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PUBLIC UTILITIES  
COMMISSION

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The Honorable Chair and Members of  
the Hawaii Public Utilities Commission  
465 South King Street  
Kekuanaoa Building, 1st Floor  
Honolulu, Hawaii 96813

Dear Commissioners:

Subject: Hawaiian Electric Company, Inc.,  
Hawaii Electric Light Company, Inc.  
Maui Electric Company, Limited  
2012 Net Energy Metering Status Report

Hawaiian Electric Company, Inc., Hawaii Electric Light Company, Inc. and Maui Electric Company, Limited respectfully submit their 2012 Net Energy Metering Status Report, which provides the total number of installations and the total rated generating capacity of net metered customer facilities in each of their service territories.

If you have any questions on this matter, please call Marisa Chun at 543-4723.

Very truly yours,

Attachment

cc: Division of Consumer Advocacy

# Net Energy Metering Status Report

Hawaiian Electric Company, Inc.  
Hawaii Electric Light Company, Inc.  
Maui Electric Company, Limited

December 31, 2012

## Background

Sections 269-101 to 269-111, Hawaii Revised Statutes, as amended, require net energy metering ("NEM") to be available to eligible customer-generators with a capacity of not more than 50 kilowatts until the total rated generating capacity of eligible customers equals 0.5 percent of the electric utility's system peak demand. Systems must meet all applicable safety and performance standards and systems 10 kilowatts or less are exempt from additional requirements to install additional controls, perform or pay for additional tests or purchase additional liability insurance. Hawaiian Electric Company, Inc. ("HECO"), Hawaii Electric Light Company, Inc. ("HELCO") and Maui Electric Company, Limited ("MECO") (collectively, "the Utilities") were among the supporters of this legislation.

The NEM law states that eligible customers who own and operate a solar, wind turbine, biomass, or hydroelectric energy generating facility, or a hybrid system consisting of two or more of these facilities, with a capacity of not more than 50 kilowatts, shall be credited at the retail rate (of the rate class the customer is normally assigned to) for electrical energy generated by the eligible customer-generator and fed back to the electric grid. Over a monthly billing period, the difference (i.e., net) between the customer-generated electrical energy and the electrical energy supplied through the electric grid is determined. In essence, customers are able to "bank" the excess renewable energy they generate and feed into the Utilities' grid for later use.

The Utilities are required to do a twelve-month reconciliation of the net electricity provided by the utility with the electricity generated by the customer-generator and any unused monetary credits from the customer-generator carried over from prior months since the last twelve-month reconciliation period, and provide in each regular bill information on net electricity production and consumption, monetary balances, and credits. Excess electricity generated by the customer-generator in each billing period is carried over to the next month as a monetary credit within each twelve-month period.

On April 10, 2006, the Public Utilities Commission of the State of Hawaii ("Commission") issued Order No. 22380 in Docket No. 2006-0084, opening an investigative proceeding to address whether the Commission should increase: (1) the maximum capacity of eligible customer-generators to more than 50 kilowatts; and (2) the total rated generating capacity produced by eligible customer-generators to an amount above 0.5 percent of an electric utility's system peak demand.

On September 21, 2006, the Commission issued Order No. 22884 in Docket No. 2006-0084 to amend the Stipulated Procedural Order (filed on August 14, 2006) to include whether the Commission should adopt, modify, or decline to adopt, in whole or in part, the NEM standard articulated in PURPA as amended by the Energy Policy Act of 2005.

On March 13, 2008, the Commission issued Decision and Order ("D&O") No. 24089 approving the stipulated agreement reached by the parties of the docket submitted by the Utilities on September 17, 2007. The Commission approved the stipulated agreement reached by the parties that:

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- Increases the maximum size of the eligible customer-generator that can qualify for a NEM agreement from 50 kW to 100 kW;
- Increases the total rated generating capacity produced by eligible customer-generators from 0.5% to 1.0% of the utility's system peak demand;
- Reserves 40%, 50%, and 50% of the total rated generating capacity produced by eligible customer-generators for HECO, HELCO, and MECO, respectively, for residential and smaller commercial NEM customers (system sizes of 10 kW or less);
- Utilizes the Integrated Resource Planning ("IRP") process to evaluate impacts to the Utilities' systems and determine further adjustments to the NEM system size and cap limits (limits re-examined on an annual basis); and
- Recommends that the Commission not adopt or modify the standard for NEM as articulated in the Public Utility Regulatory Policies Act of 1978 ("PURPA") as amended by the Energy Policy Act of 2005.

In addition to the agreed-upon terms of the stipulation, the Commission ordered that the Utilities design and propose a NEM Pilot Program for the Commission's review and approval, which will allow on a trial basis a limited number of larger generating units for NEM.

