768260	0	DIESEL	36,180.00	01/01/90
94852 107	90 ROLLER, TANDEM CAT	06LF00285	0	DIESEL	21,033.01	05/31/90
94852 108	93 LOADER, KOMATSU FRONT END	12944	0	DIESEL	70,065.85	02/10/93
94852 109	94 GRADER, CHAMPION 710A	157-1709-23666	0	DIESEL	93,941.97	04/05/94
94852 110	92 SULLAIR AIR COMPRESSOR	004-137714	0	DIESEL	14,104.08	05/21/02
94852 111	88 FORKLIFT CAT V50D	3EC03766	0	DIESEL	4,583.30	09/12/88
94852 112	06 GMC FORWARD CAB W/SWEEPER	1GDM7F1306F431691	33,000	DIESEL	220,359.96	
94852 113	07 NH FRT LOADER/BACKHOE W/REAR BUCKET	031065320	0	DIESEL	70,720.00	
94862 105	88 FLOODLIGHT, WINCO MOUNT-ON TRAILER	44160J88	0	DIESEL	208.33	07/09/88
95812 180	94 TRUCK, CHEV FB 1TON	1GBHC34J3PE225142	0	DIESEL	34,994.00	03/31/94
95812 185	97 CHEV VAN	1GMHG35F1V1077787	0	DIESEL	24,488.78	06/18/97
95812 187	97 CHEV CREWCAB P/UP 1 TON W/UTL BODY	1GBHC33F6VF027336	0	DIESEL	28,988.36	06/18/97
95812 189	98 CHEV 1 TON CREWCAB PICK-UP TRUCK	1GCGC33FXWF061269	0	DIESEL	29,191.50	08/24/97
95812 190	98 CHEV 1 TON CREWCAB PICK-UP TRUCK	1GCGC33F2WF062545	0	DIESEL	29,191.50	08/24/97
95812 195	99 CHEVROLET VAN W/BUCKET HIGHLIFT	1GCHG39F3X1038172	0	DIESEL	51,462.00	01/27/99
95812 196	99 CHEV 1 TON FLATBED /HYDRAULIC LIFTGATE	1GBHC34F2XF008932	0	DIESEL	31,769.59	01/26/99
95812 204	99 CHEV 4X4 PICKUP TRUCK	1GCEK14V6XZ158439	0	DIESEL	23,973.80	06/22/99
95812 206	99 GMC TRUCK W/UTILITY BODY & CRANE	1GDHK34F7XF082578	0	DIESEL	49,346.96	02/07/00
95812 210	00 CHEV FLATBED 1 TON TRUCK	1GBHC34F9YF509589	0	DIESEL	33,853.95	10/23/00
95812 212	02 FORD F-350 UTILITY BOX W/RACK TRUCK	1FDSF30F82EC92916	0	DIESEL	34,644.66	02/28/03
95812 213	05 FORD EXCURSION SUV 4X4	1FMSU41P55EA25207	0	DIESEL	40,944.37	
95812 218	06 FORD F350 CREWCAB FLEETSIDE P-UP TRUCK	1FTWW30P56ED69925	0	DIESEL	37,455.00	
95812 219	06 FORD F350 CREWCAB FLEETSIDE P-UP TRUCK	1FTWW30P06ED69928	0	DIESEL	37,455.00	
95812 223	08 FORD F-350 FLEETSIDE PICK-UP	1FTWW30R98IC60405	10,800	DIESEL	42,466.95	
95822 123	84 TRUCK, FORD AERIAL PLATFORM	1FDXK74N0EVA05017	0	DIESEL	72,845.71	05/22/84
95822 133	93 TRUCK, INT'L 4700 STAKE DUMP	1HTSCPHL5PHA70644	0	DIESEL	42,318.47	09/17/92
95822 136	93 TRUCK, INT DUMP 7CY	1HTSDPCR6PH469513	0	DIESEL	46,157.69	11/24/92
95822 137	93 TRUCK, INT DUMP 7CY	1HTSDPCR6PH469514	0	DIESEL	46,157.69	11/24/92
95822 139	94 TRUCK, CHEVROLET 7CY DUMP	1GBP7H1J1RJ103701	0	DIESEL	45,203.27	03/25/94
95822 141	94 TRUCK, INT'L CREWCAB FLATBED	1HTSCACL2RH571311	0	DIESEL	46,504.96	05/11/94
95822 142	94 TRUCK, INT'L CREWCAB FLATBED	1HTSCACL4RH571312	0	DIESEL	46,504.96	05/11/94
95822 143	95 TANKER, GMC 2,000 GAL WT	1GDP7H1J8RJ512351	0	DIESEL	65,910.40	01/12/95
95822 144	95 TANKER, GMC 2,000 GAL WT	1GDP7H1J5RJ512338	0	DIESEL	65,910.40	01/12/95
95822 148	97 INTERNATIONAL 2 1/2 CY DUMP TRUCK	1HTSCABL3VH453067	0	DIESEL	46,598.86	03/24/97



## HIGHWAYS - MAUI DISTRICT OFFICE

E/U ALTERNATIVE FUEL REPORT BY FUEL TYPE 9/10/08

PERIOD: 07/01/07 THRU 06/30/08

EQUIPMENT	DESCRIPTION.....	SERIAL NUMBER.....	GVW	FUEL.....	-----ACQUISITION-----	
					COST	DATE
95822 149	98 INTNL CREWCAB W/STAKE BODY AND DUMP	.HTSCAAL7WH496619	0	DIESEL	65,768.83	10/17/97
95822 150	98 INTERNATIONAL 7CY DUMP TRUCK	1HTSDADROVH496618	0	DIESEL	65,674.04	10/17/97
95822 151	98 INTERNATIONAL 7CY DUMP TRUCK	1HTSDADREXK648999	0	DIESEL	66,748.77	11/24/98
95822 152	98 INTERNATIONAL 2 1/2 CY DUMP TRUCK	1HTSCABL6XH649040	0	DIESEL	51,106.70	11/24/98
95822 153	99 INTERNATIONAL 2 1/2 CY DUMP TRUCK	1HTSCAAN3XH212101	0	DIESEL	61,829.30	08/25/99
95822 154	99 INTERNATIONAL 2,000 GALS WATER TANK TRK	1HTSDADR8YH212155	0	DIESEL	108,561.57	10/01/99
95822 155	99 INT TRUCK W/BOOM CRANE	1HTGSATR2XH212154	0	DIESEL	128,328.92	12/29/99
95822 156	00 GMC W/DUMP CHIP BODY	1GDP7HLC6YJ519587	0	DIESEL	144,454.48	03/21/01
95822 157	94 TRUCK, INT'L 4700 2 1/2 CY DUMP	1HTSCABLXSH571306	0	DIESEL	35,588.74	06/17/94
95822 158	03 PETERBILT TRUCK W/ASPEN AERIAL BODY	1NPZXOTX53D714739	0	DIESEL	607,831.53	12/16/02
95822 159	02 CHEVROLET HD FLATBED W/TAI LGATE	3GBKC34F52M116623	15,000	DIESEL	38,060.00	04/21/03
95822 160	02 CHEVROLET HD FLATBED W/TAI LGATE	3GBKC34F52M116749	15,000	DIESEL	38,060.00	04/21/03
95822 161	91 MACK DUMP TRUCK 10 C. YD.	1M2AY80C5MM005596	56,540	DIESEL	68,348.13	01/07/91
95822 162	91 MACK DUMP TRUCK 10 C. YD.	1M2AY80C7MM005597	0	DIESEL	68,348.14	01/07/91
95822 163	04 PETERBUILT 7CY YD DUMP BODY TRUCK	2NPNH28XX4M816624	0	DIESEL	99,432.24	01/16/04
95822 164	96 TRUCK GMC FB (TOW TRUCK)	1GDM7H1J8RJ502423	32,000	DIESEL	80,861.00	01/07/96
95822 165	06 PETERBUILT MASTER TRUCK TRACTOR	1XPFD40X67D673735	60,320	DIESEL	136,681.05	
95822 166	08 GMC TRUCK W/AERIAL AND UTILITY BODY	1GDE5C1988F400866	0	DIESEL	144,603.64	
95842 145	95 WELDER, MILLER ON TRAILER	KET00622	0	DIESEL	9,533.35	09/19/94
95842 147	95 TRACTOR, JD W/FLAIL MOWER	LV5300D331852	0	DIESEL	33,905.23	03/17/95
95842 148	97 MORBARK CHIPPER	2770	0	DIESEL	24,656.33	12/20/97
95842 149	97 MORBARK CHIPPERS	2772	0	DIESEL	24,656.33	12/20/97
95842 154	98 KUBOTA TRACTOR W/REAR FLAIL MOWER	30371	0	DIESEL	18,056.41	08/06/98
95842 160	99 KUBOTA TRACTOR MOWER W/CAB	10564	0	DIESEL	35,029.10	11/30/99
95842 161	99 KUBOTA TRACTOR MOWER W/CAB	10562	0	DIESEL	60,899.68	01/30/99
95842 162	00 KUBOTA TRACTOR W/BOMFORD FLA MMOWER	10712	0	DIESEL	65,204.45	01/24/01
95842 163	01 KUBOTA TRACTOR W/FLAIL MOWER	10776	0	DIESEL	41,416.79	10/31/01
95842 164	01 KUBOTA TRACTOR W/FLAIL MOWER	10777	0	DIESEL	41,416.78	10/31/01
95842 165	01 CASE TRACTOR MOWER/SICKLE BAR	JJE1018544	0	DIESEL	61,978.11	12/28/01
95842 168	02 CASE TRACTOR, SIDE MT, REAR FLAIL MOWER	JJE1020834	0	DIESEL	68,957.89	11/22/02
95842 169	02 CASE TRACTOR, SIDE MT, REAR FLAIL MOWER	JJE1020914	0	DIESEL	68,957.89	11/22/02
95842 170	02 CASE TRACTOR W/FRONT SWEEPER	JJE1020832	0	DIESEL	34,114.37	07/07/02
95842 175	03 ALLMAND NITE-LITE PRO	1315 PRO 03	0	DIESEL	7,960.16	11/05/03
95842 176	03 KUBOTA TRACTOR MOWER W/REAR FLAIL UNIT	11076	0	DIESEL	36,133.09	01/13/04
95842 177	03 KUBOTA TRACTOR MOWER W/REAR FLAIL UNIT	11078	0	DIESEL	37,633.10	01/13/04
95842 180	06 FORD NEW HOLLAND TRACTOR MOWER	HJS062649	0	DIESEL	68,749.56	
95842 181	06 CASE TRACTOR MOWER W/CAB	HFJ038649	0	DIESEL	44,270.55	
95852 112	81 GRADER, GALLION MOTOR A-500 ARTICULATING	GF09544	0	DIESEL	80,477.00	08/26/80
95852 121	90 LOADER/BACKHOE 310C JD W/BKT	T0310CF768297	0	DIESEL	36,180.00	01/07/90
95852 122	90 COMPRESSOR, SULLAIR PORTABLE AIR	004104924	0	DIESEL	11,036.61	07/06/90
95852 124	93 LOADER, KOMATSU FRONT END	12942	0	DIESEL	70,065.85	02/10/93
95852 125	93 LOADER, KOMATSU FRONT END	12943	0	DIESEL	70,065.85	02/10/93
95852 126	93 GRADER, CHAMPION MOTOR 710A	157164523437	0	DIESEL	96,243.02	01/07/94
95852 127	93 GRADER, CHAMPION 710A MOTOR	157164323434	0	DIESEL	96,243.02	01/07/94
95852 128	94 GRADER, CHAMPION 710A MOTOR	157171023667	0	DIESEL	93,478.42	04/05/94
95852 129	97 FORD/ELGIN SWEEPER, 4-WHEEL	1FDXH81C1VVA10587	0	DIESEL	125,546.69	10/11/96
95852 130	97 CASE LOADER/BACKHOE 3ND W/EXTENDAHOE	JJG0239346	0	DIESEL	76,434.93	04/21/98
95852 131	98 LOADER FRONT END KOMATSU	A80257	0	DIESEL	91,780.41	09/29/98
95852 132	00 NEW HOLLAND BACKHOE/LOADER W/HAMMER	31025675	0	DIESEL	77,842.07	01/16/01
95852 133	02 GMC TRUCK SCHWARZE STREET SWEEPER	1GDP7C1C12J513643	0	DIESEL	173,680.16	12/10/02
95852 134	03 KOMATSU FORKLIFT	562457A	0	DIESEL	21,145.70	11/19/03

## Appendix 6. DOT - Highways Vehicles and Fuel Data

HIGHWAYS - MAUI DISTRICT OFFICE  
E/U ALTERNATIVE FUEL REPORT BY FUEL TYPE 9/10/08

PERIOD: 07/01/07 THRU 06/30/08

EQUIPMENT	DESCRIPTION.....	SERIAL NUMBER.....	GVW	FUEL.....	-----ACQUISITION----- COST	DATE
95852 135	02 CASE WHEEL LOADER	JER0135991	0	DIESEL	86,874.44	07/13/04
95852 136	04 CASE ROLLER DV202	DDD0000234	0	DIESEL	34,525.82	07/13/04
95852 137	06 GMC FORWARD CAB W/SWEEPER	1GDM7F1336F432110	33,000	DIESEL	219,109.96	
95852 138	06 PETERBUILT CAB CHASSIS W/VACUUM	1NPAL00X17D673738	66,000	DIESEL	326,148.08	
95852 140	07 NH FRT LOADER/BACKHOE W/REAR BUCKET	031065319	0	DIESEL	70,720.00	
					FUEL TYPE TOTAL	
95812 225	08 FORD F250 PICKUP K/CAB	1FTNX20548EC60408	0	PROPANE/GAS	42,978.92	
					FUEL TYPE TOTAL	
95842 152	96 VACUUM NILPISK GS/83	2100W	0	ELECTRIC	4,923.00	11/08/96
95842 155	98 AMERICAN ELECTRIC SIGN WITH TRAILER	1A9MS1517TA378127	0	ELECTRIC	32,925.89	09/04/98
95842 156	98 AMERICAN ELECTRIC SIGN WITH TRAILER	1A9MS1519TA378128	0	ELECTRIC	32,925.89	09/04/98
95842 158	99 ALLMAND ECLIPSE ARROW BOARDS	9907B407	0	ELECTRIC	6,483.21	08/27/99
95842 159	99 ALLMAND ECLIPSE ARROW BOARDS	9907B408	0	ELECTRIC	6,483.21	08/27/99
95842 166	02 SPEED CONTROL MONITOR W/TRAILER	40XK111S72A020005	2,000	ELECTRIC	11,999.00	06/19/02
95842 167	02 SPEED CONTROL MONITOR W/TRAILER	40XK111S92A020006	2,000	ELECTRIC	11,999.00	06/19/02
95842 171	02 ADDCO MID-SIZE MESSAGE BOARD-TRLR MTD	520280602	0	ELECTRIC	16,100.00	01/08/03
95842 172	02 ADDCO MID-SIZE MESSAGE BOARD-TRLR MTD	520270602	0	ELECTRIC	16,100.00	01/24/03
95842 173	02 ADDCO FULL SIZE MESSAGE BOARD-TRLR MTD	537603	0	ELECTRIC	25,300.00	01/24/03
95842 174	02 ADDCO FULL SIZE MESSAGE BOARD-TRLR MTD	537604	0	ELECTRIC	25,300.00	01/24/03
95842 178	96 ADDCO FULL SIZE MESSAGE BOARD	DH1000SN584985	3,700	ELECTRIC	37,000.00	
95842 179	98 AMERICAN SIGN SRS MESSAGE BOARD	1A9MS1515TA378126	2,950	ELECTRIC	32,920.00	
					FUEL TYPE TOTAL	
91832 127	00 ZIEMAN TRAILER (BORROW'G FROM HNL)	1ZC729B25PZP17467	0	NOT APPLICABLE	.00	
94832 104	90 TRAILER, ZIEMAN TILT BED	1ZCT18E19LZP15973	0	NOT APPLICABLE	6,765.84	07/23/90
94832 105	93 TRAILER, TRAIL KING TILT	1TKC02422NM071620	0	NOT APPLICABLE	16,256.30	12/29/92
94832 106	06 TRAILER, LANDSCAPE UTILITY (MOLOKAI)		880	NOT APPLICABLE	3,541.68	
95832 109	96 TRAILER SCALE	189EC1615TH364446	0	NOT APPLICABLE	17,014.47	09/03/97
95832 110	99 TRAILER CHILTON	1FDAC0819XC000230	0	NOT APPLICABLE	13,667.00	12/17/99
95832 112	03 ZIEMAN FLATBED TILT TRAILOR	1ZCE18S203ZP24731	0	NOT APPLICABLE	7,291.62	11/05/03
95832 113	04 ZIEMAN TILT TRAILER	1ZCT20E213ZP24741	0	NOT APPLICABLE	6,817.67	07/13/04
95832 115	07 ZIEMAN FLATBED TILT TRAILER (BACON)	1ZCT21E2XZP27665	2,940	NOT APPLICABLE	11,856.00	
95842 184	08 SILENT MESSENGER BOARD	MB32248	0	NOT APPLICABLE	25,535.00	
					FUEL TYPE TOTAL	

HIGHWAYS - HAWAII DISTRICT OFFICE  
E/U ALTERNATIVE FUEL REPORT BY FUEL TYPE 9/10/08

PERIOD: 07/01/07 THRU 06/30/08

EQUIPMENT	DESCRIPTION	SERIAL NUMBER	GVW	FUEL	-----ACQUISITION-----	
					COST	DATE
91812 384	89 VAN GMC RALLYSTX	1GKDG15H3K7515445	0		.00	
91812 426	91 VAN CHEV ASTRO	1GNM19Z6MB212142	0		.00	
91812 435	92 TRUCK: CHEV SUBURBAN 4 WD W/AIR	1GNGK26KXNJ334168	0		21,875.07	
91812 512	94 VAN GMC SAFARI	1GKDM15Z1RB542846	0		15,072.96	
91812 649	05 FORD VAN	1FMNE31P65HA02084	0		.00	
					FUEL TYPE TOTAL	
96812 174	86 TRUCK CHEV 1/2 TON PICKUP		0	GASOLINE	.00	
96812 175	86 TRUCK CHEV 1/2 TON PICKUP		0	GASOLINE	.00	
96812 176	86 SEDAN CHEV CELEBRITY		0	GASOLINE	.00	
96812 177	86 TRUCK FORD 1/2 TON PICKUP		0	GASOLINE	.00	
96812 178	86 TRUCK FORD 1/2 TON PICKUP		0	GASOLINE	.00	
96812 179	86 TRUCK FORD 1/2 TON PICKUP		0	GASOLINE	.00	
96812 180	87 TRUCK CHEV 1/2 TON PICKUP		0	GASOLINE	.00	
96812 181	87 TRUCK CHEV 1/2 TON PICKUP		0	GASOLINE	.00	
96812 182	87 TRUCK FORD 1/2 TON PICKUP F150		0	GASOLINE	.00	
96812 183	87 TRUCK FORD PU F150	1FTDF15Y7HPA84843	0	GASOLINE	10,617.67	
96812 184	88 SEDAN FORD TAURUS 4 DOOR		0	GASOLINE	.00	
96812 185	88 TRUCK CUSHMAN UTILITY		0	GASOLINE	.00	
96812 186	86 TRUCK CHEV CREW CAB PICKUP		0	GASOLINE	.00	
96812 187	88 TRUCK CHEV CREW CAB PICKUP		0	GASOLINE	.00	
96812 189	88 TRUCK CHEV CREW CAB PICKUP		0	GASOLINE	.00	
96812 190	88 TRUCK CHEV CREW CAB PICKUP		0	GASOLINE	.00	
96812 191	88 TRUCK CHEV CREW CAB PICKUP		0	GASOLINE	.00	
96812 192	89 TRUCK CHEV PICKUP		0	GASOLINE	.00	
96812 193	89 WAGON CHEV BLAZER S-10		0	GASOLINE	.00	
96812 194	89 WAGON CHEV BLAZER S-10		0	GASOLINE	.00	
96812 195	89 TRUCK CHEV PICKUP		0	GASOLINE	.00	
96812 196	89 TRUCK CHEV CREW CAB PICKUP		0	GASOLINE	.00	
96812 197	89 TRUCK CHEV CREW CAB		0	GASOLINE	.00	
96812 201	90 WAGON CHEV BLAZER		0	GASOLINE	.00	
96812 203	91 TRUCK CHEV PICKUP		0	GASOLINE	.00	
96812 204	91 TRUCK CHEV PICKUP		0	GASOLINE	.00	
96812 206	90 TRUCK CUSHMAN UTILITY		0	GASOLINE	.00	
96812 208	91 TRUCK FORD PICKUP		0	GASOLINE	.00	
96812 209	91 TRUCK FORD PICKUP		0	GASOLINE	.00	
96812 210	91 TRUCK FORD PICKUP		0	GASOLINE	.00	
96812 211	91 TRUCK FORD PICKUP		0	GASOLINE	.00	
96812 212	91 TRUCK FORD PICKUP		0	GASOLINE	.00	
96812 213	91 TRUCK FORD PICKUP		0	GASOLINE	.00	
96812 214	91 WAGON CHEV BLAZER		0	GASOLINE	.00	
96812 216	92 SEDAN FORD TAURUS 4 DOOR		0	GASOLINE	.00	
96812 218	92 TRUCK FORD RANGER PICKUP		0	GASOLINE	.00	
96812 219	92 WAGON CHEV BLAZER S-10		0	GASOLINE	.00	
96812 227	93 TRUCK CUSHMAN UTILITY 3-WHEEL		0	GASOLINE	.00	
96812 228	93 TRUCK CUSHMAN UTILITY 3-WHEEL		0	GASOLINE	.00	
96812 229	94 SEDAN PONTIAC GRAND PRIX		0	GASOLINE	.00	
96812 232	94 WAGON CHEV STATION SUBURBAN 3/4 TON 4X4		0	GASOLINE	.00	
96812 233	95 TRUCK FORD PICKUP F150	2FTEF25N9SCA29958	0	GASOLINE	.00	
96812 234	95 TRUCK FORD PICKUP F150	2FTEF15N0SCA29959	0	GASOLINE	.00	
96812 235	95 TRUCK FORD PICKUP F150	2FTEF15N78CA29960	0	GASOLINE	.00	

