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HAWAII DEMAND-SIDE MANAGEMENT
RESOURCE ASSESSMENT

FINAL REPORT - REFERENCE VOLUME 2

Final Residential and Commercial Building
Prototypes and DOE-2.1E Developed UECs and EUIs

-PART 3 OF 3-

Prepared for:

State of Hawaii
Department of Business,
Economic Development & Tourism
Energy Division

April, 1995

Prepared by:

NEOS Corporation
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**HAWAII DEMAND-SIDE MANAGEMENT
RESOURCE ASSESSMENT**

FINAL REPORT

REFERENCE VOLUME 2

**Final Residential and Commercial Building
Prototypes and DOE-2.1E Developed UECs and EUIs**

-PART 3 OF 3-

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Refrigerated Warehouse	
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Oahu-Hotel	
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AND DOE-2.1E DEVELOPED UECs AND EUIs

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DETAILED MEASURE IMPACTS-SUMMARY REPORTS

This section contains the detailed measure impact results and market segment data for each DSM case examined for this building type. A complete index of all base and measure cases defined for this building type is shown first. This index represents an expansion of the base and measure matrix presented in Table 1 (residential) or Table 2 (commercial) for the applicable sector. Following this index, a summary report sheet is provided for each DSM measure case in the order shown in the index. The summary report sheet contains a host of information and selected graphs which define and depict the measure impacts and outline the market segment data assumptions utilized for each case in the DBEDT DSM Forecasting models. The variables and figures included in the summary report sheet are described below.

Measure ID: The eight-character alpha-numeric code used to define the measure case. This ID is composed of the 2-letter building code + the 1-letter vintage code + the 1-letter water heater fuel type code + the 4-digit numeric code used to define the base or measure case.

Measure Description: A brief (no more than 38-character) definition of the DSM measure

Base ID: Similar to the Measure ID, this code denotes the base case to which the measure case is compared in order to estimate the measure impacts.

Base Description: Similar to the Measure Description, a brief description of the base case. This description helps to determine if a modified base case was defined to estimate measure impacts.

Market Segment. This section of the summary report sheet contains the market segment data defined for each measure. These are;

Building Type:	The building type to which this measure applies.
Vintage:	The vintage of the building (new or existing).
Floor Area (sf):	The gross floor area of the building in square feet.
Water Heater Fuel:	The fuel type utilized for domestic or service water heating (Gas, Electric, or Oil).
Cost Unit:	The unit of measure utilized to describe the measure cost.
First Cost (\$/unit):	The installed capital cost for the measure in dollars per Cost Unit (93 dollars).
Measure Life (Yrs):	The measure life in years.
Mutual Exclusivity:	A Yes/No entry which denotes if mutual exclusivity considerations apply to this measure. A Yes entry indicates that this measure is mutually exclusive with one or more measures pertaining to this building type, thereby modifying the potential market share available.
Potential Market:	The maximum market share available for this measure. This includes consideration of measure applicability, measure feasibility, and remaining market share for existing vintages.
Modified Market:	The maximum market share available for this measure accounting for mutual exclusivity.
Intra Action:	A Yes/No entry which denotes if intra active considerations apply to this measure. A Yes entry indicates that this measure is intra active with one or more measures if applied as a group to this building type. The total impact in a particular end-use for a group of measures with intra active effects is not the same as the summation of the individual measure impacts. An incremental measure impact reduction is implied, based on the measure loading order.

Annual Energy Impacts By End-Use. This section of the summary report contains the normalized measure impacts by end-use and for the total building by fuel type. Electricity impacts are shown in terms of kWh/square foot and as a percentage of the base case, while fossil fuel impacts are shown as kBtu/square foot and as a percentage of the base case for each end-use and for the total. The end-use impacts shown include:

Cooling (& Auxiliary) :	Space cooling and associated pumps and heat rejection energy (e.g., condensers or cooling tower).
Water Heating:	Storage or central domestic or service water heating system.
Misc. Equipment:	Miscellaneous equipment.
Ventilation:	Supply air fans for conditioning and exhaust air fans.
Indoor Lighting:	Interior lighting (not including EXIT signs).
Outdoor Lighting:	Exterior building lighting.
Central Refrigeration:	Commercial/Industrial refrigeration systems.
Total:	Total building energy use by fuel.

Total Building Peak Demand Impact: This section of the summary report provides peak demand impacts for each measure for selected peak events during the year. Three events are included, the maximum building peak demand impact, the minimum building peak demand impact, and a system coincident peak demand impact (set to December weekday at 4 to 5 PM). For each event the Month, Day Type, and Hour are shown, followed by the normalized total building peak demand impact in Watts/square foot and the percentage of the total base case represented by the impact.

Measure Impact Figures. Four figures are selected and included in each summary report to depict the impacts resulting from each measure. These are:

Monthly Total Electricity Impact: This figure shows the floor area normalized monthly electricity impacts associated with the measure in kWh/square foot.

Monthly Total Fossil Fuel Impact: This figure shows the floor area normalized monthly fossil fuel impacts associated with the measure in kBtu/square foot.

December Peak Day Demand Impact: This figure shows the (selected) system coincident peak day floor area normalized total building demand impact for the measure in Watts/square foot.

December Peak Day Demand Profile: This figure provides the daily total building load profile for the measure and base cases on the (selected) system coincident peak day in kW.

Commercial Kauai-Hotel Measure Index Table

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Cases: 79

Measure ID	Base ID	Measure Description	Primary End-Use	Floor Area
KHXE7000	KHXE7000	Base Case-Standard	NA	537700
KHXO7000	KHXO7000	Base Case-Standard	NA	537700
KHNE7000	KHNE7000	Base Case-Standard	NA	537700
KHNO7000	KHNO7000	Base Case-Standard	NA	537700
KHXE7617	KHXE7617	Base Case For EMS	NA	537700
KHNE7617	KHNE7617	Base Case For EMS	NA	537700
KHXE7646	KHXE7646	Base Case for Chiller Optimizer	NA	537700
KHNE7646	KHNE7646	Base Case for Chiller Optimizer	NA	537700
KHXE7648	KHXE7648	Base Case For Cooling Tower Prop Fans	NA	537700
KHNE7648	KHNE7648	Base Case For Cooling Tower Prop Fans	NA	537700
KHXE7661	KHXE7661	Base Case for 4' Fluor. SMC Ballasts	NA	537700
KHXE7662	KHXE7662	Base Case for 8' Fluor. SMC Ballasts	NA	537700
KHXE8501	KHXE7000	4' Fluor. Energy Saver Lamps-F40T12ES	Inlights	537700
KHXE8502	KHXE7000	Electronic Ballasts-4' T12-Base EEM	Inlights	537700
KHNE8502	KHNE7000	Electronic Ballasts-4' T12-Base EEM	Inlights	537700
KHXE8503	KHXE7000	4' T8 Lamps And Electronic Ballasts	Inlights	537700
KHNE8503	KHNE7000	4' T8 Lamps And Electronic Ballasts	Inlights	537700
KHXE8504	KHXE7000	Window Film Retrofit	Cooling	537700
KHNE8505	KHNE7000	Double Pane Heat Mirror Glazing	Cooling	537700
KHXE8509	KHXE7000	High Pressure Sodium-100 Watts	Exdights	537700
KHNE8509	KHNE7000	High Pressure Sodium-100 Watts	Exdights	537700
KHXE8510	KHXE7000	High Pressure Sodium-250 Watts	Exdights	537700
KHXE8511	KHXE7000	HID Exterior Floods-70 Watts	Exdights	537700
KHNE8511	KHNE7000	HID Exterior Floods-70 Watts	Exdights	537700
KHXE8512	KHXE7000	Occupancy Sensor Pack-200 SF	Inlights	537700
KHNE8512	KHNE7000	Occupancy Sensor Pack-200 SF	Inlights	537700
KHXE8515	KHXE7000	VSD Chilled Water Loop Pump	Cooling	537700
KHNE8515	KHNE7000	VSD Chilled Water Loop Pump	Cooling	537700
KHXE8517	KHXE7617	Energy Management System	Cooling	537700
KHNE8517	KHNE7617	Energy Management System	Cooling	537700
KHXE8518	KHXE7000	Duct Insulation Material	Cooling	537700
KHNE8518	KHNE7000	Duct Insulation Material	Cooling	537700
KHXE8519	KHXE7000	Variable Air Volume Box	Cooling	537700
KHXE8522	KHXE7000	Hot Water Circulation Pump Timeclock	Hotwater	537700
KHXO8522	KHXO7000	Hot Water Circulation Pump Timeclock	Hotwater	537700
KHNE8522	KHNE7000	Hot Water Circulation Pump Timeclock	Hotwater	537700
KHNO8522	KHNO7000	Hot Water Circulation Pump Timeclock	Hotwater	537700
KHXE8524	KHXE7000	Active Solar Water Heating	Hotwater	537700
KHXO8524	KHXO7000	Active Solar Water Heating	Hotwater	537700
KHNE8524	KHNE7000	Active Solar Water Heating	Hotwater	537700
KHNO8524	KHNO7000	Active Solar Water Heating	Hotwater	537700
KHXE8541	KHXE7000	High Efficiency Centrifugal Chiller	Cooling	537700
KHNE8541	KHNE7000	High Efficiency Centrifugal Chiller	Cooling	537700
KHXE8542	KHXE7000	VSD Centrifugal Chiller	Cooling	537700
KHNE8542	KHNE7000	VSD Centrifugal Chiller	Cooling	537700
KHXE8544	KHXE7000	Chiller Strainer Cycle	Cooling	537700
KHNE8544	KHNE7000	Chiller Strainer Cycle	Cooling	537700
KHXE8545	KHXE7000	Chilled Water Reset Controls	Cooling	537700
KHXE8546	KHXE7646	Chiller Optimizer Controls	Cooling	537700
KHNE8546	KHNE7646	Chiller Optimizer Controls	Cooling	537700
KHXE8547	KHXE7000	Thermal Energy Storage-Ice On Coil	Cooling	537700
KHNE8547	KHNE7000	Thermal Energy Storage-Ice On Coil	Cooling	537700
KHXE8548	KHXE7648	Cooling Tower Propeller Fans	Cooling	537700
KHNE8548	KHNE7648	Cooling Tower Propeller Fans	Cooling	537700
KHXE8549	KHXE7000	Two-Speed Cooling Tower Fans	Cooling	537700
KHNE8549	KHNE7000	Two-Speed Cooling Tower Fans	Cooling	537700
KHXE8550	KHXE7000	VSD Cooling Tower Fans	Cooling	537700
KHNE8550	KHNE7000	VSD Cooling Tower Fans	Cooling	537700

Commercial Kauai-Hotel Measure Index Table

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Cases: 79

Measure ID	Base ID	Measure Description	Primary End-Use	Floor Area
KHXE8551	KHNE7000	Waste Heat Recovery	Hotwater	537700
KHNE8551	KHNE7000	Waste Heat Recovery	Hotwater	537700
KHXE8552	KHNE7000	Compact Fluorescent Lamp EXIT Signs	Inlights	537700
KHNE8552	KHNE7000	Compact Fluorescent Lamp EXIT Signs	Inlights	537700
KHXE8553	KHNE7000	LED Lamp EXIT Signs	Inlights	537700
KHNE8553	KHNE7000	LED Lamp EXIT Signs	Inlights	537700
KHXE8557	KHNE7000	Optical Reflectors-2X4 Recessed	Inlights	537700
KHNE8557	KHNE7000	Optical Reflectors-2X4 Recessed	Inlights	537700
KHXE8558	KHNE7000	8' Fluor. Energy Saver Lamps-F96T12ES	Inlights	537700
KHNE8558	KHNE7000	8' Fluor. Energy Saver Lamps-F96T12ES	Inlights	537700
KHXE8559	KHNE7000	Electronic Ballasts-8' T12-Base EEM	Inlights	537700
KHNE8559	KHNE7000	Electronic Ballasts-8' T12-Base EEM	Inlights	537700
KHXE8560	KHNE7000	Optical Reflectors-1X8 Fixtures	Inlights	537700
KHNE8560	KHNE7000	Optical Reflectors-1X8 Fixtures	Inlights	537700
KHXE8561	KHNE7661	Electronic Ballasts-4' T12-Base SMC	Inlights	537700
KHNE8561	KHNE7661	Electronic Ballasts-4' T12-Base SMC	Inlights	537700
KHXE8562	KHNE7662	Electronic Ballasts-8' T12-Base SMC	Inlights	537700
KHNE8562	KHNE7662	Electronic Ballasts-8' T12-Base SMC	Inlights	537700
KHXE8563	KHNE7000	Compact Fluorescent Lamps-15W	Inlights	537700
KHNE8563	KHNE7000	Compact Fluorescent Lamps-15W	Inlights	537700
KHXE8564	KHNE7000	Compact Fluorescent Lamps-26W	Inlights	537700
KHNE8564	KHNE7000	Compact Fluorescent Lamps-26W	Inlights	537700
KHXE8565	KHNE7000	HID Interior Spots-70W	Inlights	537700
KHNE8565	KHNE7000	HID Interior Spots-70W	Inlights	537700

Measure ID	KHXE8501			4' Fluor. Energy Saver Lamps-F40T12ES	
Base ID	KHXE7000			Base Case-Standard	
Market Segment					
Building Type	Kauai-Hotel			Vintage	Existing
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0029	Measure Life (Yrs)	5	Mutual Exclusivity	Yes
Potential Market	70.0%	Modified Market	29.2%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.086	1.0	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.027	1.3			
Indoor Lighting	0.282	4.8			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.396	1.6	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	August	Weekday	Noon - 1 PM	0.21	6.7
Minimum Impact	January	Weekday	5 AM - 6 AM	0.02	1.1
System Coincident	December	Weekday	4 PM - 5 PM	0.06	2.4

Measure ID	KHXE8502			Electronic Ballasts-4' T12-Base EEM	
Base ID	KHXE7000			Base Case-Standard	
Market Segment					
Building Type	Kauai-Hotel			Vintage	Existing
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.1688	Measure Life (Yrs)	16	Mutual Exclusivity	Yes
Potential Market	70.0%	Modified Market	29.2%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.086	1.0	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.027	1.3			
Indoor Lighting	0.282	4.8			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.396	1.6	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	August	Weekday	Noon - 1 PM	0.21	6.7
Minimum Impact	January	Weekday	5 AM - 6 AM	0.02	1.1
System Coincident	December	Weekday	4 PM - 5 PM	0.06	2.4

Measure ID	KHNE8502		Electronic Ballasts-4' T12-Base EEM		
Base ID	KHNE7000		Base Case-Standard		
Market Segment					
Building Type	Kauai-Hotel		Vintage		New
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.1161	Measure Life (Yrs)	16	Mutual Exclusivity	Yes
Potential Market	100.0%	Modified Market	41.7%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.031	0.6	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.008	0.7			
Indoor Lighting	0.154	3.8			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.194	1.1	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	June	Weekday	9 AM - 10 AM	0.04	1.6
Minimum Impact	January	Weekday	5 AM - 6 AM	0.01	0.7
System Coincident	December	Weekday	4 PM - 5 PM	0.03	1.7

Measure ID	KHXE8503			4' T8 Lamps And Electronic Ballasts	
Base ID	KHXE7000			Base Case-Standard	
Market Segment					
Building Type	Kauai-Hotel			Vintage	Existing
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.1731	Measure Life (Yrs)	16	Mutual Exclusivity	Yes
Potential Market	70.0%	Modified Market	29.2%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.165	2.0	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.051	2.5			
Indoor Lighting	0.534	9.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.750	3.1	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	August	Weekday	Noon - 1 PM	0.26	8.3
Minimum Impact	January	Weekday	5 AM - 6 AM	0.03	2.1
System Coincident	December	Weekday	4 PM - 5 PM	0.12	4.5

Measure ID	KHNE8503		4' T8 Lamps And Electronic Ballasts		
Base ID	KHNE7000		Base Case-Standard		
Market Segment					
Building Type	Kauai-Hotel		Vintage	New	
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.1175	Measure Life (Yrs)	16	Mutual Exclusivity	Yes
Potential Market	100.0%	Modified Market	41.7%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.050	1.0	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.012	1.1			
Indoor Lighting	0.252	6.2			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.314	1.8	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	February	Weekday	1 PM - 2 PM	0.08	3.5
Minimum Impact	January	Weekday	5 AM - 6 AM	0.01	1.1
System Coincident	December	Weekday	4 PM - 5 PM	0.05	2.6

Measure ID	KHXE8504		Window Film Retrofit		
Base ID	KHXE7000		Base Case-Standard		
Market Segment					
Building Type	Kauai-Hotel			Vintage	Existing
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.0982	Measure Life (Yrs)	7	Mutual Exclusivity	Yes
Potential Market	21.6%	Modified Market	12.1%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.472	5.6	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.148	7.2			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.620	2.5	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	August	Weekday	Noon - 1 PM	0.24	7.6
Minimum Impact	January	Weekday	5 AM - 6 AM	0.04	2.8
System Coincident	December	Weekday	4 PM - 5 PM	0.08	3.0

Measure ID	KHNE8505		Double Pane Heat Mirror Glazing		
Base ID	KHNE7000		Base Case-Standard		
Market Segment					
Building Type	Kauai-Hotel		Vintage	New	
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.4092	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	27.7%	Modified Market	15.5%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.415	8.5	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.195	17.5			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.609	3.4	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	November	Weekday	1 PM - 2 PM	0.24	9.6
Minimum Impact	May	Weekday	8 PM - 9 PM	0.04	1.3
System Coincident	December	Weekday	4 PM - 5 PM	0.07	3.4

Measure ID	KHXE8509			High Pressure Sodium-100 Watts	
Base ID	KHXE7000			Base Case-Standard	
Market Segment					
Building Type	Kauai-Hotel			Vintage	Existing
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0070	Measure Life (Yrs)	15	Mutual Exclusivity	No
Potential Market	70.0%	Modified Market	70.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.000	0.0	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.036	7.8			
Central Refrigeration	0.000	NA			
Total	0.036	0.1	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	February	Weekday	9 PM - 10 PM	0.01	0.2
Minimum Impact	February	Weekday	3 PM - 4 PM	0.00	0.0
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.0

Measure ID	KHNE8509		High Pressure Sodium-100 Watts		
Base ID	KHNE7000		Base Case-Standard		
Market Segment					
Building Type	Kauai-Hotel		Vintage		New
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0055	Measure Life (Yrs)	15	Mutual Exclusivity	No
Potential Market	90.0%	Modified Market	90.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.000	0.0	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.036	9.3			
Central Refrigeration	0.000	NA			
Total	0.036	0.2	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	January	Weekday	3 AM - 4 AM	0.01	0.7
Minimum Impact	October	Weekday	4 PM - 5 PM	0.00	0.0
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.0

Measure ID	KHXE8510		High Pressure Sodium-250 Watts		
Base ID	KHXE7000		Base Case-Standard		
Market Segment					
Building Type	Kauai-Hotel		Vintage	Existing	
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0101	Measure Life (Yrs)	15	Mutual Exclusivity	No
Potential Market	70.0%	Modified Market	70.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.000	0.0	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.072	15.6			
Central Refrigeration	0.000	NA			
Total	0.072	0.3	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	September	Weekday	6 PM - 7 PM	0.02	0.4
Minimum Impact	February	Weekday	3 PM - 4 PM	0.00	0.0
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.0

Measure ID	KHXE8511		HID Exterior Floods-70 Watts		
Base ID	KHXE7000		Base Case-Standard		
Market Segment					
Building Type	Kauai-Hotel			Vintage	Existing
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0098	Measure Life (Yrs)	16	Mutual Exclusivity	No
Potential Market	70.0%	Modified Market	70.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.000	0.0	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.031	6.7			
Central Refrigeration	0.000	NA			
Total	0.031	0.1	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	December	Weekday	11 PM - Midnight	0.01	0.2
Minimum Impact	July	Weekday	5 PM - 6 PM	0.00	0.0
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.0

Measure ID	KHNE8511		HID Exterior Floods-70 Watts		
Base ID	KHNE7000		Base Case-Standard		
Market Segment					
Building Type	Kauai-Hotel		Vintage	New	
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0083	Measure Life (Yrs)	16	Mutual Exclusivity	No
Potential Market	90.0%	Modified Market	90.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.000	0.0	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.031	7.9			
Central Refrigeration	0.000	NA			
Total	0.031	0.2	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	December	Weekday	11 PM - Midnight	0.01	0.3
Minimum Impact	July	Weekday	6 PM - 7 PM	0.00	0.0
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.0

Measure ID	KHXE8512			Occupancy Sensor Pack-200 SF	
Base ID	KHXE7000			Base Case-Standard	
Market Segment					
Building Type	Kauai-Hotel			Vintage	Existing
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.2831	Measure Life (Yrs)	8	Mutual Exclusivity	No
Potential Market	70.0%	Modified Market	70.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.176	2.1	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.001	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.015	0.7			
Indoor Lighting	0.620	10.4			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.811	3.3	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	August	Weekday	Noon - 1 PM	0.26	8.4
Minimum Impact	January	Weekday	5 AM - 6 AM	0.03	2.1
System Coincident	December	Weekday	4 PM - 5 PM	0.12	4.4

Measure ID	KHNE8512		Occupancy Sensor Pack-200 SF		
Base ID	KHNE7000		Base Case-Standard		
Market Segment					
Building Type	Kauai-Hotel		Vintage	New	
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.2831	Measure Life (Yrs)	8	Mutual Exclusivity	No
Potential Market	100.0%	Modified Market	100.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.067	1.4	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.009	0.8			
Indoor Lighting	0.337	8.3			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.413	2.3	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	May	Weekday	1 PM - 2 PM	0.10	4.5
Minimum Impact	October	Weekday	5 AM - 6 AM	0.01	0.9
System Coincident	December	Weekday	4 PM - 5 PM	0.06	2.9

Measure ID	KHXE8515			VSD Chilled Water Loop Pump	
Base ID	KHXE7000			Base Case-Standard	
Market Segment					
Building Type	Kauai-Hotel			Vintage	Existing
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0309	Measure Life (Yrs)	15	Mutual Exclusivity	No
Potential Market	26.0%	Modified Market	26.0%	Intra Action	Yes
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.770	9.1	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.770	3.1	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	June	Weekday	4 AM - 5 AM	0.14	7.2
Minimum Impact	March	Weekday	7 AM - 8 AM	0.03	0.8
System Coincident	December	Weekday	4 PM - 5 PM	0.08	3.1

Measure ID	KHNE8515			VSD Chilled Water Loop Pump	
Base ID	KHNE7000			Base Case-Standard	
Market Segment					
Building Type	Kauai-Hotel			Vintage	New
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0131	Measure Life (Yrs)	15	Mutual Exclusivity	No
Potential Market	29.5%	Modified Market	29.5%	Intra Action	Yes
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.187	3.8	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.187	1.0	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	January	Weekday	6 AM - 7 AM	0.04	1.9
Minimum Impact	August	Weekday	4 PM - 5 PM	-0.01	-0.6
System Coincident	December	Weekday	4 PM - 5 PM	0.02	1.2

Measure ID	KHXE8517		Energy Management System		
Base ID	KHXE7617		Base Case For EMS		
Market Segment					
Building Type	Kauai-Hotel		Vintage	Existing	
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$1.1600	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	72.7%	Modified Market	34.1%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	1.918	21.8	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.001	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.030	0.5			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	1.949	7.8	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	September	Weekday	8 PM - 9 PM	0.29	7.5
Minimum Impact	May	Weekday	2 PM - 3 PM	0.16	5.1
System Coincident	December	Weekday	4 PM - 5 PM	0.21	7.6

Measure ID	KHNE8517		Energy Management System		
Base ID	KHNE7617		Base Case For EMS		
Market Segment					
Building Type	Kauai-Hotel		Vintage	New	
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.7500	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	82.7%	Modified Market	38.8%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.951	16.3	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	-0.002	-0.2			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.949	5.0	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	July	Weekday	8 PM - 9 PM	0.15	5.3
Minimum Impact	August	Weekday	3 PM - 4 PM	0.05	2.3
System Coincident	December	Weekday	4 PM - 5 PM	0.11	5.4

Measure ID	KHXE8518			Duct Insulation Material	
Base ID	KHXE7000			Base Case-Standard	
Market Segment					
Building Type	Kauai-Hotel			Vintage	Existing
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0065	Measure Life (Yrs)	15	Mutual Exclusivity	No
Potential Market	22.0%	Modified Market	22.0%	Intra Action	Yes
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.400	4.7	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.400	1.6	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	December	Weekday	5 AM - 6 AM	0.09	4.7
Minimum Impact	March	Weekday	7 AM - 8 AM	-0.02	-0.5
System Coincident	December	Weekday	4 PM - 5 PM	0.04	1.5

Measure ID	KHNE8518		Duct Insulation Material		
Base ID	KHNE7000		Base Case-Standard		
Market Segment					
Building Type	Kauai-Hotel		Vintage		New
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.0021	Measure Life (Yrs)	15	Mutual Exclusivity	No
Potential Market	60.0%	Modified Market	60.0%	Intra Action	Yes
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.059	1.2	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	-0.007	-0.7			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.052	0.3	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	August	Weekday	Midnight - 1 AM	0.02	1.5
Minimum Impact	August	Weekday	4 PM - 5 PM	-0.03	-1.5
System Coincident	December	Weekday	4 PM - 5 PM	-0.00	-0.1

Measure ID	KHXE8519		Variable Air Volume Box		
Base ID	KHXE7000		Base Case-Standard		
Market Segment					
Building Type	Kauai-Hotel		Vintage	Existing	
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.1638	Measure Life (Yrs)	15	Mutual Exclusivity	No
Potential Market	33.8%	Modified Market	33.8%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.639	7.6	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.639	2.6	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	December	Weekday	5 AM - 6 AM	0.15	7.7
Minimum Impact	January	Weekday	5 AM - 6 AM	0.03	1.9
System Coincident	December	Weekday	4 PM - 5 PM	0.11	4.0

Measure ID	KHXE8522		Hot Water Circulation Pump Timeclock		
Base ID	KHXE7000		Base Case-Standard		
Market Segment					
Building Type	Kauai-Hotel		Vintage		Existing
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0011	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	9.0%	Modified Market	4.4%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.109	1.3	Cooling	0.000	NA
Water Heating	0.219	7.9	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.328	1.3	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	March	Weekday	4 AM - 5 AM	0.16	8.8
Minimum Impact	NA	Weekday	NA	0.00	NA
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.0

Measure ID	KH XO8522		Hot Water Circulation Pump Timeclock		
Base ID	KH XO7000		Base Case-Standard		
Market Segment					
Building Type	Kauai-Hotel		Vintage	Existing	
Floor Area (sf)	537700	Water Heater Fuel	Oil	Cost Unit	Building square foot
First Cost (\$/unit)	NA	Measure Life (Yrs)	NA	Mutual Exclusivity	NA
Potential Market	NA	Modified Market	NA	Intra Action	NA
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.109	1.3	Cooling	0.000	NA
Water Heating	0.000	NA	Water Heating	0.981	4.6
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.109	0.5	Total	0.981	4.5
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	October	Weekday	5 AM - 6 AM	0.06	3.2
Minimum Impact	NA	Weekday	NA	0.00	NA
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.0

Measure ID	KHNE8522			Hot Water Circulation Pump Timeclock	
Base ID	KHNE7000			Base Case-Standard	
Market Segment					
Building Type	Kauai-Hotel			Vintage	New
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0011	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	20.0%	Modified Market	9.8%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.109	2.2	Cooling	0.000	NA
Water Heating	0.215	8.4	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.324	1.8	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	March	Weekday	2 AM - 3 AM	0.15	12.3
Minimum Impact	NA	Weekday	NA	0.00	NA
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.0

Measure ID	KHNO8522			Hot Water Circulation Pump Timeclock	
Base ID	KHNO7000			Base Case-Standard	
Market Segment					
Building Type	Kauai-Hotel			Vintage	New
Floor Area (sf)	537700	Water Heater Fuel	Oil	Cost Unit	Building square foot
First Cost (\$/unit)	NA	Measure Life (Yrs)	NA	Mutual Exclusivity	NA
Potential Market	NA	Modified Market	NA	Intra Action	NA
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.109	2.2	Cooling	0.000	NA
Water Heating	0.000	NA	Water Heating	0.931	6.0
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.109	0.7	Total	0.931	5.9
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	July	Weekday	4 AM - 5 AM	0.06	4.9
Minimum Impact	NA	Weekday	NA	0.00	NA
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.0

Measure ID	KHXE8524		Active Solar Water Heating		
Base ID	KHXE7000		Base Case-Standard		
Market Segment					
Building Type	Kauai-Hotel		Vintage	Existing	
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$1.1159	Measure Life (Yrs)	14	Mutual Exclusivity	Yes
Potential Market	18.0%	Modified Market	8.8%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.000	0.0	Cooling	0.000	NA
Water Heating	1.614	58.3	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	1.616	6.6	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	March	Weekday	6 PM - 7 PM	0.61	16.8
Minimum Impact	October	Weekday	5 AM - 6 AM	-0.00	-0.1
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.1

Measure ID	KH XO8524		Active Solar Water Heating		
Base ID	KH XO7000		Base Case-Standard		
Market Segment					
Building Type	Kauai-Hotel		Vintage	Existing	
Floor Area (sf)	537700	Water Heater Fuel	Oil	Cost Unit	Building square foot
First Cost (\$/unit)	NA	Measure Life (Yrs)	NA	Mutual Exclusivity	NA
Potential Market	NA	Modified Market	NA	Intra Action	NA
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.000	0.0	Cooling	0.000	NA
Water Heating	-0.015	NA	Water Heating	14.937	69.5
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	-0.014	-0.1	Total	14.937	68.1
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	September	Weekday	1 AM - 2 AM	0.01	0.4
Minimum Impact	June	Weekday	4 PM - 5 PM	-0.01	-0.2
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.0

Measure ID	KHNE8524		Active Solar Water Heating		
Base ID	KHNE7000		Base Case-Standard		
Market Segment					
Building Type	Kauai-Hotel		Vintage		New
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0000	Measure Life (Yrs)	14	Mutual Exclusivity	Yes
Potential Market	45.0%	Modified Market	22.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.000	0.0	Cooling	0.000	NA
Water Heating	1.408	54.9	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	1.409	7.9	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	March	Weekday	6 PM - 7 PM	0.58	21.1
Minimum Impact	October	Weekday	5 AM - 6 AM	-0.02	-1.5
System Coincident	December	Weekday	4 PM - 5 PM	-0.02	-1.0

Measure ID	KHNO8524		Active Solar Water Heating		
Base ID	KHNO7000		Base Case-Standard		
Market Segment					
Building Type	Kauai-Hotel		Vintage	New	
Floor Area (sf)	537700	Water Heater Fuel	Oil	Cost Unit	Building square foot
First Cost (\$/unit)	NA	Measure Life (Yrs)	NA	Mutual Exclusivity	NA
Potential Market	NA	Modified Market	NA	Intra Action	NA
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.000	0.0	Cooling	0.000	NA
Water Heating	-0.015	NA	Water Heating	8.860	57.4
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	-0.014	-0.1	Total	8.860	55.8
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	June	Weekday	1 AM - 2 AM	0.01	0.6
Minimum Impact	August	Weekday	4 PM - 5 PM	-0.01	-0.3
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.0

Measure ID	KHXE8541			High Efficiency Centrifugal Chiller	
Base ID	KHXE7000			Base Case-Standard	
Market Segment					
Building Type	Kauai-Hotel			Vintage	Existing
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0311	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	46.8%	Modified Market	3.8%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	1.282	15.2	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	1.282	5.2	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	September	Weekday	8 PM - 9 PM	0.27	7.0
Minimum Impact	January	Weekday	5 AM - 6 AM	0.06	4.0
System Coincident	December	Weekday	4 PM - 5 PM	0.13	4.6

Measure ID	KHNE8541			High Efficiency Centrifugal Chiller	
Base ID	KHNE7000			Base Case-Standard	
Market Segment					
Building Type	Kauai-Hotel			Vintage	New
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0221	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	53.1%	Modified Market	10.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.336	6.9	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.336	1.9	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	September	Weekday	8 PM - 9 PM	0.08	3.0
Minimum Impact	January	Weekday	5 AM - 6 AM	0.02	1.7
System Coincident	December	Weekday	4 PM - 5 PM	0.03	1.3

Measure ID	KHXE8542			VSD Centrifugal Chiller	
Base ID	KHXE7000			Base Case-Standard	
Market Segment					
Building Type	Kauai-Hotel			Vintage	Existing
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.1767	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	26.0%	Modified Market	4.9%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.801	9.5	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.801	3.3	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	February	Weekday	6 AM - 7 AM	0.14	5.4
Minimum Impact	April	Weekday	3 AM - 4 AM	0.03	1.5
System Coincident	December	Weekday	4 PM - 5 PM	0.04	1.4

Measure ID	KHNE8542			VSD Centrifugal Chiller	
Base ID	KHNE7000			Base Case-Standard	
Market Segment					
Building Type	Kauai-Hotel			Vintage	New
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.1255	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	29.5%	Modified Market	5.5%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.416	8.5	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.416	2.3	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	January	Weekday	9 AM - 10 AM	0.09	3.8
Minimum Impact	August	Weekday	4 PM - 5 PM	0.00	0.2
System Coincident	December	Weekday	4 PM - 5 PM	0.04	2.0

Measure ID	KHXE8544		Chiller Strainer Cycle		
Base ID	KHXE7000		Base Case-Standard		
Market Segment					
Building Type	Kauai-Hotel		Vintage	Existing	
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.1463	Measure Life (Yrs)	20	Mutual Exclusivity	No
Potential Market	20.8%	Modified Market	20.8%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	1.601	19.0	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	1.601	6.5	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	January	Weekday	6 AM - 7 AM	0.34	14.0
Minimum Impact	January	Weekday	10 AM - 11 AM	0.08	2.9
System Coincident	December	Weekday	4 PM - 5 PM	0.14	5.3

Measure ID	KHNE8544			Chiller Strainer Cycle	
Base ID	KHNE7000			Base Case-Standard	
Market Segment					
Building Type	Kauai-Hotel			Vintage	New
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.1039	Measure Life (Yrs)	20	Mutual Exclusivity	No
Potential Market	15.3%	Modified Market	15.3%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.015	0.3	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.015	0.1	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	January	Weekday	6 AM - 7 AM	0.15	8.4
Minimum Impact	NA	Weekday	NA	0.00	NA
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.0

Measure ID	KHXE8545			Chilled Water Reset Controls	
Base ID	KHXE7000			Base Case-Standard	
Market Segment					
Building Type	Kauai-Hotel			Vintage	Existing
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0009	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	20.8%	Modified Market	9.8%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	1.564	18.5	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	1.564	6.4	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	September	Weekday	8 PM - 9 PM	0.29	7.4
Minimum Impact	January	Weekday	5 AM - 6 AM	0.05	3.4
System Coincident	December	Weekday	4 PM - 5 PM	0.14	5.3

Measure ID	KHXE8546			Chiller Optimizer Controls	
Base ID	KHXE7646			Base Case for Chiller Optimizer	
Market Segment					
Building Type	Kauai-Hotel			Vintage	Existing
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0285	Measure Life (Yrs)	20	Mutual Exclusivity	No
Potential Market	20.8%	Modified Market	20.8%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	1.909	21.7	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	1.909	7.7	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	September	Weekday	8 PM - 9 PM	0.29	7.4
Minimum Impact	May	Weekday	2 PM - 3 PM	0.15	5.0
System Coincident	December	Weekday	4 PM - 5 PM	0.21	7.6

Measure ID	KHNE8546		Chiller Optimizer Controls		
Base ID	KHNE7646		Base Case for Chiller Optimizer		
Market Segment					
Building Type	Kauai-Hotel		Vintage	New	
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0285	Measure Life (Yrs)	20	Mutual Exclusivity	No
Potential Market	15.3%	Modified Market	15.3%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.481	9.0	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.481	2.6	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	January	Weekday	5 AM - 6 AM	0.12	9.5
Minimum Impact	NA	Weekday	NA	0.00	NA
System Coincident	December	Weekday	4 PM - 5 PM	0.09	4.4

Measure ID	KHXE8547		Thermal Energy Storage-Ice On Coil		
Base ID	KHXE7000		Base Case-Standard		
Market Segment					
Building Type	Kauai-Hotel		Vintage	Existing	
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$2.5200	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	37.5%	Modified Market	7.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	-0.028	-0.3	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	-0.028	-0.1	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	January	Weekday	2 PM - 3 PM	1.00	31.5
Minimum Impact	January	Weekday	4 AM - 5 AM	-0.72	-46.7
System Coincident	December	Weekday	4 PM - 5 PM	-0.01	-0.5

Measure ID	KHNE8547			Thermal Energy Storage-Ice On Coil	
Base ID	KHNE7000			Base Case-Standard	
Market Segment					
Building Type	Kauai-Hotel			Vintage	New
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$2.5200	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	37.5%	Modified Market	7.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	-1.675	-34.4	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	-1.675	-9.4	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	September	Weekday	8 PM - 9 PM	0.71	25.4
Minimum Impact	January	Weekday	Midnight - 1 AM	-1.06	-87.9
System Coincident	December	Weekday	4 PM - 5 PM	0.23	11.6

Measure ID	KHXE8548			Cooling Tower Propeller Fans	
Base ID	KHXE7648			Base Case For Cooling Tower Prop Fans	
Market Segment					
Building Type	Kauai-Hotel			Vintage	Existing
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0002	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	18.2%	Modified Market	3.2%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.238	2.7	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.238	1.0	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	July	Weekday	9 AM - 10 AM	0.06	1.6
Minimum Impact	January	Weekday	5 AM - 6 AM	0.00	0.1
System Coincident	December	Weekday	4 PM - 5 PM	0.03	1.1

Measure ID	KHNE8548			Cooling Tower Propeller Fans	
Base ID	KHNE7648			Base Case For Cooling Tower Prop Fans	
Market Segment					
Building Type	Kauai-Hotel			Vintage	New
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0002	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	20.7%	Modified Market	3.7%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.137	2.7	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.137	0.8	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	July	Weekday	8 PM - 9 PM	0.04	1.5
Minimum Impact	January	Weekday	5 AM - 6 AM	0.00	0.1
System Coincident	December	Weekday	4 PM - 5 PM	0.02	0.8

Measure ID	KHXE8549			Two-Speed Cooling Tower Fans	
Base ID	KHXE7000			Base Case-Standard	
Market Segment					
Building Type	Kauai-Hotel			Vintage	Existing
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0041	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	18.2%	Modified Market	3.2%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.085	1.0	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.085	0.3	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	June	Weekday	10 AM - 11 AM	0.01	0.5
Minimum Impact	January	Weekday	5 AM - 6 AM	0.00	0.1
System Coincident	December	Weekday	4 PM - 5 PM	0.01	0.5

Measure ID	KHNE8549		Two-Speed Cooling Tower Fans		
Base ID	KHNE7000		Base Case-Standard		
Market Segment					
Building Type	Kauai-Hotel		Vintage	New	
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0028	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	20.7%	Modified Market	3.7%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.058	1.2	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.058	0.3	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	May	Weekday	6 PM - 7 PM	0.01	0.4
Minimum Impact	January	Weekday	5 AM - 6 AM	0.00	0.1
System Coincident	December	Weekday	4 PM - 5 PM	0.01	0.5

Measure ID	KHXE8550		VSD Cooling Tower Fans		
Base ID	KHXE7000		Base Case-Standard		
Market Segment					
Building Type	Kauai-Hotel		Vintage		Existing
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.3307	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	18.2%	Modified Market	3.2%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.120	1.4	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.120	0.5	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	August	Weekday	8 AM - 9 AM	0.02	0.5
Minimum Impact	January	Weekday	5 AM - 6 AM	0.00	0.1
System Coincident	December	Weekday	4 PM - 5 PM	0.02	0.6

Measure ID	KHNE8550			VSD Cooling Tower Fans	
Base ID	KHNE7000			Base Case-Standard	
Market Segment					
Building Type	Kauai-Hotel			Vintage	New
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.2301	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	20.7%	Modified Market	3.7%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.070	1.4	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.070	0.4	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	October	Weekday	1 AM - 2 AM	0.01	1.0
Minimum Impact	January	Weekday	5 AM - 6 AM	0.00	0.1
System Coincident	December	Weekday	4 PM - 5 PM	0.01	0.4

Measure ID	KHXE8551			Waste Heat Recovery	
Base ID	KHXE7000			Base Case-Standard	
Market Segment					
Building Type	Kauai-Hotel			Vintage	Existing
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.3534	Measure Life (Yrs)	10	Mutual Exclusivity	Yes
Potential Market	15.0%	Modified Market	2.8%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	-0.595	-7.1	Cooling	0.000	NA
Water Heating	1.651	59.6	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	1.056	4.3	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	January	Weekday	8 AM - 9 AM	0.43	13.0
Minimum Impact	August	Weekday	4 AM - 5 AM	-0.04	-2.1
System Coincident	December	Weekday	4 PM - 5 PM	0.14	5.0

Measure ID	KHNE8551			Waste Heat Recovery	
Base ID	KHNE7000			Base Case-Standard	
Market Segment					
Building Type	Kauai-Hotel			Vintage	New
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.2511	Measure Life (Yrs)	10	Mutual Exclusivity	Yes
Potential Market	37.5%	Modified Market	7.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	-0.624	-12.8	Cooling	0.000	NA
Water Heating	1.617	63.1	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.993	5.6	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	February	Weekday	8 AM - 9 AM	0.40	14.8
Minimum Impact	January	Weekday	4 AM - 5 AM	-0.07	-6.0
System Coincident	December	Weekday	4 PM - 5 PM	0.10	5.1

Measure ID	KHXE8552		Compact Fluorescent Lamp EXIT Signs		
Base ID	KHXE7000		Base Case-Standard		
Market Segment					
Building Type	Kauai-Hotel			Vintage	Existing
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0110	Measure Life (Yrs)	16	Mutual Exclusivity	No
Potential Market	90.0%	Modified Market	90.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.022	0.3	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.004	0.2			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.105	0.4	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	August	Weekday	Noon - 1 PM	0.16	5.3
Minimum Impact	January	Weekday	10 AM - 11 AM	0.01	0.4
System Coincident	December	Weekday	4 PM - 5 PM	0.01	0.5

Measure ID	KHNE8552			Compact Fluorescent Lamp EXIT Signs	
Base ID	KHNE7000			Base Case-Standard	
Market Segment					
Building Type	Kauai-Hotel			Vintage	New
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0027	Measure Life (Yrs)	16	Mutual Exclusivity	No
Potential Market	75.0%	Modified Market	75.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.015	0.3	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.002	0.2			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.096	0.5	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	May	Weekday	3 PM - 4 PM	0.01	0.6
Minimum Impact	December	Weekday	2 PM - 3 PM	0.01	0.5
System Coincident	December	Weekday	4 PM - 5 PM	0.01	0.6

Measure ID	KHXE8553		LED Lamp EXIT Signs		
Base ID	KHXE7000		Base Case-Standard		
Market Segment					
Building Type	Kauai-Hotel		Vintage	Existing	
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0364	Measure Life (Yrs)	16	Mutual Exclusivity	Yes
Potential Market	90.0%	Modified Market	49.1%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.036	0.4	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.006	0.3			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.169	0.7	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	August	Weekday	Noon - 1 PM	0.17	5.5
Minimum Impact	January	Weekday	10 AM - 11 AM	0.02	0.6
System Coincident	December	Weekday	4 PM - 5 PM	0.02	0.7

Measure ID	KHNE8553			LED Lamp EXIT Signs	
Base ID	KHNE7000			Base Case-Standard	
Market Segment					
Building Type	Kauai-Hotel			Vintage	New
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0190	Measure Life (Yrs)	16	Mutual Exclusivity	Yes
Potential Market	75.0%	Modified Market	40.9%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.025	0.5	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.004	0.3			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.155	0.9	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	May	Weekday	3 PM - 4 PM	0.02	1.0
Minimum Impact	December	Weekday	Noon - 1 PM	0.02	0.8
System Coincident	December	Weekday	4 PM - 5 PM	0.02	0.9

Measure ID	KHXE8557		Optical Reflectors-2X4 Recessed		
Base ID	KHXE7000		Base Case-Standard		
Market Segment					
Building Type	Kauai-Hotel		Vintage		Existing
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0907	Measure Life (Yrs)	16	Mutual Exclusivity	No
Potential Market	50.0%	Modified Market	50.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.153	1.8	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.057	2.8			
Indoor Lighting	0.421	7.1			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.631	2.6	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	August	Weekday	Noon - 1 PM	0.25	7.9
Minimum Impact	January	Weekday	5 AM - 6 AM	0.01	0.8
System Coincident	December	Weekday	4 PM - 5 PM	0.11	4.1

Measure ID	KHNE8557			Optical Reflectors-2X4 Recessed	
Base ID	KHNE7000			Base Case-Standard	
Market Segment					
Building Type	Kauai-Hotel			Vintage	New
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0911	Measure Life (Yrs)	16	Mutual Exclusivity	No
Potential Market	100.0%	Modified Market	100.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.100	2.1	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.025	2.2			
Indoor Lighting	0.495	12.2			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.620	3.5	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	September	Weekday	3 PM - 4 PM	0.14	6.1
Minimum Impact	January	Weekday	5 AM - 6 AM	0.02	2.2
System Coincident	December	Weekday	4 PM - 5 PM	0.10	5.1

Measure ID	KHXE8558		8' Fluor. Energy Saver Lamps-F96T12ES		
Base ID	KHXE7000		Base Case-Standard		
Market Segment					
Building Type	Kauai-Hotel		Vintage	Existing	
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0002	Measure Life (Yrs)	5	Mutual Exclusivity	No
Potential Market	70.0%	Modified Market	70.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.009	0.1	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.004	0.2			
Indoor Lighting	0.023	0.4			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.036	0.1	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	June	Weekday	7 PM - 8 PM	0.04	1.2
Minimum Impact	January	Weekday	5 AM - 6 AM	0.00	0.2
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.1

Measure ID	KHXE8559		Electronic Ballasts-8' T12-Base EEM		
Base ID	KHXE7000		Base Case-Standard		
Market Segment					
Building Type	Kauai-Hotel		Vintage	Existing	
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0065	Measure Life (Yrs)	16	Mutual Exclusivity	Yes
Potential Market	70.0%	Modified Market	29.2%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.008	0.1	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.004	0.2			
Indoor Lighting	0.019	0.3			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.030	0.1	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	July	Weekday	10 AM - 11 AM	0.01	0.2
Minimum Impact	January	Weekday	5 AM - 6 AM	0.00	0.1
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.1

Measure ID	KHNE8559			Electronic Ballasts-8' T12-Base EEM	
Base ID	KHNE7000			Base Case-Standard	
Market Segment					
Building Type	Kauai-Hotel			Vintage	New
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0019	Measure Life (Yrs)	16	Mutual Exclusivity	Yes
Potential Market	100.0%	Modified Market	41.7%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.002	0.0	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.001	0.1			
Indoor Lighting	0.007	0.2			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.009	0.1	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	December	Weekday	7 AM - 8 AM	0.00	0.1
Minimum Impact	February	Weekday	11 PM - Midnight	0.00	0.0
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.1

Measure ID	KHXE8560			Optical Reflectors-1X8 Fixtures	
Base ID	KHXE7000			Base Case-Standard	
Market Segment					
Building Type	Kauai-Hotel			Vintage	Existing
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0038	Measure Life (Yrs)	16	Mutual Exclusivity	No
Potential Market	70.0%	Modified Market	70.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.021	0.3	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.010	0.5			
Indoor Lighting	0.051	0.9			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.082	0.3	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	June	Weekday	7 PM - 8 PM	0.05	1.3
Minimum Impact	January	Weekday	5 AM - 6 AM	0.01	0.4
System Coincident	December	Weekday	4 PM - 5 PM	0.01	0.3

Measure ID	KHNE8560		Optical Reflectors-1X8 Fixtures		
Base ID	KHNE7000		Base Case-Standard		
Market Segment					
Building Type	Kauai-Hotel		Vintage		New
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0038	Measure Life (Yrs)	16	Mutual Exclusivity	No
Potential Market	100.0%	Modified Market	100.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.011	0.2	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.003	0.3			
Indoor Lighting	0.039	1.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.052	0.3	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	July	Weekday	9 AM - 10 AM	0.01	0.4
Minimum Impact	January	Weekday	5 AM - 6 AM	0.00	0.2
System Coincident	December	Weekday	4 PM - 5 PM	0.01	0.3

Measure ID	KHXE8561		Electronic Ballasts-4' T12-Base SMC		
Base ID	KHXE7661		Base Case for 4' Fluor. SMC Ballasts		
Market Segment					
Building Type	Kauai-Hotel			Vintage	Existing
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.1157	Measure Life (Yrs)	16	Mutual Exclusivity	Yes
Potential Market	70.0%	Modified Market	29.2%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.065	0.8	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.019	0.9			
Indoor Lighting	0.215	3.5			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.300	1.2	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	January	Weekday	8 AM - 9 AM	0.09	2.5
Minimum Impact	January	Weekday	5 AM - 6 AM	0.01	0.8
System Coincident	December	Weekday	4 PM - 5 PM	0.05	1.7

Measure ID	KHXE8562			Electronic Ballasts-8' T12-Base SMC	
Base ID	KHXE7662			Base Case for 8' Fluor. SMC Ballasts	
Market Segment					
Building Type	Kauai-Hotel			Vintage	Existing
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0056	Measure Life (Yrs)	16	Mutual Exclusivity	Yes
Potential Market	70.0%	Modified Market	29.2%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.004	0.0	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.002	0.1			
Indoor Lighting	0.009	0.2			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.015	0.1	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	December	Weekday	2 PM - 3 PM	0.00	0.1
Minimum Impact	January	Weekday	5 AM - 6 AM	0.00	0.1
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.1

Measure ID	KHXE8563			Compact Fluorescent Lamps-15W	
Base ID	KHXE7000			Base Case-Standard	
Market Segment					
Building Type	Kauai-Hotel			Vintage	Existing
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.2132	Measure Life (Yrs)	2	Mutual Exclusivity	No
Potential Market	90.3%	Modified Market	90.3%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.621	7.4	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.035	1.7			
Indoor Lighting	2.125	35.8			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	2.781	11.3	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	June	Weekday	7 PM - 8 PM	0.56	16.1
Minimum Impact	January	Weekday	5 AM - 6 AM	0.12	7.6
System Coincident	December	Weekday	4 PM - 5 PM	0.31	11.5

Measure ID	KHNE8563			Compact Fluorescent Lamps-15W	
Base ID	KHNE7000			Base Case-Standard	
Market Segment					
Building Type	Kauai-Hotel			Vintage	New
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0734	Measure Life (Yrs)	2	Mutual Exclusivity	No
Potential Market	95.0%	Modified Market	95.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.173	3.6	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.012	1.1			
Indoor Lighting	0.744	18.3			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.929	5.2	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	December	Weekday	8 PM - 9 PM	0.18	6.7
Minimum Impact	October	Weekday	5 AM - 6 AM	0.01	0.9
System Coincident	December	Weekday	4 PM - 5 PM	0.10	5.1

Measure ID	KHXE8564			Compact Fluorescent Lamps-26W	
Base ID	KHXE7000			Base Case-Standard	
Market Segment					
Building Type	Kauai-Hotel			Vintage	Existing
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0292	Measure Life (Yrs)	5	Mutual Exclusivity	No
Potential Market	9 %	Modified Market	90.3%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.058	0.7	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.324	5.5			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.383	1.6	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	August	Weekday	Noon - 1 PM	0.19	6.3
Minimum Impact	April	Weekday	Noon - 1 PM	0.04	1.3
System Coincident	December	Weekday	4 PM - 5 PM	0.04	1.6

Measure ID	KHNE8564		Compact Fluorescent Lamps-26W		
Base ID	KHNE7000		Base Case-Standard		
Market Segment					
Building Type	Kauai-Hotel		Vintage	New	
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0244	Measure Life (Yrs)	5	Mutual Exclusivity	No
Potential Market	95.0%	Modified Market	95.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.032	0.7	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	-0.000	-0.0			
Indoor Lighting	0.266	6.5			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.297	1.7	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	November	Weekday	1 PM - 2 PM	0.05	2.1
Minimum Impact	September	Weekday	11 AM - Noon	0.03	1.4
System Coincident	December	Weekday	4 PM - 5 PM	0.03	1.6

Measure ID	KHXE8565		HID Interior Spots-70W		
Base ID	KHXE7000		Base Case-Standard		
Market Segment					
Building Type	Kauai-Hotel			Vintage	Existing
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0623	Measure Life (Yrs)	16	Mutual Exclusivity	No
Potential Market	50.0%	Modified Market	50.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.087	1.0	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.020	1.0			
Indoor Lighting	0.179	3.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.286	1.2	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	February	Weekday	7 AM - 8 AM	0.10	2.8
Minimum Impact	February	Weekday	8 AM - 9 AM	0.02	0.5
System Coincident	December	Weekday	4 PM - 5 PM	0.04	1.4

Measure ID	KHNE8565		HID Interior Spots-70W		
Base ID	KHNE7000		Base Case-Standard		
Market Segment					
Building Type	Kauai-Hotel		Vintage	New	
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0623	Measure Life (Yrs)	16	Mutual Exclusivity	No
Potential Market	50.0%	Modified Market	50.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.037	0.8	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.006	0.6			
Indoor Lighting	0.108	2.7			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.152	0.8	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	December	Weekday	8 PM - 9 PM	0.02	0.9
Minimum Impact	January	Weekday	4 AM - 5 AM	0.01	1.0
System Coincident	December	Weekday	4 PM - 5 PM	0.02	1.0

DETAILED MEASURE IMPACTS-SUMMARY REPORTS

This section contains the detailed measure impact results and market segment data for each DSM case examined for this building type. A complete index of all base and measure cases defined for this building type is shown first. This index represents an expansion of the base and measure matrix presented in Table 1 (residential) or Table 2 (commercial) for the applicable sector. Following this index, a summary report sheet is provided for each DSM measure case in the order shown in the index. The summary report sheet contains a host of information and selected graphs which define and depict the measure impacts and outline the market segment data assumptions utilized for each case in the DBEDT DSM Forecasting models. The variables and figures included in the summary report sheet are described below.

