



September 28, 2012

Dean K. Matsuura
Manager
Regulatory Affairs

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

Dear Commissioners:

Subject: Docket No. 2011-0206
Reliability Standards Working Group
Monthly Report

Pursuant to Ordering Paragraph 3 of the Commission's Order No. 30371, filed on May 4, 2012, in the above subject proceeding, enclosed as Exhibit A is the Hawaiian Electric Companies'¹ monthly report for August 2012 on (1) system frequency control performance during month; (2) significant system events during month; and (3) curtailment of non-dispatchable renewable resources.

In addition, an electronic copy of each report is also included with this filing. These files are voluminous, and therefore, the Company is providing compact discs ("CD") containing the electronic files to both the Commission and the Consumer Advocate. Copies of the CDs will be available to any Party to this proceeding. Interested Parties should email Marisa Chun at marisa.chun@heco.com to request a copy.

If you have any questions on this matter, please contact Marisa Chun at (808) 543-4723.

Very truly yours,

Enclosure

cc: Service List

¹ Hawaiian Electric Company, Inc., Hawaii Electric Light Company, Inc., and Maui Electric Company, Limited are collectively referred to as the "Hawaiian Electric Companies" or "Companies".

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SERVICE LIST
(Docket No. 2011-0206)

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The Commission's Order No. 30371 (Docket No 2011-0206 – Relating To Various Matters in RSWG Process), filed May 4, 2012, ordered the following information for each island grid:

- (1) System frequency control performance during month:
 - a) Frequency duration plot based on the highest resolution SCADA data available for the month detailing how many seconds each power system operated at frequencies above 60 hertz and at frequencies below 60 Hz.
 - b) Tabulation of the number, magnitude and duration of frequency excursions (high and low) outside normal frequency control range (59.95 to 60.05 Hz).

The following provides information with respect to items 1a) through 1b) – (all statements are current as of the month ending August 31, 2012):

1a) Frequency duration plot based on the highest resolution SCADA data available for the month detailing how many seconds each power system operated at frequencies above 60 hertz and at frequencies below 60 Hz:

The frequency duration plots for Hawaiian Electric, MECO (Maui Division) and HELCO based on two-second data are provided in Attachment 1, and the enclosed Excel files. Refer to the electronic files for the individual data points because the information is voluminous and does not translate well to a hard copy.

1b) Tabulation of the number, magnitude and duration of frequency excursions (high and low) outside normal frequency control range (59.95 to 60.05 Hz):

Tabulation of the number, magnitude and duration of frequency excursions outside of the frequency range of 59.95 Hz to 60.05 Hz for Hawaiian Electric, MECO (Maui Division) and HELCO are provided in Attachment 2, and the enclosed Excel files. Refer to the electronic files for the individual data points because the information is voluminous and does not translate well to a hard copy.

- (2) Significant system events during month:
 - a) Tabulation of contingency reserve activations including date and time, MW magnitude, duration, and triggering event.
 - b) Tabulation of under frequency load shed activations including date and time, triggering frequency, MW magnitude, duration, and triggering event.
 - c) Tabulation of demand response activations for system events, including date and time, MW magnitude, duration, and triggering event, (excluding demand response utilization for unit commitment deferral or system operations economics.)

The following provides information with respect to items 2a) through 2c) – (all statements are current as of the month ending August 31, 2012):

2a) Tabulation of contingency reserve activations including date and time, MW magnitude, duration, and triggering event:

Hawaiian Electric's contingency reserve actions are provided in Attachment 3. MECO and HELCO do not operate with contingency reserve requirements.

2b) Tabulation of under frequency load shed activations including date and time, triggering frequency, MW magnitude, duration, and triggering event:

The tabulation of under frequency load shed events is provided in Attachment 4. Hawaiian Electric and MECO did not have any under frequency load shed events for the month of August.

2c) Tabulation of demand response activations for system events, including date and time, MW magnitude, duration, and triggering event, (excluding demand response utilization for unit commitment deferral or system operations economics.)

Hawaiian Electric did not have any demand response activations for system events for the month of August. MECO and HELCO currently do not have demand response programs. Therefore, Attachment 5 is not being provided for this reporting period

- (3) Curtailment of non-dispatchable renewable resources:
- (a) Tabulation of each curtailment event for each resource including the starting date and time, duration, megawatt hours curtailed, peak MW curtailed, and reason for curtailment.
 - (b) Total MWh of non-dispatchable renewable resources curtailed for the month.

The following provides information with respect to items 3a) through 3b) – (all statements are current as of the month ending August 31, 2012):