## HIGHWAYS - HAWAII DISTRICT OFFICE

E/U ALTERNATIVE FUEL REPORT BY FUEL TYPE 9/10/08

PERIOD: 07/01/07 THRU 06/30/08

EQUIPMENT	DESCRIPTION.....	SERIAL NUMBER.....	GVW	FUEL.....	-----ACQUISITION-----	
					COST	DATE
96812 236	95 TRUCK FORD PICKUP F150	2FTEF15N9SCA29961	0	GASOLINE	.00	
96812 237	95 TRUCK FORD PICKUP F150	2FTEF15N08CA29962	0	GASOLINE	.00	
96812 238	95 WAGON JEEP SPORT UTILITY	1J4FT27S9SL642619	0	GASOLINE	17,581.31	
96812 239	95 WAGON JEEP SPORT UTILITY	1J4FT27S9SL642620	0	GASOLINE	17,281.30	
96812 240	95 TRUCK CHEV PICKUP 3/4 T	1GCF24H8SZ199570	0	GASOLINE	21,968.41	
96812 241	95 TRUCK CHEV 3/4 T PICKUP	1GCF24H3SZ199573	0	GASOLINE	21,968.41	
96812 242	91 VAN CHEV (FROM MVSO-OAHU 9181410)	1G8EG25N3F7167870	0	GASOLINE	.00	
96812 243	97 SEDAN CHEV CAVALIER	3G1JCS248VS850735	0	GASOLINE	.00	
96812 255	93 TRUCK FORD F350 PU CREW CAB	2FTJW36H5PCB01555	0	GASOLINE	12,725.35	
96812 256	93 TRUCK FORD PU CREW CAB	2FTJW36H9PCB01557	0	GASOLINE	12,725.36	
96812 257	98 TRUCK CHEV PICKUPS10 4X2 EXTENDED CAB	1GCCS19X7WK242357	0	GASOLINE	18,108.22	
96812 258	98 TRUCK CHEV PICKUP S10 4X2 EXTENDED CAB	1GCCS19X8WK241430	0	GASOLINE	18,108.22	
96812 259	98 TRUCK CHEV PICKUP S10 4X2 EXTENDED CAB	1GCCS19XXWK241364	0	GASOLINE	18,108.21	
96812 260	98 TRUCK CHEV PICKUP S10 4X2 EXTENDED CAB	1GCCS19X4WK242171	0	GASOLINE	18,108.21	
96812 261	99 TRUCK CHEV 1/2 T PICKUP	1GCCE14VXXZ100931	0	GASOLINE	.00	
96812 262	99 TRUCK CHEV 1/2 T PICKUP	1GCCE14V9XZ100130	0	GASOLINE	.00	
96812 263	99 TRUCK CHEV 1/2 T PICKUP	1GCCE14V4XZ100181	0	GASOLINE	.00	
96812 264	99 TRUCK CHEV 1/2 T PICKUP	1GCCE14V4XZ100505	0	GASOLINE	.00	
96812 267	99 WAGON SPORTS UTILITY JEE CHEROKEE	1J4FT28X2XL578123	0	GASOLINE	23,740.48	
96812 268	99 TRUCK CHEV PU EXT CAB S-10	1GCCS19X7X8174706	0	GASOLINE	.00	
96812 269	99 TRUCK CHEV PU EXT CAB S-10	1GCDT19X5X8175600	0	GASOLINE	.00	
96812 270	00 TRUCK PICKUP GMC EXT CAB 4 X4	1GTD19W4Y8267130	0	GASOLINE	.00	
96812 271	00 TRUCK PICKUP GMC FULL SIZE 2 X 4 1/2 TON	1GTEC14V2YZ323322	0	GASOLINE	.00	
96812 272	00 TRUCK PICKUP SILVERADO 1500	1GCEV14V7YZ293539	0	GASOLINE	.00	
96812 274	01 TRUCKSTER CUSHMAN HAULSTER	1CHMH327XYL003003	0	GASOLINE	25,266.50	
96812 275	01 SEDAN FORD FOCUS 4 DR.	1FAFP33P11W270665	0	GASOLINE	.00	
96812 276	01 CUSHMAN 3 WHEEL TRUCKSTER	LM2056	0	GASOLINE	.00	
96812 277	01 CUSHMAN 3 WHEEL TRUCKSTER	LM2057	0	GASOLINE	.00	
96812 278	01 CUSHMAN 3 WHEEL TRUCKSTER	LM2058	0	GASOLINE	.00	
96812 279	01 TRUCK CHEV PU EXT CAB	1GCCS19W018212629	0	GASOLINE	20,679.17	
96812 280	01 WAGON STATION CHEV BLAZER 4 X 4	1GNDT13W41K225114	0	GASOLINE	27,946.25	
96812 281	01 WAGON STATION CHEV BLAZER 4 X 4	1GNDT13W61K228421	0	GASOLINE	24,946.25	
96812 282	01 TRUCK FORD PICKUP RANGER	1FTZR15E41PB43081	0	GASOLINE	.00	
96812 284	02 TRUCK PU FORD F-150XL SUPER CAB 4X2	1FTRX17W52NB19106	0	GASOLINE	23,684.70	
96812 285	02 WAGON STATION FORD EXCURSION XLT 4 X 4	1FMSU41F92EC53990	0	GASOLINE	38,773.08	
96812 286	02 TRUCK PICKUP FORD RANGER SCXL 4 X 4	1FTYR45E72PB00479	0	GASOLINE	21,159.55	
96812 287	02 SEDAN CHEVROLET MALIBU 4 DR.	1G1ND52J12M723017	0	GASOLINE	16,784.17	
96812 288	02 WAGON STATION CHEVROLET 4 X 4 BLAZER	1GNDT13W92K219411	0	GASOLINE	27,791.67	
96812 289	02 TRUCK PICKUP CHEVROLET S-10 EXT CAB	1GCCS19W228229465	0	GASOLINE	18,744.68	
96812 290	03 2003 TRUCKSTER CUSHMAN	LM20777	0	GASOLINE	29,974.66	
96812 291	03 2003 TRUCKSTER CUSHMAN	LM20776	0	GASOLINE	29,974.66	
96812 292	03 FORD SEDAN 4-DOOR	1FAFF52UB3G236528	3,300	GASOLINE	.00	
96812 294	05 PICKUP TRUCK FORD 150	1FTRF12W95NA63038	4,750	GASOLINE	22,075.25	
96812 295	05 PICK UP TRUCK FORD 150	1FTRF12W75NA63040	4,750	GASOLINE	22,705.25	
96812 296	05 PICK UP TRUCK FORD 150	1FTRF12W05NA6309	4,750	GASOLINE	22,075.26	
96812 299	05 DODGE DR1500 PICKUP	1D7HA16N35J604299	0	GASOLINE	25,129.00	
96812 300	05 JEEP LIBERTY/SPORT	1J4GK48K05W652122	0	GASOLINE	21,407.15	
96812 301	05 JEEP LIBERTY/SPORT	1J4GK48K25W652123	0	GASOLINE	21,407.15	
96812 302	05 DODGE DR1500 PICKUP	1D7HA16NX5J604297	0	GASOLINE	25,129.01	
96812 303	07 2007 FORD F150 PICKUP TRUCK	1FTRF12V57KD42207	0	GASOLINE	28,008.02	
96812 304	07 2007 FORD F150 PICKUP TRUCK	1FTRF12V37KD42206	0	GASOLINE	28,008.02	

## Appendix 6. DOT - Highways Vehicles and Fuel Data

HIGHWAYS - HAWAII DISTRICT OFFICE  
E/U ALTERNATIVE FUEL REPORT BY FUEL TYPE 9/10/08

PERIOD: 07/01/07 THRU 06/30/08

EQUIPMENT		DESCRIPTION.....	SERIAL NUMBER.....	GVW	FUEL.....	-----ACQUISITION-----	
						COST	DATE
96812	305	07 2007 FORD F150 PICKUP TRUCK	1FTRF12V17KD42205	0	GASOLINE	28,008.02	
96812	306	07 2007 FORD F150 PICKUP TRUCK	1FTRF12V77KD42208	0	GASOLINE	26,099.70	
96822	134	80 TRUCK INTERNATIONAL FLATBED W/HYDR BOOM		0	GASOLINE	.00	
96822	141	83 TRUCK INTERNATIONAL DUMP 7 CY		0	GASOLINE	.00	
96822	142	83 TRUCK CHEV DUMP 2 1/2 CY		0	GASOLINE	.00	
96822	148	86 TRUCK FORD DUMP 2 1/2 CY		0	GASOLINE	.00	
96822	149	86 TRUCK FORD STAKE		0	GASOLINE	.00	
96822	151	87 TRUCK FORD STAKE W/CANOPY F600		0	GASOLINE	.00	
96822	152	87 TRUCK FORD STAKE W/LIFTGATE F700		0	GASOLINE	.00	
96822	156	89 TRUCK FORD DUMP 2 1/2 CY		0	GASOLINE	.00	
96822	157	89 TRUCK FORD DUMP 2 1/2 CY		0	GASOLINE	.00	
96822	158	89 TRUCK FORD DUMP 2 1/2 CY		0	GASOLINE	.00	
96822	171	93 TRUCK GMC STAKE BODY	1GDDJ6H1P7R3505971	312,000	GASOLINE	.00	
96832	113	53 TRAILER UTILITY 1/2 TON		0	GASOLINE	.00	
96832	114	80 TRAILER AIRCO 200 AMP WELDER		0	GASOLINE	.00	
96832	142	07 TRAILING DETACHABLE GOOSENECK TRAILER	1TKJ0472X9M092704	0	GASOLINE	68,645.00	
96842	101	45 GENERATOR ONAN 5KW W/FLD LIGHTS TLR MTD.		0	GASOLINE	.00	
96842	102	59 GENERATOR ONAN 5KW TRAILER MTD.		0	GASOLINE	.00	
96842	103	75 GENERATOR KOHLER 3KW TRAILER MTD.		0	GASOLINE	.00	
96842	160	91 REMOVER MACHINE TRAFFIC PAVEMENT	1245	0	GASOLINE	5,645.12	
96842	166	92 MOWER CUB CADET LAWN		0	GASOLINE	.00	
96842	183	98 TRACTOR LAWN NEW HOLLAND LS55YT	T8E0109	0	GASOLINE	4,904.14	
96842	195	01 STRIPING MACHINE KELLY-CRESWELL B421	8257	0	GASOLINE	21,040.32	
96852	120	79 SWEEPER WAYNE POWERED		0	GASOLINE	.00	
96862	107	86 SPRAYER GE 200 HP 200 GALLON		0	GASOLINE	.00	
96862	108	90 SPRAYER J. BEAN CHEMICAL 200 GALLON		0	GASOLINE	.00	
96862	111	96 SPRAYER FMC TRAILER MOUNTED	JB00403NA	0	GASOLINE	11,173.64	
96862	112	98 SPRAYER, JOHN BEAN W/SPECTRUM TRAILER	JB1545NI	0	GASOLINE	11,885.99	
96862	113	98 SPRAYER JOHN BEAN W/SPECTRUM TRAILER	JB01531NI	0	GASOLINE	11,886.00	
96862	114	98 SPRAYER SDI CHEMICAL 300 GAL TRAILER MTD	51007	0	GASOLINE	8,710.88	
96862	115	98 SPRAYER SDI CHEMICAL 300 GAL TRAILER MTD	51008	0	GASOLINE	8,710.88	
96862	116	02 CONTROL SPEED TRAILER MOUNTED	40XK111S12A020002	0	GASOLINE	11,999.00	
96862	117	02 CONTROL SPEED TRAILER MOUNTED	40XK111S42A020009	0	GASOLINE	11,999.00	
96862	118	03 SPRAYER JOHN BEAN	JX00159	0	GASOLINE	.00	
96862	119	03 SPRAYER JOHN BEAN	JX00156	0	GASOLINE	.00	
96862	123	05 EDCO TRAFFIC LINE REMOVER	TLR-7-11H	0	GASOLINE	17,849.89	
96862	129	07 MCGREGOR 300 GAL. SPRAYER	RS300734	0	GASOLINE	22,360.00	
						FUEL TYPE TOTAL	
91812	623	03 FORD UTILITY TRUCK	43ED13426	0	DIESEL	.00	
96812	220	92 TRUCK FORD CREW CAB W/DUMP		0	DIESEL	.00	
96812	221	92 TRUCK FORD CREW CAB W/DUMP		0	DIESEL	.00	
96812	222	92 TRUCK FORD CREW CAB W/DUMP		0	DIESEL	.00	
96812	223	92 TRUCK FORD CREW CAB W/DUMP		0	DIESEL	.00	
96812	224	92 TRUCK FORD CREW CAB W/DUM		0	DIESEL	.00	
96812	225	93 TRUCK FORD PICKUP F-153		0	DIESEL	.00	
96812	230	93 TRUCK CHEV CREW CAB W/DUMP		0	DIESEL	.00	
96812	231	94 TRUCK FORD PICKUP F-350		0	DIESEL	.00	
96812	244	97 TRUCK CHEV CREW CAB/CHAS 1 TON	1GBHC33F3VE024894	0	DIESEL	.00	
96812	245	97 TRUCK CHEV CREW CAB/CHAS 1 TON	1GBHC33F8VF025314	0	DIESEL	.00	
96812	246	97 TRUCK CHEV CREW CAB/CHAS 1 TON	1GBHC33F3VF025009	0	DIESEL	.00	

## Appendix 6. DOT - Highways Vehicles and Fuel Data

HIGHWAYS - HAWAII DISTRICT OFFICE  
E/U ALTERNATIVE FUEL REPORT BY FUEL TYPE 9/10/08

PERIOD: 07/01/07 THRU 06/30/08

EQUIPMENT		DESCRIPTION.....	SERIAL NUMBER.....	GVW	FUEL.....	-----ACQUISITION----- COST DATE
96812	247	97 TRUCK CHEV CREW CAB/CHAS 1 TON	1GBHC33F6VF025103	0	DIESEL	.00
96812	248	97 TRUCK CHEV CREW CAB/CHAS 1 TON	1GBHC33F9VF025371	0	DIESEL	.00
96812	249	97 TRUCK CHEV CREW CAB/CHAS 1 TON	1GBHC33F8VF024793	0	DIESEL	.00
96812	250	97 TRUCK CHEV CREW CAB/CHAS 1 TON	1GBHC33F3VF025446	0	DIESEL	.00
96812	251	97 TRUCK CHEV CHASSIS CAB	1GBHC33F2VF027057	0	DIESEL	.00
96812	253	83 STATION WAGON CHEV BLAZER 4 X 4	1G8ED18J6EF119408	0	DIESEL	1,600.00
96812	254	83 STATION WAGON CHEV BLAZER 4 X 4	1G8ED18J9EF115868	0	DIESEL	1,600.00
96812	265	99 TRUCK CHEV UTILITY ONE TON (SURVEY CREW)	1G9HC34P7XF006304	0	DIESEL	32,810.40
96812	266	98 TRUCK CHEV 3500 UTILITY BODY ONE TON	1GBHK34F6WE236441	0	DIESEL	.00
96812	273	00 VAN GMC TRUCK	1GKHG35F1Y1275724	0	DIESEL	.00
96812	283	01 TRUCK FORD CREW CAB F350	1FDWN32F91EC41468	0	DIESEL	.00
96812	293	03 FORD MPVH	1FMSU41P23ED13425	7,650	DIESEL	.00
96812	297	04 FORD F-250 PICK UP UTILITY BODY	1FDNF20P64EE09802	0	DIESEL	32,843.38
96812	298	04 FORD F-250 PICK-UP UTILITY BODY	1FDNF20P44EE09801	0	DIESEL	32,843.39
96822	115	69 TRUCK INTERNATIONAL TANK	7179116346297	0	DIESEL	15,460.98
96822	143	84 TRUCK GMC DUMP 7 CY		0	DIESEL	.00
96822	144	84 TRUCK GMC DUMP 7 CY		0	DIESEL	.00
96822	145	84 TRUCK GMC DUMP 7 CY		0	DIESEL	.00
96822	146	84 TRUCK GMC DUMP 7 CY		0	DIESEL	.00
96822	147	84 TRUCK INTERNATIONAL TRACTOR		0	DIESEL	.00
96822	150	86 TRUCK FORD TANKER W/HERBICIDE		0	DIESEL	.00
96822	159	90 TRUCK KENWORTH TRACTOR	1XKWD20X8LS543858	0	DIESEL	.00
96822	160	90 TRUCK FORD AERIAL LIFT		0	DIESEL	.00
96822	161	91 TRUCK INTERNATIONAL WATER TANK		0	DIESEL	.00
96822	162	91 TRUCK INTERNATIONAL W/SEWER-HYDRO JET VA		0	DIESEL	.00
96822	163	91 TRUCK FORD DUMP 2 TON		0	DIESEL	.00
96822	164	91 TRUCK FORD DUMP 2 TON		0	DIESEL	.00
96822	165	92 TRUCK INTERNATIONAL ASPHALT DIST.1000GAL		0	DIESEL	.00
96822	166	93 TRUCK INTERNATIONAL TANK 2000 GALLON		0	DIESEL	.00
96822	167	93 TRUCK CHEV DUMP 7 CY	1GBP7H1J3RJ103960	0	DIESEL	.00
96822	168	93 TRUCK CHEV DUMP 7 CY	1GBP7H1J4RJ104079	0	DIESEL	.00
96822	169	93 TRUCK CHEV DUMP 7 CY	1GBP7H1J2RJ103903	0	DIESEL	.00
96822	170	93 TRUCK CHEV DUMP 7 CY	1GBP7H1J04J103916	0	DIESEL	.00
96822	172	93 TRUCK CHEV DUMP 7 CY	1GBP7H1J3RJ704042	0	DIESEL	.00
96822	173	93 TRUCK CHEV DUMP 7 CY	1GBP7H1J4RJ104017	0	DIESEL	.00
96822	174	95 TRUCK INTERNATIONAL W/HYD. CRANE STAKEBD	1HTSCABL1SH571310	0	DIESEL	.00
96822	175	95 TRUCK FORD DUMP 7 CY F800	1PSYP80E0SVA10895	0	DIESEL	.00
96822	176	95 TRUCK FORD DUMP 7 CY F800	1FDYF80E2SVA10896	0	DIESEL	.00
96822	180	95 TRUCK INTERNATIONAL DUMP 2 1/2 CY	1HTSCABM3SH658117	0	DIESEL	.00
96822	181	95 TANKER TRUCK 2000GAL GMC	182P7H1J512298	0	DIESEL	.00
96822	182	95 TRUCK INTERNATIONAL W/HYD BOOM	1HTSCABL7SH663117	0	DIESEL	.00
96822	183	97 TRUCK INT'L TANK 2000 GAL	1HTSDADR3VH454265	0	DIESEL	.00
96822	184	97 TRUCK DUMP INTERNATIONAL CAB CHASSIS 7CY	1HTSDADR9VH453069	0	DIESEL	.00
96822	185	97 TRUCK DUMP INTERNATIONAL CAB CHASSIS 7CY	1HTSDADR5VH453070	0	DIESEL	.00
96822	186	97 TRUCK DUMP CAB & CHASSIS 2 1/2 CY INTL	1HTSCALXVH496340	0	DIESEL	.00
96822	187	98 TRUCK TRACTOR INT'L	2HSFBAET2WC042336	0	DIESEL	.00
96822	188	99 VAN CHEV CHASSIS W/BODY	1GBJG31F8X1022678	0	DIESEL	.00
96822	189	99 VAN CHEV CHASSIS W/BODY	1GBJG31F8X1014872	0	DIESEL	.00
96822	190	99 TRUCK INT'L DUMP 7 CY CAB & CHASSIS	1HTSDADR3XH222784	35,000	DIESEL	76,919.22
96822	191	99 TRUCK INT'L DUMP 7 CY CAB & CHASSIS	1HTSDADR5XH222785	35,000	DIESEL	76,919.22
96822	192	01 TRUCK INTL STAKE BODY W/HYD. LIFT GATE	1HTSDAAR811333469	0	DIESEL	89,584.29

HIGHWAYS - HAWAII DISTRICT OFFICE  
E/U ALTERNATIVE FUEL REPORT BY FUEL TYPE 9/10/08

PERIOD: 07/01/07 THRU 06/30/08

EQUIPMENT		DESCRIPTION.....	SERIAL NUMBER.....	GVW	FUEL.....	-----ACQUISITION----- COST DATE
96822	193	01 VAN FORD CUTAWAY F450	1FDXE45FX1HB19483	0	DIESEL	.00
96822	195	02 TRUCK GMC CAB/CHASSIS W/AERIAL BUCKET	1GDP7H1C22J502244	0	DIESEL	195,218.25
96822	196	03 TRUCK PETERBUILT ASPEN AERIAL BDY MDL320	1NPZX0TX33D714738	0	DIESEL	.00
96822	197	04 TRUCK INT'L DUMP 2 1/2 CU YD SBA 4 X 2	1HTMKAALX4H652483	0	DIESEL	69,676.86
96822	198	04 TRUCK INT'L DUMP 2 1/2 CU YD SBA 4 X 2	1HTMKAAL84H652482	0	DIESEL	69,676.86
96822	199	04 TRUCK INT'L DUMP 2 1/2 CU SBA 4 X 2	1HTMKAAL64H652481	0	DIESEL	69,676.86
96822	200	05 TRUCK GMC TC 5500 C SERIES AND BOOM	1GDE5C1255F504746	19,500	DIESEL	105,090.72
96822	201	05 FORD F-350 CREW CAB W/DUMP	1FDWW36P04EE09800	0	DIESEL	40,300.47
96822	202	05 FORD F-350 CREW CAB W/DUMP	1FDWW36P84EE09799	0	DIESEL	39,258.81
96822	203	05 FORD F-350 CREW CAB W/DUMP	1FDWW36P64EE09798	0	DIESEL	39,258.81
96822	204	05 FORD F-350 CREW CAB W/DUMP	1FDWW36P44EE09797	0	DIESEL	39,258.81
96822	205	06 PETERBILT W/2000 GALLON TANK	2NPLH28X16M632621	0	DIESEL	134,713.05
96822	206	06 FORD F-350 CREW CAB W/DUMP BOX	1FDWW36P96EA03212	0	DIESEL	43,654.12
96822	207	07 INTERNATIONAL 2 1/2 CY DUMP TRUCKS	1HTMKAAL47H447200	0	DIESEL	81,037.99
96822	208	07 INTERNATIONAL 2 1/2 CY DUMP TRUCK	1HTMKAAL67H447201	0	DIESEL	81,037.99
96822	209	07 INTERNATIONAL TRUCK TRACTOR	IHSXRAFT17J447216	0	DIESEL	130,237.60
96822	210	02 PETERBILT FLATBED W/Crane	UT1NP2LOOX13D714740	0	DIESEL	263,713.78
96822	211	03 PETERBILT TRUCK W/Crane & DUMP	UT1NP2LOOX33D714741	0	DIESEL	283,464.08
96822	212	07 2007 FORD 6-MAN CAB WITH DUMP	1FDWW36P77EA42916	0	DIESEL	48,679.27
96822	213	07 2007 FORD 6-MAN CAB WITH DUMP	1FDWW36P37EA44582	0	DIESEL	48,679.27
96822	214	07 PETERBILT TRUCK MODEL 384 WATER TANKER	2NPRH8X08M758541	0	DIESEL	159,876.14
96822	215	08 GMC TRUCK W/1000 GALLON BITUMINOUS TANK	1GDM7C1B98F403073	0	DIESEL	182,777.65
96822	216	08 GMC TRUCK COMMERCIAL CUTAWAY VEHICLE	1GDE5V19X8F400556	0	DIESEL	81,707.20
96832	101	44 TRAILER W/300 GAL BITUMULS TANK		0	DIESEL	.00
96832	121	94 TRAILER MILLER WELDING GENERATOR		0	DIESEL	.00
96832	123	96 TANK BITUMUL TRAILER MOUNTED	L250T-802	0	DIESEL	15,874.90
96832	124	96 TANK BITUMUL TRAILER MOUNTED	L250T-801	0	DIESEL	.00
96842	128	79 TRACTOR JOHN DEERE W/BROOM (USED)	317931	0	DIESEL	2,994.89
96842	138	86 TRACTOR KUBOTA W/BOMFORD SIDE & REAR		0	DIESEL	.00
96842	141	87 GENERATOR W/FLOOD LIGHTS		0	DIESEL	.00
96842	142	87 GENERATOR W/FLOOD LIGHTS		0	DIESEL	.00
96842	143	87 GENERATOR W/FLOOD LIGHTS		0	DIESEL	.00
96842	144	87 TRACTOR KUBOTA W/FLAIL MOWER		0	DIESEL	.00
96842	145	87 TRACTOR KUBOTA W/FLAIL MOWER		0	DIESEL	.00
96842	146	87 TRACTOR JOHN DEERE 1250 W/SWEEPER		0	DIESEL	.00
96842	147	87 TRACTOR JOHN DEERE 1650 W/SICKLEBAR		0	DIESEL	.00
96842	149	88 TRACTOR KUBOTA MOWER		0	DIESEL	.00
96842	150	88 TRACTOR KUBOTA MOWER		0	DIESEL	.00
96842	151	88 TRACTOR KUBOTA MOWER		0	DIESEL	.00
96842	152	88 WELDER MILLER 250 AMP TRL. MTD.	JJ404150	0	DIESEL	7,050.67
96842	153	88 WELDER MILLER 250 AMP TRL. MTD.	JJ521325	0	DIESEL	7,768.89
96842	155	89 TRACTOR CASE W/FLAIL MOWER		0	DIESEL	.00
96842	156	89 TRACTOR KUBOTA W/BROOM		0	DIESEL	.00
96842	157	90 TRACTOR FORD W/EXT. FLAIL MOWER		0	DIESEL	.00
96842	158	90 TRACTOR FORD W/FLAIL MOWER		0	DIESEL	.00
96842	159	90 TRACTOR KUBOTA W/BROOM		0	DIESEL	.00
96842	161	90 TRACTOR CASE I.H.		0	DIESEL	.00
96842	162	90 TRACTOR CASE MOWER I.H.		0	DIESEL	.00
96842	163	90 TRACTOR CASE MOWER I.H.		0	DIESEL	.00
96842	164	91 TRACTOR CASE W/FLAIL MOWER		0	DIESEL	.00
96842	165	91 TRACTOR CASE W/SWEEPER		0	DIESEL	.00

