

HECO TIMELINE

**HAWAIIAN ELECTRIC COMPANY, INC. (HECO)**

Renewable Energy Commitments	Cumulative Target Goal (MW by year-end)				
	2010	2015	2020	2025	2030
<b>RENEWABLE GENERATION</b>					
<b>IPP Projects (info based on IPP proposals)</b>					
Kahuku Wind	30.0	30.0	30.0	30.0	30.0
Sea Solar OTEC		25.0	100.0	100.0	100.0
Lockheed Martin OTEC		10.0	10.0	10.0	10.0
Molokai and/or Lanai Wind		400.0	400.0	400.0	400.0
Honua Waste-to-Energy		6.0	6.0	6.0	6.0
C&C Waste-to-Energy		11.0	11.0	11.0	27.0
RFP Non-firm RE		100.0	100.0	100.0	100.0
<b>Utility Projects</b>					
Airport DSG (Bio-fuel)	8.0	8.0	8.0	8.0	8.0
DG at substations (Bio-fuel)		30.0	30.0	30.0	30.0
CIP CT-1 (Bio-fuel)	110.0	110.0	110.0	110.0	110.0
CIP CT-2 (Bio-fuel)		110.0	110.0	110.0	110.0
Military DG (Biofuel)		50.0	62.5	75.0	75.0
<b>Total RE Generation</b>	<b>148.0</b>	<b>890.0</b>	<b>977.5</b>	<b>990.0</b>	<b>1,006.0</b>
<b>ENERGY EFFICIENCY/CUSTOMER SITED GENERATION</b>					
PV (through feed-in tariff or PPA)	6.5	23.0	65.0	108.0	140.0
Solar Opportunity					
Mandatory Solar Roofing, SB644	1.0	3.0	6.0	9.0	11.0
Pay-As-You-Save Solar Program	2.0	6.0	10.0	15.0	19.0
PV Host Program	2.0	12.0	22.0	32.0	42.0
Net Energy Metering	5.0	23.0	57.0	97.0	127.0
Distributed Generation & Distributed Energy Resources	0.0	8.0	15.5	23.0	35.0
Seawater Air Conditioning	0.0	16.0	16.0	16.0	16.0
<b>Total EE/DG</b>	<b>16.5</b>	<b>91.0</b>	<b>191.5</b>	<b>300.0</b>	<b>390.0</b>
<b>TOTAL RE &amp; EE/DG</b>	<b>168.5</b>	<b>1,015.0</b>	<b>1,220.0</b>	<b>1,358.0</b>	<b>1,481.0</b>
<b>PEAK REDUCTION/PEAK SHIFTING</b>					
Demand Response Program & Load Management	60.0	73.0	89.0	103.0	116.0
Pricing Programs					
Residential TOU Rates	}	2.0	10.0	20.0	31.0
Commercial TOU Rates					
Industrial TOU Rates					
Critical Peak Pricing					
Critical Peak Pricing	2.0	24.0	31.0	37.0	44.0
<b>TRANSPORTATION ELECTRIFICATION</b>					
Plug-In Hybrid Cars (# of Cars, Oahu Only)	600	36,000	66,000	96,000	126,000