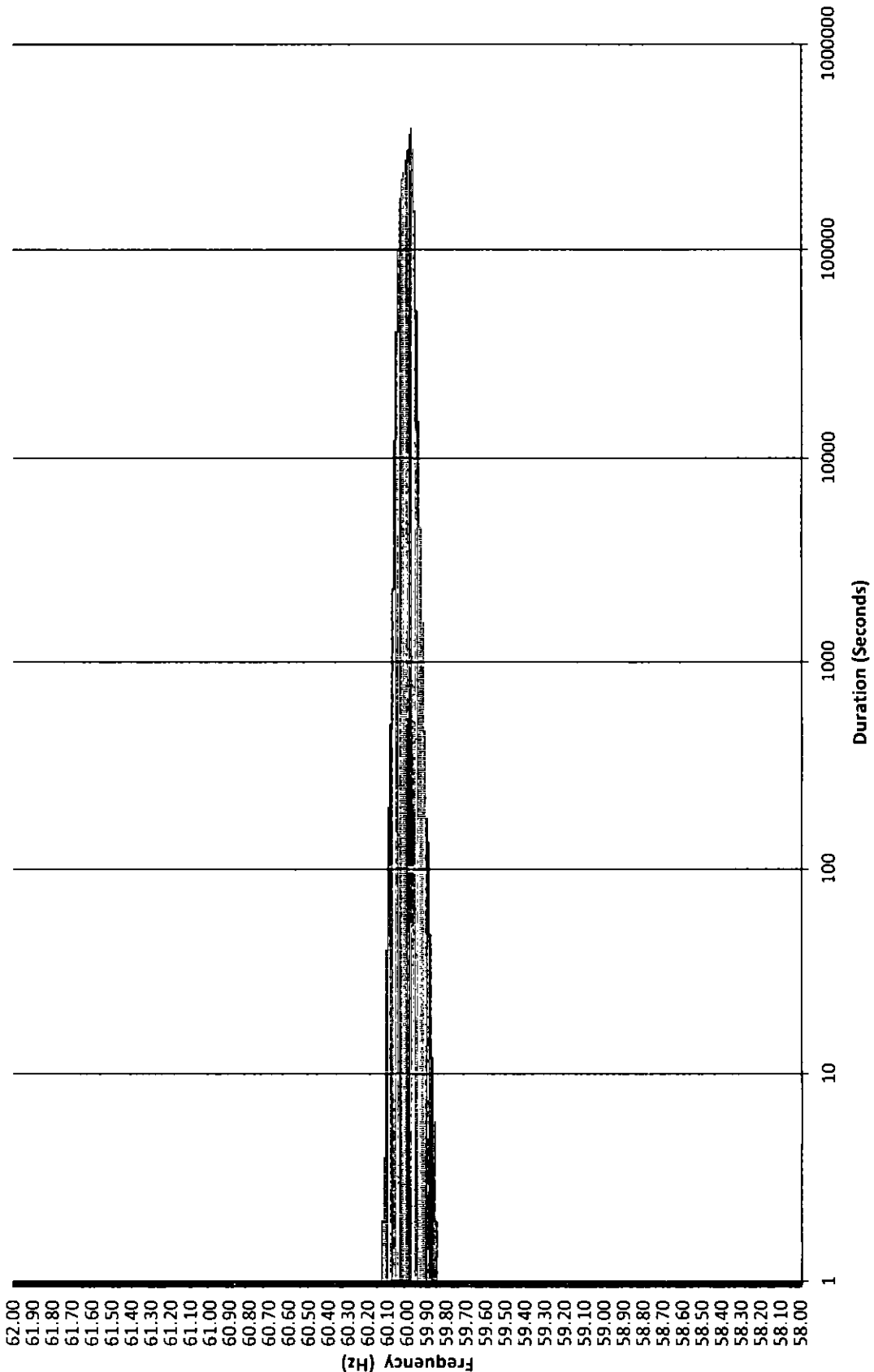
3a) Tabulation of each curtailment event for each resource including the starting date and time, duration, megawatt hours curtailed, peak MW curtailed, and reason for curtailment:

The tabulation of each curtailment event for each resource is provided in Attachment 6.

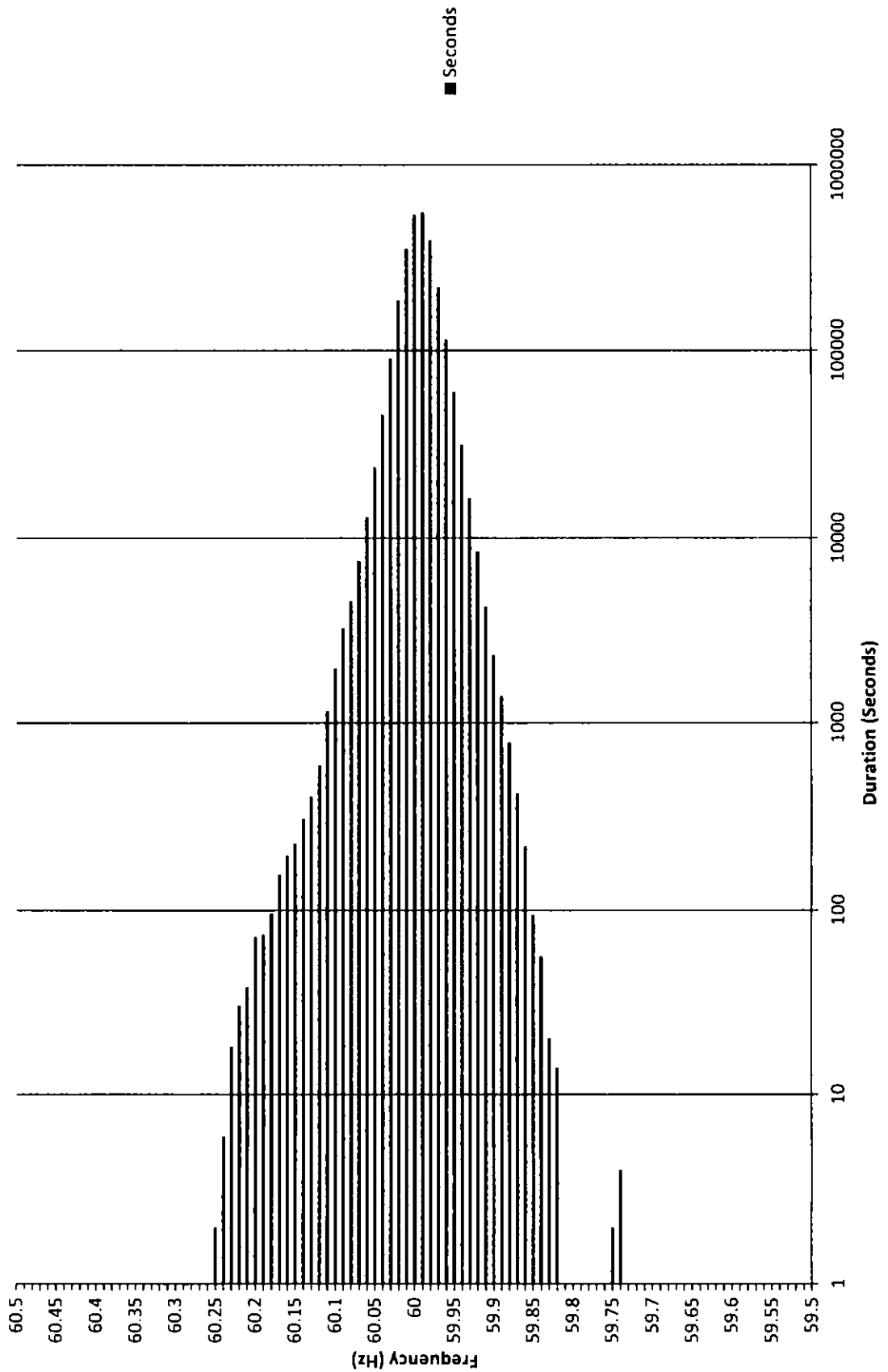
3b) Total MWh of non-dispatchable renewable resources curtailed for the month:

Curtailed MWh from non-dispatchable resources are difficult to determine due to the variability of the resource during curtailment periods. In some cases, the curtailed MWh estimates were provided by the IPPs under curtailment. HELCO is not providing an estimate of curtailed MWh, as this information is not provided to HELCO from the IPP. The Hawaiian Electric Companies do not make any representations as to the accuracy of the curtailed MWh. The estimated MWh of non-dispatchable resources curtailed for the month are provided in Attachment 6, corresponding to each curtailment event.