HIGHWAYS - HAWAII DISTRICT OFFICE  
E/U ALTERNATIVE FUEL REPORT BY FUEL TYPE 9/10/08

PERIOD: 07/01/07 THRU 06/30/08

EQUIPMENT	DESCRIPTION.....	SERIAL NUMBER.....	GVW	FUEL.....	-----ACQUISITION----- COST	DATE
96842 169	93 TRACTOR KUBOTA W/EXT FLAIL MOWER	I90029	0	DIESEL	36,745.97	
96842 172	94 TRACTOR JOHN DEERE 6200 W/FLAIL MOWER		0	DIESEL	.00	
96842 173	94 TRACTOR JOHN DEERE 6200 W/FLAIL MOWER		0	DIESEL	.00	
96842 174	94 TRACTOR JOHN DEERE 6200 W/FLAIL MOWER		0	DIESEL	.00	
96842 176	95 CASE TRACTOR W/ALAMO SUPER HVY FLAIL, MOW	JJE0908218	0	DIESEL	51,723.09	
96842 180	96 TRACTOR KUBOTA 2WD	10897	0	DIESEL	.00	
96842 181	97 TRACTOR CASE IH MODEL 4230 W/EXT SR FLAI	JJE0924451	0	DIESEL	63,082.93	
96842 182	97 TRACTOR CASE IH MODEL 4230 W/SR FLAIL MO	JJE0924452	0	DIESEL	63,082.93	
96842 184	98 GENERATOR TRAILER MTD. W/LIGHT TOWER	288844	0	DIESEL	14,280.12	
96842 185	98 TRACTOR KUBOTA W/SWEEPER BROOM	30275	0	DIESEL	33,384.06	
96842 186	98 TRACTOR CASE IH W/EXT S/R MT. FLAIL MOWER	JJE1007432	0	DIESEL	60,546.84	
96842 187	98 TRACTOR CASE IH W/EXT S/R MTD. FLAIL MOWE	JJE1007433	0	DIESEL	60,546.84	
96842 188	99 TRACTOR CASE UTILITY W/FRT MTD. ROT BROOM	JJE1009709	0	DIESEL	.00	
96842 189	99 TRACTOR CASE UTILITY W/FRT MTD ROT BROOM	JJE1009369	0	DIESEL	.00	
96842 190	99 TRACTOR KUBOTA UT W/REAR/SIDE FLAIL MOWE	10560	0	DIESEL	62,391.57	
96842 191	99 TRACTOR KUBOTA UT W/REAR/SIDE FLAIL MOWE	10563	0	DIESEL	62,391.57	
96842 192	99 TRACTOR KUBOTA UTILITY W/REAR MTD. FLAIL	40354	0	DIESEL	31,061.89	
96842 193	99 TRACTOR KUBOTA UTILITY W/REAR MTD. FLAIL	40359	0	DIESEL	31,061.89	
96842 194	00 TRACTOR UTILITY KUBOTA W/BOMFORD MOWER	10714	0	DIESEL	69,891.92	
96842 196	01 THERMOPLASTIC STRIPING MACHINE W/TRAILER	1C9FP202X1B411022	0	DIESEL	.00	
96842 197	02 SWEEPER TENNANT 6550	6550-9022	0	DIESEL	45,833.04	
96842 198	93 SWEEPER, TENNANT VACUUM	3551650	0	DIESEL	1,600.00	
96842 199	95 SWEEPER NEW CLARKE AMERICAN LINCOLN	460302	0	DIESEL	500.00	
96842 200	02 SWEEPER CASE CX50 TRACTOR	JJE1020831	0	DIESEL	.00	
96842 201	03 WELDER MILLER TRAILER MOUNTED	LC019450	0	DIESEL	17,799.19	
96842 202	03 WELDER MILLER TRAILER MOUNTED	LC019441	0	DIESEL	17,799.18	
96842 203	03 TRACTOR UTILITY NWHOLLAND W/S/R MTD	200553B	0	DIESEL	72,916.20	
96842 204	03 TRACTOR NW HOLLAND UTILITY W/S/R MTD.	199949B	0	DIESEL	72,916.20	
96842 205	03 TRACTOR UTILITY NWHOLLAND W/S/R MTD	200482B	0	DIESEL	72,916.20	
96842 206	04 TRACTOR ZERO GRASSHOPPER TURN	5418440	0	DIESEL	10,729.10	
96842 207	04 ROTARY BROOM SWEEPSTER	HJH011386	5,588	DIESEL	39,791.41	
96842 208	04 CASE TRACTOR MOWER	HJT010035	0	DIESEL	62,000.00	
96842 209	05 FLOODLIGHT LIGHT TOWER TRAILER	0317PRO04	0	DIESEL	9,241.84	
96842 210	05 FLOODLIGHT LIGHT TOWER TRAILER	0318PRO04	0	DIESEL	9,241.84	
96842 211	05 FLOODLIGHT LIGHT TOWER TRAILER	0319PRO04	0	DIESEL	9,241.84	
96842 212	05 WELDER MILLER 40 TRAILER MOUNTED	MIL - 907171	0	DIESEL	28,695.00	
96842 213	05 TRACTOR MOWER NEW HOLLAND W/TIGER-GEAR	ACP253061	0	DIESEL	97,916.04	
96842 220	06 NH TRACTOR MOWER/BOOM MOWER/MOWER W/PTO	ACP272137	0	DIESEL	1,011,445.19	
96842 221	06 NH TRACTOR BOOM MOWER/MOWER W/PTO	ACP272270	0	DIESEL	101,145.19	
96842 222	06 NH TRACTOR/BOOM MOWER/MOWER W/PTO	ACP274889	0	DIESEL	101,145.19	
96842 223	96 MORBARK EZ CHIPPER MDL 2773	SN 2773	0	DIESEL	24,343.83	
96842 224	96 MORBARK EZ CHIPPER MDL 2200EZ	SN 2774	0	DIESEL	24,343.83	
96842 225	96 MORBARK CHIPPER MDL 2200EZ	SN 2775	0	DIESEL	24,343.83	
96842 226	00 CUB CADET 60" ROT MOWER	4G190Z80001	0	DIESEL	7,573.91	
96852 119	76 LOADER FRONT END		0	DIESEL	.00	
96852 121	81 COMPRESSOR INGERSOLL RAND		0	DIESEL	.00	
96852 122	81 COMPRESSOR INGERSOLL RAND		0	DIESEL	.00	
96852 123	81 LOADER CASE BACKHOE AND WD HAMMER		0	DIESEL	.00	
96852 125	82 GRADER GALION MOTOR		0	DIESEL	.00	
96852 126	86 CASE VIBRATORY ROLLER 2-4 TON		0	DIESEL	.00	
96852 127	87 GRADER GALION MOTOR		0	DIESEL	.00	



## Appendix 6. DOT - Highways Vehicles and Fuel Data

HIGHWAYS - HAWAII DISTRICT OFFICE  
E/U ALTERNATIVE FUEL REPORT BY FUEL TYPE 9/10/08

PERIOD: 07/01/07 THRU 06/30/08

EQUIPMENT	DESCRIPTION.....	SERIAL NUMBER.....	GVW	FUEL.....	-----ACQUISITION----- COST	DATE
96852 130	87 ROLLER CASE VIBRATORY MODEL 252		0	DIESEL	.00	
96852 131	88 ROLLER CASE VIBRATORY MODEL 7528		0	DIESEL	.00	
96852 132	88 GRADER CATERPILLAR MOTOR		0	DIESEL	.00	
96852 133	88 LOADER JOHN DEERE W/BACKHOE		0	DIESEL	.00	
96852 134	90 FORKLIFT KOMATSU 5000 LBS.		0	DIESEL	.00	
96852 135	90 LOADER CASE BACKHOE		0	DIESEL	.00	
96852 136	91 LOADER JOHN DEERE MODEL 544E		0	DIESEL	.00	
96852 137	91 COMPRESSOR INGERSOLL RAND AIR		0	DIESEL	.00	
96852 138	92 GRADER CHAMPION MOTOR		0	DIESEL	.00	
96852 139	92 LOADER KOMATSU	12941	0	DIESEL	.00	
96852 140	93 COMPRESSOR SULLAIR 750 CFM	004-111603	0	DIESEL	40,657.42	
96852 141	93 UNLOADER CASE SKID STEER	JAF0120730	0	DIESEL	16,897.97	
96852 142	93 ROLLER DYNAPAC		0	DIESEL	.00	
96852 143	93 LOADER KOMATSU FRONT END		0	DIESEL	.00	
96852 144	94 COMPRESSOR INGERSOLL RAND AIR		0	DIESEL	.00	
96852 145	94 COMPRESSOR INGERSOLL RAND AIR		0	DIESEL	.00	
96852 146	94 COMPRESSOR INGERSOLL RAND AIR		0	DIESEL	.00	
96852 147	79 TRUCK LIFT MOD M60	794541	0	DIESEL	24,443.00	
96852 148	96 LOADER MELROE BOBCAT UNI-LOADER	512220136	0	DIESEL	.00	
96852 149	98 LOADER MELROE BOBCAT MODEL 763	512230785	0	DIESEL	.00	
96852 150	00 GRADER, MOTOR CHAMPION MODEL 710A, DIESEL	30825	0	DIESEL	111,145.15	
96852 151	00 BACKHOE/LOADER NW HOLLAND W/HYD HAMMER	31025674	0	DIESEL	77,842.07	
96852 152	01 DOZER TRACTOR D3C LCP CATERPILLAR	5GS01012	0	DIESEL	68,817.27	
96852 153	01 ROLLER DYNAPAC CC102 VIBRATORY	60115522	0	DIESEL	.00	
96852 154	01 LOADER/BACKHOE JD W/HYD BREAKER 6E5967	T03108G896727	0	DIESEL	.00	
96852 155	02 TRUCK GMC F7 W/SCHWARZE SWEEPER	1GDP7C1CK23504097	34,800	DIESEL	173,007.46	
96852 156	02 TRUCK GMC F7 W/SCHWARZE SWEEPER	1GDP7C12C1J504263	34,800	DIESEL	173,007.46	
96852 157	02 LOADER CASE MODEL 521D	JEE0134186	0	DIESEL	99,061.87	
96852 158	02 ROLLER DYNAPAC 5-8 TON MODEL CC222	61711280	0	DIESEL	74,765.15	
96852 159	02 ROLLER DYNAPAC 2-4 TON CC102	60116496	0	DIESEL	.00	
96852 160	02 GRADER, GALION MODEL 830 B	U210932	0	DIESEL	115,624.26	
96852 161	03 GRADER CASE ARTICULATED MOTOR	HBZ0020107GR84502	0	DIESEL	111,978.45	
96852 162	03 LOADER NEW HOLLAND BACKHOE AND HAMMER	031046566	0	DIESEL	92,186.91	
96852 163	04 ROLLER HAMM ARTICULATED TANDEM HD70	1520780	0	DIESEL	64,999.58	
96852 164	05 FORKLIFT KOMATSU FD30T-14	589170A	0	DIESEL	28,124.82	
96852 165	05 BACKHOE NEW HOLLAND W/HAMMER LB1105E205	31055615/82758	0	DIESEL	88,541.00	
96852 166	06 VACUUM CLEANER TRUCK PETERBILT 357	1NPAL00X26D632940	0	DIESEL	304,057.09	
96852 167	06 KOMATSU FRONT-END WHEEL LOADER	68325	0	DIESEL	100,793.10	
96852 168	06 GMC TRUCK W/SWEEPER ATTACHMENT	1GDM7F1396F429132	33,000	DIESEL	238,558.19	
96852 169	06 2006 GMC TRUCK W/SWEEPER ATTACHMENT	1GDM7F1336F429515	33,000	DIESEL	238,558.19	
96852 170	07 PETERBILT 357 VAC-CON W/WATER TANK TRUCK	1NPAL00X27D683050	0	DIESEL	326,148.08	
96852 172	06 CASE CRAWLER EXCAVATOR	DAC251358	0	DIESEL	286,456.50	
96852 173	07 2007 CASE 845 TIER 3 MOTOR GRADER	N7AF03531	0	DIESEL	173,749.00	
96862 106	85 BULLDOZER JOHN DEERE CRAWLER		0	DIESEL	.00	
96862 109	93 CHIPPER OLATHE MODEL 986CD	986603	0	DIESEL	18,476.63	
96862 110	93 CHIPPER OLATHE MODEL 986CD	986604	0	DIESEL	18,476.63	
96862 126	07 KOMATSU CRAWLER DOZER D61EX-15	B45407	0	DIESEL	207,822.16	
96862 127	07 BANDIT 280 CHIPPER BA181	1148	0	DIESEL	48,333.02	
96862 128	07 BANDIT 280 CHIPPER BA182	1150	0	DIESEL	48,333.03	
					FUEL TYPE TOTAL	

## Appendix 6. DOT - Highways Vehicles and Fuel Data

HIGHWAYS - HAWAII DISTRICT OFFICE  
E/U ALTERNATIVE FUEL REPORT BY FUEL TYPE 9/10/08

PERIOD: 07/01/07 THRU 06/30/08

EQUIPMENT	DESCRIPTION.....	SERIAL NUMBER.....	GVW	FUEL.....	-----ACQUISITION----- COST DATE
96102 826	00 HPR WORK PROGRAM		0	NOT APPLICABLE	.00
96812 820	00 MVSO - WORK ORDER FOR MVSO C/C		0	NOT APPLICABLE	.00
96832 102	49 TRAILER REHBAGER TIP TOP 7 TON		0	NOT APPLICABLE	.00
96832 104	53 TRAILER JOHN DEERE W/TILTING 3 TON		0	NOT APPLICABLE	.00
96832 107	56 TRAILER SHOP BUILT 1 1/2 TON CARGO		0	NOT APPLICABLE	.00
96832 108	77 TRAILER FERREI CUSTOM MADE SCALE		0	NOT APPLICABLE	.00
96832 115	84 TRAILER KING TRAIL		0	NOT APPLICABLE	.00
96832 116	86 TRAILER ZIEMAN UTILITY		0	NOT APPLICABLE	.00
96832 117	87 TRAILER ZIEMAN UTILITY		0	NOT APPLICABLE	.00
96832 118	87 TRAILER ZIEMAN UTILITY		0	NOT APPLICABLE	.00
96832 119	89 TRAILER KING TRAIL	1TKJ04323KM7043812	0	NOT APPLICABLE	.00
96832 120	93 TRAILER ZIEMAN UTILITY		0	NOT APPLICABLE	.00
96832 125	96 TRAILER		0	NOT APPLICABLE	.00
96832 126	96 TRAILER		0	NOT APPLICABLE	.00
96832 127	97 TRAILER LOAD KING	1B4L38239V1121666	0	NOT APPLICABLE	.00
96832 128	98 BOARD MESSAGE AMERICAN ELECTRONIC	1A9MS1510TA378129	0	NOT APPLICABLE	.00
96832 129	98 BOARD MESSAGE AMERICAN ELECTRONIC	1A9MS1513TA378125	0	NOT APPLICABLE	.00
96832 130	98 TRAILER SPECTRUM BCT 16-7500	1S9BS2420WH364284	0	NOT APPLICABLE	.00
96832 131	99 BOARD MESSAGE ADDCO, TRL MTD. CHANGEABLE	585967	0	NOT APPLICABLE	32,885.21
96832 132	02 TRAILER ZIEMAN CARRIER 1150	1ZCT21S292ZP23815	9,999	NOT APPLICABLE	8,020.78
96832 133	02 BOARD MESSAGE SOLARTECH	4GM2M151021408509	0	NOT APPLICABLE	.00
96832 134	02 BOARD MESSAGE SOLARTECH	4GM2M151721408510	0	NOT APPLICABLE	.00
96832 135	02 BOARD MESSAGE SOLARTECH	4GM2M151921408511	0	NOT APPLICABLE	.00
96832 136	02 BOARD MESSAGE SOLARTECH	4GM2M151021408512	0	NOT APPLICABLE	.00
96832 137	02 BOARD MESSAGE SOLARTECH	4GM2M151221408513	0	NOT APPLICABLE	.00
96832 138	02 BOARD MESSAGE SOLARTECH	4GM2M151421408514	0	NOT APPLICABLE	.00
96832 139	06 TRAILER ZIEMAN EQUIPMENT 1150	1ZCT21S286ZP26968	0	NOT APPLICABLE	11,770.76
96832 140	06 TRAILER ZIEMAN EQUIPMENT 1150	1ZCT21S2X6ZP26969	9,999	NOT APPLICABLE	11,770.76
96832 141	06 TRAILER ZIEMAN EQUIPMENT 2327H	1ZCT31A286ZP26967	33,200	NOT APPLICABLE	26,560.33
96842 214	07 TRAFFIC SIGNAL SYSTEM (1)	1C9B1A0A861496019	0	NOT APPLICABLE	.00
96842 215	07 TRAFFIC SIGNAL SYSTEM (1)	1C9B1A0A861496020	0	NOT APPLICABLE	34,331.84
96842 216	07 TRAFFIC SIGNAL SYSTEM (1)	1C9B1A0A861496021	0	NOT APPLICABLE	34,331.84
96842 217	07 TRAFFIC SIGNAL SYSTEM (2)	1CGB1A0A261496016	0	NOT APPLICABLE	34,354.64
96842 218	07 TRAFFIC SIGNAL SYSTEM (2)	1CGB1A0A661496017	0	NOT APPLICABLE	34,354.64
96842 219	07 TRAFFIC SIGNAL SYSTEM (2)	C9GB1A0A661496018	0	NOT APPLICABLE	34,354.64
96862 120	04 SCAFFOLD-SUSPENDED POWER CLIMBER (3)	005001	0	NOT APPLICABLE	82,639.91
96862 121	04 SCAFFOLD-SUSPENDED POWER CLIMBER (3)	005002	0	NOT APPLICABLE	82,639.91
96862 122	04 SCAFFOLD-SUSPENDED POWER CLIMBER (3)	005003	0	NOT APPLICABLE	82,639.91
96862 124	07 SCAFFOLD POWER CLIMBER PLATFORM	E07B3123/E07B3132	0	NOT APPLICABLE	33,998.72
96862 125	07 SCAFFOLD POWER CLIMBER PLATFORM	E07B3131/E07B3124	0	NOT APPLICABLE	33,998.72
					FUEL TYPE TOTAL