Measure ID: The eight-character alpha-numeric code used to define the measure case. This ID is composed of the 2-letter building code + the 1-letter vintage code + the 1-letter water heater fuel type code + the 4-digit numeric code used to define the base or measure case.

Measure Description: A brief (no more than 38-character) definition of the DSM measure

Base ID: Similar to the Measure ID, this code denotes the base case to which the measure case is compared in order to estimate the measure impacts.

Base Description: Similar to the Measure Description, a brief description of the base case. This description helps to determine if a modified base case was defined to estimate measure impacts.

Market Segment. This section of the summary report sheet contains the market segment data defined for each measure. These are:

Building Type:	The building type to which this measure applies.
Vintage:	The vintage of the building (new or existing).
Floor Area (sf):	The gross floor area of the building in square feet.
Water Heater Fuel:	The fuel type utilized for domestic or service water heating (Gas, Electric, or Oil).
Cost Unit:	The unit of measure utilized to describe the measure cost.
First Cost (\$/unit):	The installed capital cost for the measure in dollars per Cost Unit (93 dollars).
Measure Life (Yrs):	The measure life in years.
Mutual Exclusivity:	A Yes/No entry which denotes if mutual exclusivity considerations apply to this measure. A Yes entry indicates that this measure is mutually exclusive with one or more measures pertaining to this building type, thereby modifying the potential market share available.
Potential Market:	The maximum market share available for this measure. This includes consideration of measure applicability, measure feasibility, and remaining market share for existing vintages.
Modified Market:	The maximum market share available for this measure accounting for mutual exclusivity.
Intra Action:	A Yes/No entry which denotes if intra active considerations apply to this measure. A Yes entry indicates that this measure is intra active with one or more measures if applied as a group to this building type. The total impact in a particular end-use for a group of measures with intra active effects is not the same as the summation of the individual measure impacts. An incremental measure impact reduction is implied, based on the measure loading order.

Annual Energy Impacts By End-Use. This section of the summary report contains the normalized measure impacts by end-use and for the total building by fuel type. Electricity impacts are shown in terms of kWh/square foot and as a percentage of the base case, while fossil fuel impacts are shown as kBtu/square foot and as a percentage of the base case for each end-use and for the total. The end-use impacts shown include:

Cooling (& Auxiliary) :	Space cooling and associated pumps and heat rejection energy (e.g., condensers or cooling tower).
Water Heating:	Storage or central domestic or service water heating system.
Misc. Equipment:	Miscellaneous equipment.
Ventilation:	Supply air fans for conditioning and exhaust air fans.
Indoor Lighting:	Interior lighting (not including EXIT signs).
Outdoor Lighting:	Exterior building lighting.
Central Refrigeration:	Commercial/Industrial refrigeration systems.
Total:	Total building energy use by fuel.

Total Building Peak Demand Impact: This section of the summary report provides peak demand impacts for each measure for selected peak events during the year. Three events are included, the maximum building peak demand impact, the minimum building peak demand impact, and a system coincident peak demand impact (set to December weekday at 4 to 5 PM). For each event the Month, Day Type, and Hour are shown, followed by the normalized total building peak demand impact in Watts/square foot and the percentage of the total base case represented by the impact.

Measure Impact Figures. Four figures are selected and included in each summary report to depict the impacts resulting from each measure. These are;

Monthly Total Electricity Impact: This figure shows the floor area normalized monthly electricity impacts associated with the measure in kWh/square foot.

Monthly Total Fossil Fuel Impact: This figure shows the floor area normalized monthly fossil fuel impacts associated with the measure in kBtu/square foot.

December Peak Day Demand Impact: This figure shows the (selected) system coincident peak day floor area normalized total building demand impact for the measure in Watts/square foot.

December Peak Day Demand Profile: This figure provides the daily total building load profile for the measure and base cases on the (selected) system coincident peak day in kW.

Commercial Hawaii-Hotel Measure Index Table

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Cases: 79

Measure ID	Base ID	Measure Description	Primary End-Use	Floor Area
HHXE7000	HHXE7000	Base Case-Standard	NA	537700
HHXO7000	HHXO7000	Base Case-Standard	NA	537700
HHNE7000	HHNE7000	Base Case-Standard	NA	537700
HHNO7000	HHNO7000	Base Case-Standard	NA	537700
HHXE7617	HHXE7617	Base Case For EMS	NA	537700
HHNE7617	HHNE7617	Base Case For EMS	NA	537700
HHXE7646	HHXE7646	Base Case for Chiller Optimizer	NA	537700
HHNE7646	HHNE7646	Base Case for Chiller Optimizer	NA	537700
HHXE7648	HHXE7648	Base Case For Cooling Tower Prop Fans	NA	537700
HHNE7648	HHNE7648	Base Case For Cooling Tower Prop Fans	NA	537700
HHXE7661	HHXE7661	Base Case for 4' Fluor. SMC Ballasts	NA	537700
HHXE7662	HHXE7662	Base Case for 8' Fluor. SMC Ballasts	NA	537700
HHXE8501	HHXE7000	4' Fluor. Energy Saver Lamps-F40T12ES	Inlights	537700
HHXE8502	HHXE7000	Electronic Ballasts-4' T12-Base EEM	Inlights	537700
HHNE8502	HHNE7000	Electronic Ballasts-4' T12-Base EEM	Inlights	537700
HHXE8503	HHXE7000	4' T8 Lamps And Electronic Ballasts	Inlights	537700
HHNE8503	HHNE7000	4' T8 Lamps And Electronic Ballasts	Inlights	537700
HHXE8504	HHXE7000	Window Film Retrofit	Cooling	537700
HHNE8505	HHNE7000	Double Pane Heat Mirror Glazing	Cooling	537700
HHXE8509	HHXE7000	High Pressure Sodium-100 Watts	Exlights	537700
HHNE8509	HHNE7000	High Pressure Sodium-100 Watts	Exlights	537700
HHXE8510	HHXE7000	High Pressure Sodium-250 Watts	Exlights	537700
HHXE8511	HHXE7000	HID Exterior Floods-70 Watts	Exlights	537700
HHNE8511	HHNE7000	HID Exterior Floods-70 Watts	Exlights	537700
HHXE8512	HHXE7000	Occupancy Sensor Pack-200 SF	Inlights	537700
HHNE8512	HHNE7000	Occupancy Sensor Pack-200 SF	Inlights	537700
HHXE8515	HHXE7000	VSD Chilled Water Loop Pump	Cooling	537700
HHNE8515	HHNE7000	VSD Chilled Water Loop Pump	Cooling	537700
HHXE8517	HHXE7617	Energy Management System	Cooling	537700
HHNE8517	HHNE7617	Energy Management System	Cooling	537700
HHXE8518	HHXE7000	Duct Insulation Material	Cooling	537700
HHNE8518	HHNE7000	Duct Insulation Material	Cooling	537700
HHXE8519	HHXE7000	Variable Air Volume Box	Cooling	537700
HHXE8522	HHXE7000	Hot Water Circulation Pump Timeclock	Hotwater	537700
HHXO8522	HHXO7000	Hot Water Circulation Pump Timeclock	Hotwater	537700
HHNE8522	HHNE7000	Hot Water Circulation Pump Timeclock	Hotwater	537700
HHNO8522	HHNO7000	Hot Water Circulation Pump Timeclock	Hotwater	537700
HHXE8524	HHXE7000	Active Solar Water Heating	Hotwater	537700
HHXO8524	HHXO7000	Active Solar Water Heating	Hotwater	537700
HHNE8524	HHNE7000	Active Solar Water Heating	Hotwater	537700
HHNO8524	HHNO7000	Active Solar Water Heating	Hotwater	537700
HHXE8541	HHXE7000	High Efficiency Centrifugal Chiller	Cooling	537700
HHNE8541	HHNE7000	High Efficiency Centrifugal Chiller	Cooling	537700
HHXE8542	HHXE7000	VSD Centrifugal Chiller	Cooling	537700
HHNE8542	HHNE7000	VSD Centrifugal Chiller	Cooling	537700
HHXE8544	HHXE7000	Chiller Strainer Cycle	Cooling	537700
HHNE8544	HHNE7000	Chiller Strainer Cycle	Cooling	537700
HHXE8545	HHXE7000	Chilled Water Reset Controls	Cooling	537700
HHXE8546	HHXE7646	Chiller Optimizer Controls	Cooling	537700
HHNE8546	HHNE7646	Chiller Optimizer Controls	Cooling	537700
HHXE8547	HHXE7000	Thermal Energy Storage-Ice On Coil	Cooling	537700
HHNE8547	HHNE7000	Thermal Energy Storage-Ice On Coil	Cooling	537700
HHXE8548	HHXE7648	Cooling Tower Propeller Fans	Cooling	537700
HHNE8548	HHNE7648	Cooling Tower Propeller Fans	Cooling	537700
HHXE8549	HHXE7000	Two-Speed Cooling Tower Fans	Cooling	537700
HHNE8549	HHNE7000	Two-Speed Cooling Tower Fans	Cooling	537700
HHXE8550	HHXE7000	VSD Cooling Tower Fans	Cooling	537700
HHNE8550	HHNE7000	VSD Cooling Tower Fans	Cooling	537700

Commercial Hawaii-Hotel Measure Index Table

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Measure ID	Base ID	Measure Description	Primary End-Use	Floor Area
HHXE8551	HHXE7000	Waste Heat Recovery	Hotwater	537700
HHNE8551	HHNE7000	Waste Heat Recovery	Hotwater	537700
HHXE8552	HHXE7000	Compact Fluorescent Lamp EXIT Signs	Inlights	537700
HHNE8552	HHNE7000	Compact Fluorescent Lamp EXIT Signs	Inlights	537700
HHXE8553	HHXE7000	LED Lamp EXIT Signs	Inlights	537700
HHNE8553	HHNE7000	LED Lamp EXIT Signs	Inlights	537700
HHXE8557	HHXE7000	Optical Reflectors-2X4 Recessed	Inlights	537700
HHNE8557	HHNE7000	Optical Reflectors-2X4 Recessed	Inlights	537700
HHXE8558	HHXE7000	8' Fluor. Energy Saver Lamps-F96T12ES	Inlights	537700
HHXE8559	HHXE7000	Electronic Ballasts-8' T12-Base EEM	Inlights	537700
HHNE8559	HHNE7000	Electronic Ballasts-8' T12-Base EEM	Inlights	537700
HHXE8560	HHXE7000	Optical Reflectors-1X8 Fixtures	Inlights	537700
HHNE8560	HHNE7000	Optical Reflectors-1X8 Fixtures	Inlights	537700
HHXE8561	HHXE7661	Electronic Ballasts-4' T12-Base SMC	Inlights	537700
HHXE8562	HHXE7662	Electronic Ballasts-8' T12-Base SMC	Inlights	537700
HHXE8563	HHXE7000	Compact Fluorescent Lamps-15W	Inlights	537700
HHNE8563	HHNE7000	Compact Fluorescent Lamps-15W	Inlights	537700
HHXE8564	HHXE7000	Compact Fluorescent Lamps-26W	Inlights	537700
HHNE8564	HHNE7000	Compact Fluorescent Lamps-26W	Inlights	537700
HHXE8565	HHXE7000	HID Interior Spots-70W	Inlights	537700
HHNE8565	HHNE7000	HID Interior Spots-70W	Inlights	537700

Measure ID	HHXE8501		4' Fluor. Energy Saver Lamps-F40T12ES		
Base ID	HHXE7000		Base Case-Standard		
Market Segment					
Building Type	Hawai-Hotel		Vintage	Existing	
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0029	Measure Life (Yrs)	5	Mutual Exclusivity	Yes
Potential Market	70.0%	Modified Market	29.2%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.085	0.9	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.027	1.2			
Indoor Lighting	0.282	4.8			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.395	1.6	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	April	Weekday	5 PM - 6 PM	0.11	3.6
Minimum Impact	November	Weekday	5 AM - 6 AM	0.02	1.0
System Coincident	December	Weekday	4 PM - 5 PM	0.06	2.3

Measure ID	HHXE8502		Electronic Ballasts-4' T12-Base EEM		
Base ID	HHXE7000		Base Case-Standard		
Market Segment					
Building Type	Hawaii-Hotel			Vintage	Existing
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.1688	Measure Life (Yrs)	16	Mutual Exclusivity	Yes
Potential Market	0.0%	Modified Market	29.2%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.085	0.9	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.027	1.2			
Indoor Lighting	0.282	4.8			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.395	1.6	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	April	Weekday	5 PM - 6 PM	0.11	3.6
Minimum Impact	November	Weekday	5 AM - 6 AM	0.02	1.0
System Coincident	December	Weekday	4 PM - 5 PM	0.06	2.3

Measure ID	HHNE8502		Electronic Ballasts-4' T12-Base EEM		
Base ID	HHNE7000		Base Case-Standard		
Market Segment					
Building Type	Hawaii-Hotel		Vintage	New	
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.1161	Measure Life (Yrs)	16	Mutual Exclusivity	Yes
Potential Market	100.0%	Modified Market	41.7%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.031	0.6	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.008	0.6			
Indoor Lighting	0.154	3.8			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.194	1.1	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	June	Weekday	4 PM - 5 PM	0.07	2.9
Minimum Impact	August	Weekday	2 AM - 3 AM	0.01	0.6
System Coincident	December	Weekday	4 PM - 5 PM	0.03	1.6

Measure ID	HHXE8503		4' T8 Lamps And Electronic Ballasts		
Base ID	HHXE7000		Base Case-Standard		
Market Segment					
Building Type	Hawai-Hotel		Vintage	Existing	
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.1731	Measure Life (Yrs)	16	Mutual Exclusivity	Yes
Potential Market	70.0%	Modified Market	29.2%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.161	1.8	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.051	2.2			
Indoor Lighting	0.534	9.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.746	2.9	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	May	Weekday	Noon - 1 PM	0.18	6.3
Minimum Impact	November	Weekday	5 AM - 6 AM	0.03	1.9
System Coincident	December	Weekday	4 PM - 5 PM	0.12	4.4

Measure ID	HHNE8503			4' T8 Lamps And Electronic Ballasts	
Base ID	HHNE7000			Base Case-Standard	
Market Segment					
Building Type	Hawaii-Hotel			Vintage	New
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.1175	Measure Life (Yrs)	16	Mutual Exclusivity	Yes
Potential Market	100.0%	Modified Market	+1.7%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.050	1.0	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.012	1.0			
Indoor Lighting	0.252	6.2			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.314	1.7	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	June	Weekday	4 PM - 5 PM	0.09	3.8
Minimum Impact	July	Weekday	Midnight - 1 AM	-0.02	-1.2
System Coincident	December	Weekday	4 PM - 5 PM	0.05	2.6

Measure ID	HHXE8504		Window Film Retrofit		
Base ID	HHXE7000		Base Case-Standard		
Market Segment					
Building Type	Hawaii-Hotel		Vintage		Existing
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.0966	Measure Life (Yrs)	7	Mutual Exclusivity	Yes
Potential Market	21.6%	Modified Market	12.1%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.572	6.3	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.180	7.8			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.752	3.0	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	October	Weekday	9 AM - 10 AM	0.22	5.6
Minimum Impact	December	Weekday	5 PM - 6 PM	0.05	1.9
System Coincident	December	Weekday	4 PM - 5 PM	0.08	3.0

Measure ID	HHNE8505		Double Pane Heat Mirror Glazing		
Base ID	HHNE7000		Base Case-Standard		
Market Segment					
Building Type	Hawaii-Hotel		Vintage	New	
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.4092	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	27.7%	Modified Market	15.5%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.596	11.3	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.261	20.3			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.857	4.7	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	November	Weekday	11 AM - Noon	0.33	13.3
Minimum Impact	January	Weekday	11 PM - Midnight	0.04	2.1
System Coincident	December	Weekday	4 PM - 5 PM	0.08	4.2

Measure ID	HHXE8509		High Pressure Sodium-100 Watts		
Base ID	HHXE7000		Base Case-Standard		
Market Segment					
Building Type	Hawaii-Hotel			Vintage	Existing
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0070	Measure Life (Yrs)	15	Mutual Exclusivity	No
Potential Market	70.0%	Modified Market	70.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.000	0.0	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.036	7.8			
Central Refrigeration	0.000	NA			
Total	0.036	0.1	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	June	Weekday	11 PM - Midnight	0.01	0.2
Minimum Impact	June	Weekday	Noon - 1 PM	0.00	0.0
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.0

Monthly Total Electricity Impact
High Pressure Sodium-100 Watts

December Peak Day Demand Impact
High Pressure Sodium-100 Watts

Monthly Total Fossil Fuel Impact
High Pressure Sodium-100 Watts

December Peak Day Demand Profile
High Pressure Sodium-100 Watts

Measure ID	HHNE8509		High Pressure Sodium-100 Watts		
Base ID	HHNE7000		Base Case-Standard		
Market Segment					
Building Type	Hawai-Hotel			Vintage	New
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.0055	Measure Life (Yrs)	15	Mutual Exclusivity	No
Potential Market	90.0%	Modified Market	90.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.000	0.0	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.036	9.3			
Central Refrigeration	0.000	NA			
Total	0.036	0.2	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	November	Weekday	10 PM - 11 PM	0.01	0.3
Minimum Impact	January	Weekday	2 PM - 3 PM	0.00	0.0
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.0

Measure ID	HHXE8510		High Pressure Sodium-250 Watts		
Base ID	HHXE7000		Base Case-Standard		
Market Segment					
Building Type	Hawan-Hotel			Vintage	Existing
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0101	Measure Life (Yrs)	15	Mutual Exclusivity	No
Potential Market	70.0%	Modified Market	70.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.000	0.0	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.072	15.6			
Central Refrigeration	0.000	NA			
Total	0.072	0.3	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	August	Weekday	11 PM - Midnight	0.02	0.5
Minimum Impact	August	Weekday	4 PM - 5 PM	0.00	0.0
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.0

Measure ID	HHXE8511		HID Exterior Floods-70 Watts		
Base ID	HHXE7000		Base Case-Standard		
Market Segment					
Building Type	Hawaii-Hotel			Vintage	Existing
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0098	Measure Life (Yrs)	16	Mutual Exclusivity	No
Potential Market	70.0%	Modified Market	70.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.000	0.0	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.031	6.7			
Central Refrigeration	0.000	NA			
Total	0.031	0.1	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	August	Weekday	11 PM - Midnight	0.01	0.2
Minimum Impact	July	Weekday	6 PM - 7 PM	0.00	0.0
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.0

Measure ID	HHNE8511		HID Exterior Floods-70 Watts		
Base ID	HHNE7000		Base Case-Standard		
Market Segment					
Building Type	Hawai-Hotel		Vintage	New	
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.0083	Measure Life (Yrs)	16	Mutual Exclusivity	No
Potential Market	90.0%	Modified Market	90.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.000	0.0	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.031	7.9			
Central Refrigeration	0.000	NA			
Total	0.031	0.2	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	December	Weekday	11 PM - Midnight	0.01	0.3
Minimum Impact	July	Weekday	5 PM - 6 PM	0.00	0.0
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.0

Monthly Total Electricity Impact
HID Exterior Floods-70 Watts

December Peak Day Demand Impact
HID Exterior Floods-70 Watts

Monthly Total Fossil Fuel Impact
HID Exterior Floods-70 Watts

December Peak Day Demand Profile
HID Exterior Floods-70 Watts

Measure ID	HHXE8512		Occupancy Sensor Pack-200 SF		
Base ID	HHXE7000		Base Case-Standard		
Market Segment					
Building Type	Hawai-Hotel		Vintage	Existing	
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.2831	Measure Life (Yrs)	8	Mutual Exclusivity	No
Potential Market	70.0%	Modified Market	70.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.171	1.9	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.001	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.015	0.6			
Indoor Lighting	0.620	10.4			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.807	3.2	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	May	Weekday	Noon - 1 PM	0.19	6.3
Minimum Impact	November	Weekday	5 AM - 6 AM	0.03	1.8
System Coincident	December	Weekday	4 PM - 5 PM	0.11	4.3

Monthly Total Electricity Impact
Occupancy Sensor Pack-200 SF

December Peak Day Demand Impact
Occupancy Sensor Pack-200 SF

Monthly Total Fossil Fuel Impact
Occupancy Sensor Pack-200 SF

December Peak Day Demand Profile
Occupancy Sensor Pack-200 SF

Measure ID	HHNE8512		Occupancy Sensor Pack-200 SF		
Base ID	HHNE7000		Base Case-Standard		
Market Segment					
Building Type	Hawaii-Hotel		Vintage	New	
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.2831	Measure Life (Yrs)	8	Mutual Exclusivity	No
Potential Market	100.0%	Modified Market	100.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.069	1.3	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.008	0.7			
Indoor Lighting	0.337	8.3			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.414	2.2	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	October	Weekday	1 PM - 2 PM	0.10	4.4
Minimum Impact	July	Weekday	Midnight - 1 AM	-0.02	-1.2
System Coincident	December	Weekday	4 PM - 5 PM	0.06	2.9

Measure ID	HHXE8515		VSD Chilled Water Loop Pump		
Base ID	HHXE7000		Base Case-Standard		
Market Segment					
Building Type	Hawaii-Hotel			Vintage	Existing
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0386	Measure Life (Yrs)	15	Mutual Exclusivity	No
Potential Market	26.0%	Modified Market	26.0%	Intra Action	Yes
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.843	9.3	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.843	3.3	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	July	Weekday	1 AM - 2 AM	0.15	7.2
Minimum Impact	November	Weekday	7 AM - 8 AM	0.03	0.7
System Coincident	December	Weekday	4 PM - 5 PM	0.09	3.4

Measure ID	HHNE8515		VSD Chilled Water Loop Pump		
Base ID	HHNE7000		Base Case-Standard		
Market Segment					
Building Type	Hawai-Hotel		Vintage	New	
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.0175	Measure Life (Yrs)	15	Mutual Exclusivity	No
Potential Market	29.5%	Modified Market	29.5%	Intra Action	Yes
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.242	4.6	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.242	1.3	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	January	Weekday	5 AM - 6 AM	0.04	3.2
Minimum Impact	July	Weekday	1 PM - 2 PM	-0.02	-0.7
System Coincident	December	Weekday	4 PM - 5 PM	0.03	1.6

Measure ID	HHXE8517		Energy Management System		
Base ID	HHXE7617		Base Case For EMS		
Market Segment					
Building Type	Hawaii-Hotel		Vintage	Existing	
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$1.1600	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	72.7%	Modified Market	34.1%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	2.299	23.7	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.001	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.030	0.5			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	2.330	9.0	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	November	Weekday	9 AM - 10 AM	0.34	8.7
Minimum Impact	August	Weekday	4 PM - 5 PM	0.19	5.9
System Coincident	December	Weekday	4 PM - 5 PM	0.26	9.2

Measure iD	HHNE8517			Energy Management System	
Base iD	HHNE7617			Base Case For EMS	
Market Segment					
Building Type	Hawaii-Hotel			Vintage	New
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.7500	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	82.7%	Modified Market	38.8%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	1.148	17.8	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	-0.002	-0.2			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	1.146	5.9	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	March	Weekday	8 PM - 9 PM	0.17	5.6
Minimum Impact	June	Weekday	4 PM - 5 PM	0.07	3.2
System Coincident	December	Weekday	4 PM - 5 PM	0.14	6.6

Monthly Total Electricity Impact
Energy Management System

December Peak Day Demand Impact
Energy Management System

Monthly Total Fossil Fuel Impact
Energy Management System

December Peak Day Demand Profile
Energy Management System

Measure ID	HHXE8518		Duct Insulation Material		
Base ID	HHXE7000		Base Case-Standard		
Market Segment					
Building Type	Hawaii-Hotel			Vintage	Existing
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0065	Measure Life (Yrs)	15	Mutual Exclusivity	No
Potential Market	22.0%	Modified Market	22.0%	Intra Action	Yes
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.415	4.6	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.415	1.6	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	April	Weekday	5 PM - 6 PM	0.11	3.4
Minimum Impact	November	Weekday	7 AM - 8 AM	-0.03	-0.7
System Coincident	December	Weekday	4 PM - 5 PM	0.03	1.3

Measure ID	HHNE8518			Duct Insulation Material	
Base ID	HHNE7000			Base Case-Standard	
Market Segment					
Building Type	Hawaii-Hotel			Vintage	New
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0021	Measure Life (Yrs)	15	Mutual Exclusivity	No
Potential Market	50.0%	Modified Market	60.0%	Intra Action	Yes
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.057	1.1	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	-0.007	-0.5			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.050	0.3	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	October	Weekday	Midnight - 1 AM	0.05	3.6
Minimum Impact	July	Weekday	9 AM - 10 AM	-0.03	-1.2
System Coincident	December	Weekday	4 PM - 5 PM	-0.00	-0.2

Measure ID	HHXE8519		Variable Air Volume Box		
Base ID	HHXE7000		Base Case-Standard		
Market Segment					
Building Type	Hawaii-Hotel		Vintage	Existing	
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.1638	Measure Life (Yrs)	15	Mutual Exclusivity	No
Potential Market	33.8%	Modified Market	33.8%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.585	6.5	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.585	2.3	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	March	Weekday	6 AM - 7 AM	0.15	5.1
Minimum Impact	January	Weekday	8 PM - 9 PM	0.04	1.0
System Coincident	December	Weekday	4 PM - 5 PM	0.07	2.5

Measure ID	HHXE8522		Hot Water Circulation Pump Timeclock		
Base ID	HHXE7000		Base Case-Standard		
Market Segment					
Building Type	Hawaii-Hotel		Vintage		Existing
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.0011	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	9.0%	Modified Market	4.4%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.107	1.2	Cooling	0.000	NA
Water Heating	0.216	7.9	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.322	1.3	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	March	Weekday	4 AM - 5 AM	0.15	7.7
Minimum Impact	NA	Weekday	NA	0.00	NA
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.0

Measure ID	HHXO8522			Hot Water Circulation Pump Timeclock	
Base ID	HHXO7000			Base Case-Standard	
Market Segment					
Building Type	Hawai-Hotel			Vintage	Existing
Floor Area (sf)	537700	Water Heater Fuel	Oil	Cost Unit	Building square foot
First Cost (\$/unit)	NA	Measure Life (Yrs)	NA	Mutual Exclusivity	NA
Potential Market	NA	Modified Market	NA	Intra Action	NA
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.107	1.2	Cooling	0.000	NA
Water Heating	0.000	NA	Water Heating	0.965	4.6
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.107	0.5	Total	0.965	4.5
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	February	Weekday	6 AM - 7 AM	0.06	2.4
Minimum Impact	NA	Weekday	NA	0.00	NA
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.0

Measure ID	HHNE8522		Hot Water Circulation Pump Timeclock		
Base ID	HHNE7000		Base Case-Standard		
Market Segment					
Building Type	Hawai-Hotel		Vintage	New	
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0011	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	20.0%	Modified Market	9.8%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.107	2.0	Cooling	0.000	NA
Water Heating	0.211	8.4	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.318	1.7	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	March	Weekday	4 AM - 5 AM	0.15	11.1
Minimum Impact	NA	Weekday	NA	0.00	NA
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.0

Measure ID	HHNO8522		Hot Water Circulation Pump Timeclock		
Base ID	HHNO7000		Base Case-Standard		
Market Segment					
Building Type	Hawai-Hotel			Vintage	New
Floor Area (sf)	537700	Water Heater Fuel	Oil	Cost Unit	Building square foot
First Cost (\$/unit)	NA	Measure Life (Yrs)	NA	Mutual Exclusivity	NA
Potential Market	NA	Modified Market	NA	Intra Action	NA
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.107	2.0	Cooling	0.000	NA
Water Heating	0.000	NA	Water Heating	0.916	6.0
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.107	0.7	Total	0.916	5.9
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	February	Weekday	6 AM - 7 AM	0.06	3.4
Minimum Impact	NA	Weekday	NA	0.00	NA
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.0

Measure ID	HHXE8524		Active Solar Water Heating		
Base ID	HHXE7000		Base Case-Standard		
Market Segment					
Building Type	Hawaii-Hotel		Vintage	Existing	
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$1.1159	Measure Life (Yrs)	14	Mutual Exclusivity	Yes
Potential Market	18.0%	Modified Market	8.8%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.000	0.0	Cooling	0.000	NA
Water Heating	1.771	65.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	1.774	7.0	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	March	Weekday	6 PM - 7 PM	0.60	15.4
Minimum Impact	October	Weekday	2 AM - 3 AM	-0.00	-0.1
System Coincident	December	Weekday	4 PM - 5 PM	0.26	9.9

Measure ID	HHXO8524		Active Solar Water Heating		
Base ID	HHXO7000		Base Case-Standard		
Market Segment					
Building Type	Hawaii-Hotel		Vintage	Existing	
Floor Area (sf)	537700	Water Heater Fuel	Oil	Cost Unit	Building square foot
First Cost (\$/unit)	NA	Measure Life (Yrs)	NA	Mutual Exclusivity	NA
Potential Market	NA	Modified Market	NA	Intra Action	NA
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.000	0.0	Cooling	0.000	NA
Water Heating	-0.016	NA	Water Heating	15.464	73.1
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	-0.014	-0.1	Total	15.463	71.6
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	October	Weekday	1 AM - 2 AM	0.01	0.5
Minimum Impact	August	Weekday	4 PM - 5 PM	-0.01	-0.2
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.0

Measure ID	HHNE8524		Active Solar Water Heating		
Base ID	HHNE7000		Base Case-Standard		
Market Segment					
Building Type	Hawai-Hotel			Vintage	New
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.0000	Measure Life (Yrs)	14	Mutual Exclusivity	Yes
Potential Market	45.0%	Modified Market	22.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.000	0.0	Cooling	0.000	NA
Water Heating	1.569	62.2	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	1.570	8.5	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	March	Weekday	6 PM - 7 PM	0.57	19.7
Minimum Impact	September	Weekday	6 AM - 7 AM	-0.02	-1.0
System Coincident	December	Weekday	4 PM - 5 PM	0.24	12.2

Measure ID	HHNO8524		Active Solar Water Heating		
Base ID	HHNO7000		Base Case-Standard		
Market Segment					
Building Type	Hawai-Hotel		Vintage	New	
Floor Area (sf)	537700	Water Heater Fuel	Oil	Cost Unit	Building square foot
First Cost (\$/unit)	NA	Measure Life (Yrs)	NA	Mutual Exclusivity	NA
Potential Market	NA	Modified Market	NA	Intra Action	NA
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.000	0.0	Cooling	0.000	NA
Water Heating	-0.016	NA	Water Heating	9.486	62.5
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	-0.014	-0.1	Total	9.486	60.8
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	February	Weekday	1 AM - 2 AM	0.01	0.6
Minimum Impact	July	Weekday	Noon - 1 PM	-0.01	-0.3
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.0

Monthly Total Electricity Impact
Active Solar Water Heating

December Peak Day Demand Impact
Active Solar Water Heating

Monthly Total Fossil Fuel Impact
Active Solar Water Heating

December Peak Day Demand Profile
Active Solar Water Heating

Measure ID	HHXE8541		High Efficiency Centrifugal Chiller		
Base iD	HHXE7000		Base Case-Standard		
Market Segment					
Building Type	Hawaii-Hotel		Vintage	Existing	
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.0323	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	46.8%	Modified Market	8.8%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	1.357	15.0	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	1.357	5.4	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	November	Weekday	9 AM - 10 AM	0.31	7.8
Minimum Impact	December	Weekday	5 PM - 6 PM	0.09	3.1
System Coincident	December	Weekday	4 PM - 5 PM	0.11	4.1

Measure ID	HHNE8541		High Efficiency Centrifugal Chiller		
Base ID	HHNE7000		Base Case-Standard		
Market Segment					
Building Type	Hawaii-Hotel			Vintage	New
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0241	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	53.1%	Modified Market	10.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.360	6.8	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.360	2.0	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	November	Weekday	9 AM - 10 AM	0.08	3.0
Minimum Impact	December	Weekday	6 PM - 7 PM	0.02	0.7
System Coincident	December	Weekday	4 PM - 5 PM	0.02	1.2

Measure ID	HHXE8542		VSD Centrifugal Chiller		
Base ID	HHXE7000		Base Case-Standard		
Market Segment					
Building Type	Hawaii-Hotel		Vintage	Existing	
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.1837	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	26.0%	Modified Market	4.9%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.867	9.6	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.867	3.4	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	August	Weekday	6 AM - 7 AM	0.17	6.1
Minimum Impact	March	Weekday	1 AM - 2 AM	0.04	1.8
System Coincident	December	Weekday	4 PM - 5 PM	0.07	2.8

Monthly Total Electricity Impact
VSD Centrifugal Chiller

December Peak Day Demand Impact
VSD Centrifugal Chiller

Monthly Total Fossil Fuel Impact
VSD Centrifugal Chiller

December Peak Day Demand Profile
VSD Centrifugal Chiller

Measure ID	HHNE8542		VSD Centrifugal Chiller		
Base ID	HHNE7000		Base Case-Standard		
Market Segment					
Building Type	Hawaii-Hotel		Vintage	New	
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.1367	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	29.5%	Modified Market	5.5%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.463	8.7	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.463	2.5	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	January	Weekday	10 PM - 11 PM	0.10	4.5
Minimum Impact	July	Weekday	1 PM - 2 PM	0.01	0.5
System Coincident	December	Weekday	4 PM - 5 PM	0.05	2.5

Measure iD	HHXE8544		Chiller Strainer Cycle		
Base iD	HHXE7000		Base Case-Standard		
Market Segment					
Building Type	Hawaii-Hotel			Vintage	Existing
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.1521	Measure Life (Yrs)	20	Mutual Exclusivity	No
Potential Market	20.8%	Modified Market	20.8%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	1.701	18.8	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	1.701	6.7	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	November	Weekday	9 AM - 10 AM	0.34	8.7
Minimum Impact	December	Weekday	5 PM - 6 PM	0.08	2.9
System Coincident	December	Weekday	4 PM - 5 PM	0.11	4.3

Measure ID	HHNE8544		Chiller Strainer Cycle		
Base ID	HHNE7000		Base Case-Standard		
Market Segment					
Building Type	Hawaii-Hotel			Vintage	New
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.1132	Measure Life (Yrs)	20	Mutual Exclusivity	No
Potential Market	15.3%	Modified Market	15.3%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.015	0.3	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.015	0.1	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	NA	Weekday	NA	0.00	NA
Minimum Impact	NA	Weekday	NA	0.00	NA
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.0

Measure ID	HHXE8545		Chilled Water Reset Controls		
Base ID	HHXE7000		Base Case-Standard		
Market Segment					
Building Type	Hawaii-Hotel		Vintage	Existing	
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.0009	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	20.8%	Modified Market	9.8%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	1.652	18.2	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	1.652	6.5	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	November	Weekday	9 AM - 10 AM	0.34	8.7
Minimum Impact	December	Weekday	5 PM - 6 PM	0.08	2.9
System Coincident	December	Weekday	4 PM - 5 PM	0.11	4.3

Measure ID	HHXE8546		Chiller Optimizer Controls		
Base ID	HHXE7646		Base Case for Chiller Optimizer		
Market Segment					
Building Type	Hawaii-Hotel		Vintage	Existing	
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0285	Measure Life (Yrs)	20	Mutual Exclusivity	No
Potential Market	20.8%	Modified Market	20.8%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	2.290	23.6	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	2.290	8.8	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	November	Weekday	9 AM - 10 AM	0.34	8.7
Minimum Impact	August	Weekday	4 PM - 5 PM	0.19	5.9
System Coincident	December	Weekday	4 PM - 5 PM	0.26	9.1

Measure ID	HHNE8546		Chiller Optimizer Controls		
Base ID	HHNE7646		Base Case for Chiller Optimizer		
Market Segment					
Building Type	Hawai-Hotel		Vintage	New	
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0285	Measure Life (Yrs)	20	Mutual Exclusivity	No
Potential Market	15.3%	Modified Market	15.3%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.546	9.3	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.546	2.9	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	December	Weekday	6 PM - 7 PM	0.12	4.0
Minimum Impact	NA	Weekday	NA	0.00	NA
System Coincident	December	Weekday	4 PM - 5 PM	0.11	5.3

Measure ID	HHXE8547		Thermal Energy Storage-Ice On Coil		
Base ID	HHXE7000		Base Case-Standard		
Market Segment					
Building Type	Hawaii-Hotel		Vintage	Existing	
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$2.5200	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	37.5%	Modified Market	7.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	-0.239	-2.6	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	-0.239	-0.9	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	November	Weekday	11 AM - Noon	1.01	29.6
Minimum Impact	January	Weekday	2 AM - 3 AM	-0.74	-40.8
System Coincident	December	Weekday	4 PM - 5 PM	0.52	19.3

Measure ID	HHNE8547		Thermal Energy Storage-Ice On Coil		
Base ID	HHNE7000		Base Case-Standard		
Market Segment					
Building Type	Hawaii-Hotel		Vintage	New	
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$2.5200	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	37.5%	Modified Market	7.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	-1.779	-33.6	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	-1.779	-9.7	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	July	Weekday	8 PM - 9 PM	0.70	24.8
Minimum Impact	November	Weekday	1 AM - 2 AM	-1.13	-85.6
System Coincident	December	Weekday	4 PM - 5 PM	0.20	10.4

Measure ID	HHXE8548		Cooling Tower Probeier Fans		
Base ID	HHXE7648		Base Case For Cooling Tower Prop Fans		
Market Segment					
Building Type	Hawan-Hotel		Vintage	Existing	
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.0003	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	18.2%	Modified Market	3.2%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.226	2.4	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.226	0.9	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	March	Weekday	9 AM - 10 AM	0.07	1.7
Minimum Impact	December	Weekday	6 PM - 7 PM	0.01	0.3
System Coincident	December	Weekday	4 PM - 5 PM	0.01	0.5

Measure ID	HHNE8548		Cooling Tower Propeller Fans		
Base ID	HHNE7648		Base Case For Cooling Tower Prop Fans		
Market Segment					
Building Type	Hawaii-Hotel		Vintage	New	
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0002	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	20.7%	Modified Market	3.7%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.136	2.5	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.136	0.7	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	March	Weekday	9 AM - 10 AM	0.04	1.5
Minimum Impact	December	Weekday	6 PM - 7 PM	0.00	0.2
System Coincident	December	Weekday	4 PM - 5 PM	0.01	0.3

Measure ID	HHXE8549		Two-Speed Cooling Tower Fans		
Base ID	HHXE7000		Base Case-Standard		
Market Segment					
Building Type	Hawai-Hotel		Vintage	Existing	
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0042	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	18.2%	Modified Market	3.2%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.099	1.1	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.099	0.4	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	March	Weekday	10 AM - 11 AM	0.02	0.6
Minimum Impact	December	Weekday	6 PM - 7 PM	0.01	0.1
System Coincident	December	Weekday	4 PM - 5 PM	0.01	0.3

Measure ID	HHNE8549		Two-Speed Cooling Tower Fans		
Base ID	HHNE7000		Base Case-Standard		
Market Segment					
Building Type	Hawaii-Hotel			Vintage	New
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0031	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	20.7%	Modified Market	3.7%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.061	1.2	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.061	0.3	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	March	Weekday	Midnight - 1 AM	0.01	0.8
Minimum Impact	December	Weekday	6 PM - 7 PM	0.00	0.1
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.2

Measure ID	HHXE8550		VSD Cooling Tower Fans		
Base ID	HHXE7000		Base Case-Standard		
Market Segment					
Building Type	Hawan-Hotel		Vintage	Existing	
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.3432	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	18.2%	Modified Market	3.2%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.119	1.3	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.119	0.5	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	July	Weekday	10 PM - 11 PM	0.02	0.7
Minimum Impact	December	Weekday	6 PM - 7 PM	0.00	0.1
System Coincident	December	Weekday	4 PM - 5 PM	0.01	0.3

Measure ID	HHNE8550		VSD Cooling Tower Fans		
Base ID	HHNE7000		Base Case-Standard		
Market Segment					
Building Type	Hawaii-Hotel		Vintage		New
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.2502	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	20.7%	Modified Market	3.7%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.070	1.3	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.070	0.4	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	November	Weekday	11 AM - Noon	0.02	0.6
Minimum Impact	December	Weekday	6 PM - 7 PM	0.00	0.1
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.2

Measure ID	HHXE8551		Waste Heat Recovery		
Base ID	HHXE7000		Base Case-Standard		
Market Segment					
Building Type	Hawai-Hotel		Vintage	Existing	
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.3673	Measure Life (Yrs)	10	Mutual Exclusivity	Yes
Potential Market	15.0%	Modified Market	2.8%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	-0.636	-7.0	Cooling	0.000	NA
Water Heating	1.623	59.6	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.987	3.9	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	February	Weekday	7 AM - 8 AM	0.42	11.8
Minimum Impact	July	Weekday	1 AM - 2 AM	-0.07	-3.2
System Coincident	December	Weekday	4 PM - 5 PM	0.10	3.9

Measure ID	HHNE8551		Waste Heat Recovery		
Base ID	HHNE7000		Base Case-Standard		
Market Segment					
Building Type	Hawaii-Hotel		Vintage	New	
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.2734	Measure Life (Yrs)	10	Mutual Exclusivity	Yes
Potential Market	37.5%	Modified Market	7.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	-0.687	-13.0	Cooling	0.000	NA
Water Heating	1.591	63.1	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.904	4.9	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	February	Weekday	8 AM - 9 AM	0.39	13.9
Minimum Impact	February	Weekday	11 PM - Midnight	-0.07	-3.3
System Coincident	December	Weekday	4 PM - 5 PM	0.09	4.5

Measure ID	HHXE8552		Compact Fluorescent Lamp EXIT Signs		
Base ID	HHXE7000		Base Case-Standard		
Market Segment					
Building Type	Hawaii-Hotel		Vintage	Existing	
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0110	Measure Life (Yrs)	16	Mutual Exclusivity	No
Potential Market	90.0%	Modified Market	90.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.022	0.2	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.004	0.2			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.104	0.4	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	April	Weekday	5 PM - 6 PM	0.06	1.9
Minimum Impact	December	Weekday	5 PM - 6 PM	0.01	0.4
System Coincident	December	Weekday	4 PM - 5 PM	0.01	0.4

Measure ID	HHNE8552		Compact Fluorescent Lamp EXIT Signs		
Base ID	HHNE7000		Base Case-Standard		
Market Segment					
Building Type	Hawan-Hotel			Vintage	New
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.0027	Measure Life (Yrs)	16	Mutual Exclusivity	No
Potential Market	75.0%	Modified Market	75.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.015	0.3	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.002	0.2			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.097	0.5	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	December	Weekday	11 AM - Noon	0.02	0.9
Minimum Impact	May	Weekday	11 AM - Noon	0.01	0.4
System Coincident	December	Weekday	4 PM - 5 PM	0.01	0.5

Monthly Total Electricity Impact
Compact Fluorescent Lamp EXIT Signs

December Peak Day Demand Impact
Compact Fluorescent Lamp EXIT Signs

Monthly Total Fossil Fuel Impact
Compact Fluorescent Lamp EXIT Signs

December Peak Day Demand Profile
Compact Fluorescent Lamp EXIT Signs

Measure ID	HHXE8553		LED Lamp EXIT Signs		
Base ID	HHXE7000		Base Case-Standard		
Market Segment					
Building Type	Hawaii-Hotel		Vintage	Existing	
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0364	Measure Life (Yrs)	16	Mutual Exclusivity	Yes
Potential Market	90.0%	Modified Market	19.1%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.035	0.4	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.006	0.3			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.168	0.7	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	April	Weekday	5 PM - 6 PM	0.07	2.1
Minimum Impact	December	Weekday	5 PM - 6 PM	0.02	0.6
System Coincident	December	Weekday	4 PM - 5 PM	0.02	0.7

Measure ID	HHNE8553		LED Lamp EXIT Signs		
Base ID	HHNE7000		Base Case-Standard		
Market Segment					
Building Type	Hawaii-Hotel		Vintage	New	
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	3.0190	Measure Life (Yrs)	16	Mutual Exclusivity	Yes
Potential Market	5.0%	Modified Market	40.9%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.025	0.5	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.004	0.3			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.156	0.8	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	December	Weekday	7 PM - 8 PM	0.03	1.1
Minimum Impact	May	Weekday	11 AM - Noon	0.02	0.7
System Coincident	December	Weekday	4 PM - 5 PM	0.02	0.9

Measure ID	HHXE8557			Optical Reflectors-2X4 Recessed	
Base ID	HHXE7000			Base Case-Standard	
Market Segment					
Building Type	Hawaii-Hotel			Vintage	Existing
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0907	Measure Life (Yrs)	16	Mutual Exclusivity	No
Potential Market	50.0%	Modified Market	50.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.150	1.7	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.056	2.5			
Indoor Lighting	0.421	7.1			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.627	2.5	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	April	Weekday	5 PM - 6 PM	0.16	5.1
Minimum Impact	November	Weekday	5 AM - 6 AM	0.01	0.8
System Coincident	December	Weekday	4 PM - 5 PM	0.11	4.0

Measure ID	HHNE8557		Optical Reflectors-2X4 Recessed		
Base ID	HHNE7000		Base Case-Standard		
Market Segment					
Building Type	Hawaii-Hotel			Vintage	New
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0911	Measure Life (Yrs)	16	Mutual Exclusivity	No
Potential Market	100.0%	Modified Market	100.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.100	1.9	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.024	1.9			
Indoor Lighting	0.495	12.2			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.620	3.4	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	June	Weekday	4 PM - 5 PM	0.14	6.2
Minimum Impact	July	Weekday	Midnight - 1 AM	-0.00	-0.2
System Coincident	December	Weekday	4 PM - 5 PM	0.10	5.0

Measure ID	HHXE8558		8' Fluor. Energy Saver Lamps-F96T12ES		
Base ID	HHXE7000		Base Case-Standard		
Market Segment					
Building Type	Hawaii-Hotel		Vintage	Existing	
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0002	Measure Life (Yrs)	5	Mutual Exclusivity	No
Potential Market	70.0%	Modified Market	70.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.009	0.1	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.004	0.2			
Indoor Lighting	0.023	0.4			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.036	0.1	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	April	Weekday	5 PM - 6 PM	0.05	1.6
Minimum Impact	February	Weekday	11 PM - Midnight	0.00	0.1
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.1

Measure ID	HHXE8559		Electronic Ballasts-8' T12-Base EEM		
Base ID	HHXE7000		Base Case-Standard		
Market Segment					
Building Type	Hawaii-Hotel		Vintage	Existing	
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0065	Measure Life (Yrs)	16	Mutual Exclusivity	Yes
Potential Market	70.0%	Modified Market	29.2%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.007	0.1	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.004	0.2			
Indoor Lighting	0.019	0.3			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.029	0.1	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	April	Weekday	5 PM - 6 PM	0.05	1.6
Minimum Impact	February	Weekday	11 PM - Midnight	0.00	0.1
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.1

Measure ID	HHNE8559		Electronic Ballasts-8' T12-Base EEM		
Base ID	HHNE7000		Base Case-Standard		
Market Segment					
Building Type	Hawaii-Hotel		Vintage	New	
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0019	Measure Life (Yrs)	16	Mutual Exclusivity	Yes
Potential Market	100.0%	Modified Market	41.7%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.002	0.0	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.001	0.1			
Indoor Lighting	0.007	0.2			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.009	0.0	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	March	Weekday	9 AM - 10 AM	0.00	0.1
Minimum Impact	January	Weekday	11 PM - Midnight	0.00	0.0
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.1

Monthly Total Electricity Impact
Electronic Ballasts-8' T12-Base EEM

December Peak Day Demand Impact
Electronic Ballasts-8' T12-Base EEM

Monthly Total Fossil Fuel Impact
Electronic Ballasts-8' T12-Base EEM

December Peak Day Demand Profile
Electronic Ballasts-8' T12-Base EEM

Measure ID	HHXE8560			Optical Reflectors-1X8 Fixtures	
Base ID	HHXE7000			Base Case-Standard	
Market Segment					
Building Type	Hawaii-Hotel			Vintage	Existing
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0038	Measure Life (Yrs)	16	Mutual Exclusivity	No
Potential Market	70.0%	Modified Market	70.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.020	0.2	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.010	0.4			
Indoor Lighting	0.051	0.9			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.081	0.3	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	April	Weekday	5 PM - 6 PM	0.06	1.8
Minimum Impact	February	Weekday	11 PM - Midnight	0.01	0.2
System Coincident	December	Weekday	4 PM - 5 PM	0.01	0.3

Measure ID	HHNE8560		Optical Reflectors-1X8 Fixtures		
Base ID	HHNE7000		Base Case-Standard		
Market Segment					
Building Type	Hawaii-Hotel			Vintage	New
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0038	Measure Life (Yrs)	16	Mutual Exclusivity	No
Potential Market	100.0%	Modified Market	100.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.010	0.2	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.004	0.3			
Indoor Lighting	0.039	1.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.053	0.3	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	March	Weekday	9 AM - 10 AM	0.01	0.4
Minimum Impact	December	Weekday	Midnight - 1 AM	0.00	0.1
System Coincident	December	Weekday	4 PM - 5 PM	0.01	0.3

Measure ID	HHXE8561		Electronic Ballasts-4' T12-Base SMC		
Base ID	HHXE7661		Base Case for 4' Fluor. SMC Ballasts		
Market Segment					
Building Type	Hawaii-Hotel		Vintage	Existing	
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.1157	Measure Life (Yrs)	16	Mutual Exclusivity	Yes
Potential Market	70.0%	Modified Market	29.2%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.065	0.7	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.019	0.8			
Indoor Lighting	0.215	3.5			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.300	1.2	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	May	Weekday	1 PM - 2 PM	0.09	2.8
Minimum Impact	July	Weekday	1 AM - 2 AM	0.01	0.6
System Coincident	December	Weekday	4 PM - 5 PM	0.05	1.7

Monthly Total Electricity Impact
Electronic Ballasts-4' T12-Base SMC

December Peak Day Demand Impact
Electronic Ballasts-4' T12-Base SMC

Monthly Total Fossil Fuel Impact
Electronic Ballasts-4' T12-Base SMC

December Peak Day Demand Profile
Electronic Ballasts-4' T12-Base SMC

Measure ID	HHXE8562			Electronic Ballasts-8' T12-Base SMC	
Base ID	HHXE7662			Base Case for 8' Fluor. SMC Ballasts	
Market Segment					
Building Type	Hawaii-Hotel			Vintage	Existing
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0056	Measure Life (Yrs)	16	Mutual Exclusivity	Yes
Potential Market	70.0%	Modified Market	29.2%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.004	0.0	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.002	0.1			
Indoor Lighting	0.009	0.2			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.015	0.1	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	July	Weekday	Noon - 1 PM	0.00	0.1
Minimum Impact	February	Weekday	11 PM - Midnight	0.00	0.0
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.1

Measure ID	HHXE8563			Compact Fluorescent Lamps-15W	
Base ID	HHXE7000			Base Case-Standard	
Market Segment					
Building Type	Hawai-Hotel			Vintage	Existing
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.2132	Measure Life (Yrs)	2	Mutual Exclusivity	No
Potential Market	90.3%	Modified Market	90.3%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.607	6.7	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.035	1.5			
Indoor Lighting	2.125	35.8			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	2.766	10.9	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	December	Weekday	11 PM - Midnight	0.56	18.2
Minimum Impact	November	Weekday	5 AM - 6 AM	0.12	6.7
System Coincident	December	Weekday	4 PM - 5 PM	0.30	11.2

Measure ID	HHNE8563		Compact Fluorescent Lamps-15W		
Base ID	HHNE7000		Base Case-Standard		
Market Segment					
Building Type	Hawaii-Hotel		Vintage	New	
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0734	Measure Life (Yrs)	2	Mutual Exclusivity	No
Potential Market	95.0%	Modified Market	95.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.174	3.3	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.011	0.9			
Indoor Lighting	0.744	18.3			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.930	5.0	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	January	Weekday	11 AM - Noon	0.25	10.8
Minimum Impact	October	Weekday	5 AM - 6 AM	0.04	2.9
System Coincident	December	Weekday	4 PM - 5 PM	0.10	5.0

Measure ID	HHXE8564		Compact Fluorescent Lamps-26W		
Base ID	HHXE7000		Base Case-Standard		
Market Segment					
Building Type	Hawaii-Hotel			Vintage	Existing
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0292	Measure Life (Yrs)	5	Mutual Exclusivity	No
Potential Market	90.3%	Modified Market	90.3%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.058	0.6	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.324	5.5			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.382	1.5	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	May	Weekday	Noon - 1 PM	0.13	4.2
Minimum Impact	December	Weekday	10 AM - 11 AM	0.04	1.3
System Coincident	December	Weekday	4 PM - 5 PM	0.04	1.6

Monthly Total Electricity Impact
Compact Fluorescent Lamps-26W

December Peak Day Demand Impact
Compact Fluorescent Lamps-26W

Monthly Total Fossil Fuel Impact
Compact Fluorescent Lamps-26W

December Peak Day Demand Profile
Compact Fluorescent Lamps-26W

Measure ID	HHNE8564		Compact Fluorescent Lamps-26W		
Base ID	HHNE7000		Base Case-Standard		
Market Segment					
Building Type	Hawaii-Hotel		Vintage		New
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0244	Measure Life (Yrs)	5	Mutual Exclusivity	No
Potential Market	95.0%	Modified Market	95.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.034	0.6	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	-0.000	-0.0			
Indoor Lighting	0.266	6.5			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.299	1.6	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	February	Weekday	2 PM - 3 PM	0.07	3.2
Minimum Impact	June	Weekday	11 AM - Noon	0.03	1.4
System Coincident	December	Weekday	4 PM - 5 PM	0.03	1.6

Measure ID	HHXE8565		HID Interior Spots-70W		
Base ID	HHXE7000		Base Case-Standard		
Market Segment					
Building Type	Hawaii-Hotel		Vintage	Existing	
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.0623	Measure Life (Yrs)	16	Mutual Exclusivity	No
Potential Market	50.0%	Modified Market	50.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.084	0.9	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.020	0.9			
Indoor Lighting	0.179	3.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.283	1.1	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	April	Weekday	5 PM - 6 PM	0.08	2.7
Minimum Impact	August	Weekday	Midnight - 1 AM	0.02	1.0
System Coincident	December	Weekday	4 PM - 5 PM	0.03	1.3

Measure ID	HHNE8565		HID Interior Spots-70W		
Base ID	HHNE7000		Base Case-Standard		
Market Segment					
Building Type	Hawaiian-Hotel		Vintage	New	
Floor Area (sf)	537700	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0623	Measure Life (Yrs)	16	Mutual Exclusivity	No
Potential Market	50.0%	Modified Market	50.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.035	0.7	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.006	0.5			
Indoor Lighting	0.108	2.7			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.150	0.8	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	March	Weekday	8 PM - 9 PM	0.02	0.8
Minimum Impact	September	Weekday	3 AM - 4 AM	0.01	0.8
System Coincident	December	Weekday	4 PM - 5 PM	0.02	0.9

DETAILED MEASURE IMPACTS-SUMMARY REPORTS

This section contains the detailed measure impact results and market segment data for each DSM case examined for this building type. A complete index of all base and measure cases defined for this building type is shown first. This index represents an expansion of the base and measure matrix presented in Table 1 (residential) or Table 2 (commercial) for the applicable sector. Following this index, a summary report sheet is provided for each DSM measure case in the order shown in the index. The summary report sheet contains a host of information and selected graphs which define and depict the measure impacts and outline the market segment data assumptions utilized for each case in the DBEDT DSM Forecasting models. The variables and figures included in the summary report sheet are described below.