On April 28, 2008, the Utilities filed with the Commission a proposed NEM Pilot Program to investigate the impacts of large NEM systems on the electric grid. Multiple discussions were held with the Hawaii Renewable Energy Alliance ("HREA") and the Hawaii Solar Energy Association ("HSEA") to gain feedback on the proposed program so that industry considerations are adequately addressed. On September 25, 2009, the Commission issued its Feed-in Tariff ("FIT") D&O in Docket No. 2008-0273. After the issuance of the FIT D&O, HREA, HSEA, and the Utilities (collectively known as "Parties") met to discuss the implications of the FIT D&O on the NEM Pilot Program. After significant consideration and discussion, the Parties concluded a number of significant developments have occurred since the NEM Pilot Program was envisioned. There are now a number of planned and on-going studies which would utilize available federal funding and industry involvement, which are likely to provide a more accurate gauge of distributed generation growth and achieve the same benefits and lessons that were contemplated by conducting a NEM Pilot Program. A stipulated<sup>1</sup> letter to the Commission was submitted on December 18, 2009 on the status of the proposed NEM Pilot Program informing the Commission that the Utilities' NEM Pilot Program, as proposed on April 28, 2008, is no longer necessary. On January 13, 2011, the Commission issued an Order Regarding Net Energy Metering Proposals which, among other things, denied the December 18, 2009 stipulation and ordered the HECO Companies to continue development of the pilot program.

Based on a review in mid 2008 of approved, pending, and planned systems expected to apply for NEM status, it was forecasted that these systems would exceed the recently-approved NEM system caps for HELCO and MECO by the end of 2008. Consistent with the NEM review process within IRP established by D&O 24089, adjustments to the NEM system cap were proposed to the HELCO and MECO Integrated Resource Planning ("IRP") Advisory Groups in July 2008. There were no objections to HELCO and MECO proposals. As a result, on

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<sup>1</sup> See letter from the Consumer Advocate, Hawaiian Electric Companies, HREA, and HSEA (collectively referred to as the "NEM Parties") to the Commission in Docket No. 2006-0084, filed December 18, 2009.

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September 30, 2008, HECO and the Division of Consumer Advocacy of the State of Hawaii Department of Commerce and Consumer Affairs ("Consumer Advocate") filed stipulations for Commission approval under the HELCO IRP-3 docket (Docket No. 04-0046) and MECO IRP-3 docket (Docket No. 04-0077) on proposed changes to the NEM system caps for HELCO and MECO, respectively.

On December 3, 2008, in response to a request by the Commission (in a letter dated October 10, 2008) to file the stipulations in the NEM docket (Docket No. 2006-0084), HELCO, MECO and the Consumer Advocate filed their stipulations on the proposed changes to the NEM system caps for HELCO and MECO.

On December 26, 2008, the Commission issued an Order Approving, in Part, and Denying, in Part, Stipulations filed on December 3, 2008 ("December 26, 2008 Order") that:

- The increased NEM limits for HELCO and MECO, as proposed in the Stipulations, are approved.
  - NEM system cap from 1% to 3% of system peak demand; and
  - HELCO and MECO will reserve 40% of the NEM system cap for NEM systems of 10 kW or less and 60% of the NEM system cap for systems larger than 10 kW.
- HELCO and MECO will increase the system cap from 3.0% to 4.0% of system peak demand at the point when approved NEM applications equal or exceed 75% of the existing system peak demand cap for either the 10kW and less or greater than 10kW NEM eligible systems, for their respective Company. HELCO and MECO will notify the commission when this increase in the system cap to 4.0% of system peak demand goes into effect.
- The review of future increases in NEM system caps in IRP processes is denied due to the closing of IRP dockets by the Commission.

The parties to Docket No. 2006-0084 shall submit a stipulated proposed plan to address the Utilities' and Consumer Advocate's NEM agreement as set forth by the Energy Agreement and inform the Commission of any new review process for considering future increases to the NEM limits.

On October 20, 2008, the Governor of the State of Hawaii, the State of Hawaii Department of Business, Economic Development and Tourism, the Division of Consumer Advocacy of the Department of Commerce and Consumer Affairs, and the Utilities entered into an Energy Agreement. Among the numerous commitments contained in the Energy Agreement was the agreement that there should be no system-wide caps on NEM, and instead, distributed generation, including NEM, feeding into a circuit shall be limited on a per-circuit basis to no more than 15% of peak circuit demand for all distribution-level circuits of 12 kV or lower. For circuits approaching the 15% limit, the Utilities will perform a circuit-specific analysis to determine if the limit can be increased. In addition, the Energy agreement states that NEM will be replaced with an appropriate feed-in tariff and new NEM installations shall be required to utilize time-of-use metering equipment and rates. (See Energy Agreement Section 19, Net Energy Metering.) On August 14, 2009, the Utilities and the Consumer Advocate submitted their Proposed Plan to Address NEM, as set forth in the Energy Agreement. The Utilities

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proposed to move forward on the planned removal of the system-wide cap for NEM. A stipulation<sup>2</sup> between the Utilities and the Consumer Advocate was filed with the Commission on January 7, 2010. On January 13, 2011, the Commission issued an Order Regarding Net Energy Metering Proposals which, among other things, approved with conditions, the January 7, 2010 stipulation.