## Appendix 6. DOT - Highways Vehicles and Fuel Data

HIGHWAYS DIVISION - OAHU DISTRICT  
E/U ALTERNATIVE FUEL REPORT BY FUEL TYPE 9/10/08

PERIOD: 07/01/07 THRU 06/30/08

EQUIPMENT		DESCRIPTION.....	SERIAL NUMBER.....	GVW	FUEL.....	-----ACQUISITION-----	
						COST	DATE
91812	484	93 SEDAN: CHEV CAVALIER 4DSD	1G1JCS441P7325708	0	GASOLINE	8,888.00	08/01/93
91812	485	93 SEDAN: CHEV CAVALIER 4DSD	1G1JCS445P7336940	0	GASOLINE	8,888.00	08/01/93
91812	487	93 SEDAN: CHEV CAVALIER	1G1JCS446P7339197	0	GASOLINE	8,888.00	08/01/93
91812	488	93 TRUCK: GMC SUBURBAN 4WD	1GKQK26K1P7746057	0	GASOLINE	22,422.59	08/01/93
91812	489	94 TRUCK: CHEV S-10 PICKUP	1GCCS1441R8180629	0	GASOLINE	10,554.48	06/01/94
91812	491	94 TRUCK: CHEV S-10 PICKUP	1GCCS1441R8178587	0	GASOLINE	10,553.40	06/01/94
91812	492	94 TRUCK: CHEV S-10 PICKUP (EXCH FOR 464)	1GCCS1444R8178969	0	GASOLINE	10,554.49	06/01/94
91812	493	94 TRUCK: CHEV S-10 PICKUP	1GCCS1446R8178794	0	GASOLINE	10,553.40	06/01/94
91812	494	94 TRUCK: CHEV S-10 PICKUP	1GCCS1444R8180074	0	GASOLINE	10,553.40	06/01/94
91812	496	94 TRUCK: CHEV S-10 PICKUP	1GCCS1449R8180068	0	GASOLINE	10,553.40	06/01/94
91812	500	94 SEDAN: OLDSMOBILE CUTLASS CIERA (EXC 456)	1G3AG55M5R6397806	0	GASOLINE	13,027.13	06/01/94
91812	501	94 STA WGN: OLDSMOBILE CUTLASS CRUISER	1G3AG55M3R6397822	0	GASOLINE	13,130.25	06/01/94
91812	502	94 STA WGN: OLDSMOBILE CUTLASS CRUISER	1G3AJ85M4R6402884	0	GASOLINE	13,832.34	06/01/94
91812	503	94 STA WGN: OLDSMOBILE CUTLASS CRUISER	1G3AJ85M6R6398806	0	GASOLINE	13,931.29	06/01/94
91812	504	94 STA WGN: OLDSMOBILE CUTLASS CRUISER	1G3AJ85M1R6399216	0	GASOLINE	13,931.29	06/01/94
91812	505	94 STA WGN: OLDSMOBILE CUTLASS CRUISER	1G3AJ85M0R6399238	0	GASOLINE	13,906.30	06/01/94
91812	506	94 STA WGN: OLDSMOBILE CUTLASS CRUISER	1G3AJ85M6R6400845	0	GASOLINE	13,906.30	06/01/94
91812	507	94 STA WGN: OLDSMOBILE CUTLASS CRUISER	1G3AJ85M5R6400707	0	GASOLINE	13,931.29	06/01/94
91812	508	94 TRUCK: CHEVROLET 1/2 TON PICKUP (EXCH 449)	1GDCD14H1RZ217659	0	GASOLINE	13,667.77	06/01/94
91812	511	94 TRUCK: CHEVROLET 1/2 TON PICKUP	1GDCD14H8RZ217738	0	GASOLINE	13,666.77	06/01/94
91812	512	94 VAN: GMC SAFARI	1GKDM15Z1RB542846	0	GASOLINE	15,072.96	08/01/94
91812	513	94 VAN: GMC SPORT RALLY	1GKEG25H3RF532871	0	GASOLINE	16,144.84	06/01/94
91812	514	94 STATION WAGON: CHEVROLET CAVALIER	1G1JCS445R7317633	0	GASOLINE	11,859.15	06/01/94
91812	517	94 TRUCK: CHEV PICKUP W/ SKID TRAILER	1GCGC33NORJ408472	0	GASOLINE	22,682.00	11/01/94
91812	518	94 TRUCK: GMC SIERRA CLUB COUPE	1GTHK39FA8E503732	0	GASOLINE	143,457.00	09/01/95
91812	519	85 TRUCK: CHEV 4WD P/U-MILITARY	1GCGD34J2FF434840	0	GASOLINE	1,600.00	08/01/96
91812	520	85 TRUCK: CHEV 4WD P/U-MILITARY	1GCHD34J0FF444366	0	GASOLINE	1,600.00	08/01/96
91812	521	84 TRUCK: CHEV. PICKUP	1GCHD34J6EF357800	0	GASOLINE	1,600.00	
91812	528	97 TRUCK: CHEV S-10 EXT CAB PICKUP CHEYENNE	1GCCS19X1VK179464	0	GASOLINE	17,015.61	04/01/97
91812	529	97 TRUCK: CHEV S-10 EXT CAB PICKUP CHEYENNE	1GCCS19X2VK179571	0	GASOLINE	17,015.61	04/01/97
91812	530	97 TRUCK: CHEV S-10 EXT CAB PICKUP CHEYENNE	1GCCS19X0VK179665	0	GASOLINE	17,015.61	04/01/97
91812	531	97 TRUCK: CHEV S-10 EXT CAB PICKUP CHEYENNE	1GCCS19X4VK179622	0	GASOLINE	17,171.86	04/01/97
91812	532	97 TRUCK: CHEV S-10 PICK UP	1GCCS14X7V8169705	0	GASOLINE	14,648.95	05/01/97
91812	533	97 TRUCK: CHEV S-10 PICK UP	1GCCS14X3V8170558	0	GASOLINE	14,648.95	05/01/97
91812	534	97 TRUCK: CHEV S-10 PICKUP	1GCCS14X9V8169690	0	GASOLINE	14,648.95	05/01/97
91812	535	97 TRUCK: CHEV S-10 PICKUP	1GCCS14X2V8169854	0	GASOLINE	14,648.95	05/01/97
91812	536	97 TRUCK: CHEV S-10 PICKUP	1GCCS14X7V8168862	0	GASOLINE	14,648.95	05/01/97
91812	538	97 TRUCK: CHEV 1/2 TON PICKUP	1GCEC14M0VZ216420	0	GASOLINE	19,269.78	06/01/97
91812	539	85 TRUCK: CHEVROLET PICK UP	1GCGD34J2FF425426	0	GASOLINE	1,600.00	04/01/97
91812	540	85 TRUCK: CHEVROLET PICKUP	1GCGD34J5FF425498	0	GASOLINE	1,600.00	04/01/97
91812	541	85 TRUCK: CHEVROLET PICKUP	1GCGD34JXFF426761	0	GASOLINE	1,600.00	04/01/97
91812	542	86 TRUCK: CHEV 4WD P/U- MILITARY	1GCGD34J0GF362375	0	GASOLINE	1,600.00	06/01/97
91812	544	97 VAN: FORD ECONOLINE	1FTRE242XVHB09473	0	GASOLINE	20,000.00	06/01/97
91812	545	97 VAN: FORD ECONOLINE	1FTRE2421VHB09474	0	GASOLINE	20,000.00	06/01/97
91812	546	97 VAN: FORD ECONOLINE	1FTRE2423VHB09475	0	GASOLINE	20,000.00	06/01/97
91812	547	96 TRUCK: TOYOTA PICK UP	4TAWN72NXT2103533	3,670	GASOLINE	15,171.04	06/01/96
91812	548	96 TRUCK: TOYOTA PICK UP	4TAWN72NXT2118386	3,670	GASOLINE	15,171.04	06/01/96
91812	549	92 STATION WAGON TOYOTA ADR LAND CRUISER	JT3FJ80W3N0044046	4,700	GASOLINE	.00	06/01/92
91812	553	98 BLAZER CHEVROLET 4 DR	1GNCS13WVK245714	0	GASOLINE	23,951.93	06/01/98
91812	554	92 WAGON: FORD EXPLORER STATION WAGON	1FMD432X1NUC59187	0	GASOLINE	.00	06/01/92
91812	556	98 SEDAN: CHEVROLET CAVALIER 4 DR.	3G1JCS243WS862406	0	GASOLINE	17,807.18	06/01/98

HIGHWAYS DIVISION - OAHU DISTRICT  
E/U ALTERNATIVE FUEL REPORT BY FUEL TYPE 9/10/08

PERIOD: 07/01/07 THRU 06/30/08

EQUIPMENT	DESCRIPTION.....	SERIAL NUMBER.....	GVW	FUEL.....	-----ACQUISITION-----	
					COST	DATE
91812 564	95 SEDAN: CHEVROLET CORSICA 4 DR.	1G1LD55M7SY271838	0	GASOLINE	6,100.00	06/01/95
91812 565	95 SEDAN: CHEVROLET CORSICA 4 DR.	1G1LD55M6SY273323	0	GASOLINE	6,100.00	06/01/95
91812 566	95 SEDAN: CHEVROLET CORSICA 4 DR.	1G1LD55M4SY284594	0	GASOLINE	6,100.00	06/01/95
91812 567	95 SEDAN: CHEVROLET CAPRICE 4DR.	1G1BL52W0SR163723	0	GASOLINE	11,900.00	06/01/95
91812 569	98 TRUCK: FORD RANGER	1FTZR15U4WPA05345	0	GASOLINE	.00	06/01/98
91812 570	98 TRUCK: FORD RANGER	1FTZR15U8WPA05347	0	GASOLINE	.00	06/01/98
91812 571	98 TRUCK: FORD MPVH EXPLORER	1FMZU34E9WUA20005	0	GASOLINE	.00	06/01/98
91812 575	98 TRUCK: FORD RANGER PICK UP	1FTZR15U6WPA05346	0	GASOLINE	.00	06/01/98
91812 578	95 SEDAN: FORD TAURUS 4 DR.	1FALP52U1SA230476	0	GASOLINE	6,500.00	06/01/95
91812 579	00 VAN: CHEVROLET ASTRO	1GNM19W1YB181166	0	GASOLINE	108,100.00	06/01/00
91812 580	00 WAGON: JEEP CHEROKEE MPVH 4 DR.	1J4FT28S2YL208971	0	GASOLINE	25,030.05	06/01/00
91812 581	00 SEDAN: CHEVROLET 4 DR. MALIBU	SN1G1ND52J9Y6256443	0	GASOLINE	17,485.30	06/01/00
91812 582	00 TRUCK: GMC S-15 PU	1GTD19W8Y8267907	0	GASOLINE	1.00	06/01/00
91812 583	00 TRUCK: GMC 2-15 PU	1GTD19W0Y8270039	0	GASOLINE	1.00	06/01/00
91812 584	93 TRUCK: DODGE PICKUP D250 RAM	1B7JE26X5PS257238	0	GASOLINE	5,900.00	06/01/93
91812 595	01 SEDAN: CHEVROLET 4 DOOR IMPALA	2G1WF55E919344274	4,423	GASOLINE	21,025.00	06/01/01
91812 610	95 SEDAN: FORD TAURUS 4 DR	1FALP524XSA230475	3,220	GASOLINE	.00	06/01/95
91812 637	04 TRUCK DODGE DAKOTA 4DR	1D7HG38K845718546	0	GASOLINE	22,859.23	12/09/04
91812 655	05 TRUCK: DODGE F1500 PICKUP	1D7HA16N15J604298	0	GASOLINE	23,352.98	09/29/05
91812 674	05 SUV: FORD EXPLORER	1FMZU62K45UB86599	0	GASOLINE	23,176.93	12/30/05
91812 676	05 TRUCK: FORD RANGER PU	1FTYR44U25PA81711	0	GASOLINE	21,195.80	12/30/05
91812 678	02 SEDAN: OLDSMOBILE ALERO	1G3NL52F82C255380	0	GASOLINE	7,150.00	03/13/07
91812 679	02 SEDAN: OLDSMOBILE ALERO	1G3NL52F52C244403	0	GASOLINE	7,150.00	03/13/07
91812 680	02 SEDAN: OLDSMOBILE ALERO	1G3NL52F92C244324	0	GASOLINE	7,150.00	03/13/07
91812 691	06 SUV FORD EXPEDITION XLS 4X4	1FMPU14506LA83463	0	GASOLINE	37,117.26	01/22/07
91812 692	06 SUV FORD EXPEDITION XLS 4X4	1FMPU14596LA83462	0	GASOLINE	37,117.26	01/22/07
91812 693	06 SUV FORD EXPEDITION XLS 4X4	1FMPU14576LA83461	0	GASOLINE	37,117.26	01/05/07
91812 694	06 SUV FORD EXPEDITION XLS 4X4	1FMPU14596LA83459	0	GASOLINE	37,117.26	01/05/07
91812 695	06 SUV FORD EXPEDITION XLS 4X4	1FMPU14526LA83464	0	GASOLINE	37,117.26	01/22/07
91812 696	06 SUV FORD EXPEDITION XLS 4X4	1FMPU14576LA83458	0	GASOLINE	37,117.26	01/22/07
91812 697	06 SUV FORD EXPEDITION XLS 4X4	1FMPU14556LA83460	0	GASOLINE	37,117.26	01/22/07
91812 698	06 SUV FORD EXPEDITION XLS 4X4	1FMPU14546LA83465	0	GASOLINE	37,117.26	01/22/07
91812 707	08 TRUCK 07 F150 W/LIFT GATE	1FTRF12VX7KD42204	0	GASOLINE	40,702.47	03/14/08
91812 710	08 SUV FORD EXPEDITION 1FMPK16558LA08808	1FMPK16558LA08808	0	GASOLINE	41,086.76	04/21/08
91812 712	08 SUV 08 FORD EXPLORER 4X4	1FMEU73E08UA15852	0	GASOLINE	30,756.92	05/12/08
91812 714	08 SUV FORD EXPLORER SPORT UTILITY 4X4	1FMEU73E98UA15851	0	GASOLINE	30,756.42	05/28/08
91822 163	81 FORKLIFT: TOYOTA	2FG3020424	0	GASOLINE	17,115.00	06/01/81
91822 196	92 FORKLIFT: YALE FORKLIFT TRUCK	N523949	0	GASOLINE	20,046.00	09/01/92
91822 220	94 TRUCK: GMC	1GDM7H1J8RJ502423	32,000	GASOLINE	80,861.00	09/01/95
91822 221	94 TRUCK: GMC	1GDM7H1J3RJ501258	32,000	GASOLINE	80,861.00	09/01/95
91822 225	77 FORKLIFT: ALIS CHALMERS ACC-40B PS	102882	0	GASOLINE	900.00	06/01/77
91822 229	77 FORKLIFT: ALLISCHALMERS ACC-40BPS	102871	0	GASOLINE	1,500.00	06/01/77
91842 169	84 KELLY-CRESWELL STRIPING MACHINE	3623	0	GASOLINE	9,994.40	11/01/84
91842 172	86 MB STRIPING MACHINE	3-0584	0	GASOLINE	2,784.09	06/01/86
91842 196	90 MOWER: CUBCADET POWER	000189371	0	GASOLINE	3,593.76	08/01/90
91842 202	91 MOWER: SNAPPER POWER	05077521	0	GASOLINE	2,698.80	06/01/91
91842 214	94 MACHINE STRIPING KELLY CRESWELL	KCB42T	0	GASOLINE	19,344.11	02/01/94
91842 229	96 GENERATOR, HONDA GA-6HZ	5131560	0	GASOLINE	2,945.00	12/01/96
91842 235	96 MIXER, BETONIERA WORKMAN 250 CONCRETE	123789	0	GASOLINE	2,442.96	01/01/98
91842 239	98 STRIPING MACHINE KELLY CRESWELL HDCT-2	8007	0	GASOLINE	17,290.70	06/01/98
91842 263	99 STRIPING MACHINE: MB W/POWER DRIVE 5-12	399041271	0	GASOLINE	11,467.00	06/01/99

## Appendix 6. DOT - Highways Vehicles and Fuel Data

HIGHWAYS DIVISION - OAHU DISTRICT  
E/U ALTERNATIVE FUEL REPORT BY FUEL TYPE 9/10/08

PERIOD: 07/01/07 THRU 06/30/08

EQUIPMENT	DESCRIPTION.....	SERIAL NUMBER.....	GVW	FUEL.....	-----ACQUISITION-----	
					COST	DATE
91842 276	03 TRAILER: SPECTRUM W/CHEM SPRAYER TANK	1S9ES16163H364226	0	GASOLINE	.00	06/01/97
91842 277	00 STRIPING MACHINE: KELLY CRESWELL HDCT	SN8173	0	GASOLINE	13,956.72	06/01/97
91842 278	00 STRIPING MACHINE: KELLY CRESWELL HDCT	8174	0	GASOLINE	13,956.72	06/01/97
91842 300	03 STRIPING MACHINE: KELLY CRESWELL B4-2T	8377	0	GASOLINE	29,725.14	10/30/03
91842 312	06 WELDER LINCOLN 10KW K2468-1	159ES14146H364223	0	GASOLINE	31,340.00	05/01/07
91842 314	06 GENERATOR HONDA EB7000I	EAKJ1002570	0	GASOLINE	6,495.00	02/16/07
91842 316	06 ERADICATOR ROBIN MOD 20H W/VACUUM		0	GASOLINE	9,979.98	02/16/07
91842 317	06 WELDER LINCOLN 06 K2468-1	9BS14166H364224	0	GASOLINE	31,340.00	05/01/07
91842 318	06 GENERATOR BRIGGS & STRATTON MOD 030242	1013892078	0	GASOLINE	2,548.08	02/16/07
91842 320	08 SPRAYER 06 TRAILER MTD MCGREGOR EQMR-300	RS335707	0	GASOLINE	25,812.33	09/07/07
91862 106	87 ADVANCE INDUSTRIAL SWEEPER	215714	2,960	GASOLINE	18,705.15	07/01/87
91862 111	99 VACUUM: TENNANT LITTER MACHINE	4300-1132	2,600	GASOLINE	29,421.21	04/01/99
91862 112	00 TRUCK: TENNANT LITTER MACH (VACUUM) ATLV	4300-1437	0	GASOLINE	26,562.33	03/31/00
91862 119	06 FORKLIFT KOMATSU FG30HT-14	204327A	0	GASOLINE	30,728.97	02/13/07
					FUEL TYPE TOTAL	
91812 522	97 TRUCK: CHEV CREW CAB PICK UP CHEYENNE	1GCGC33F0VF028201	0	DIESEL	27,121.70	06/01/97
91812 523	97 TRUCK: CHEV CREWCAB PICKUP	1GCGC33F4VF028153	0	DIESEL	27,121.70	04/01/97
91812 524	97 TRUCK: CHEV CREWCAB PICKUP	1GCGC33F8VF028205	0	DIESEL	27,121.70	04/01/97
91812 525	97 TRUCK: CHEV PICKUP CHEYENNE	1GCGC33F0VF027212	0	DIESEL	27,121.70	04/01/97
91812 526	97 TRUCK: CHEV CREWCAB PICKUP CHEYENNE	1GCGC33F7VF027398	0	DIESEL	27,121.70	04/01/97
91812 527	97 TRUCK: CHEV CREWCAB PICKUP	1GCGC33F8VF027488	0	DIESEL	26,600.88	04/01/97
91812 543	97 VAN: CHEVROLET W/TELESCOPIC AERIAL LIFT	1GCHG39F0V1053533	9,500	DIESEL	50,770.80	06/01/97
91812 550	98 TRUCK: CHEVROLET CREW CAB PICKUP	1GCGC33F5WF061065	0	DIESEL	31,621.33	06/01/98
91812 551	98 TRUCK: CHEVROLET CREW CAB PICKUP	1GCGC33F5WF061549	0	DIESEL	31,828.68	06/01/98
91812 552	98 TRUCK: CHEVROLET CREW CAB PICK UP	1GCGC33F0WF061927	0	DIESEL	31,829.66	06/01/98
91812 555	99 TRUCK: GMC UTILITY CREW CAB	1GPHK33F0X006639	10,000	DIESEL	76,347.44	06/01/99
91812 557	99 TRUCK: CHEVROLET SUBURBAN 4X4	3GNGK26F8XG206132	0	DIESEL	33,848.74	06/01/99
91812 558	99 TRUCK: GMC SIERRA CREW CAB	1GTHC33F9XF012988	0	DIESEL	41,843.36	06/01/99
91812 559	99 TRUCK: GMC SIERRA CREW CAB	1GTHC33F9XF013235	0	DIESEL	41,843.36	06/01/99
91812 560	99 TRUCK: CHEVROLET FLEETSIDE CREWCAB P/U	1GCGC33F7XF060677	0	DIESEL	32,011.25	06/01/99
91812 561	99 TRUCK: CHEVROLET FLEETSIDE CREWCAB P/U	1GCGC33F3XF059719	0	DIESEL	32,115.42	06/01/99
91812 562	99 TRUCK: GMC SIERRA CREW CAB	1GTHC33F1XF010491	10,000	DIESEL	41,843.36	06/01/99
91812 577	00 TRUCK: GMC UTILITY BODY	1GDHC34F3YF415392	10,000	DIESEL	45,694.48	06/01/00
91812 585	00 TRUCK: GMC 3500 SIERRA CREWCAB PICKUP	1GTGC33F0YF496692	9,000	DIESEL	33,906.03	06/01/00
91812 586	01 TRUCK: GMC 2500HD P/U	1GTHC24101E216685	9,200	DIESEL	33,246.44	06/01/01
91812 587	01 TRUCK: GMC 2500 HD P/U W/ARROW BOARD	1GTHC24111E216114	9,200	DIESEL	35,423.92	06/01/01
91812 588	01 TRUCK: GMC 2500 HD P/U W/LIFT GATE	1GTHC24171E218322	9,200	DIESEL	35,605.21	06/01/01
91812 594	01 TRUCK: GMC STAKE W/LIFT GATE	1GDJC34171F141030	11,400	DIESEL	41,569.91	06/01/01
91812 596	01 TRUCK: FORD PICKUP W/EXT. CAB ONE TON	1FTWX32F41EC51441	11,000	DIESEL	32,714.45	06/01/01
91812 597	01 TRUCK: FORD PICKUP W/EXT CAB ONE TON	1FTWX32F61EC51442	11,000	DIESEL	32,714.45	06/01/01
91812 598	01 TRUCK: FORD PICKUP W/EXT CAB ONE TON	1FTWX32F81EC51443	11,000	DIESEL	32,714.45	06/01/01
91812 599	01 TRUCK: FORD PICKUP W/EXT CAB ONE TON	1FTWX32F41EC51444	11,000	DIESEL	32,714.45	06/01/01
91812 600	01 TRUCK: FORD PICKUP W/EXT CAB ONE TON	1FTWX32F11EC51445	11,000	DIESEL	32,714.25	06/01/01
91812 601	01 TRUCK: FORD P/U ONE TON W/EXTENDED CAB	1FTWX32F21EC51440	11,000	DIESEL	32,714.45	06/01/01
91812 602	01 TRUCK: FORD ONE TON P/U W/EXTENDED CAB	1FTWX32F31EC51446	11,000	DIESEL	32,610.44	06/01/01
91812 603	01 TRUCK: FORD P/U ONE TON W/EXTENDED CAB	1FTWX32F51EC51447	11,000	DIESEL	32,610.44	06/01/01
91812 605	01 TRUCK: FORD CREW CAB PICK UP	1FTW32F51EC84032	11,000	DIESEL	35,510.40	06/01/01
91812 606	01 TRUCK: GMC PICK UP	1GTHC24161E316693	9,200	DIESEL	33,246.44	06/01/01
91812 607	01 TRUCK: FORD ONE TON UTILITY PICKUP	1FDWF32F51EC47610	11,000	DIESEL	35,349.81	06/01/01
91812 608	01 TRUCK: FORD ONE TON UTILITY PICKUP	1FDWF32F91EC47609	11,000	DIESEL	35,349.81	06/01/01