Measure ID: The eight-character alpha-numeric code used to define the measure case. This ID is composed of the 2-letter building code + the 1-letter vintage code + the 1-letter water heater fuel type code + the 4-digit numeric code used to define the base or measure case.

Measure Description: A brief (no more than 38-character) definition of the DSM measure

Base ID: Similar to the Measure ID, this code denotes the base case to which the measure case is compared in order to estimate the measure impacts.

Base Description: Similar to the Measure Description, a brief description of the base case. This description helps to determine if a modified base case was defined to estimate measure impacts.

Market Segment. This section of the summary report sheet contains the market segment data defined for each measure. These are:

Building Type:	The building type to which this measure applies.
Vintage:	The vintage of the building (new or existing).
Floor Area (sf):	The gross floor area of the building in square feet.
Water Heater Fuel:	The fuel type utilized for domestic or service water heating (Gas, Electric, or Oil).
Cost Unit:	The unit of measure utilized to describe the measure cost.
First Cost (\$/unit):	The installed capital cost for the measure in dollars per Cost Unit (93 dollars).
Measure Life (Yrs):	The measure life in years.
Mutual Exclusivity:	A Yes/No entry which denotes if mutual exclusivity considerations apply to this measure. A Yes entry indicates that this measure is mutually exclusive with one or more measures pertaining to this building type, thereby modifying the potential market share available.
Potential Market:	The maximum market share available for this measure. This includes consideration of measure applicability, measure feasibility, and remaining market share for existing vintages.
Modified Market:	The maximum market share available for this measure accounting for mutual exclusivity.
Intra Action:	A Yes/No entry which denotes if intra active considerations apply to this measure. A Yes entry indicates that this measure is intra active with one or more measures if applied as a group to this building type. The total impact in a particular end-use for a group of measures with intra active effects is not the same as the summation of the individual measure impacts. An incremental measure impact reduction is implied, based on the measure loading order.

Annual Energy Impacts By End-Use. This section of the summary report contains the normalized measure impacts by end-use and for the total building by fuel type. Electricity impacts are shown in terms of kWh/square foot and as a percentage of the base case, while fossil fuel impacts are shown as kBtu/square foot and as a percentage of the base case for each end-use and for the total. The end-use impacts shown include:

Cooling (& Auxiliary) :	Space cooling and associated pumps and heat rejection energy (e.g., condensers or cooling tower).
Water Heating:	Storage or central domestic or service water heating system.
Misc. Equipment:	Miscellaneous equipment.
Ventilation:	Supply air fans for conditioning and exhaust air fans.
Indoor Lighting:	Interior lighting (not including EXIT signs).
Outdoor Lighting:	Exterior building lighting.
Central Refrigeration:	Commercial/Industrial refrigeration systems.
Total:	Total building energy use by fuel.

Total Building Peak Demand Impact: This section of the summary report provides peak demand impacts for each measure for selected peak events during the year. Three events are included, the maximum building peak demand impact, the minimum building peak demand impact, and a system coincident peak demand impact (set to December weekday at 4 to 5 PM). For each event the Month, Day Type, and Hour are shown, followed by the normalized total building peak demand impact in Watts/square foot and the percentage of the total base case represented by the impact.

Measure Impact Figures. Four figures are selected and included in each summary report to depict the impacts resulting from each measure. These are:

Monthly Total Electricity Impact: This figure shows the floor area normalized monthly electricity impacts associated with the measure in kWh/square foot.

Monthly Total Fossil Fuel Impact: This figure shows the floor area normalized monthly fossil fuel impacts associated with the measure in kBtu/square foot.

December Peak Day Demand Impact: This figure shows the (selected) system coincident peak day floor area normalized total building demand impact for the measure in Watts/square foot.

December Peak Day Demand Profile: This figure provides the daily total building load profile for the measure and base cases on the (selected) system coincident peak day in kW.

Commercial Oahu-Resort Measure Index Table

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Cases: 81

Measure ID	Base ID	Measure Description	Primary End-Use	Floor Area
ORXG7000	ORXG7000	Base Case-Standard	NA	430900
ORXE7000	ORXE7000	Base Case-Standard	NA	430900
ORNG7000	ORNG7000	Base Case-Standard	NA	430900
ORNE7000	ORNE7000	Base Case-Standard	NA	430900
ORXE7617	ORXE7617	Base Case For EMS	NA	430900
ORNE7617	ORNE7617	Base Case For EMS	NA	430900
ORXE7646	ORXE7646	Base Case for Chiller Optimizer	NA	430900
ORNE7646	ORNE7646	Base Case for Chiller Optimizer	NA	430900
ORXE7648	ORXE7648	Base Case For Cooling Tower Prop Fans	NA	430900
ORNE7648	ORNE7648	Base Case For Cooling Tower Prop Fans	NA	430900
ORXE7661	ORXE7661	Base Case for 4' Fluor. SMC Ballasts	NA	430900
ORXE7662	ORXE7662	Base Case for 8' Fluor. SMC Ballasts	NA	430900
ORXE8501	ORXE7000	4' Fluor. Energy Saver Lamps-F40T12ES	Inlights	430900
ORXE8502	ORXE7000	Electronic Ballasts-4' T12-Base EEM	Inlights	430900
ORNE8502	ORNE7000	Electronic Ballasts-4' T12-Base EEM	Inlights	430900
ORXE8503	ORXE7000	4' T8 Lamps And Electronic Ballasts	Inlights	430900
ORNE8503	ORNE7000	4' T8 Lamps And Electronic Ballasts	Inlights	430900
ORXE8504	ORXE7000	Window Film Retrofit	Cooling	430900
ORNE8505	ORNE7000	Double Pane Heat Mirror Glazing	Cooling	430900
ORXE8509	ORXE7000	High Pressure Sodium-100 Watts	Exlights	430900
ORNE8509	ORNE7000	High Pressure Sodium-100 Watts	Exlights	430900
ORXE8510	ORXE7000	High Pressure Sodium-250 Watts	Exlights	430900
ORXE8511	ORXE7000	HID Exterior Floods-70 Watts	Exlights	430900
ORNE8511	ORNE7000	HID Exterior Floods-70 Watts	Exlights	430900
ORXE8512	ORXE7000	Occupancy Sensor Pack-200 SF	Inlights	430900
ORNE8512	ORNE7000	Occupancy Sensor Pack-200 SF	Inlights	430900
ORXE8515	ORXE7000	VSD Chilled Water Loop Pump	Cooling	430900
ORNE8515	ORNE7000	VSD Chilled Water Loop Pump	Cooling	430900
ORXE8517	ORXE7617	Energy Management System	Cooling	430900
ORNE8517	ORNE7617	Energy Management System	Cooling	430900
ORXE8518	ORXE7000	Duct Insulation Material	Cooling	430900
ORNE8518	ORNE7000	Duct Insulation Material	Cooling	430900
ORXE8519	ORXE7000	Variable Air Volume Box	Cooling	430900
ORXG8522	ORXG7000	Hot Water Circulation Pump Timeclock	Hotwater	430900
ORXE8522	ORXE7000	Hot Water Circulation Pump Timeclock	Hotwater	430900
ORNG8522	ORNG7000	Hot Water Circulation Pump Timeclock	Hotwater	430900
ORNE8522	ORNE7000	Hot Water Circulation Pump Timeclock	Hotwater	430900
ORXG8524	ORXG7000	Active Solar Water Heating	Hotwater	430900
ORXE8524	ORXE7000	Active Solar Water Heating	Hotwater	430900
ORNG8524	ORNG7000	Active Solar Water Heating	Hotwater	430900
ORNE8524	ORNE7000	Active Solar Water Heating	Hotwater	430900
ORXE8541	ORXE7000	High Efficiency Centrifugal Chiller	Cooling	430900
ORNE8541	ORNE7000	High Efficiency Centrifugal Chiller	Cooling	430900
ORXE8542	ORXE7000	VSD Centrifugal Chiller	Cooling	430900
ORNE8542	ORNE7000	VSD Centrifugal Chiller	Cooling	430900
ORXE8543	ORXE7000	Gas Absorption Chiller	Cooling	430900
ORNE8543	ORNE7000	Gas Absorption Chiller	Cooling	430900
ORXE8544	ORXE7000	Chiller Strainer Cycle	Cooling	430900
ORNE8544	ORNE7000	Chiller Strainer Cycle	Cooling	430900
ORXE8545	ORXE7000	Chilled Water Reset Controls	Cooling	430900
ORXE8546	ORXE7646	Chiller Optimizer Controls	Cooling	430900
ORNE8546	ORNE7646	Chiller Optimizer Controls	Cooling	430900
ORXE8547	ORXE7000	Thermal Energy Storage-Ice On Coil	Cooling	430900
ORNE8547	ORNE7000	Thermal Energy Storage-Ice On Coil	Cooling	430900
ORXE8548	ORXE7648	Cooling Tower Propeller Fans	Cooling	430900
ORNE8548	ORNE7648	Cooling Tower Propeller Fans	Cooling	430900
ORXE8549	ORXE7000	Two-Speed Cooling Tower Fans	Cooling	430900
ORNE8549	ORNE7000	Two-Speed Cooling Tower Fans	Cooling	430900

Commercial Oahu-Resort Measure Index Table

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Cases: 81

Measure ID	Base ID	Measure Description	Primary End-Use	Floor Area
ORXE8550	ORXE7000	VSD Cooling Tower Fans	Cooling	430900
ORNE8550	ORNE7000	VSD Cooling Tower Fans	Cooling	430900
ORXE8551	ORXE7000	Waste Heat Recovery	Hotwater	430900
ORNE8551	ORNE7000	Waste Heat Recovery	Hotwater	430900
ORXE8552	ORXE7000	Compact Fluorescent Lamp EXIT Signs	Inlights	430900
ORNE8552	ORNE7000	Compact Fluorescent Lamp EXIT Signs	Inlights	430900
ORXE8553	ORXE7000	LED Lamp EXIT Signs	Inlights	430900
ORNE8553	ORNE7000	LED Lamp EXIT Signs	Inlights	430900
ORXE8557	ORXE7000	Optical Reflectors-2X4 Recessed	Inlights	430900
ORNE8557	ORNE7000	Optical Reflectors-2X4 Recessed	Inlights	430900
ORXE8558	ORXE7000	8' Fluor. Energy Saver Lamps-F96T12ES	Inlights	430900
ORNE8559	ORXE7000	Electronic Ballasts-8' T12-Base EEM	Inlights	430900
ORNE8559	ORNE7000	Electronic Ballasts-8' T12-Base EEM	Inlights	430900
ORXE8560	ORXE7000	Optical Reflectors-1X8 Fixtures	Inlights	430900
ORNE8560	ORNE7000	Optical Reflectors-1X8 Fixtures	Inlights	430900
ORXE8561	ORXE7661	Electronic Ballasts-4' T12-Base SMC	Inlights	430900
ORXE8562	ORXE7662	Electronic Ballasts-8' T12-Base SMC	Inlights	430900
ORXE8563	ORXE7000	Compact Fluorescent Lamps-15W	Inlights	430900
ORNE8563	ORNE7000	Compact Fluorescent Lamps-15W	Inlights	430900
ORXE8564	ORXE7000	Compact Fluorescent Lamps-26W	Inlights	430900
ORNE8564	ORNE7000	Compact Fluorescent Lamps-26W	Inlights	430900
ORXE8565	ORXE7000	HID Interior Spots-70W	Inlights	430900
ORNE8565	ORNE7000	HID Interior Spots-70W	Inlights	430900

Measure ID	ORXE8501		4' Fluor. Energy Saver Lamps-F40T12ES		
Base ID	ORXE7000		Base Case-Standard		
Market Segment					
Building Type	Oahu-Resort		Vintage	Existing	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0025	Measure Life (Yrs)	5	Mutual Exclusivity	Yes
Potential Market	70.0%	Modified Market	29.2%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.087	0.9	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.020	0.8			
Indoor Lighting	0.260	5.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.367	1.5	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	October	Weekday	11 AM - Noon	0.10	3.4
Minimum Impact	February	Weekday	2 AM - 3 AM	0.02	1.1
System Coincident	December	Weekday	4 PM - 5 PM	0.05	2.0

Measure ID	ORXE8502		Electronic Ballasts-4 T12-Base EEM		
Base ID	ORXE7000		Base Case-Standard		
Market Segment					
Building Type	Oahu-Resort			Vintage	Existing
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.1439	Measure Life (Yrs)	16	Mutual Exclusivity	Yes
Potential Market	70.0%	Modified Market	29.2%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.087	0.9	Cooling	0.00	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.020	0.8			
Indoor Lighting	0.260	5.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.367	1.5	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	October	Weekday	11 AM - Noon	0.10	3.4
Minimum Impact	February	Weekday	2 AM - 3 AM	0.02	1.1
System Coincident	December	Weekday	4 PM - 5 PM	0.05	2.0

Monthly Total Electricity Impact
Electronic Ballasts-4' T12-Base EEM

December Peak Day Demand Impact
Electronic Ballasts-4' T12-Base EEM

Monthly Total Fossil Fuel Impact
Electronic Ballasts-4' T12-Base EEM

December Peak Day Demand Profile
Electronic Ballasts-4' T12-Base EEM

Measure ID	ORNE8502		Electronic Ballasts-4' T12-Base EEM		
Base ID	ORNE7000		Base Case-Standard		
Market Segment					
Building Type	Oahu-Resort			Vintage	New
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0992	Measure Life (Yrs)	16	Mutual Exclusivity	Yes
Potential Market	100.0%	Modified Market	41.7%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	kWh/sf	% of Base	End-Use	kBtu/sf	% of Base
Cooling & Auxiliary	0.034	0.7	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.007	0.5			
Indoor Lighting	0.141	3.9			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.182	1.1	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	March	Weekday	2 PM - 3 PM	0.06	2.7
Minimum Impact	July	Weekday	5 AM - 6 AM	0.01	0.9
System Coincident	December	Weekday	4 PM - 5 PM	0.03	1.5

Monthly Total Electricity Impact
Electronic Ballasts-4' T12-Base EEM

December Peak Day Demand Impact
Electronic Ballasts-4' T12-Base EEM

Monthly Total Fossil Fuel Impact
Electronic Ballasts-4' T12-Base EEM

December Peak Day Demand Profile
Electronic Ballasts-4' T12-Base EEM

Measure ID	ORXE8503		4' T8 Lamps And Electronic Ballasts		
Base ID	ORXE7000		Base Case-Standard		
Market Segment					
Building Type	Oahu-Resort			Vintage	Existing
Floor Area (sf)	±30900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.1476	Measure Life (Yrs)	16	Mutual Exclusivity	Yes
Potential Market	70.0%	Modified Market	29.2%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.160	1.7	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.036	1.4			
Indoor Lighting	0.480	9.3			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.676	2.8	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	November	Weekday	6 PM - 7 PM	0.14	4.0
Minimum Impact	May	Weekday	2 AM - 3 AM	0.05	2.0
System Coincident	December	Weekday	4 PM - 5 PM	0.09	3.6

Monthly Total Electricity Impact
4' T8 Lamps And Electronic Ballasts

December Peak Day Demand Impact
4' T8 Lamps And Electronic Ballasts

Monthly Total Fossil Fuel Impact
4' T8 Lamps And Electronic Ballasts

December Peak Day Demand Profile
4' T8 Lamps And Electronic Ballasts

Measure ID	ORNE8503		4' T8 Lamps And Electronic Ballasts		
Base ID	ORNE7000		Base Case-Standard		
Market Segment					
Building Type	Oahu-Resort			Vintage	New
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.1004	Measure Life (Yrs)	16	Mutual Exclusivity	Yes
Potential Market	100.0%	Modified Market	41.7%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.051	1.0	Cooling	100	NA
Water Heating	0.000	0.0	Water Heating	000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	00	0.0
Ventilation	0.010	0.7			
Indoor Lighting	0.215	5.9			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.276	1.6	Total	1000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	July	Weekday	2 PM - 3 PM	0.07	3.5
Minimum Impact	August	Weekday	5 AM - 6 AM	0.02	1.1
System Coincident	December	Weekday	4 PM - 5 PM	0.04	2.2

Monthly Total Electricity Impact
4' T8 Lamps And Electronic Ballasts

December Peak Day Demand Impact
4' T8 Lamps And Electronic Ballasts

Monthly Total Fossil Fuel Impact
4' T8 Lamps And Electronic Ballasts

December Peak Day Demand Profile
4' T8 Lamps And Electronic Ballasts

Measure ID	ORXE8504		Window Film Retrofit		
Base ID	ORXE7000		Base Case-Standard		
Market Segment					
Building Type	Oahu-Resort			Vintage	Existing
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.1552	Measure Life (Yrs)	7	Mutual Exclusivity	Yes
Potential Market	21.6%	Modified Market	12.1%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.453	4.9	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.140	5.5			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.593	2.4	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	April	Weekday	8 AM - 9 AM	0.15	4.4
Minimum Impact	July	Weekday	8 PM - 9 PM	0.03	0.9
System Coincident	December	Weekday	4 PM - 5 PM	0.08	3.0

Monthly Total Electricity Impact
Window Film Retrofit

December Peak Day Demand Impact
Window Film Retrofit

Monthly Total Fossil Fuel Impact
Window Film Retrofit

December Peak Day Demand Profile
Window Film Retrofit

Measure ID	ORNE8505		Double Pane Heat Mirror Glazing		
Base ID	ORNE7000		Base Case-Standard		
Market Segment					
Building Type	Oahu-Resort		Vintage	New	
Floor Area (sf)	±30900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.5704	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	27.7%	Modified Market	15.5%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.324	6.5	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.210	14.3			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.534	3.1	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	July	Weekday	± PM - 5 PM	0.17	7.8
Minimum Impact	February	Weekday	11 PM - Midnight	0.01	0.6
System Coincident	December	Weekday	± PM - 5 PM	0.06	3.2

Measure ID	ORXE8509		High Pressure Sodium-100 Watts		
Base ID	ORXE7000		Base Case-Standard		
Market Segment					
Building Type	Oahu-Resort		Vintage	Existing	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.0363	Measure Life (Yrs)	15	Mutual Exclusivity	No
Potential Market	70.0%	Modified Market	70.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.000	0.0	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.187	10.7			
Central Refrigeration	0.000	NA			
Total	0.187	0.8	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	November	Weekday	6 PM - 7 PM	0.04	1.2
Minimum Impact	June	Weekday	6 PM - 7 PM	0.00	0.1
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.1

Monthly Total Electricity Impact
High Pressure Sodium-100 Watts

December Peak Day Demand Impact
High Pressure Sodium-100 Watts

Monthly Total Fossil Fuel Impact
High Pressure Sodium-100 Watts

December Peak Day Demand Profile
High Pressure Sodium-100 Watts

Measure ID	ORNE8509		High Pressure Sodium-100 Watts		
Base ID	ORNE7000		Base Case-Standard		
Market Segment					
Building Type	Oahu-Resort		Vintage	New	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0286	Measure Life (Yrs)	15	Mutual Exclusivity	No
Potential Market	90.0%	Modified Market	90.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.000	0.0	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.187	12.3			
Central Refrigeration	0.000	NA			
Total	0.187	1.1	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	October	Weekday	11 PM - Midnight	0.04	1.8
Minimum Impact	January	Weekday	1 PM - 2 PM	0.00	0.1
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.1

Measure ID	ORXE8510		High Pressure Sodium-250 Watts		
Base ID	ORXE7000		Base Case-Standard		
Market Segment					
Building Type	Oahu-Resort			Vintage	Existing
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0314	Measure Life (Yrs)	15	Mutual Exclusivity	No
Potential Market	70.0%	Modified Market	70.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.000	0.0	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.224	12.8			
Central Refrigeration	0.000	NA			
Total	0.224	0.9	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	December	Weekday	5 AM - 6 AM	0.05	2.3
Minimum Impact	August	Weekday	1 PM - 2 PM	0.00	0.1
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.1

Monthly Total Electricity Impact
High Pressure Sodium-250 Watts

December Peak Day Demand Impact
High Pressure Sodium-250 Watts

Monthly Total Fossil Fuel Impact
High Pressure Sodium-250 Watts

December Peak Day Demand Profile
High Pressure Sodium-250 Watts

Measure ID	ORXE8511		HID Exterior Floods-70 Watts		
Base ID	ORXE7000		Base Case-Standard		
Market Segment					
Building Type	Oahu-Resort		Vintage	Existing	
Floor Area (sf)	230900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	30.0510	Measure Life (Yrs)	16	Mutual Exclusivity	No
Potential Market	70.0%	Modified Market	70.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	kWh/sf	% of Base	End-Use	kBtu/sf	% of Base
Cooling & Auxiliary	0.000	0.0	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.160	9.2			
Central Refrigeration	0.000	NA			
Total	0.160	0.7	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	W/sf	% of Base
Maximum Impact	September	Weekday	11 PM - Midnight	0.03	1.1
Minimum Impact	June	Weekday	5 PM - 6 PM	0.00	0.1
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.1

Measure ID	ORNE8511		HID Exterior Floods-70 Watts		
Base ID	ORNE7000		Base Case-Standard		
Market Segment					
Building Type	Oahu-Resort		Vintage	New	
Floor Area (sf)	230900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0433	Measure Life (Yrs)	16	Mutual Exclusivity	No
Potential Market	100%	Modified Market	90.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.000	0.0	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.160	10.5			
Central Refrigeration	0.000	NA			
Total	0.160	0.9	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	December	Weekday	11 PM - Midnight	0.03	1.7
Minimum Impact	August	Weekday	5 PM - 6 PM	0.00	0.1
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.1

Monthly Total Electricity Impact
HID Exterior Floods-70 Watts

December Peak Day Demand Impact
HID Exterior Floods-70 Watts

Monthly Total Fossil Fuel Impact
HID Exterior Floods-70 Watts

December Peak Day Demand Profile
HID Exterior Floods-70 Watts

Measure ID	ORXE8512		Occupancy Sensor Pack-200 SF		
Base ID	ORXE7000		Base Case-Standard		
Market Segment					
Building Type	Oahu-Resort		Vintage	Existing	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.2945	Measure Life (Yrs)	8	Mutual Exclusivity	No
Potential Market	70.0%	Modified Market	70.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.131	1.4	Cooling	0.00	NA
Water Heating	0.000	0.0	Water Heating	0.00	NA
Misc. Equipment	0.002	0.1	Misc. Equipment	0.00	0.0
Ventilation	0.012	0.5			
Indoor Lighting	0.501	9.7			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.647	2.7	Total	0.00	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	February	Weekday	6 AM - 7 AM	0.14	5.9
Minimum Impact	December	Weekday	7 PM - 8 PM	0.05	1.7
System Coincident	December	Weekday	4 PM - 5 PM	0.07	2.8

Monthly Total Electricity Impact
Occupancy Sensor Pack-200 SF

December Peak Day Demand Impact
Occupancy Sensor Pack-200 SF

Monthly Total Fossil Fuel Impact
Occupancy Sensor Pack-200 SF

December Peak Day Demand Profile
Occupancy Sensor Pack-200 SF

Measure ID	ORNE8512		Occupancy Sensor Pack-200 SF		
Base ID	ORNE7000		Base Case-Standard		
Market Segment					
Building Type	Oahu-Resort		Vintage	New	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.2945	Measure Life (Yrs)	8	Mutual Exclusivity	No
Potential Market	100.0%	Modified Market	100.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.041	0.8	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.006	0.4			
Indoor Lighting	0.227	6.2			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.274	1.6	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	December	Weekday	8 AM - 9 AM	0.08	3.6
Minimum Impact	March	Weekday	5 AM - 6 AM	-0.03	-1.6
System Coincident	December	Weekday	4 PM - 5 PM	0.04	2.2

Monthly Total Electricity Impact
Occupancy Sensor Pack-200 SF

December Peak Day Demand Impact
Occupancy Sensor Pack-200 SF

Monthly Total Fossil Fuel Impact
Occupancy Sensor Pack-200 SF

December Peak Day Demand Profile
Occupancy Sensor Pack-200 SF

Measure ID	ORXE8515		VSD Chilled Water Loop Pump		
Base ID	ORXE7000		Base Case-Standard		
Market Segment					
Building Type	Oahu-Resort		Vintage		Existing
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0385	Measure Life (Yrs)	15	Mutual Exclusivity	No
Potential Market	26.0%	Modified Market	26.0%	Intra Action	Yes
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	1.894	20.3	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	1.894	7.8	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	March	Weekday	11 AM - Noon	0.36	12.5
Minimum Impact	July	Weekday	8 PM - 9 PM	0.16	4.1
System Coincident	December	Weekday	4 PM - 5 PM	0.21	8.2

Measure ID	ORNE8515		VSD Chilled Water Loop Pump		
Base ID	ORNE7000		Base Case-Standard		
Market Segment					
Building Type	Oahu-Resort		Vintage	New	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.0164	Measure Life (Yrs)	15	Mutual Exclusivity	No
Potential Market	29.5%	Modified Market	29.5%	Intra Action	Yes
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.679	13.7	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.679	4.0	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	March	Weekday	2 PM - 3 PM	0.10	4.9
Minimum Impact	February	Weekday	11 PM - Midnight	0.03	1.7
System Coincident	December	Weekday	4 PM - 5 PM	0.08	4.4

Monthly Total Electricity Impact
VSD Chilled Water Loop Pump

December Peak Day Demand Impact
VSD Chilled Water Loop Pump

Monthly Total Fossil Fuel Impact
VSD Chilled Water Loop Pump

December Peak Day Demand Profile
VSD Chilled Water Loop Pump

Measure ID	ORXE8517		Energy Management System		
Base ID	ORXE7617		Base Case For EMS		
Market Segment					
Building Type	Oahu-Resort		Vintage	Existing	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$1.1600	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	72.7%	Modified Market	34.1%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	2.027	21.1	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.002	0.1	Misc. Equipment	0.000	0.0
Ventilation	0.002	0.1			
Indoor Lighting	0.104	2.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	2.135	8.7	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	July	Weekday	9 PM - 10 PM	0.35	9.4
Minimum Impact	November	Weekday	2 PM - 3 PM	0.14	4.8
System Coincident	December	Weekday	4 PM - 5 PM	0.23	8.7

Measure ID	ORNE8517		Energy Management System		
Base ID	ORNE7617		Base Case For EMS		
Market Segment					
Building Type	Oahu-Resort		Vintage	New	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.7500	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	82.7%	Modified Market	38.8%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.985	16.6	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	-0.003	-0.2			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.982	5.5	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	July	Weekday	8 PM - 9 PM	0.16	5.6
Minimum Impact	July	Weekday	3 PM - 4 PM	0.05	2.2
System Coincident	December	Weekday	4 PM - 5 PM	0.12	6.5

Monthly Total Electricity Impact
Energy Management System

December Peak Day Demand Impact
Energy Management System

Monthly Total Fossil Fuel Impact
Energy Management System

December Peak Day Demand Profile
Energy Management System

Measure ID	ORXE8518		Duct Insulation Material		
Base ID	ORXE7000		Base Case-Standard		
Market Segment					
Building Type	Oahu-Resort		Vintage	Existing	
Floor Area (sf)	±30900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0062	Measure Life (Yrs)	15	Mutual Exclusivity	No
Potential Market	22.0%	Modified Market	22.0%	Intra Action	Yes
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.446	4.8	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.446	1.8	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	July	Weekday	9 PM - 10 PM	0.14	3.8
Minimum Impact	July	Weekday	8 PM - 9 PM	0.03	0.7
System Coincident	December	Weekday	4 PM - 5 PM	0.05	1.8

Measure ID	ORNE8518		Duct Insulation Material		
Base ID	ORNE7000		Base Case-Standard		
Market Segment					
Building Type	Oahu-Resort			Vintage	New
Floor Area (sf)	130900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.0020	Measure Life (Yrs)	15	Mutual Exclusivity	No
Potential Market	50.0%	Modified Market	50.0%	Intra Action	Yes
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.082	1.7	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	-0.006	-0.4			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.076	0.4	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	January	Weekday	10 PM - 11 PM	0.05	2.3
Minimum Impact	November	Weekday	3 PM - 4 PM	-0.03	-1.7
System Coincident	December	Weekday	4 PM - 5 PM	0.01	0.4

Monthly Total Electricity Impact
Duct Insulation Material

December Peak Day Demand Impact
Duct Insulation Material

Monthly Total Fossil Fuel Impact
Duct Insulation Material

December Peak Day Demand Profile
Duct Insulation Material

Measure ID	ORXE8519		Variable Air Volume Box		
Base ID	ORXE7000		Base Case-Standard		
Market Segment					
Building Type	Oahu-Resort		Vintage	Existing	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.1572	Measure Life (Yrs)	15	Mutual Exclusivity	No
Potential Market	33.8%	Modified Market	33.8%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.708	7.6	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.708	2.9	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	March	Weekday	9 PM - 10 PM	0.18	4.9
Minimum Impact	November	Weekday	4 PM - 5 PM	0.04	1.5
System Coincident	December	Weekday	4 PM - 5 PM	0.08	3.0

Monthly Total Electricity Impact
Variable Air Volume Box

December Peak Day Demand Impact
Variable Air Volume Box

Monthly Total Fossil Fuel Impact
Variable Air Volume Box

December Peak Day Demand Profile
Variable Air Volume Box

Measure ID	ORXG8522		Hot Water Circulation Pump Timeclock		
Base ID	ORXG7000		Base Case-Standard		
Market Segment					
Building Type	Oahu-Resort		Vintage	Existing	
Floor Area (sf)	430900	Water Heater Fuel	Gas	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0022	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	0.0%	Modified Market	3.7%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.043	0.5	Cooling	0.000	NA
Water Heating	0.000	NA	Water Heating	0.525	5.2
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.043	0.2	Total	0.525	4.8
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	February	Weekday	6 AM - 7 AM	0.02	1.1
Minimum Impact	NA	Weekday	NA	0.00	NA
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.0

Monthly Total Electricity Impact
Hot Water Circulation Pump Timeclock

December Peak Day Demand Impact
Hot Water Circulation Pump Timeclock

Monthly Total Fossil Fuel Impact
Hot Water Circulation Pump Timeclock

December Peak Day Demand Profile
Hot Water Circulation Pump Timeclock

Measure ID	ORXE8522		Hot Water Circulation Pump Timeclock		
Base ID	ORXE7000		Base Case-Standard		
Market Segment					
Building Type	Oahu-Resort		Vintage	Existing	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0022	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	9.0%	Modified Market	3.7%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.043	0.5	Cooling	0.000	NA
Water Heating	0.117	8.1	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.161	0.7	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	March	Weekday	4 AM - 5 AM	0.07	3.2
Minimum Impact	NA	Weekday	NA	0.00	NA
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.0

Measure ID	ORNG8522		Hot Water Circulation Pump Timeclock		
Base ID	ORNG7000		Base Case-Standard		
Market Segment					
Building Type	Oahu-Resort			Vintage	New
Floor Area (sf)	430900	Water Heater Fuel	Gas	Cost Unit	Building square foot
First Cost (\$/unit)	50.0022	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	20.0%	Modified Market	8.3%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.043	0.9	Cooling	0.000	NA
Water Heating	0.000	NA	Water Heating	0.498	6.6
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.043	0.3	Total	0.498	5.9
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	July	Weekday	6 AM - 7 AM	0.02	1.4
Minimum Impact	NA	Weekday	NA	0.00	NA
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.0

Monthly Total Electricity Impact
Hot Water Circulation Pump Timeclock

December Peak Day Demand Impact
Hot Water Circulation Pump Timeclock

Monthly Total Fossil Fuel Impact
Hot Water Circulation Pump Timeclock

December Peak Day Demand Profile
Hot Water Circulation Pump Timeclock

Measure ID	ORNE8522		Hot Water Circulation Pump Timeclock		
Base ID	ORNE7000		Base Case-Standard		
Market Segment					
Building Type	Oahu-Resort		Vintage	New	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.0022	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	20.0%	Modified Market	3.3%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.043	0.9	Cooling	0.000	NA
Water Heating	0.115	8.5	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.158	0.9	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	March	Weekday	4 AM - 5 AM	0.07	4.7
Minimum Impact	NA	Weekday	NA	0.00	NA
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.0

Measure ID	ORXG8524		Active Solar Water Heating		
Base ID	ORXG7000		Base Case-Standard		
Market Segment					
Building Type	Oahu-Resort		Vintage		Existing
Floor Area (sf)	430900	Water Heater Fuel	Gas	Cost Unit	Building square foot
First Cost (\$/unit)	50.4641	Measure Life (Yrs)	14	Mutual Exclusivity	Yes
Potential Market	50.6%	Modified Market	20.9%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.000	0.0	Cooling	0.000	NA
Water Heating	-0.007	NA	Water Heating	6.566	64.9
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	-0.005	-0.0	Total	6.566	60.2
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	April	Weekday	1 AM - 2 AM	0.01	0.4
Minimum Impact	August	Weekday	4 PM - 5 PM	-0.00	-0.1
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.0

Monthly Total Electricity Impact
Active Solar Water Heating

December Peak Day Demand Impact
Active Solar Water Heating

Monthly Total Fossil Fuel Impact
Active Solar Water Heating

December Peak Day Demand Profile
Active Solar Water Heating

Measure ID	ORXE8524		Active Solar Water Heating		
Base ID	ORXE7000		Base Case-Standard		
Market Segment					
Building Type	Oahu-Resort		Vintage	Existing	
Floor Area (sf)	130900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.4641	Measure Life (Yrs)	14	Mutual Exclusivity	Yes
Potential Market	50.6%	Modified Market	20.9%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.000	0.0	Cooling	0.000	NA
Water Heating	0.778	53.9	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.780	3.2	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	March	Weekday	6 PM - 7 PM	0.32	8.7
Minimum Impact	September	Weekday	5 AM - 6 AM	-0.00	-0.0
System Coincident	December	Weekday	4 PM - 5 PM	0.14	5.5

Monthly Total Electricity Impact
Active Solar Water Heating

December Peak Day Demand Impact
Active Solar Water Heating

Monthly Total Fossil Fuel Impact
Active Solar Water Heating

December Peak Day Demand Profile
Active Solar Water Heating

Measure ID	ORNG8524		Active Solar Water Heating		
Base ID	ORNG7000		Base Case-Standard		
Market Segment					
Building Type	Oahu-Resort		Vintage	New	
Floor Area (sf)	430900	Water Heater Fuel	Gas	Cost Unit	Building square foot
First Cost (\$/unit)	50.4641	Measure Life (Yrs)	12	Mutual Exclusivity	Yes
Potential Market	56.0%	Modified Market	23.1%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.000	0.0	Cooling	0.000	NA
Water Heating	-0.007	NA	Water Heating	4.049	53.3
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	-0.005	-0.0	Total	4.049	48.3
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	March	Weekday	1 AM - 2 AM	0.01	0.6
Minimum Impact	November	Weekday	3 PM - 4 PM	-0.00	-0.1
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.0

Monthly Total Electricity Impact
Active Solar Water Heating

December Peak Day Demand Impact
Active Solar Water Heating

Monthly Total Fossil Fuel Impact
Active Solar Water Heating

December Peak Day Demand Profile
Active Solar Water Heating

Measure ID	ORNE8524		Active Solar Water Heating		
Base ID	ORNE7000		Base Case-Standard		
Market Segment					
Building Type	Oahu-Resort		Vintage	New	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.4641	Measure Life (Yrs)	14	Mutual Exclusivity	Yes
Potential Market	56.0%	Modified Market	23.1%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.000	0.0	Cooling	0.000	NA
Water Heating	0.688	50.9	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.690	4.1	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	March	Weekday	6 PM - 7 PM	0.31	11.6
Minimum Impact	September	Weekday	11 PM - Midnight	-0.01	-0.4
System Coincident	December	Weekday	4 PM - 5 PM	0.13	7.3

Measure ID	ORXE8541		High Efficiency Centrifugal Chiller		
Base ID	ORXE7000		Base Case-Standard		
Market Segment					
Building Type	Oahu-Resort		Vintage	Existing	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0332	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	-6.8%	Modified Market	8.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	1.454	15.6	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	1.454	6.0	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	March	Weekday	8 PM - 9 PM	0.30	7.8
Minimum Impact	February	Weekday	11 AM - Noon	0.11	4.5
System Coincident	December	Weekday	4 PM - 5 PM	0.13	5.2

Monthly Total Electricity Impact
High Efficiency Centrifugal Chiller

December Peak Day Demand Impact
High Efficiency Centrifugal Chiller

Monthly Total Fossil Fuel Impact
High Efficiency Centrifugal Chiller

December Peak Day Demand Profile
High Efficiency Centrifugal Chiller

Measure ID	ORNE8541		High Efficiency Centrifugal Chiller		
Base ID	ORNE7000		Base Case-Standard		
Market Segment					
Building Type	Oahu-Resort		Vintage	New	
Floor Area (sf)	130900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0269	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	53.1%	Modified Market	9.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.400	3.1	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.400	2.3	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	July	Weekday	8 PM - 9 PM	0.09	3.4
Minimum Impact	December	Weekday	7 PM - 8 PM	0.02	1.1
System Coincident	December	Weekday	4 PM - 5 PM	0.03	1.7

Monthly Total Electricity Impact
High Efficiency Centrifugal Chiller

December Peak Day Demand Impact
High Efficiency Centrifugal Chiller

Monthly Total Fossil Fuel Impact
High Efficiency Centrifugal Chiller

December Peak Day Demand Profile
High Efficiency Centrifugal Chiller

Measure ID	ORXE8542		VSD Centrifugal Chiller		
Base ID	ORXE7000		Base Case-Standard		
Market Segment					
Building Type	Oahu-Resort			Vintage	Existing
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.1886	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	26.0%	Modified Market	2.4%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.883	9.5	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.883	3.6	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	February	Weekday	1 PM - 2 PM	0.15	5.4
Minimum Impact	August	Weekday	10 AM - 11 AM	0.03	1.1
System Coincident	December	Weekday	4 PM - 5 PM	0.04	1.7

Monthly Total Electricity Impact
VSD Centrifugal Chiller

December Peak Day Demand Impact
VSD Centrifugal Chiller

Monthly Total Fossil Fuel Impact
VSD Centrifugal Chiller

December Peak Day Demand Profile
VSD Centrifugal Chiller

Measure ID	ORNE8542		VSD Centrifugal Chiller		
Base ID	ORNE7000		Base Case-Standard		
Market Segment					
Building Type	Dahu-Resort		Vintage	New	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.1526	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	29.5%	Modified Market	5.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	kWh/sf	% of Base	End-Use	kBtu/sf	% of Base
Cooling & Auxiliary	0.521	10.5	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.521	3.1	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	December	Weekday	8 AM - 9 AM	0.11	± 8
Minimum Impact	November	Weekday	3 PM - 4 PM	0.01	0.7
System Coincident	December	Weekday	4 PM - 5 PM	0.05	3.0

Monthly Total Electricity Impact
VSD Centrifugal Chiller

December Peak Day Demand Impact
VSD Centrifugal Chiller

Monthly Total Fossil Fuel Impact
VSD Centrifugal Chiller

December Peak Day Demand Profile
VSD Centrifugal Chiller

Measure ID	ORXE8543		Gas Absorption Chiller		
Base ID	ORXE7000		Base Case-Standard		
Market Segment					
Building Type	Oahu-Resort		Vintage	Existing	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.2987	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	26.0%	Modified Market	44%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	5.875	63.0	Cooling	-93.467	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	5.875	24.1	Total	-93.467	-11714.9
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	March	Weekday	8 PM - 9 PM	1.21	31.2
Minimum Impact	February	Weekday	11 AM - Noon	0.47	18.1
System Coincident	December	Weekday	4 PM - 5 PM	0.54	21.3

Monthly Total Electricity Impact
Gas Absorption Chiller

December Peak Day Demand Impact
Gas Absorption Chiller

Monthly Total Fossil Fuel Impact
Gas Absorption Chiller

December Peak Day Demand Profile
Gas Absorption Chiller

Measure ID	ORNE8543		Gas Absorption Chiller		
Base ID	ORNE7000		Base Case-Standard		
Market Segment					
Building Type	Oahu-Resort			Vintage	New
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.2417	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	29.5%	Modified Market	5.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	kBtu/sf	% of Base
Cooling & Auxiliary	2.729	55.1	Cooling	-52.990	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	2.729	16.0	Total	-52.991	-6641.7
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	July	Weekday	8 PM - 9 PM	0.64	23.5
Minimum Impact	December	Weekday	7 PM - 8 PM	0.17	7.6
System Coincident	December	Weekday	4 PM - 5 PM	0.21	11.7

Monthly Total Electricity Impact
Gas Absorption Chiller

December Peak Day Demand Impact
Gas Absorption Chiller

Monthly Total Fossil Fuel Impact
Gas Absorption Chiller

December Peak Day Demand Profile
Gas Absorption Chiller

Measure ID	ORXE8544		Chiller Strainer Cycle		
Base ID	ORXE7000		Base Case-Standard		
Market Segment					
Building Type	Oahu-Resort			Vintage	Existing
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.1561	Measure Life (Yrs)	20	Mutual Exclusivity	No
Potential Market	20.8%	Modified Market	20.8%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	1.771	19.0	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	1.771	7.3	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	July	Weekday	9 PM - 10 PM	0.33	8.9
Minimum Impact	December	Weekday	Noon - 1 PM	0.13	5.0
System Coincident	December	Weekday	4 PM - 5 PM	0.16	6.1

Monthly Total Electricity Impact
Chiller Strainer Cycle

December Peak Day Demand Impact
Chiller Strainer Cycle

Monthly Total Fossil Fuel Impact
Chiller Strainer Cycle

December Peak Day Demand Profile
Chiller Strainer Cycle

Measure ID	ORNE8544		Chiller Strainer Cycle		
Base ID	ORNE7000		Base Case-Standard		
Market Segment					
Building Type	Oahu-Resort		Vintage		New
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.1263	Measure Life (Yrs)	20	Mutual Exclusivity	No
Potential Market	15.3%	Modified Market	15.3%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.010	0.2	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.010	0.1	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	NA	Weekday	NA	0.00	NA
Minimum Impact	NA	Weekday	NA	0.00	NA
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.0

Monthly Total Electricity Impact
Chiller Strainer Cycle

December Peak Day Demand Impact
Chiller Strainer Cycle

Monthly Total Fossil Fuel Impact
Chiller Strainer Cycle

December Peak Day Demand Profile
Chiller Strainer Cycle

Measure ID	ORXE8545		Chilled Water Reset Controls		
Base ID	ORXE7000		Base Case-Standard		
Market Segment					
Building Type	Oahu-Resort			Vintage	Existing
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.0011	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	20.8%	Modified Market	9.8%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	kBtu/sf	% of Base
Cooling & Auxiliary	1.749	18.7	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	1.749	7.2	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	July	Weekday	9 PM - 10 PM	0.33	8.9
Minimum Impact	December	Weekday	Noon - 1 PM	0.13	5.0
System Coincident	December	Weekday	4 PM - 5 PM	0.16	6.1

Monthly Total Electricity Impact
Chilled Water Reset Controls

December Peak Day Demand Impact
Chilled Water Reset Controls

Monthly Total Fossil Fuel Impact
Chilled Water Reset Controls

December Peak Day Demand Profile
Chilled Water Reset Controls

Measure ID	ORXE8546		Chiller Optimizer Controls		
Base ID	ORXE7646		Base Case for Chiller Optimizer		
Market Segment					
Building Type	Oahu-Resort		Vintage	Existing	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0355	Measure Life (Yrs)	20	Mutual Exclusivity	No
Potential Market	20.8%	Modified Market	20.8%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	2.010	21.0	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	2.010	8.2	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	July	Weekday	9 PM - 10 PM	0.33	8.9
Minimum Impact	November	Weekday	2 PM - 3 PM	0.14	4.7
System Coincident	December	Weekday	4 PM - 5 PM	0.23	8.7

Monthly Total Electricity Impact
Chiller Optimizer Controls

December Peak Day Demand Impact
Chiller Optimizer Controls

Monthly Total Fossil Fuel Impact
Chiller Optimizer Controls

December Peak Day Demand Profile
Chiller Optimizer Controls

Measure ID	ORNE8546		Chiller Optimizer Controls		
Base ID	ORNE7646		Base Case for Chiller Optimizer		
Market Segment					
Building Type	Oahu-Resort		Vintage	New	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0355	Measure Life (Yrs)	20	Mutual Exclusivity	No
Potential Market	15.3%	Modified Market	15.3%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.568	10.3	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.568	3.2	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	December	Weekday	7 PM - 8 PM	0.12	5.1
Minimum Impact	NA	Weekday	NA	0.00	NA
System Coincident	December	Weekday	4 PM - 5 PM	0.11	5.8

Monthly Total Electricity Impact
Chiller Optimizer Controls

December Peak Day Demand Impact
Chiller Optimizer Controls

Monthly Total Fossil Fuel Impact
Chiller Optimizer Controls

December Peak Day Demand Profile
Chiller Optimizer Controls

Measure ID	ORXE8547		Thermal Energy Storage-Ice On Coil		
Base ID	ORXE7000		Base Case-Standard		
Market Segment					
Building Type	Oahu-Resort		Vintage	Existing	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$2.5200	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	11.2%	Modified Market	1.9%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.085	0.9	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.085	0.3	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	January	Weekday	1 PM - 2 PM	0.79	27.4
Minimum Impact	April	Weekday	4 AM - 5 AM	-0.55	-26.6
System Coincident	December	Weekday	4 PM - 5 PM	-0.01	-0.5

Measure ID	ORNE8547		Thermal Energy Storage-ice On Coil		
Base ID	ORNE7000		Base Case-Standard		
Market Segment					
Building Type	Oahu-Resort			Vintage	New
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square root
First Cost (\$/unit)	\$2,5200	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	37.5%	Modified Market	6.4%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	-2.109	-42.6	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	-2.109	-12.4	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	July	Weekday	8 PM - 9 PM	0.79	28.9
Minimum Impact	January	Weekday	Midnight - 1 AM	-1.35	-89.7
System Coincident	December	Weekday	4 PM - 5 PM	0.26	14.7

