

## 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>	148.0	890.0	977.5	990.0	1,006.0
<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>	16.5	91.0	191.5	300.0	390.0
<b>TOTAL RE &amp; EE/DG</b>	168.5	1,015.0	1,220.0	1,358.0	1,481.0
<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	}				
Commercial TOU Rates		2.0	10.0	20.0	31.0
Industrial TOU Rates					
Critical Peak Pricing		2.0	24.0	31.0	37.0
<b>TRANSPORTATION ELECTRIFICATION</b>					
Plug-In Hybrid Cars	600	36,000	66,000	96,000	126,000
(# of Cars, Oahu Only)					

## HELCO TIMELINES

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

Renewable Energy Commitments	Cumulative Target Goal (MW by year-end)					
	2010	2015	2020	2025	2030	
RENEWABLE GENERATION						
IPP Projects (info based on IPP proposals)						
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	
Total RE Generation	8.5	42.0	42.0	64.0	64.0	
ENERGY EFFICIENCY/CUSTOMER SITED GENERATION						
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	
Total EE/DG	9.0	32.4	65.0	99.6	125.5	
TOTAL RE & EE/DG	17.9	80.4	115.0	172.6	202.5	
PEAK REDUCTION/PEAK SHIFTING						
Demand Response Program & Load Management	0.0	1.0	4.0	4.0	4.0	
Pricing Programs						
Residential TOU Rates	}					
Commercial TOU Rates		0.2	2.0	3.0	3.0	5.0
Industrial TOU Rates						
Critical Peak Pricing		0.2	4.0	5.0	6.0	8.0
TRANSPORTATION ELECTRIFICATION						
Plug-In Hybrid Cars	1,200	7,200	13,200	19,200	25,200	
(# of Cars, Hawaii Only)						

**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	}				
Commercial TOU Rates		0.2	2.0	3.0	5.0
Industrial TOU Rates					6.0
Critical Peak Pricing		0.2	4.0	6.0	7.0
				7.0	8.0
<b>TRANSPORTATION ELECTRIFICATION</b>					
Plug-In Hybrid Cars	1,200	7,200	13,200	19,200	25,200
(# of Cars, Maui Only)					