## Appendix 6. DOT - Highways Vehicles and Fuel Data

HIGHWAYS DIVISION - OAHU DISTRICT  
E/U ALTERNATIVE FUEL REPORT BY FUEL TYPE 9/10/08

PERIOD: 07/01/07 THRU 06/30/08

EQUIPMENT	DESCRIPTION.....	SERIAL NUMBER.....	GVW	FUEL.....	-----ACQUISITION-----	
					COST	DATE
91812 609	01 VAN: CHEVROLET FULL SIZE MODEL 3500	1GANG35P611235570	9,500	DIESEL	30,117.00	06/01/01
91812 611	01 TRUCK: GMC W/AERIAL	3GDKC34P41M115307	15,000	DIESEL	98,393.22	03/27/02
91812 613	02 TRUCK: FORD ONE TON PU W/EXT. CAB	1FTWX32FX2EC50960	11,500	DIESEL	32,736.18	08/23/02
91812 614	02 TRUCK: FORD ONE TON PU W/EXT. CAB	1FTWX32F12EC50961	11,500	DIESEL	32,736.18	08/23/02
91812 615	02 TRUCK: FORD ONE TON PU W/EXT. CAB	1FTWX32F32EC50962	11,500	DIESEL	32,736.18	08/23/02
91812 616	02 TRUCK: FORD ONE TON PU W/EXT. CAB	1FTWX32F52EC50963	11,500	DIESEL	32,736.18	08/23/02
91812 617	02 TRUCK: FORD ONE TON PU W/EXT. CAB	1FTWX32F72EC50964	11,500	DIESEL	32,736.18	08/23/02
91812 620	02 VAN: CHEV 3500 FULL SIZE	1GNMG35F721243001	9,500	DIESEL	27,785.00	09/12/02
91812 621	02 VAN: CHEV. 3500 15 PASSENGER	1GANG39F651243664	9,500	DIESEL	28,925.00	09/12/02
91812 622	03 TRUCK: FORD 4DR EXCURSION MPVH	1FMSU41P03ED13424	7,650	DIESEL	39,993.77	12/08/03
91812 623	03 TRUCK: FORD EXCURSION 4 DR MPVH	1FMSU41P43ED13426	7,650	DIESEL	39,993.77	12/08/03
91812 624	03 TRUCK: FORD 4DR EXCURSION MPVH	1FMSU41P63ED13427	7,650	DIESEL	39,993.77	12/08/03
91812 625	03 TRUCK: FORD 350 PICKUP W/CREW CAB	1FTWW32P53ED35668	11,500	DIESEL	36,186.18	12/08/03
91812 629	04 TRUCK: FORD EXCURSION 4X4 SPORT UTIL.	1FMSU41P94ED77883	0	DIESEL	40,060.64	11/18/04
91812 630	04 TRUCK: CHEV CREWCAB F350 4X2	1FTWW32P94ED29681	0	DIESEL	32,609.15	11/16/04
91812 631	04 TRUCK: FORD F350 CREW CAB	1FTWW32P04ED29682	0	DIESEL	32,609.15	11/16/04
91812 632	04 TRUCK: FORD 4X2 CREW CAB	1FTWW32P24ED29683	0	DIESEL	32,609.14	11/16/04
91812 633	04 TRUCK: FORD F350 CREWCAB	1FTSF30P84ED37126	0	DIESEL	30,848.43	11/16/04
91812 646	04 TRUCK: FORD F350 PICKUP	1FTWF32P84EE0972	6,640	DIESEL	29,107.05	08/10/05
91812 647	04 TRUCK: FORD F350 PICKUP	1FTSF31P64EE09701	0	DIESEL	31,165.37	09/09/05
91812 648	05 VAN: FORD E350	1FMNE31P45HA02083	0	DIESEL	29,407.10	08/17/05
91812 649	05 VAN: FORD E350	1FMNE31P65HA02084	0	DIESEL	29,407.11	08/17/05
91812 662	06 TRUCK: FORD PU	1FTSF30P46EA19555	0	DIESEL	29,770.77	12/29/05
91812 663	06 TRUCK: FORD PU	1FTSF30P66EA19556	0	DIESEL	29,770.77	12/29/05
91812 664	06 TRUCK: FORD PU	1FTSF30P86EA19557	0	DIESEL	29,770.77	12/29/05
91812 665	06 TRUCK: FORD PU	1FTSF30PX6EA19558	0	DIESEL	29,770.77	12/29/05
91812 666	06 TRUCK: FORD PU	1FTSF30P16EA19559	0	DIESEL	29,770.77	12/29/05
91812 667	06 TRUCK: FORD PU	1FTSF30P86EA19560	0	DIESEL	29,770.77	12/29/05
91812 668	06 TRUCK FORD PU	1FTSF30PX6EA19561	0	DIESEL	29,770.74	12/30/05
91812 669	06 TRUCK: FORD PU F350	1FTSF30P16EA19562	0	DIESEL	29,770.77	12/29/05
91812 670	06 TRUCK: FORD PU	1FTSF30P36EA19563	0	DIESEL	29,770.77	12/29/05
91812 671	06 TRUCK: FORD PU	1FTSF30P56EA19564	0	DIESEL	29,770.77	12/29/05
91812 672	06 TRUCK: FORD PU	1FTSF30P76EA19565	0	DIESEL	29,770.77	12/29/05
91812 673	06 TRUCK: FORD PU	1FTSF30P75ED36700	0	DIESEL	29,770.77	12/29/05
91812 677	06 TRUCK FORD F350 PU W/LIFT GATE	1FTWF30P96EA26082	0	DIESEL	36,706.92	02/23/06
91812 702	06 TRUCK FORD 06 F350 PU	1FTWF30P66ED69920	0	DIESEL	30,931.75	04/21/07
91812 703	06 TRUCK FORD F350 PU	1FTWF30P66ED69917	0	DIESEL	30,931.75	04/19/07
91812 704	06 TRUCK FORD F350 PU	1FTWF30P56ED69908	0	DIESEL	30,931.75	04/19/07
91812 705	07 TRUCK FORD 06 F350 PU	1FTWF30P66ED69898	0	DIESEL	30,931.75	04/19/07
91812 706	06 TRUCK FORD F350	1FDWF30P66ED72523	0	DIESEL	35,603.52	07/17/07
91822 176	86 TRUCK: INT'L 50' AERIAL UTILITY	1HTLCHYN8GHA16614	35,000	DIESEL	79,044.16	01/01/84
91822 177	86 TRUCK: INTERNATIONAL FLATBED	1HTLDTVR2GHA58770	35,000	DIESEL	45,221.28	01/01/86
91822 180	87 TRUCK: THERMO-LAY ASPHALT	1FDWT74P6HVA64443	23,100	DIESEL	54,587.00	02/01/88
91822 181	89 TRACTOR: KENWORTH TANDEM TRUCK	1XKWD29X5KS524167	56,860	DIESEL	71,788.76	05/01/89
91822 182	90 TRUCK: INTL STAKE TRUCK W/ HYD TAILGATE	1HTSAZRL5LH224932	24,160	DIESEL	30,973.91	09/01/89
91822 184	90 TRUCK: INTERNATIONAL 2-1/2 CY DUMP TRUCK	1HTSAZPL2LH229525	24,160	DIESEL	30,448.89	09/01/89
91822 188	91 TRUCK: MACK 10 CY DUMP TRUCK	1M2AY80CSMM005596	56,540	DIESEL	68,348.13	01/01/91
91822 189	91 TRUCK: MACK 10 CY DUMP TRUCK	1M2AY80C7MM005597	56,540	DIESEL	68,348.14	01/01/91
91822 193	91 TRUCK: CHEV KODIAK 2 1/2 CY DUMP	1GBK6H1JXMJ111673	24,260	DIESEL	35,143.19	11/01/91
91822 194	91 TRUCK: CHEV KODIAK 2 1/2 CY DUMP	1GBK6H1J0MJ111732	24,260	DIESEL	35,664.04	11/01/91
91822 195	91 TRUCK: CHEV KODIAK 2 1/2 CY DUMP	1GBK6H1J3MJ111806	24,260	DIESEL	35,143.19	11/01/91

## Appendix 6. DOT - Highways Vehicles and Fuel Data

HIGHWAYS DIVISION - OAHU DISTRICT  
E/U ALTERNATIVE FUEL REPORT BY FUEL TYPE 9/10/08

PERIOD: 07/01/07 THRU 06/30/08

EQUIPMENT	DESCRIPTION.....	SERIAL NUMBER.....	GVW	FUEL.....	-----ACQUISITION-----	
					COST	DATE
91822 197	93 TRUCK: INT'L STAKE W/HYD TAILGATE	1HTSCPEL6PH469510	25,500	DIESEL	37,762.57	11/01/92
91822 199	93 TRUCK: INT'L BITUMIOUS TANK	1HTSDPPN2PH472254	28,080	DIESEL	78,157.00	11/01/92
91822 201	92 TRUCK: GMC 7CY DUMP	1GDP7H1J3NJ525485	35,000	DIESEL	45,289.00	11/01/92
91822 203	93 TRUCK: PETERBILT U/BRDG REACHAL CRANE357	AXPALBOX2PN331520	77,000	DIESEL	417,261.89	12/01/92
91822 204	84 TRUCK: INTERNATIONAL DUMP 10 CY	1HTGGA2T6RH571307	56,000	DIESEL	70,727.99	01/01/94
91822 205	94 TRUCK: CHEV KODIAK DUMP 2 1/2 CY	1GBK6H1J2RJ103896	24,260	DIESEL	35,595.50	02/01/94
91822 206	94 TRUCK: CHEV KODIAK DUMP 2 1/2 CY	1GBK6H1J5RJ103813	24,260	DIESEL	34,137.16	02/01/94
91822 207	94 TRUCK: CHEV KODIAK DUMP 7 CY	16BP7H1J4RJ103790	35,550	DIESEL	43,328.35	02/01/94
91822 208	94 TRUCK: INT'L UNDERBRIDGE REACHALL CRANE	1HTGGA6T2RH548438	77,000	DIESEL	428,900.34	05/01/94
91822 209	94 TRUCK: GMC STAKE DUMP	1GDMTH1J1RJ505924	27,060	DIESEL	39,577.73	04/01/94
91822 210	94 TRUCK: GMC STAKE DUMP	1GDM7H1J2RJ506113	27,060	DIESEL	39,577.74	04/01/94
91822 212	95 INTL. ALTEC AERIAL BUCKET MOD. 4900	1HTSDAAN9SH641782	33,000	DIESEL	234,584.84	10/01/94
91822 213	95 INTL. ALTEC AERIAL BUCKET MOD. 4900	1GTSDAAB1SG641783	33,000	DIESEL	117,292.42	10/01/94
91822 214	95 TRUCK: INT'L ALTEC DERRIC	1HTSDAAR9SH641784	35,000	DIESEL	123,952.24	11/01/94
91822 215	95 TRUCK: FORD STAKE DUMP TRUCK	1FDWF80C5SVA18402	26,000	DIESEL	36,389.70	11/01/94
91822 216	95 TRUCK: FORD STAKE W/HYD HOIST	1FDWF80C7SVA18403	26,000	DIESEL	36,389.70	11/01/94
91822 217	95 TRUCK: FORD STAKE DUMP	1FDWF80C9SVA18404	26,000	DIESEL	36,389.70	11/01/94
91822 218	95 TRUCK: INT'L DUMP 12 CY	1HTGGAUT6SH641780	56,000	DIESEL	71,329.67	02/01/95
91822 219	95 TRUCK: INT'L DUMP 12 CY	1HTGGAUT8SH641781	0	DIESEL	70,808.82	02/01/95
91822 222	83 TRUCK: FORKLIFT (MILILARY)	3336022159	47,000	DIESEL	1,600.00	08/01/96
91822 223	97 TRUCK: INTL TUNNEL WASH VEHICLE	1HTSDAAR9VH46573	0	DIESEL	420,000.00	06/01/97
91822 224	99 TRUCK: INTERNATIONAL STAKE CREWCAB	1HTSCAAL5XH646633	0	DIESEL	71,294.23	06/01/99
91822 226	99 TRUCK: INT'L TECO AERIAL BUCKET	1HTSDAANOXH646635	33,000	DIESEL	179,086.70	06/01/99
91822 228	99 TRUCK: INT'L TECO AERIAL BUCKET	1HTSDAAN9XH646634	25,700	DIESEL	180,024.19	06/01/99
91822 230	99 TRUCK: FORD STAKE W/SCISSORS LIFT	1FDXF46F0XEC46765	15,000	DIESEL	76,867.99	06/01/99
91822 231	99 TRUCK: FORD F-800 W/BOOM	3FEXF8013XMA11609	33,000	DIESEL	121,266.15	06/01/99
91822 232	99 TRUCK: FORD F-8-- W/BOOM	3FEXF801XMA11610	33,000	DIESEL	121,266.15	06/01/99
91822 233	99 TRUCK: FORD FLATBED	1FDAF56F7XEB75284	17,500	DIESEL	61,842.20	06/01/99
91822 234	00 TRUCK: INT'L. UTILITY SERVICE 4900	1HTSDAAN7YH212102	33,000	DIESEL	114,544.98	06/01/00
91822 235	00 TRUCK: TRACTOR PETERBILT MOD 378	1XPFD60X2YD505684	60,060	DIESEL	104,802.38	06/01/00
91822 236	00 TRUCK: INTERNATIONAL DUMP MOD. 2674	1HTGLAER3YS218405	54,060	DIESEL	101,903.92	06/01/00
91822 238	01 TRUCK: INT'L 3500 GALLON TANK	1HTGLAHT11H333470	64,000	DIESEL	140,919.12	06/01/01
91822 239	00 TRUCK: GMC 2 1/2 CU YD DUMP C 7500	1CDMTH1C3YJ516441	27,100	DIESEL	71,887.09	06/01/00
91822 240	00 TRUCK: GMC UTILITY BODY C6500	1GDDG6H1C2YJ516513	23,100	DIESEL	83,825.07	06/01/00
91822 241	00 TRUCK: GMC LIFT-ALL AERIAL BUCKET C-8500	1GDP7H1C4YJ516705	35,000	DIESEL	174,423.48	06/01/00
91822 242	02 TRUCK: INTERNATIONAL DUMP 4700	1HTSCAAM72H409692	25,500	DIESEL	64,541.86	06/01/02
91822 243	02 TRUCK: INTERNATIONAL DUMP 4700	1HTSCAAM92H409693	25,500	DIESEL	64,541.86	06/01/02
91822 244	02 TRUCK: INTERNATIONAL DUMP 4700	1HTSCAAM02H409694	25,500	DIESEL	64,541.86	06/01/02
91822 245	02 TRUCK: INTERNATIONAL DUMP 4700	1HTSCAAM22H409695	25,500	DIESEL	64,021.03	06/01/02
91822 246	02 TRUCK: INTERNATIONAL TRK TRACTOR 9900I	2HSCHAET62C030153	58,860	DIESEL	101,511.59	06/01/02
91822 247	87 TRUCK: FORD ASPHALT THERMO LAY TRUCK	1FDWT74P6HVA4443	23,100	DIESEL	.00	06/04/02
91822 248	02 TRUCK: GMC 2 1/2 CY DUMP C6500	1GDK7H1C22J502285	25,950	DIESEL	75,362.55	08/28/02
91822 249	02 TRUCK: GMC 2 1/2 CY DUMP C6500	1GDK7H1C12J502472	25,950	DIESEL	74,112.50	08/28/02
91822 250	03 TRUCK: PETERBILT FLATBED W/CRANE	1NPZL00X13D714740	64,000	DIESEL	262,151.29	04/25/03
91822 251	02 TRUCK: GMC DUMP C6500	1GDDG6H1CX2J513852	23,100	DIESEL	65,923.31	05/14/03
91822 252	02 TRUCK: GMC DUMP	1GDK7H1C72J515405	25,950	DIESEL	75,978.03	05/14/03
91822 253	03 TRUCK: PETERBILT W/CRANE/DUMP	1NPZL00X33D714741	64,000	DIESEL	281,484.93	09/12/03
91822 254	04 TRUCK: GMC ALTEC AERIAL/UTILITY MDL 5500	1GDE5E1163F521412	19,500	DIESEL	95,355.56	01/15/04
91822 255	04 TRUCK: PETERBILT DUMP MDL 378	1NPFLBOX54D818437	58,000	DIESEL	146,217.88	01/20/04
91822 256	04 TRUCK: PETERBILT DUMP MDL 378	1NPFLBOX74D818438	58,000	DIESEL	146,217.88	01/20/04
91822 257	04 TRUCK: INTERNATIONAL DUMP MOD. 4400 SBA	1HTMKAL44H652480	12,780	DIESEL	69,676.86	05/24/04

## Appendix 6. DOT - Highways Vehicles and Fuel Data

HIGHWAYS DIVISION - OAHU DISTRICT  
E/U ALTERNATIVE FUEL REPORT BY FUEL TYPE 9/10/08

PERIOD: 07/01/07 THRU 06/30/08

EQUIPMENT	DESCRIPTION.....	SERIAL NUMBER.....	GVW	FUEL.....	-----ACQUISITION----- COST	DATE
91822 260	05 TRUCK: PETERBILT TANK #357 SBFA	2NPLH28X75M852585	19,260	DIESEL	118,994.90	12/08/04
91822 261	04 TRUCK FORD F350 FLATBED	1FDWF36P74EA68038	8,620	DIESEL	36,606.02	12/02/04
91822 262	04 TRUCK FORD F350 FLATBED	1FDWF36P54EA68037	8,620	DIESEL	36,606.02	12/02/04
91822 263	04 TRUCK GMC AERIAL "C"	1GDE5C1205F503083	19,500	DIESEL	104,297.94	03/17/05
91822 264	05 TRUCK: GMC DUMP	1GDJ6C13X5F500437	25,640	DIESEL	73,592.38	06/21/05
91822 265	05 TRUCK: GMC DUMP	1GDJ6C1375F500492	25,640	DIESEL	73,592.38	06/21/05
91822 266	05 TRUCK: GMC "T" UTILITY SERVICE	1GDJ5C1285F506313	26,000	DIESEL	89,889.85	06/21/05
91822 267	05 TRUCK: GMC DUMP SOLID SIDE PANEL	1GDJ6C1335F531982	25,640	DIESEL	75,757.88	03/16/06
91822 268	05 TRUCK GMC FLATBED	1GDE5C1235F528737	19,500	DIESEL	57,894.68	03/16/06
91822 269	06 TRUCK TRACTOR PETERBILT 378SPFA	1XFPD40X66D632620	60,060	DIESEL	115,692.80	06/14/06
91822 270	07 TRUCK PETERBILT 7CY DUMP	2NPLH28X17M673736	17,160	DIESEL	117,166.09	02/09/07
91822 271	08 TRUCK GMC W/UTILITY BODY	1GDJ6C1BX8F401578	26,000	DIESEL	138,199.80	
91822 272	08 TRUCK GMC C5500 CAB CHASSIS W/AERIAL	1GDE5C1908F400294	19,500	DIESEL	145,360.76	04/21/08
91822 273	08 TRUCK INTERNATIONAL DUMP 7400	1HTWCAAR98J658638	36,220	DIESEL	112,043.88	04/30/08
91822 274	08 TRUCK INTERNATIONAL DUMP 4400	1HTMKAAL68H658559	25,999	DIESEL	91,253.29	04/30/08
91832 147	99 TRAILER: TRAIL KING LOW BOY TK50RG-402	1TKS04021XM026782	64,140	DIESEL	41,666.40	06/01/99
91832 158	05 TRAILER: WATER CMCO 5,000 GAL TANDEM	DTF450BSR20506506	0	DIESEL	131,989.64	12/28/05
91832 161	06 TRAILER: TRAILKING LOWBOY TK70HGD-472	1TKJ047256M103637	0	DIESEL	68,894.15	06/14/06
91842 166	82 OVERLOWE PORTABLE FLOOD LIGHT	824681	0	DIESEL	13,856.00	08/01/92
91842 170	85 POWER CURBER CURRING MACHINE	150785094	0	DIESEL	6,562.40	08/01/85
91842 173	86 GENERATOR: MILLER WELDER/GENERATOR	JG057742	0	DIESEL	3,320.00	07/01/86
91842 174	86 GENERATOR: MILLER WELDER/GENERATOR	JG062668	0	DIESEL	3,320.00	07/01/86
91842 195	89 TRACTOR: FORD MOWER W/EXT FLAIL	BB85071	0	DIESEL	37,380.07	07/01/89
91842 211	93 TRACTOR: KUBOTA W/ FLAIL MOWER	21623	0	DIESEL	16,403.65	03/01/93
91842 213	93 LIGHT TOWER: MAGNUM PORTABLE 4060 K-MH	93294	0	DIESEL	10,610.40	09/01/93
91842 217	94 LIGHT TOWER: INGERSOLL-RAND MOD L64MH	247798 I.D.#KNC6237	0	DIESEL	13,402.51	10/01/94
91842 218	94 WELDING UNIT MILLER BIG 40 DIESEL	KE700618	0	DIESEL	8,145.80	12/01/94
91842 219	94 WELDING UNIT MILLER BIG 40 DIESEL	KE700621	0	DIESEL	8,145.80	12/01/94
91842 225	96 SPRAYER, FMC JOHN BEAN DM10E300PERH	JB00320NA	0	DIESEL	11,048.64	02/01/96
91842 226	96 CHIPPER, MORBARK EZ #2200	2773	0	DIESEL	24,342.79	12/01/96
91842 227	96 CHIPPER, MORBARK EZ #2200	2774	0	DIESEL	24,343.83	12/01/96
91842 228	96 CHIPPER, MORBARK EZ #2200	2775	0	DIESEL	24,343.00	12/01/96
91842 236	98 SIGN MESSAGE BOARD ELECTRONIC W/TRAILER	069801-T2	0	DIESEL	32,920.00	06/01/98
91842 240	98 MOWER: TORO GROUNDMASTER 580D	30581-80278	0	DIESEL	65,811.10	06/01/98
91842 241	98 MOWER: TORO GROUNDMASTER 325D MOD 30795	30795-80338	0	DIESEL	25,357.45	06/01/98
91842 242	98 MOWER: TORO GROUNDMASTER 325D MOD 30795	30795-80340	0	DIESEL	25,669.94	06/01/98
91842 243	98 MOWER: TORO GROUNDMASTER 325D MOD 30795	30795-80342	0	DIESEL	25,878.28	06/01/98
91842 244	99 MOWER: KUBOTA TRACTOR MOWER	7030-21047	0	DIESEL	41,200.33	06/01/99
91842 245	99 MOWER: KUBOTA TRACTOR MOWER	7030-21049	0	DIESEL	41,200.33	06/01/99
91842 246	99 AUGER, MELROE MODEL 15	187403365	0	DIESEL	2,166.65	06/01/99
91842 251	99 MOWER: TORO GROUND MASTER	30243-90111	0	DIESEL	19,041.17	06/01/99
91842 252	99 MOWER: TORO GROUNDMASTER 223-D	30243-90114	0	DIESEL	19,560.92	06/01/99
91842 253	99 MOWER: TORO GROUNDMASTER 223-D	30243-90118	0	DIESEL	19,560.92	06/01/99
91842 254	99 MOWER: TORO GROUNDMASTER 223-D MOWER	30243-90119	0	DIESEL	19,560.92	06/01/99
91842 255	99 MOWER: TORO GROUNDMASTER 223-D	30243-90120	0	DIESEL	19,560.92	06/01/99
91842 257	99 MOWER: TORO GROUNDMASTER 325D MOD. 30795	90146	0	DIESEL	27,113.60	06/01/99
91842 258	99 MOWER: TORO GROUNDMASTER 325D MOD. 30795	90142	0	DIESEL	27,113.60	06/01/99
91842 259	99 MOWER: TORO GROUNDMASTER 325D MOD. 30795	90268	0	DIESEL	27,113.59	06/01/99
91842 260	99 MOWER: TORO GROUNDMASTER 325D MOD. 30795	90390	0	DIESEL	27,113.59	06/01/99
91842 261	99 MOWER: TORO GROUNDMASTER 325D MOD. 30795	90176	0	DIESEL	26,686.38	06/01/99
91842 266	99 TRACTOR: KUBOTA W/SIDE EXT. MOWER M8200	10559	0	DIESEL	60,483.02	06/01/99