Monthly Total Electricity Impact
Thermal Energy Storage-Ice On Coil

December Peak Day Demand Impact
Thermal Energy Storage-Ice On Coil

Monthly Total Fossil Fuel Impact
Thermal Energy Storage-Ice On Coil

December Peak Day Demand Profile
Thermal Energy Storage-Ice On Coil

Measure ID	ORXE8548		Cooling Tower Propeller Fans		
Base ID	ORXE7648		Base Case For Cooling Tower Prop Fans		
Market Segment					
Building Type	Oahu-Resort		Vintage	Existing	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0003	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	18.2%	Modified Market	3.2%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.256	2.7	Cooling	0.00	NA
Water Heating	0.000	0.0	Water Heating	0.00	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.00	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.256	1.0	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	March	Weekday	9 AM - 10 AM	0.06	1.8
Minimum Impact	December	Weekday	7 PM - 8 PM	0.01	0.4
System Coincident	December	Weekday	4 PM - 5 PM	0.02	0.7

Monthly Total Electricity Impact
Cooling Tower Propeller Fans

December Peak Day Demand Impact
Cooling Tower Propeller Fans

Monthly Total Fossil Fuel Impact
Cooling Tower Propeller Fans

December Peak Day Demand Profile
Cooling Tower Propeller Fans

Measure ID	ORNE8548		Cooling Tower Propeller Fans		
Base ID	ORNE7648		Base Case For Cooling Tower Prop Fans		
Market Segment					
Building Type	Oahu-Resort		Vintage	New	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.0002	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	20.7%	Modified Market	3.7%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.152	3.0	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.152	0.9	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	March	Weekday	9 AM - 10 AM	0.05	1.9
Minimum Impact	December	Weekday	7 PM - 8 PM	0.01	0.2
System Coincident	December	Weekday	4 PM - 5 PM	0.01	0.5

Monthly Total Electricity Impact
Cooling Tower Propeller Fans

December Peak Day Demand Impact
Cooling Tower Propeller Fans

Monthly Total Fossil Fuel Impact
Cooling Tower Propeller Fans

December Peak Day Demand Profile
Cooling Tower Propeller Fans

Measure ID	ORXE8549		Two-Speed Cooling Tower Fans		
Base ID	ORXE7000		Base Case-Standard		
Market Segment					
Building Type	Oahu-Resort		Vintage	Existing	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.0044	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	18.2%	Modified Market	3.2%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.095	1.0	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.095	0.4	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	December	Weekday	1 AM - 2 AM	0.02	0.7
Minimum Impact	March	Weekday	9 AM - 10 AM	0.00	0.1
System Coincident	December	Weekday	4 PM - 5 PM	0.01	0.4

Monthly Total Electricity Impact
Two-Speed Cooling Tower Fans

December Peak Day Demand Impact
Two-Speed Cooling Tower Fans

Monthly Total Fossil Fuel Impact
Two-Speed Cooling Tower Fans

December Peak Day Demand Profile
Two-Speed Cooling Tower Fans

Measure ID	ORNE8549		Two-Speed Cooling Tower Fans		
Base ID	ORNE7000		Base Case-Standard		
Market Segment					
Building Type	Oahu-Resort		Vintage	New	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0034	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	20.7%	Modified Market	3.7%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	kWh/sf	% of Base	End-Use	kBtu/sf	% of Base
Cooling & Auxiliary	0.067	1.4	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.067	0.4	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	March	Weekday	6 PM - 7 PM	0.01	0.5
Minimum Impact	March	Weekday	9 AM - 10 AM	0.00	0.1
System Coincident	December	Weekday	4 PM - 5 PM	0.01	0.3

Monthly Total Electricity Impact
Two-Speed Cooling Tower Fans

December Peak Day Demand Impact
Two-Speed Cooling Tower Fans

Monthly Total Fossil Fuel Impact
Two-Speed Cooling Tower Fans

December Peak Day Demand Profile
Two-Speed Cooling Tower Fans

Measure ID	ORXE8550		VSD Cooling Tower Fans		
Base ID	ORXE7000		Base Case-Standard		
Market Segment					
Building Type	Oahu-Resort		Vintage	Existing	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.3529	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	18.2%	Modified Market	3.2%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.133	1.4	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.133	0.5	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	November	Weekday	8 AM - 9 AM	0.02	0.6
Minimum Impact	December	Weekday	7 PM - 8 PM	0.01	0.2
System Coincident	December	Weekday	4 PM - 5 PM	0.01	0.3

Measure ID	ORNE8550		VSD Cooling Tower Fans		
Base ID	ORNE7000		Base Case-Standard		
Market Segment					
Building Type	Oahu-Resort			Vintage	New
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.2797	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	20.7%	Modified Market	3.7%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.078	1.6	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.078	0.5	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	August	Weekday	7 AM - 8 AM	0.02	0.7
Minimum Impact	December	Weekday	7 PM - 8 PM	0.00	0.1
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.3

Monthly Total Electricity Impact
VSD Cooling Tower Fans

December Peak Day Demand Impact
VSD Cooling Tower Fans

Monthly Total Fossil Fuel Impact
VSD Cooling Tower Fans

December Peak Day Demand Profile
VSD Cooling Tower Fans

Measure ID	ORXE8551		Waste Heat Recovery		
Base ID	ORXE7000		Base Case-Standard		
Market Segment					
Building Type	Oahu-Resort			Vintage	Existing
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.3771	Measure Life (Yrs)	10	Mutual Exclusivity	Yes
Potential Market	15.0%	Modified Market	2.6%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	kBtu/sf)	% of Base
Cooling & Auxiliary	-0.655	-7.0	Cooling	0.000	NA
Water Heating	0.883	61.2	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.229	0.9	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	January	Weekday	7 AM - 8 AM	0.22	8.0
Minimum Impact	November	Weekday	2 AM - 3 AM	-0.08	-3.7
System Coincident	December	Weekday	4 PM - 5 PM	0.06	2.4

Monthly Total Electricity Impact
Waste Heat Recovery

December Peak Day Demand Impact
Waste Heat Recovery

Monthly Total Fossil Fuel Impact
Waste Heat Recovery

December Peak Day Demand Profile
Waste Heat Recovery

Measure ID	ORNE8551		Waste Heat Recovery		
Base ID	ORNE7600		Base Case-Standard		
Market Segment					
Building Type	Hotel-Resort		Vintage		New
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.3052	Measure Life (Yrs)	10	Mutual Exclusivity	Yes
Potential Market	27.5%	Modified Market	6.4%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	-0.799	-16.1	Cooling	0.000	NA
Water Heating	0.865	64.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.066	0.4	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	February	Weekday	8 AM - 9 AM	0.17	7.5
Minimum Impact	March	Weekday	2 AM - 3 AM	-0.11	-6.9
System Coincident	December	Weekday	4 PM - 5 PM	0.01	0.5

Measure ID	ORXE8552		Compact Fluorescent Lamp EXIT Signs		
Base ID	ORXE7000		Base Case-Standard		
Market Segment					
Building Type	Oahu-Resort		Vintage	Existing	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0109	Measure Life (Yrs)	16	Mutual Exclusivity	No
Potential Market	90.0%	Modified Market	90.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.021	0.2	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.005	0.2			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.106	0.4	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	March	Weekday	9 PM - 10 PM	0.02	0.4
Minimum Impact	July	Weekday	8 PM - 9 PM	0.01	0.3
System Coincident	December	Weekday	4 PM - 5 PM	0.01	0.5

Monthly Total Electricity Impact
Compact Fluorescent Lamp EXIT Signs

December Peak Day Demand Impact
Compact Fluorescent Lamp EXIT Signs

Monthly Total Fossil Fuel Impact
Compact Fluorescent Lamp EXIT Signs

December Peak Day Demand Profile
Compact Fluorescent Lamp EXIT Signs

Measure ID	ORNE8552		Compact Fluorescent Lamp EXIT Signs		
Base ID	ORNE7000		Base Case-Standard		
Market Segment					
Building Type	Oahu-Resort		Vintage	New	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.0026	Measure Life (Yrs)	16	Mutual Exclusivity	No
Potential Market	75.0%	Modified Market	75.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.014	0.3	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.003	0.2			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.097	0.6	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	September	Weekday	1 AM - 2 AM	0.05	2.7
Minimum Impact	October	Weekday	10 AM - 11 AM	0.01	0.5
System Coincident	December	Weekday	4 PM - 5 PM	0.01	0.6

Monthly Total Electricity Impact
Compact Fluorescent Lamp EXIT Signs

December Peak Day Demand Impact
Compact Fluorescent Lamp EXIT Signs

Monthly Total Fossil Fuel Impact
Compact Fluorescent Lamp EXIT Signs

December Peak Day Demand Profile
Compact Fluorescent Lamp EXIT Signs

Measure ID	ORXE8553		LED Lamp EXIT Signs		
Base ID	ORXE7000		Base Case-Standard		
Market Segment					
Building Type	Oahu-Resort		Vintage	Existing	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0361	Measure Life (Yrs)	16	Mutual Exclusivity	Yes
Potential Market	90.0%	Modified Market	49.1%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.034	0.4	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.008	0.3			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.170	0.7	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	June	Weekday	7 PM - 8 PM	0.06	1.8
Minimum Impact	July	Weekday	8 PM - 9 PM	0.02	0.4
System Coincident	December	Weekday	4 PM - 5 PM	0.02	0.7

Monthly Total Electricity Impact
LED Lamp EXIT Signs

December Peak Day Demand Impact
LED Lamp EXIT Signs

Monthly Total Fossil Fuel Impact
LED Lamp EXIT Signs

December Peak Day Demand Profile
LED Lamp EXIT Signs

Measure ID	ORNE8553		LED Lamp EXIT Signs		
Base ID	ORNE7000		Base Case-Standard		
Market Segment					
Building Type	Oahu-Resort		Vintage	New	
Floor Area (sf)	±30900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0189	Measure Life (Yrs)	16	Mutual Exclusivity	Yes
Potential Market	75.0%	Modified Market	±0.9%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.023	0.5	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.004	0.3			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.156	0.9	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	January	Weekday	10 PM - 11 PM	0.05	2.5
Minimum Impact	December	Weekday	7 PM - 8 PM	0.02	0.7
System Coincident	December	Weekday	4 PM - 5 PM	0.02	1.0

Monthly Total Electricity Impact
LED Lamp EXIT Signs

December Peak Day Demand Impact
LED Lamp EXIT Signs

Monthly Total Fossil Fuel Impact
LED Lamp EXIT Signs

December Peak Day Demand Profile
LED Lamp EXIT Signs

Measure ID	ORXE8557		Optical Reflectors-2X4 Recessed		
Base ID	ORXE7000		Base Case-Standard		
Market Segment					
Building Type	Oahu-Resort			Vintage	Existing
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0774	Measure Life (Yrs)	16	Mutual Exclusivity	No
Potential Market	50.0%	Modified Market	50.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.180	1.9	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.040	1.6			
Indoor Lighting	0.543	10.5			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.763	3.1	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	November	Weekday	6 PM - 7 PM	0.15	4.4
Minimum Impact	May	Weekday	2 AM - 3 AM	0.05	2.3
System Coincident	December	Weekday	4 PM - 5 PM	0.10	4.1

Monthly Total Electricity Impact
Optical Reflectors-2X4 Recessed

December Peak Day Demand Impact
Optical Reflectors-2X4 Recessed

Monthly Total Fossil Fuel Impact
Optical Reflectors-2X4 Recessed

December Peak Day Demand Profile
Optical Reflectors-2X4 Recessed

Measure ID	ORNE8557		Optical Reflectors-2X4 Recessed		
Base ID	ORNE7000		Base Case-Standard		
Market Segment					
Building Type	Oahu-Resort		Vintage	New	
Floor Area (sf)	130900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0778	Measure Life (Yrs)	16	Mutual Exclusivity	No
Potential Market	100.0%	Modified Market	100.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.102	2.1	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.018	1.2			
Indoor Lighting	0.437	11.9			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.556	3.3	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	July	Weekday	2 PM - 3 PM	0.12	5.4
Minimum Impact	May	Weekday	5 AM - 6 AM	0.03	3.0
System Coincident	December	Weekday	4 PM - 5 PM	0.08	4.4

Monthly Total Electricity Impact
Optical Reflectors-2X4 Recessed

December Peak Day Demand Impact
Optical Reflectors-2X4 Recessed

Monthly Total Fossil Fuel Impact
Optical Reflectors-2X4 Recessed

December Peak Day Demand Profile
Optical Reflectors-2X4 Recessed

Measure ID	ORXE8558		3' Fluor. Energy Saver Lamps-F96T12ES		
Base ID	ORXE7000		Base Case-Standard		
Market Segment					
Building Type	Oahu-Resort		Vintage	Existing	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0002	Measure Life (Yrs)	5	Mutual Exclusivity	No
Potential Market	70.0%	Modified Market	70.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.009	0.1	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.004	0.2			
Indoor Lighting	0.023	0.4			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.036	0.1	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	July	Weekday	9 AM - 10 AM	0.01	0.2
Minimum Impact	July	Weekday	8 PM - 9 PM	0.00	0.1
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.2

Measure ID	ORXE8559		Electronic Ballasts-8' T12-Base EEM		
Base ID	ORXE7000		Base Case-Standard		
Market Segment					
Building Type	Oahu-Resort		Vintage	Existing	
Floor Area (sf)	230900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.0065	Measure Life (Yrs)	16	Mutual Exclusivity	Yes
Potential Market	70.0%	Modified Market	29.2%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.008	0.1	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.004	0.1			
Indoor Lighting	0.019	0.4			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.030	0.1	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	July	Weekday	9 AM - 10 AM	0.01	0.1
Minimum Impact	July	Weekday	8 PM - 9 PM	0.00	0.0
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.1

Monthly Total Electricity Impact
Electronic Ballasts-8' T12-Base EEM

December Peak Day Demand Impact
Electronic Ballasts-8' T12-Base EEM

Monthly Total Fossil Fuel Impact
Electronic Ballasts-8' T12-Base EEM

December Peak Day Demand Profile
Electronic Ballasts-8' T12-Base EEM

Measure ID	ORNE8559		Electronic Ballasts-8' T12-Base EEM		
Base ID	ORNE7000		Base Case-Standard		
Market Segment					
Building Type	Oahu-Resort			Vintage	New
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0019	Measure Life (Yrs)	16	Mutual Exclusivity	Yes
Potential Market	100.0%	Modified Market	41.7%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.002	0.0	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.001	0.0			
Indoor Lighting	0.007	0.2			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.009	0.1	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	March	Weekday	2 PM - 3 PM	0.00	0.1
Minimum Impact	October	Weekday	5 AM - 6 AM	0.00	0.0
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.1

Measure ID	ORXE8560		Optical Reflectors-1X8 Fixtures		
Base ID	ORXE7000		Base Case-Standard		
Market Segment					
Building Type	Oahu-Resort			Vintage	Existing
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0038	Measure Life (Yrs)	16	Mutual Exclusivity	No
Potential Market	70.0%	Modified Market	70.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.021	0.2	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.010	0.4			
Indoor Lighting	0.051	1.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.083	0.3	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	July	Weekday	9 AM - 10 AM	0.01	0.4
Minimum Impact	July	Weekday	8 PM - 9 PM	0.00	0.1
System Coincident	December	Weekday	4 PM - 5 PM	0.01	0.3

Monthly Total Electricity Impact
Optical Reflectors-1X8 Fixtures

December Peak Day Demand Impact
Optical Reflectors-1X8 Fixtures

Monthly Total Fossil Fuel Impact
Optical Reflectors-1X8 Fixtures

December Peak Day Demand Profile
Optical Reflectors-1X8 Fixtures

Measure ID	ORNE8560		Optical Reflectors-1X8 Fixtures		
Base ID	ORNE7000		Base Case-Standard		
Market Segment					
Building Type	Oahu-Resort		Vintage	New	
Floor Area (sf)	±30900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0038	Measure Life (Yrs)	16	Mutual Exclusivity	No
Potential Market	100.0%	Modified Market	100.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.008	0.2	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.003	0.2			
Indoor Lighting	0.039	1.1			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.049	0.3	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	January	Weekday	2 PM - 3 PM	0.01	0.5
Minimum Impact	February	Weekday	5 AM - 6 AM	0.00	0.1
System Coincident	December	Weekday	4 PM - 5 PM	0.01	0.3

Monthly Total Electricity Impact
Optical Reflectors-1X8 Fixtures

December Peak Day Demand Impact
Optical Reflectors-1X8 Fixtures

Monthly Total Fossil Fuel Impact
Optical Reflectors-1X8 Fixtures

December Peak Day Demand Profile
Optical Reflectors-1X8 Fixtures

Measure ID	ORXE8561		Electronic Ballasts-4' T12-Base SMC		
Base ID	ORXE7661		Base Case for 4 Fluor. SMC Ballasts		
Market Segment					
Building Type	Oahu-Resort		Vintage	Existing	
Floor Area (sf)	±30900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0987	Measure Life (Yrs)	16	Mutual Exclusivity	Yes
Potential Market	70.0%	Modified Market	29.2%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.062	0.7	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.014	0.5			
Indoor Lighting	0.190	3.5			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.266	1.1	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	February	Weekday	6 PM - 7 PM	0.08	2.2
Minimum Impact	February	Weekday	2 AM - 3 AM	0.02	0.8
System Coincident	December	Weekday	4 PM - 5 PM	0.04	1.4

Monthly Total Electricity Impact
Electronic Ballasts-4' T12-Base SMC

December Peak Day Demand Impact
Electronic Ballasts-4' T12-Base SMC

Monthly Total Fossil Fuel Impact
Electronic Ballasts-4' T12-Base SMC

December Peak Day Demand Profile
Electronic Ballasts-4' T12-Base SMC

Measure ID	ORXE8562		Electronic Ballasts-8' T12-Base SMC		
Base ID	ORXE7662		Base Case for 8' Fluor. SMC Ballasts		
Market Segment					
Building Type	Oahu-Resort			Vintage	Existing
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0056	Measure Life (Yrs)	16	Mutual Exclusivity	Yes
Potential Market	70.0%	Modified Market	29.2%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.004	0.0	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.002	0.1			
Indoor Lighting	0.009	0.2			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.015	0.1	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	July	Weekday	9 AM - 10 AM	0.00	0.1
Minimum Impact	July	Weekday	8 PM - 9 PM	0.00	0.0
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.1

Measure ID	ORXE8563		Compact Fluorescent Lamps-15W		
Base ID	ORXE7000		Base Case-Standard		
Market Segment					
Building Type	Oahu-Resort		Vintage	Existing	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.2250	Measure Life (Yrs)	2	Mutual Exclusivity	No
Potential Market	90.3%	Modified Market	90.3%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	kWh/sf	% of Base	End-Use	kBtu/sf	% of Base
Cooling & Auxiliary	0.413	4.4	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.080	3.1			
Indoor Lighting	1.530	29.6			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	2.024	8.3	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	July	Weekday	9 PM - 10 PM	0.44	11.8
Minimum Impact	June	Weekday	5 AM - 6 AM	0.10	5.1
System Coincident	December	Weekday	4 PM - 5 PM	0.21	8.3

Monthly Total Electricity Impact
Compact Fluorescent Lamps-15W

December Peak Day Demand Impact
Compact Fluorescent Lamps-15W

Monthly Total Fossil Fuel Impact
Compact Fluorescent Lamps-15W

December Peak Day Demand Profile
Compact Fluorescent Lamps-15W

Measure ID	ORNE8563			Compact Fluorescent Lamps-15W	
Base ID	ORNE7000			Base Case-Standard	
Market Segment					
Building Type	Oahu-Resort			Vintage	New
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0677	Measure Life (Yrs)	2	Mutual Exclusivity	No
Potential Market	95.0%	Modified Market	95.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.094	1.9	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.021	1.4			
Indoor Lighting	0.528	14.4			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.643	3.8	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	January	Weekday	10 PM - 11 PM	0.15	7.0
Minimum Impact	March	Weekday	5 AM - 6 AM	-0.00	-0.2
System Coincident	December	Weekday	4 PM - 5 PM	0.07	4.1

Measure ID	ORXE8564		Compact Fluorescent Lamps-26W		
Base ID	ORXE7000		Base Case-Standard		
Market Segment					
Building Type	Oahu-Resort		Vintage	Existing	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0254	Measure Life (Yrs)	5	Mutual Exclusivity	No
Potential Market	40.3%	Modified Market	40.3%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	kBtu/sf	% of Base
Cooling & Auxiliary	0.046	0.5	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.277	5.3			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.322	1.3	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	February	Weekday	2 AM - 3 AM	0.08	3.5
Minimum Impact	March	Weekday	8 PM - 9 PM	0.03	0.8
System Coincident	December	Weekday	4 PM - 5 PM	0.03	1.3

Monthly Total Electricity Impact
Compact Fluorescent Lamps-26W

December Peak Day Demand Impact
Compact Fluorescent Lamps-26W

Monthly Total Fossil Fuel Impact
Compact Fluorescent Lamps-26W

December Peak Day Demand Profile
Compact Fluorescent Lamps-26W

Measure ID	ORNE8564		Compact Fluorescent Lamps-26W		
Base ID	ORNE7000		Base Case-Standard		
Market Segment					
Building Type	Oahu-Resort			Vintage	New
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0212	Measure Life (Yrs)	5	Mutual Exclusivity	No
Potential Market	95.0%	Modified Market	95.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.031	0.6	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	-0.000	-0.0			
Indoor Lighting	0.236	6.5			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.267	1.6	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	January	Weekday	10 PM - 11 PM	0.07	3.1
Minimum Impact	October	Weekday	Noon - 1 PM	0.03	1.4
System Coincident	December	Weekday	4 PM - 5 PM	0.03	1.6

Measure ID	ORXE8565		HID Interior Spots-70W		
Base ID	ORXE7000		Base Case-Standard		
Market Segment					
Building Type	Oahu-Resort		Vintage	Existing	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0606	Measure Life (Yrs)	16	Mutual Exclusivity	No
Potential Market	50.0%	Modified Market	50.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.121	1.3	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.078	3.0			
Indoor Lighting	0.338	6.5			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.537	2.2	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	November	Weekday	6 PM - 7 PM	0.12	3.4
Minimum Impact	June	Weekday	5 AM - 6 AM	0.04	2.2
System Coincident	December	Weekday	4 PM - 5 PM	0.07	2.9

Monthly Total Electricity Impact
HID Interior Spots-70W

December Peak Day Demand Impact
HID Interior Spots-70W

Monthly Total Fossil Fuel Impact
HID Interior Spots-70W

December Peak Day Demand Profile
HID Interior Spots-70W

Measure ID	ORNE8565		HID Interior Spots-70W		
Base ID	ORNE7000		Base Case-Standard		
Market Segment					
Building Type	Oahu-Resort			Vintage	New
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0606	Measure Life (Yrs)	16	Mutual Exclusivity	No
Potential Market	50.0%	Modified Market	50.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.031	0.6	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.014	1.0			
Indoor Lighting	0.135	3.7			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.180	1.1	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	July	Weekday	2 PM - 3 PM	0.06	2.8
Minimum Impact	December	Weekday	3 AM - 4 AM	0.01	1.0
System Coincident	December	Weekday	4 PM - 5 PM	0.03	1.4

DETAILED MEASURE IMPACTS-SUMMARY REPORTS

This section contains the detailed measure impact results and market segment data for each DSM case examined for this building type. A complete index of all base and measure cases defined for this building type is shown first. This index represents an expansion of the base and measure matrix presented in Table 1 (residential) or Table 2 (commercial) for the applicable sector. Following this index, a summary report sheet is provided for each DSM measure case in the order shown in the index. The summary report sheet contains a host of information and selected graphs which define and depict the measure impacts and outline the market segment data assumptions utilized for each case in the DBEDT DSM Forecasting models. The variables and figures included in the summary report sheet are described below.

Measure ID: The eight-character alpha-numeric code used to define the measure case. This ID is composed of the 2-letter building code + the 1-letter vintage code + the 1-letter water heater fuel type code + the 4-digit numeric code used to define the base or measure case.

Measure Description: A brief (no more than 38-character) definition of the DSM measure

Base ID: Similar to the Measure ID, this code denotes the base case to which the measure case is compared in order to estimate the measure impacts.

Base Description: Similar to the Measure Description, a brief description of the base case. This description helps to determine if a modified base case was defined to estimate measure impacts.

Market Segment. This section of the summary report sheet contains the market segment data defined for each measure. These are:

Building Type:	The building type to which this measure applies.
Vintage:	The vintage of the building (new or existing).
Floor Area (sf):	The gross floor area of the building in square feet.
Water Heater Fuel:	The fuel type utilized for domestic or service water heating (Gas, Electric, or Oil).
Cost Unit:	The unit of measure utilized to describe the measure cost.
First Cost (\$/unit):	The installed capital cost for the measure in dollars per Cost Unit (93 dollars).
Measure Life (Yrs):	The measure life in years.
Mutual Exclusivity:	A Yes/No entry which denotes if mutual exclusivity considerations apply to this measure. A Yes entry indicates that this measure is mutually exclusive with one or more measures pertaining to this building type, thereby modifying the potential market share available.
Potential Market:	The maximum market share available for this measure. This includes consideration of measure applicability, measure feasibility, and remaining market share for existing vintages.
Modified Market:	The maximum market share available for this measure accounting for mutual exclusivity.
Intra Action:	A Yes/No entry which denotes if intra active considerations apply to this measure. A Yes entry indicates that this measure is intra active with one or more measures if applied as a group to this building type. The total impact in a particular end-use for a group of measures with intra active effects is not the same as the summation of the individual measure impacts. An incremental measure impact reduction is implied, based on the measure loading order.

Annual Energy Impacts By End-Use. This section of the summary report contains the normalized measure impacts by end-use and for the total building by fuel type. Electricity impacts are shown in terms of kWh/square foot and as a percentage of the base case, while fossil fuel impacts are shown as kBtu/square foot and as a percentage of the base case for each end-use and for the total. The end-use impacts shown include:

Cooling (& Auxiliary) :	Space cooling and associated pumps and heat rejection energy (e.g., condensers or cooling tower).
Water Heating:	Storage or central domestic or service water heating system.
Misc. Equipment:	Miscellaneous equipment.
Ventilation:	Supply air fans for conditioning and exhaust air fans.
Indoor Lighting:	Interior lighting (not including EXIT signs).
Outdoor Lighting:	Exterior building lighting.
Central Refrigeration:	Commercial/Industrial refrigeration systems.
Total:	Total building energy use by fuel.

Total Building Peak Demand Impact: This section of the summary report provides peak demand impacts for each measure for selected peak events during the year. Three events are included, the maximum building peak demand impact, the minimum building peak demand impact, and a system coincident peak demand impact (set to December weekday at 4 to 5 PM). For each event the Month, Day Type, and Hour are shown, followed by the normalized total building peak demand impact in Watts/square foot and the percentage of the total base case represented by the impact.

Measure Impact Figures. Four figures are selected and included in each summary report to depict the impacts resulting from each measure. These are:

Monthly Total Electricity Impact: This figure shows the floor area normalized monthly electricity impacts associated with the measure in kWh/square foot.

Monthly Total Fossil Fuel Impact: This figure shows the floor area normalized monthly fossil fuel impacts associated with the measure in kBtu/square foot.

December Peak Day Demand Impact: This figure shows the (selected) system coincident peak day floor area normalized total building demand impact for the measure in Watts/square foot.

December Peak Day Demand Profile: This figure provides the daily total building load profile for the measure and base cases on the (selected) system coincident peak day in kW.

Commercial Maui-Resort Measure Index Table

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Cases: 79

Measure ID	Base ID	Measure Description	Primary End-Use	Floor Area
MRXE7000	MRXE7000	Base Case-Standard	NA	430900
MRXO7000	MRXO7000	Base Case-Standard	NA	430900
MRNE7000	MRNE7000	Base Case-Standard	NA	430900
MRNO7000	MRNO7000	Base Case-Standard	NA	430900
MRXE7617	MRXE7617	Base Case For EMS	NA	430900
MRNE7617	MRNE7617	Base Case For EMS	NA	430900
MRXE7646	MRXE7646	Base Case for Chiller Optimizer	NA	430900
MRNE7646	MRNE7646	Base Case for Chiller Optimizer	NA	430900
MRXE7648	MRXE7648	Base Case For Cooling Tower Prop Fans	NA	430900
MRNE7648	MRNE7648	Base Case For Cooling Tower Prop Fans	NA	430900
MRXE7661	MRXE7661	Base Case for 4' Fluor. SMC Ballasts	NA	430900
MRXE7662	MRXE7662	Base Case for 8' Fluor. SMC Ballasts	NA	430900
MRXE8501	MRXE7000	4' Fluor. Energy Saver Lamps-F40T12ES	Inlights	430900
MRXE8502	MRXE7000	Electronic Ballasts-4' T12-Base EEM	Inlights	430900
MRNE8502	MRNE7000	Electronic Ballasts-4' T12-Base EEM	Inlights	430900
MRXE8503	MRXE7000	4' T8 Lamps And Electronic Ballasts	Inlights	430900
MRNE8503	MRNE7000	4' T8 Lamps And Electronic Ballasts	Inlights	430900
MRXE8504	MRXE7000	Window Film Retrofit	Cooling	430900
MRNE8505	MRNE7000	Double Pane Heat Mirror Glazing	Cooling	430900
MRXE8509	MRXE7000	High Pressure Sodium-100 Watts	Exlights	430900
MRNE8509	MRNE7000	High Pressure Sodium-100 Watts	Exlights	430900
MRXE8510	MRXE7000	High Pressure Sodium-250 Watts	Exlights	430900
MRXE8511	MRXE7000	HID Exterior Floods-70 Watts	Exlights	430900
MRNE8511	MRNE7000	HID Exterior Floods-70 Watts	Exlights	430900
MRXE8512	MRXE7000	Occupancy Sensor Pack-200 SF	Inlights	430900
MRNE8512	MRNE7000	Occupancy Sensor Pack-200 SF	Inlights	430900
MRXE8515	MRXE7000	VSD Chilled Water Loop Pump	Cooling	430900
MRNE8515	MRNE7000	VSD Chilled Water Loop Pump	Cooling	430900
MRXE8517	MRXE7617	Energy Management System	Cooling	430900
MRNE8517	MRNE7617	Energy Management System	Cooling	430900
MRXE8518	MRXE7000	Duct Insulation Material	Cooling	430900
MRNE8518	MRNE7000	Duct Insulation Material	Cooling	430900
MRXE8519	MRXE7000	Variable Air Volume Box	Cooling	430900
MRXE8522	MRXE7000	Hot Water Circulation Pump Timeclock	Hotwater	430900
MRXO8522	MRXO7000	Hot Water Circulation Pump Timeclock	Hotwater	430900
MRNE8522	MRNE7000	Hot Water Circulation Pump Timeclock	Hotwater	430900
MRNO8522	MRNO7000	Hot Water Circulation Pump Timeclock	Hotwater	430900
MRXE8524	MRXE7000	Active Solar Water Heating	Hotwater	430900
MRXO8524	MRXO7000	Active Solar Water Heating	Hotwater	430900
MRNE8524	MRNE7000	Active Solar Water Heating	Hotwater	430900
MRNO8524	MRNO7000	Active Solar Water Heating	Hotwater	430900
MRXE8541	MRXE7000	High Efficiency Centrifugal Chiller	Cooling	430900
MRNE8541	MRNE7000	High Efficiency Centrifugal Chiller	Cooling	430900
MRXE8542	MRXE7000	VSD Centrifugal Chiller	Cooling	430900
MRNE8542	MRNE7000	VSD Centrifugal Chiller	Cooling	430900
MRXE8544	MRXE7000	Chiller Strainer Cycle	Cooling	430900
MRNE8544	MRNE7000	Chiller Strainer Cycle	Cooling	430900
MRXE8545	MRXE7000	Chilled Water Reset Controls	Cooling	430900
MRXE8546	MRXE7646	Chiller Optimizer Controls	Cooling	430900
MRNE8546	MRNE7646	Chiller Optimizer Controls	Cooling	430900
MRXE8547	MRXE7000	Thermal Energy Storage-Ice On Coil	Cooling	430900
MRNE8547	MRNE7000	Thermal Energy Storage-Ice On Coil	Cooling	430900
MRXE8548	MRXE7648	Cooling Tower Propeller Fans	Cooling	430900
MRNE8548	MRNE7648	Cooling Tower Propeller Fans	Cooling	430900
MRXE8549	MRXE7000	Two-Speed Cooling Tower Fans	Cooling	430900
MRNE8549	MRNE7000	Two-Speed Cooling Tower Fans	Cooling	430900
MRXE8550	MRXE7000	VSD Cooling Tower Fans	Cooling	430900
MRNE8550	MRNE7000	VSD Cooling Tower Fans	Cooling	430900

Commercial Maui-Resort Measure Index Table

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Cases: 79

Measure ID	Base ID	Measure Description	Primary End-Use	Floor Area
MRXE8551	MRXE7000	Waste Heat Recovery	Hotwater	430900
MRNE8551	MRNE7000	Waste Heat Recovery	Hotwater	430900
MRXE8552	MRXE7000	Compact Fluorescent Lamp EXIT Signs	Inlights	430900
MRNE8552	MRNE7000	Compact Fluorescent Lamp EXIT Signs	Inlights	430900
MRXE8553	MRXE7000	LED Lamp EXIT Signs	Inlights	430900
MRNE8553	MRNE7000	LED Lamp EXIT Signs	Inlights	430900
MRXE8557	MRXE7000	Optical Reflectors-2X4 Recessed	Inlights	430900
MRNE8557	MRNE7000	Optical Reflectors-2X4 Recessed	Inlights	430900
MRXE8558	MRXE7000	8' Fluor. Energy Saver Lamps-F96T12ES	Inlights	430900
MRXE8559	MRXE7000	Electronic Ballasts-8' T12-Base EEM	Inlights	430900
MRNE8559	MRNE7000	Electronic Ballasts-8' T12-Base EEM	Inlights	430900
MRXE8560	MRXE7000	Optical Reflectors-1X8 Fixtures	Inlights	430900
MRNE8560	MRNE7000	Optical Reflectors-1X8 Fixtures	Inlights	430900
MRXE8561	MRXE7661	Electronic Ballasts-4' T12-Base SMC	Inlights	430900
MRXE8562	MRXE7662	Electronic Ballasts-8' T12-Base SMC	Inlights	430900
MRXE8563	MRXE7000	Compact Fluorescent Lamps-15W	Inlights	430900
MRNE8563	MRNE7000	Compact Fluorescent Lamps-15W	Inlights	430900
MRXE8564	MRXE7000	Compact Fluorescent Lamps-26W	Inlights	430900
MRNE8564	MRNE7000	Compact Fluorescent Lamps-26W	Inlights	430900
MRXE8565	MRXE7000	HID Interior Spots-70W	Inlights	430900
MRNE8565	MRNE7000	HID Interior Spots-70W	Inlights	430900

Measure ID	MRXE8501		4' Fluor. Energy Saver Lamps-F40T12ES		
Base ID	MRXE7000		Base Case-Standard		
Market Segment					
Building Type	Mauv-Resort		Vintage	Existing	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0025	Measure Life (Yrs)	5	Mutual Exclusivity	Yes
Potential Market	70.0%	Modified Market	29.2%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.089	1.0	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.019	0.8			
Indoor Lighting	0.260	5.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.368	1.5	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	October	Weekday	11 AM - Noon	0.09	3.3
Minimum Impact	January	Weekday	5 AM - 6 AM	0.02	1.3
System Coincident	December	Weekday	4 PM - 5 PM	0.05	1.9

Measure ID	MRXE8502		Electronic Ballasts-4' T12-Base EEM		
Base ID	MRXE7000		Base Case-Standard		
Market Segment					
Building Type	Maui-Resort		Vintage	Existing	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.1439	Measure Life (Yrs)	16	Mutual Exclusivity	Yes
Potential Market	70.0%	Modified Market	29.2%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.089	1.0	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.019	0.8			
Indoor Lighting	0.260	5.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.368	1.5	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	October	Weekday	11 AM - Noon	0.09	3.3
Minimum Impact	January	Weekday	5 AM - 6 AM	0.02	1.3
System Coincident	December	Weekday	4 PM - 5 PM	0.05	1.9

Monthly Total Electricity Impact
Electronic Ballasts-4' T12-Base EEM

December Peak Day Demand Impact
Electronic Ballasts-4' T12-Base EEM

Monthly Total Fossil Fuel Impact
Electronic Ballasts-4' T12-Base EEM

December Peak Day Demand Profile
Electronic Ballasts-4' T12-Base EEM

Measure ID	MRNE8502		Electronic Ballasts-4' T12-Base EEM		
Base ID	MRNE7000		Base Case-Standard		
Market Segment					
Building Type	Maui-Resort		Vintage	New	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0992	Measure Life (Yrs)	6	Mutual Exclusivity	Yes
Potential Market	100.0%	Modified Market	41.7%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	kBtu/sf	% of Base
Cooling & Auxiliary	0.035	0.7	Cooling	0.00	NA
Water Heating	0.000	0.0	Water Heating	0.00	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.00	0.0
Ventilation	0.007	0.5			
Indoor Lighting	0.141	3.9			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.183	1.1	Total	0.00	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	W/sf	% of Base
Maximum Impact	February	Weekday	8 AM - 9 AM	0.06	2.7
Minimum Impact	January	Weekday	2 AM - 3 AM	0.01	0.8
System Coincident	December	Weekday	4 PM - 5 PM	0.03	1.5

Monthly Total Electricity Impact
Electronic Ballasts-4' T12-Base EEM

December Peak Day Demand Impact
Electronic Ballasts-4' T12-Base EEM

Monthly Total Fossil Fuel Impact
Electronic Ballasts-4' T12-Base EEM

December Peak Day Demand Profile
Electronic Ballasts-4' T12-Base EEM

Measure ID	MRXE8503		4' T8 Lamps And Electronic Ballasts		
Base ID	MRXE7000		Base Case-Standard		
Market Segment					
Building Type	Mau-Resort		Vintage	Existing	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.1476	Measure Life (Yrs)	6	Mutual Exclusivity	Yes
Potential Market	77.0%	Modified Market	29.2%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	kBtu/sf	% of Base
Cooling & Auxiliary	0.165	1.8	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.036	1.4			
Indoor Lighting	0.480	9.3			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.681	2.8	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	October	Weekday	11 AM - Noon	0.14	4.8
Minimum Impact	January	Weekday	5 AM - 6 AM	0.04	2.4
System Coincident	December	Weekday	4 PM - 5 PM	0.09	3.4

Measure ID	MRNE8503		4' T8 Lamps And Electronic Ballasts		
Base ID	MRNE7000		Base Case-Standard		
Market Segment					
Building Type	Maui-Resort			Vintage	New
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.1004	Measure Life (Yrs)	16	Mutual Exclusivity	Yes
Potential Market	100.0%	Modified Market	41.7%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.053	1.1	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.011	0.8			
Indoor Lighting	0.215	5.9			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.280	1.7	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	February	Weekday	8 AM - 9 AM	0.08	3.3
Minimum Impact	January	Weekday	2 AM - 3 AM	0.02	1.2
System Coincident	December	Weekday	4 PM - 5 PM	0.04	2.2

Measure ID	MRXE8504		Window Film Retrofit		
Base ID	MRXE7000		Base Case-Standard		
Market Segment					
Building Type	Maui-Resort		Vintage	Existing	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.1373	Measure Life (Yrs)	-	Mutual Exclusivity	Yes
Potential Market	21.6%	Modified Market	12.1%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.416	4.5	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.125	5.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.541	2.2	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	January	Weekday	4 PM - 5 PM	0.21	7.4
Minimum Impact	January	Weekday	9 AM - 10 AM	0.03	0.9
System Coincident	December	Weekday	4 PM - 5 PM	0.05	1.9

Monthly Total Electricity Impact
Window Film Retrofit

December Peak Day Demand Impact
Window Film Retrofit

Monthly Total Fossil Fuel Impact
Window Film Retrofit

December Peak Day Demand Profile
Window Film Retrofit

Measure ID	MRNE8505		Double Pane Heat Mirror Glazing		
Base ID	MRNE7000		Base Case-Standard		
Market Segment					
Building Type	Maui-Resort		Vintage	New	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.5704	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	27.7%	Modified Market	15.5%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.310	6.3	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.213	15.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.523	3.1	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	August	Weekday	4 PM - 5 PM	0.16	7.4
Minimum Impact	January	Weekday	11 PM - Midnight	0.00	0.2
System Coincident	December	Weekday	4 PM - 5 PM	0.04	2.1

Monthly Total Electricity Impact
Double Pane Heat Mirror Glazing

December Peak Day Demand Impact
Double Pane Heat Mirror Glazing

Monthly Total Fossil Fuel Impact
Double Pane Heat Mirror Glazing

December Peak Day Demand Profile
Double Pane Heat Mirror Glazing

Measure ID	MRXE8509		High Pressure Sodium-100 Watts		
Base ID	MRXE7000		Base Case-Standard		
Market Segment					
Building Type	Maui-Resort		Vintage	Existing	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0363	Measure Life (Yrs)	15	Mutual Exclusivity	No
Potential Market	70.0%	Modified Market	70.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	kBtu/sf	% of Base
Cooling & Auxiliary	0.000	0.0	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.187	10.7			
Central Refrigeration	0.000	NA			
Total	0.187	0.8	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	June	Weekday	11 PM - Midnight	0.04	1.2
Minimum Impact	July	Weekday	6 PM - 7 PM	0.00	0.1
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.1

Monthly Total Electricity Impact
High Pressure Sodium-100 Watts

December Peak Day Demand Impact
High Pressure Sodium-100 Watts

Monthly Total Fossil Fuel Impact
High Pressure Sodium-100 Watts

December Peak Day Demand Profile
High Pressure Sodium-100 Watts

Measure ID	MRNE8509		High Pressure Sodium-100 Watts		
Base ID	MRNE7000		Base Case-Standard		
Market Segment					
Building Type	Maui-Resort		Vintage	New	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0286	Measure Life (Yrs)	15	Mutual Exclusivity	No
Potential Market	90.0%	Modified Market	90.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.000	0.0	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.187	12.3			
Central Refrigeration	0.000	NA			
Total	0.187	1.1	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	September	Weekday	11 PM - Midnight	0.04	1.8
Minimum Impact	September	Weekday	10 AM - 11 AM	0.00	0.1
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.1

Measure ID	MRXE8510		High Pressure Sodium-250 Watts		
Base ID	MRXE7000		Base Case-Standard		
Market Segment					
Building Type	Maui-Resort		Vintage	Existing	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0314	Measure Life (Yrs)	15	Mutual Exclusivity	No
Potential Market	~0.0%	Modified Market	~0.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.000	0.0	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.224	12.8			
Central Refrigeration	0.000	NA			
Total	0.224	0.9	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum impact	June	Weekday	11 PM - Midnight	0.05	1.5
Minimum Impact	November	Weekday	4 PM - 5 PM	0.00	0.1
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.1

Monthly Total Electricity Impact
High Pressure Sodium-250 Watts

December Peak Day Demand Impact
High Pressure Sodium-250 Watts

Monthly Total Fossil Fuel Impact
High Pressure Sodium-250 Watts

December Peak Day Demand Profile
High Pressure Sodium-250 Watts

Measure ID	MRXE8511		HID Exterior Floods-70 Watts		
Base ID	MRXE7000		Base Case-Standard		
Market Segment					
Building Type	Maui-Resort		Vintage	Existing	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0510	Measure Life (Yrs)	16	Mutual Exclusivity	No
Potential Market	70.0%	Modified Market	0.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.000	0.0	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.160	9.2			
Central Refrigeration	0.000	NA			
Total	0.160	0.7	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	November	Weekday	11 PM - Midnight	0.03	1.1
Minimum Impact	November	Weekday	4 PM - 5 PM	0.00	0.1
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.1

Monthly Total Electricity Impact
HID Exterior Floods-70 Watts

December Peak Day Demand Impact
HID Exterior Floods-70 Watts

Monthly Total Fossil Fuel Impact
HID Exterior Floods-70 Watts

December Peak Day Demand Profile
HID Exterior Floods-70 Watts

Measure ID	MRNE8511		HID Exterior Floods-70 Watts		
Base ID	MRNE7000		Base Case-Standard		
Market Segment					
Building Type	Maui-Resort		Vintage	New	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.0433	Measure Life (Yrs)	16	Mutual Exclusivity	No
Potential Market	90.0%	Modified Market	90.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.000	0.0	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.160	10.5			
Central Refrigeration	0.000	NA			
Total	0.160	0.9	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	February	Weekday	9 PM - 10 PM	0.03	1.5
Minimum Impact	April	Weekday	8 AM - 9 AM	0.00	0.1
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.1

Monthly Total Electricity Impact
HID Exterior Floods-70 Watts

December Peak Day Demand Impact
HID Exterior Floods-70 Watts

Monthly Total Fossil Fuel Impact
HID Exterior Floods-70 Watts

December Peak Day Demand Profile
HID Exterior Floods-70 Watts

Measure ID	MRXE8512		Occupancy Sensor Pack-200 SF		
Base ID	MRXE7000		Base Case-Standard		
Market Segment					
Building Type	Maui-Resort		Vintage	Existing	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.2945	Measure Life (Yrs)	8	Mutual Exclusivity	No
Potential Market	~0.0%	Modified Market	~0.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.129	1.4	Cooling	~0.00	NA
Water Heating	0.000	0.0	Water Heating	~0.00	NA
Misc. Equipment	0.002	0.1	Misc. Equipment	~0.00	0.0
Ventilation	0.013	0.5			
Indoor Lighting	0.501	9.7			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.646	2.7	Total	~0.00	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	March	Weekday	3 PM - 4 PM	0.15	5.4
Minimum Impact	December	Weekday	6 PM - 7 PM	0.05	1.4
System Coincident	December	Weekday	4 PM - 5 PM	0.07	2.4

Monthly Total Electricity Impact
Occupancy Sensor Pack-200 SF

December Peak Day Demand Impact
Occupancy Sensor Pack-200 SF

Monthly Total Fossil Fuel Impact
Occupancy Sensor Pack-200 SF

December Peak Day Demand Profile
Occupancy Sensor Pack-200 SF

Measure ID	MRNE8512		Occupancy Sensor Pack-200 SF		
Base ID	MRNE7000		Base Case-Standard		
Market Segment					
Building Type	Mau-Resort		Vintage	New	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.2945	Measure Life (Yrs)	8	Mutual Exclusivity	No
Potential Market	100.0%	Modified Market	100.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.036	0.7	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.006	0.4			
Indoor Lighting	0.227	6.2			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.269	1.6	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	February	Weekday	8 AM - 9 AM	0.08	3.6
Minimum Impact	July	Weekday	5 AM - 6 AM	-0.02	-1.9
System Coincident	December	Weekday	4 PM - 5 PM	0.03	1.7

Monthly Total Electricity Impact
Occupancy Sensor Pack-200 SF

December Peak Day Demand Impact
Occupancy Sensor Pack-200 SF

Monthly Total Fossil Fuel Impact
Occupancy Sensor Pack-200 SF

December Peak Day Demand Profile
Occupancy Sensor Pack-200 SF

Measure ID	MRXE8515		VSD Chilled Water Loop Pump		
Base ID	MRXE7000		Base Case-Standard		
Market Segment					
Building Type	Maui-Resort			Vintage	Existing
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0385	Measure Life (Yrs)	15	Mutual Exclusivity	No
Potential Market	26.0%	Modified Market	26.0%	Intra Action	Yes
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	1.918	20.7	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	1.918	7.9	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	October	Weekday	11 AM - Noon	0.37	13.0
Minimum Impact	January	Weekday	9 AM - 10 AM	0.13	4.7
System Coincident	December	Weekday	4 PM - 5 PM	0.27	9.8

Measure ID	MRNE8515		VSD Chilled Water Loop Pump		
Base ID	MRNE7000		Base Case-Standard		
Market Segment					
Building Type	Maui-Resort			Vintage	New
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.0164	Measure Life (Yrs)	15	Mutual Exclusivity	No
Potential Market	29.5%	Modified Market	29.5%	Intra Action	Yes
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.687	14.1	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.687	14.1	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	January	Weekday	Midnight - 1 AM	0.09	6.4
Minimum Impact	May	Weekday	4 PM - 5 PM	0.04	1.8
System Coincident	December	Weekday	4 PM - 5 PM	0.08	4.2

Monthly Total Electricity Impact
VSD Chilled Water Loop Pump

December Peak Day Demand Impact
VSD Chilled Water Loop Pump

Monthly Total Fossil Fuel Impact
VSD Chilled Water Loop Pump

December Peak Day Demand Profile
VSD Chilled Water Loop Pump

Measure ID	MRXE8517		Energy Management System		
Base ID	MRXE7617		Base Case For EMS		
Market Segment					
Building Type	Maui-Resort		Vintage	Existing	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$1.1600	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	7.7%	Modified Market	34.1%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	2.012	21.0	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.002	0.1	Misc. Equipment	0.000	0.0
Ventilation	0.002	0.1			
Indoor Lighting	0.104	2.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	2.120	8.6	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	September	Weekday	9 PM - 10 PM	0.39	10.4
Minimum Impact	August	Weekday	1 PM - 2 PM	0.14	4.4
System Coincident	December	Weekday	4 PM - 5 PM	0.24	8.6

Measure ID	MRNE8517		Energy Management System		
Base ID	MRNE7617		Base Case For EMS		
Market Segment					
Building Type	Mau-Resort		Vintage		New
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.7500	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	82.7%	Modified Market	38.8%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.971	16.6	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	-0.003	-0.2			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.968	5.4	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	August	Weekday	8 PM - 9 PM	0.16	5.6
Minimum Impact	January	Weekday	9 AM - 10 AM	0.06	2.8
System Coincident	December	Weekday	4 PM - 5 PM	0.11	5.8

Measure ID	MRXE8518		Duct Insulation Material		
Base ID	MRXE7000		Base Case-Standard		
Market Segment					
Building Type	Maui-Resort		Vintage	Existing	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0062	Measure Life (Yrs)	15	Mutual Exclusivity	No
Potential Market	22.0%	Modified Market	22.0%	Intra Action	Yes
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.430	4.6	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.430	1.8	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	September	Weekday	9 PM - 10 PM	0.13	3.4
Minimum Impact	January	Weekday	5 AM - 6 AM	0.02	1.1
System Coincident	December	Weekday	4 PM - 5 PM	0.04	1.4

Measure ID	MRNE8518		Duct Insulation Material		
Base ID	MRNE7000		Base Case-Standard		
Market Segment					
Building Type	Maui-Resort		Vintage	New	
Floor Area (sf)	130900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0020	Measure Life (Yrs)	15	Mutual Exclusivity	No
Potential Market	~0.0%	Modified Market	60.0%	Intra Action	Yes
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.073	1.5	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	-0.006	-0.5			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.067	0.4	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	March	Weekday	7 PM - 8 PM	0.02	0.9
Minimum Impact	May	Weekday	4 PM - 5 PM	-0.04	-1.9
System Coincident	December	Weekday	4 PM - 5 PM	-0.00	-0.1

Monthly Total Electricity Impact
Duct Insulation Material

December Peak Day Demand Impact
Duct Insulation Material

Monthly Total Fossil Fuel Impact
Duct Insulation Material

December Peak Day Demand Profile
Duct Insulation Material

Measure iD	MRXE8519		Variable Air Volume Box		
Base iD	MRXE7000		Base Case-Standard		
Market Segment					
Building Type	Mau-Resort		Vintage	Existing	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.1572	Measure Life (Yrs)	15	Mutual Exclusivity	No
Potential Market	33.8%	Modified Market	33.8%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.775	3.3	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.775	3.2	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	September	Weekday	9 PM - 10 PM	0.23	6.1
Minimum Impact	January	Weekday	5 AM - 6 AM	0.03	1.9
System Coincident	December	Weekday	4 PM - 5 PM	0.16	5.8

Measure ID	MRXE8522		Hot Water Circulation Pump Timeclock		
Base ID	MRXE7000		Base Case-Standard		
Market Segment					
Building Type	Maui-Resort			Vintage	Existing
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square root
First Cost (\$/unit)	\$0.0022	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	9.0%	Modified Market	3.7%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.044	0.5	Cooling	0.000	NA
Water Heating	0.119	8.1	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.164	0.7	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	March	Weekday	2 AM - 3 AM	0.08	3.4
Minimum Impact	NA	Weekday	NA	0.00	NA
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.0