Another commitment contained in the Energy Agreement, was the agreement to replace the current Integrated Resource Planning process with a new Clean Energy Scenario Planning ("CESP") Process. (See Energy Agreement Section 32, CESP.) On February 11, 2009, the Utilities and the Consumer Advocate filed a stipulated letter requesting that any potential increases to the Utilities NEM limits be reviewed in each of the Utilities' CESP process in the same manner as the Parties agreed in their stipulation filed on September 17, 2007 and approved by D&O No. 24089. On October 27, 2009, pursuant to the Commission's March 25, 2009 letter, the Utilities provided additional briefing<sup>3</sup> on a proposed process to consider any future increases to the existing Utilities' NEM limits.

On March 22, 2010, MECO notified the Commission that it would be increasing its NEM system cap from 3.0% to 4.0% of system peak demand.<sup>4</sup> In addition, MECO emphasized that the allocations for the small systems with a generator size of 10kW and less, would represent a reservation for these particular project sizes, in other words a floor rather than a ceiling to availability of the program capacity. On April 28, 2010, HELCO filed a similar notification to the Commission that it would be increasing its NEM system cap from 3.0% to 4.0% of system peak demand.

On August 24, 2010, HECO and the Consumer Advocate filed a stipulation to increase its NEM system cap from 1% to 2% of system peak demand and reserve 40% of the 2.0% system peak demand for small systems with a generator size of 10kW and less. On January 13, 2011, the Commission issued an Order Regarding Net Energy Metering Proposals which, among other things, dismissed the August 24, 2010 stipulation as moot.

### Status

The following table provides the status of NEM in the HECO, HELCO, and MECO service territories as of December 31, 2012. In addition, a report on the estimates of the value of the lost contributions to fixed cost associated with NEM participation is shown in Appendix A.

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<sup>2</sup> A stipulation between the Utilities and the Consumer Advocate was filed with the Commission on January 7, 2010 recommending the removal of the Net Energy Metering System Cap with the adoption of the Rule 14H modifications and the establishment of Reliability Standards. The maximum size of eligible customer-generator that qualifies for a NEM arrangements remains unchanged at 100 kW.

<sup>3</sup> See letter from the Utilities to the Commission dated October 27, 2009, Docket No. 2006-0084 - Net Energy Metering (NEM).

<sup>4</sup> See December 26, 2008 Order.

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NEM Status as of 12/31/12

	Information packets sent	No. of Installations <sup>5</sup>	Installed kW <sup>6</sup>	NEM System Cap <sup>7</sup> , kW
<b>HECO</b>				
2001	151	1	3.60	5,955
2002	12	1	2.06	6,020
2003	49	8	11.74	6,210
2004	15	3	7.90	6,405
2005	5	0	0	6,150
2006	23	10	74.28	6,330
2007	67	73	400.29	6,080
2008	132	220	2,361	11,860
2009	111	513	2,460	12,130
2010	*	1,327	7,267	11,620
2011	*	3,424	18,518	N/A
2012	*	8,623	52,504	N/A
Total (HECO)	565	14,203	83,610	

<sup>5</sup> Completed systems (i.e., NEM Agreements completed).

<sup>6</sup> Installed kW reflects rated generating capacity installed in the year noted. Includes system expansions.

<sup>7</sup> In 2011 the (3) companies NEM cap is based on individual circuit capacity and not total system capacity, therefore this metric is no longer applicable (N/A) from 2011 on. Prior system caps as follows: HECO- 0.5% of system peak in 2001-2007, 1.0% of system peak in 2008-2010. HELCO, MECO- 0.5% of system peak in 2001-2007, 3% of system peak in 2008-2009, and 4% system peak 2010. System Peak is defined as *Net* System Peak for HECO, HELCO, and MECO-Maui only and *Gross* System Peak for MECO-Molokai and MECO-Lanai.

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NEM Status as of 12/31/12 (cont.)