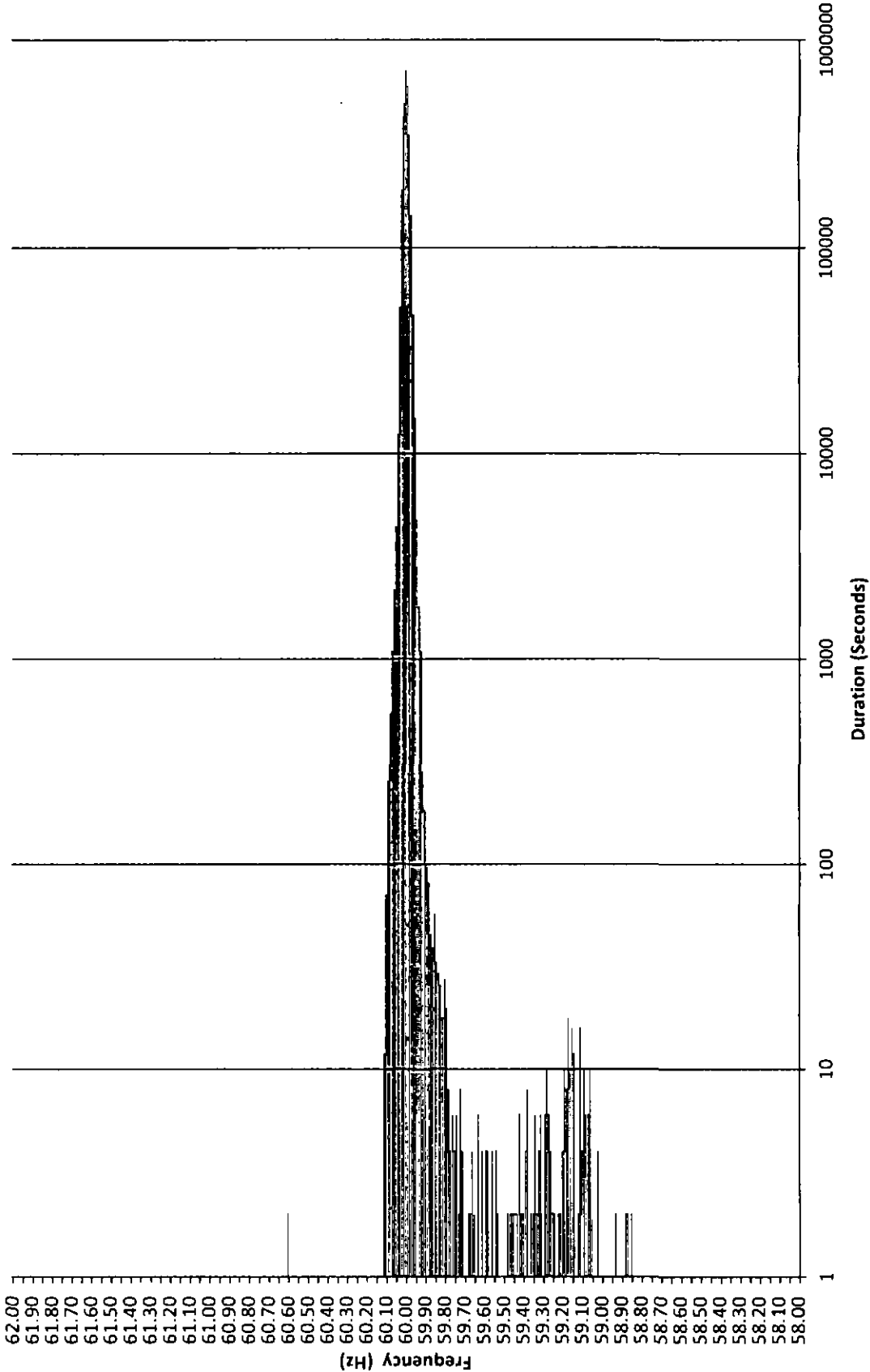
Frequency Distribution Plot - HECO August 2012



MECO Frequency Duration Plot - Maui August 2012



**Frequency Distribution Plot - HELCO
August 2012**



HECO Frequency Excursion Statistics August 2012		
	<59.95 Hz	>60.05 Hz
Number of Excursions	3058	5061
Maximum Duration (sec)	474	470
Maximum Deviation (Hz)	59.848	60.127
Total Duration of Excursions (sec)	40174	95178

MECO Frequency Excursion Statistics August 2012		
	<59.95 Hz	>60.05 Hz
Number of Excursions	63366	16860
Maximum Duration (sec)	530	502
Maximum Deviation (Hz)	59.73633	60.24707
Total Duration of Excursions (sec)	126732	33720

HELCO Frequency Excursion Statistics August 2012		
	<59.95 Hz	>60.05 Hz
Number of Excursions	2070	577
Maximum Duration (sec)	300	504
Maximum Deviation (Hz)	58.85059	60.59863
Total Duration of Excursions (sec)	14426	5880

HAWAII ELECTRIC LIGHT COMPANY, INC.
 UNDERFREQUENCY LOAD SHEDDING EVENTS
 AUGUST 2012

Event #	Date & Time	Frequency (Hz)			Load Shed (MW)	Duration (HH:MM)	Description
		Prior to Event	Nadir	Level UFLS Occurred			
1	8/21/2012 1821hrs	59.980	58.85	59.30	7.30	0:16	Hamakua Energy Partners (HEP) CT-2 tripped while in 2CTCC mode, reducing generation from 57.9 MW to 28.5 MW.