Monthly Total Electricity Impact
Hot Water Circulation Pump Timeclock

December Peak Day Demand Impact
Hot Water Circulation Pump Timeclock

Monthly Total Fossil Fuel Impact
Hot Water Circulation Pump Timeclock

December Peak Day Demand Profile
Hot Water Circulation Pump Timeclock

Measure ID	MRXO8522		Hot Water Circulation Pump Timeclock		
Base ID	MRXO7000		Base Case-Standard		
Market Segment					
Building Type	Maui-Resort			Vintage	Existing
Floor Area (sf)	430900	Water Heater Fuel	Oil	Cost Unit	Building square foot
First Cost (\$/unit)	NA	Measure Life (Yrs)	NA	Mutual Exclusivity	NA
Potential Market	NA	Modified Market	NA	Intra Action	NA
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.044	0.5	Cooling	0.000	NA
Water Heating	0.000	NA	Water Heating	0.534	5.2
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.044	0.2	Total	0.534	4.8
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	December	Weekday	6 AM - 7 AM	0.02	0.9
Minimum Impact	NA	Weekday	NA	0.00	NA
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.0

Measure ID	MRNE8522		Hot Water Circulation Pump Timeclock		
Base ID	MRNE7000		Base Case-Standard		
Market Segment					
Building Type	Mau-Resort		Vintage	New	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.0022	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	20.0%	Modified Market	8.3%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.044	0.9	Cooling	0.000	NA
Water Heating	0.117	8.5	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.161	1.0	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	March	Weekday	3 AM - 4 AM	0.08	5.2
Minimum Impact	NA	Weekday	NA	0.00	NA
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.0

Monthly Total Electricity Impact
Hot Water Circulation Pump Timeclock

December Peak Day Demand Impact
Hot Water Circulation Pump Timeclock

Monthly Total Fossil Fuel Impact
Hot Water Circulation Pump Timeclock

December Peak Day Demand Profile
Hot Water Circulation Pump Timeclock

Measure ID	MRNO8522		Hot Water Circulation Pump Timeclock		
Base ID	MRNO7000		Base Case-Standard		
Market Segment					
Building Type	Maui-Resort		Vintage	New	
Floor Area (sf)	430900	Water Heater Fuel	Oil	Cost Unit	Building square foot
First Cost (\$/unit)	NA	Measure Life (Yrs)	NA	Mutual Exclusivity	NA
Potential Market	NA	Modified Market	NA	Intra Action	NA
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.044	0.9	Cooling	0.000	NA
Water Heating	0.000	NA	Water Heating	0.506	6.6
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.044	0.3	Total	0.506	5.9
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	June	Weekday	6 AM - 7 AM	0.02	1.5
Minimum Impact	NA	Weekday	NA	0.00	NA
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.0

Measure ID	MRXE8524		Active Solar Water Heating		
Base ID	MRXE7000		Base Case-Standard		
Market Segment					
Building Type	Maui-Resort			Vintage	Existing
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square root
First Cost (\$/unit)	\$0.4641	Measure Life (Yrs)	14	Mutual Exclusivity	Yes
Potential Market	50.6%	Modified Market	20.9%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.000	0.0	Cooling	0.000	NA
Water Heating	0.708	48.3	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.710	2.9	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	March	Weekday	6 PM - 7 PM	0.33	9.5
Minimum Impact	September	Weekday	11 PM - Midnight	-0.00	-0.0
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.1

Monthly Total Electricity Impact
Active Solar Water Heating

December Peak Day Demand Impact
Active Solar Water Heating

Monthly Total Fossil Fuel Impact
Active Solar Water Heating

December Peak Day Demand Profile
Active Solar Water Heating

Measure ID	MRXO8524		Active Solar Water Heating		
Base ID	MRXO7000		Base Case-Standard		
Market Segment					
Building Type	Maui-Resort		Vintage	Existing	
Floor Area (sf)	±30900	Water Heater Fuel	Oil	Cost Unit	Building square foot
First Cost (\$/unit)	NA	Measure Life (Yrs)	NA	Mutual Exclusivity	NA
Potential Market	NA	Modified Market	NA	Intra Action	NA
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.000	0.0	Cooling	0.000	NA
Water Heating	-0.006	NA	Water Heating	5.324	61.5
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	-0.005	-0.0	Total	5.325	57.1
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	October	Weekday	1 AM - 2 AM	0.01	0.3
Minimum Impact	August	Weekday	4 PM - 5 PM	-0.00	-0.1
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.0

Monthly Total Electricity Impact
Active Solar Water Heating

December Peak Day Demand Impact
Active Solar Water Heating

Monthly Total Fossil Fuel Impact
Active Solar Water Heating

December Peak Day Demand Profile
Active Solar Water Heating

Measure ID	MRNE8524		Active Solar Water Heating		
Base ID	MRNE7000		Base Case-Standard		
Market Segment					
Building Type	Mauri-Resort		Vintage	New	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.4641	Measure Life (Yrs)	14	Mutual Exclusivity	Yes
Potential Market	56.0%	Modified Market	23.1%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.000	0.0	Cooling	0.000	NA
Water Heating	0.617	14.9	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.618	3.7	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	March	Weekday	6 PM - 7 PM	0.31	12.5
Minimum Impact	September	Weekday	11 PM - Midnight	-0.01	-0.4
System Coincident	December	Weekday	4 PM - 5 PM	-0.01	-0.5

Measure ID	MRNO8524		Active Solar Water Heating		
Base ID	MRNO7000		Base Case-Standard		
Market Segment					
Building Type	Maui-Resort		Vintage	New	
Floor Area (sf)	430900	Water Heater Fuel	Oil	Cost Unit	Building square foot
First Cost (\$/unit)	NA	Measure Life (Yrs)	NA	Mutual Exclusivity	NA
Potential Market	NA	Modified Market	NA	Intra Action	NA
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.000	0.0	Cooling	0.000	NA
Water Heating	-0.006	NA	Water Heating	3.766	48.8
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	-0.005	-0.0	Total	3.766	44.2
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	September	Weekday	1 AM - 2 AM	0.01	0.6
Minimum Impact	August	Weekday	4 PM - 5 PM	-0.00	-0.1
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.0

Monthly Total Electricity Impact
Active Solar Water Heating

December Peak Day Demand Impact
Active Solar Water Heating

Monthly Total Fossil Fuel Impact
Active Solar Water Heating

December Peak Day Demand Profile
Active Solar Water Heating

Measure ID	MRXE8541		High Efficiency Centrifugal Chiller		
Base ID	MRXE7000		Base Case-Standard		
Market Segment					
Building Type	Maui-Resort		Vintage	Existing	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.0332	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	46.8%	Modified Market	1.7%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	1.444	15.6	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	1.444	6.0	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	September	Weekday	9 PM - 10 PM	0.30	8.0
Minimum Impact	January	Weekday	5 AM - 6 AM	0.07	3.9
System Coincident	December	Weekday	4 PM - 5 PM	0.16	5.7

Monthly Total Electricity Impact
High Efficiency Centrifugal Chiller

December Peak Day Demand Impact
High Efficiency Centrifugal Chiller

Monthly Total Fossil Fuel Impact
High Efficiency Centrifugal Chiller

December Peak Day Demand Profile
High Efficiency Centrifugal Chiller

Measure ID	MRNE8541		High Efficiency Centrifugal Chiller		
Base ID	MRNE7000		Base Case-Standard		
Market Segment					
Building Type	Maui-Resort			Vintage	New
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0268	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	53.1%	Modified Market	11.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.393	8.1	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.393	2.3	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	September	Weekday	8 PM - 9 PM	0.10	3.5
Minimum Impact	January	Weekday	5 AM - 6 AM	0.02	1.6
System Coincident	December	Weekday	4 PM - 5 PM	0.04	1.9

Measure ID	MRXE8542	VSD Centrifugal Chiller
Base ID	MRXE7000	Base Case-Standard

Market Segment					
Building Type	Maui-Resort			Vintage	Existing
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.1886	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	26.0%	Modified Market	5.4%	Intra Action	No

Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.877	9.4	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.877	3.6	Total	0.000	0.0

Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	February	Weekday	2 PM - 3 PM	0.15	5.5
Minimum Impact	February	Weekday	6 PM - 7 PM	0.03	0.9
System Coincident	December	Weekday	4 PM - 5 PM	0.15	5.3

Monthly Total Electricity Impact
VSD Centrifugal Chiller

December Peak Day Demand Impact
VSD Centrifugal Chiller

Monthly Total Fossil Fuel Impact
VSD Centrifugal Chiller

December Peak Day Demand Profile
VSD Centrifugal Chiller

Measure ID	MRNE8542		VSD Centrifugal Chiller		
Base ID	MRNE7000		Base Case-Standard		
Market Segment					
Building Type	Maui-Resort		Vintage	New	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.1520	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	29.5%	Modified Market	6.1%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(tu/sf)	% of Base
Cooling & Auxiliary	0.517	10.6	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.517	3.1	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	January	Weekday	9 AM - 10 AM	0.11	5.5
Minimum Impact	August	Weekday	2 PM - 3 PM	0.01	0.6
System Coincident	December	Weekday	4 PM - 5 PM	0.04	2.4

Measure ID	MRXE8544		Chiller Strainer Cycle		
Base ID	MRXE7000		Base Case-Standard		
Market Segment					
Building Type	Maui-Resort		Vintage	Existing	
Floor Area (sf)	230900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.1561	Measure Life (Yrs)	20	Mutual Exclusivity	No
Potential Market	20.8%	Modified Market	20.8%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	1.750	18.8	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	1.750	7.2	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	September	Weekday	9 PM - 10 PM	0.37	9.8
Minimum Impact	January	Weekday	2 AM - 3 AM	0.11	5.6
System Coincident	December	Weekday	4 PM - 5 PM	0.23	8.5

Measure ID	MRNE8544		Chiller Strainer Cycle		
Base ID	MRNE7000		Base Case-Standard		
Market Segment					
Building Type	Mau-Resort			Vintage	New
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.1259	Measure Life (Yrs)	20	Mutual Exclusivity	No
Potential Market	15.3%	Modified Market	15.3%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.017	0.3	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.017	0.1	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	January	Weekday	5 AM - 6 AM	0.16	12.2
Minimum Impact	NA	Weekday	NA	0.00	NA
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.0

Monthly Total Electricity Impact
Chiller Strainer Cycle

December Peak Day Demand Impact
Chiller Strainer Cycle

Monthly Total Fossil Fuel Impact
Chiller Strainer Cycle

December Peak Day Demand Profile
Chiller Strainer Cycle

Measure ID	MRXE8545		Chilled Water Reset Controls		
Base ID	MRXE7000		Base Case-Standard		
Market Segment					
Building Type	Maui-Resort		Vintage	Existing	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.0011	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	20.8%	Modified Market	9.8%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	1.718	18.5	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	1.718	7.1	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	September	Weekday	9 PM - 10 PM	0.37	9.8
Minimum Impact	January	Weekday	5 AM - 6 AM	0.07	3.8
System Coincident	December	Weekday	4 PM - 5 PM	0.23	8.5

Monthly Total Electricity Impact
Chilled Water Reset Controls

December Peak Day Demand Impact
Chilled Water Reset Controls

Monthly Total Fossil Fuel Impact
Chilled Water Reset Controls

December Peak Day Demand Profile
Chilled Water Reset Controls

Measure ID	MRXE8546		Chiller Optimizer Controls		
Base ID	MRXE7646		Base Case for Chiller Optimizer		
Market Segment					
Building Type	Maui-Resort		Vintage	Existing	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0355	Measure Life (Yrs)	20	Mutual Exclusivity	No
Potential Market	20.8%	Modified Market	20.8%	Interaction	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	1.994	20.9	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	1.994	8.1	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	September	Weekday	9 PM - 10 PM	0.37	9.8
Minimum Impact	August	Weekday	1 PM - 2 PM	0.14	4.4
System Coincident	December	Weekday	4 PM - 5 PM	0.23	8.5

Monthly Total Electricity Impact
Chiller Optimizer Controls

December Peak Day Demand Impact
Chiller Optimizer Controls

Monthly Total Fossil Fuel Impact
Chiller Optimizer Controls

December Peak Day Demand Profile
Chiller Optimizer Controls

Measure ID	MRNE8546		Chiller Optimizer Controls		
Base ID	MRNE7646		Base Case for Chiller Optimizer		
Market Segment					
Building Type	Mauri-Resort			Vintage	New
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0355	Measure Life (Yrs)	20	Mutual Exclusivity	No
Potential Market	15.3%	Modified Market	15.3%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.573	10.5	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.573	3.3	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	January	Weekday	5 AM - 6 AM	0.14	9.7
Minimum Impact	NA	Weekday	NA	0.00	NA
System Coincident	December	Weekday	4 PM - 5 PM	0.09	4.8

Monthly Total Electricity Impact
Chiller Optimizer Controls

December Peak Day Demand Impact
Chiller Optimizer Controls

Monthly Total Fossil Fuel Impact
Chiller Optimizer Controls

December Peak Day Demand Profile
Chiller Optimizer Controls

Measure ID	MRXE8547		Thermal Energy Storage-ice On Coil		
Base ID	MRXE7000		Base Case-Standard		
Market Segment					
Building Type	Mau-Resort			Vintage	Existing
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	52.5200	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	11.2%	Modified Market	2.3%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.095	1.0	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.095	0.4	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	January	Weekday	4 PM - 5 PM	0.85	30.4
Minimum Impact	January	Weekday	4 AM - 5 AM	-0.74	-40.2
System Coincident	December	Weekday	4 PM - 5 PM	0.06	2.3

Measure ID	MRNE8547		Thermal Energy Storage-Ice On Coil		
Base ID	MRNE7000		Base Case-Standard		
Market Segment					
Building Type	Maui-Resort		Vintage		New
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$2.5200	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	37.5%	Modified Market	~ 5%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	-2.036	-41.7	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	-2.036	-12.0	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	September	Weekday	8 PM - 9 PM	0.82	29.5
Minimum Impact	January	Weekday	Midnight - 1 AM	-1.29	-91.7
System Coincident	December	Weekday	4 PM - 5 PM	0.31	16.9

Measure ID	MRXE8548		Cooling Tower Propeller Fans		
Base ID	MRXE7648		Base Case For Cooling Tower Prop Fans		
Market Segment					
Building Type	Maui-Resort		Vintage	Existing	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.0003	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	18.2%	Modified Market	3.2%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.271	2.8	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.271	1.1	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	September	Weekday	8 AM - 9 AM	0.07	1.8
Minimum Impact	January	Weekday	5 AM - 6 AM	0.00	0.2
System Coincident	December	Weekday	4 PM - 5 PM	0.05	1.6

Measure ID	MRNE8548			Cooling Tower Propeller Fans	
Base ID	MRNE7648			Base Case For Cooling Tower Prop Fans	
Market Segment					
Building Type	Maui-Resort			Vintage	New
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.0002	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	20.7%	Modified Market	3.7%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.162	3.2	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.162	1.0	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	July	Weekday	9 AM - 10 AM	0.05	2.0
Minimum Impact	January	Weekday	5 AM - 6 AM	0.00	0.1
System Coincident	December	Weekday	4 PM - 5 PM	0.02	1.1

Monthly Total Electricity Impact
Cooling Tower Propeller Fans

December Peak Day Demand Impact
Cooling Tower Propeller Fans

Monthly Total Fossil Fuel Impact
Cooling Tower Propeller Fans

December Peak Day Demand Profile
Cooling Tower Propeller Fans

Measure ID	MRXE8549		Two-Speed Cooling Tower Fans		
Base ID	MRXE7000		Base Case-Standard		
Market Segment					
Building Type	Maui-Resort		Vintage	Existing	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0044	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	18.2%	Modified Market	3.2%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	kBtu/sf	% of Base
Cooling & Auxiliary	0.090	1.0	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.090	0.4	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	February	Weekday	1 AM - 2 AM	0.02	0.7
Minimum Impact	September	Weekday	8 AM - 9 AM	0.00	0.0
System Coincident	December	Weekday	4 PM - 5 PM	0.01	0.3

Monthly Total Electricity Impact
Two-Speed Cooling Tower Fans

December Peak Day Demand Impact
Two-Speed Cooling Tower Fans

Monthly Total Fossil Fuel Impact
Two-Speed Cooling Tower Fans

December Peak Day Demand Profile
Two-Speed Cooling Tower Fans

Measure ID	MRNE8549		Two-Speed Cooling Tower Fans		
Base ID	MRNE7000		Base Case-Standard		
Market Segment					
Building Type	Mau-Resort			Vintage	New
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0034	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	20.7%	Modified Market	3.7%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.068	1.4	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.068	0.4	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	October	Weekday	6 PM - 7 PM	0.01	0.5
Minimum Impact	January	Weekday	5 AM - 6 AM	0.00	0.0
System Coincident	December	Weekday	4 PM - 5 PM	0.01	0.7

Monthly Total Electricity Impact
Two-Speed Cooling Tower Fans

December Peak Day Demand Impact
Two-Speed Cooling Tower Fans

Monthly Total Fossil Fuel Impact
Two-Speed Cooling Tower Fans

December Peak Day Demand Profile
Two-Speed Cooling Tower Fans

Measure ID	MRXE8550		VSD Cooling Tower Fans		
Base ID	MRXE7000		Base Case-Standard		
Market Segment					
Building Type	Maui-Resort			Vintage	Existing
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.3529	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	18.2%	Modified Market	3.2%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.134	1.4	Cooling	0.00	NA
Water Heating	0.000	0.0	Water Heating	0.00	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.00	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.134	0.6	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	January	Weekday	9 PM - 10 PM	0.02	0.6
Minimum Impact	January	Weekday	5 AM - 6 AM	0.00	0.1
System Coincident	December	Weekday	4 PM - 5 PM	0.02	0.8

Monthly Total Electricity Impact
VSD Cooling Tower Fans

December Peak Day Demand Impact
VSD Cooling Tower Fans

Monthly Total Fossil Fuel Impact
VSD Cooling Tower Fans

December Peak Day Demand Profile
VSD Cooling Tower Fans

Measure ID	MRNE8550			VSD Cooling Tower Fans	
Base ID	MRNE7000			Base Case-Standard	
Market Segment					
Building Type	Maui-Resort			Vintage	New
Floor Area (sf)	±30900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.2780	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	20.7%	Modified Market	3.7%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.082	1.7	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.082	0.5	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	September	Weekday	5 AM - 6 AM	0.02	1.0
Minimum Impact	January	Weekday	5 AM - 6 AM	0.00	0.0
System Coincident	December	Weekday	4 PM - 5 PM	0.01	0.7

Measure ID	MRXE8551		Waste Heat Recovery		
Base ID	MRXE7000		Base Case-Standard		
Market Segment					
Building Type	Maui-Resort		Vintage	Existing	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.3771	Measure Life (Yrs)	10	Mutual Exclusivity	Yes
Potential Market	15.0%	Modified Market	3.1%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	-0.654	-7.0	Cooling	0.000	NA
Water Heating	0.898	61.2	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.244	1.0	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	January	Weekday	8 AM - 9 AM	0.21	8.0
Minimum Impact	May	Weekday	4 AM - 5 AM	-0.08	-3.6
System Coincident	December	Weekday	4 PM - 5 PM	-0.03	-1.2

Measure ID	MRNE8551		Waste Heat Recovery		
Base ID	MRNE7000		Base Case-Standard		
Market Segment					
Building Type	Maui-Resort			Vintage	New
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.3040	Measure Life (Yrs)	10	Mutual Exclusivity	Yes
Potential Market	37.5%	Modified Market	7.8%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	-0.794	-16.3	Cooling	0.000	NA
Water Heating	0.880	64.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.086	0.5	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	April	Weekday	7 AM - 8 AM	0.18	8.1
Minimum Impact	January	Weekday	5 AM - 6 AM	-0.11	-8.9
System Coincident	December	Weekday	4 PM - 5 PM	0.02	1.0

Measure ID	MRXE8552		Compact Fluorescent Lamp EXIT Signs		
Base ID	MRXE7000		Base Case-Standard		
Market Segment					
Building Type	Mau-Resort			Vintage	Existing
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0109	Measure Life (Yrs)	16	Mutual Exclusivity	No
Potential Market	90.0%	Modified Market	90.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.021	0.2	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.005	0.2			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.106	0.4	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	November	Weekday	6 PM - 7 PM	0.02	0.5
Minimum Impact	August	Weekday	9 PM - 10 PM	0.01	0.3
System Coincident	December	Weekday	4 PM - 5 PM	0.01	0.5

Measure ID	MRNE8552		Compact Fluorescent Lamp EXIT Signs		
Base ID	MRNE7000		Base Case-Standard		
Market Segment					
Building Type	Maui-Resort		Vintage	New	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0026	Measure Life (Yrs)	16	Mutual Exclusivity	No
Potential Market	75.0%	Modified Market	75.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.014	0.3	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.003	0.2			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.097	0.6	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	March	Weekday	7 PM - 8 PM	0.02	0.8
Minimum Impact	April	Weekday	7 PM - 8 PM	0.01	0.2
System Coincident	December	Weekday	4 PM - 5 PM	0.01	0.6

Monthly Total Electricity Impact
Compact Fluorescent Lamp EXIT Signs

December Peak Day Demand Impact
Compact Fluorescent Lamp EXIT Signs

Monthly Total Fossil Fuel Impact
Compact Fluorescent Lamp EXIT Signs

December Peak Day Demand Profile
Compact Fluorescent Lamp EXIT Signs

Measure ID	MRXE8553		LED Lamp EXIT Signs		
Base ID	MRXE7000		Base Case-Standard		
Market Segment					
Building Type	Maui-Resort		Vintage	Existing	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.0361	Measure Life (Yrs)	16	Mutual Exclusivity	Yes
Potential Market	90.0%	Modified Market	49.1%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.034	0.4	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.008	0.3			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.170	0.7	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	August	Weekday	10 PM - 11 PM	0.03	0.9
Minimum Impact	August	Weekday	9 PM - 10 PM	0.02	0.4
System Coincident	December	Weekday	4 PM - 5 PM	0.02	0.7

Monthly Total Electricity Impact
LED Lamp EXIT Signs

December Peak Day Demand Impact
LED Lamp EXIT Signs

Monthly Total Fossil Fuel Impact
LED Lamp EXIT Signs

December Peak Day Demand Profile
LED Lamp EXIT Signs

Measure ID	MRNE8553		LED Lamp EXIT Signs		
Base ID	MRNE7000		Base Case-Standard		
Market Segment					
Building Type	Maui-Resort		Vintage	New	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.0189	Measure Life (Yrs)	16	Mutual Exclusivity	Yes
Potential Market	75.0%	Modified Market	-0.9%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.023	0.5	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.004	0.3			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.156	0.9	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	March	Weekday	7 PM - 8 PM	0.02	1.0
Minimum Impact	January	Weekday	7 AM - 8 AM	0.02	0.8
System Coincident	December	Weekday	4 PM - 5 PM	0.02	0.9

Measure ID	MRXE8557		Optical Reflectors-2X4 Recessed		
Base ID	MRXE7000		Base Case-Standard		
Market Segment					
Building Type	Maui-Resort		Vintage	Existing	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0774	Measure Life (Yrs)	16	Mutual Exclusivity	No
Potential Market	50.0%	Modified Market	50.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.186	2.0	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.040	1.6			
Indoor Lighting	0.543	10.5			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.768	3.2	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	October	Weekday	11 AM - Noon	0.15	5.2
Minimum Impact	January	Weekday	5 AM - 6 AM	0.05	2.7
System Coincident	December	Weekday	4 PM - 5 PM	0.11	3.9

Measure ID	MRNE8557		Optical Reflectors-2X4 Recessed		
Base ID	MRNE7000		Base Case-Standard		
Market Segment					
Building Type	Maui-Resort		Vintage	New	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0778	Measure Life (Yrs)	16	Mutual Exclusivity	No
Potential Market	100.0%	Modified Market	100.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.106	2.2	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.021	1.5			
Indoor Lighting	0.437	11.9			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.563	3.3	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	February	Weekday	8 AM - 9 AM	0.12	5.1
Minimum Impact	January	Weekday	2 AM - 3 AM	0.03	2.3
System Coincident	December	Weekday	4 PM - 5 PM	0.08	4.4

Monthly Total Electricity Impact
Optical Reflectors-2X4 Recessed

December Peak Day Demand Impact
Optical Reflectors-2X4 Recessed

Monthly Total Fossil Fuel Impact
Optical Reflectors-2X4 Recessed

December Peak Day Demand Profile
Optical Reflectors-2X4 Recessed

Measure ID	MRXE8558		Fluor. Energy Saver Lamps-F96T12ES		
Base ID	MRXE7000		Base Case-Standard		
Market Segment					
Building Type	Maui-Resort		Vintage	Existing	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0002	Measure Life (Yrs)	5	Mutual Exclusivity	No
Potential Market	70.0%	Modified Market	70.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.010	0.1	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.004	0.2			
Indoor Lighting	0.023	0.4			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.037	0.2	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	July	Weekday	9 AM - 10 AM	0.01	0.2
Minimum Impact	August	Weekday	9 PM - 10 PM	0.00	0.1
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.1

Measure ID	MRXE8559		Electronic Ballasts-8' T12-Base EEM		
Base ID	MRXE7000		Base Case-Standard		
Market Segment					
Building Type	Maui-Resort		Vintage	Existing	
Floor Area (sf)	130900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost \$/unit)	\$0.0065	Measure Life (Yrs)	16	Mutual Exclusivity	Yes
Potential Market	0.0%	Modified Market	29.2%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.008	0.1	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.004	0.1			
Indoor Lighting	0.019	0.4			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.030	0.1	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	July	Weekday	9 AM - 10 AM	0.01	0.1
Minimum Impact	August	Weekday	9 PM - 10 PM	0.00	0.0
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.1

Measure ID	MRNE8559		Electronic Ballasts-8' T12-Base EEM		
Base ID	MRNE7000		Base Case-Standard		
Market Segment					
Building Type	Maui-Resort			Vintage	New
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0019	Measure Life (Yrs)	16	Mutual Exclusivity	Yes
Potential Market	100.0%	Modified Market	+1.7%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.001	0.0	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.007	0.2			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.008	0.0	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	July	Weekday	9 AM - 10 AM	0.00	0.1
Minimum Impact	February	Weekday	1 AM - 2 AM	0.00	0.0
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.1

Measure ID	MRXE8560		Optical Reflectors-1X8 Fixtures		
Base ID	MRXE7000		Base Case-Standard		
Market Segment					
Building Type	Mau-Resort		Vintage	Existing	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.0038	Measure Life (Yrs)	16	Mutual Exclusivity	No
Potential Market	70.0%	Modified Market	70.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.019	0.2	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.008	0.3			
Indoor Lighting	0.051	1.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.078	0.3	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	July	Weekday	9 AM - 10 AM	0.01	0.2
Minimum Impact	September	Weekday	9 PM - 10 PM	0.00	0.1
System Coincident	December	Weekday	4 PM - 5 PM	0.01	0.3

Monthly Total Electricity Impact
Optical Reflectors-1X8 Fixtures

December Peak Day Demand Impact
Optical Reflectors-1X8 Fixtures

Monthly Total Fossil Fuel Impact
Optical Reflectors-1X8 Fixtures

December Peak Day Demand Profile
Optical Reflectors-1X8 Fixtures

Measure ID	MRNE8560		Optical Reflectors-1X8 Fixtures		
Base ID	MRNE7000		Base Case-Standard		
Market Segment					
Building Type	Maui-Resort			Vintage	New
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0038	Measure Life (Yrs)	16	Mutual Exclusivity	No
Potential Market	100.0%	Modified Market	100.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.008	0.2	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.002	0.1			
Indoor Lighting	0.039	1.1			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.048	0.3	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	March	Weekday	9 AM - 10 AM	0.01	0.5
Minimum Impact	July	Weekday	1 PM - 2 PM	0.00	0.0
System Coincident	December	Weekday	4 PM - 5 PM	0.01	0.3

Monthly Total Electricity Impact
Optical Reflectors-1X8 Fixtures

December Peak Day Demand Impact
Optical Reflectors-1X8 Fixtures

Monthly Total Fossil Fuel Impact
Optical Reflectors-1X8 Fixtures

December Peak Day Demand Profile
Optical Reflectors-1X8 Fixtures

Measure ID	MRXE8561		Electronic Ballasts-4' T12-Base SMC		
Base ID	MRXE7661		Base Case for 4' Fluor. SMC Ballasts		
Market Segment					
Building Type	Mau-Resort			Vintage	Existing
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0987	Measure Life (Yrs)	16	Mutual Exclusivity	Yes
Potential Market	70.0%	Modified Market	29.2%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.064	0.7	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.014	0.5			
Indoor Lighting	0.190	3.5			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.268	1.1	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	March	Weekday	2 PM - 3 PM	0.09	3.4
Minimum Impact	January	Weekday	5 AM - 6 AM	0.02	0.9
System Coincident	December	Weekday	4 PM - 5 PM	0.04	1.3

Measure ID	MRXE8562		Electronic Ballasts-8' T12-Base SMC		
Base ID	MRXE7662		Base Case for 8' Fluor. SMC Ballasts		
Market Segment					
Building Type	Maui-Resort		Vintage	Existing	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0056	Measure Life (Yrs)	16	Mutual Exclusivity	Yes
Potential Market	70.0%	Modified Market	29.2%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.004	0.0	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.002	0.1			
Indoor Lighting	0.009	0.2			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.015	0.1	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	July	Weekday	9 AM - 10 AM	0.00	0.1
Minimum Impact	September	Weekday	9 PM - 10 PM	0.00	0.0
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.1

Measure ID	MRXE8563		Compact Fluorescent Lamps-15W		
Base ID	MRXE7000		Base Case-Standard		
Market Segment					
Building Type	Mau-Resort		Vintage	Existing	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.2250	Measure Life (Yrs)	2	Mutual Exclusivity	No
Potential Market	90.3%	Modified Market	90.3%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.403	4.3	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.082	3.3			
Indoor Lighting	1.530	29.6			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	2.015	8.3	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	September	Weekday	9 PM - 10 PM	0.46	12.1
Minimum Impact	January	Weekday	5 AM - 6 AM	0.10	5.3
System Coincident	December	Weekday	4 PM - 5 PM	0.19	6.9

Monthly Total Electricity Impact
Compact Fluorescent Lamps-15W

December Peak Day Demand Impact
Compact Fluorescent Lamps-15W

Monthly Total Fossil Fuel Impact
Compact Fluorescent Lamps-15W

December Peak Day Demand Profile
Compact Fluorescent Lamps-15W

Measure ID	MRNE8563			Compact Fluorescent Lamps-15W	
Base ID	MRNE7000			Base Case-Standard	
Market Segment					
Building Type	Maui-Resort			Vintage	New
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0677	Measure Life (Yrs)	2	Mutual Exclusivity	No
Potential Market	95.0%	Modified Market	95.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.091	1.9	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.021	1.5			
Indoor Lighting	0.528	14.4			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.641	3.8	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	October	Weekday	6 PM - 7 PM	0.13	4.8
Minimum Impact	July	Weekday	5 AM - 6 AM	-0.00	-0.3
System Coincident	December	Weekday	4 PM - 5 PM	0.07	3.6

Measure ID	MRXE8564		Compact Fluorescent Lamps-26W		
Base ID	MRXE7000		Base Case-Standard		
Market Segment					
Building Type	Maui-Resort			Vintage	Existing
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0254	Measure Life (Yrs)	5	Mutual Exclusivity	No
Potential Market	90.3%	Modified Market	90.3%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.045	0.5	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.277	5.3			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.321	1.3	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	August	Weekday	10 PM - 11 PM	0.05	1.5
Minimum Impact	August	Weekday	9 PM - 10 PM	0.03	0.8
System Coincident	December	Weekday	4 PM - 5 PM	0.03	1.2

Monthly Total Electricity Impact
Compact Fluorescent Lamps-26W

December Peak Day Demand Impact
Compact Fluorescent Lamps-26W

Monthly Total Fossil Fuel Impact
Compact Fluorescent Lamps-26W

December Peak Day Demand Profile
Compact Fluorescent Lamps-26W

Measure ID	MRNE8564		Compact Fluorescent Lamps-26W		
Base ID	MRNE7000		Base Case-Standard		
Market Segment					
Building Type	Maui-Resort			Vintage	New
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.0212	Measure Life (Yrs)	5	Mutual Exclusivity	No
Potential Market	95.0%	Modified Market	95.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.031	0.6	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	-0.000	-0.0			
Indoor Lighting	0.236	6.5			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.267	1.6	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	February	Weekday	8 AM - 9 AM	0.07	2.8
Minimum Impact	January	Weekday	7 AM - 8 AM	0.03	1.4
System Coincident	December	Weekday	4 PM - 5 PM	0.03	1.5

Measure ID	MRXE8565		HID Interior Spots-70W		
Base ID	MRXE7000		Base Case-Standard		
Market Segment					
Building Type	Maui-Resort		Vintage	Existing	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0606	Measure Life (Yrs)	16	Mutual Exclusivity	No
Potential Market	50.0%	Modified Market	50.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.122	1.3	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.078	3.1			
Indoor Lighting	0.338	6.5			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.538	2.2	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	April	Weekday	2 PM - 3 PM	0.11	4.2
Minimum Impact	January	Weekday	5 AM - 6 AM	0.04	2.3
System Coincident	December	Weekday	4 PM - 5 PM	0.07	2.5

Monthly Total Electricity Impact
HID Interior Spots-70W

December Peak Day Demand Impact
HID Interior Spots-70W

Monthly Total Fossil Fuel Impact
HID Interior Spots-70W

December Peak Day Demand Profile
HID Interior Spots-70W

Measure ID	MRNE8565		HID Interior Spots-70W		
Base ID	MRNE7000		Base Case-Standard		
Market Segment					
Building Type	Maui-Resort		Vintage	New	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.0606	Measure Life (Yrs)	16	Mutual Exclusivity	No
Potential Market	50.0%	Modified Market	50.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.033	2.7	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.014	1.0			
Indoor Lighting	0.135	3.7			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.182	1.1	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	February	Weekday	8 AM - 9 AM	0.06	2.7
Minimum Impact	January	Weekday	4 AM - 5 AM	0.01	1.0
System Coincident	December	Weekday	4 PM - 5 PM	0.03	1.4

DETAILED MEASURE IMPACTS-SUMMARY REPORTS

This section contains the detailed measure impact results and market segment data for each DSM case examined for this building type. A complete index of all base and measure cases defined for this building type is shown first. This index represents an expansion of the base and measure matrix presented in Table 1 (residential) or Table 2 (commercial) for the applicable sector. Following this index, a summary report sheet is provided for each DSM measure case in the order shown in the index. The summary report sheet contains a host of information and selected graphs which define and depict the measure impacts and outline the market segment data assumptions utilized for each case in the DBEDT DSM Forecasting models. The variables and figures included in the summary report sheet are described below.

Measure ID: The eight-character alpha-numeric code used to define the measure case. This ID is composed of the 2-letter building code + the 1-letter vintage code + the 1-letter water heater fuel type code + the 4-digit numeric code used to define the base or measure case.

Measure Description: A brief (no more than 38-character) definition of the DSM measure

Base ID: Similar to the Measure ID, this code denotes the base case to which the measure case is compared in order to estimate the measure impacts.

Base Description: Similar to the Measure Description, a brief description of the base case. This description helps to determine if a modified base case was defined to estimate measure impacts.

Market Segment. This section of the summary report sheet contains the market segment data defined for each measure. These are:

Building Type:	The building type to which this measure applies.
Vintage:	The vintage of the building (new or existing).
Floor Area (sf):	The gross floor area of the building in square feet.
Water Heater Fuel:	The fuel type utilized for domestic or service water heating (Gas, Electric, or Oil).
Cost Unit:	The unit of measure utilized to describe the measure cost.
First Cost (\$/unit):	The installed capital cost for the measure in dollars per Cost Unit (93 dollars).
Measure Life (Yrs):	The measure life in years.
Mutual Exclusivity:	A Yes/No entry which denotes if mutual exclusivity considerations apply to this measure. A Yes entry indicates that this measure is mutually exclusive with one or more measures pertaining to this building type, thereby modifying the potential market share available.
Potential Market:	The maximum market share available for this measure. This includes consideration of measure applicability, measure feasibility, and remaining market share for existing vintages.
Modified Market:	The maximum market share available for this measure accounting for mutual exclusivity.
Intra Action:	A Yes/No entry which denotes if intra active considerations apply to this measure. A Yes entry indicates that this measure is intra active with one or more measures if applied as a group to this building type. The total impact in a particular end-use for a group of measures with intra active effects is not the same as the summation of the individual measure impacts. An incremental measure impact reduction is implied, based on the measure loading order.

Annual Energy Impacts By End-Use. This section of the summary report contains the normalized measure impacts by end-use and for the total building by fuel type. Electricity impacts are shown in terms of kWh/square foot and as a percentage of the base case, while fossil fuel impacts are shown as kBtu/square foot and as a percentage of the base case for each end-use and for the total. The end-use impacts shown include:

Cooling (& Auxiliary) :	Space cooling and associated pumps and heat rejection energy (e.g., condensers or cooling tower).
Water Heating:	Storage or central domestic or service water heating system.
Misc. Equipment:	Miscellaneous equipment.
Ventilation:	Supply air fans for conditioning and exhaust air fans.
Indoor Lighting:	Interior lighting (not including EXIT signs).
Outdoor Lighting:	Exterior building lighting.
Central Refrigeration:	Commercial/Industrial refrigeration systems.
Total:	Total building energy use by fuel.

Total Building Peak Demand Impact: This section of the summary report provides peak demand impacts for each measure for selected peak events during the year. Three events are included, the maximum building peak demand impact, the minimum building peak demand impact, and a system coincident peak demand impact (set to December weekday at 4 to 5 PM). For each event the Month, Day Type, and Hour are shown, followed by the normalized total building peak demand impact in Watts/square foot and the percentage of the total base case represented by the impact.

Measure Impact Figures. Four figures are selected and included in each summary report to depict the impacts resulting from each measure. These are:

Monthly Total Electricity Impact: This figure shows the floor area normalized monthly electricity impacts associated with the measure in kWh/square foot.

Monthly Total Fossil Fuel Impact: This figure shows the floor area normalized monthly fossil fuel impacts associated with the measure in kBtu/square foot.

December Peak Day Demand Impact: This figure shows the (selected) system coincident peak day floor area normalized total building demand impact for the measure in Watts/square foot.

December Peak Day Demand Profile: This figure provides the daily total building load profile for the measure and base cases on the (selected) system coincident peak day in kW.

Commercial Kauai-Resort Measure Index Table

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Cases: 79

Measure ID	Base ID	Measure Description	Primary End-Use	Floor Area
KRXE7000	KRXE7000	Base Case-Standard	NA	430900
KRXO7000	KRXO7000	Base Case-Standard	NA	430900
KRNE7000	KRNE7000	Base Case-Standard	NA	430900
KRNO7000	KRNO7000	Base Case-Standard	NA	430900
KRXE7617	KRXE7617	Base Case For EMS	NA	430900
KRNE7617	KRNE7617	Base Case For EMS	NA	430900
KRXE7646	KRXE7646	Base Case for Chiller Optimizer	NA	430900
KRNE7646	KRNE7646	Base Case for Chiller Optimizer	NA	430900
KRXE7648	KRXE7648	Base Case For Cooling Tower Prop Fans	NA	430900
KRNE7648	KRNE7648	Base Case For Cooling Tower Prop Fans	NA	430900
KRXE7661	KRXE7661	Base Case for 4' Fluor. SMC Ballasts	NA	430900
KRXE7662	KRXE7662	Base Case for 8' Fluor. SMC Ballasts	NA	430900
KRXE8501	KRXE7000	4' Fluor. Energy Saver Lamps-F40T12ES	Inlights	430900
KRXE8502	KRXE7000	Electronic Ballasts-4' T12-Base EEM	Inlights	430900
KRNE8502	KRNE7000	Electronic Ballasts-4' T12-Base EEM	Inlights	430900
KRXE8503	KRXE7000	4' T8 Lamps And Electronic Ballasts	Inlights	430900
KRNE8503	KRNE7000	4' T8 Lamps And Electronic Ballasts	Inlights	430900
KRXE8504	KRXE7000	Window Film Retrofit	Cooling	430900
KRNE8505	KRNE7000	Double Pane Heat Mirror Glazing	Cooling	430900
KRXE8509	KRXE7000	High Pressure Sodium-100 Watts	Exlights	430900
KRNE8509	KRNE7000	High Pressure Sodium-100 Watts	Exlights	430900
KRXE8510	KRXE7000	High Pressure Sodium-250 Watts	Exlights	430900
KRXE8511	KRXE7000	HID Exterior Floods-70 Watts	Exlights	430900
KRNE8511	KRNE7000	HID Exterior Floods-70 Watts	Exlights	430900
KRXE8512	KRXE7000	Occupancy Sensor Pack-200 SF	Inlights	430900
KRNE8512	KRNE7000	Occupancy Sensor Pack-200 SF	Inlights	430900
KRXE8515	KRXE7000	VSD Chilled Water Loop Pump	Cooling	430900
KRNE8515	KRNE7000	VSD Chilled Water Loop Pump	Cooling	430900
KRXE8517	KRXE7617	Energy Management System	Cooling	430900
KRNE8517	KRNE7617	Energy Management System	Cooling	430900
KRXE8518	KRXE7000	Duct Insulation Material	Cooling	430900
KRNE8518	KRNE7000	Duct Insulation Material	Cooling	430900
KRXE8519	KRXE7000	Variable Air Volume Box	Cooling	430900
KRXE8522	KRXE7000	Hot Water Circulation Pump Timeclock	Hotwater	430900
KRXO8522	KRXO7000	Hot Water Circulation Pump Timeclock	Hotwater	430900
KRNE8522	KRNE7000	Hot Water Circulation Pump Timeclock	Hotwater	430900
KRNO8522	KRNO7000	Hot Water Circulation Pump Timeclock	Hotwater	430900
KRXE8524	KRXE7000	Active Solar Water Heating	Hotwater	430900
KRXO8524	KRXO7000	Active Solar Water Heating	Hotwater	430900
KRNE8524	KRNE7000	Active Solar Water Heating	Hotwater	430900
KRNO8524	KRNO7000	Active Solar Water Heating	Hotwater	430900
KRXE8541	KRXE7000	High Efficiency Centrifugal Chiller	Cooling	430900
KRNE8541	KRNE7000	High Efficiency Centrifugal Chiller	Cooling	430900
KRXE8542	KRXE7000	VSD Centrifugal Chiller	Cooling	430900
KRNE8542	KRNE7000	VSD Centrifugal Chiller	Cooling	430900
KRXE8544	KRXE7000	Chiller Strainer Cycle	Cooling	430900
KRNE8544	KRNE7000	Chiller Strainer Cycle	Cooling	430900
KRXE8545	KRXE7000	Chilled Water Reset Controls	Cooling	430900
KRXE8546	KRXE7646	Chiller Optimizer Controls	Cooling	430900
KRNE8546	KRNE7646	Chiller Optimizer Controls	Cooling	430900
KRXE8547	KRXE7000	Thermal Energy Storage-Ice On Coil	Cooling	430900
KRNE8547	KRNE7000	Thermal Energy Storage-Ice On Coil	Cooling	430900
KRXE8548	KRXE7648	Cooling Tower Propeller Fans	Cooling	430900
KRNE8548	KRNE7648	Cooling Tower Propeller Fans	Cooling	430900
KRXE8549	KRXE7000	Two-Speed Cooling Tower Fans	Cooling	430900
KRNE8549	KRNE7000	Two-Speed Cooling Tower Fans	Cooling	430900
KRXE8550	KRXE7000	VSD Cooling Tower Fans	Cooling	430900
KRNE8550	KRNE7000	VSD Cooling Tower Fans	Cooling	430900

Commercial Kauai-Resort Measure Index Table

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Cases: 79

Measure ID	Base ID	Measure Description	Primary End-Use	Floor Area
KRXE8551	KRXE7000	Waste Heat Recovery	Hotwater	430900
KRNE8551	KRNE7000	Waste Heat Recovery	Hotwater	430900
KRXE8552	KRXE7000	Compact Fluorescent Lamp EXIT Signs	Inlights	430900
KRNE8552	KRNE7000	Compact Fluorescent Lamp EXIT Signs	Inlights	430900
KRXE8553	KRXE7000	LED Lamp EXIT Signs	Inlights	430900
KRNE8553	KRNE7000	LED Lamp EXIT Signs	Inlights	430900
KRXE8557	KRXE7000	Optical Reflectors-2X4 Recessed	Inlights	430900
KRNE8557	KRNE7000	Optical Reflectors-2X4 Recessed	Inlights	430900
KRXE8558	KRXE7000	8' Fluor. Energy Saver Lamps-F96T12ES	Inlights	430900
KRXE8559	KRXE7000	Electronic Ballasts-8' T12-Base EEM	Inlights	430900
KRNE8559	KRNE7000	Electronic Ballasts-8' T12-Base EEM	Inlights	430900
KRXE8560	KRXE7000	Optical Reflectors-1X8 Fixtures	Inlights	430900
KRNE8560	KRNE7000	Optical Reflectors-1X8 Fixtures	Inlights	430900
KRXE8561	KRXE7661	Electronic Ballasts-4' T12-Base SMC	Inlights	430900
KRXE8562	KRXE7662	Electronic Ballasts-8' T12-Base SMC	Inlights	430900
KRXE8563	KRXE7000	Compact Fluorescent Lamps-15W	Inlights	430900
KRNE8563	KRNE7000	Compact Fluorescent Lamps-15W	Inlights	430900
KRXE8564	KRXE7000	Compact Fluorescent Lamps-26W	Inlights	430900
KRNE8564	KRNE7000	Compact Fluorescent Lamps-26W	Inlights	430900
KRXE8565	KRXE7000	HID Interior Spots-70W	Inlights	430900
KRNE8565	KRNE7000	HID Interior Spots-70W	Inlights	430900

Measure ID	KRXE8501		4' Fluor. Energy Saver Lamps-F40T12ES		
Base ID	KRXE7000		Base Case-Standard		
Market Segment					
Building Type	Kauai-Resort		Vintage	Existing	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0025	Measure Life (Yrs)	5	Mutual Exclusivity	Yes
Potential Market	70.0%	Modified Market	29.2%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.092	1.0	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.020	0.7			
Indoor Lighting	0.260	5.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.371	1.5	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	December	Weekday	10 AM - 11 AM	0.09	3.3
Minimum Impact	January	Weekday	5 AM - 6 AM	0.02	1.3
System Coincident	December	Weekday	4 PM - 5 PM	0.05	1.8

Monthly Total Electricity Impact
4' Fluor. Energy Saver Lamps-F40T12ES

December Peak Day Demand Impact
4' Fluor. Energy Saver Lamps-F40T12ES

Monthly Total Fossil Fuel Impact
4' Fluor. Energy Saver Lamps-F40T12ES

December Peak Day Demand Profile
4' Fluor. Energy Saver Lamps-F40T12ES

Measure ID	KRXE8502		Electronic Ballasts-4' T12-Base EEM		
Base ID	KRXE7000		Base Case-Standard		
Market Segment					
Building Type	Kauai-Resort		Vintage	Existing	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.1439	Measure Life (Yrs)	16	Mutual Exclusivity	Yes
Potential Market	79.0%	Modified Market	29.2%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.092	1.0	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.020	0.7			
Indoor Lighting	0.260	5.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.371	1.5	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	December	Weekday	10 AM - 11 AM	0.09	3.3
Minimum Impact	January	Weekday	5 AM - 6 AM	0.02	1.3
System Coincident	December	Weekday	4 PM - 5 PM	0.05	1.8

Monthly Total Electricity Impact
Electronic Ballasts-4' T12-Base EEM

December Peak Day Demand Impact
Electronic Ballasts-4' T12-Base EEM

Monthly Total Fossil Fuel Impact
Electronic Ballasts-4' T12-Base EEM

December Peak Day Demand Profile
Electronic Ballasts-4' T12-Base EEM

Measure ID	KRNE8502		Electronic Ballasts-4' T12-Base EEM		
Base ID	KRNE7000		Base Case-Standard		
Market Segment					
Building Type	Kauai-Resort			Vintage	New
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.0992	Measure Life (Yrs)	16	Mutual Exclusivity	Yes
Potential Market	100.0%	Modified Market	-1.7%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.035	0.7	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.007	0.5			
Indoor Lighting	0.141	3.9			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.183	1.1	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	May	Weekday	2 PM - 3 PM	0.06	2.9
Minimum Impact	January	Weekday	3 AM - 4 AM	0.01	0.8
System Coincident	December	Weekday	4 PM - 5 PM	0.03	1.4

Measure ID	KRXE8503		4' T8 Lamps And Electronic Ballasts		
Base ID	KRXE7000		Base Case-Standard		
Market Segment					
Building Type	Kauai-Resort		Vintage	Existing	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.1476	Measure Life (Yrs)	16	Mutual Exclusivity	Yes
Potential Market	70.0%	Modified Market	29.2%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.169	1.8	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.036	1.4			
Indoor Lighting	0.480	9.3			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.685	2.8	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	April	Weekday	2 PM - 3 PM	0.14	5.1
Minimum Impact	January	Weekday	5 AM - 6 AM	0.04	2.4
System Coincident	December	Weekday	4 PM - 5 PM	0.09	3.3

Monthly Total Electricity Impact
4' T8 Lamps And Electronic Ballasts

December Peak Day Demand Impact
4' T8 Lamps And Electronic Ballasts

Monthly Total Fossil Fuel Impact
4' T8 Lamps And Electronic Ballasts

December Peak Day Demand Profile
4' T8 Lamps And Electronic Ballasts

Measure ID	KRNE8503		4' T8 Lamps And Electronic Ballasts		
Base ID	KRNE7000		Base Case-Standard		
Market Segment					
Building Type	Kauai-Resort		Vintage	New	
Floor Area (sf)	230900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.1004	Measure Life (Yrs)	16	Mutual Exclusivity	Yes
Potential Market	100.0%	Modified Market	41.7%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.053	1.1	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.011	0.8			
Indoor Lighting	0.215	5.9			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.280	1.6	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	May	Weekday	2 PM - 3 PM	0.07	3.6
Minimum Impact	January	Weekday	5 AM - 6 AM	0.02	1.2
System Coincident	December	Weekday	4 PM - 5 PM	0.04	2.2

Monthly Total Electricity Impact
4' T8 Lamps And Electronic Ballasts

December Peak Day Demand Impact
4' T8 Lamps And Electronic Ballasts

Monthly Total Fossil Fuel Impact
4' T8 Lamps And Electronic Ballasts

December Peak Day Demand Profile
4' T8 Lamps And Electronic Ballasts

Measure ID	KRXE8504			Window Film Retrofit	
Base ID	KRXE7000			Base Case-Standard	
Market Segment					
Building Type	Kauai-Resort			Vintage	Existing
Floor Area (sf)	130900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.1412	Measure Life (Yrs)	7	Mutual Exclusivity	Yes
Potential Market	21.6%	Modified Market	12.1%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.483	5.0	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.159	6.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.642	2.6	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	August	Weekday	10 PM - 11 PM	0.16	4.4
Minimum Impact	August	Weekday	9 PM - 10 PM	0.04	1.0
System Coincident	December	Weekday	4 PM - 5 PM	0.06	2.3

Monthly Total Electricity Impact
Window Film Retrofit

December Peak Day Demand Impact
Window Film Retrofit

Monthly Total Fossil Fuel Impact
Window Film Retrofit

December Peak Day Demand Profile
Window Film Retrofit

Measure ID	KRNE8505		Double Pane Heat Mirror Glazing		
Base ID	KRNE7000		Base Case-Standard		
Market Segment					
Building Type	Kauai-Resort		Vintage	New	
Floor Area (sf)	±30900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.5704	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	27.7%	Modified Market	15.5%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	kWh/sf	% of Base	End-Use	kBtu/sf	% of Base
Cooling & Auxiliary	0.378	7.6	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.283	18.6			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.661	3.9	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	August	Weekday	4 PM - 5 PM	0.18	8.6
Minimum Impact	May	Weekday	Midnight - 1 AM	0.03	2.1
System Coincident	December	Weekday	4 PM - 5 PM	0.06	2.9