	Information packets sent	No. of Installations <sup>5</sup>	Installed kW <sup>6</sup>	NEM System Cap <sup>7</sup> , kW
<b>HELCO</b>				
2001	122	2	10.20	871
2002	25	3	4.73	890
2003	13	6	28.00	934
2004	12	4	8.84	972
2005	17	10	58.27	985
2006	12	34	299.57	1,007
2007	24	35	263.15	1,017
2008	23	116	783.80	5,946
2009	30	265	2,063.58	5,838
2010	*	371	2,287.85	7,624
2011	*	804	4,522.31	N/A
2012	*	1,734	9,944	N/A
Total (HELCO)	278	3,383	20,274	
<b>MECO</b>				
2001	49	2	8.20	993
2002	19	5	8.80	1,006
2003	24	3	13.00	1,047
2004	29	8	21.60	1,091
2005	22	16	92.15	1,068
2006	49	50	233.47	1,091
2007	13	64	359.81	1,081
2008	15	135	947	6,171
2009	0	298	2,336	6,317
2010	*	342	1919	8,397
2011	*	1,039**	6,624.22**	N/A
2012	*	1,678	10,990.84	N/A
Total (MECO)	220	3,640	23,554	
<b>TOTAL</b>	*	<b>21,226</b>	<b>127,438</b>	

\* NEM information and forms are made available on the web and therefore, not tracked for the respective Companies.

\*\* The Number of Installations and the Installed kW reflect the removal of (5) ea. NEM systems with a total of 28.1kW that converted over to the Feed In Tariff program in 2011.

APPENDIX A

Per the Commission's request, the attached pages are included to provide illustrative estimates of lost contributions to fixed cost in 2013 and the associated estimated value per kWh, based on NEM installations as of year-end 2012. The value shown in these illustrations represents the estimated amount from all installations since the inception of the NEM program. Some of this amount may already be reflected in rates through past utility rate cases. Any remaining lost contributions to fixed cost have no bill impact unless and until the utilities propose and receive Commission approval to adjust rates. At that point, any rate adjustment would apply to all customers, including customers with NEM installations.



**HECO**

**Estimated Lost Contribution to Fixed Cost in 2013, based on NEM installations as-of year-end 2012**

Rate	A	B	Base Energy Rate <sup>2</sup> , cents/kWh	Effective Purchased Power Adj. Clause <sup>3</sup> cents/kWh	C	Eff. Base Energy Rate, cents/kWh	D=(B+C)	E	F	G
	Total Lost kWh/yr <sup>1</sup>	Rate <sup>2</sup> , cents/kWh		Power Adj. Clause <sup>3</sup> cents/kWh		Rate, cents/kWh		Production Energy Rate <sup>4</sup> , cents/kWh	Lost Contribution to Fixed Cost, cents/kWh	Total Lost Contribution to Fixed Cost, \$/Yr
									F = D - E	G = A * F / 100
R	63,225,337	22.4707	2.5945	2.5945	25.0652	15.3950	9.6702	\$6,114,017		
G	3,903,343	21.3317	2.6269	2.6269	23.9586	15.4450	8.5136	\$332,315		
J	21,095,980	16.9734	2.4009	2.4009	19.3743	15.4560	3.9183	\$826,604		
P	503,698	14.9013	2.1385	2.1385	17.0398	15.3860	1.6538	\$8,330		
<b>Total</b>	<b>88,728,358</b>									<b>\$7,281,266</b>

**Estimated Value of Impact on 2013 kWh, based on NEM installations as-of year-end 2012**

Rate	Total Lost Contribution to Fixed Cost, \$/Yr	Forecast 2013 Sales <sup>5</sup> kWh/Yr	Estimated Value of Impact <sup>6</sup> on 2013 kWh, ¢/kWh
	H = G	I	J = (H/I) * 100
R	\$6,114,017		
G	\$332,315		
J	\$826,604		
P	\$8,330		
<b>Total</b>	<b>\$7,281,266</b>	<b>7,092,200,000</b>	<b>0.10</b>
<b>Total Company</b>			<b>OR \$0.0010 per kWh</b>

**Notes:**

- 1 HECO Distributed Technology Applications
- 2,3 Source: Base Energy Rates, from Docket 2010-0080 (HECO 2011 Test Year)
- sched R: Docket 2010-0080 (HECO 2011 Test Year); Final revised tariffs, Exhibit B, Attachment 1, page 5, filed 07/24/2012.
- sched G: Docket 2010-0080 (HECO 2011 Test Year); Final revised tariffs, Exhibit B, Attachment 1, page 13, filed 07/24/2012.
- sched J: Docket 2010-0080 (HECO 2011 Test Year); Final revised tariffs, Exhibit B, Attachment 1, page 24, filed 07/24/2012.
- sched P: Docket 2010-0080 (HECO 2011 Test Year); Final revised tariffs, Exhibit B, Attachment 1, page 126, filed 07/24/2012.
- 4 Source: Cost-of-service calculation, from Docket 2010-0080 (HECO 2011 Test Year); Final revised tariffs, exhibit C, page 80, filed 07/24/2012.
- 5 Source: HECO Sales Forecast
- 6 This represents the value of the estimated 2013 lost contribution to fixed costs on a per kWh basis in 2013. Since the lost kWh in Column A represents kWh from all installations since the inception of Net Metering, part of the lost contribution to fixed cost is already reflected in utility rates.