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HECO Curtailment Report August 2012

Start Date/Time	Curtailment Set Point	MW output prior to start of curtailment	End Date/Time	MW output after curtailment released	Estimated MWh of curtailed energy during event (1)	IPP	Reason for Curtailment
08/01/12 04:34	5.0	0.00	still open	0	*	KWF	Fire in battery room

KWF = Kahuku Wind Farm

(1) The estimated MWh of energy curtailed during the event is supplied by Kahuku Wind Farm, and HECO does not make any representations as to its accuracy

* Data has not been provided by KWF

MECO-Maui Curtailment Report August 2012

Start Date/Time	Duration (HH:MM)	IPP Curtailed	FW Estimated curtailed energy during event (MWh)	Peak MW Curtailed	Reason for curtailment
7/31/2012 20:36	15:31	KWP	No Data Available	No Data Available	Excess Energy and maintain Regulating Reserve
8/1/2012 20:57	13:03	KWP	No Data Available	No Data Available	Maintain Regulating Reserve
8/2/2012 0:10	4:48	5A	No Data Available	No Data Available	Maintain Regulating Reserve
8/2/2012 0:28	6:58	Makila Hydro	No Data Available	No Data Available	Maintain Regulating Reserve
8/2/2012 1:32	3:25	KWP	6.47	27.17	Excess Energy
8/3/2012 0:49	3:48	KWP	No Data Available	No Data Available	Excess Energy
8/3/2012 2:08	0:20	5A	No Data Available	No Data Available	Excess Energy
8/3/2012 20:28	11:36	KWP	No Data Available	No Data Available	Maintain Regulating Reserve
8/4/2012 22:12	6:53	KWP	No Data Available	No Data Available	Maintain Regulating Reserve
8/5/2012 5:36	2:09	KWP	No Data Available	No Data Available	Maintain Regulating Reserve
8/5/2012 6:10	0:49	5A	No Data Available	No Data Available	Maintain Regulating Reserve
8/5/2012 22:19	9:55	KWP	No Data Available	No Data Available	Maintain Regulating Reserve and operating conditions on Company's System
8/6/2012 3:44	0:09	5A	No Data Available	No Data Available	Excess Energy
8/6/2012 3:44	0:09	Makila Hydro	No Data Available	No Data Available	Excess Energy
8/6/2012 22:41	5:40	KWP	No Data Available	No Data Available	Maintain Regulating Reserve
8/7/2012 1:32	1:41	5A	No Data Available	No Data Available	Excess Energy
8/7/2012 1:35	1:38	Makila Hydro	No Data Available	No Data Available	Excess Energy
8/7/2012 1:37	1:29	KWP	1.81	27.97	Excess Energy
8/7/2012 3:21	0:17	5A	No Data Available	No Data Available	Excess Energy
8/7/2012 6:58	5:43	KWP	No Data Available	No Data Available	Maintain Regulating Reserve and testing
8/7/2012 21:05	1:46	KWP	No Data Available	No Data Available	Maintain Regulating Reserve
8/7/2012 22:56	10:59	KWP	No Data Available	No Data Available	Maintain Regulating Reserve
8/8/2012 1:06	3:44	5A	No Data Available	No Data Available	Excess Energy
8/8/2012 1:08	3:42	Makila Hydro	No Data Available	No Data Available	Excess Energy
8/8/2012 1:11	3:37	KWP	11.04	28.85	Excess Energy
8/8/2012 21:30	3:40	KWP	No Data Available	No Data Available	Maintain Regulating Reserve
8/9/2012 4:25	6:49	KWP	No Data Available	No Data Available	Maintain Regulating Reserve
8/9/2012 13:19	7:48	KWP	No Data Available	No Data Available	Maintain Regulating Reserve
8/9/2012 22:02	12:45	KWP	No Data Available	No Data Available	Maintain Regulating Reserve
8/10/2012 21:12	12:31	KWP	No Data Available	No Data Available	Excess Energy and operating condition on
8/11/2012 1:24	2:43	5A	No Data Available	No Data Available	Excess Energy
8/11/2012 4:21	0:28	KWP	0.44	26.71	Maintain Regulating Reserve
8/11/2012 16:17	0:20	KWP	No Data Available	No Data Available	Maintain Regulating Reserve
8/11/2012 16:50	0:08	KWP	No Data Available	No Data Available	Maintain Regulating Reserve
8/11/2012 20:13	15:35	KWP	No Data Available	No Data Available	Maintain Regulating Reserve