## Appendix 6. DOT - Highways Vehicles and Fuel Data

HIGHWAYS DIVISION - OAHU DISTRICT  
E/U ALTERNATIVE FUEL REPORT BY FUEL TYPE 9/10/08

PERIOD: 07/01/07 THRU 06/30/08

EQUIPMENT	DESCRIPTION	SERIAL NUMBER	GVW	FUEL	ACQUISITION	
					COST	DATE
91842 267	99 TRACTOR: KUBOTA W/SIDE EXT MOWER M8200	10561	0	DIESEL	60,170.52	06/01/99
91842 268	99 MOWER: TORO GROUNDMASTER 580D TRIPLEX	90489	0	DIESEL	71,246.83	06/01/97
91842 269	00 LIGHT TOWER: WACKER LTP4	5112668	0	DIESEL	10,622.00	06/01/97
91842 270	00 MOWER: TORO GROUNDMASTER 325D 30795	200000106	0	DIESEL	26,888.27	06/01/97
91842 271	97 MESSAGE BOARD PORTABLE ADDCO SOLAR	DH1000 SN584940	3,700	DIESEL	37,000.00	06/01/97
91842 272	97 MESSAGE BOARD PORTABLE ADDCO SOLAR	DH 1000 SN 584984	3,700	DIESEL	37,000.00	06/01/97
91842 273	97 MESSAGE BOARD PORTABLE ADDCO SOLAR	DH1000 SN584985	3,700	DIESEL	37,000.00	06/01/97
91842 274	97 MESSAGE BOARD PORTABLE ADDCO SOLAR	DH1000 SN 584991	3,700	DIESEL	37,000.00	06/01/97
91842 275	97 MESSAGE BOARD PORTABLE ADDCO SOLAR	DH1000 SN 584997	3,700	DIESEL	37,000.00	06/01/97
91842 279	01 LIGHT TOWER: TRAILER MOUNT WACKER LTP4Z	5231940	1,990	DIESEL	9,330.00	06/01/97
91842 280	01 LIGHT TOWER: TRAILER MOUNT WACKER LTP4	5231941	1,990	DIESEL	9,330.00	06/01/97
91842 281	01 LIGHT TOWER: TRAILER MOUNT WACKER LTP4	5231942	1,990	DIESEL	9,330.00	06/01/97
91842 282	01 LIGHT TOWER: TRAILER MOUNT WACKER LTP4	5231943	1,990	DIESEL	9,330.00	06/01/97
91842 283	01 TRACTOR: KUBOTA UTIL.W/R MTD.FLAIL MOWER	10778	0	DIESEL	39,948.99	06/01/97
91842 284	02 MESSAGE BOARD: NATL SIGNAL TRAILER MTD	189M214112L358009	3,500	DIESEL	24,790.67	09/12/02
91842 285	02 MESSAGE BOARD: NATL SIGNAL TRAILER MTD	189M24132L358013	3,500	DIESEL	24,790.66	09/12/02
91842 288	02 TRACTOR: CASE UTIL W/REAR MTD FLAIL MOWR	C080RS4JJE1020833	0	DIESEL	39,166.42	09/27/02
91842 289	02 TRAILER: SOLAR TECH MTD MESSAGE BOARD	408562	2,900	DIESEL	24,834.28	11/20/02
91842 290	02 TRAILER: SOLAR TECH MTD MESSAGE BOARD	408563	2,900	DIESEL	24,834.28	11/20/02
91842 291	02 TRAILER: SOLAR TECH MTD MESSAGE BOARD	408564	2,900	DIESEL	24,834.28	11/20/02
91842 292	02 TRAILER: SOLAR TECH MTD MESSAGE BOARD	408565	2,900	DIESEL	24,834.28	12/12/02
91842 293	02 LIGHT TOWER: INGERSOLL-RAND TRAILER MTD.	331077/1077	3,640	DIESEL	12,812.41	09/26/02
91842 294	02 LIGHT TOWER: INGERSOLL-RAND TRAILER MTD	3310781078	3,640	DIESEL	12,812.42	09/26/02
91842 295	02 LIGHT TOWER: INGERSOLL-RAND TRAILER MTD	331079/1079	3,640	DIESEL	12,812.42	09/26/02
91842 296	02 MOWER: TORO GROUNDMASTER 328D	30627-220000268	0	DIESEL	26,281.08	03/25/03
91842 297	03 TRACTOR: FORD T590 W/EXT S/R MTD FLAIL	199806B	0	DIESEL	72,916.20	10/23/03
91842 298	03 TRACTOR: FORD T590 W/EXT. S/R MTD FLAIL	199913B	0	DIESEL	72,916.20	10/27/03
91842 299	03 TRACTOR: FORD T590 W/EXT. S/R MTD FLAIL	200222B	0	DIESEL	72,916.20	10/27/03
91842 301	03 TRACTOR: KUBOTA UTIL. W/REAR MTD FLAIL	11071	0	DIESEL	41,727.45	12/26/03
91842 302	03 TRACTOR: KUBOTA UTIL W/REAR MTD FLAIL	11073	0	DIESEL	41,727.45	12/26/03
91842 303	85 LIGHT TOWER: OVER LOWE	851824/M	0	DIESEL	1,700.00	06/30/03
91842 304	85 LIGHT TOWER: OVER LOWE	851792/M	0	DIESEL	1,700.00	06/30/03
91842 305	85 LIGHT TOWER: OVER LOWE	851846/M	0	DIESEL	1,700.00	06/30/03
91842 311	05 LIGHT TOWER: INGERSOLL-RAND LIGHTSOURCE	356563UEP789	0	DIESEL	11,600.00	06/30/06
91852 129	82 CRAFTCO ASPHALT SEALER W/JOINT CRACK MACH	3149 & C0185	3,500	DIESEL	23,040.16	09/01/82
91852 136	85 TRUCK: INTL SEWER HYDROJET VAC CLEANER	1HTLDTVR4FHA62673	35,180	DIESEL	104,893.36	10/01/85
91852 137	84 COMPRESSOR: LEROI	3119X1100	2,560	DIESEL	12,064.00	09/01/86
91852 141	88 LOADER: JOHN DEERE ARTICULATING	DW644EDS20958	34,404	DIESEL	96,838.52	12/01/88
91852 142	81 BACKHOE: CASE LOADER	JJG0012229	17,500	DIESEL	38,323.03	11/01/88
91852 145	91 CASE LOADER/BACKHOE	JJG0163916	20,000	DIESEL	33,986.57	10/01/91
91852 148	92 COMPRESSOR: ATLAS COPCO PORTABLE AIR	ARP978949	0	DIESEL	11,197.95	10/01/92
91852 151	93 COMPRESSOR: ATLAS COPCO PORTABLE	H01600414	0	DIESEL	11,350.07	12/01/93
91852 152	93 JOHN DEERE BACKHOE TURBO 4X4	T0410DG794985	0	DIESEL	56,231.43	12/01/93
91852 153	93 ROLLER: DYNAPAC TANDEM CC-211	61510446	0	DIESEL	65,121.04	12/01/93
91852 155	94 SWEEPERS: JOHNSTON VANGUARD 4000 SP	1JSVM4H2XRC041015	26,000	DIESEL	134,292.10	08/01/94
91852 157	94 LOADER: CASE MDL 621-B	JEE0040796	0	DIESEL	79,404.42	10/01/94
91852 158	94 LOADER: CASE MDL 821-B	JEE0040797	0	DIESEL	126,904.57	10/01/94
91852 159	96 LOADER: BOBCAT SKID INGERSOLL RAND #763	512220135	0	DIESEL	17,807.36	12/01/96
91852 160	98 LOADER/BACKHOE JOHN DEERE 310SE 4X4	T0310SE848919	0	DIESEL	68,393.31	06/01/98
91852 161	98 LOADER/BACKHOE JOHN DEERE 310SE 4X4	T0310SE848978	0	DIESEL	57,976.71	06/01/98
91852 162	99 SWEEPER: ELGIN/STERLING 4-WHEEL MECH.	49H6WFAA6XHA71218	32,000	DIESEL	15,138.61	06/01/99

HIGHWAYS DIVISION - OAHU DISTRICT  
E/U ALTERNATIVE FUEL REPORT BY FUEL TYPE 9/10/08

PERIOD: 07/01/07 THRU 06/30/08

EQUIPMENT	DESCRIPTION	SERIAL NUMBER	GVW	FUEL	-----ACQUISITION-----	
					COST	DATE
91852 163	99 BOBCAT: MELROE INGERSOLL RAND 873	514124589	0	DIESEL	35,854.77	06/01/99
91852 164	99 LOADER/FORKLIFT: KOMATSU WA180-3L	A80497	0	DIESEL	74,634.94	06/01/99
91852 165	00 COMPRESSOR: PDS 1855 AIRMAN AIR	53-6A11637	0	DIESEL	13,395.00	06/01/00
91852 166	99 ROLLER: WACKER VIBRATORY RD-25	5080819	0	DIESEL	30,721.25	06/01/99
91852 167	00 BOBCAT: MELROE INGERSOLL RAND 873	514141825	0	DIESEL	32,313.60	06/01/00
91852 168	00 BOBCAT: MELROE INGERSOLL RAND 873	514141831	0	DIESEL	32,313.60	06/01/00
91852 169	00 TRUCK: INT'L SEWER HYDRO JET VACUUM	1HTGLAHTOYH333471	66,000	DIESEL	253,878.68	06/01/00
91852 170	01 SWEEPER: INT'L. W/ELGIN CROSSWIND 4700	1HTSCAAN81H333472	33,000	DIESEL	135,115.42	06/01/01
91852 171	02 TRUCK: VOIVO SEWER HYDRO VAC JET CLEANER	4V5KC9UF92N329529	66,000	DIESEL	267,290.45	06/01/02
91852 172	01 LOADER: NEW HOLLAND LS 180	187694	0	DIESEL	32,770.62	06/01/02
91852 173	02 TRUCK: GMC MOUNTED DIESEL SWEEPER	1GDP7C1C02J504190	34,350	DIESEL	171,392.88	06/18/02
91852 174	02 TRUCK: GMC MOUNTED DIESEL SWEEPER	1GDP7C1C02J504223	34,350	DIESEL	171,288.71	06/18/02
91852 175	02 GRADER: GALLION ARTICULATED MOTOR GRADER	71079	0	DIESEL	108,332.64	06/18/02
91852 176	02 SWEEPER: GMC TRUCK MOUNTED T8500	1GDP7C1C22J513277	34,350	DIESEL	172,846.84	12/16/02
91852 177	02 SWEEPER: GMC TRUCK MOUNTED	1GDP7C1C82J513588	34,350	DIESEL	172,846.82	12/16/02
91852 178	03 BACKHOE/LOADER: NEW HOLLAND MOD LB90	031046530	0	DIESEL	68,228.73	05/04/04
91852 179	04 LOADER: CATERPILLAR TRACK MOD 939C	6DS01575	0	DIESEL	94,008.36	03/07/05
91852 180	05 TRUCK PETERBILT SEWER HYDRO JET-VACUUM	1NPAL00X05D851359	37,540	DIESEL	276,122.91	03/07/05
91852 181	04 SWEEPER GMC TRUCK T7F042	1GDM7F1344F509306	33,000	DIESEL	205,462.03	03/17/05
91852 182	05 LOADER: KOMATSU FRONT END WHEEL	65912	0	DIESEL	95,311.89	12/28/05
91852 183	05 LOADER/BACKHOE CASE 590SM	N5C394588	0	DIESEL	97,916.04	06/14/06
91852 184	08 EXCAVATOR 07 KOMATSU MOD PC138USLC	21539	0	DIESEL	140,131.36	02/11/08
91852 185	07 PATCHER 07 PYTHON POTHOLE	PP-002-1207	0	DIESEL	288,871.90	04/02/08
91862 103	76 DROFT MOBILE CRANE	6223703	10,500	DIESEL	20,000.00	06/01/78
91862 108	98 TRUCK: LIFT BOOM GROVE ARTICULAT'G AMZ68	46668	27,420	DIESEL	95,907.76	09/01/98
91862 109	98 BARRIER TRANSFER MACHINE, BTM ZIPMOBILE	195	69,292	DIESEL	1,700,000.00	07/29/98
91862 110	98 BARRIER TRANSFER MACHINE, BTM ZIPMOBILE	196	69,292	DIESEL	1,700,000.00	09/11/98
91862 113	00 PALLET JACK: HYSTER ELECTRIC 60	B199H06696X	0	DIESEL	10,200.00	04/18/00
91862 114	99 PUMP GORMAN-RUPP PORT TRASH PA6160-4045D	1160590	5,200	DIESEL	39,893.49	06/01/00
91862 115	84 FORKLIFT: 84 TCM 6000 MODEL #FG3DNT	44430599	16,280	DIESEL	1,400.00	05/17/04
91862 116	06 CHIPPER BANDIT 280	1107	0	DIESEL	46,666.36	12/29/06
91862 117	06 CHIPPER BANDIT 280	1108	0	DIESEL	46,666.36	12/29/06
91862 118	06 CHIPPER BANDIT 280	1110	0	DIESEL	46,666.36	12/29/06
					FUEL TYPE TOTAL	
91812 537	97 TRUCK: CHEV PICKUP	1GCCS14X9V8171357	0	PROPANE	19,634.36	05/01/97
91812 563	99 TRUCK: GMC SIERRA EXT CAB PICKUP 2500	1GTGC29UXE529685	8,600	PROPANE	32,735.04	06/01/99
91812 568	97 TRUCK: CHEVROLET MPVH BLAZER	1GNDT13W8V2239006	0	PROPANE	.00	06/01/97
91812 572	98 TRUCK: FORD MPVH EXPLORER	1FMZU34X9WUA20006	0	PROPANE	.00	06/01/98
91812 573	98 TRUCK: FORD MPVH EXPLORER	1FMZU34X0WUA20007	0	PROPANE	.00	06/01/98
91812 574	98 TRUCK: FORD MPVH EXPLORER	1FMZU34X2WUA20008	0	PROPANE	.00	06/01/98
91812 576	98 TRUCK: FORD RANGER PICK UP	1FTZR15X5WPA15246	0	PROPANE	.00	06/01/98
91812 589	00 TRUCK: FORD 4 W/D PU W/ALTERNATE FUEL	1FTZR15X3YPB48056	5,080	PROPANE	29,959.18	06/01/00
91812 590	00 TRUCK: FORD 4 W/D PU W/ALTERNATE FUEL	1FTZR15X5YPB48057	5,080	PROPANE	29,959.18	06/01/00
91812 641	04 VAN FORD E350	1FMNE31L94HB42867	0	PROPANE	39,765.11	03/17/05
91812 642	04 VAN: FORD E350	1FMNE31L74HB42866	0	PROPANE	39,765.11	03/17/05
91842 233	97 THERMO PLASTIC STRIPING MACHINE		0	PROPANE	.00	01/01/97
					FUEL TYPE TOTAL	
91812 591	00 TRUCK: FORD PU W/ALTERNATE FUEL	2FTFX17ZXYCA99791	7,700	PROPANE/GAS	32,342.98	06/01/00
91812 592	00 TRUCK: FORD PU W/ALTERNATE FUEL	2FTFX17Z1YCA99792	7,700	PROPANE/GAS	31,822.15	06/01/00

## Appendix 6. DOT - Highways Vehicles and Fuel Data

HIGHWAYS DIVISION - OAHU DISTRICT  
E/U ALTERNATIVE FUEL REPORT BY FUEL TYPE 9/10/08

PERIOD: 07/01/07 THRU 06/30/08

EQUIPMENT	DESCRIPTION	SERIAL NUMBER	GVW	FUEL	-----ACQUISITION-----	
					COST	DATE
91812 593	00 TRUCK: FORD PU W/ALTERNATE FUEL	2FTPX17Z3YCA99793	7,700	PROPANE/GAS	32,342.98	06/01/00
91812 650	05 TRUCK FORD F150 PICKUP	1FTRF12W35NA04809	0	PROPANE/GAS	37,305.33	10/04/05
91812 651	05 TRUCK; FORD 150 PICKUP	1FTRF12W15NA04808	0	PROPANE/GAS	37,305.34	10/04/05
91812 652	05 TRUCK; FORD 150 PICKUP	1FTRF12WX5NA04807	0	PROPANE/GAS	37,305.34	10/04/05
91812 653	05 TRUCK; FORD 150 PICKUP	1FTRF12WX5NA04810	0	PROPANE/GAS	37,305.33	10/04/05
91812 654	04 VAN: FORD E350	1FMNE31L15HA05889	0	PROPANE/GAS	39,084.12	12/14/05
91812 700	07 SUV '06 FORD SPORT UTILITY EXPLORER	1FMEU62E56UB38457	0	PROPANE/GAS	32,245.22	06/22/07
91812 701	07 VAN '06 FORD E350	1FMNE31S66DB02148	0	PROPANE/GAS	39,752.87	06/21/07
91812 708	07 VAN FORD E150	1FMNE11LX7DB34373	0	PROPANE/GAS	43,739.25	04/21/08
91812 709	07 VAN FORD E150	1FMNE11L77DB34377	0	PROPANE/GAS	43,739.25	04/21/08
91812 711	08 SUV FORD ESCAPE COMPACT	1FMCU03Z08KB33431	0	PROPANE/GAS	29,922.50	04/30/08
91812 713	08 SUV FORD EXPLORER SPORT UTILITY 4X4	1FMEU73E78UA15850	0	PROPANE/GAS	41,704.56	05/28/08
					FUEL TYPE TOTAL	
91812 604	01 SEDAN: FORD 4 DOOR TAURUS	1FAFP52221A253114	4,684	ETHONAL/GAS	17,605.74	06/01/01
91812 612	02 SEDAN: FORD TAURUS 4DR	1FAFP52282A196807	4,684	ETHONAL/GAS	18,083.83	08/20/02
91812 618	02 TRK: FORD EXPLORER 4X4 4 DR.	1FMZU72K222C52474	5,840	ETHONAL/GAS	43,132.22	09/12/02
91812 619	02 TRK: FORD EXPLORER SPORT UTILITY	1FMZU62K122C52475	5,700	ETHONAL/GAS	40,151.83	09/12/02
91812 634	03 TRUCK FORD PU	1FTYR44V43TA01225	0	ETHONAL/GAS	18,500.25	12/09/04
91812 635	03 TRUCK FORD PU	1FTZR44V03PB22573	0	ETHONAL/GAS	18,500.25	12/09/04
91812 636	03 TRUCK FORD PU	1FTZR44V83PB35376	0	ETHONAL/GAS	18,500.25	12/09/04
91812 638	04 TRUCK DODGE PU	1D7HA16P54J253265	0	ETHONAL/GAS	22,807.16	12/09/04
91812 643	05 SEDAN: FORD 4 DR. TAURUS	1FAFP532X5A160474	0	ETHONAL/GAS	14,551.99	06/24/05
91812 644	05 SEDAN: FORD 4DR TAURUS	1FAFP53265A160472	0	ETHONAL/GAS	1.00	06/24/05
91812 645	05 SEDAN: FORD 4 DR TAURUS	1FAFP53285A160473	0	ETHONAL/GAS	1.00	06/24/05
91812 656	05 SEDAN: FORD TAURUS 4 DR.	1FAFP532X5A303679	0	ETHONAL/GAS	15,940.24	12/28/05
91812 657	05 SEDAN: FORD TAURUS 4 DR.	1FAFP53245A303676	0	ETHONAL/GAS	15,940.24	12/28/05
91812 658	05 SEDAN: FORD TAURUS 4 DR.	1FAFP53265A303677	0	ETHONAL/GAS	15,940.24	12/28/05
91812 659	05 SEDAN: FORD TAURUS 4 DR.	1FAFP53285A303681	0	ETHONAL/GAS	15,940.23	12/28/05
91812 660	05 SEDAN: FORD TAURUS 4 DR.	1FAFP53285A303678	0	ETHONAL/GAS	15,940.23	12/28/05
91812 661	05 SEDAN: FORD TAURUS 4 DR.	1FAFP53265A303680	0	ETHONAL/GAS	15,940.24	12/28/05
91812 675	05 SUV FORD EXPLORER	1FMZU62KX52A62730	0	ETHONAL/GAS	23,176.94	12/30/05
91812 681	06 SEDAN FORD TAURUS	1FAFP53266A262890	0	ETHONAL/GAS	24,037.98	01/23/07
91812 682	06 TRUCK DODGE RAM 1500 QUAD CAB PU	1D7HA18P96J200732	0	ETHONAL/GAS	26,568.58	12/22/06
91812 683	06 TRUCK DODGE QUAD CAB RAM 1500 PU	1D7HA18P06J200733	0	ETHONAL/GAS	26,568.58	12/22/06
91812 684	06 TRUCK DODGE RAM 1500 PU	1D7HA16P36J200728	0	ETHONAL/GAS	22,772.77	12/22/06
91812 685	06 TRUCK DODGE RAM 1500 PU	1D7HA16P36J200731	0	ETHONAL/GAS	22,772.77	12/22/06
91812 686	06 TRUCK DODGE RAM 1500 PU	1D7HA16P56J200729	0	ETHONAL/GAS	22,772.77	12/22/06
91812 687	06 TRUCK DODGE RAM 1500 PU	1D7HA16P16J200730	0	ETHONAL/GAS	22,772.77	12/22/06
91812 688	06 TRUCK DODGE RAM 1500 QUAD CAB 4X4	7HU18P66J201912	0	ETHONAL/GAS	28,477.94	12/22/06
91812 689	06 TRUCK DODGE RAM 1500 QUAD CAB 4X4	1D7HU18P86J201913	0	ETHONAL/GAS	28,477.94	12/22/06
91812 690	06 TRUCK DODGE RAM 1500 QUAD CAB 4X4	1D7HU18P86J201914	0	ETHONAL/GAS	28,477.94	12/22/06
91812 699	07 TRUCK 06 FORD F150 PU	1FTRF12VX6NB41044	0	ETHONAL/GAS	24,185.05	04/18/07
					FUEL TYPE TOTAL	
91822 227	99 FORKLIFT: CATERPILLAR ELECTRIC LIFT TRK	A2EC320272	0	ELECTRIC	31,437.30	06/01/99
					FUEL TYPE TOTAL	
91832 102	77 TRAILER: EVERGREEN SCALE	103	0	NOT APPLICABLE	.00	03/01/77
91832 103	49 TRAILER: FREUHAUF 20 TON LOWBOY W/O RAMP	FW15025	56,000	NOT APPLICABLE	1,016.19	99/99/99
91832 111	82 TRAILER: TRAIL KING SMALL	1TKU01621CM103194	12,500	NOT APPLICABLE	4,321.12	11/01/82