**HELCO**

**Estimated Lost Contribution to Fixed Cost in 2013, based on NEM installations as-of year-end 2012**

Rate	A Total Lost kWh/yr <sup>1</sup>	B Base Energy Rate <sup>2</sup> , cents/kWh	C Effective Purchased Power Adj. Clause <sup>3</sup> cents/kWh	D=(B+C) Eff. Base Energy Rate, cents/kWh	E Production Energy Rate <sup>4</sup> , cents/kWh	F=D-E Lost Contribution to Fixed Cost, cents/kWh	G=A * F / 100 Total Lost Contribution to Fixed Cost, \$/Yr
R	13,181,433	29.2689	2,2157	31.4846	19.0760	12.4086	\$1,635,631
G	2,599,237	31.5858	2,1086	33.6944	19.1990	14.4954	\$376,770
J	4,548,603	24.8033	1,9502	26.7535	19.1130	7.6405	\$347,536
P	584,347	21.8184	1,6251	23.4435	18.7610	4.6825	\$27,362
Total	20,913,619						\$2,387,299

**Estimated Value of Impact on 2013 kWh, based on NEM installations as-of year-end 2012**

Rate	H = G Total Lost Contribution to FC, \$/Yr	I Forecast 2013 Sales <sup>5</sup> kWh/Yr	J=H/I * 100 Estimated Value of Impact <sup>6</sup> on 2013 kWh, %/kWh
R	\$1,635,631		
G	\$376,770		
J	\$347,536		
P	\$27,362		
Total	\$2,387,299		
Total Company		1,116,998,000	0.21
		OR	\$0.0021 per kWh

Notes:

- 1 HECO Distributed Technology Applications, prior schedule H installations grouped as Schedule G
- 2,3 Source: Base Energy Rates, from Docket 2009-0164 (HELCO 2010 Test Year)
- Sched R: Docket 2009-0164 (HELCO 2010 Test Year), Exhibit 2C, Attach 1, page 9, Filed 02/21/2012 for base energy rate; Exhibit 2C, Attach 1, page 1, Filed 02/21/2012 for purchase power adjustment.
- Sched G: Docket 2009-0164 (HELCO 2010 Test Year), Exhibit 2C, Attach 1, page 10, Filed 02/21/2012.
- Sched J: Docket 2009-0164 (HELCO 2010 Test Year), Exhibit 2C, Attach 1, page 17, Filed 02/21/2012.
- Sched P: Docket 2009-0164 (HELCO 2010 Test Year), Exhibit 2C, Attach 1, page 143, Filed 02/21/2012.
- 4 Source: Most-recently approved cost-of-service calculation, from Docket 2009-0164 (HELCO 2010 Test Year), Exhibit 2E, page 65, Filed 02/21/2012.
- 5 Source: HELCO Sales Forecast
- 6 This represents the value of the estimated 2013 lost contribution to fixed costs on a per kWh basis in 2013. Since the lost kWh in Column A represents kWh from all installations since the inception of Net Metering, part of the lost contribution to fixed cost is already reflected in utility rates.

**MECO - Maui Division**

Estimated Lost Contribution to Fixed Cost in 2013, based on NEM installations as-of year-end 2012:

Rate	A	B	C	D	E = (B + (B * D)) + C	F	G = E - F	H = A * G / 100
	Total Lost kWh/yr <sup>1</sup>	Base Energy Rate <sup>2</sup> , cents/kWh	Effective Purchased Power Adj. Clause <sup>2</sup> cents/kWh	Interim Increase <sup>3</sup>	Eff. Base Energy Rate, cents/kWh	Production Energy Rate <sup>4</sup> , cents/kWh	Lost Contribution to Fixed Cost, cents/kWh	Total Lost Contribution to Fixed Cost, \$/yr
R	15,798,263	25.4477	0.1889	4.14%	26.6901	16.887	9.8031	\$1,548,720
G	2,991,970	26.6344	0.1801	4.14%	27.9172	17.036	10.8812	\$325,562
J	5,797,821	22.9205	0.1728	4.14%	24.0422	17.077	6.9652	\$403,830
P	225,485	20.0073	0.1543	4.14%	20.9899	16.892	4.0979	\$9,240
Total	24,813,539							\$2,287,352

Estimated Value of Impact on 2013 kWh, based on NEM installations as-of year-end 2012