MECO-Maui Curtailment Report August 2012

Start Date/Time	Duration (HH:MM)	IPP Curtailed	FW Estimated curtailed energy during event (MWh)	Peak MW Curtailed	Reason for curtailment
8/12/2012 1:52	3:13	5A	No Data Available	No Data Available	Excess Energy
8/12/2012 1:53	3:10	KWP	11.84	29.02	Excess Energy
8/12/2012 21:28	13:32	KWP	No Data Available	No Data Available	Maintain Regulating Reserve
8/13/2012 22:05	14:01	KWP	No Data Available	No Data Available	Maintain Regulating Reserve
8/14/2012 5:32	4:39	KWP	No data available	No data available	Self curtailment due to high wind gusts
8/14/2012 12:32	3:35	KWP	No Data Available	No Data Available	Maintain Regulating Reserve
8/14/2012 18:43	11:28	KWP	No data available	No data available	Self curtailment due to high wind gusts
8/14/2012 22:08	16:03	KWP	No Data Available	No Data Available	Maintain Regulating Reserve
8/15/2012 22:07	13:15	KWP	No Data Available	No Data Available	Maintain Regulating Reserve
8/16/2012 2:22	2:22	5A	No Data Available	No Data Available	Excess Energy
8/16/2012 2:30	2:13	KWP	3.33	28.09	Excess Energy
8/16/2012 11:36	0:15	KWP	No Data Available	No Data Available	Maintain Regulating Reserve and operating
8/16/2012 12:52	1:28	KWP	No Data Available	No Data Available	Maintain Regulating Reserve
8/16/2012 22:18	14:56	KWP	No Data Available	No Data Available	Maintain Regulating Reserve
8/17/2012 20:51	11:08	KWP	No Data Available	No Data Available	Maintain Regulating Reserve
8/18/2012 2:56	2:04	5A	No Data Available	No Data Available	Excess Energy and maintain Regulating
8/18/2012 2:56	2:04	Makila Hydro	No Data Available	No Data Available	Excess Energy and maintain Regulating
8/18/2012 15:45	3:18	KWP	No Data Available	No Data Available	Maintain Regulating Reserve
8/18/2012 20:31	14:19	KWP	No Data Available	No Data Available	Maintain Regulating Reserve
8/19/2012 13:17	0:53	KWP	No Data Available	No Data Available	Maintain Regulating Reserve
8/19/2012 20:42	18:09	KWP	No Data Available	No Data Available	Maintain Regulating Reserve
8/20/2012 21:18	12:15	KWP	No Data Available	No Data Available	Maintain Regulating Reserve
8/21/2012 2:50	1:30	5A	No Data Available	No Data Available	Excess Energy
8/21/2012 2:52	1:28	Makila Hydro	No Data Available	No Data Available	Excess Energy
8/21/2012 2:54	1:13	KWP	0.00	29.41	Excess Energy
8/21/2012 20:36	11:50	KWP	No Data Available	No Data Available	Maintain Regulating Reserve
8/22/2012 1:58	2:20	5A	No Data Available	No Data Available	Excess Energy
8/22/2012 2:00	8:59	Makila Hydro	No Data Available	No Data Available	Excess Energy
8/22/2012 2:03	2:11	KWP	0.00	28.43	Excess Energy
8/22/2012 21:33	8:12	KWP	No Data Available	No Data Available	Maintain Regulating Reserve
8/23/2012 2:12	10:37	Makila Hydro	No Data Available	No Data Available	Excess Energy
8/23/2012 2:14	1:36	KWP	0.00	29.11	Excess Energy
8/24/2012 23:16	44:16	KWP	No Data Available	No Data Available	Maintain Regulating Reserve
8/25/2012 1:49	8:31	Makila Hydro	No Data Available	No Data Available	Excess Energy
8/25/2012 2:22	2:22	KWP	0.00	28.59	Excess Energy
8/25/2012 23:45	6:25	5A	No Data Available	No Data Available	Maintain Regulating Reserve

MECO-Maui Curtailment Report August 2012

Start Date/Time	Duration (HH:MM)	IPP Curtailed	FW Estimated curtailed energy during event (MWh)	Peak MW Curtailed	Reason for curtailment
8/25/2012 23:46	9:36	Makila Hydro	No Data Available	No Data Available	Excess Energy
8/26/2012 0:29	5:40	KWP	35.35	29.98	Excess Energy
8/26/2012 20:19	12:29	KWP II	No Data Available	No Data Available	Maintain Regulating Reserve
8/27/2012 0:17	5:16	5A	No Data Available	No Data Available	Excess Energy
8/27/2012 0:19	8:42	Makila Hydro	No Data Available	No Data Available	Maintain Regulating Reserve
8/27/2012 0:26	5:04	KWP	35.94	29.43	Excess Energy
8/27/2012 9:30	0:17	KWP II	No Data Available	No Data Available	Maintain Regulating Reserve and operating
8/27/2012 9:56	1:06	KWP II	No Data Available	No Data Available	Excess Energy and operating condition on
8/27/2012 11:31	0:28	KWP II	No Data Available	No Data Available	Maintain Regulating Reserve and operating
8/27/2012 16:02	4:15	KWP II	No Data Available	No Data Available	Maintain Regulating Reserve and operating
8/27/2012 20:30	34:09	KWP II	No Data Available	No Data Available	Maintain Regulating Reserve
8/28/2012 0:15	14:13	Makila Hydro	No Data Available	No Data Available	Maintain Regulating Reserve
8/28/2012 0:20	4:57	KWP	39.91	26.83	Excess Energy
8/28/2012 23:36	9:48	Makila Hydro	No Data Available	No Data Available	Maintain Regulating Reserve
8/28/2012 23:56	5:08	KWP	20.27	29.80	Excess Energy
8/29/2012 10:29	4:36	KWP II	No Data Available	No Data Available	Maintain Regulating Reserve, operating
8/29/2012 20:00	8:58	KWP II	No Data Available	No Data Available	Maintain Regulating Reserve
8/30/2012 0:04	9:21	Makila Hydro	No Data Available	No Data Available	Maintain Regulating Reserve
8/30/2012 0:26	4:02	KWP	2.53	28.66	Excess Energy
8/30/2012 5:59	3:22	KWP II	No Data Available	No Data Available	Maintain Regulating Reserve, operating
8/30/2012 10:06	2:11	KWP II	No Data Available	No Data Available	Maintain Regulating Reserve
8/31/2012 8:34	100:27	KWP II	No Data Available	No Data Available	Maintain Regulating Reserve and operating
8/31/2012 23:33	6:57	5A	No Data Available	No Data Available	Excess Energy
8/31/2012 23:35	6:55	Makila Hydro	No Data Available	No Data Available	Excess Energy and maintain Regulating
8/31/2012 23:41	6:35	KWP	0.73	29.54	Maintain Regulating Reserve

Notes:

- During curtailment events the set point for Kaheawa Wind Power ("KWP") and Kaheawa Wind Power II ("KWP II") are adjusted to ensure maximum energy contribution. KWP "Estimated curtailed energy during event" and "Peak MW curtailed" information is provided by First Wind, and MECO does not make any representation as to its accuracy.
- The Makila Hydro curtailment period end time is usually controlled by the facility. MECO can usually accept Makila Hydro generation at the same time that 5A is uncurtailed, which is before the facility commits its generator.
- Estimated curtailed energy during curtailment events is not available for Makila Hydro or AAAAA Rent-A-Space Maui LTD.