Measure ID	KRXE8509		High Pressure Sodium-100 Watts		
Base ID	KRXE7000		Base Case-Standard		
Market Segment					
Building Type	Kauai-Resort		Vintage	Existing	
Floor Area (sf)	±30900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0363	Measure Life (Yrs)	15	Mutual Exclusivity	No
Potential Market	70.0%	Modified Market	70.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.000	0.0	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.187	10.7			
Central Refrigeration	0.000	NA			
Total	0.187	0.8	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	December	Weekday	5 PM - 6 PM	0.04	1.3
Minimum Impact	July	Weekday	6 PM - 7 PM	0.00	0.1
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.1

Monthly Total Electricity Impact
High Pressure Sodium-100 Watts

December Peak Day Demand Impact
High Pressure Sodium-100 Watts

Monthly Total Fossil Fuel Impact
High Pressure Sodium-100 Watts

December Peak Day Demand Profile
High Pressure Sodium-100 Watts

Measure ID	KRNE8509		High Pressure Sodium-100 Watts		
Base ID	KRNE7000		Base Case-Standard		
Market Segment					
Building Type	Kauai-Resort		Vintage	New	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0286	Measure Life (Yrs)	15	Mutual Exclusivity	No
Potential Market	90.0%	Modified Market	90.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.000	0.0	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.187	12.3			
Central Refrigeration	0.000	NA			
Total	0.187	1.1	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	September	Weekday	11 PM - Midnight	0.04	1.7
Minimum Impact	October	Weekday	3 PM - 4 PM	0.00	0.1
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.1

Measure ID	KRXE8510		High Pressure Sodium-250 Watts		
Base ID	KRXE7000		Base Case-Standard		
Market Segment					
Building Type	Kauai-Resort		Vintage	Existing	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0314	Measure Life (Yrs)	15	Mutual Exclusivity	No
Potential Market	70.0%	Modified Market	70.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	kWh/sf	% of Base	End-Use	kBtu/sf	% of Base
Cooling & Auxiliary	0.000	0.0	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.224	12.8			
Central Refrigeration	0.000	NA			
Total	0.224	0.9	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	October	Weekday	11 PM - Midnight	0.05	1.4
Minimum Impact	March	Weekday	5 PM - 6 PM	0.00	0.1
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.1

Measure ID	KRXE8511		HID Exterior Floods-70 Watts		
Base ID	KRXE7000		Base Case-Standard		
Market Segment					
Building Type	Kauai-Resort		Vintage	Existing	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0510	Measure Life (Yrs)	16	Mutual Exclusivity	No
Potential Market	70.0%	Modified Market	70.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.000	0.0	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.160	9.2			
Central Refrigeration	0.000	NA			
Total	0.160	0.6	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	November	Weekday	11 PM - Midnight	0.03	1.1
Minimum Impact	March	Weekday	Noon - 1 PM	0.00	0.1
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.1

Measure ID	KRNE8511		HID Exterior Floods-70 Watts		
Base ID	KRNE7000		Base Case-Standard		
Market Segment					
Building Type	Kauai-Resort			Vintage	New
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.0433	Measure Life (Yrs)	16	Mutual Exclusivity	No
Potential Market	90.0%	Modified Market	90.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.000	0.0	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.160	10.5			
Central Refrigeration	0.000	NA			
Total	0.160	0.9	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	September	Weekday	11 PM - Midnight	0.03	1.5
Minimum Impact	January	Weekday	1 PM - 2 PM	0.00	0.1
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.1

Monthly Total Electricity Impact
HID Exterior Floods-70 Watts

December Peak Day Demand Impact
HID Exterior Floods-70 Watts

Monthly Total Fossil Fuel Impact
HID Exterior Floods-70 Watts

December Peak Day Demand Profile
HID Exterior Floods-70 Watts

Measure ID	KRXE8512		Occupancy Sensor Pack-200 SF		
Base ID	KRXE7000		Base Case-Standard		
Market Segment					
Building Type	Kauai-Resort			Vintage	Existing
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.2945	Measure Life (Yrs)	8	Mutual Exclusivity	No
Potential Market	70.0%	Modified Market	70.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.129	1.4	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.002	0.1	Misc. Equipment	0.000	0.0
Ventilation	0.013	0.5			
Indoor Lighting	0.501	9.7			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.646	2.6	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	February	Weekday	6 AM - 7 AM	0.14	6.0
Minimum Impact	December	Weekday	7 PM - 8 PM	0.05	1.5
System Coincident	December	Weekday	4 PM - 5 PM	0.07	2.4

Monthly Total Electricity Impact
Occupancy Sensor Pack-200 SF

December Peak Day Demand Impact
Occupancy Sensor Pack-200 SF

Monthly Total Fossil Fuel Impact
Occupancy Sensor Pack-200 SF

December Peak Day Demand Profile
Occupancy Sensor Pack-200 SF

Measure ID	KRNE8512			Occupancy Sensor Pack-200 SF	
Base ID	KRNE7000			Base Case-Standard	
Market Segment					
Building Type	Kauai-Resort			Vintage	New
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.2945	Measure Life (Yrs)	3	Mutual Exclusivity	No
Potential Market	100.0%	Modified Market	100.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.041	0.8	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.006	0.4			
Indoor Lighting	0.227	6.2			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.274	1.6	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	November	Weekday	2 PM - 3 PM	0.09	4.6
Minimum Impact	April	Weekday	5 AM - 6 AM	0.01	0.5
System Coincident	December	Weekday	4 PM - 5 PM	0.04	1.9

Monthly Total Electricity Impact
Occupancy Sensor Pack-200 SF

December Peak Day Demand Impact
Occupancy Sensor Pack-200 SF

Monthly Total Fossil Fuel Impact
Occupancy Sensor Pack-200 SF

December Peak Day Demand Profile
Occupancy Sensor Pack-200 SF

Measure ID	KRXE8515		VSD Chilled Water Loop Pump		
Base ID	KRXE7000		Base Case-Standard		
Market Segment					
Building Type	Kauai-Resort		Vintage	Existing	
Floor Area (sf)	±30900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0385	Measure Life (Yrs)	15	Mutual Exclusivity	No
Potential Market	26.0%	Modified Market	26.0%	Intra Action	Yes
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	kBtu/sf	% of Base
Cooling & Auxiliary	2.079	21.7	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	2.079	8.4	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	April	Weekday	1 PM - 2 PM	0.40	13.9
Minimum Impact	December	Weekday	8 PM - 9 PM	0.15	3.9
System Coincident	December	Weekday	4 PM - 5 PM	0.31	11.2

Measure ID	KRNE8515			VSD Chilled Water Loop Pump	
Base ID	KRNE7000			Base Case-Standard	
Market Segment					
Building Type	Kauai-Resort			Vintage	New
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.0191	Measure Life (Yrs)	15	Mutual Exclusivity	No
Potential Market	29.5%	Modified Market	29.5%	Intra Action	Yes
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.731	14.7	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.732	4.3	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	May	Weekday	2 PM - 3 PM	0.11	5.4
Minimum Impact	May	Weekday	5 PM - 6 PM	0.04	2.0
System Coincident	December	Weekday	4 PM - 5 PM	0.08	4.4

Monthly Total Electricity Impact
VSD Chilled Water Loop Pump

December Peak Day Demand Impact
VSD Chilled Water Loop Pump

Monthly Total Fossil Fuel Impact
VSD Chilled Water Loop Pump

December Peak Day Demand Profile
VSD Chilled Water Loop Pump

Measure ID	KRXE8517		Energy Management System		
Base ID	KRXE7617		Base Case For EMS		
Market Segment					
Building Type	Kauai-Resort		Vintage	Existing	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$1.1600	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	2.7%	Modified Market	34.1%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	2.037	20.8	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.002	0.1	Misc. Equipment	0.000	0.0
Ventilation	0.002	0.1			
Indoor Lighting	0.104	2.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	2.145	8.6	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	September	Weekday	9 PM - 10 PM	0.38	9.9
Minimum Impact	August	Weekday	1 PM - 2 PM	0.15	4.8
System Coincident	December	Weekday	4 PM - 5 PM	0.23	8.2

Monthly Total Electricity Impact
Energy Management System

December Peak Day Demand Impact
Energy Management System

Monthly Total Fossil Fuel Impact
Energy Management System

December Peak Day Demand Profile
Energy Management System

Measure ID	KRNE8517		Energy Management System		
Base ID	KRNE7617		Base Case For EMS		
Market Segment					
Building Type	Kauai-Resort		Vintage	New	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.7500	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	82.7%	Modified Market	38.8%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.996	16.7	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	-0.003	-0.2			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.993	5.5	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	August	Weekday	8 PM - 9 PM	0.17	5.7
Minimum Impact	August	Weekday	4 PM - 5 PM	0.05	2.4
System Coincident	December	Weekday	4 PM - 5 PM	0.12	5.9

Measure ID	KRXE8518		Duct Insulation Material		
Base ID	KRXE7000		Base Case-Standard		
Market Segment					
Building Type	Kauai-Resort		Vintage	Existing	
Floor Area (sf)	130900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0062	Measure Life (Yrs)	15	Mutual Exclusivity	No
Potential Market	22.0%	Modified Market	22.0%	Intra Action	Yes
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.437	4.6	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.437	1.8	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	August	Weekday	10 PM - 11 PM	0.16	4.4
Minimum Impact	January	Weekday	5 AM - 6 AM	0.02	1.2
System Coincident	December	Weekday	4 PM - 5 PM	0.04	1.4

Measure ID	KRNE8518		Duct Insulation Material		
Base ID	KRNE7000		Base Case-Standard		
Market Segment					
Building Type	Kauai-Resort			Vintage	New
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0020	Measure Life (Yrs)	15	Mutual Exclusivity	No
Potential Market	60.0%	Modified Market	60.0%	Intra Action	Yes
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.075	1.5	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	-0.006	-0.4			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.069	0.4	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	May	Weekday	2 PM - 3 PM	0.03	1.4
Minimum Impact	September	Weekday	4 PM - 5 PM	-0.04	-2.1
System Coincident	December	Weekday	4 PM - 5 PM	-0.00	-0.1

Monthly Total Electricity Impact
Duct Insulation Material

December Peak Day Demand Impact
Duct Insulation Material

Monthly Total Fossil Fuel Impact
Duct Insulation Material

December Peak Day Demand Profile
Duct Insulation Material

Measure ID	KRXE8519		Variable Air Volume Box		
Base ID	KRXE7000		Base Case-Standard		
Market Segment					
Building Type	Kauai-Resort		Vintage	Existing	
Floor Area (sf)	±30900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.1572	Measure Life (Yrs)	15	Mutual Exclusivity	No
Potential Market	33.8%	Modified Market	33.8%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.801	8.4	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.801	3.2	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	August	Weekday	10 PM - 11 PM	0.22	6.1
Minimum Impact	September	Weekday	8 PM - 9 PM	0.03	0.7
System Coincident	December	Weekday	4 PM - 5 PM	0.16	5.5

Monthly Total Electricity Impact
Variable Air Volume Box

December Peak Day Demand Impact
Variable Air Volume Box

Monthly Total Fossil Fuel Impact
Variable Air Volume Box

December Peak Day Demand Profile
Variable Air Volume Box

Measure ID	KRXE8522		Hot Water Circulation Pump Timeclock		
Base ID	KRXE7000		Base Case-Standard		
Market Segment					
Building Type	Kauai-Resort		Vintage	Existing	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.0022	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	9.0%	Modified Market	3.7%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.044	0.5	Cooling	0.000	NA
Water Heating	0.119	8.1	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.164	0.7	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	March	Weekday	2 AM - 3 AM	0.08	3.4
Minimum Impact	NA	Weekday	NA	0.00	NA
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.0

Monthly Total Electricity Impact
Hot Water Circulation Pump Timeclock

December Peak Day Demand Impact
Hot Water Circulation Pump Timeclock

Monthly Total Fossil Fuel Impact
Hot Water Circulation Pump Timeclock

December Peak Day Demand Profile
Hot Water Circulation Pump Timeclock

Measure ID	KRXO8522			Hot Water Circulation Pump Timeclock	
Base ID	KRXO7000			Base Case-Standard	
Market Segment					
Building Type	Kauai-Resort			Vintage	Existing
Floor Area (sf)	±30900	Water Heater Fuel	Oil	Cost Unit	Building square foot
First Cost (\$/unit)	NA	Measure Life (Yrs)	NA	Mutual Exclusivity	NA
Potential Market	NA	Modified Market	NA	Intra Action	NA
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.044	0.5	Cooling	0.000	NA
Water Heating	0.000	NA	Water Heating	0.534	5.2
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.044	0.2	Total	0.534	4.8
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	October	Weekday	5 AM - 6 AM	0.02	1.0
Minimum Impact	NA	Weekday	NA	0.00	NA
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.0

Measure ID	KRNE8522		Hot Water Circulation Pump Timeclock		
Base ID	KRNE7000		Base Case-Standard		
Market Segment					
Building Type	Kauai-Resort		Vintage	New	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.0022	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	20.0%	Modified Market	3.3%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.044	0.9	Cooling	0.000	NA
Water Heating	0.117	8.5	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.161	0.9	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	March	Weekday	4 AM - 5 AM	0.08	5.1
Minimum Impact	NA	Weekday	NA	0.00	NA
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.0

Monthly Total Electricity Impact
Hot Water Circulation Pump Timeclock

December Peak Day Demand Impact
Hot Water Circulation Pump Timeclock

Monthly Total Fossil Fuel Impact
Hot Water Circulation Pump Timeclock

December Peak Day Demand Profile
Hot Water Circulation Pump Timeclock

Measure ID	KRNO8522		Hot Water Circulation Pump Timeclock		
Base ID	KRNO7000		Base Case-Standard		
Market Segment					
Building Type	Kauai-Resort		Vintage	New	
Floor Area (sf)	430900	Water Heater Fuel	Oil	Cost Unit	Building square foot
First Cost (\$/unit)	NA	Measure Life (Yrs)	NA	Mutual Exclusivity	NA
Potential Market	NA	Modified Market	NA	Intra Action	NA
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.044	0.9	Cooling	0.000	NA
Water Heating	0.000	NA	Water Heating	0.506	6.6
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.044	0.3	Total	0.506	5.9
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	November	Weekday	6 AM - 7 AM	0.02	1.6
Minimum Impact	NA	Weekday	NA	0.00	NA
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.0

Monthly Total Electricity Impact
Hot Water Circulation Pump Timeclock

December Peak Day Demand Impact
Hot Water Circulation Pump Timeclock

Monthly Total Fossil Fuel Impact
Hot Water Circulation Pump Timeclock

December Peak Day Demand Profile
Hot Water Circulation Pump Timeclock

Measure ID	KRXE8524		Active Solar Water Heating		
Base ID	KRXE7000		Base Case-Standard		
Market Segment					
Building Type	Kauai-Resort			Vintage	Existing
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.4641	Measure Life (Yrs)	14	Mutual Exclusivity	Yes
Potential Market	50.6%	Modified Market	20.9%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.000	0.0	Cooling	0.000	NA
Water Heating	0.708	48.3	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.710	2.9	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	March	Weekday	6 PM - 7 PM	0.33	9.4
Minimum Impact	September	Weekday	11 PM - Midnight	-0.00	-0.0
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.1

Monthly Total Electricity Impact
Active Solar Water Heating

December Peak Day Demand Impact
Active Solar Water Heating

Monthly Total Fossil Fuel Impact
Active Solar Water Heating

December Peak Day Demand Profile
Active Solar Water Heating

Measure ID	KRXO8524		Active Solar Water Heating		
Base ID	KRXO7000		Base Case-Standard		
Market Segment					
Building Type	Kauai-Resort			Vintage	Existing
Floor Area (sf)	430900	Water Heater Fuel	Oil	Cost Unit	Building square foot
First Cost (\$/unit)	NA	Measure Life (Yrs)	NA	Mutual Exclusivity	NA
Potential Market	NA	Modified Market	NA	Intra Action	NA
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.000	0.0	Cooling	0.000	NA
Water Heating	-0.006	NA	Water Heating	6.324	61.5
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	-0.004	-0.0	Total	6.325	57.1
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	September	Weekday	1 AM - 2 AM	0.01	0.5
Minimum Impact	May	Weekday	4 PM - 5 PM	-0.00	-0.1
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.0

Measure ID	KRNE8524		Active Solar Water Heating		
Base ID	KRNE7000		Base Case-Standard		
Market Segment					
Building Type	Kauai-Resort			Vintage	New
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.4641	Measure Life (Yrs)	14	Mutual Exclusivity	Yes
Potential Market	56.0%	Modified Market	23.1%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	kWh/sf	% of Base	End-Use	kBtu/sf	% of Base
Cooling & Auxiliary	0.000	0.0	Cooling	0.000	NA
Water Heating	0.617	44.9	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.618	3.6	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	March	Weekday	6 PM - 7 PM	0.31	12.5
Minimum Impact	September	Weekday	11 PM - Midnight	-0.01	-0.4
System Coincident	December	Weekday	4 PM - 5 PM	-0.01	-0.4

Monthly Total Electricity Impact
Active Solar Water Heating

December Peak Day Demand Impact
Active Solar Water Heating

Monthly Total Fossil Fuel Impact
Active Solar Water Heating

December Peak Day Demand Profile
Active Solar Water Heating

Measure ID	KRNO8524		Active Solar Water Heating		
Base ID	KRNO7000		Base Case-Standard		
Market Segment					
Building Type	Kauai-Resort		Vintage	New	
Floor Area (sf)	±30900	Water Heater Fuel	Oil	Cost Unit	Building square foot
First Cost (\$/unit)	NA	Measure Life (Yrs)	NA	Mutual Exclusivity	NA
Potential Market	NA	Modified Market	NA	Intra Action	NA
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.000	0.0	Cooling	0.000	NA
Water Heating	-0.006	NA	Water Heating	3.766	48.8
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	-0.005	-0.0	Total	3.766	44.2
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	December	Weekday	1 AM - 2 AM	0.01	0.6
Minimum Impact	August	Weekday	4 PM - 5 PM	-0.00	-0.1
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.0

Measure ID	KRXE8541			High Efficiency Centrifugal Chiller	
Base ID	KRXE7000			Base Case-Standard	
Market Segment					
Building Type	Kauai-Resort			Vintage	Existing
Floor Area (sf)	130900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0332	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	46.8%	Modified Market	9.7%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	1.476	15.4	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000				
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	1.476	6.0	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	July	Weekday	9 PM - 10 PM	0.31	8.0
Minimum Impact	January	Weekday	5 AM - 6 AM	0.07	4.0
System Coincident	December	Weekday	4 PM - 5 PM	0.16	5.8

Monthly Total Electricity Impact
High Efficiency Centrifugal Chiller

December Peak Day Demand Impact
High Efficiency Centrifugal Chiller

Monthly Total Fossil Fuel Impact
High Efficiency Centrifugal Chiller

December Peak Day Demand Profile
High Efficiency Centrifugal Chiller

Measure ID	KRNE8541		High Efficiency Centrifugal Chiller		
Base ID	KRNE7000		Base Case-Standard		
Market Segment					
Building Type	Kauai-Resort			Vintage	New
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0272	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	53.1%	Modified Market	11.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.398	3.0	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.398	2.3	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	September	Weekday	8 PM - 9 PM	0.10	3.5
Minimum Impact	January	Weekday	5 AM - 6 AM	0.02	1.6
System Coincident	December	Weekday	4 PM - 5 PM	0.04	1.9

Monthly Total Electricity Impact
High Efficiency Centrifugal Chiller

December Peak Day Demand Impact
High Efficiency Centrifugal Chiller

Monthly Total Fossil Fuel Impact
High Efficiency Centrifugal Chiller

December Peak Day Demand Profile
High Efficiency Centrifugal Chiller

Measure ID	KRXE8542	VSD Centrifugal Chiller
Base ID	KRXE7000	Base Case-Standard

Market Segment					
Building Type	Kauai-Resort			Vintage	Existing
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.1886	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	26.0%	Modified Market	5.4%	Intra Action	No

Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.900	9.4	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.900	3.6	Total	0.000	0.0

Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	February	Weekday	6 AM - 7 AM	0.15	6.4
Minimum Impact	December	Weekday	11 AM - Noon	0.03	1.0
System Coincident	December	Weekday	4 PM - 5 PM	0.15	5.2

Monthly Total Electricity Impact
VSD Centrifugal Chiller

December Peak Day Demand Impact
VSD Centrifugal Chiller

Monthly Total Fossil Fuel Impact
VSD Centrifugal Chiller

December Peak Day Demand Profile
VSD Centrifugal Chiller

Measure ID	KRNE8542		VSD Centrifugal Chiller		
Base ID	KRNE7000		Base Case-Standard		
Market Segment					
Building Type	Kauai-Resort		Vintage	New	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.1543	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	29.5%	Modified Market	6.1%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.534	10.8	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.534	3.1	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	March	Weekday	9 AM - 10 AM	0.11	5.0
Minimum Impact	August	Weekday	2 PM - 3 PM	0.02	0.7
System Coincident	December	Weekday	4 PM - 5 PM	0.05	2.4

Measure ID	KRXE8544		Chiller Strainer Cycle		
Base ID	KRXE7000		Base Case-Standard		
Market Segment					
Building Type	Kauai-Resort		Vintage	Existing	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.1561	Measure Life (Yrs)	20	Mutual Exclusivity	No
Potential Market	20.8%	Modified Market	20.8%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	1.814	19.0	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	1.814	7.4	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	January	Weekday	3 AM - 4 AM	0.36	18.6
Minimum Impact	January	Weekday	2 PM - 3 PM	0.10	3.6
System Coincident	December	Weekday	4 PM - 5 PM	0.23	8.2

Measure ID	KRNE8544		Chiller Strainer Cycle		
Base iD	KRNE7000		Base Case-Standard		
Market Segment					
Building Type	Kauai-Resort		Vintage	New	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.1278	Measure Life (Yrs)	20	Mutual Exclusivity	No
Potential Market	15.3%	Modified Market	15.3%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.018	0.4	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.018	0.1	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	January	Weekday	5 AM - 6 AM	0.16	12.4
Minimum Impact	NA	Weekday	NA	0.00	NA
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.0

Measure ID	KRXE8545		Chilled Water Reset Controls		
Base ID	KRXE7000		Base Case-Standard		
Market Segment					
Building Type	Kauai-Resort		Vintage	Existing	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.0011	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	20.8%	Modified Market	9.8%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	kWh/sf	% of Base	End-Use	kBtu/sf	% of Base
Cooling & Auxiliary	1.781	18.6	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	1.781	7.2	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	September	Weekday	9 PM - 10 PM	0.35	9.3
Minimum Impact	January	Weekday	5 AM - 6 AM	0.07	3.9
System Coincident	December	Weekday	4 PM - 5 PM	0.23	8.2

Monthly Total Electricity Impact
Chilled Water Reset Controls

December Peak Day Demand Impact
Chilled Water Reset Controls

Monthly Total Fossil Fuel Impact
Chilled Water Reset Controls

December Peak Day Demand Profile
Chilled Water Reset Controls

Measure ID	KRXE8546		Chiller Optimizer Controls		
Base ID	KRXE7646		Base Case for Chiller Optimizer		
Market Segment					
Building Type	Kauai-Resort		Vintage	Existing	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0355	Measure Life (Yrs)	20	Mutual Exclusivity	No
Potential Market	20.8%	Modified Market	20.8%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	2.020	20.6	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	2.020	8.1	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	September	Weekday	9 PM - 10 PM	0.35	9.3
Minimum Impact	August	Weekday	1 PM - 2 PM	0.15	4.8
System Coincident	December	Weekday	4 PM - 5 PM	0.23	8.2

Measure ID	KRNE8546		Chiller Optimizer Controls		
Base ID	KRNE7646		Base Case for Chiller Optimizer		
Market Segment					
Building Type	Kauai-Resort			Vintage	New
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0355	Measure Life (Yrs)	20	Mutual Exclusivity	No
Potential Market	15.3%	Modified Market	15.3%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.587	10.6	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.587	3.3	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	January	Weekday	5 AM - 6 AM	0.14	9.7
Minimum Impact	NA	Weekday	NA	0.00	NA
System Coincident	December	Weekday	4 PM - 5 PM	0.10	4.8

Measure ID	KRXE8547		Thermal Energy Storage-Ice On Coil		
Base ID	KRXE7000		Base Case-Standard		
Market Segment					
Building Type	Kauai-Resort		Vintage	Existing	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$2.5200	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	11.2%	Modified Market	2.3%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.155	1.6	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.155	0.6	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	January	Weekday	4 PM - 5 PM	0.83	29.6
Minimum Impact	January	Weekday	4 AM - 5 AM	-0.74	-39.2
System Coincident	December	Weekday	4 PM - 5 PM	0.08	2.9

Measure ID	KRNE8547		Thermal Energy Storage-Ice On Coil		
Base ID	KRNE7000		Base Case-Standard		
Market Segment					
Building Type	Kauai-Resort			Vintage	New
Floor Area (sf)	130900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	52.5200	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	37.5%	Modified Market	7.8%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	-2.067	-41.7	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	-2.067	-12.1	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	September	Weekday	8 PM - 9 PM	0.82	29.5
Minimum Impact	January	Weekday	Midnight - 1 AM	-1.31	-91.5
System Coincident	December	Weekday	4 PM - 5 PM	0.32	16.8

Measure ID	KRXE8548			Cooling Tower Propeller Fans	
Base ID	KRXE7648			Base Case For Cooling Tower Prop Fans	
Market Segment					
Building Type	Kauai-Resort			Vintage	Existing
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.0003	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	18.2%	Modified Market	3.2%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.278	2.8	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.278	1.1	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	July	Weekday	9 AM - 10 AM	0.07	1.9
Minimum Impact	January	Weekday	5 AM - 6 AM	0.00	0.2
System Coincident	December	Weekday	4 PM - 5 PM	0.05	1.6

Measure ID	KRNE8548			Cooling Tower Propeller Fans	
Base ID	KRNE7648			Base Case For Cooling Tower Prop Fans	
Market Segment					
Building Type	Kauai-Resort			Vintage	New
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.0002	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	20.7%	Modified Market	3.7%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.164	3.2	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.164	1.0	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	September	Weekday	8 AM - 9 AM	0.05	1.9
Minimum Impact	January	Weekday	5 AM - 6 AM	0.00	0.1
System Coincident	December	Weekday	4 PM - 5 PM	0.02	1.1

Monthly Total Electricity Impact
Cooling Tower Propeller Fans

December Peak Day Demand Impact
Cooling Tower Propeller Fans

Monthly Total Fossil Fuel Impact
Cooling Tower Propeller Fans

December Peak Day Demand Profile
Cooling Tower Propeller Fans

Measure ID	KRXE8549		Two-Speed Cooling Tower Fans		
Base ID	KRXE7000		Base Case-Standard		
Market Segment					
Building Type	Kauai-Resort		Vintage	Existing	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0044	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	18.2%	Modified Market	3.2%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.090	0.9	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.090	0.4	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	February	Weekday	2 AM - 3 AM	0.02	0.7
Minimum Impact	July	Weekday	9 AM - 10 AM	0.00	0.0
System Coincident	December	Weekday	4 PM - 5 PM	0.01	0.3

Monthly Total Electricity Impact
Two-Speed Cooling Tower Fans

December Peak Day Demand Impact
Two-Speed Cooling Tower Fans

Monthly Total Fossil Fuel Impact
Two-Speed Cooling Tower Fans

December Peak Day Demand Profile
Two-Speed Cooling Tower Fans

Measure ID	KRNE8549		Two-Speed Cooling Tower Fans		
Base ID	KRNE7000		Base Case-Standard		
Market Segment					
Building Type	Kauai-Resort			Vintage	New
Floor Area (sf)	±30900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0035	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	20.7%	Modified Market	3.7%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.069	1.4	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.069	0.4	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	July	Weekday	6 PM - 7 PM	0.01	0.6
Minimum Impact	January	Weekday	5 AM - 6 AM	0.00	0.0
System Coincident	December	Weekday	4 PM - 5 PM	0.01	0.7

Measure ID	KRXE8550		VSD Cooling Tower Fans		
Base ID	KRXE7000		Base Case-Standard		
Market Segment					
Building Type	Kauai-Resort		Vintage	Existing	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.3529	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	18.2%	Modified Market	3.2%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.137	1.4	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.137	0.6	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	June	Weekday	Midnight - 1 AM	0.02	0.9
Minimum Impact	July	Weekday	9 AM - 10 AM	0.00	0.0
System Coincident	December	Weekday	4 PM - 5 PM	0.02	0.7

Measure ID	KRNE8550			VSD Cooling Tower Fans	
Base ID	KRNE7000			Base Case-Standard	
Market Segment					
Building Type	Kauai-Resort			Vintage	New
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.2819	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	20.7%	Modified Market	3.7%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.083	1.7	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.083	0.5	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	February	Weekday	8 PM - 9 PM	0.02	0.7
Minimum Impact	January	Weekday	5 AM - 6 AM	0.00	0.0
System Coincident	December	Weekday	4 PM - 5 PM	0.01	0.7

Monthly Total Electricity Impact
VSD Cooling Tower Fans

December Peak Day Demand Impact
VSD Cooling Tower Fans

Monthly Total Fossil Fuel Impact
VSD Cooling Tower Fans

December Peak Day Demand Profile
VSD Cooling Tower Fans

Measure ID	KRXE8551		Waste Heat Recovery		
Base ID	KRXE7000		Base Case-Standard		
Market Segment					
Building Type	Kauai-Resort		Vintage	Existing	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.3771	Measure Life (Yrs)	10	Mutual Exclusivity	Yes
Potential Market	15.0%	Modified Market	3.1%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	-0.673	-7.0	Cooling	0.000	NA
Water Heating	0.898	61.2	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.225	0.9	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	January	Weekday	8 AM - 9 AM	0.22	8.0
Minimum Impact	February	Weekday	2 AM - 3 AM	-0.08	-3.6
System Coincident	December	Weekday	4 PM - 5 PM	-0.03	-1.1

Measure ID	KRNE8551		Waste Heat Recovery		
Base ID	KRNE7000		Base Case-Standard		
Market Segment					
Building Type	Kauai-Resort			Vintage	New
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.3087	Measure Life (Yrs)	10	Mutual Exclusivity	Yes
Potential Market	37.5%	Modified Market	7.8%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	-0.823	-16.6	Cooling	0.000	NA
Water Heating	0.880	64.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.057	0.3	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	February	Weekday	8 AM - 9 AM	0.18	7.8
Minimum Impact	January	Weekday	5 AM - 6 AM	-0.12	-9.1
System Coincident	December	Weekday	4 PM - 5 PM	0.02	0.9

Measure ID	KRXE8552			Compact Fluorescent Lamp EXIT Signs	
Base ID	KRXE7000			Base Case-Standard	
Market Segment					
Building Type	Kauai-Resort			Vintage	Existing
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0109	Measure Life (Yrs)	16	Mutual Exclusivity	No
Potential Market	90.0%	Modified Market	90.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	kWh/sf	% of Base	End-Use	kBtu/sf	% of Base
Cooling & Auxiliary	0.021	0.2	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.005	0.2			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.106	0.4	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	February	Weekday	2 AM - 3 AM	0.05	2.4
Minimum Impact	September	Weekday	9 PM - 10 PM	0.01	0.3
System Coincident	December	Weekday	4 PM - 5 PM	0.01	0.4

Measure ID	KRNE8552		Compact Fluorescent Lamp EXIT Signs		
Base ID	KRNE7000		Base Case-Standard		
Market Segment					
Building Type	Kauai-Resort		Vintage	New	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0026	Measure Life (Yrs)	16	Mutual Exclusivity	No
Potential Market	75.0%	Modified Market	75.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.014	0.3	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.003	0.2			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.097	0.6	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	May	Weekday	2 PM - 3 PM	0.04	2.0
Minimum Impact	July	Weekday	7 AM - 8 AM	0.01	0.4
System Coincident	December	Weekday	4 PM - 5 PM	0.01	0.6

Monthly Total Electricity Impact
Compact Fluorescent Lamp EXIT Signs

December Peak Day Demand Impact
Compact Fluorescent Lamp EXIT Signs

Monthly Total Fossil Fuel Impact
Compact Fluorescent Lamp EXIT Signs

December Peak Day Demand Profile
Compact Fluorescent Lamp EXIT Signs

Measure ID	KRXE8553		LED Lamp EXIT Signs		
Base ID	KRXE7000		Base Case-Standard		
Market Segment					
Building Type	Kauai-Resort			Vintage	Existing
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0361	Measure Life (Yrs)	16	Mutual Exclusivity	Yes
Potential Market	90.0%	Modified Market	49.1%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.034	0.4	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.008	0.3			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.171	0.7	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	February	Weekday	2 AM - 3 AM	0.06	2.7
Minimum Impact	September	Weekday	9 PM - 10 PM	0.02	0.4
System Coincident	December	Weekday	4 PM - 5 PM	0.02	0.6

Monthly Total Electricity Impact
LED Lamp EXIT Signs

December Peak Day Demand Impact
LED Lamp EXIT Signs

Monthly Total Fossil Fuel Impact
LED Lamp EXIT Signs

December Peak Day Demand Profile
LED Lamp EXIT Signs

Measure ID	KRNE8553			LED Lamp EXIT Signs	
Base ID	KRNE7000			Base Case-Standard	
Market Segment					
Building Type	Kauai-Resort			Vintage	New
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.0189	Measure Life (Yrs)	16	Mutual Exclusivity	Yes
Potential Market	75.0%	Modified Market	40.9%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.023	0.5	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.004	0.3			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.156	0.9	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	May	Weekday	2 PM - 3 PM	0.05	2.3
Minimum Impact	January	Weekday	3 AM - 4 AM	0.02	1.2
System Coincident	December	Weekday	4 PM - 5 PM	0.02	0.9

Measure ID	KRXE8557		Optical Reflectors-2X4 Recessed		
Base ID	KRXE7000		Base Case-Standard		
Market Segment					
Building Type	Kauai-Resort			Vintage	Existing
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0774	Measure Life (Yrs)	16	Mutual Exclusivity	No
Potential Market	50.0%	Modified Market	50.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.190	2.0	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.040	1.5			
Indoor Lighting	0.543	10.5			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.773	3.1	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	February	Weekday	6 PM - 7 PM	0.15	4.3
Minimum Impact	January	Weekday	5 AM - 6 AM	0.05	2.7
System Coincident	December	Weekday	4 PM - 5 PM	0.10	3.7

Measure ID	KRNE8557		Optical Reflectors-2X4 Recessed		
Base ID	KRNE7000		Base Case-Standard		
Market Segment					
Building Type	Kauai-Resort			Vintage	New
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0778	Measure Life (Yrs)	16	Mutual Exclusivity	No
Potential Market	100.0%	Modified Market	100.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.107	2.2	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.022	1.4			
Indoor Lighting	0.437	11.9			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.565	3.3	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	November	Weekday	2 PM - 3 PM	0.14	6.9
Minimum Impact	January	Weekday	5 AM - 6 AM	0.03	2.5
System Coincident	December	Weekday	4 PM - 5 PM	0.08	4.4

Monthly Total Electricity Impact
Optical Reflectors-2X4 Recessed

December Peak Day Demand Impact
Optical Reflectors-2X4 Recessed

Monthly Total Fossil Fuel Impact
Optical Reflectors-2X4 Recessed

December Peak Day Demand Profile
Optical Reflectors-2X4 Recessed

Measure ID	KRXE8558		8' Fluor. Energy Saver Lamps-F96T12ES		
Base ID	KRXE7000		Base Case-Standard		
Market Segment					
Building Type	Kauai-Resort		Vintage	Existing	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.0002	Measure Life (Yrs)	5	Mutual Exclusivity	No
Potential Market	70.0%	Modified Market	70.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.010	0.1	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.004	0.2			
Indoor Lighting	0.023	0.4			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.037	0.1	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	July	Weekday	9 AM - 10 AM	0.01	0.2
Minimum Impact	September	Weekday	9 PM - 10 PM	0.00	0.1
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.1

Measure ID	KRXE8559		Electronic Ballasts-8' T12-Base EEM		
Base ID	KRXE7000		Base Case-Standard		
Market Segment					
Building Type	Kauai-Resort			Vintage	Existing
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0065	Measure Life (Yrs)	16	Mutual Exclusivity	Yes
Potential Market	70.0%	Modified Market	29.2%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.008	0.1	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.004	0.1			
Indoor Lighting	0.019	0.4			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.030	0.1	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	July	Weekday	9 AM - 10 AM	0.01	0.1
Minimum Impact	September	Weekday	9 PM - 10 PM	0.00	0.0
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.1

Measure ID	KRNE8559			Electronic Ballasts-8' T12-Base EEM	
Base ID	KRNE7000			Base Case-Standard	
Market Segment					
Building Type	Kauai-Resort			Vintage	New
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0019	Measure Life (Yrs)	16	Mutual Exclusivity	Yes
Potential Market	100.0%	Modified Market	41.7%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.001	0.0	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.007	0.2			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.008	0.0	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	July	Weekday	8 AM - 9 AM	0.00	0.1
Minimum Impact	July	Weekday	7 AM - 8 AM	-0.00	-0.0
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.1

Measure ID	KRXE8560		Optical Reflectors-1X8 Fixtures		
Base ID	KRXE7000		Base Case-Standard		
Market Segment					
Building Type	Kauai-Resort			Vintage	Existing
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square root
First Cost (\$/unit)	50.0038	Measure Life (Yrs)	16	Mutual Exclusivity	No
Potential Market	70.0%	Modified Market	70.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.019	0.2	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.008	0.3			
Indoor Lighting	0.051	1.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.079	0.3	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	December	Weekday	10 AM - 11 AM	0.05	1.9
Minimum Impact	July	Weekday	9 PM - 10 PM	0.00	0.1
System Coincident	December	Weekday	4 PM - 5 PM	0.01	0.3

Monthly Total Electricity Impact
Optical Reflectors-1X8 Fixtures

December Peak Day Demand Impact
Optical Reflectors-1X8 Fixtures

Monthly Total Fossil Fuel Impact
Optical Reflectors-1X8 Fixtures

December Peak Day Demand Profile
Optical Reflectors-1X8 Fixtures

Measure ID	KRNE8560		Optical Reflectors-1X8 Fixtures		
Base ID	KRNE7000		Base Case-Standard		
Market Segment					
Building Type	Kauai-Resort		Vintage	New	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0038	Measure Life (Yrs)	16	Mutual Exclusivity	No
Potential Market	100.0%	Modified Market	100.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.007	0.2	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.002	0.1			
Indoor Lighting	0.039	1.1			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.048	0.3	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	August	Weekday	3 PM - 4 PM	0.01	0.5
Minimum Impact	January	Weekday	4 AM - 5 AM	0.00	0.1
System Coincident	December	Weekday	4 PM - 5 PM	0.01	0.3

Monthly Total Electricity Impact
Optical Reflectors-1X8 Fixtures

December Peak Day Demand Impact
Optical Reflectors-1X8 Fixtures

Monthly Total Fossil Fuel Impact
Optical Reflectors-1X8 Fixtures

December Peak Day Demand Profile
Optical Reflectors-1X8 Fixtures

Measure ID	KRXE8561		Electronic Ballasts-4' T12-Base SMC		
Base ID	KRXE7661		Base Case for 4' Fluor. SMC Ballasts		
Market Segment					
Building Type	Kauai-Resort		Vintage	Existing	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0987	Measure Life (Yrs)	16	Mutual Exclusivity	Yes
Potential Market	70.0%	Modified Market	29.2%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.065	0.7	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.014	0.5			
Indoor Lighting	0.190	3.5			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.269	1.1	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	April	Weekday	6 PM - 7 PM	0.08	2.3
Minimum Impact	January	Weekday	5 AM - 6 AM	0.02	0.9
System Coincident	December	Weekday	4 PM - 5 PM	0.04	1.3

Measure ID	KRXE8562		Electronic Ballasts-8' T12-Base SMC		
Base ID	KRXE7662		Base Case for 8' Fluor. SMC Ballasts		
Market Segment					
Building Type	Kauai-Resort			Vintage	Existing
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.0056	Measure Life (Yrs)	16	Mutual Exclusivity	Yes
Potential Market	70.0%	Modified Market	29.2%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.004	0.0	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.002	0.1			
Indoor Lighting	0.009	0.2			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.015	0.1	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	July	Weekday	9 AM - 10 AM	0.00	0.1
Minimum Impact	August	Weekday	9 PM - 10 PM	0.00	0.0
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.1

Measure ID	KRXE8563		Compact Fluorescent Lamps-15W		
Base ID	KRXE7000		Base Case-Standard		
Market Segment					
Building Type	Kauai-Resort		Vintage	Existing	
Floor Area (sf)	130900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.2250	Measure Life (Yrs)	2	Mutual Exclusivity	No
Potential Market	90.3%	Modified Market	90.3%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.398	4.2	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.081	3.1			
Indoor Lighting	1.530	29.6			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	2.010	8.1	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	August	Weekday	10 PM - 11 PM	0.46	12.8
Minimum Impact	May	Weekday	5 AM - 6 AM	0.10	5.0
System Coincident	December	Weekday	4 PM - 5 PM	0.19	6.8

Monthly Total Electricity Impact
Compact Fluorescent Lamps-15W

December Peak Day Demand Impact
Compact Fluorescent Lamps-15W

Monthly Total Fossil Fuel Impact
Compact Fluorescent Lamps-15W

December Peak Day Demand Profile
Compact Fluorescent Lamps-15W

Measure ID	KRNE8563		Compact Fluorescent Lamps-15W		
Base ID	KRNE7000		Base Case-Standard		
Market Segment					
Building Type	Kauai-Resort		Vintage	New	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0677	Measure Life (Yrs)	2	Mutual Exclusivity	No
Potential Market	95.0%	Modified Market	95.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.091	1.8	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.022	1.4			
Indoor Lighting	0.528	14.4			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.641	3.7	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	November	Weekday	7 PM - 8 PM	0.13	5.6
Minimum Impact	July	Weekday	5 AM - 6 AM	-0.00	-0.3
System Coincident	December	Weekday	4 PM - 5 PM	0.07	3.6

Measure ID	KRXE8564		Compact Fluorescent Lamps-26W		
Base ID	KRXE7000		Base Case-Standard		
Market Segment					
Building Type	Kauai-Resort		Vintage	Existing	
Floor Area (sf)	±30900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.0254	Measure Life (Yrs)	5	Mutual Exclusivity	No
Potential Market	90.3%	Modified Market	90.3%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.046	0.5	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.277	5.3			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.322	1.3	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	February	Weekday	2 AM - 3 AM	0.08	3.6
Minimum Impact	September	Weekday	9 PM - 10 PM	0.03	0.8
System Coincident	December	Weekday	4 PM - 5 PM	0.03	1.2

Measure ID	KRNE8564		Compact Fluorescent Lamps-26W		
Base ID	KRNE7000		Base Case-Standard		
Market Segment					
Building Type	Kauai-Resort			Vintage	New
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0212	Measure Life (Yrs)	5	Mutual Exclusivity	No
Potential Market	95.0%	Modified Market	95.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.030	0.6	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	-0.000	-0.0			
Indoor Lighting	0.236	6.5			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.266	1.6	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	November	Weekday	2 PM - 3 PM	0.08	4.1
Minimum Impact	May	Weekday	1 PM - 2 PM	0.03	1.3
System Coincident	December	Weekday	4 PM - 5 PM	0.03	1.4

Measure ID	KRXE8565		HID Interior Spots-70W		
Base ID	KRXE7000		Base Case-Standard		
Market Segment					
Building Type	Kauai-Resort			Vintage	Existing
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.0606	Measure Life (Yrs)	16	Mutual Exclusivity	No
Potential Market	50.0%	Modified Market	50.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.123	1.3	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.078	3.0			
Indoor Lighting	0.338	6.5			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.539	2.2	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	April	Weekday	2 PM - 3 PM	0.12	4.3
Minimum Impact	January	Weekday	5 AM - 6 AM	0.04	2.2
System Coincident	December	Weekday	4 PM - 5 PM	0.07	2.5

Monthly Total Electricity Impact
HID Interior Spots-70W

December Peak Day Demand Impact
HID Interior Spots-70W

Monthly Total Fossil Fuel Impact
HID Interior Spots-70W

December Peak Day Demand Profile
HID Interior Spots-70W

Measure ID	KRNE8565		HID Interior Spots-70W		
Base ID	KRNE7000		Base Case-Standard		
Market Segment					
Building Type	Kauai-Resort			Vintage	New
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.0606	Measure Life (Yrs)	16	Mutual Exclusivity	No
Potential Market	50.0%	Modified Market	50.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.033	0.7	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.014	0.9			
Indoor Lighting	0.135	3.7			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.182	1.1	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	July	Weekday	8 AM - 9 AM	0.03	1.1
Minimum Impact	January	Weekday	4 AM - 5 AM	0.01	1.0
System Coincident	December	Weekday	4 PM - 5 PM	0.03	1.4

Monthly Total Electricity Impact
HID Interior Spots-70W

December Peak Day Demand Impact
HID Interior Spots-70W

Monthly Total Fossil Fuel Impact
HID Interior Spots-70W

December Peak Day Demand Profile
HID Interior Spots-70W

DETAILED MEASURE IMPACTS-SUMMARY REPORTS

This section contains the detailed measure impact results and market segment data for each DSM case examined for this building type. A complete index of all base and measure cases defined for this building type is shown first. This index represents an expansion of the base and measure matrix presented in Table 1 (residential) or Table 2 (commercial) for the applicable sector. Following this index, a summary report sheet is provided for each DSM measure case in the order shown in the index. The summary report sheet contains a host of information and selected graphs which define and depict the measure impacts and outline the market segment data assumptions utilized for each case in the DBEDT DSM Forecasting models. The variables and figures included in the summary report sheet are described below.

Measure ID: The eight-character alpha-numeric code used to define the measure case. This ID is composed of the 2-letter building code + the 1-letter vintage code + the 1-letter water heater fuel type code + the 4-digit numeric code used to define the base or measure case.

Measure Description: A brief (no more than 38-character) definition of the DSM measure

Base ID: Similar to the Measure ID, this code denotes the base case to which the measure case is compared in order to estimate the measure impacts.

Base Description: Similar to the Measure Description, a brief description of the base case. This description helps to determine if a modified base case was defined to estimate measure impacts.

Market Segment. This section of the summary report sheet contains the market segment data defined for each measure. These are:

Building Type:	The building type to which this measure applies.
Vintage:	The vintage of the building (new or existing).
Floor Area (sf):	The gross floor area of the building in square feet.
Water Heater Fuel:	The fuel type utilized for domestic or service water heating (Gas, Electric, or Oil).
Cost Unit:	The unit of measure utilized to describe the measure cost.
First Cost (\$/unit):	The installed capital cost for the measure in dollars per Cost Unit (93 dollars).
Measure Life (Yrs):	The measure life in years.
Mutual Exclusivity:	A Yes/No entry which denotes if mutual exclusivity considerations apply to this measure. A Yes entry indicates that this measure is mutually exclusive with one or more measures pertaining to this building type, thereby modifying the potential market share available.
Potential Market:	The maximum market share available for this measure. This includes consideration of measure applicability, measure feasibility, and remaining market share for existing vintages.
Modified Market:	The maximum market share available for this measure accounting for mutual exclusivity.
Intra Action:	A Yes/No entry which denotes if intra active considerations apply to this measure. A Yes entry indicates that this measure is intra active with one or more measures if applied as a group to this building type. The total impact in a particular end-use for a group of measures with intra active effects is not the same as the summation of the individual measure impacts. An incremental measure impact reduction is implied, based on the measure loading order.

Annual Energy Impacts By End-Use. This section of the summary report contains the normalized measure impacts by end-use and for the total building by fuel type. Electricity impacts are shown in terms of kWh/square foot and as a percentage of the base case, while fossil fuel impacts are shown as kBtu/square foot and as a percentage of the base case for each end-use and for the total. The end-use impacts shown include:

Cooling (& Auxiliary) :	Space cooling and associated pumps and heat rejection energy (e.g., condensers or cooling tower).
Water Heating:	Storage or central domestic or service water heating system.
Misc. Equipment:	Miscellaneous equipment.
Ventilation:	Supply air fans for conditioning and exhaust air fans.
Indoor Lighting:	Interior lighting (not including EXIT signs).
Outdoor Lighting:	Exterior building lighting.
Central Refrigeration:	Commercial/Industrial refrigeration systems.
Total:	Total building energy use by fuel.

Total Building Peak Demand Impact: This section of the summary report provides peak demand impacts for each measure for selected peak events during the year. Three events are included, the maximum building peak demand impact, the minimum building peak demand impact, and a system coincident peak demand impact (set to December weekday at 4 to 5 PM). For each event the Month, Day Type, and Hour are shown, followed by the normalized total building peak demand impact in Watts/square foot and the percentage of the total base case represented by the impact.

Measure Impact Figures. Four figures are selected and included in each summary report to depict the impacts resulting from each measure. These are:

Monthly Total Electricity Impact: This figure shows the floor area normalized monthly electricity impacts associated with the measure in kWh/square foot.

Monthly Total Fossil Fuel Impact: This figure shows the floor area normalized monthly fossil fuel impacts associated with the measure in kBtu/square foot.

December Peak Day Demand Impact: This figure shows the (selected) system coincident peak day floor area normalized total building demand impact for the measure in Watts/square foot.

December Peak Day Demand Profile: This figure provides the daily total building load profile for the measure and base cases on the (selected) system coincident peak day in kW.