Rate	I = H	J	K = (I / J) * 100
	Total Lost Contribution to FC, \$/Yr	Forecast 2013 Sales <sup>5</sup> kWh/Yr	Estimated Value of Impact <sup>6</sup> on 2013 kWh, \$/kWh
R	\$1,548,720		
G	\$325,562		
J	\$403,830		
P	\$9,240		
Total	\$2,287,352	1,096,383,000	0.21
			OR
			\$0.0021 per kWh

Notes:

- 1 HECO Distributed Technology Applications
- 2 Source: Base Energy Rates, from Docket 2009-0163 (MECO 2010 Test Year)- Maui Division, Updated Settlement scheduled R: Docket 2009-0163 (MECO 2010 Test Year) Maui Division; Updated Settlement, Attachment 8, page 9, filed 03/09/2012. scheduled G: Docket 2009-0163 (MECO 2010 Test Year) Maui Division; Updated Settlement, Attachment 8, page 10, filed 03/09/2012. scheduled J: Docket 2009-0163 (MECO 2010 Test Year) Maui Division; Updated Settlement, Attachment 8, page 17, filed 03/09/2012. scheduled P: Docket 2009-0163 (MECO 2010 Test Year) Maui Division; Updated Settlement, Attachment 8, page 113, filed 03/09/2012.
- 3 Interim increase effective 06/01/12. Effective rate summaries, January 8, 2013.
- 4 Source: Cost-of-service calculation, from Docket 2009-0163 (MECO 2010 Test Year) Maui Division; Updated Settlement, attachment 11, page 66, filed 03/09/2012.
- 5 Source: MECO Sales Forecast
- 6 This represents the value of the estimated 2013 lost contribution to fixed costs on a per kWh basis in 2013. Since the lost kWh in Column A represents kWh from all installations since the inception of Net Metering, part of the lost contribution to fixed cost is already reflected in utility rates.

**MECO - Lanai Division**

Estimated Lost Contribution to Fixed Cost in 2013, based on NEM installations as-of year-end 2012:

Rate	Total Lost kWh/yr <sup>1</sup>	Base Energy Rate <sup>2</sup> , cents/kWh	Interim Increase <sup>3</sup>	Eff. Base Energy Rate, cents/kWh	Production Energy Rate <sup>4</sup> , cents/kWh	Lost Contribution to Fixed Cost, cents/kWh	Total Lost Contribution to Fixed Cost, \$/Yr
A	B	C	D = (B+(B * C))	E	F = D - E	G = A * F / 100	
R	116,831	32.9099	4.02%	34.2329	26.842	7.3909	\$8,635
G	7,099	34.9472	4.02%	36.3521	27.084	9.2681	\$658
J	5,092	34.0158	4.02%	35.3832	27.151	8.2322	\$419
Total	129,022						\$9,712

Estimated Value of Impact on 2013 kWh, based on NEM installations as-of year-end 2012

Rate	Total Lost Contribution to FC, \$/Yr	Forecast 2013 Sales <sup>5</sup> , kWh/Yr	Estimated Value of Impact <sup>6</sup> on 2013 kWh, ¢/kWh
H = G	I	J = (H / J) * 100	
R	\$8,635		
G	\$658		
J	\$419		
Total	\$9,712	24,659,000	0.04

OR  
\$0.0004 per kWh

Notes:

- 1 HECO Distributed Technology Applications
- 2 sched R; Docket 2009-0163 (MECO 2010 Test Year) Lanai Division; Updated Settlement, Attachment 9, page 9, filed 03/09/2012.
- 3 sched G; Docket 2009-0163 (MECO 2010 Test Year) Lanai Division; Updated Settlement, Attachment 9, page 10, filed 03/09/2012.
- 4 sched J; Docket 2009-0163 (MECO 2010 Test Year) Lanai Division; Updated Settlement, Attachment 9, page 17, filed 03/09/2012.
- 5 Interim Increase effective 06/01/12. Effective rate summaries, January 8, 2013.
- 6 Source: Cost-of-service calculation, from Docket 2009-0163 (MECO 2010 Test Year) Lanai Division; Updated Settlement, attachment 12, page 66, filed 03/09/2012.
- 7 Source: MECO Sales Forecast
- 8 This represents the value of the estimated 2013 lost contribution to fixed costs on a per kWh basis in 2013.
- 9 Since the lost kWh in Column A represents kWh from all installations since the inception of Net Metering, part of the lost contribution to fixed cost is already reflected in utility rates.