MECO-Lanai Curtailment Report August 2012

Start Date/Time	Curtailment Event Duration	IPP Curtailed	MWH Curtailed	Peak MW Curtailed	Reason for Curtailment
8/1/12 9:00	0:11	LSR-La Oia PV	No data	No data	Ramp rate mitigation
8/1/12 10:06	0:09	LSR-La Oia PV	No data	No data	Ramp rate mitigation
8/1/12 11:03	0:12	LSR-La Oia PV	No data	No data	Ramp rate mitigation
8/1/12 12:05	0:10	LSR-La Oia PV	No data	No data	Ramp rate mitigation
8/1/12 13:10	0:10	LSR-La Oia PV	No data	No data	Ramp rate mitigation
8/1/12 14:11	0:08	LSR-La Oia PV	No data	No data	Ramp rate mitigation
8/1/12 15:15	0:15	LSR-La Oia PV	No data	No data	Ramp rate mitigation
8/1/12 16:10	0:09	LSR-La Oia PV	No data	No data	Ramp rate mitigation
8/1/12 17:05	0:10	LSR-La Oia PV	No data	No data	Ramp rate mitigation
8/1/12 18:00	0:11	LSR-La Oia PV	No data	No data	Ramp rate mitigation
8/2/12 7:00	0:09	LSR-La Oia PV	No data	No data	Ramp rate mitigation
8/2/12 8:03	0:10	LSR-La Oia PV	No data	No data	Ramp rate mitigation
8/2/12 9:00	0:12	LSR-La Oia PV	No data	No data	Ramp rate mitigation
8/2/12 10:07	0:13	LSR-La Oia PV	No data	No data	Ramp rate mitigation
8/2/12 11:00	0:09	LSR-La Oia PV	No data	No data	Ramp rate mitigation
8/2/12 12:10	0:11	LSR-La Oia PV	No data	No data	Ramp rate mitigation
8/2/12 13:05	0:14	LSR-La Oia PV	No data	No data	Ramp rate mitigation
8/2/12 14:10	0:10	LSR-La Oia PV	No data	No data	Ramp rate mitigation
8/2/12 15:15	0:15	LSR-La Oia PV	No data	No data	Ramp rate mitigation
8/2/12 16:00	0:12	LSR-La Oia PV	No data	No data	Ramp rate mitigation
8/2/12 17:05	0:15	LSR-La Oia PV	No data	No data	Ramp rate mitigation
8/2/12 18:10	0:12	LSR-La Oia PV	No data	No data	Ramp rate mitigation
8/3/12 7:10	0:09	LSR-La Oia PV	No data	No data	Ramp rate mitigation
8/3/12 8:02	0:10	LSR-La Oia PV	No data	No data	Ramp rate mitigation
8/3/12 9:10	0:09	LSR-La Oia PV	No data	No data	Ramp rate mitigation
8/3/12 10:05	0:10	LSR-La Oia PV	No data	No data	Ramp rate mitigation
8/3/12 11:09	0:11	LSR-La Oia PV	No data	No data	Ramp rate mitigation
8/3/12 12:10	0:12	LSR-La Oia PV	No data	No data	Ramp rate mitigation
8/3/12 13:03	0:16	LSR-La Oia PV	No data	No data	Ramp rate mitigation
8/3/12 14:10	0:11	LSR-La Oia PV	No data	No data	Ramp rate mitigation
8/3/12 15:18	0:12	LSR-La Oia PV	No data	No data	Ramp rate mitigation
8/3/12 16:02	0:10	LSR-La Oia PV	No data	No data	Ramp rate mitigation
8/3/12 17:05	0:11	LSR-La Oia PV	No data	No data	Ramp rate mitigation
8/3/12 18:02	0:10	LSR-La Oia PV	No data	No data	Ramp rate mitigation
8/4/12 8:03	0:10	LSR-La Oia PV	No data	No data	Ramp rate mitigation
8/4/12 9:09	0:11	LSR-La Oia PV	No data	No data	Ramp rate mitigation
8/4/12 10:05	0:10	LSR-La Oia PV	No data	No data	Ramp rate mitigation
8/4/12 11:03	0:13	LSR-La Oia PV	No data	No data	Ramp rate mitigation

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Start Date/Time	Curtailment Event Duration	IPP Curtailed	MWH Curtailed	Peak MW Curtailed	Reason for Curtailment
8/4/12 12:05	0:10	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/4/12 13:07	0:13	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/4/12 14:02	0:13	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/4/12 15:13	0:17	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/4/12 16:03	0:12	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/4/12 17:10	0:10	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/4/12 18:03	0:16	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/4/12 8:03	0:10	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/5/12 9:06	0:14	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/5/12 10:02	0:10	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/5/12 11:02	0:14	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/5/12 12:00	0:12	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/5/12 13:03	0:10	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/5/12 14:12	0:10	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/5/12 15:15	0:08	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/5/12 16:03	0:10	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/5/12 17:09	0:12	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/5/12 18:03	0:10	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/6/12 8:00	0:10	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/6/12 9:06	0:10	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/6/12 10:03	0:10	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/6/12 11:05	0:15	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/6/12 12:02	0:18	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/6/12 13:05	0:13	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/6/12 14:09	0:11	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/6/12 15:12	0:13	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/6/12 16:00	0:09	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/6/12 17:09	0:10	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/6/12 18:10	0:07	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/7/12 8:03	0:08	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/7/12 9:16	0:14	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/7/12 10:07	0:10	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/7/12 11:03	0:10	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/7/12 12:01	0:10	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/7/12 13:03	0:12	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/7/12 14:05	0:10	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/7/12 15:15	0:09	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/7/12 16:02	0:09	LSR-La Ola PV	No data	No data	Ramp rate mitigation