Commercial Hawaii-Resort Measure Index Table

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Cases: 79

Measure ID	Base ID	Measure Description	Primary End-Use	Floor Area
HRXE7000	HRXE7000	Base Case-Standard	NA	430900
HRXO7000	HRXO7000	Base Case-Standard	NA	430900
HRNE7000	HRNE7000	Base Case-Standard	NA	430900
HRNO7000	HRNO7000	Base Case-Standard	NA	430900
HRXE7617	HRXE7617	Base Case For EMS	NA	430900
HRNE7617	HRNE7617	Base Case For EMS	NA	430900
HRXE7646	HRXE7646	Base Case for Chiller Optimizer	NA	430900
HRNE7646	HRNE7646	Base Case for Chiller Optimizer	NA	430900
HRXE7648	HRXE7648	Base Case For Cooling Tower Prop Fans	NA	430900
HRNE7648	HRNE7648	Base Case For Cooling Tower Prop Fans	NA	430900
HRXE7661	HRXE7661	Base Case for 4' Fluor. SMC Ballasts	NA	430900
HRXE7662	HRXE7662	Base Case for 8' Fluor. SMC Ballasts	NA	430900
HRXE8501	HRXE7000	4' Fluor. Energy Saver Lamps-F40T12ES	Inlights	430900
HRXE8502	HRXE7000	Electronic Ballasts-4' T12-Base EEM	Inlights	430900
HRNE8502	HRNE7000	Electronic Ballasts-4' T12-Base EEM	Inlights	430900
HRXE8503	HRXE7000	4' T8 Lamps And Electronic Ballasts	Inlights	430900
HRNE8503	HRNE7000	4' T8 Lamps And Electronic Ballasts	Inlights	430900
HRXE8504	HRXE7000	Window Film Retrofit	Cooling	430900
HRNE8505	HRNE7000	Double Pane Heat Mirror Glazing	Cooling	430900
HRXE8509	HRXE7000	High Pressure Sodium-100 Watts	Exlights	430900
HRNE8509	HRNE7000	High Pressure Sodium-100 Watts	Exlights	430900
HRXE8510	HRXE7000	High Pressure Sodium-250 Watts	Exlights	430900
HRXE8511	HRXE7000	HID Exterior Floods-70 Watts	Exlights	430900
HRNE8511	HRNE7000	HID Exterior Floods-70 Watts	Exlights	430900
HRXE8512	HRXE7000	Occupancy Sensor Pack-200 SF	Inlights	430900
HRNE8512	HRNE7000	Occupancy Sensor Pack-200 SF	Inlights	430900
HRXE8515	HRXE7000	VSD Chilled Water Loop Pump	Cooling	430900
HRNE8515	HRNE7000	VSD Chilled Water Loop Pump	Cooling	430900
HRXE8517	HRXE7617	Energy Management System	Cooling	430900
HRNE8517	HRNE7617	Energy Management System	Cooling	430900
HRXE8518	HRXE7000	Duct Insulation Material	Cooling	430900
HRNE8518	HRNE7000	Duct Insulation Material	Cooling	430900
HRXE8519	HRXE7000	Variable Air Volume Box	Cooling	430900
HRXE8522	HRXE7000	Hot Water Circulation Pump Timeclock	Hotwater	430900
HRXO8522	HRXO7000	Hot Water Circulation Pump Timeclock	Hotwater	430900
HRNE8522	HRNE7000	Hot Water Circulation Pump Timeclock	Hotwater	430900
HRNO8522	HRNO7000	Hot Water Circulation Pump Timeclock	Hotwater	430900
HRXE8524	HRXE7000	Active Solar Water Heating	Hotwater	430900
HRXO8524	HRXO7000	Active Solar Water Heating	Hotwater	430900
HRNE8524	HRNE7000	Active Solar Water Heating	Hotwater	430900
HRNO8524	HRNO7000	Active Solar Water Heating	Hotwater	430900
HRXE8541	HRXE7000	High Efficiency Centrifugal Chiller	Cooling	430900
HRNE8541	HRNE7000	High Efficiency Centrifugal Chiller	Cooling	430900
HRXE8542	HRXE7000	VSD Centrifugal Chiller	Cooling	430900
HRNE8542	HRNE7000	VSD Centrifugal Chiller	Cooling	430900
HRXE8544	HRXE7000	Chiller Strainer Cycle	Cooling	430900
HRNE8544	HRNE7000	Chiller Strainer Cycle	Cooling	430900
HRXE8545	HRXE7000	Chilled Water Reset Controls	Cooling	430900
HRXE8546	HRXE7646	Chiller Optimizer Controls	Cooling	430900
HRNE8546	HRNE7646	Chiller Optimizer Controls	Cooling	430900
HRXE8547	HRXE7000	Thermal Energy Storage-Ice On Coil	Cooling	430900
HRNE8547	HRNE7000	Thermal Energy Storage-Ice On Coil	Cooling	430900
HRXE8548	HRXE7648	Cooling Tower Propeller Fans	Cooling	430900
HRNE8548	HRNE7648	Cooling Tower Propeller Fans	Cooling	430900
HRXE8549	HRXE7000	Two-Speed Cooling Tower Fans	Cooling	430900
HRNE8549	HRNE7000	Two-Speed Cooling Tower Fans	Cooling	430900
HRXE8550	HRXE7000	VSD Cooling Tower Fans	Cooling	430900
HRNE8550	HRNE7000	VSD Cooling Tower Fans	Cooling	430900

Commercial Hawaii-Resort Measure Index Table

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Cases: 79

Measure ID	Base ID	Measure Description	Primary End-Use	Floor Area
HRXE8551	HRXE7000	Waste Heat Recovery	Hotwater	430900
HRNE8551	HRNE7000	Waste Heat Recovery	Hotwater	430900
HRXE8552	HRXE7000	Compact Fluorescent Lamp EXIT Signs	Inlights	430900
HRNE8552	HRNE7000	Compact Fluorescent Lamp EXIT Signs	Inlights	430900
HRXE8553	HRXE7000	LED Lamp EXIT Signs	Inlights	430900
HRNE8553	HRNE7000	LED Lamp EXIT Signs	Inlights	430900
HRXE8557	HRXE7000	Optical Reflectors-2X4 Recessed	Inlights	430900
HRNE8557	HRNE7000	Optical Reflectors-2X4 Recessed	Inlights	430900
HRXE8558	HRXE7000	8' Fluor. Energy Saver Lamps-F96T12ES	Inlights	430900
HRXE8559	HRXE7000	Electronic Ballasts-8' T12-Base EEM	Inlights	430900
HRNE8559	HRNE7000	Electronic Ballasts-8' T12-Base EEM	Inlights	430900
HRXE8560	HRXE7000	Optical Reflectors-1X8 Fixtures	Inlights	430900
HRNE8560	HRNE7000	Optical Reflectors-1X8 Fixtures	Inlights	430900
HRXE8561	HRXE7661	Electronic Ballasts-4' T12-Base SMC	Inlights	430900
HRXE8562	HRXE7662	Electronic Ballasts-8' T12-Base SMC	Inlights	430900
HRXE8563	HRXE7000	Compact Fluorescent Lamps-15W	Inlights	430900
HRNE8563	HRNE7000	Compact Fluorescent Lamps-15W	Inlights	430900
HRXE8564	HRXE7000	Compact Fluorescent Lamps-26W	Inlights	430900
HRNE8564	HRNE7000	Compact Fluorescent Lamps-26W	Inlights	430900
HRXE8565	HRXE7000	HID Interior Spots-70W	Inlights	430900
HRNE8565	HRNE7000	HID Interior Spots-70W	Inlights	430900

Measure ID	HRXE8501		4' Fluor. Energy Saver Lamps-F40T12ES		
Base ID	HRXE7000		Base Case-Standard		
Market Segment					
Building Type	Hawaii-Resort		Vintage	Existing	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.0025	Measure Life (Yrs)	5	Mutual Exclusivity	Yes
Potential Market	70.0%	Modified Market	29.2%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.080	0.9	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.018	0.7			
Indoor Lighting	0.246	4.9			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.344	1.5	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	October	Weekday	7 PM - 8 PM	0.09	2.6
Minimum Impact	September	Weekday	5 AM - 6 AM	0.02	1.1
System Coincident	December	Weekday	4 PM - 5 PM	0.05	1.9

Measure ID	HRXE8502		Electronic Ballasts-4' T12-Base EEM		
Base ID	HRXE7000		Base Case-Standard		
Market Segment					
Building Type	Hawaii-Resort		Vintage	Existing	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.1439	Measure Life (Yrs)	16	Mutual Exclusivity	Yes
Potential Market	70.0%	Modified Market	29.2%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling - Auxiliary	0.080	0.9	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.018	0.7			
Indoor Lighting	0.246	4.9			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.344	1.5	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	October	Weekday	7 PM - 8 PM	0.09	2.6
Minimum Impact	September	Weekday	5 AM - 6 AM	0.02	1.1
System Coincident	December	Weekday	4 PM - 5 PM	0.05	1.9

Measure ID	HRNE8502		Electronic Ballasts-4' T12-Base EEM		
Base ID	HRNE7000		Base Case-Standard		
Market Segment					
Building Type	Hawaii-Resort		Vintage	New	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0992	Measure Life (Yrs)	16	Mutual Exclusivity	Yes
Potential Market	100.0%	Modified Market	41.7%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.031	0.7	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.007	0.5			
Indoor Lighting	0.134	3.8			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.172	1.0	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	March	Weekday	9 AM - 10 AM	0.03	1.2
Minimum Impact	October	Weekday	5 AM - 6 AM	0.01	0.7
System Coincident	December	Weekday	4 PM - 5 PM	0.02	1.4

Measure ID	HRXE8503		4' T8 Lamps And Electronic Ballasts		
Base ID	HRXE7000		Base Case-Standard		
Market Segment					
Building Type	Hawai-Resort		Vintage	Existing	
Floor Area (sf)	±30900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.1476	Measure Life (Yrs)	16	Mutual Exclusivity	Yes
Potential Market	~0.0%	Modified Market	29.2%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.150	1.7	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.033	1.4			
Indoor Lighting	0.455	9.1			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.637	2.7	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	March	Weekday	1 PM - 2 PM	0.16	5.5
Minimum Impact	September	Weekday	5 AM - 6 AM	0.04	1.9
System Coincident	December	Weekday	4 PM - 5 PM	0.08	3.5

Measure ID	HRNE8503		4' T8 Lamps And Electronic Ballasts		
Base ID	HRNE7000		Base Case-Standard		
Market Segment					
Building Type	Hawai-Resort			Vintage	New
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.1004	Measure Life (Yrs)	16	Mutual Exclusivity	Yes
Potential Market	100.0%	Modified Market	41.7%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.048	1.0	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.010	0.7			
Indoor Lighting	0.204	5.8			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.261	1.6	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	November	Weekday	2 PM - 3 PM	0.05	2.4
Minimum Impact	October	Weekday	5 AM - 6 AM	0.02	1.1
System Coincident	December	Weekday	4 PM - 5 PM	0.04	2.2

Measure ID	HRXE8504		Window Film Retrofit		
Base ID	HRXE7000		Base Case-Standard		
Market Segment					
Building Type	Hawai-Resort		Vintage	Existing	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.1373	Measure Life (Yrs)	7	Mutual Exclusivity	Yes
Potential Market	21.6%	Modified Market	12.1%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.416	4.7	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.125	5.2			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.541	2.3	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	May	Weekday	4 PM - 5 PM	0.15	5.5
Minimum Impact	January	Weekday	1 PM - 2 PM	0.02	0.8
System Coincident	December	Weekday	4 PM - 5 PM	0.05	2.2

Measure ID	HRNE8505		Double Pane Heat Mirror Glazing		
Base ID	HRNE7000		Base Case-Standard		
Market Segment					
Building Type	Hawaii-Resort			Vintage	New
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.5704	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	27.7%	Modified Market	15.5%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.313	6.6	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.206	14.8			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.519	3.2	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	July	Weekday	4 PM - 5 PM	0.17	8.4
Minimum Impact	January	Weekday	10 PM - 11 PM	0.01	0.6
System Coincident	December	Weekday	4 PM - 5 PM	0.04	2.5

Measure ID	HRXE8509		High Pressure Sodium-100 Watts		
Base ID	HRXE7000		Base Case-Standard		
Market Segment					
Building Type	Hawaii-Resort		Vintage	Existing	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0363	Measure Life (Yrs)	15	Mutual Exclusivity	No
Potential Market	~0.0%	Modified Market	70.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.000	0.0	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.187	10.7			
Central Refrigeration	0.000	NA			
Total	0.187	0.8	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	October	Weekday	10 PM - 11 PM	0.04	1.2
Minimum Impact	July	Weekday	6 PM - 7 PM	0.00	0.1
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.1

Monthly Total Electricity Impact
High Pressure Sodium-100 Watts

December Peak Day Demand Impact
High Pressure Sodium-100 Watts

Monthly Total Fossil Fuel Impact
High Pressure Sodium-100 Watts

December Peak Day Demand Profile
High Pressure Sodium-100 Watts

Measure ID	HRNE8509		High Pressure Sodium-100 Watts		
Base ID	HRNE7000		Base Case-Standard		
Market Segment					
Building Type	Hawaii-Resort		Vintage	New	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0286	Measure Life (Yrs)	15	Mutual Exclusivity	No
Potential Market	90.0%	Modified Market	90.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.000	0.0	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.187	12.3			
Central Refrigeration	0.000	NA			
Total	0.187	1.1	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	October	Weekday	11 PM - Midnight	0.04	1.8
Minimum Impact	July	Weekday	3 PM - 4 PM	0.00	0.1
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.1

Measure ID	HRXE8510		High Pressure Sodium-250 Watts		
Base ID	HRXE7000		Base Case-Standard		
Market Segment					
Building Type	Hawaii-Resort			Vintage	Existing
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.0314	Measure Life (Yrs)	15	Mutual Exclusivity	No
Potential Market	70.0%	Modified Market	70.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.000	0.0	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.224	12.8			
Central Refrigeration	0.000	NA			
Total	0.224	1.0	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	April	Weekday	9 PM - 10 PM	0.05	1.5
Minimum Impact	May	Weekday	2 PM - 3 PM	0.00	0.1
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.1

Monthly Total Electricity Impact
High Pressure Sodium-250 Watts

December Peak Day Demand Impact
High Pressure Sodium-250 Watts

Monthly Total Fossil Fuel Impact
High Pressure Sodium-250 Watts

December Peak Day Demand Profile
High Pressure Sodium-250 Watts

Measure ID	HRXE8511		HID Exterior Floods-70 Watts		
Base ID	HRXE7000		Base Case-Standard		
Market Segment					
Building Type	Hawaii-Resort		Vintage	Existing	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0510	Measure Life (Yrs)	16	Mutual Exclusivity	No
Potential Market	70.0%	Modified Market	70.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.000	0.0	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.160	9.2			
Central Refrigeration	0.000	NA			
Total	0.160	0.7	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	December	Weekday	11 PM - Midnight	0.03	1.2
Minimum Impact	November	Weekday	Noon - 1 PM	0.00	0.1
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.1

Measure ID	HRNE8511		HID Exterior Floods-70 Watts		
Base ID	HRNE7000		Base Case-Standard		
Market Segment					
Building Type	Hawaiian-Resort			Vintage	New
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0433	Measure Life (Yrs)	16	Mutual Exclusivity	No
Potential Market	90.0%	Modified Market	90.0%	Intra Action	No
Annual Energy Impact By End-Use					
Elect. y			Natural Gas/Oil		
End-Use	kWh/sf	% of Base	End-Use	kBtu/sf	% of Base
Cooling & Auxiliary	0.000	0.0	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.160	10.5			
Central Refrigeration	0.000	NA			
Total	0.160	1.0	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	October	Weekday	11 PM - Midnight	0.03	1.6
Minimum Impact	March	Weekday	5 PM - 6 PM	0.00	0.1
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.1

Monthly Total Electricity Impact
HID Exterior Floods-70 Watts

December Peak Day Demand Impact
HID Exterior Floods-70 Watts

Monthly Total Fossil Fuel Impact
HID Exterior Floods-70 Watts

December Peak Day Demand Profile
HID Exterior Floods-70 Watts

Measure ID	HRXE8512		Occupancy Sensor Pack-200 SF		
Base ID	HRXE7000		Base Case-Standard		
Market Segment					
Building Type	Hawaii-Resort		Vintage	Existing	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.2945	Measure Life (Yrs)	8	Mutual Exclusivity	No
Potential Market	70.0%	Modified Market	70.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.133	1.5	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.002	0.1	Misc. Equipment	0.000	0.0
Ventilation	0.013	0.5			
Indoor Lighting	0.493	9.9			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.642	2.7	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	April	Weekday	6 AM - 7 AM	0.14	6.1
Minimum Impact	September	Weekday	5 AM - 6 AM	0.05	2.2
System Coincident	December	Weekday	4 PM - 5 PM	0.07	2.8

Measure ID	HRNE8512		Occupancy Sensor Pack-200 SF		
Base ID	HRNE7000		Base Case-Standard		
Market Segment					
Building Type	Hawaii-Resort			Vintage	New
Floor Area (sf)	±30900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.2945	Measure Life (Yrs)	8	Mutual Exclusivity	No
Potential Market	100.0%	Modified Market	100.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.041	0.9	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.007	0.5			
Indoor Lighting	0.227	6.5			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.275	1.7	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	September	Weekday	1 PM - 2 PM	0.05	2.6
Minimum Impact	July	Weekday	5 AM - 6 AM	0.01	0.6
System Coincident	December	Weekday	4 PM - 5 PM	0.04	2.1

**Monthly Total Electricity Impact
Occupancy Sensor Pack-200 SF**

**December Peak Day Demand Impact
Occupancy Sensor Pack-200 SF**

**Monthly Total Fossil Fuel Impact
Occupancy Sensor Pack-200 SF**

**December Peak Day Demand Profile
Occupancy Sensor Pack-200 SF**

Measure ID	HRXE8515		VSD Chilled Water Loop Pump		
Base ID	HRXE7000		Base Case-Standard		
Market Segment					
Building Type	Hawaii-Resort		Vintage	Existing	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0385	Measure Life (Yrs)	15	Mutual Exclusivity	No
Potential Market	26.0%	Modified Market	26.0%	Intra Action	Yes
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	1.833	20.6	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	1.833	7.8	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	March	Weekday	11 AM - Noon	0.31	11.3
Minimum Impact	December	Weekday	8 PM - 9 PM	0.15	4.5
System Coincident	December	Weekday	4 PM - 5 PM	0.23	9.6

Measure ID	HRNE8515		VSD Chilled Water Loop Pump		
Base ID	HRNE7000		Base Case-Standard		
Market Segment					
Building Type	Hawaii-Resort		Vintage	New	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.0164	Measure Life (Yrs)	15	Mutual Exclusivity	No
Potential Market	29.5%	Modified Market	29.5%	Intra Action	Yes
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.657	13.9	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.657	4.0	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	January	Weekday	7 AM - 8 AM	0.09	4.4
Minimum Impact	January	Weekday	10 PM - 11 PM	0.03	1.6
System Coincident	December	Weekday	4 PM - 5 PM	0.07	4.4

Measure ID	HRXE8517		Energy Management System		
Base ID	HRXE7617		Base Case For EMS		
Market Segment					
Building Type	Hawai-Resort		Vintage	Existing	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$1.1600	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	72.7%	Modified Market	34.1%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	2.145	22.9	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.002	0.1	Misc. Equipment	0.000	0.0
Ventilation	0.002	0.1			
Indoor Lighting	0.096	1.9			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	2.245	9.4	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	March	Weekday	8 PM - 9 PM	0.34	8.9
Minimum Impact	November	Weekday	3 PM - 4 PM	0.15	5.2
System Coincident	December	Weekday	4 PM - 5 PM	0.25	9.8

Monthly Total Electricity Impact
Energy Management System

December Peak Day Demand Impact
Energy Management System

Monthly Total Fossil Fuel Impact
Energy Management System

December Peak Day Demand Profile
Energy Management System

Measure ID	HRNE8517		Energy Management System		
Base ID	HRNE7617		Base Case For EMS		
Market Segment					
Building Type	Hawaii-Resort		Vintage	New	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.7500	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	82.7%	Modified Market	38.8%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.974	17.1	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	-0.002	-0.2			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.971	5.6	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	July	Weekday	8 PM - 9 PM	0.16	5.6
Minimum Impact	July	Weekday	4 PM - 5 PM	0.06	2.8
System Coincident	December	Weekday	4 PM - 5 PM	0.12	6.8

Monthly Total Electricity Impact
Energy Management System

December Peak Day Demand Impact
Energy Management System

Monthly Total Fossil Fuel Impact
Energy Management System

December Peak Day Demand Profile
Energy Management System

Measure ID	HRXE8518		Duct Insulation Material		
Base ID	HRXE7000		Base Case-Standard		
Market Segment					
Building Type	Hawaii-Resort		Vintage	Existing	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.0062	Measure Life (Yrs)	15	Mutual Exclusivity	No
Potential Market	22.0%	Modified Market	22.0%	Intra Action	Yes
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.424	4.8	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.424	1.8	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	October	Weekday	7 PM - 8 PM	0.10	3.1
Minimum Impact	January	Weekday	5 AM - 6 AM	0.03	1.6
System Coincident	December	Weekday	4 PM - 5 PM	0.04	1.6

Measure iD	HRNE8518			Duct Insulation Material	
Base iD	HRNE7000			Base Case-Standard	
Market Segment					
Building Type	Hawaii-Resort			Vintage	New
Floor Area (sf)	130900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.0020	Measure Life (Yrs)	15	Mutual Exclusivity	No
Potential Market	60.0%	Modified Market	60.0%	Intra Action	Yes
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.074	1.6	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	-0.006	-0.4			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.068	0.4	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	June	Weekday	9 PM - 10 PM	0.02	0.7
Minimum Impact	July	Weekday	3 PM - 4 PM	-0.03	-1.6
System Coincident	December	Weekday	4 PM - 5 PM	0.01	0.4

Monthly Total Electricity Impact
Duct Insulation Material

December Peak Day Demand Impact
Duct Insulation Material

Monthly Total Fossil Fuel Impact
Duct Insulation Material

December Peak Day Demand Profile
Duct Insulation Material

Measure ID	HRXE8519		Variable Air Volume Box		
Base ID	HRXE7000		Base Case-Standard		
Market Segment					
Building Type	Hawaii-Resort		Vintage	Existing	
Floor Area (sf)	130900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.1572	Measure Life (Yrs)	15	Mutual Exclusivity	No
Potential Market	33.8%	Modified Market	33.8%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.654	7.4	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.654	2.8	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	March	Weekday	7 PM - 8 PM	0.18	5.4
Minimum Impact	September	Weekday	3 PM - 4 PM	0.04	1.4
System Coincident	December	Weekday	4 PM - 5 PM	0.06	2.6

Measure ID	HRXE8522		Hot Water Circulation Pump Timeclock		
Base ID	HRXE7000		Base Case-Standard		
Market Segment					
Building Type	Hawai-Resort			Vintage	Existing
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.0022	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	9.0%	Modified Market	3.7%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.043	0.5	Cooling	0.000	NA
Water Heating	0.117	8.1	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.161	0.7	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	March	Weekday	2 AM - 3 AM	0.07	3.2
Minimum Impact	NA	Weekday	NA	0.00	NA
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.0

Monthly Total Electricity Impact
Hot Water Circulation Pump Timeclock

December Peak Day Demand Impact
Hot Water Circulation Pump Timeclock

Monthly Total Fossil Fuel Impact
Hot Water Circulation Pump Timeclock

December Peak Day Demand Profile
Hot Water Circulation Pump Timeclock

Measure ID	HRXO8522		Hot Water Circulation Pump Timeclock		
Base ID	HRXO7000		Base Case-Standard		
Market Segment					
Building Type	Hawaii-Resort			Vintage	Existing
Floor Area (sf)	430900	Water Heater Fuel	Oil	Cost Unit	Building square foot
First Cost (\$/unit)	NA	Measure Life (Yrs)	NA	Mutual Exclusivity	NA
Potential Market	NA	Modified Market	NA	Intra Action	NA
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.043	0.5	Cooling	0.000	NA
Water Heating	0.000	NA	Water Heating	0.525	5.2
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.043	0.2	Total	0.525	4.8
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	December	Weekday	2 AM - 3 AM	0.02	1.2
Minimum Impact	NA	Weekday	NA	0.00	NA
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.0

Monthly Total Electricity Impact
Hot Water Circulation Pump Timeclock

December Peak Day Demand Impact
Hot Water Circulation Pump Timeclock

Monthly Total Fossil Fuel Impact
Hot Water Circulation Pump Timeclock

December Peak Day Demand Profile
Hot Water Circulation Pump Timeclock

Measure iD	HRNE8522			Hot Water Circulation Pump Timeclock	
Base iD	HRNE7000			Base Case-Standard	
Market Segment					
Building Type	Hawaii-Resort			Vintage	New
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0022	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	20.0%	Modified Market	3.3%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.043	0.9	Cooling	0.000	NA
Water Heating	0.115	3.5	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.158	1.0	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	March	Weekday	3 AM - 4 AM	0.07	4.8
Minimum Impact	NA	Weekday	NA	0.00	NA
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.0

Measure ID	HRNO8522		Hot Water Circulation Pump Timeclock		
Base ID	HRNO7000		Base Case-Standard		
Market Segment					
Building Type	Hawaii-Resort			Vintage	New
Floor Area (sf)	430900	Water Heater Fuel	Oil	Cost Unit	Building square foot
First Cost (\$/unit)	NA	Measure Life (Yrs)	NA	Mutual Exclusivity	NA
Potential Market	NA	Modified Market	NA	Intra Action	NA
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.043	0.9	Cooling	0.000	NA
Water Heating	0.000	NA	Water Heating	0.498	6.6
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.043	0.3	Total	0.498	6.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	January	Weekday	6 AM - 7 AM	0.02	1.4
Minimum Impact	NA	Weekday	NA	0.00	NA
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.0

Measure ID	HRXE8524		Active Solar Water Heating		
Base ID	HRXE7000		Base Case-Standard		
Market Segment					
Building Type	Hawaii-Resort		Vintage	Existing	
Floor Area (sf)	±30900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.4641	Measure Life (Yrs)	14	Mutual Exclusivity	Yes
Potential Market	50.6%	Modified Market	20.9%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.000	0.0	Cooling	0.000	NA
Water Heating	0.778	53.9	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.779	3.3	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	March	Weekday	6 PM - 7 PM	0.32	9.0
Minimum Impact	September	Weekday	3 AM - 4 AM	-0.00	-0.0
System Coincident	December	Weekday	4 PM - 5 PM	0.14	5.8

**Monthly Total Electricity Impact
Active Solar Water Heating**

**December Peak Day Demand Impact
Active Solar Water Heating**

**Monthly Total Fossil Fuel Impact
Active Solar Water Heating**

**December Peak Day Demand Profile
Active Solar Water Heating**

Measure ID	HRXO8524		Active Solar Water Heating		
Base ID	HRXO7000		Base Case-Standard		
Market Segment					
Building Type	Hawaii-Resort			Vintage	Existing
Floor Area (sf)	430900	Water Heater Fuel	Oil	Cost Unit	Building square foot
First Cost (\$/unit)	NA	Measure Life (Yrs)	NA	Mutual Exclusivity	NA
Potential Market	NA	Modified Market	NA	Intra Action	NA
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.000	0.0	Cooling	0.000	NA
Water Heating	-0.007	NA	Water Heating	6.566	64.9
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	-0.005	-0.0	Total	6.566	60.5
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	April	Weekday	1 AM - 2 AM	0.01	0.4
Minimum Impact	August	Weekday	4 PM - 5 PM	-0.00	-0.1
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.0

Measure ID	HRNE8524		Active Solar Water Heating		
Base ID	HRNE7000		Base Case-Standard		
Market Segment					
Building Type	Hawaii-Resort		Vintage	New	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.4641	Measure Life (Yrs)	14	Mutual Exclusivity	Yes
Potential Market	56.0%	Modified Market	23.1%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.000	0.0	Cooling	0.000	NA
Water Heating	0.688	50.9	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.690	4.2	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	March	Weekday	6 PM - 7 PM	0.31	12.0
Minimum Impact	September	Weekday	Midnight - 1 AM	-0.01	-0.5
System Coincident	December	Weekday	4 PM - 5 PM	0.13	7.7

Monthly Total Electricity Impact
Active Solar Water Heating

December Peak Day Demand Impact
Active Solar Water Heating

Monthly Total Fossil Fuel Impact
Active Solar Water Heating

December Peak Day Demand Profile
Active Solar Water Heating

Measure ID	HRNO8524		Active Solar Water Heating		
Base ID	HRNO7000		Base Case-Standard		
Market Segment					
Building Type	Hawaii-Resort		Vintage	New	
Floor Area (sf)	430900	Water Heater Fuel	Oil	Cost Unit	Building square foot
First Cost (\$/unit)	NA	Measure Life (Yrs)	NA	Mutual Exclusivity	NA
Potential Market	NA	Modified Market	NA	Intra Action	NA
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	kWh/sf	% of Base	End-Use	kBtu/sf	% of Base
Cooling & Auxiliary	0.000	0.0	Cooling	0.000	NA
Water Heating	-0.007	NA	Water Heating	-0.049	53.3
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	-0.005	-0.0	Total	-0.049	48.6
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	January	Weekday	1 AM - 2 AM	0.01	0.6
Minimum Impact	August	Weekday	4 PM - 5 PM	-0.00	-0.1
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.0

Measure ID	HRXE8541		High Efficiency Centrifugal Chiller		
Base ID	HRXE7000		Base Case-Standard		
Market Segment					
Building Type	Hawai-Resort			Vintage	Existing
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0338	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	±6.8%	Modified Market	9.7%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	1.382	15.6	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	1.382	5.9	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	July	Weekday	8 PM - 9 PM	0.30	7.9
Minimum Impact	February	Weekday	11 AM - Noon	0.11	4.3
System Coincident	December	Weekday	4 PM - 5 PM	0.12	4.9

Measure ID	HRNE8541		High Efficiency Centrifugal Chiller		
Base ID	HRNE7000		Base Case-Standard		
Market Segment					
Building Type	Hawai-Resort		Vintage	New	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.0271	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	53.1%	Modified Market	11.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.381	8.1	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.381	2.3	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	July	Weekday	8 PM - 9 PM	0.09	3.4
Minimum Impact	December	Weekday	7 PM - 8 PM	0.02	1.0
System Coincident	December	Weekday	4 PM - 5 PM	0.03	1.5

Measure ID	HRXE8542			VSD Centrifugal Chiller	
Base ID	HRXE7000			Base Case-Standard	
Market Segment					
Building Type	Hawaii-Resort			Vintage	Existing
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.1920	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	26.0%	Modified Market	5.4%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.853	9.6	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.853	3.6	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	April	Weekday	6 AM - 7 AM	0.16	7.0
Minimum Impact	October	Weekday	5 PM - 6 PM	0.03	1.2
System Coincident	December	Weekday	4 PM - 5 PM	0.06	2.6

Measure ID	HRNE8542			VSD Centrifugal Chiller	
Base ID	HRNE7000			Base Case-Standard	
Market Segment					
Building Type	Hawaii-Resort			Vintage	New
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.1537	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	29.5%	Modified Market	6.1%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.511	10.8	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.511	3.1	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	December	Weekday	9 AM - 10 AM	0.11	5.2
Minimum Impact	July	Weekday	3 PM - 4 PM	0.01	0.5
System Coincident	December	Weekday	4 PM - 5 PM	0.05	3.2

Measure ID	HRXE8544		Chiller Strainer Cycle		
Base ID	HRXE7000		Base Case-Standard		
Market Segment					
Building Type	Hawaii-Resort		Vintage	Existing	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.1590	Measure Life (Yrs)	20	Mutual Exclusivity	No
Potential Market	20.8%	Modified Market	20.8%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	1.683	19.0	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	1.683	7.2	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	March	Weekday	8 PM - 9 PM	0.32	8.3
Minimum Impact	January	Weekday	1 PM - 2 PM	0.11	4.3
System Coincident	December	Weekday	4 PM - 5 PM	0.13	5.5

Measure ID	HRNE8544		Chiller Strainer Cycle		
Base ID	HRNE7000		Base Case-Standard		
Market Segment					
Building Type	Hawaii-Resort		Vintage	New	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.1273	Measure Life (Yrs)	20	Mutual Exclusivity	No
Potential Market	15.3%	Modified Market	15.3%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.011	0.2	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.011	0.1	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	NA	Weekday	NA	0.00	NA
Minimum Impact	NA	Weekday	NA	0.00	NA
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.0

Measure ID	HRXE8545		Chilled Water Reset Controls		
Base ID	HRXE7000		Base Case-Standard		
Market Segment					
Building Type	Hawaii-Resort		Vintage	Existing	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0011	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	20.8%	Modified Market	9.8%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	1.651	18.6	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	1.651	7.1	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	March	Weekday	8 PM - 9 PM	0.32	8.3
Minimum Impact	January	Weekday	1 PM - 2 PM	0.11	4.3
System Coincident	December	Weekday	4 PM - 5 PM	0.13	5.5

Measure ID	HRXE8546		Chiller Optimizer Controls		
Base ID	HRXE7646		Base Case for Chiller Optimizer		
Market Segment					
Building Type	Hawaii-Resort		Vintage	Existing	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0355	Measure Life (Yrs)	20	Mutual Exclusivity	No
Potential Market	20.8%	Modified Market	20.8%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	2.130	22.8	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	2.130	8.9	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	March	Weekday	8 PM - 9 PM	0.32	8.3
Minimum Impact	November	Weekday	3 PM - 4 PM	0.15	5.2
System Coincident	December	Weekday	4 PM - 5 PM	0.25	9.8

Measure ID	HRNE8546			Chiller Optimizer Controls	
Base ID	HRNE7646			Base Case for Chiller Optimizer	
Market Segment					
Building Type	Hawai-Resort			Vintage	New
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0355	Measure Life (Yrs)	20	Mutual Exclusivity	No
Potential Market	15.3%	Modified Market	15.3%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.580	10.9	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.580	3.4	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	December	Weekday	7 PM - 8 PM	0.12	5.3
Minimum Impact	NA	Weekday	NA	0.00	NA
System Coincident	December	Weekday	4 PM - 5 PM	0.11	6.3

Measure ID	HRXE8547			Thermal Energy Storage-Ice On Coil	
Base ID	HRXE7000			Base Case-Standard	
Market Segment					
Building Type	Hawaii-Resort			Vintage	Existing
Floor Area (sf)	130900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$2.5200	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	11.2%	Modified Market	2.3%	Intra Action	No

Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	-0.177	-2.0	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	-0.177	-0.8	Total	0.000	0.0

Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	January	Weekday	3 PM - 4 PM	0.84	30.3
Minimum Impact	April	Weekday	4 AM - 5 AM	-0.65	-32.5
System Coincident	December	Weekday	4 PM - 5 PM	0.33	13.9

Measure ID	HRNE8547		Thermal Energy Storage-Ice On Coil		
Base ID	HRNE7000		Base Case-Standard		
Market Segment					
Building Type	Hawaii-Resort			Vintage	New
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$2.5200	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	37.5%	Modified Market	7.8%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	-1.993	-42.2	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	-1.993	-12.1	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	July	Weekday	8 PM - 9 PM	0.77	28.9
Minimum Impact	January	Weekday	Midnight - 1 AM	-1.27	-86.8
System Coincident	December	Weekday	4 PM - 5 PM	0.23	13.7

Measure ID	HRXE8548		Cooling Tower Propeller Fans		
Base ID	HRXE7648		Base Case For Cooling Tower Prop Fans		
Market Segment					
Building Type	Hawaii-Resort		Vintage	Existing	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0003	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	18.2%	Modified Market	3.2%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.234	2.6	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.234	1.0	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	March	Weekday	3 PM - 9 PM	0.06	1.6
Minimum Impact	December	Weekday	7 PM - 8 PM	0.01	0.4
System Coincident	December	Weekday	4 PM - 5 PM	0.02	0.6

Measure ID	HRNE8548		Cooling Tower Propeller Fans		
Base ID	HRNE7648		Base Case For Cooling Tower Prop Fans		
Market Segment					
Building Type	Hawaii-Resort		Vintage	New	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0002	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	20.7%	Modified Market	3.7%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.144	3.0	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.144	0.9	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	March	Weekday	8 PM - 9 PM	0.05	1.7
Minimum Impact	December	Weekday	7 PM - 8 PM	0.00	0.2
System Coincident	December	Weekday	4 PM - 5 PM	0.01	0.5

Measure ID	HRXE8549		Two-Speed Cooling Tower Fans		
Base ID	HRXE7000		Base Case-Standard		
Market Segment					
Building Type	Hawaii-Resort			Vintage	Existing
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0044	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	18.2%	Modified Market	3.2%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.099	1.1	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.099	0.4	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	October	Weekday	5 PM - 6 PM	0.02	0.6
Minimum Impact	March	Weekday	8 PM - 9 PM	0.00	0.1
System Coincident	December	Weekday	4 PM - 5 PM	0.01	0.4

Measure ID	HRNE8549		Two-Speed Cooling Tower Fans		
Base ID	HRNE7000		Base Case-Standard		
Market Segment					
Building Type	Hawaii-Resort			Vintage	New
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0035	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	20.7%	Modified Market	3.7%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.064	1.4	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.064	0.4	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	August	Weekday	3 PM - 4 PM	0.01	0.6
Minimum Impact	December	Weekday	7 PM - 8 PM	0.00	0.1
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.3

Monthly Total Electricity Impact
Two-Speed Cooling Tower Fans

December Peak Day Demand Impact
Two-Speed Cooling Tower Fans

Monthly Total Fossil Fuel Impact
Two-Speed Cooling Tower Fans

December Peak Day Demand Profile
Two-Speed Cooling Tower Fans

Measure ID	HRXE8550		VSD Cooling Tower Fans		
Base ID	HRXE7000		Base Case-Standard		
Market Segment					
Building Type	Hawaii-Resort		Vintage	Existing	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.3590	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	18.2%	Modified Market	3.2%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.124	1.4	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.124	0.5	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	March	Weekday	6 PM - 7 PM	0.02	0.6
Minimum Impact	December	Weekday	7 PM - 8 PM	0.01	0.2
System Coincident	December	Weekday	4 PM - 5 PM	0.01	0.3

Measure ID	HRNE8550		VSD Cooling Tower Fans		
Base ID	HRNE7000		Base Case-Standard		
Market Segment					
Building Type	Hawai-Resort			Vintage	New
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.2815	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	20.7%	Modified Market	3.7%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.074	1.6	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.074	0.5	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	June	Weekday	8 PM - 9 PM	0.02	0.6
Minimum Impact	December	Weekday	7 PM - 8 PM	0.00	0.1
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.2

Measure ID	HRXE8551		Waste Heat Recovery		
Base ID	HRXE7000		Base Case-Standard		
Market Segment					
Building Type	Hawai-Resort		Vintage		Existing
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.3841	Measure Life (Yrs)	10	Mutual Exclusivity	Yes
Potential Market	15.0%	Modified Market	3.1%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	-0.626	-7.1	Cooling	0.000	NA
Water Heating	0.883	61.2	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.257	1.1	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	February	Weekday	7 AM - 8 AM	0.23	8.0
Minimum Impact	October	Weekday	4 AM - 5 AM	-0.09	-4.2
System Coincident	December	Weekday	4 PM - 5 PM	0.04	1.8

Measure ID	HRNE8551		Waste Heat Recovery		
Base ID	HRNE7000		Base Case-Standard		
Market Segment					
Building Type	Hawan-Resort		Vintage	New	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.3075	Measure Life (Yrs)	10	Mutual Exclusivity	Yes
Potential Market	37.5%	Modified Market	7.8%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	kWh/sf	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxliary	-0.780	-16.5	Cooling	0.000	NA
Water Heating	0.865	64.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.086	0.5	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	February	Weekday	8 AM - 9 AM	0.17	7.8
Minimum Impact	March	Weekday	1 AM - 2 AM	-0.11	-6.6
System Coincident	December	Weekday	4 PM - 5 PM	0.01	0.6

Measure iD	HRXE8552			Compact Fluorescent Lamp EXIT Signs	
Base iD	HRXE7000			Base Case-Standard	
Market Segment					
Building Type	Hawaii-Resort			Vintage	Existing
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0109	Measure Life (Yrs)	16	Mutual Exclusivity	No
Potential Market	90.0%	Modified Market	90.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.022	0.2	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.004	0.2			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.105	0.4	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	January	Weekday	2 PM - 3 PM	0.02	0.6
Minimum Impact	February	Weekday	11 AM - Noon	0.01	0.4
System Coincident	December	Weekday	4 PM - 5 PM	0.01	0.5

Measure ID	HRNE8552		Compact Fluorescent Lamp EXIT Signs		
Base ID	HRNE7000		Base Case-Standard		
Market Segment					
Building Type	Hawaii-Resort			Vintage	New
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.0026	Measure Life (Yrs)	16	Mutual Exclusivity	No
Potential Market	75.0%	Modified Market	75.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.014	0.3	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.003	0.2			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.096	0.6	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	November	Weekday	7 PM - 8 PM	0.01	0.6
Minimum Impact	August	Weekday	10 AM - 11 AM	0.01	0.5
System Coincident	December	Weekday	4 PM - 5 PM	0.01	0.6

Measure ID	HRXE8553		LED Lamp EXIT Signs		
Base ID	HRXE7000		Base Case-Standard		
Market Segment					
Building Type	Hawaii-Resort			Vintage	Existing
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0361	Measure Life (Yrs)	16	Mutual Exclusivity	Yes
Potential Market	90.0%	Modified Market	49.1%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.034	0.4	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.007	0.3			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.168	0.7	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	January	Weekday	2 PM - 3 PM	0.02	0.8
Minimum Impact	February	Weekday	11 AM - Noon	0.02	0.7
System Coincident	December	Weekday	4 PM - 5 PM	0.02	0.7

Measure ID	HRNE8553		LED Lamp EXIT Signs		
Base ID	HRNE7000		Base Case-Standard		
Market Segment					
Building Type	Hawaii-Resort		Vintage	New	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0189	Measure Life (Yrs)	16	Mutual Exclusivity	Yes
Potential Market	75.0%	Modified Market	40.9%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Gas		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.023	0.5	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.004	0.3			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.154	0.9	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	January	Weekday	5 PM - 6 PM	0.02	1.1
Minimum Impact	June	Weekday	1 PM - 2 PM	0.02	0.9
System Coincident	December	Weekday	4 PM - 5 PM	0.02	1.0

Monthly Total Electricity Impact
LED Lamp EXIT Signs

December Peak Day Demand Impact
LED Lamp EXIT Signs

Monthly Total Fossil Fuel Impact
LED Lamp EXIT Signs

December Peak Day Demand Profile
LED Lamp EXIT Signs

Measure ID	HRXE8557			Optical Reflectors-2X4 Recessed	
Base ID	HRXE7000			Base Case-Standard	
Market Segment					
Building Type	Hawaii-Resort			Vintage	Existing
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0774	Measure Life (Yrs)	16	Mutual Exclusivity	No
Potential Market	50.0%	Modified Market	50.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.169	1.9	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.036	1.5			
Indoor Lighting	0.514	10.3			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.720	3.1	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	March	Weekday	1 PM - 2 PM	0.17	5.9
Minimum Impact	September	Weekday	5 AM - 6 AM	0.05	2.2
System Coincident	December	Weekday	4 PM - 5 PM	0.09	3.9

Measure ID	HRNE8557			Optical Reflectors-2X4 Recessed	
Base ID	HRNE7000			Base Case-Standard	
Market Segment					
Building Type	Hawaii-Resort			Vintage	New
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.0778	Measure Life (Yrs)	16	Mutual Exclusivity	No
Potential Market	100.0%	Modified Market	100.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.095	2.0	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.016	1.2			
Indoor Lighting	0.414	11.8			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.525	3.2	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	January	Weekday	8 AM - 9 AM	0.10	4.6
Minimum Impact	October	Weekday	5 AM - 6 AM	0.03	2.2
System Coincident	December	Weekday	4 PM - 5 PM	0.07	4.3

Measure ID	HRXE8558		8' Fluor. Energy Saver Lamps-F96T12ES		
Base ID	HRXE7000		Base Case-Standard		
Market Segment					
Building Type	Hawaii-Resort			Vintage	Existing
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0002	Measure Life (Yrs)	5	Mutual Exclusivity	No
Potential Market	70.0%	Modified Market	70.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.009	0.1	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.004	0.2			
Indoor Lighting	0.023	0.5			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.036	0.2	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	July	Weekday	Noon - 1 PM	0.01	0.2
Minimum Impact	September	Weekday	5 AM - 6 AM	0.00	0.1
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.2

Measure ID	HRXE8559		Electronic Ballasts-8' T12-Base EEM		
Base ID	HRXE7000		Base Case-Standard		
Market Segment					
Building Type	Hawaii-Resort		Vintage	Existing	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0065	Measure Life (Yrs)	16	Mutual Exclusivity	Yes
Potential Market	~0.0%	Modified Market	29.2%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.008	0.1	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.004	0.1			
Indoor Lighting	0.019	0.4			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.030	0.1	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	July	Weekday	Noon - 1 PM	0.01	0.2
Minimum Impact	September	Weekday	5 AM - 6 AM	0.00	0.1
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.1

Measure ID	HRNE8559		Electronic Ballasts-8' T12-Base EEM		
Base ID	HRNE7000		Base Case-Standard		
Market Segment					
Building Type	Hawaii-Resort		Vintage	New	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0019	Measure Life (Yrs)	16	Mutual Exclusivity	Yes
Potential Market	100.0%	Modified Market	41.7%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.002	0.0	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.001	0.0			
Indoor Lighting	0.007	0.2			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.009	0.1	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	July	Weekday	2 PM - 3 PM	0.00	0.1
Minimum Impact	May	Weekday	5 AM - 6 AM	0.00	0.0
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.1

Monthly Total Electricity Impact
Electronic Ballasts-8' T12-Base EEM

December Peak Day Demand Impact
Electronic Ballasts-8' T12-Base EEM

Monthly Total Fossil Fuel Impact
Electronic Ballasts-8' T12-Base EEM

December Peak Day Demand Profile
Electronic Ballasts-8' T12-Base EEM

Measure ID	HRXE8560		Optical Reflectors-1X8 Fixtures		
Base ID	HRXE7000		Base Case-Standard		
Market Segment					
Building Type	Hawai-Resort			Vintage	Existing
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.0038	Measure Life (Yrs)	16	Mutual Exclusivity	No
Potential Market	70.0%	Modified Market	70.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.022	0.2	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.010	0.4			
Indoor Lighting	0.051	1.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.083	0.4	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	July	Weekday	Noon - 1 PM	0.01	0.5
Minimum Impact	November	Weekday	Midnight - 1 AM	0.01	0.3
System Coincident	December	Weekday	4 PM - 5 PM	0.01	0.4

Measure ID	HRNE8560		Optical Reflectors-1X8 Fixtures		
Base ID	HRNE7000		Base Case-Standard		
Market Segment					
Building Type	Hawaiian-Resort			Vintage	New
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0038	Measure Life (Yrs)	16	Mutual Exclusivity	No
Potential Market	100.0%	Modified Market	100.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.008	0.2	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.003	0.2			
Indoor Lighting	0.039	1.1			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.049	0.3	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	July	Weekday	9 AM - 10 AM	0.01	0.5
Minimum Impact	February	Weekday	5 AM - 6 AM	0.00	0.2
System Coincident	December	Weekday	4 PM - 5 PM	0.01	0.3

Measure ID	HRXE8561		Electronic Ballasts-4' T12-Base SMC		
Base ID	HRXE7661		Base Case for 4' Fluor. SMC Ballasts		
Market Segment					
Building Type	Hawaii-Resort		Vintage	Existing	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.0987	Measure Life (Yrs)	16	Mutual Exclusivity	Yes
Potential Market	70.0%	Modified Market	29.2%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.058	0.6	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.012	0.5			
Indoor Lighting	0.181	3.5			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.251	1.1	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	June	Weekday	1 PM - 2 PM	0.05	1.7
Minimum Impact	September	Weekday	5 AM - 6 AM	0.02	0.8
System Coincident	December	Weekday	4 PM - 5 PM	0.03	1.3

Monthly Total Electricity Impact
Electronic Ballasts-4' T12-Base SMC

December Peak Day Demand Impact
Electronic Ballasts-4' T12-Base SMC

Monthly Total Fossil Fuel Impact
Electronic Ballasts-4' T12-Base SMC

December Peak Day Demand Profile
Electronic Ballasts-4' T12-Base SMC

Measure ID	HRXE8562			Electronic Ballasts-8' T12-Base SMC	
Base ID	HRXE7662			Base Case for 8' Fluor. SMC Ballasts	
Market Segment					
Building Type	Hawaii-Resort			Vintage	Existing
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0056	Measure Life (Yrs)	16	Mutual Exclusivity	Yes
Potential Market	70.0%	Modified Market	29.2%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.004	0.0	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.002	0.1			
Indoor Lighting	0.009	0.2			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.015	0.1	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	July	Weekday	Noon - 1 PM	0.00	0.1
Minimum Impact	November	Weekday	Midnight - 1 AM	0.00	0.0
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.1

Measure ID	HRXE8563		Compact Fluorescent Lamps-15W		
Base ID	HRXE7000		Base Case-Standard		
Market Segment					
Building Type	Hawai-Resort		Vintage	Existing	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.2250	Measure Life (Yrs)	2	Mutual Exclusivity	No
Potential Market	90.3%	Modified Market	90.3%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.414	4.7	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.077	3.2			
Indoor Lighting	1.515	30.3			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	2.006	8.6	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	October	Weekday	7 PM - 8 PM	0.43	12.8
Minimum Impact	August	Weekday	5 AM - 6 AM	0.09	4.2
System Coincident	December	Weekday	4 PM - 5 PM	0.19	8.1

Monthly Total Electricity Impact
Compact Fluorescent Lamps-15W

December Peak Day Demand Impact
Compact Fluorescent Lamps-15W

Monthly Total Fossil Fuel Impact
Compact Fluorescent Lamps-15W

December Peak Day Demand Profile
Compact Fluorescent Lamps-15W

Measure ID	HRNE8563		Compact Fluorescent Lamps-15W		
Base ID	HRNE7000		Base Case-Standard		
Market Segment					
Building Type	Hawaii-Resort			Vintage	New
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0677	Measure Life (Yrs)	2	Mutual Exclusivity	No
Potential Market	95.0%	Modified Market	95.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.093	2.0	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.020	1.5			
Indoor Lighting	0.514	14.6			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.627	3.8	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	December	Weekday	8 PM - 9 PM	0.12	5.1
Minimum Impact	March	Weekday	2 AM - 3 AM	-0.00	-0.3
System Coincident	December	Weekday	4 PM - 5 PM	0.07	4.0

Measure ID	HRXE8564		Compact Fluorescent Lamps-26W		
Base ID	HRXE7000		Base Case-Standard		
Market Segment					
Building Type	Hawaii-Resort			Vintage	Existing
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0254	Measure Life (Yrs)	5	Mutual Exclusivity	No
Potential Market	90.3%	Modified Market	90.3%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.048	0.5	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.000	0.0			
Indoor Lighting	0.277	5.5			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.325	1.4	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	March	Weekday	1 PM - 2 PM	0.10	3.5
Minimum Impact	February	Weekday	11 AM - Noon	0.03	1.3
System Coincident	December	Weekday	4 PM - 5 PM	0.03	1.4

Monthly Total Electricity Impact
Compact Fluorescent Lamps-26W

December Peak Day Demand Impact
Compact Fluorescent Lamps-26W

Monthly Total Fossil Fuel Impact
Compact Fluorescent Lamps-26W

December Peak Day Demand Profile
Compact Fluorescent Lamps-26W

Measure ID	HRNE8564		Compact Fluorescent Lamps-26W		
Base ID	HRNE7000		Base Case-Standard		
Market Segment					
Building Type	Hawaii-Resort			Vintage	New
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0212	Measure Life (Yrs)	5	Mutual Exclusivity	No
Potential Market	95.0%	Modified Market	95.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.031	0.7	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	-0.000	-0.0			
Indoor Lighting	0.236	6.7			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.267	1.6	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	September	Weekday	1 PM - 2 PM	0.05	2.8
Minimum Impact	March	Weekday	1 PM - 2 PM	0.03	1.4
System Coincident	December	Weekday	4 PM - 5 PM	0.03	1.7

Measure ID	HRXE8565		HID Interior Spots-70W		
Base ID	HRXE7000		Base Case-Standard		
Market Segment					
Building Type	Hawaii-Resort		Vintage	Existing	
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.0606	Measure Life (Yrs)	16	Mutual Exclusivity	No
Potential Market	50.0%	Modified Market	50.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.110	1.2	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.071	2.9			
Indoor Lighting	0.308	6.2			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.490	2.1	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	April	Weekday	4 PM - 5 PM	0.11	4.2
Minimum Impact	September	Weekday	5 AM - 6 AM	0.04	1.7
System Coincident	December	Weekday	4 PM - 5 PM	0.07	2.7

Measure ID	HRNE8565		HID Interior Spots-70W		
Base ID	HRNE7000		Base Case-Standard		
Market Segment					
Building Type	Hawaii-Resort			Vintage	New
Floor Area (sf)	430900	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0606	Measure Life (Yrs)	16	Mutual Exclusivity	No
Potential Market	50.0%	Modified Market	50.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.028	0.6	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	0.0
Ventilation	0.013	0.9			
Indoor Lighting	0.123	3.5			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.163	1.0	Total	0.000	0.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	March	Weekday	8 AM - 9 AM	0.03	1.1
Minimum Impact	January	Weekday	2 AM - 3 AM	0.01	0.9
System Coincident	December	Weekday	4 PM - 5 PM	0.02	1.4

DETAILED MEASURE IMPACTS-SUMMARY REPORTS

This section contains the detailed measure impact results and market segment data for each DSM case examined for this building type. A complete index of all base and measure cases defined for this building type is shown first. This index represents an expansion of the base and measure matrix presented in Table 1 (residential) or Table 2 (commercial) for the applicable sector. Following this index, a summary report sheet is provided for each DSM measure case in the order shown in the index. The summary report sheet contains a host of information and selected graphs which define and depict the measure impacts and outline the market segment data assumptions utilized for each case in the DBEDT DSM Forecasting models. The variables and figures included in the summary report sheet are described below.