**MECO - Molokai Division**

Estimated Lost Contribution to Fixed Cost in 2013, based on NEM installations as-of year-end 2011:

Rate	Total Lost kWh/yr <sup>1</sup> <b>A</b>	Base Energy Rate <sup>2</sup> , cents/kWh <b>B</b>	Interim Increase <sup>3</sup> <b>C</b>	Eff. Base Energy Rate, cents/kWh $D = (B * (1 + C))$	Production Energy Rate <sup>4</sup> , cents/kWh <b>E</b>	Lost Contribution to Fixed Cost, cents/kWh $F = D - E$	Total Lost Contribution to Fixed Cost, \$/Yr $G = A * F / 100$
R	641,868	30.1224	4.11%	31.3604	21.443	9.9174	\$63,657
G	116,061	35.7858	4.11%	37.2566	21.746	15.5106	\$18,002
J	273,159	28.7516	4.11%	29.9333	21.637	8.2963	\$22,662
P	149,328	22.6166	4.11%	23.5461	21.168	2.3781	\$3,551
<b>Total</b>	<b>1,180,417</b>						<b>\$107,872</b>

Estimated Value of Impact on 2013 kWh, based on NEM installations as-of year-end 2012

Rate	Total Lost Contribution to FC, \$/Yr $H = G$	Forecast 2013 Sales <sup>5</sup> kWh/Yr <b>I</b>	Estimated Value of Impact <sup>6</sup> on 2013 kWh, ¢/kWh $J = (H / I) * 100$
R	\$63,657		
G	\$18,002		
J	\$22,662		
P	\$3,551		
<b>Total</b>	<b>\$107,872</b>	<b>29,988,000</b>	<b>0.36</b>

OR  
\$0.0036 per kWh

Notes:

- 1 HECO Distributed Technology Applications, prior schedule H installations grouped as Schedule G
- 2 Source: Base Energy Rates, from Docket 2009-0163 (MECO 2010 Test Year), Molokai Division, Updated Settlement  
 sched R: Docket 2009-0163 (MECO 2010 Test Year), Molokai Division, Updated Settlement, Attachment 10, page 9, filed 03/09/12.  
 sched G: Docket 2009-0163 (MECO 2010 Test Year), Molokai Division, Updated Settlement, Attachment 10, page 10, filed 03/09/12.  
 sched J: Docket 2009-0163 (MECO 2010 Test Year), Molokai Division, Updated Settlement, Attachment 10, page 17, filed 03/09/12.  
 sched P: Docket 2009-0163 (MECO 2010 Test Year), Molokai Division, Updated Settlement, Attachment 10, page 28, filed 03/09/12.
- 3 Interim Increase effective 06/01/12. Effective rate summaries, January 8, 2013.
- 4 Source: Cost-of-service calculation, from Docket 2009-0163 (MECO 2010 Test Year) Molokai Division; Updated Settlement, attachment 13, page 66, filed 03/09/2012.
- 5 Source: MECO Sales Forecast
- 6 This represents the value of the estimated 2013 lost contribution to fixed costs on a per kWh basis in 2013. Since the lost kWh in Column A represents kWh from all installations since the inception of Net Metering, part of the lost contribution to fixed cost is already reflected in utility rates.

414 Gen. File  
c: JG



Dean K. Matsuura  
Manager  
Regulatory Affairs

February 14, 2013

PUBLIC UTILITIES  
COMMISSION

2013 FEB 14 P 4: 02

FILED

The Honorable Chair and Members of  
the Hawaii Public Utilities Commission  
465 South King Street  
Kekuanaoa Building, 1st Floor  
Honolulu, Hawaii 96813

Dear Commissioners:

Subject: Hawaiian Electric Company, Inc.,  
Hawaii Electric Light Company, Inc.  
Maui Electric Company, Limited  
2012 Net Energy Metering Status Report - Revised

On January 31, 2013, Hawaiian Electric Company, Inc., Hawaii Electric Light Company, Inc. ("HELCO") and Maui Electric Company, Limited (together referred to as the "Companies") submitted their 2012 Net Energy Metering Status Report ("2012 NEM Status Report"), which provides the total number of installations and the total rated generating capacity of net metered customer facilities in each of their service territories. Enclosed are the Companies' revised pages to their 2012 NEM Status Report, which includes the addition of a footnote and the rounding to whole numbers of the HELCO 2001-2006 installed kW numbers on page 6 to the report, as well as a revision to page 3 of Appendix A. These revisions are immaterial to the report.

Therefore, please replace page 6 and Appendix A, page 3 of the 2012 NEM Status Report submitted on January 31, 2013 with the attached pages. The Companies apologize for any inconvenience this may have caused.

If you have any questions on this matter, please call Marisa Chun at 543-4723.

Very truly yours,

Attachments

cc: Division of Consumer Advocacy

## Net Energy Metering Status Report

Hawaiian Electric Company, Inc.  
Hawaii Electric Light Company, Inc.  
Maui Electric Company, Limited

December 31, 2012

NEM Status as of 12/31/12 (cont.)