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Start Date/Time	Curtailment Event Duration	IPP Curtailed	MWH Curtailed	Peak MW Curtailed	Reason for Curtailment
8/8/12 8:01	0:11	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/8/12 9:05	0:10	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/8/12 10:01	0:12	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/8/12 11:05	0:10	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/8/12 12:01	0:19	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/8/12 13:07	0:13	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/8/12 14:02	0:13	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/8/12 15:12	0:18	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/8/12 16:05	0:10	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/8/12 17:03	0:09	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/8/12 18:05	0:10	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/9/12 8:01	0:08	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/9/12 9:05	0:10	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/9/12 10:01	0:11	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/9/12 11:06	0:09	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/9/12 12:05	0:10	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/9/12 13:11	0:11	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/9/12 14:02	0:10	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/9/12 15:15	0:15	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/9/12 16:02	0:11	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/9/12 17:06	0:09	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/9/12 18:03	0:07	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/10/12 8:00	0:12	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/10/12 9:03	0:10	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/10/12 10:11	0:11	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/10/12 11:01	0:11	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/10/12 12:04	0:11	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/10/12 13:11	0:09	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/10/12 14:02	0:13	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/10/12 15:10	0:13	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/10/12 16:04	0:11	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/10/12 17:01	0:11	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/10/12 18:02	0:08	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/11/12 8:00	0:09	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/11/12 9:05	0:10	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/11/12 10:10	0:09	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/11/12 11:01	0:14	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/11/12 12:06	0:11	LSR-La Ola PV	No data	No data	Ramp rate mitigation

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Start Date/Time	Curtailment Event Duration	IPP Curtailed	MWH Curtailed	Peak MW Curtailed	Reason for Curtailment
8/11/12 13:03	0:10	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/11/12 14:06	0:14	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/11/12 15:20	0:11	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/11/12 16:10	0:07	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/11/12 17:02	0:13	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/11/12 18:00	0:10	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/12/12 8:03	0:10	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/12/12 9:05	0:10	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/12/12 10:10	0:09	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/12/12 11:01	0:14	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/12/12 12:07	0:08	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/12/12 13:01	0:11	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/12/12 14:05	0:10	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/12/12 15:15	0:15	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/12/12 16:01	0:10	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/12/12 17:06	0:11	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/12/12 18:01	0:09	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/13/12 8:00	0:10	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/13/12 9:05	0:10	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/13/12 10:03	0:12	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/13/12 11:05	0:11	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/13/12 12:02	0:13	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/13/12 13:05	0:11	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/13/12 14:09	0:13	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/13/12 15:01	0:14	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/13/12 16:06	0:10	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/13/12 17:02	0:09	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/13/12 18:05	0:11	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/14/12 8:01	0:12	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/14/12 9:01	0:10	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/14/12 10:05	0:10	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/14/12 11:08	0:12	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/14/12 12:09	0:11	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/14/12 13:10	0:12	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/14/12 14:01	0:12	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/14/12 15:12	0:09	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/14/12 15:30	0:00	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/15/12 8:02	0:10	LSR-La Ola PV	No data	No data	Ramp rate mitigation

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Start Date/Time	Curtailment Event Duration	IPP Curtailed	MWH Curtailed	Peak MW Curtailed	Reason for Curtailment
8/15/12 9:00	0:12	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/15/12 10:07	0:13	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/15/12 11:01	0:14	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/15/12 12:08	0:14	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/15/12 13:05	0:10	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/15/12 14:02	0:13	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/15/12 14:30	0:00	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/16/12 8:05	0:10	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/16/12 9:01	0:14	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/16/12 10:10	0:11	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/16/12 11:05	0:10	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/16/12 12:06	0:08	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/16/12 13:03	0:12	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/16/12 14:05	0:10	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/16/12 15:10	0:11	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/16/12 16:05	0:09	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/16/12 17:01	0:14	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/16/12 18:09	0:11	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/17/12 8:01	0:14	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/17/12 9:05	0:07	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/17/12 10:03	0:17	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/17/12 11:10	0:10	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/17/12 12:07	0:14	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/17/12 13:07	0:12	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/17/12 14:01	0:14	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/17/12 15:12	0:18	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/17/12 16:05	0:10	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/17/12 17:05	0:08	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/17/12 18:01	0:12	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/18/12 8:01	0:11	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/18/12 9:05	0:15	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/18/12 10:05	0:10	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/18/12 11:01	0:14	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/18/12 12:06	0:11	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/18/12 13:07	0:13	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/18/12 14:05	0:10	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/18/12 15:10	0:20	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/18/12 16:06	0:11	LSR-La Ola PV	No data	No data	Ramp rate mitigation

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Start Date/Time	Curtailment Event Duration	IPP Curtailed	MWH Curtailed	Peak MW Curtailed	Reason for Curtailment
8/18/12 17:10	0:10	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/18/12 18:05	0:15	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/19/12 8:03	0:10	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/19/12 9:01	0:14	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/19/12 10:05	0:10	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/19/12 11:10	0:10	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/19/12 12:07	0:08	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/19/12 13:05	0:10	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/19/12 14:07	0:13	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/19/12 15:15	0:15	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/19/12 16:03	0:12	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/19/12 17:02	0:10	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/19/12 18:01	0:11	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/20/12 8:03	0:12	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/20/12 9:05	0:10	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/20/12 10:07	0:13	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/20/12 11:01	0:14	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/20/12 12:05	0:10	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/20/12 13:07	0:10	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/20/12 14:07	0:13	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/20/12 15:10	0:10	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/20/12 16:01	0:14	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/20/12 17:03	0:11	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/20/12 18:03	0:12	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/21/12 8:00	0:09	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/21/12 9:02	0:10	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/21/12 10:05	0:15	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/21/12 11:07	0:12	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/21/12 12:02	0:13	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/21/12 13:05	0:10	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/21/12 14:06	0:14	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/21/12 15:09	0:12	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/21/12 16:03	0:12	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/21/12 17:05	0:10	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/21/12 18:03	0:12	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/22/12 8:00	0:15	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/22/12 9:06	0:10	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/22/12 10:05	0:15	LSR-La Ola PV	No data	No data	Ramp rate mitigation