HELCO TIMELINES

**HAWAII ELECTRIC LIGHT COMPANY, INC. (HELCO)**

Renewable Energy Commitments	Cumulative Target Goal (MW by year-end)				
	2010	2015	2020	2025	2030
<b>RENEWABLE GENERATION</b>					
<b>IPP Projects (info based on IPP proposals)</b>					
PGV Geothermal	8.0	8.0	8.0	30.0	30.0
Hamakua Biomass or Hu Honua		25.0	25.0	25.0	25.0
Hawaii County Waste-To-Energy		4.0	4.0	4.0	4.0
Sopogy Solar	0.5	0.5	0.5	0.5	0.5
Na Makani Wind and PSH		4.5	4.5	4.5	4.5
<b>Total RE Generation</b>	<b>8.5</b>	<b>42.0</b>	<b>42.0</b>	<b>64.0</b>	<b>64.0</b>
<b>ENERGY EFFICIENCY/CUSTOMER SITED GENERATION</b>					
PV (through feed-in tariff or PPA)	1.8	7.8	18.0	30.0	39.0
Solar Opportunity					
Mandatory Solar Roofing, SB644	1.0	4.0	8.0	12.0	15.0
Pay-As-You-Save Solar Program	0.2	1.0	3.0	4.0	5.0
PV Host Program	2.0	7.0	12.0	17.0	22.0
Net Energy Metering	1.3	6.0	14.0	24.0	32.0
Distributed Generation & Distributed Energy Resources	2.7	6.6	10.0	12.6	12.5
<b>Total EE/DG</b>	<b>9.0</b>	<b>32.4</b>	<b>65.0</b>	<b>99.6</b>	<b>125.5</b>
<b>TOTAL RE &amp; EE/DG</b>	<b>17.9</b>	<b>80.4</b>	<b>115.0</b>	<b>172.6</b>	<b>202.5</b>
<b>PEAK REDUCTION/PEAK SHIFTING</b>					
Demand Response Program & Load Management	0.0	1.0	4.0	4.0	4.0
Pricing Programs					
Residential TOU Rates	}	0.2	2.0	3.0	3.0
Commercial TOU Rates					
Industrial TOU Rates					
Critical Peak Pricing					
Critical Peak Pricing	0.2	4.0	5.0	6.0	8.0
<b>TRANSPORTATION ELECTRIFICATION</b>					
Plug-In Hybrid Cars (# of Cars, Hawaii Only)	1,200	7,200	13,200	19,200	25,200

MECO TIMELINES

**MAUI ELECTRIC COMPANY, LTD (MECO)**

Renewable Energy Commitments	Cumulative Target Goal (MW by year-end)				
	2010	2015	2020	2025	2030
<b>RENEWABLE GENERATION</b>					
<b>IPP Projects (info based on IPP proposals)</b>					
Shell Wind		21.0	21.0	21.0	21.0
Lanai Solar	1.2	1.2	1.2	1.2	1.2
Oceanlinx Wave		2.7	2.7	2.7	2.7
Pulehu Biomass		6.0	6.0	6.0	6.0
Landfill gas (Waste-to-Energy)		Unknown status.			
KWP II		21.0	21.0	21.0	21.0
<b>Total RE Generation</b>	1.2	51.9	51.9	51.9	51.9
<b>ENERGY EFFICIENCY/CUSTOMER SITED GENERATION</b>					
PV (through feed-in tariff or PPA)	1.8	7.8	18.0	30.0	39.0
Solar Opportunity					
Mandatory Solar Roofing, SB644	1.0	3.0	6.0	9.0	11.0
Pay-As-You-Save Solar Program	0.1	2.0	3.0	5.0	6.0
PV Host Program	2.0	7.0	12.0	17.0	22.0
Net Energy Metering	2.2	10.0	24.0	42.0	54.0
Distributed Generation & Distributed Energy Resources	1.8	4.8	7.8	10.8	12.0
<b>Total EE/DG</b>	8.9	34.6	70.8	113.8	144.0
<b>TOTAL RE &amp; EE/DG</b>	10.5	92.5	131.7	177.7	209.9
<b>PEAK REDUCTION/PEAK SHIFTING</b>					
Demand Response Program & Load Management	4.0	8.0	9.0	10.0	10.0
Pricing Programs					
Residential TOU Rates	}	0.2	2.0	3.0	5.0
Commercial TOU Rates					
Industrial TOU Rates					
Critical Peak Pricing					
Critical Peak Pricing	0.2	4.0	6.0	7.0	8.0
<b>TRANSPORTATION ELECTRIFICATION</b>					
Plug-In Hybrid Cars (# of Cars, Maui Only)	1,200	7,200	13,200	19,200	25,200