	Information packets sent	No. of Installations <sup>5</sup>	Installed kW <sup>6</sup>	NEM System Cap <sup>7</sup> , kW
<b>HELCO</b>				
2001	122	2	10	871
2002	25	3	5	890
2003	13	6	28	934
2004	12	4	9	972
2005	17	10	58	985
2006	12	34	300	1,007
2007	24	35	263	1,017
2008	23	116	784**	5,946
2009	30	265	2,064**	5,838
2010	*	371	2,288**	7,624
2011	*	804**	4,522**	N/A
2012	*	1,734	9,944	N/A
Total (HELCO)	278	3,384**	20,275**	
<b>MECO</b>				
2001	49	2	8.20	993
2002	19	5	8.80	1,006
2003	24	3	13.00	1,047
2004	29	8	21.60	1,091
2005	22	16	92.15	1,068
2006	49	50	233.47	1,091
2007	13	64	359.81	1,081
2008	15	135	947	6,171
2009	0	298	2,336	6,317
2010	*	342	1919	8,397
2011	*	1,039	6,624.22	N/A
2012	*	1,678	10,990.84	N/A
Total (MECO)	220	3,640	23,554	
<b>TOTAL</b>	*	<b>21,227**</b>	<b>127,439**</b>	

\* NEM information and forms are made available on the web and therefore, not tracked for the respective Companies.

\*\* The Number of Installations and the Installed kW were adjusted to reflect updates such as modifications to system capacity ratings, agreement execution dates, and number of installations.

**HELCO**  
**REVISED for total lost kWh/yr corrections made by Distributed Technology Applications.**

Estimated Lost Contribution to Fixed Cost in 2013, based on NEM installations as-of year-end 2012

Rate	A	B	C	D = (B + C)	E	F = D - E	G = A * F / 100
Total Lost kWh/yr <sup>1</sup>	Base Energy Rate <sup>2</sup> , cents/kWh	Effective Purchased Power Adj. Clause <sup>3</sup> , cents/kWh	Eff. Base Energy Rate, cents/kWh	Production Energy Rate <sup>4</sup> , cents/kWh	Lost Contribution to Fixed Cost, cents/kWh	Total Lost Contribution to Fixed Cost, \$/Yr	
R	13,200,009	29.2689	2.2157	31.4846	19.0760	\$1,637,936	
G	2,521,586	31.5858	2.1086	33.6944	19.1990	\$365,514	
J	4,738,249	24.8033	1.9502	26.7535	19.1130	\$362,026	
P	584,347	21.8184	1.6251	23.4435	18.7610	\$27,362	
Total	21,044,191					\$2,392,838	

Estimated Impact on Rates in 2013, based on NEM installations as-of year-end 2012

Rate	H = G	I	J = H / I * 100
Total Lost Contribution to FC, \$/Yr	Forecast 2013 Sales <sup>5</sup> , kWh/Yr	Estimated Value of Impact <sup>6</sup> on 2013 kWh, ¢/kWh	
R	\$1,637,936		
G	\$365,514		
J	\$362,026		
P	\$27,362		
Total	\$2,392,838		
Total Company	1,116,998,000	0.21	OR \$0.0021 per kWh

Notes:

- 1 HECO Distributed Technology Applications, prior schedule H installations grouped as Schedule G
- 2,3 Source: Base Energy Rates, from Docket 2009-0164 (HELCO 2010 Test Year)
- 4 Source: Docket 2009-0164 (HELCO 2010 Test Year), Exhibit 2C, Attach 1, page 9, Filed 02/21/2012 for base energy rate; Exhibit 2C, Attach 1, page 1, Filed 02/21/2012 for purchase power adjustment.
- 5 Source: Docket 2009-0164 (HELCO 2010 Test Year), Exhibit 2C, Attach 1, page 10, Filed 02/21/2012.
- 6 Source: Docket 2009-0164 (HELCO 2010 Test Year), Exhibit 2C, Attach 1, page 17, Filed 02/21/2012.
- 7 Source: Docket 2009-0164 (HELCO 2010 Test Year), Exhibit 2C, Attach 1, page 143, Filed 02/21/2012.
- 8 Source: Most-recently approved cost-of-service calculation, from Docket 2009-0164 (HELCO 2010 Test Year), Exhibit 2E, page 65, Filed 02/21/2012.
- 9 Source: HELCO Sales Forecast
- 10 This represents the value of the estimated 2013 lost contribution to fixed costs on a per kWh basis in 2013. Since the lost kWh in Column A represents kWh from all installations since the inception of Net Metering, part of the lost contribution to fixed cost is already reflected in utility rates.