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Start Date/Time	Curtailment Event Duration	IPP Curtailed	MWH Curtailed	Peak MW Curtailed	Reason for Curtailment
8/22/12 11:01	0:10	LSR-La Ola PV	No data	No data	MIKI RATA, Source Testing, CO testing. PV Output set at 200 kw
8/22/12 12:05	0:15	LSR-La Ola PV	No data	No data	MIKI RATA, Source Testing, CO testing. PV Output set at 200 kw
8/22/12 13:06	0:10	LSR-La Ola PV	No data	No data	MIKI RATA, Source Testing, CO testing. PV Output set at 200 kw
8/22/12 14:07	0:13	LSR-La Ola PV	No data	No data	MIKI RATA, Source Testing, CO testing. PV Output set at 200 kw
8/22/12 15:10	0:20	LSR-La Ola PV	No data	No data	MIKI RATA, Source Testing, CO testing. PV Output set at 200 kw
8/22/12 16:07	0:13	LSR-La Ola PV	No data	No data	MIKI RATA, Source Testing, CO testing. PV Output set at 200 kw
8/22/12 17:10	0:10	LSR-La Ola PV	No data	No data	MIKI RATA, Source Testing, CO testing. PV Output set at 200 kw
8/22/12 18:03	0:12	LSR-La Ola PV	No data	No data	MIKI RATA, Source Testing, CO testing. PV Output set at 200 kw
8/23/12 9:00	9:00	LSR-La Ola PV	No data	No data	MIKI RATA, Source Testing, CO testing. PV Output set at 200 kw
8/24/12 9:00	9:00	LSR-La Ola PV	No data	No data	MIKI RATA, Source Testing, CO testing. PV Output set at 200 kw
8/25/12 8:02	0:10	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/25/12 9:00	0:15	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/25/12 10:05	0:10	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/25/12 11:01	0:15	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/25/12 12:07	0:13	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/25/12 13:03	0:12	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/25/12 14:06	0:14	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/25/12 15:12	0:18	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/25/12 16:05	0:10	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/25/12 17:10	0:10	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/25/12 18:01	0:14	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/26/12 8:00	0:10	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/26/12 9:01	0:14	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/26/12 10:01	0:14	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/26/12 11:05	0:10	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/26/12 12:07	0:13	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/26/12 13:01	0:17	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/26/12 14:02	0:13	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/26/12 15:12	0:18	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/26/12 16:01	0:14	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/26/12 17:05	0:10	LSR-La Ola PV	No data	No data	Ramp rate mitigation

MECO-Lanai Curtailment Report August 2012

Start Date/Time	Curtailment Event Duration	IPP Curtailed	MWH Curtailed	Peak MW Curtailed	Reason for Curtailment
8/26/12 18:06	0:09	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/27/12 8:02	0:10	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/27/12 9:00	0:15	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/27/12 10:05	0:10	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/27/12 11:09	0:10	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/27/12 12:01	0:14	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/27/12 13:06	0:14	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/27/12 14:05	0:15	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/27/12 15:15	0:15	LSR-La Ola PV	No data	No data	MIKI RATA, Source Testing, CO testing, PV Output set at 50 kw
8/27/12 16:01	0:12	LSR-La Ola PV	No data	No data	MIKI RATA, Source Testing, CO testing, PV Output set at 50 kw
8/27/12 17:10	0:10	LSR-La Ola PV	No data	No data	MIKI RATA, Source Testing, CO testing, PV Output set at 50 kw
8/28/12 8:02	0:00	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/28/12 9:03	0:10	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/28/12 10:05	0:10	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/28/12 11:06	6:54	LSR-La Ola PV	No data	No data	MIKI RATA, Source Testing, CO testing, PV Output set at 50 kw
8/29/12 9:00	9:00	LSR-La Ola PV	No data	No data	MIKI RATA, Source Testing, CO testing, PV Output set at 50 kw
8/30/12 8:02	0:10	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/30/12 9:01	0:14	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/30/12 10:05	0:10	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/30/12 11:06	0:14	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/30/12 12:07	0:13	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/30/12 13:02	0:10	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/30/12 14:09	0:12	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/30/12 15:10	0:20	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/30/12 16:03	0:12	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/30/12 17:06	0:11	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/30/12 18:01	0:11	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/31/12 8:05	0:10	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/31/12 9:09	0:10	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/31/12 10:01	0:14	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/31/12 11:06	0:10	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/31/12 12:05	0:15	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/31/12 13:01	0:14	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/31/12 14:08	0:13	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/31/12 15:15	0:16	LSR-La Ola PV	No data	No data	Ramp rate mitigation

MECO-Lanai Curtailment Report August 2012

Start Date/Time	Curtailment Event Duration	IPP Curtailed	MWH Curtailed	Peak MW Curtailed	Reason for Curtailment
8/31/12 16:02	0:14	LSR-La Ola PV	No data	No data	Ramp rate mitigation
8/31/12 17:05	0:11	LSR-La Ola PV	No data	No data	Ramp rate mitigation

Note: In April the testing period to increase the La Ola PV Farm's output to 1200kW began. The low system demand and increased output from the solar farm has required that the solar farm's output to be curtailed to 1000kW when a single operator is on shift. Additionally, the dispatch of conventional fleet has been modified to accommodate the increased generation from the PV farm.

HELCO Curtailment Report August 2012

Start Date/Time	MW output prior to start of curtailment	End Date/Time	MW output after curtailment released	Reason for Curtailment
07/12/12 18:50	6.1 MW	--	--	Tawhiri request to self-curtail to 9.0 MW until resolution of fiber optic communication problem which caused trips on 7/12/12 & 7/17/12. Tawhiri limited its production to 9.0 MW through month of August 2012.
08/01/12 01:53	9.0 MW	08/01/12 04:25	14.2 MW	Tawhiri Group B curtailed for excess energy. At the end of this curtailment, returned to 9.0 MW self curtailment limit.
08/01/12 02:33	6.8 MW	08/01/12 04:06	3.9 MW	HRD curtailed for excess energy.
08/20/12 01:20	9.0 MW	08/20/12 04:40	9.0 MW	Tawhiri Group B curtailed for excess energy. At the end of this curtailment, returned to 9.0 MW self curtailment limit.
08/21/12 01:09	9.0 MW	08/21/12 04:50	9.0 MW	Tawhiri Group B curtailed for excess energy. At the end of this curtailment, returned to 9.0 MW self curtailment limit.