## Appendix 6. DOT - Highways Vehicles and Fuel Data

HIGHWAYS DIVISION - OAHU DISTRICT  
E/U ALTERNATIVE FUEL REPORT BY FUEL TYPE 9/10/08

PERIOD: 07/01/07 THRU 06/30/08

EQUIPMENT	DESCRIPTION.....	SERIAL NUMBER.....	GVW	FUEL.....	-----ACQUISITION-----	
					COST	DATE
91832 113	82 TRAILER: TRAIL KING SMALL	1TKU01625CM103196	12,500	NOT APPLICABLE	4,321.12	11/01/82
91832 115	84 TRAILER: BAGER BEAVER UTILITY	1120TL10XES030032	7,200	NOT APPLICABLE	.00	10/01/84
91832 117	86 TRAILER: MANNS WELDING UTILITY SCALE	TL648	0	NOT APPLICABLE	12,420.00	09/01/86
91832 118	88 TRAILER: HOMEMADE UTILITY	SOH022588HON	0	NOT APPLICABLE	2,855.00	03/01/88
91832 119	87 TRAILER: ZIEMAN TILT	1ZCT27E20H2P13858	14,000	NOT APPLICABLE	5,662.62	05/01/89
91832 120	89 TRAILER: CALKINS BOAT	1CXBPI413KS910653	0	NOT APPLICABLE	427.08	06/01/89
91832 125	66 TRAILER: STEVENS MFG.CO.CARGO	3801	0	NOT APPLICABLE	150.00	09/01/90
91832 126	93 TRAILER: TRAILAVATOR UTILITY	1T9ME1419PM199185	4,680	NOT APPLICABLE	6,408.35	10/01/93
91832 127	93 TRAILER: ZIEMAN UTILITY TILT MOD-2310	1ZC729B25P2P17467	22,500	NOT APPLICABLE	.00	12/01/93
91832 128	94 TRAILER: W/SKID RESISTANCE EQUIPMENT	ML270-082	0	NOT APPLICABLE	183,874.00	02/01/95
91832 129	96 TRAILER: (HOMEMADE)		0	NOT APPLICABLE	1.00	02/01/96
91832 130	96 TRAILER: SPECTRUM SCALE LT-2900	189EC1613TH364445	0	NOT APPLICABLE	16,110.93	12/01/96
91832 131	96 TRAILER: SPECTRUM SCALE LT-2900	189EC1615TH364446	0	NOT APPLICABLE	16,110.93	12/01/96
91832 132	96 TRAILER: BOBCAT SHOPBUILT BCT-16-7500	189BS2126TH364435	0	NOT APPLICABLE	6,250.00	12/01/96
91832 133	97 TRAILER: SHOPBUILT UTILITY	189US121XVH364555	0	NOT APPLICABLE	885.41	06/01/97
91832 134	97 TRAILER: SHOPBUILT UTILITY	189US1212VH364556	0	NOT APPLICABLE	885.41	06/01/97
91832 135	98 TRAILER: WEIGHT SCALE	EC161XVH364302	0	NOT APPLICABLE	17,587.38	06/01/98
91832 136	97 TRAILER WEIGHT SCALE SHOPBLT LODEC3030	189EC1611VH36403	0	NOT APPLICABLE	17,014.47	06/01/97
91832 137	98 TRAILER: INTERNATIONAL BW508	1ZFUF0818WB001623	0	NOT APPLICABLE	2,520.00	06/01/98
91832 138	98 TRAILER: SPECTRUM LAWMOWER T3000	189LS1828WH364459	5,000	NOT APPLICABLE	5,800.00	06/01/98
91832 139	98 TRAILER: SPECTRUM LAWMOWER T3000	189LS1826WH364460	5,000	NOT APPLICABLE	5,800.00	06/01/98
91832 140	98 TRAILER: SPECTRUM LAWMOWER T3000	189LS1824WH364461	5,000	NOT APPLICABLE	5,800.00	06/01/98
91832 141	99 TRAILER: ZIEMAN UTILITY #8012 SPL	1ZCE18S22XZP20671	8,300	NOT APPLICABLE	6,508.30	06/01/99
91832 142	99 TRAILER: ZIEMAN UTILITY #8012 SPL	1ZCE18S24XZP20672	8,300	NOT APPLICABLE	6,508.29	06/01/99
91832 143	99 TRAILER: ZIEMA UTILITY #8012 SPL	1ZCE18S26XZP20673	8,300	NOT APPLICABLE	6,508.00	06/01/99
91832 144	99 TRAILER: SPECTRUM BOBCAT MOD. 2580	189BS2420XH364108	0	NOT APPLICABLE	7,276.00	06/01/99
91832 145	99 TRAILER: SPECTRUM LAWMOWER	189LS1828XH364110	4,980	NOT APPLICABLE	5,800.00	06/01/99
91832 146	99 TRAILER: CHILTON UTILITY UT4815S-1	1ADAC0810XC000231	1,500	NOT APPLICABLE	2,200.00	06/01/99
91832 148	00 TRAILER: SPECTRUM LAWMOWER T-3000	189LS1826YH364107	5,280	NOT APPLICABLE	6,249.96	06/01/00
91832 149	00 TRAILER: BUTLER FLAT BED LT-812-DH	00-2059-2250LB	8,500	NOT APPLICABLE	5,168.75	06/01/00
91832 150	00 TRAILER: SPECTRUM BOBCAT BCT 16-12000	189BC2320YH364111	12,000	NOT APPLICABLE	8,749.94	06/01/00
91832 151	00 TRAILER: SPECTRUM BOBCAT	189BC2322YH364112	12,000	NOT APPLICABLE	8,749.94	06/01/99
91832 152	00 TRAILER: CARRY-ON UTILITY 5X8G	4YMUK0813YH042326	0	NOT APPLICABLE	2,864.68	06/01/00
91832 153	00 TRAILER: CARRY-ON UTILITY 5X8G	4YMUK0815YH042327	0	NOT APPLICABLE	2,864.68	06/01/00
91832 154	01 TRAILER: ZIEMAN UTILITY	1ZCE18S2712P23136	8,300	NOT APPLICABLE	8,958.28	06/01/01
91832 155	01 TRAILER: ZIEMAN TILT 1157	1ZCT21T261ZP23378	14,000	NOT APPLICABLE	8,609.32	06/01/01
91832 156	02 TRAILER: SPECTRUM LAWMOWER	189US18201H364193	5,440	NOT APPLICABLE	7,291.62	03/25/03
91832 157	03 TRAILER: ZIEMAN UTILITY	1ZCE18S233ZP24562	8,300	NOT APPLICABLE	6,770.79	12/09/03
91832 159	05 SCALES ELECTRONIC AXLE W/TRAILER		0	NOT APPLICABLE	27,505.00	09/22/06
91832 160	05 SCALES ELECTRONIC AXLE W/TRAILER		0	NOT APPLICABLE	27,505.00	09/22/06
91842 123	75 WELDER: LINCOLN ARC	4795022	0	NOT APPLICABLE	3,121.00	06/01/97
91842 230	96 ERADICATOR, ROBIN EH 17	1098152	0	NOT APPLICABLE	7,209.00	12/01/96
91842 231	96 VACUUM: CLEANER, NELSISK GS83	960529-2064	0	NOT APPLICABLE	4,923.00	12/01/96
91842 237	98 OPEN RADAR SPEED MONITOR UNIT	4AGAU09SXWC027173	0	NOT APPLICABLE	9,765.00	06/01/98
91842 238	98 OPEN RADAR SPEED MONITOR UNIT	4AGAU09SIWC027174	0	NOT APPLICABLE	9,765.00	06/01/98
91842 247	99 POST POUNDER, DANUSER MODEL MD-6	11827	0	NOT APPLICABLE	4,718.71	06/01/99
91842 248	98 CART, EZ-GO GOLF CARGO CARRIERS #875E		0	NOT APPLICABLE	6,236.92	06/01/98
91842 249	98 CART, EZ-GO GOLF CARGO CARRIERS #875E		0	NOT APPLICABLE	6,236.92	06/01/98
91842 250	98 CART, EZ-GO GOLF CARGO CARRIERS #875E	21675	0	NOT APPLICABLE	6,236.92	06/01/98
91842 256	97 MIXER: BETONIERA WORKMAN 250 CONCRETE	0000138311	0	NOT APPLICABLE	2,080.00	06/01/97
91842 264	99 MONITOR: MIGHTY MOVER SPEED CONTROL	4AGAU1112XC029946	2,000	NOT APPLICABLE	10,020.77	06/01/99

HIGHWAYS DIVISION - OAHU DISTRICT  
E/U ALTERNATIVE FUEL REPORT BY FUEL TYPE 9/10/08

PERIOD: 07/01/07 THRU 06/30/08

EQUIPMENT		DESCRIPTION.....	SERIAL NUMBER.....	GVW	FUEL.....	-----ACQUISITION-----	
						COST	DATE
91842	265	99 MONITOR: MIGHTY MOVER SPEED CONTROL	4AGAU1114XC029947	2,000	NOT APPLICABLE	10,020.77	06/01/99
91842	286	02 TRAILER: ITCP MTD SPEED CONTROL MONITOR	40XK111S02A0007	2,000	NOT APPLICABLE	11,999.00	09/12/02
91842	287	02 TRAILER: ITCP MTD SPEED CONTROL MONITOR	40XK111S22A020008	2,000	NOT APPLICABLE	11,999.00	09/12/02
91842	309	05 ARROWBOARD WANCO W/TRAILER WTSP75-LSAC	5F11S101351000	0	NOT APPLICABLE	7,830.00	09/22/06
91842	310	05 ARROWBOARD WANCO W/TRAILER WTSP75-LSAC	5F11S551000458	0	NOT APPLICABLE	7,830.00	09/22/06
91842	313	06 WELDER LINCOLN TIG K1828-1	U1060202431	0	NOT APPLICABLE	17,580.00	05/01/07
91842	315	06 POT PREMELTER TRANTEX THERMOPLASTIC	000504/000505	0	NOT APPLICABLE	133,702.00	02/16/07
91842	319	06 VACUUM EDCO 18 GAL DR VAC 250	061814230	0	NOT APPLICABLE	8,705.94	02/16/07
91842	321	07 MIXER STEEL DRUM CONCRETE WHITEMAN	C2752167	0	NOT APPLICABLE	3,508.00	12/13/07
91842	322	07 MIXER STEEL DRUM CONCRETE WHITEMAN	C2752132	0	NOT APPLICABLE	3,508.00	12/13/07
91842	323	07 MACHINE STRIPING TRANTEX THERMOPLASTIC	K8756	0	NOT APPLICABLE	44,965.00	04/23/08
						FUEL TYPE TOTAL	

DEPT: PUBLIC SAFETY

VEHICLE DESCRIPTION	MODEL YEAR	GROSS VEHICLE WEIGHT RATING	VEHICLE FUEL CONFIGURATION	ACTUAL IN-USE VEHICLE MILEAGE	FUEL CONSUMPTION (GAL)	CITY MPG	HWY MPG
FORD AEROSTAR VAN	97	1	Gasoline	12,329	599.4	17	23
CHEVY LUMINA	93	1	Gasoline	16	0.0	20	29
JEEP CHEROKEE	98	1	Gasoline	8,611	478.4	18	20
VAN CHEV ASTRO PASSENGER	93	1	Gasoline	3,818	224.6	15	19
VAN CHEV ALUM CUBE	93	1	Gasoline	4,845	255.0	18	24
VAN CHEV ALUM CUBE	93	1	Gasoline	20,286	1,127.0	18	24
VAN CHEV ALUM HIGH CUBE	99	1	Gasoline	25,690	1,427.2	18	25
VAN CHEV 15 PASSENGER	06	2	Gasoline	18,531	1,158.6	16	20
VAN CHEV 15 PASSENGER	06	2	Gasoline	16,327	1,816.5	16	20
VAN CHEV 15 PASSENGER	07	2	Gasoline	8,788	982.3	19	26
VAN FORD 15 PASSENGER	01	2	Gasoline	8,246	434.0	19	26
VAN CHEV 15 PASSENGER	08	2	Gasoline	6,295	301.4	19	26
VAN FORD 15 PASSENGER	99	2	Gasoline	34,900	1,745.0	19	26
VAN DODGE 12 PASSENGER	97	2	Gasoline	14,353	755.4	19	26
VAN DODGE 12 PASSENGER	97	2	Gasoline	15,924	838.1	19	26
P/U CHEVY S-10	84	1	Gasoline	10,984	549.2	15	20
VAN FORD ECONOLINE CARGO	99	1	Gasoline	6,628	473.4	15	20
VAN FORD	97	1	Gasoline	1,550	229.7	15	20
TRUCK CHEVY/VAN DIESEL	91	2	Diesel	7,574	473.4	16	21
P/U DODGE	98	2	Gasoline	5,898	549.2	13	17
VAN FORD	99	1	Gasoline	3,446	229.7	15	20
VAN FORD 15 PASSENGER	97	2	Gasoline	6,628	473.4	14	19
VAN DODGE	00	2	Gasoline	10,435	549.2	19	26
CHEVY VAN	97	2	Gasoline	7,574	473.4	16	20
CHEVY VAN	97	2	Gasoline	3,675	229.7	16	20
SDN CHEV CELEBRITY 4DR	88	1	Gasoline	0	0.0	24	31
SDN TOYOTA COROLLA 4DR	03	1	Gasoline	1,791	80.3	30	38
FORD TAURUS 4DR	05	1	Gasoline	131	22.1	20	27
VAN DODGE	90	2	Gasoline	19,460	973.0	19	26
VAN GMC M15Z	90	2	Gasoline	585	45.0	13	15
P/U TRUCK FORD F-250	91	2	Gasoline	4,043	512.0	11	16
SDN CHEVY CAPRICE	92	1	Gasoline	1,645	91.4	18	26
VAN FORD CLUBWAGON	97	1	Gasoline	13,700	978.6	14	18
VAN FORD AEROSTAR	97	1	Gasoline	12,847	1,074.0	17	23
VAN DODGE	91	2	Gasoline	2,315	307.9	19	26
P/U DODGE RAM	91	2	Gasoline	435	58.6	13	17
SUV CHEV BLAZER	93	2	Gasoline	558	42.9	13	16
STATION WAGON CHEV CELEBRITY	90	1	Gasoline	5,817	578.0	11	16
VAN FORD 3 DR E-350 15 PASSENGER	03	2	Gasoline	23,608	1,192.0	14	18
P/U TRUCK CHEVY	91	1	Gasoline	5,068	298.1	15	20
CHEVY IMPALA 4DSD	07	1	Gasoline	4,364	288.2	20	30
SDN CHEVY 4DSD CAPRICE	90	1	Gasoline	7,216	601.3	12	16

DEPT: PUBLIC SAFETY

VEHICLE DESCRIPTION	MODEL YEAR	GROSS VEHICLE WEIGHT RATING	VEHICLE FUEL CONFIGURATION	ACTUAL IN-USE VEHICLE MILEAGE	FUEL CONSUMPTION (GAL)	CITY MPG	HWY MPG
SDN OLDS CIERA	96	1	Gasoline	493	35.2	14	18
SDN CHEVY CORSICA	95	1	Gasoline	505	36.1	14	18
P/U TRUCK CHEVY	94	1	Gasoline	1,754	125.3	14	19
VAN CHEVY	07	1	Gasoline	38,999	2,999.9	12	16
VAN CHEVY	07	1	Gasoline	47,253	3,375.2	12	16
P/U DODGE	86	2	Gasoline	5,928	456	13	17
VAN CHEV 12 PASSENGER	92	2	Gasoline	1,624	336	16	21
P/U TRUCK DODGE	82	2	Gasoline	6,552	504	13	17
VAN CHEV	98	2	Gasoline	7,296	456	16	20
VAN CHEV	98	2	Gasoline	37,440	2,340	16	20
VAN GMC	89	2	Gasoline	5,304	408	13	15
SDN CHEV 4DR	88	1	Gasoline	9,108	396	23	32
P/U TRUCK CHEV	78	1	Gasoline	7,200	360	20	26
BUS DODGE 15 PASSENGER	87	2	Gasoline	3,900	300	13	16
P/U CHEV	87	1	Gasoline	6,000	300	20	26
SDN CHEV 4DR	91	1	Gasoline	6,624	276	23	32
SDN CHEV 4DR	87	1	Gasoline	21,804	948	23	32
CHEVY BUS 20 PASSENGER	94	2	Gasoline	15,120	1,008	N/A	N/A
FORD ECONOLINE VAN	98	1	Gasoline	8,280	552	15	20
CHEVY IMPALA	02	1	Gasoline	7,980	420	19	29
CHEVY IMPALA	03	1	Gasoline	28,980	1,380	21	32
CHEVY ASTRO VAN	98	2	Gasoline	27,840	1,740	16	20
SDN OLDS CIERA 4DR	94	1	Gasoline	0	0	N/A	N/A
OLDS ALERO	02	1	Gasoline	7,584	316.0	24	32
CHEVY IMPALA 4DSD	04	1	Gasoline	6,880	295.0	21	32
FORD TAURUS 4DSD	06	1	Gasoline	4,141	268.0	18	24
DODGE INTREPID	02	1	Gasoline	1,287	69.0	20	27
CHEVY IMPALA 4DSD	04	1	Gasoline	90	3.0	21	32
VAN CHEVY ASTRO	92	1	Gasoline	48,090	3,005.0	16	20
FORD EXPLORER XLT	05	1	Gasoline	33,958	1,907.0	16	21
CHEVY IMPALA	07	1	Gasoline	2,568	111.0	21	32
DODGE CARAVAN	07	1	Gasoline	2,621	172.0	20	26
CHEVY CAPRICE SDN	93	1	Gasoline	378	18.0	18	26
SUBARU SDN 4DR	91	1	Gasoline	0	0.0	20	26
VAN CHEV 12 PASSENGER	97	2	Gasoline	4,121	206.0	16	20
TRUCK CHEV CREW CAB	98	2	Gasoline	4,306	266.0	13	16
VAN CHEV 15 PASSENGER	98	2	Gasoline	4,928	369.0	16	21
VAN CHEV 12 PASSENGER	97	2	Gasoline	3,088	193.0	16	21
SDN SR5 TOYOTA 2 DR	86	1	Gasoline	4,320	239.0	18	20
SUV CHEV BLAZER 2DR	90	2	Gasoline	4,922	549.0	13	16
BUS FORD 15 PASSENGER	91	3	Gasoline	8,430	562.0	N/A	N/A
S/W FORD 2DR	87	1	Gasoline	10,600	424.0	21	27

DEPT: PUBLIC SAFETY

VEHICLE DESCRIPTION	MODEL YEAR	GROSS VEHICLE WEIGHT RATING	VEHICLE FUEL CONFIGURATION	ACTUAL IN-USE VEHICLE MILEAGE	FUEL CONSUMPTION (GAL)	CITY MPG	HWY MPG
S/W FORD	89	1	Gasoline	8,119	353.0	21	27
TRUCK INT'L HARVESTER	80	2	Diesel	2,478	177.0	N/A	N/A
TRUCK GMC FLTBD STK	83	2	Gasoline	1,937	149.0	N/A	N/A
P/U TRUCK FORD	84	1	Gasoline	1,744	109.0	15	20
TRUCK CHEV FLTBD	87	2	Gasoline	2,108	124.0	N/A	N/A
TRUCK INT'L	87	2	Diesel	20,275	6,352.0	N/A	N/A
TRUCK FORD CREWCAB	92	1	Diesel	401	25.0	16	20
TRUCK GMC DUMP	83	8	Diesel	3,294	549.0	N/A	N/A
TRUCK FORD CHAS. AERIAL	90	1	Gasoline	414	23.0	N/A	N/A
TRUCK FORD DUMP	89	8	Diesel	1,254	66.0	N/A	N/A
TRUCK FORD DUMP	89	8	Diesel	650	26.0	N/A	N/A
P/U TRUCK CHEV 3/4T	82	1	Gasoline	3,151	210.0	15	20
P/U TRUCK FORD F150	82	1	Gasoline	13,821	813.0	17	22
P/U TRUCK FORD	80	1	Gasoline	4,369	257.0	17	22
BUS INT'L 72 PASSENGER	88	N/A	Diesel	11,296	549.0	N/A	N/A
BUS INT'L 72 PASSENGER	84	N/A	N/A	855	57.0	N/A	N/A
BUS INT'L 72 PASSENGER	82	N/A	N/A	6,588	549.0	N/A	N/A
BUS CHEV 60 PASSENGER	87	N/A	N/A	5,490	549.0	N/A	N/A
SUV CHEV BLAZER	02	1	Diesel	6,302	375.0	13	16
SUV CHEV BLAZER	91	1	Gasoline	12,788	590.0	13	16
SUV CHEV BLAZER	84	1	Gasoline	1,001	77.0	13	16
S/W CHEV	94	1	Gasoline	4,692	262.0	21	27
SUV CHEV BLAZER	84	1	Diesel	8,235	549.0	13	16
VAN FORD CARGO	87	1	Gasoline	6,390	426.0	15	20
VAN FORD CARGO	87	1	Gasoline	6,588	549.0	15	20
P/U TRUCK FORD	95	2	Gasoline	6,094	554.0	11	16
P/U TRUCK FORD	95	2	Gasoline	3,879	339.0	11	16
TRUCK TRAC PETERBILT	83	N/A	Diesel	9,483	6,564.0	N/A	N/A
P/U CHEV UTILITY	90	1	Gasoline	2,603	257.0	15	20
TRUCK KAISER STAKE BODY	66	N/A	Gasoline	405	27.0	N/A	N/A
TRUCK INT'L STAKE MODEL 1624	80	N/A	Diesel	1,037	61.0	N/A	N/A
SUV FORD BRONCO 2DR	92	2	Gasoline	8,654	528.0	14	18
TRUCK INT'L HARVESTER MODEL S-1600	80	5	Gasoline	198	11.0	N/A	N/A
BUS INT'L 72 PASSENGER	78	N/A	N/A	465	31.0	N/A	N/A
P/U TRUCK CHEV	92	1	Gasoline	15,041	958.0	15	20
BUS FORD 15 PASSENGER	00	3	Gasoline	8,784	549.0	N/A	N/A
BUS FORD 15 PASSENGER	00	3	Gasoline	65,700	3,650.0	N/A	N/A
TRUCK CHEV 1/2T	93	1	Gasoline	8,235	549.0	15	20
VAN CHEV 15 PASSENGER	01	2	Gasoline	14,150	1,295.0	13	16
VAN FORD CARGO	81	1	Gasoline	1,560	104.0	15	20
VAN CHEV 10	94	1	Gasoline	5,464	549.0	15	20
VAN CHEV 15 PASSENGER	03	2	Gasoline	10,256	641.0	13	16