Measure ID: The eight-character alpha-numeric code used to define the measure case. This ID is composed of the 2-letter building code + the 1-letter vintage code + the 1-letter water heater fuel type code + the 4-digit numeric code used to define the base or measure case.

Measure Description: A brief (no more than 38-character) definition of the DSM measure

Base ID: Similar to the Measure ID, this code denotes the base case to which the measure case is compared in order to estimate the measure impacts.

Base Description: Similar to the Measure Description, a brief description of the base case. This description helps to determine if a modified base case was defined to estimate measure impacts.

Market Segment. This section of the summary report sheet contains the market segment data defined for each measure. These are:

Building Type:	The building type to which this measure applies.
Vintage:	The vintage of the building (new or existing).
Floor Area (sf):	The gross floor area of the building in square feet.
Water Heater Fuel:	The fuel type utilized for domestic or service water heating (Gas, Electric, or Oil).
Cost Unit:	The unit of measure utilized to describe the measure cost.
First Cost (\$/unit):	The installed capital cost for the measure in dollars per Cost Unit (93 dollars).
Measure Life (Yrs):	The measure life in years.
Mutual Exclusivity:	A Yes/No entry which denotes if mutual exclusivity considerations apply to this measure. A Yes entry indicates that this measure is mutually exclusive with one or more measures pertaining to this building type, thereby modifying the potential market share available.
Potential Market:	The maximum market share available for this measure. This includes consideration of measure applicability, measure feasibility, and remaining market share for existing vintages.
Modified Market:	The maximum market share available for this measure accounting for mutual exclusivity.
Intra Action:	A Yes/No entry which denotes if intra active considerations apply to this measure. A Yes entry indicates that this measure is intra active with one or more measures if applied as a group to this building type. The total impact in a particular end-use for a group of measures with intra active effects is not the same as the summation of the individual measure impacts. An incremental measure impact reduction is implied, based on the measure loading order.

Annual Energy Impacts By End-Use. This section of the summary report contains the normalized measure impacts by end-use and for the total building by fuel type. Electricity impacts are shown in terms of kWh/square foot and as a percentage of the base case, while fossil fuel impacts are shown as kBtu/square foot and as a percentage of the base case for each end-use and for the total. The end-use impacts shown include:

Cooling (& Auxiliary) :	Space cooling and associated pumps and heat rejection energy (e.g., condensers or cooling tower).
Water Heating:	Storage or central domestic or service water heating system.
Misc. Equipment:	Miscellaneous equipment.
Ventilation:	Supply air fans for conditioning and exhaust air fans.
Indoor Lighting:	Interior lighting (not including EXIT signs).
Outdoor Lighting:	Exterior building lighting.
Central Refrigeration:	Commercial/Industrial refrigeration systems.
Total:	Total building energy use by fuel.

Total Building Peak Demand Impact: This section of the summary report provides peak demand impacts for each measure for selected peak events during the year. Three events are included, the maximum building peak demand impact, the minimum building peak demand impact, and a system coincident peak demand impact (set to December weekday at 4 to 5 PM). For each event the Month, Day Type, and Hour are shown, followed by the normalized total building peak demand impact in Watts/square foot and the percentage of the total base case represented by the impact.

Measure Impact Figures. Four figures are selected and included in each summary report to depict the impacts resulting from each measure. These are;

Monthly Total Electricity Impact: This figure shows the floor area normalized monthly electricity impacts associated with the measure in kWh/square foot.

Monthly Total Fossil Fuel Impact: This figure shows the floor area normalized monthly fossil fuel impacts associated with the measure in kBtu/square foot.

December Peak Day Demand Impact: This figure shows the (selected) system coincident peak day floor area normalized total building demand impact for the measure in Watts/square foot.

December Peak Day Demand Profile: This figure provides the daily total building load profile for the measure and base cases on the (selected) system coincident peak day in kW.

Commercial Master-Metered Apartments Measure Index Table

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Cases: 59

Measure ID	Base ID	Measure Description	Primary End-Use	Floor Area
APXG7000	APXG7000	Base Case-Standard	NA	146000
APXE7000	APXE7000	Base Case-Standard	NA	146000
APNG7000	APNG7000	Base Case-Standard	NA	146000
APNE7000	APNE7000	Base Case-Standard	NA	146000
APXE7617	APXE7617	Base Case For EMS	NA	146000
APNE7617	APNE7617	Base Case For EMS	NA	146000
APXE7661	APXE7661	Base Case for 4' Fluor. SMC Ballasts	NA	146000
APXE8501	APXE7000	4' Fluor. Energy Saver Lamps-F40T12ES	Inlights	146000
APXE8502	APXE7000	Electronic Ballasts-4' T12-Base EEM	Inlights	146000
APNE8502	APNE7000	Electronic Ballasts-4' T12-Base EEM	Inlights	146000
APXE8503	APXE7000	4' T8 Lamps And Electronic Ballasts	Inlights	146000
APNE8503	APNE7000	4' T8 Lamps And Electronic Ballasts	Inlights	146000
APXE8504	APXE7000	Window Film Retrofit	Cooling	146000
APNE8505	APNE7000	Double Pane Heat Mirror Glazing	Cooling	146000
APXE8509	APXE7000	High Pressure Sodium-100 Watts	Exlights	146000
APNE8509	APNE7000	High Pressure Sodium-100 Watts	Exlights	146000
APXE8510	APXE7000	High Pressure Sodium-250 Watts	Exlights	146000
APXE8511	APXE7000	HID Exterior Floods-70 Watts	Exlights	146000
APNE8511	APNE7000	HID Exterior Floods-70 Watts	Exlights	146000
APXE8512	APXE7000	Occupancy Sensor Pack-200 SF	Inlights	146000
APNE8512	APNE7000	Occupancy Sensor Pack-200 SF	Inlights	146000
APXE8513	APXE7000	Water Cooled Condensers	Cooling	146000
APNE8513	APNE7000	Water Cooled Condensers	Cooling	146000
APXE8515	APXE7000	VSD Chilled Water Loop Pump	Cooling	146000
APNE8515	APNE7000	VSD Chilled Water Loop Pump	Cooling	146000
APXE8517	APXE7617	Energy Management System	Cooling	146000
APNE8517	APNE7617	Energy Management System	Cooling	146000
APXG8520	APXG7000	High Efficiency Gas Water Heater	Hotwater	146000
APNG8520	APNG7000	High Efficiency Gas Water Heater	Hotwater	146000
APXG8521	APXG7000	Point of Use Water Heating	Hotwater	146000
APXE8521	APXE7000	Point of Use Water Heating	Hotwater	146000
APNG8521	APNG7000	Point of Use Water Heating	Hotwater	146000
APNE8521	APNE7000	Point of Use Water Heating	Hotwater	146000
APXG8523	APXG7000	Tank Insulation-Fiber Blanket	Hotwater	146000
APXE8523	APXE7000	Tank Insulation-Fiber Blanket	Hotwater	146000
APXG8524	APXG7000	Active Solar Water Heating	Hotwater	146000
APXE8524	APXE7000	Active Solar Water Heating	Hotwater	146000
APNG8524	APNG7000	Active Solar Water Heating	Hotwater	146000
APNE8524	APNE7000	Active Solar Water Heating	Hotwater	146000
APXE8543	APXE7000	Gas Absorption Chiller	Cooling	146000
APNE8543	APNE7000	Gas Absorption Chiller	Cooling	146000
APXE8544	APXE7000	Chiller Strainer Cycle	Cooling	146000
APNE8544	APNE7000	Chiller Strainer Cycle	Cooling	146000
APXE8545	APXE7000	Chilled Water Reset Controls	Cooling	146000
APXE8552	APXE7000	Compact Fluorescent Lamp EXIT Signs	Inlights	146000
APNE8552	APNE7000	Compact Fluorescent Lamp EXIT Signs	Inlights	146000
APXE8553	APXE7000	LED Lamp EXIT Signs	Inlights	146000
APNE8553	APNE7000	LED Lamp EXIT Signs	Inlights	146000
APXE8554	APXE7000	Heat Pump Water Heater	Hotwater	146000
APNE8554	APNE7000	Heat Pump Water Heater	Hotwater	146000
APXE8557	APXE7000	Optical Reflectors-2X4 Recessed	Inlights	146000
APNE8557	APNE7000	Optical Reflectors-2X4 Recessed	Inlights	146000
APXE8561	APXE7661	Electronic Ballasts-4' T12-Base SMC	Inlights	146000
APXE8563	APXE7000	Compact Fluorescent Lamps-15W	Inlights	146000
APNE8563	APNE7000	Compact Fluorescent Lamps-15W	Inlights	146000
APXE8564	APXE7000	Compact Fluorescent Lamps-26W	Inlights	146000
APNE8564	APNE7000	Compact Fluorescent Lamps-26W	Inlights	146000
APXE8567	APXE7000	High Efficiency Reciprocating Chiller	Cooling	146000

Commercial Master-Metered Apartments Measure Index Table

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Measure ID	Base ID	Measure Description	Primary End-Use	Floor Area
APNE8567	APNE7000	High Efficiency Reciprocating Chiller	Cooling	146000

Measure ID	APXE8501		4' Fluor. Energy Saver Lamps-F40T12ES		
Base ID	APXE7000		Base Case-Standard		
Market Segment					
Building Type	Master-Metered Apartment			Vintage	Existing
Floor Area (sf)	146000	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0007	Measure Life (Yrs)	5	Mutual Exclusivity	Yes
Potential Market	70.0%	Modified Market	29.2%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.036	0.6	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	NA
Ventilation	0.003	0.6			
Indoor Lighting	0.201	6.8			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.241	1.6	Total	0.000	NA
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	February	Weekday	8 AM - 9 AM	0.04	1.8
Minimum Impact	March	Weekday	11 PM - Midnight	0.02	0.9
System Coincident	December	Weekday	4 PM - 5 PM	0.03	2.1

Measure ID	APXE8502		Electronic Ballasts-4' T12-Base EEM		
Base ID	APXE7000		Base Case-Standard		
Market Segment					
Building Type	Master-Metered Apartment			Vintage	Existing
Floor Area (sf)	146000	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0414	Measure Life (Yrs)	16	Mutual Exclusivity	Yes
Potential Market	70.0%	Modified Market	29.2%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.036	0.6	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	NA
Ventilation	0.003	0.6			
Indoor Lighting	0.201	6.8			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.241	1.6	Total	0.000	NA
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	February	Weekday	8 AM - 9 AM	0.04	1.8
Minimum Impact	March	Weekday	11 PM - Midnight	0.02	0.9
System Coincident	December	Weekday	4 PM - 5 PM	0.03	2.1

Monthly Total Electricity Impact
Electronic Ballasts-4' T12-Base EEM

December Peak Day Demand Impact
Electronic Ballasts-4' T12-Base EEM

Monthly Total Fossil Fuel Impact
Electronic Ballasts-4' T12-Base EEM

December Peak Day Demand Profile
Electronic Ballasts-4' T12-Base EEM

Measure ID	APNE8502		Electronic Ballasts-4' T12-Base EEM		
Base ID	APNE7000		Base Case-Standard		
Market Segment					
Building Type	Master-Metered Apartment			Vintage	New
Floor Area (sf)	146000	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0278	Measure Life (Yrs)	16	Mutual Exclusivity	Yes
Potential Market	100.0%	Modified Market	+1.7%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.023	0.4	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	NA
Ventilation	0.002	0.4			
Indoor Lighting	0.111	4.6			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.136	1.0	Total	0.000	NA
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	November	Weekday	7 AM - 8 AM	0.03	1.5
Minimum Impact	July	Weekday	5 AM - 6 AM	0.01	0.9
System Coincident	December	Weekday	4 PM - 5 PM	0.02	1.5

Measure ID	APXE8503		4' T8 Lamps And Electronic Ballasts		
Base ID	APXE7000		Base Case-Standard		
Market Segment					
Building Type	Master-Metered Apartment			Vintage	Existing
Floor Area (sf)	146000	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.0424	Measure Life (Yrs)	16	Mutual Exclusivity	Yes
Potential Market	0.0%	Modified Market	29.2%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.065	1.0	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	NA
Ventilation	0.006	1.1			
Indoor Lighting	0.362	12.2			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.433	2.8	Total	0.000	NA
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	February	Weekday	8 AM - 9 AM	0.07	3.2
Minimum Impact	March	Weekday	11 PM - Midnight	0.03	1.6
System Coincident	December	Weekday	4 PM - 5 PM	0.06	3.8

Measure ID	APNE8503		4' T8 Lamps And Electronic Ballasts		
Base ID	APNE7000		Base Case-Standard		
Market Segment					
Building Type	Master-Metered Apartment			Vintage	New
Floor Area (sf)	146000	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0281	Measure Life (Yrs)	16	Mutual Exclusivity	Yes
Potential Market	100.0%	Modified Market	41.7%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.032	0.6	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	NA
Ventilation	0.003	0.6			
Indoor Lighting	0.154	6.4			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.189	1.4	Total	0.000	NA
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	November	Weekday	7 AM - 8 AM	0.04	1.9
Minimum Impact	July	Weekday	11 PM - Midnight	0.01	0.7
System Coincident	December	Weekday	4 PM - 5 PM	0.03	2.1

Measure ID	APXE8504		Window Film Retrofit		
Base ID	APXE7000		Base Case-Standard		
Market Segment					
Building Type	Master-Metered Apartment			Vintage	Existing
Floor Area (sf)	146000	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0327	Measure Life (Yrs)	7	Mutual Exclusivity	Yes
Potential Market	21.6%	Modified Market	12.1%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.183	2.8	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	NA
Ventilation	0.034	6.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.217	1.4	Total	0.000	NA
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	December	Weekday	Noon - 1 PM	0.06	3.3
Minimum Impact	April	Weekday	4 AM - 5 AM	0.01	0.7
System Coincident	December	Weekday	4 PM - 5 PM	0.04	2.2

Monthly Total Electricity Impact
Window Film Retrofit

December Peak Day Demand Impact
Window Film Retrofit

Monthly Total Fossil Fuel Impact
Window Film Retrofit

December Peak Day Demand Profile
Window Film Retrofit

Measure ID	APNE8505		Double Pane Heat Mirror Glazing		
Base ID	APNE7000		Base Case-Standard		
Market Segment					
Building Type	Master-Metered Apartment		Vintage	New	
Floor Area (sf)	146000	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.1353	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	27.7%	Modified Market	15.5%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.266	4.9	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	NA
Ventilation	0.079	17.4			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.345	2.6	Total	0.000	NA
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	January	Weekday	Noon - 1 PM	0.14	8.5
Minimum Impact	December	Weekday	Midnight - 1 AM	-0.01	-1.2
System Coincident	December	Weekday	4 PM - 5 PM	0.06	4.4

Monthly Total Electricity Impact
Double Pane Heat Mirror Glazing

December Peak Day Demand Impact
Double Pane Heat Mirror Glazing

Monthly Total Fossil Fuel Impact
Double Pane Heat Mirror Glazing

December Peak Day Demand Profile
Double Pane Heat Mirror Glazing

Measure ID	APXE8509			High Pressure Sodium-100 Watts	
Base ID	APXE7000			Base Case-Standard	
Market Segment					
Building Type	Master-Metered Apartment			Vintage	Existing
Floor Area (sf)	146000	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.0015	Measure Life (Yrs)	15	Mutual Exclusivity	No
Potential Market	70.0%	Modified Market	70.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.000	0.0	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	NA
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.022	8.0			
Central Refrigeration	0.000	NA			
Total	0.022	0.1	Total	0.000	NA
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	October	Weekday	9 PM - 10 PM	0.00	0.2
Minimum Impact	March	Weekday	4 PM - 5 PM	0.00	0.0
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.0

Monthly Total Electricity Impact
High Pressure Sodium-100 Watts

December Peak Day Demand Impact
High Pressure Sodium-100 Watts

Monthly Total Fossil Fuel Impact
High Pressure Sodium-100 Watts

December Peak Day Demand Profile
High Pressure Sodium-100 Watts

Measure ID	APNE8509		High Pressure Sodium-100 Watts		
Base ID	APNE7000		Base Case-Standard		
Market Segment					
Building Type	Master-Metered Apartment			Vintage	New
Floor Area (sf)	146000	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0011	Measure Life (Yrs)	15	Mutual Exclusivity	No
Potential Market	90.0%	Modified Market	90.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.000	0.0	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	NA
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.022	9.9			
Central Refrigeration	0.000	NA			
Total	0.022	0.2	Total	0.000	NA
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	September	Weekday	8 PM - 9 PM	0.00	0.2
Minimum Impact	May	Weekday	6 PM - 7 PM	0.00	0.0
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.0

Measure ID	APXE8510		High Pressure Sodium-250 Watts		
Base ID	APXE7000		Base Case-Standard		
Market Segment					
Building Type	Master-Metered Apartment			Vintage	Existing
Floor Area (sf)	146000	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0025	Measure Life (Yrs)	15	Mutual Exclusivity	No
Potential Market	70.0%	Modified Market	70.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.000	0.0	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	NA
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.053	19.1			
Central Refrigeration	0.000	NA			
Total	0.053	0.3	Total	0.000	NA
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	October	Weekday	11 PM - Midnight	0.01	0.6
Minimum Impact	July	Weekday	6 PM - 7 PM	0.00	0.0
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.0

Monthly Total Electricity Impact
High Pressure Sodium-250 Watts

December Peak Day Demand Impact
High Pressure Sodium-250 Watts

Monthly Total Fossil Fuel Impact
High Pressure Sodium-250 Watts

December Peak Day Demand Profile
High Pressure Sodium-250 Watts

Measure ID	APXE8511		HID Exterior Floods-70 Watts		
Base ID	APXE7000		Base Case-Standard		
Market Segment					
Building Type	Master-Metered Apartment		Vintage	Existing	
Floor Area (sf)	146000	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.0020	Measure Life (Yrs)	16	Mutual Exclusivity	No
Potential Market	70.0%	Modified Market	70.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.000	0.0	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	NA
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.019	6.8			
Central Refrigeration	0.000	NA			
Total	0.019	0.1	Total	0.000	NA
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	October	Weekday	11 PM - Midnight	0.00	0.2
Minimum Impact	July	Weekday	Noon - 1 PM	0.00	0.0
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.0

Measure ID	APNE8511		HID Exterior Floods-70 Watts		
Base ID	APNE7000		Base Case-Standard		
Market Segment					
Building Type	Master-Metered Apartment			Vintage	New
Floor Area (sf)	146000	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0017	Measure Life (Yrs)	16	Mutual Exclusivity	No
Potential Market	90.0%	Modified Market	90.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.000	0.0	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	NA
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.019	8.5			
Central Refrigeration	0.000	NA			
Total	0.019	0.1	Total	0.000	NA
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	December	Weekday	9 PM - 10 PM	0.00	0.2
Minimum Impact	May	Weekday	1 PM - 2 PM	0.00	0.0
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.0

Monthly Total Electricity Impact
HID Exterior Floods-70 Watts

December Peak Day Demand Impact
HID Exterior Floods-70 Watts

Monthly Total Fossil Fuel Impact
HID Exterior Floods-70 Watts

December Peak Day Demand Profile
HID Exterior Floods-70 Watts

Measure ID	APXE8512		Occupancy Sensor Pack-200 SF		
Base ID	APXE7000		Base Case-Standard		
Market Segment					
Building Type	Master-Metered Apartment		Vintage	Existing	
Floor Area (sf)	146000	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.1200	Measure Life (Yrs)	8	Mutual Exclusivity	No
Potential Market	70.0%	Modified Market	70.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.098	1.5	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	NA
Ventilation	0.007	1.2			
Indoor Lighting	0.348	11.7			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.453	3.0	Total	0.000	NA
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	September	Weekday	8 AM - 9 AM	0.08	3.1
Minimum Impact	February	Weekday	11 AM - Noon	0.03	1.5
System Coincident	December	Weekday	4 PM - 5 PM	0.04	2.3

Measure ID	APNE8512		Occupancy Sensor Pack-200 SF		
Base ID	APNE7000		Base Case-Standard		
Market Segment					
Building Type	Master-Metered Apartment			Vintage	New
Floor Area (sf)	146000	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.1200	Measure Life (Yrs)	8	Mutual Exclusivity	No
Potential Market	100.0%	Modified Market	100.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.076	1.4	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	NA
Ventilation	0.006	1.4			
Indoor Lighting	0.247	10.2			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.329	2.5	Total	0.000	NA
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	September	Weekday	8 AM - 9 AM	0.06	3.0
Minimum Impact	December	Weekday	11 AM - Noon	0.02	1.6
System Coincident	December	Weekday	4 PM - 5 PM	0.03	2.3

Monthly Total Electricity Impact
Occupancy Sensor Pack-200 SF

December Peak Day Demand Impact
Occupancy Sensor Pack-200 SF

Monthly Total Fossil Fuel Impact
Occupancy Sensor Pack-200 SF

December Peak Day Demand Profile
Occupancy Sensor Pack-200 SF

Measure ID	APXE8513		Water Cooled Condensers		
Base ID	APXE7000		Base Case-Standard		
Market Segment					
Building Type	Master-Metered Apartment			Vintage	Existing
Floor Area (sf)	146000	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0221	Measure Life (Yrs)	10	Mutual Exclusivity	No
Potential Market	26.0%	Modified Market	26.0%	Intra Action	Yes
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.562	8.6	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	NA
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.562	3.7	Total	0.000	NA
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	July	Weekday	1 PM - 2 PM	0.12	5.8
Minimum Impact	April	Weekday	4 AM - 5 AM	0.01	1.3
System Coincident	December	Weekday	4 PM - 5 PM	0.06	3.8

Measure ID	APNE8513		Water Cooled Condensers		
Base ID	APNE7000		Base Case-Standard		
Market Segment					
Building Type	Master-Metered Apartment			Vintage	New
Floor Area (sf)	146000	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.0177	Measure Life (Yrs)	10	Mutual Exclusivity	No
Potential Market	29.5%	Modified Market	29.5%	Intra Action	Yes
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.333	6.2	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	NA
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.333	2.5	Total	0.000	NA
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	July	Weekday	1 PM - 2 PM	0.07	4.0
Minimum Impact	April	Weekday	4 AM - 5 AM	0.03	2.8
System Coincident	December	Weekday	4 PM - 5 PM	0.03	2.5

Measure ID	APXE8515		VSD Chilled Water Loop Pump		
Base ID	APXE7000		Base Case-Standard		
Market Segment					
Building Type	Master-Metered Apartment			Vintage	Existing
Floor Area (sf)	146000	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0029	Measure Life (Yrs)	15	Mutual Exclusivity	No
Potential Market	26.0%	Modified Market	26.0%	Intra Action	Yes
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.366	5.6	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	NA
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.366	2.4	Total	0.000	NA
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	June	Weekday	5 AM - 6 AM	0.05	4.0
Minimum Impact	January	Weekday	2 PM - 3 PM	0.04	1.9
System Coincident	December	Weekday	4 PM - 5 PM	0.04	2.5

Measure ID	APNE8515		VSD Chilled Water Loop Pump		
Base ID	APNE7000		Base Case-Standard		
Market Segment					
Building Type	Master-Metered Apartment			Vintage	New
Floor Area (sf)	146000	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0014	Measure Life (Yrs)	15	Mutual Exclusivity	No
Potential Market	29.5%	Modified Market	29.5%	Intra Action	Yes
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.231	4.3	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	NA
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.231	1.8	Total	0.000	NA
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	April	Weekday	4 AM - 5 AM	0.04	3.8
Minimum Impact	July	Weekday	1 PM - 2 PM	0.02	0.9
System Coincident	December	Weekday	4 PM - 5 PM	0.03	2.0

Monthly Total Electricity Impact
VSD Chilled Water Loop Pump

December Peak Day Demand Impact
VSD Chilled Water Loop Pump

Monthly Total Fossil Fuel Impact
VSD Chilled Water Loop Pump

December Peak Day Demand Profile
VSD Chilled Water Loop Pump

Measure ID	APXE8517		Energy Management System		
Base ID	APXE7617		Base Case For EMS		
Market Segment					
Building Type	Master-Metered Apartment		Vintage	Existing	
Floor Area (sf)	146000	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.3930	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	2.7%	Modified Market	34.1%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.398	6.1	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	NA
Ventilation	0.000	0.1			
Indoor Lighting	0.052	1.8			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.450	2.9	Total	0.000	NA
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	March	Weekday	8 PM - 9 PM	0.08	3.3
Minimum Impact	April	Weekday	4 AM - 5 AM	0.03	2.3
System Coincident	December	Weekday	4 PM - 5 PM	0.05	2.8

Measure ID	APNE8517		Energy Management System		
Base ID	APNE7617		Base Case For EMS		
Market Segment					
Building Type	Master-Metered Apartment		Vintage	New	
Floor Area (sf)	146000	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.2541	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	\$2.7%	Modified Market	38.8%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.316	5.6	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	NA
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.316	2.4	Total	0.000	NA
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	July	Weekday	7 PM - 8 PM	0.05	2.5
Minimum Impact	April	Weekday	4 AM - 5 AM	0.02	1.8
System Coincident	December	Weekday	4 PM - 5 PM	0.04	2.5

Measure ID	APXG8520		High Efficiency Gas Water Heater		
Base ID	APXG7000		Base Case-Standard		
Market Segment					
Building Type	Master-Metered Apartment			Vintage	Existing
Floor Area (sf)	146000	Water Heater Fuel	Gas	Cost Unit	Building square foot
First Cost (\$/unit)	50.0216	Measure Life (Yrs)	14	Mutual Exclusivity	Yes
Potential Market	40.0%	Modified Market	12.1%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.000	0.0	Cooling	0.000	NA
Water Heating	0.000	NA	Water Heating	1.240	7.5
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	NA
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.000	0.0	Total	1.240	7.5
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	NA	Weekday	NA	0.00	NA
Minimum Impact	NA	Weekday	NA	0.00	NA
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.0

Measure ID	APNG8520		High Efficiency Gas Water Heater		
Base ID	APNG7000		Base Case-Standard		
Market Segment					
Building Type	Master-Metered Apartment			Vintage	New
Floor Area (sf)	146000	Water Heater Fuel	Gas	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0216	Meas. Life (Yrs)	14	Mutual Exclusivity	Yes
Potential Market	64.0%	Modified Market	19.3%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.000	0.0	Cooling	0.000	NA
Water Heating	0.000	NA	Water Heating	0.247	2.5
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	NA
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.000	0.0	Total	0.248	2.5
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	NA	Weekday	NA	0.00	NA
Minimum Impact	NA	Weekday	NA	0.00	NA
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.0

Monthly Total Electricity Impact
High Efficiency Gas Water Heater

December Peak Day Demand Impact
High Efficiency Gas Water Heater

Monthly Total Fossil Fuel Impact
High Efficiency Gas Water Heater

December Peak Day Demand Profile
High Efficiency Gas Water Heater

Measure ID	APXG8521		Point of Use Water Heating		
Base ID	APXG7000		Base Case-Standard		
Market Segment					
Building Type	Master-Metered Apartment			Vintage	Existing
Floor Area (sf)	146000	Water Heater Fuel	Gas	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0479	Measure Life (Yrs)	14	Mutual Exclusivity	Yes
Potential Market	33.8%	Modified Market	10.2%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.308	4.7	Cooling	0.000	NA
Water Heating	-0.940	NA	Water Heating	16.533	100.0
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	NA
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	-0.633	-4.6	Total	16.533	100.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	September	Weekday	3 AM - 4 AM	0.00	0.1
Minimum Impact	March	Weekday	7 AM - 8 AM	-0.24	-12.0
System Coincident	December	Weekday	4 PM - 5 PM	-0.05	-3.7

Monthly Total Electricity Impact
Point of Use Water Heating

December Peak Day Demand Impact
Point of Use Water Heating

Monthly Total Fossil Fuel Impact
Point of Use Water Heating

December Peak Day Demand Profile
Point of Use Water Heating

Measure ID	APXE8521		Point of Use Water Heating		
Base ID	APXE7000		Base Case-Standard		
Market Segment					
Building Type	Master-Metered Apartment			Vintage	Existing
Floor Area (sf)	146000	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0479	Measure Life (Yrs)	14	Mutual Exclusivity	Yes
Potential Market	33.8%	Modified Market	10.2%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.308	4.7	Cooling	0.000	NA
Water Heating	0.751	44.4	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	NA
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	1.058	6.9	Total	0.000	NA
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	March	Weekday	8 AM - 9 AM	0.13	5.3
Minimum Impact	September	Weekday	2 AM - 3 AM	0.12	8.9
System Coincident	December	Weekday	4 PM - 5 PM	0.12	7.4

Monthly Total Electricity Impact
Point of Use Water Heating

December Peak Day Demand Impact
Point of Use Water Heating

Monthly Total Fossil Fuel Impact
Point of Use Water Heating

December Peak Day Demand Profile
Point of Use Water Heating

Measure ID	APNG8521		Point of Use Water Heating		
Base ID	APNG7000		Base Case-Standard		
Market Segment					
Building Type	Master-Metered Apartment			Vintage	New
Floor Area (sf)	146000	Water Heater Fuel	Gas	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0425	Measure Life (Yrs)	14	Mutual Exclusivity	Yes
Potential Market	75.0%	Modified Market	22.6%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.231	4.3	Cooling	0.000	NA
Water Heating	-0.940	NA	Water Heating	9.900	100.0
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	NA
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	-0.709	-6.0	Total	9.900	100.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	September	Weekday	11 PM - Midnight	0.00	0.1
Minimum Impact	March	Weekday	8 AM - 9 AM	-0.24	-13.6
System Coincident	December	Weekday	4 PM - 5 PM	-0.05	-4.4

Measure ID	APNE8521		Point of Use Water Heating		
Base ID	APNE7000		Base Case-Standard		
Market Segment					
Building Type	Master-Metered Apartment			Vintage	New
Floor Area (sf)	146000	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0425	Measure Life (Yrs)	14	Mutual Exclusivity	Yes
Potential Market	5.0%	Modified Market	22.6%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	kWh/sf	% of Base	End-Use	kBtu/sf	% of Base
Cooling & Auxiliary	0.231	4.3	Cooling	0.000	NA
Water Heating	0.363	27.9	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	NA
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.594	4.5	Total	0.000	NA
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	March	Weekday	7 AM - 8 AM	0.08	3.9
Minimum Impact	September	Weekday	3 AM - 4 AM	0.04	3.8
System Coincident	December	Weekday	4 PM - 5 PM	0.08	5.6

Monthly Total Electricity Impact
Point of Use Water Heating

December Peak Day Demand Impact
Point of Use Water Heating

Monthly Total Fossil Fuel Impact
Point of Use Water Heating

December Peak Day Demand Profile
Point of Use Water Heating

Measure ID	APXG8523		Tank Insulation-Fiber Blanket		
Base ID	APXG7000		Base Case-Standard		
Market Segment					
Building Type	Master-Metered Apartment			Vintage	Existing
Floor Area (sf)	146000	Water Heater Fuel	Gas	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0040	Measure Life (Yrs)	10	Mutual Exclusivity	Yes
Potential Market	20.0%	Modified Market	6.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.000	0.0	Cooling	0.000	NA
Water Heating	0.000	NA	Water Heating	9.074	54.9
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	NA
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.000	0.0	Total	9.074	54.9
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	NA	Weekday	NA	0.00	NA
Minimum Impact	NA	Weekday	NA	0.00	NA
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.0

Measure ID	APXE8523		Tank Insulation-Fiber Blanket		
Base ID	APXE7000		Base Case-Standard		
Market Segment					
Building Type	Master-Metered Apartment		Vintage	Existing	
Floor Area (sf)	146000	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.0040	Measure Life (Yrs)	10	Mutual Exclusivity	Yes
Potential Market	20.0%	Modified Market	6.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.000	0.0	Cooling	0.000	NA
Water Heating	0.629	37.2	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	NA
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.629	4.1	Total	0.000	NA
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	March	Weekday	10 PM - 11 PM	0.07	3.5
Minimum Impact	September	Weekday	8 PM - 9 PM	0.07	3.1
System Coincident	December	Weekday	4 PM - 5 PM	0.07	4.4

Monthly Total Electricity Impact
Tank Insulation-Fiber Blanket

December Peak Day Demand Impact
Tank Insulation-Fiber Blanket

Monthly Total Fossil Fuel Impact
Tank Insulation-Fiber Blanket

December Peak Day Demand Profile
Tank Insulation-Fiber Blanket

Measure ID	APXG8524		Active Solar Water Heating		
Base ID	APXG7000		Base Case-Standard		
Market Segment					
Building Type	Master-Metered Apartment		Vintage	Existing	
Floor Area (sf)	146000	Water Heater Fuel	Gas	Cost Unit	Building square foot
First Cost (\$/unit)	50.2228	Measure Life (Yrs)	14	Mutual Exclusivity	Yes
Potential Market	10.0%	Modified Market	3.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.000	0.0	Cooling	0.000	NA
Water Heating	-0.009	NA	Water Heating	14.847	89.8
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	NA
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	-0.008	-0.1	Total	14.846	89.8
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	July	Weekday	1 AM - 2 AM	0.01	0.5
Minimum Impact	August	Weekday	8 AM - 9 AM	-0.00	-0.2
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.0

Measure ID	APXE8524		Active Solar Water Heating		
Base ID	APXE7000		Base Case-Standard		
Market Segment					
Building Type	Master-Metered Apartment			Vintage	Existing
Floor Area (sf)	146000	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.2228	Measure Life (Yrs)	14	Mutual Exclusivity	Yes
Potential Market	10.0%	Modified Market	3.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.000	0.0	Cooling	0.000	NA
Water Heating	1.485	87.8	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	NA
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	1.487	9.7	Total	0.000	NA
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	January	Weekday	8 AM - 9 AM	0.36	16.6
Minimum Impact	July	Weekday	5 AM - 6 AM	0.06	4.7
System Coincident	December	Weekday	4 PM - 5 PM	0.17	10.7

Measure ID	APNG8524		Active Solar Water Heating		
Base ID	APNG7000		Base Case-Standard		
Market Segment					
Building Type	Master-Metered Apartment		Vintage	New	
Floor Area (sf)	146000	Water Heater Fuel	Gas	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.2228	Measure Life (Yrs)	14	Mutual Exclusivity	Yes
Potential Market	15.0%	Modified Market	4.5%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.000	0.0	Cooling	0.000	NA
Water Heating	-0.009	NA	Water Heating	8.213	83.0
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	NA
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	-0.008	-0.1	Total	8.213	83.0
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	November	Weekday	1 AM - 2 AM	0.01	0.6
Minimum Impact	July	Weekday	4 PM - 5 PM	-0.00	-0.2
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.0

Measure ID	APNE8524		Active Solar Water Heating		
Base ID	APNE7000		Base Case-Standard		
Market Segment					
Building Type	Master-Metered Apartment		Vintage	New	
Floor Area (sf)	146000	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.2228	Measure Life (Yrs)	14	Mutual Exclusivity	Yes
Potential Market	15.0%	Modified Market	4.5%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.000	0.0	Cooling	0.000	NA
Water Heating	1.098	84.2	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	NA
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	1.099	8.4	Total	0.000	NA
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	January	Weekday	8 AM - 9 AM	0.31	16.6
Minimum Impact	July	Weekday	6 AM - 7 AM	0.02	1.1
System Coincident	December	Weekday	4 PM - 5 PM	0.13	9.6

Monthly Total Electricity Impact
Active Solar Water Heating

December Peak Day Demand Impact
Active Solar Water Heating

Monthly Total Fossil Fuel Impact
Active Solar Water Heating

December Peak Day Demand Profile
Active Solar Water Heating

Measure ID	APXE8543		Gas Absorption Chiller		
Base ID	APXE7000		Base Case-Standard		
Market Segment					
Building Type	Master-Metered Apartment			Vintage	Existing
Floor Area (sf)	146000	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.0340	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	26.0%	Modified Market	13.8%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	2.330	35.7	Cooling	-25.528	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	NA
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	2.330	15.2	Total	-25.528	NA
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	July	Weekday	1 PM - 2 PM	0.46	21.6
Minimum Impact	April	Weekday	4 AM - 5 AM	0.09	8.7
System Coincident	December	Weekday	4 PM - 5 PM	0.27	16.6

Measure ID	APNE8543		Gas Absorption Chiller		
Base ID	APNE7000		Base Case-Standard		
Market Segment					
Building Type	Master-Metered Apartment			Vintage	New
Floor Area (sf)	146000	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0276	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	29.5%	Modified Market	15.7%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	1.594	29.7	Cooling	-20.549	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	NA
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	1.594	12.2	Total	-20.549	NA
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	July	Weekday	1 PM - 2 PM	0.30	17.8
Minimum Impact	April	Weekday	4 AM - 5 AM	0.10	10.4
System Coincident	December	Weekday	4 PM - 5 PM	0.18	13.0

Measure ID	APXE8544		Chiller Strainer Cycle		
Base ID	APXE7000		Base Case-Standard		
Market Segment					
Building Type	Master-Metered Apartment			Vintage	Existing
Floor Area (sf)	146000	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0178	Measure Life (Yrs)	20	Mutual Exclusivity	No
Potential Market	20.8%	Modified Market	20.8%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.405	6.2	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	NA
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.405	2.6	Total	0.000	NA
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	April	Weekday	8 AM - 9 AM	0.06	2.7
Minimum Impact	April	Weekday	4 AM - 5 AM	0.01	1.0
System Coincident	December	Weekday	4 PM - 5 PM	0.05	2.8

Measure ID	APNE8544		Chiller Strainer Cycle		
Base ID	APNE7000		Base Case-Standard		
Market Segment					
Building Type	Master-Metered Apartment			Vintage	New
Floor Area (sf)	146000	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0144	Measure Life (Yrs)	20	Mutual Exclusivity	No
Potential Market	15.3%	Modified Market	15.3%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.019	0.4	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	NA
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.019	0.1	Total	0.000	NA
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	NA	Weekday	NA	0.00	NA
Minimum Impact	NA	Weekday	NA	0.00	NA
System Coincident	December	Weekday	4 PM - 5 PM	0.00	0.0

Measure ID	APXE8545		Chilled Water Reset Controls		
Base ID	APXE7000		Base Case-Standard		
Market Segment					
Building Type	Master-Metered Apartment		Vintage	Existing	
Floor Area (sf)	146000	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.0005	Measure Life (Yrs)	20	Mutual Exclusivity	Yes
Potential Market	20.8%	Modified Market	9.8%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.390	6.0	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	NA
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.390	2.5	Total	0.000	NA
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	April	Weekday	8 AM - 9 AM	0.06	2.7
Minimum Impact	April	Weekday	4 AM - 5 AM	0.01	1.0
System Coincident	December	Weekday	4 PM - 5 PM	0.05	2.8

Measure ID	APXE8552		Compact Fluorescent Lamp EXIT Signs		
Base ID	APXE7000		Base Case-Standard		
Market Segment					
Building Type	Master-Metered Apartment		Vintage	Existing	
Floor Area (sf)	146000	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0074	Measure Life (Yrs)	16	Mutual Exclusivity	No
Potential Market	90.0%	Modified Market	90.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.046	0.7	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	NA
Ventilation	0.004	0.6			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.207	1.4	Total	0.000	NA
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	February	Weekday	7 AM - 8 AM	0.03	1.6
Minimum Impact	February	Weekday	10 AM - 11 AM	0.02	1.3
System Coincident	December	Weekday	4 PM - 5 PM	0.02	1.4

Measure ID	APNE8552		Compact Fluorescent Lamp EXIT Signs		
Base ID	APNE7000		Base Case-Standard		
Market Segment					
Building Type	Master-Metered Apartment			Vintage	New
Floor Area (sf)	146000	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0018	Measure Life (Yrs)	16	Mutual Exclusivity	No
Potential Market	75.0%	Modified Market	75.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.049	0.9	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	NA
Ventilation	0.004	0.9			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.210	1.6	Total	0.000	NA
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	December	Weekday	11 PM - Midnight	0.04	2.4
Minimum Impact	February	Weekday	10 AM - 11 AM	0.02	1.6
System Coincident	December	Weekday	4 PM - 5 PM	0.02	1.8

Monthly Total Electricity Impact
Compact Fluorescent Lamp EXIT Signs

December Peak Day Demand Impact
Compact Fluorescent Lamp EXIT Signs

Monthly Total Fossil Fuel Impact
Compact Fluorescent Lamp EXIT Signs

December Peak Day Demand Profile
Compact Fluorescent Lamp EXIT Signs

Measure ID	APXE 553		LED Lamp EXIT Signs		
Base ID	APXE 000		Base Case-Standard		
Market Segment					
Building Type	Master-Metered Apartment			Vintage	Existing
Floor Area (sf)	146000	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.0245	Measure Life (Yrs)	16	Mutual Exclusivity	Yes
Potential Market	90.0%	Modified Market	49.1%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.074	1.1	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	NA
Ventilation	0.006	1.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.334	2.2	Total	0.000	NA
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	April	Weekday	7 AM - 8 AM	0.06	2.4
Minimum Impact	February	Weekday	10 AM - 11 AM	0.03	2.1
System Coincident	December	Weekday	4 PM - 5 PM	0.04	2.3

Monthly Total Electricity Impact
LED Lamp EXIT Signs

December Peak Day Demand Impact
LED Lamp EXIT Signs

Monthly Total Fossil Fuel Impact
LED Lamp EXIT Signs

December Peak Day Demand Profile
LED Lamp EXIT Signs

Measure ID	APNE8553		LED Lamp EXIT Signs		
Base ID	APNE7000		Base Case-Standard		
Market Segment					
Building Type	Master-Metered Apartment			Vintage	New
Floor Area (sf)	146000	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0128	Measure Life (Yrs)	16	Mutual Exclusivity	Yes
Potential Market	~5.0%	Modified Market	~0.9%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.079	1.5	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	NA
Ventilation	0.006	1.4			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.339	2.6	Total	0.000	NA
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	February	Weekday	2 AM - 3 AM	0.05	5.1
Minimum Impact	February	Weekday	10 AM - 11 AM	0.04	2.6
System Coincident	December	Weekday	4 PM - 5 PM	0.04	2.8

Measure ID	APXE8554		Heat Pump Water Heater		
Base ID	APXE7000		Base Case-Standard		
Market Segment					
Building Type	Master-Metered Apartment			Vintage	Existing
Floor Area (sf)	146000	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	50.1727	Measure Life (Yrs)	10	Mutual Exclusivity	Yes
Potential Market	±5.0%	Modified Market	13.6%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.000	0.0	Cooling	0.000	NA
Water Heating	1.251	74.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	NA
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	1.251	8.2	Total	0.000	NA
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	April	Weekday	8 AM - 9 AM	0.28	11.5
Minimum Impact	November	Weekday	4 AM - 5 AM	0.08	7.6
System Coincident	December	Weekday	4 PM - 5 PM	0.13	7.8

Monthly Total Electricity Impact
Heat Pump Water Heater

December Peak Day Demand Impact
Heat Pump Water Heater

Monthly Total Fossil Fuel Impact
Heat Pump Water Heater

December Peak Day Demand Profile
Heat Pump Water Heater

Measure ID	APNE8554		Heat Pump Water Heater		
Base ID	APNE7000		Base Case-Standard		
Market Segment					
Building Type	Master-Metered Apartment			Vintage	New
Floor Area (sf)	146000	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.1727	Measure Life (Yrs)	10	Mutual Exclusivity	Yes
Potential Market	50.0%	Modified Market	15.1%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.000	0.0	Cooling	0.000	NA
Water Heating	0.958	73.5	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	NA
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.958	7.3	Total	0.000	NA
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	April	Weekday	8 AM - 9 AM	0.24	11.6
Minimum Impact	November	Weekday	5 AM - 6 AM	0.05	5.5
System Coincident	December	Weekday	4 PM - 5 PM	0.09	6.9

Measure ID	APXE8557		Optical Reflectors-2X4 Recessed		
Base ID	APXE7000		Base Case-Standard		
Market Segment					
Building Type	Master-Metered Apartment			Vintage	Existing
Floor Area (sf)	146000	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0152	Measure Life (Yrs)	16	Mutual Exclusivity	No
Potential Market	50.0%	Modified Market	50.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.058	0.9	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	NA
Ventilation	0.006	1.0			
Indoor Lighting	0.354	11.9			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.417	2.7	Total	0.000	NA
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	December	Weekday	5 PM - 6 PM	0.06	3.8
Minimum Impact	March	Weekday	11 PM - Midnight	0.03	1.6
System Coincident	December	Weekday	4 PM - 5 PM	0.06	3.8

Monthly Total Electricity Impact
Optical Reflectors-2X4 Recessed

December Peak Day Demand Impact
Optical Reflectors-2X4 Recessed

Monthly Total Fossil Fuel Impact
Optical Reflectors-2X4 Recessed

December Peak Day Demand Profile
Optical Reflectors-2X4 Recessed

Measure ID	APNE8557		Optical Reflectors-2X4 Recessed		
Base ID	APNE7000		Base Case-Standard		
Market Segment					
Building Type	Master-Metered Apartment			Vintage	New
Floor Area (sf)	146000	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0149	Measure Life (Yrs)	16	Mutual Exclusivity	No
Potential Market	100.0%	Modified Market	100.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.054	1.0	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	NA
Ventilation	0.005	1.1			
Indoor Lighting	0.284	11.7			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.343	2.6	Total	0.000	NA
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	January	Weekday	8 AM - 9 AM	0.06	3.2
Minimum Impact	July	Weekday	11 PM - Midnight	0.02	1.4
System Coincident	December	Weekday	4 PM - 5 PM	0.05	3.9

Measure iD	APXE8561		Electronic Ballasts-4' T12-Base SMC		
Base iD	APXE7661		Base Case for 4' Fluor. SMC Ballasts		
Market Segment					
Building Type	Master-Metered Apartment			Vintage	Existing
Floor Area (sf)	146000	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0284	Measure Life (Yrs)	16	Mutual Exclusivity	Yes
Potential Market	70.0%	Modified Market	29.2%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.024	0.4	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	NA
Ventilation	0.002	0.4			
Indoor Lighting	0.138	4.5			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.165	1.1	Total	0.000	NA
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	February	Weekday	8 AM - 9 AM	0.03	1.2
Minimum Impact	March	Weekday	11 PM - Midnight	0.01	0.6
System Coincident	December	Weekday	4 PM - 5 PM	0.02	1.4

Measure ID	APXE8563		Compact Fluorescent Lamps-15W		
Base ID	APXE7000		Base Case-Standard		
Market Segment					
Building Type	Master-Metered Apartment			Vintage	Existing
Floor Area (sf)	146000	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0158	Measure Life (Yrs)	2	Mutual Exclusivity	No
Potential Market	90.3%	Modified Market	90.3%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.067	1.0	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	NA
Ventilation	0.006	1.0			
Indoor Lighting	0.242	8.2			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.314	2.1	Total	0.000	NA
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	September	Weekday	8 AM - 9 AM	0.08	3.2
Minimum Impact	September	Weekday	3 AM - 4 AM	0.02	1.2
System Coincident	December	Weekday	4 PM - 5 PM	0.04	2.3

Measure ID	APNE8563		Compact Fluorescent Lamps-15W		
Base ID	APNE7000		Base Case-Standard		
Market Segment					
Building Type	Master-Metered Apartment			Vintage	New
Floor Area (sf)	146000	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0132	Measure Life (Yrs)	2	Mutual Exclusivity	No
Potential Market	95.0%	Modified Market	95.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.063	1.2	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	NA
Ventilation	0.005	1.2			
Indoor Lighting	0.203	8.4			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.271	2.1	Total	0.000	NA
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	October	Weekday	8 AM - 9 AM	0.07	3.4
Minimum Impact	April	Weekday	3 AM - 4 AM	0.01	1.3
System Coincident	December	Weekday	4 PM - 5 PM	0.03	2.5

Monthly Total Electricity Impact
Compact Fluorescent Lamps-15W

December Peak Day Demand Impact
Compact Fluorescent Lamps-15W

Monthly Total Fossil Fuel Impact
Compact Fluorescent Lamps-15W

December Peak Day Demand Profile
Compact Fluorescent Lamps-15W

Measure ID	APXE8564		Compact Fluorescent Lamps-26W		
Base ID	APXE7000		Base Case-Standard		
Market Segment					
Building Type	Master-Metered Apartment		Vintage	Existing	
Floor Area (sf)	146000	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0103	Measure Life (Yrs)	5	Mutual Exclusivity	No
Potential Market	90.3%	Modified Market	90.3%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.044	0.7	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	NA
Ventilation	0.002	0.3			
Indoor Lighting	0.333	11.2			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.379	2.5	Total	0.000	NA
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	April	Weekday	11 PM - Midnight	0.05	3.1
Minimum Impact	February	Weekday	10 AM - 11 AM	0.04	2.5
System Coincident	December	Weekday	4 PM - 5 PM	0.04	2.6

Measure ID	APNE8564		Compact Fluorescent Lamps-26W		
Base ID	APNE7000		Base Case-Standard		
Market Segment					
Building Type	Master-Metered Apartment			Vintage	New
Floor Area (sf)	146000	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0085	Measure Life (Yrs)	5	Mutual Exclusivity	No
Potential Market	95.0%	Modified Market	95.0%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.038	0.7	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	NA
Ventilation	0.002	0.3			
Indoor Lighting	0.280	11.6			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.320	2.4	Total	0.000	NA
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	April	Weekday	7 AM - 8 AM	0.05	2.3
Minimum Impact	February	Weekday	10 AM - 11 AM	0.04	2.6
System Coincident	December	Weekday	4 PM - 5 PM	0.04	2.7

Monthly Total Electricity Impact
Compact Fluorescent Lamps-26W

December Peak Day Demand Impact
Compact Fluorescent Lamps-26W

Monthly Total Fossil Fuel Impact
Compact Fluorescent Lamps-26W

December Peak Day Demand Profile
Compact Fluorescent Lamps-26W

Measure ID	APXE8567		High Efficiency Reciprocating Chiller		
Base ID	APXE7000		Base Case-Standard		
Market Segment					
Building Type	Master-Metered Apartment			Vintage	Existing
Floor Area (sf)	146000	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0057	Measure Life (Yrs)	20	Mutual Exclusivity	No
Potential Market	20.8%	Modified Market	20.8%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.492	7.5	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	NA
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.492	3.2	Total	0.000	NA
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	July	Weekday	1 PM - 2 PM	0.10	4.7
Minimum Impact	April	Weekday	4 AM - 5 AM	0.02	2.1
System Coincident	December	Weekday	4 PM - 5 PM	0.06	3.4

Measure ID	APNE8567		High Efficiency Reciprocating Chiller		
Base ID	APNE7000		Base Case-Standard		
Market Segment					
Building Type	Master-Metered Apartment		Vintage	New	
Floor Area (sf)	146000	Water Heater Fuel	Electric	Cost Unit	Building square foot
First Cost (\$/unit)	\$0.0046	Measure Life (Yrs)	20	Mutual Exclusivity	No
Potential Market	29.5%	Modified Market	29.5%	Intra Action	No
Annual Energy Impact By End-Use					
Electricity			Natural Gas/Oil		
End-Use	(kWh/sf)	% of Base	End-Use	(kBtu/sf)	% of Base
Cooling & Auxiliary	0.265	4.9	Cooling	0.000	NA
Water Heating	0.000	0.0	Water Heating	0.000	NA
Misc. Equipment	0.000	0.0	Misc. Equipment	0.000	NA
Ventilation	0.000	0.0			
Indoor Lighting	0.000	0.0			
Outdoor Lighting	0.000	0.0			
Central Refrigeration	0.000	NA			
Total	0.265	2.0	Total	0.000	NA
Total Building Peak Demand Impact					
Peak Event	Month	Day Type	Hour	(W/sf)	% of Base
Maximum Impact	July	Weekday	1 PM - 2 PM	0.05	3.1
Minimum Impact	April	Weekday	4 AM - 5 AM	0.02	1.6
System Coincident	December	Weekday	4 PM - 5 PM	0.03	2.1