DEPT: PUBLIC SAFETY

VEHICLE DESCRIPTION	MODEL YEAR	GROSS VEHICLE WEIGHT RATING	VEHICLE FUEL CONFIGURATION	ACTUAL IN-USE VEHICLE MILEAGE	FUEL CONSUMPTION (GAL)	CITY MPG	HWY MPG
VAN SIENNA TOYOTA	05	1	Gasoline	1,745	118.2	18	24
TOYOTA CAMRY	07	1	Gasoline	1,732	112.3	24	34
FORD F-350 PICKUP	01	2	Gasoline	7,589	583.8	N/A	N/A
FORD F-350 PICKUP	03	2	Gasoline	5,490	678.9	N/A	N/A
FORD F-350 PICKUP	03	2	Gasoline	7,595	874.9	N/A	N/A
P/U TRUCK FORD	92	1	Gasoline	1,179	69.4	17	22
TRUCK CHEV	93	1	Gasoline	4,224	264.0	15	20
VAN CHEV EXPRESS 15 PASSENGER	98	2	Gasoline	1,813	235.0	16	22
SDN CHEV MALIBU	99	1	Gasoline	423	38.6	23	32
VAN CHEV EXPRESS	99	2	Gasoline	569	172.5	16	20
SDN FORD MERCURY 4DR	99	1	Gasoline	3,339	232.2	25	34
VAN CHEV '15 PASSENGER	01	2	Gasoline	13,974	822.0	16	22
TOYOTA TACOMA	06	1	Gasoline	866	76.3	20	27
SUV FORD EXPEDITION	98	2	Gasoline	2,845	218.9	13	18
VAN TOYOTA SIENNA-7 PASSENGER	04	1	Gasoline	2,382	125.4	19	27
P/U TRUCK FORD F-150	98	1	Gasoline	1,336	78.6	17	22
HONDA ACCORD	01	1	Gasoline	6,985	303.7	23	30
P/U TRUCK FORD F-150	02	1	Gasoline	7,335	431.5	17	22
HONDA ODYSSEY	07	1	Gasoline	3,791	236.9	16	20
MINI COOPER S	05	1	Gasoline	4,007	160.3	25	32
TOYOTA 4RUNNERMPVH	06	1	Gasoline	12,542	696.8	18	22
SDN TOYOTA COROLLA	98	1	Gasoline	6,345	211.5	30	38
SUV CHEV TAHOE	99	2	Gasoline	3,027	252.3	12	16
SUV CHEV BLAZER	98	2	Gasoline	18,921	1,455.5	13	16
P/U FORD RANGER	99	1	Gasoline	1,628	95.8	17	22
SUV CHEV BLAZER SILVER	92	2	Gasoline	11,131	856.3	13	16
SUV CHEV BLAZER	91	2	Gasoline	763	58.7	13	16
SUV CHEV BLAZER AUTUMNWOOD	96	2	Gasoline	5,760	440.8	13	16
INFINITI G35	03	1	Gasoline	6,267	329.8	19	26
SDN TOYOTA COROLLA	03	1	Gasoline	2,063	92.8	30	38
FORD TAURUS	05	1	Gasoline	1,967	131.4	19	25
TRUCK STAKE INTL	93	N/A	N/A	0	0.0	N/A	N/A
VAN CHEV	92	2	Gasoline	1,474	133.5	16	20
P/U TRUCK CHEV 1/2	93	1	Gasoline	534	35.6	15	20
VAN FORD	85	1	Gasoline	0	0.0	17	23
VAN FORD	85	1	Gasoline	446	72.3	17	23
SDN FORD CROWN VICTORIA	91	1	Gasoline	0	0.0	18	25
VAN FORD	90	1	Gasoline	9,480	474.0	15	20
SDN CHEV CELEBRITY 4DR	89	1	Gasoline	1,802	63.1	23	30
TRUCK CHEV STAKE	93	N/A	N/A	2,025	147.0	15	20
VAN CHEV ASTRO WHITE	92	2	Gasoline	1,531	94.2	16	20
P/U TRUCK FORD	00	1	Gasoline	6,612	334.0	15	20

DEPT: PUBLIC SAFETY

VEHICLE DESCRIPTION	MODEL YEAR	GROSS VEHICLE WEIGHT RATING	VEHICLE FUEL CONFIGURATION	ACTUAL IN-USE VEHICLE MILEAGE	FUEL CONSUMPTION (GAL)	CITY MPG	HWY MPG
SDN CHEV	86	1	Gasoline	907	50.4	18	26
VAN DODGE	87	2	Gasoline	16,205	900.8	19	26
P/U TRUCK FORD	88	1	Gasoline	536	89.6	15	20
VAN CHEV ASTRO WHITE	88	1	Gasoline	973	118.8	15	19
VAN CHEV	87	2	Gasoline	2,531	212.3	16	20
VAN GMC MODEL G39K	91	2	Gasoline	4,867	905.8	15	19
S/W CHEV 4DR	88	1	Gasoline	362	15.7	23	30
P/U TRUCK DODGE	91	2	Gasoline	598	42.7	13	17
VAN CHEV 15 PASSENGER	98	2	Gasoline	38,296	1,526.4	16	21
VAN CHEV 15 PASSENGER	98	2	Gasoline	31,613	1,859.6	16	21
VAN CHEV 15 PASSENGER	98	2	Gasoline	16,120	1,281.8	16	21
VAN GMC 15 PASSENGER	00	2	Gasoline	14,125	1,694.5	16	21
VAN CHEV 15 PASSENGER	02	2	Gasoline	1,896	111.5	16	21
VAN CHEV 15 PASSENGER	98	2	Gasoline	10,515	657.2	16	21
VAN FORD 15 PASSENGER	95	2	Gasoline	14,860	1,031.9	14	19
VAN FORD	90	1	Gasoline	944	171.5	15	20
CHEVY LUMINA	99	1	Gasoline	1,761	106.1	20	29
CHEVY BUS 20 PASSENGER	94	N/A	N/A	6,271	730.4	N/A	N/A
VAN FORD F-150	83	1	Gasoline	N/A	N/A	17	22
CHEVY SUBURBAN	96	1	Gasoline	N/A	N/A	12	16
CHEVY SUBURBAN	99	1	Gasoline	N/A	N/A	12	16
SDN CHEV CELEBRITY 4DR	89	1	Gasoline	N/A	N/A	24	31
SDN CHEV CAPRICE 4DR	92	1	Gasoline	N/A	N/A	18	26
SDN CHEV CAPRICE 4DR	92	1	Gasoline	N/A	N/A	18	26
SDN CHEV CAPRICE 4DR	92	1	Gasoline	N/A	N/A	18	26
SDN CHEV CAPRICE 4DR	92	1	Gasoline	N/A	N/A	18	26
P/U TRUCK CHEV 2500	88	1	Gasoline	N/A	N/A	20	26
P/U TRUCK CHEV S-10	91	1	Gasoline	N/A	N/A	20	26
HUMMER H2	03	2	Gasoline	N/A	N/A	N/A	N/A
SDN CHEV LUMINA 4DR	93	1	Gasoline	N/A	N/A	20	29
TOYOTA TACOMA PKUP TRUCK	98	1	Gasoline	N/A	N/A	20	27
FORD TAURUS 4DR SDN	05	1	Gasoline	N/A	N/A	19	25
FORD TAURUS 4DR SDN	05	1	Gasoline	N/A	N/A	19	25
FORD EXPLORER SUV 2WHEEL DR	05	1	Gasoline	N/A	N/A	N/A	N/A
BUICK LESABRE	01	1	Gasoline	N/A	N/A	19	30
P/U TOYOTA TACOMA	04	1	Gasoline	N/A	N/A	20	27
VAN DODGE	90	2	Gasoline	N/A	N/A	19	26
SDN CHEV 4DR	90	1	Gasoline	N/A	N/A	23	32
SDN CHEV 4DR	90	1	Gasoline	N/A	N/A	23	32
SDN CHEV 4DR	90	1	Gasoline	N/A	N/A	23	32
P/U TRUCK DODGE RAMCHARGER	91	1	Gasoline	N/A	N/A	N/A	N/A
VAN CHEV	83	2	Gasoline	N/A	N/A	16	20

DEPT: PUBLIC SAFETY

VEHICLE DESCRIPTION	MODEL YEAR	GROSS VEHICLE WEIGHT RATING	VEHICLE FUEL CONFIGURATION	ACTUAL IN-USE VEHICLE MILEAGE	FUEL CONSUMPTION (GAL)	CITY MPG	HWY MPG
S/W FORD TAURUS	92	1	Gasoline	N/A	N/A	19	25
SDN PONTIAC GRAND PRIX 4DR	94	1	Gasoline	N/A	N/A	19	28
SDN FORD CROWN VICTORIA 4DR	95	1	Gasoline	N/A	N/A	18	25
SDN FORD CROWN VICTORIA	97	1	Gasoline	N/A	N/A	18	25
VAN CARGO FORD	86	1	Gasoline	N/A	N/A	15	20
SDN FORD CROWN VICTORIA	99	1	Gasoline	N/A	N/A	18	25
SDN FORD CROWN VICTORIA	99	1	Gasoline	N/A	N/A	18	25
SDN FORD CROWN VICTORIA	99	1	Gasoline	N/A	N/A	18	25
SDN FORD CROWN VICTORIA	99	1	Gasoline	N/A	N/A	18	25
SDN CHEV CAPRICE 4DR	93	1	Gasoline	N/A	N/A	18	26
SDN DODGE DIPLOMAT FD	85	1	Gasoline	N/A	N/A	16	21
SUV CHEV TAHOE	99	2	Gasoline	N/A	N/A	12	16
SDN CHEVY CAPRICE 4DR	91	1	Gasoline	N/A	N/A	18	26
VAN FORD AEROSTAR	93	1	Gasoline	N/A	N/A	15	20
VAN FORD AEROSTAR	93	1	Gasoline	N/A	N/A	15	20
SDN FORD CROWN VICTORIA 4DR	00	1	Gasoline	N/A	N/A	18	25
VAN CHEV 12 PASSENGER	01	2	Gasoline	N/A	N/A	16	21
VAN CHEV 12 PASSENGER	01	2	Gasoline	N/A	N/A	16	21
FORD TAURUS 4DSD	01	1	Gasoline	N/A	N/A	19	25
BUS FORD	96	N/A	N/A	N/A	N/A	N/A	N/A
SDN FORD CROWN VICTORIA	02	1	Gasoline	N/A	N/A	17	25
SDN FORD CROWN VICTORIA	02	1	Gasoline	N/A	N/A	17	25
P/U TRUCK FORD RANGER	02	1	Gasoline	N/A	N/A	17	22
P/U TRUCK FORD RANGER	00	1	Gasoline	N/A	N/A	17	22
VAN CHEV	03	2	Gasoline	N/A	N/A	16	20
FORD CROWN VICTORIA 4 DR	03	1	Gasoline	N/A	N/A	18	25
FORD CROWN VICTORIA POLICE INTERCEPTOR	00	1	Gasoline	N/A	N/A	18	25
CHEV IMPALA POLICE INTERCEPTOR	01	1	Gasoline	N/A	N/A	20	30
SUV CHEVY TAHOE	93	2	Gasoline	N/A	N/A	12	16
FORD CROWN VICTORIA	05	1	Gasoline	N/A	N/A	18	25
FORD CROWN VICTORIA	05	1	Gasoline	N/A	N/A	18	25
DODGE VAN	98	2	Gasoline	N/A	N/A	19	26
DODGE VAN	00	2	Gasoline	N/A	N/A	19	26
DODGE VAN	00	2	Gasoline	N/A	N/A	19	26
CHEVY VAN	95	2	Gasoline	N/A	N/A	16	20
CHEVY IMPALA POLICE INTERCEPTOR	01	1	Gasoline	N/A	N/A	20	30
CHEVY IMPALA POLICE INTERCEPTOR	01	1	Gasoline	N/A	N/A	20	30
FORD POLICE INTERCEPTOR	06	1	Gasoline	N/A	N/A	20	30
FORD 4DSD	02	1	Gasoline	N/A	N/A	19	25
OLDS ALERO 4DSD	02	1	Gasoline	N/A	N/A	24	32
CHEVY 4DSD	02	1	Gasoline	N/A	N/A	20	29
CHEVY 4DSD	02	1	Gasoline	N/A	N/A	20	29
FORD 4DSD	99	1	Gasoline	N/A	N/A	19	25

DEPT: PUBLIC SAFETY

VEHICLE DESCRIPTION	MODEL YEAR	GROSS VEHICLE WEIGHT RATING	VEHICLE FUEL CONFIGURATION	ACTUAL IN-USE VEHICLE MILEAGE	FUEL CONSUMPTION (GAL)	CITY MPG	HWY MPG
FORD 4DSD	97	1	Gasoline	N/A	N/A	19	25
LINCOLN NAVIGATOR	03	2	Gasoline	N/A	N/A	12	17
FORD 4DSD	07	1	Gasoline	N/A	N/A	19	25
SDN FORD CROWN VICTORIA	07	1	Gasoline	N/A	N/A	18	25
SDN FORD CROWN VICTORIA	07	1	Gasoline	N/A	N/A	18	25
SDN FORD CROWN VICTORIA	07	1	Gasoline	N/A	N/A	18	25
SDN FORD CROWN VICTORIA	07	1	Gasoline	N/A	N/A	18	25
SDN FORD CROWN VICTORIA	07	1	Gasoline	N/A	N/A	18	25
SDN FORD CROWN VICTORIA	07	1	Gasoline	N/A	N/A	18	25
SUV TAHOE	02	1	Gasoline	N/A	N/A	16	18
OLDS ALERO	03	1	Gasoline	N/A	N/A	16	19
SDN FORD CROWN VICTORIA	04	1	Gasoline	N/A	N/A	15	20
NISSAN MAXIMA	03	1	Gasoline	N/A	N/A	17	21
FORD ECONOLINE CLUB VAN	05	1	Gasoline	N/A	N/A	15	20
SDN FORD CROWN VICTORIA	05	1	Gasoline	N/A	N/A	15	20
FORD ECONOLINE CLUB VAN	05	1	Gasoline	N/A	N/A	15	20
SUV CHEV S10 BLAZER	92	2	Gasoline	3,437	278.0	13	16
P/U TRUCK FORD RANGER	83	1	Gasoline	3,813	224.0	17	22
VAN CHEV ASTRO PASSENGER	94	2	Gasoline	4,134	258.0	16	20
FORD BRONCO	92	1	Gasoline	500	29.5	17	20
SDN CHEV IMPALA 4 DR	00	1	Gasoline	500	29.5	19	29
SDN CHEV IMPALA 4 DR	00	1	Gasoline	500	29.5	19	29
VAN CHEVY	99	1	Gasoline	500	29.5	17	20
SDS DODGE 4DSD	04	1	Gasoline	500	29.5	17	20
SDS DODGE 4DSD	04	1	Gasoline	500	29.5	17	20
SDS OLDSMOBILE 4DSD	02	1	Gasoline	500	29.5	17	20
VAN FORD 7 PASSENGER	01	1	Gasoline	500	29.5	17	20
P/U TRUCK CHEVY	01	1	Gasoline	500	29.5	17	20
SDN CHEV CELEBRITY	89	1	Gasoline	N/A	0.0	23	30
SDN CHEV CORSIKA	90	1	Gasoline	8,736	364.0	24	31
VAN CHEV ASTRO	88	2	Gasoline	13,104	728.0	18	20
BUS CHEV 15 PASSENGER	91	2	Gasoline	4,421	260.0	16	21
VAN FORD WINDSTAR	98	1	Gasoline	0	0.0	18	25
VAN FORD WINDSTAR	98	1	Gasoline	11,471	780.0	18	25
P/U TRUCK CHEV	00	1	Gasoline	0	0.0	15	20
P/U TRUCK CHEV	00	1	Gasoline	15,028	884.0	15	20
VAN DODGE 15 PASSENGER	01	2	Gasoline	0	0.0	13	16
ECONOLINE FORD 15 PASSENGER CLUB WAGON	05	2	Gasoline	3,456	192.0	15	19
BUS FORD CHAMPION 14 PASSENGER	97	2	Gasoline	2,523	180.0	N/A	N/A
FORD TRUCK	06	1	Gasoline	4,487	204.0	21	26
MAZDA TRUCK	00	1	Gasoline	5,851	390.0	15	19
VAN FORD	07	1	Gasoline	4,900	416.0	15	20

DEPT: PUBLIC SAFETY

VEHICLE DESCRIPTION	MODEL YEAR	GROSS VEHICLE WEIGHT RATING	VEHICLE FUEL CONFIGURATION	ACTUAL IN-USE VEHICLE MILEAGE	FUEL CONSUMPTION (GAL)	CITY MPG	HWY MPG
VAN GMC RALLY W/C	92	N/A	N/A	N/A	N/A	N/A	N/A
VAN GMC RALLY W/C	92	N/A	N/A	N/A	N/A	N/A	N/A
VAN FORD CLUBWAGON	86	2	Gasoline	N/A	N/A	15	19
BUS FORD/WAYNE CHAPERONE 15 PASSENGER	87	N/A	N/A	N/A	N/A	N/A	N/A
SUV CHEV 15 PASSENGER	92	2	Gasoline	N/A	N/A	16	21
P/U TRUCK DODGE	72	2	Gasoline	N/A	N/A	13	17
P/U TRUCK CHEV	80	1	Gasoline	N/A	N/A	15	20
VAN CHEV	92	2	Gasoline	N/A	N/A	16	20
VAN CHEV	92	2	Gasoline	N/A	N/A	16	20
P/U CHEV	87	1	Gasoline	N/A	N/A	15	20
P/U TRUCK 1/2T MAZDA	84	1	Gasoline	N/A	N/A	15	19
P/U TRUCK DODGE W/ CREWCAB D350	85	N/A	N/A	N/A	N/A	N/A	N/A
VAN CHEV 12 PASSENGER	93	2	N/A	N/A	N/A	16	20
P/U TRUCK DODGE	87	2	Gasoline	N/A	N/A	13	17
FORD AEROSTAR	94	1	Gasoline	N/A	N/A	17	23
P/U TRUCK CHEV	73	N/A	N/A	N/A	N/A	N/A	N/A
S/W GMC	86	N/A	N/A	N/A	N/A	N/A	N/A
VAN FORD 16 PASSENGER	88	2	Gasoline	N/A	N/A	14	15
VAN FORD 16 PASSENGER	88	2	Gasoline	N/A	N/A	14	15
P/U TRUCK DODGE RAM CHARGER	87	1	Gasoline	N/A	N/A	N/A	N/A
SUV FORD BRONCO	88	2	Gasoline	N/A	N/A	14	18
P/U TRUCK CHEV K-20 4X4	98	1	Gasoline	N/A	N/A	15	20
P/U TRUCK CHEV K-20 4X4	98	1	Gasoline	N/A	N/A	15	20
P/U TRUCK CHEV C-10	98	1	Gasoline	N/A	N/A	15	20
P/U TRUCK CHEV C-10	98	1	Gasoline	N/A	N/A	15	20
P/U TRUCK CHEV C-10	98	1	Gasoline	N/A	N/A	15	20
VAN CHEV EXPRESS	98	2	Gasoline	N/A	N/A	16	20
VAN CHEV EXPRESS	98	2	Gasoline	N/A	N/A	16	20
TRUCK DODGE FLTBD	87	N/A	N/A	N/A	N/A	N/A	N/A
SDN CHEVY LUMINA 4DR	93	1	Gasoline	N/A	N/A	20	29
TOYOTA CAMRY	05	1	Gasoline	N/A	N/A	24	34
VAN DODGE 15 PASSENGER	00	2	Gasoline	N/A	N/A	N/A	N/A

FY 08 PURCHASES						
PROGRAM	YEAR	TYPE	GVW	FUEL TYPE	COST	
SD-MAUI	2008	12 - PASSENGER VAN	> 8500	E-10	\$23,933.64	
SD-HILO	2008	CROWN VICTORIA	< 8500	E-85	\$37,316.17	
HCCC	2008	12 - PASSENGER VAN	> 8500	E-10	\$23,933.64	
	2008	High Cube Van (Food Service)	> 8500	E-10	\$41,660.00	
HCF	2008	7- PASSENGER MINI VAN	< 8500	E-85	\$24,732.00	
	2008	F-350FLATBED	> 8500	E-10	\$31,296.00	
KCF	2008	12 - PASSENGER VAN	> 8500	E-10	\$23,933.64	
	2008	12 - PASSENGER VAN	> 8500	E-10	\$23,933.64	
	2008	F-250	> 8500	E-10	\$20,560.00	
KCCC	2008	12 - PASSENGER VAN	> 8500	E-10	\$23,933.64	
	2008	CHEVY MALIBU	< 8500	E-10	\$19,695.00	
MCCC	2008	F-250	> 8500	E-10	\$21,295.62	
	2008	F-250	> 8500	E-10	\$21,295.62	
OCCC	2008	12 - PASSENGER VAN	> 8500	E-10	\$23,933.64	
	2008	12 - PASSENGER VAN	> 8500	E-10	\$23,933.64	
WCCC	2008	12 - PASSENGER VAN	> 8500	E-10	\$29,373.00	
	2008	12 - PASSENGER VAN	> 8500	E-10	\$29,373.00	
WCF	2008	F-250	> 8500	E-10	\$20,560.00	
	2008	F-350FLATBED	> 8500	E-10	\$31,296.00	
TSD	2008	7- PASSENGER MINI VAN	< 8500	E-85	\$24,732.00	
PERSONNEL	2008	7- PASSENGER MINI VAN	< 8500	E-85	\$24,732.00	
OFFICE SVC	2008	CARGO MINI VAN	< 8500	E-85	\$18,644.00	
		<b>TOTAL</b>			<b>\$564,095.89</b>	

## NELHA VEHICLE INVENTORY AND FUEL ECONOMY

Make: Chevy (Cost @ \$22,500)	Year: 2007	Model: Pick-up
Description: 1500 Silverado 4WD	Color: White	
Vin # 1GCEK14C97Z526482	License # C666	State I.D. #
Engine Type: 4.8 LITERV8		

Date	Mileage	Date	Mileage	Total Miles	Avg. Miles per Gallon
02/020/07	121	09/11/07	4058	3937	<b>13.4</b>

Make: Chevy (Cost @ \$20,390)	Year: 2006	Model: Pick-up
Description: 1500 Silverado 4WD	Color: White	
Vin # 3GCEK14V56G159435	License # C202	State I.D. #
Engine Type: 4.8 LITERV8		

Date	Mileage	Date	Mileage	Total Miles	Avg. Miles per Gallon
02/13/07	5748	09/13/07	8940	3192	<b>14.0</b>

Make: Chevy (Cost @ \$00)	Year: 1994	Model: Lumina Van
Description: 7 Passenger Van	Color: WHT	
Vin # 1GNDUGL2RT158012	License # A540	State I.D. #
Engine Type: 3.8 L V-6 GAS		

Date	Mileage	Date	Mileage	Total Miles	Avg. Miles per Gallon
03/06/07	93010	09/13/07	95180	2170	<b>16</b>

Make: Chevy (Cost \$12,500)	Year: 1992	Model: Pick-up
Description: ¾ Ton 4x2	Color: Tan	
Vin # 1GCF24K8N2198404	License # 6129	State I.D. #
Engine Type: 5.7 350 V-8 Gas		

Date	Mileage	Date	Mileage	Total Miles	Avg. Miles per Gallon
02/23/07	62915	9/25/07	65634	2719	<b>13.5</b>