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PUBLIC UTILITIES  
COMMISSION



Dean K. Matsuura  
Manager  
Regulatory Affairs

June 27, 2013

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'<sup>1</sup> monthly report for May 2013 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 a compact disc ("CD") containing the electronic files to both the Commission and the Consumer Advocate. Copies of the CD will be available to any Party to this proceeding. Interested Parties should email Marisa Chun at [marisa.chun@heco.com](mailto: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

<sup>1</sup> 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".

SERVICE LIST  
(Docket No. 2011-0206)

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(Docket No. 2011-0206)

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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 May 31, 2013):*

**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 May 31, 2013):*

**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 did not have any under frequency load shed events for the month of May.

**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's demand response activations for system events are provided in Attachment 5. MECO and HELCO currently do not have demand response programs.

- (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.

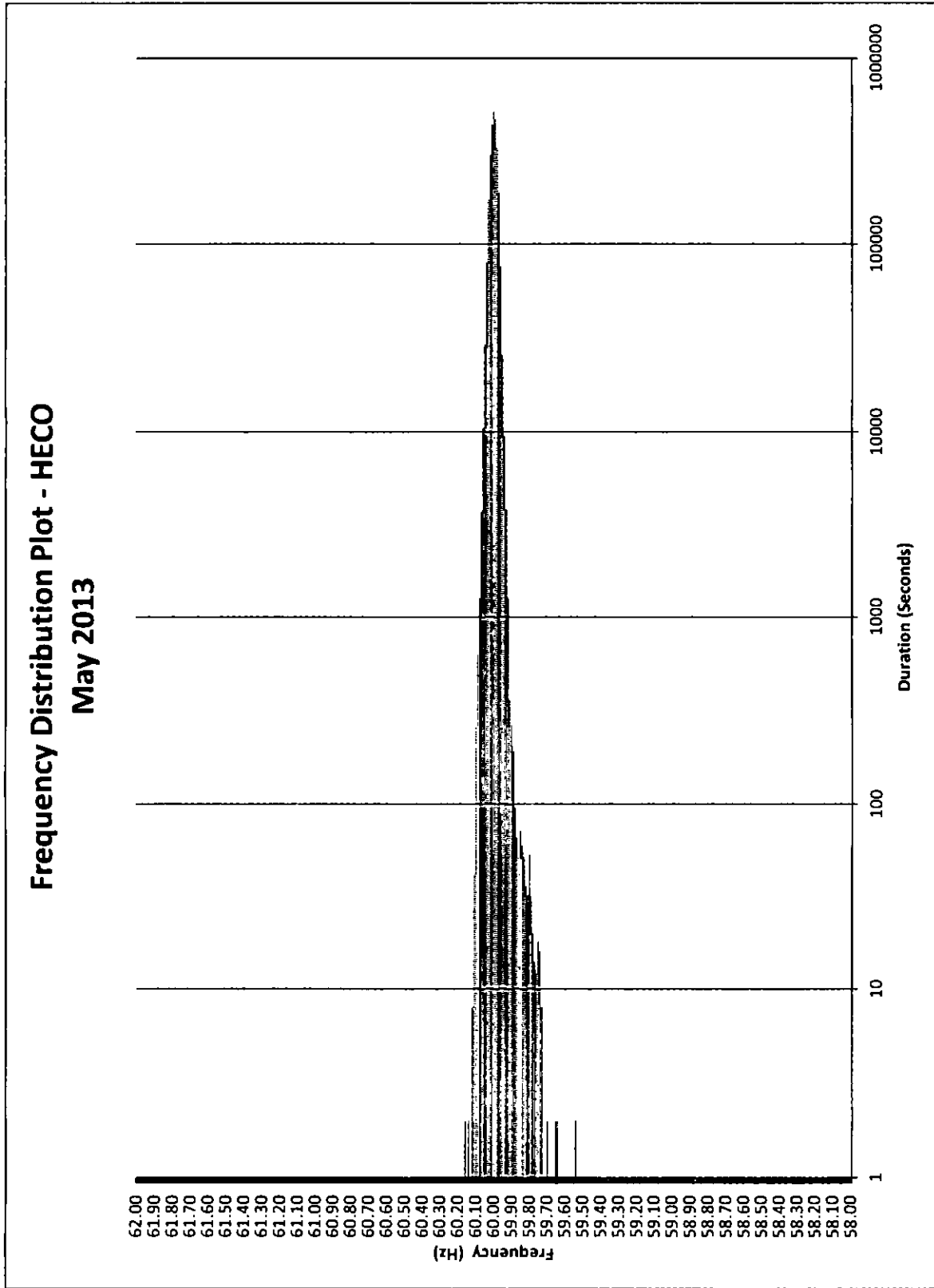
The following provides information with respect to items 3a) through 3b) – (all statements are current as of the month ending May 31, 2013):

**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.

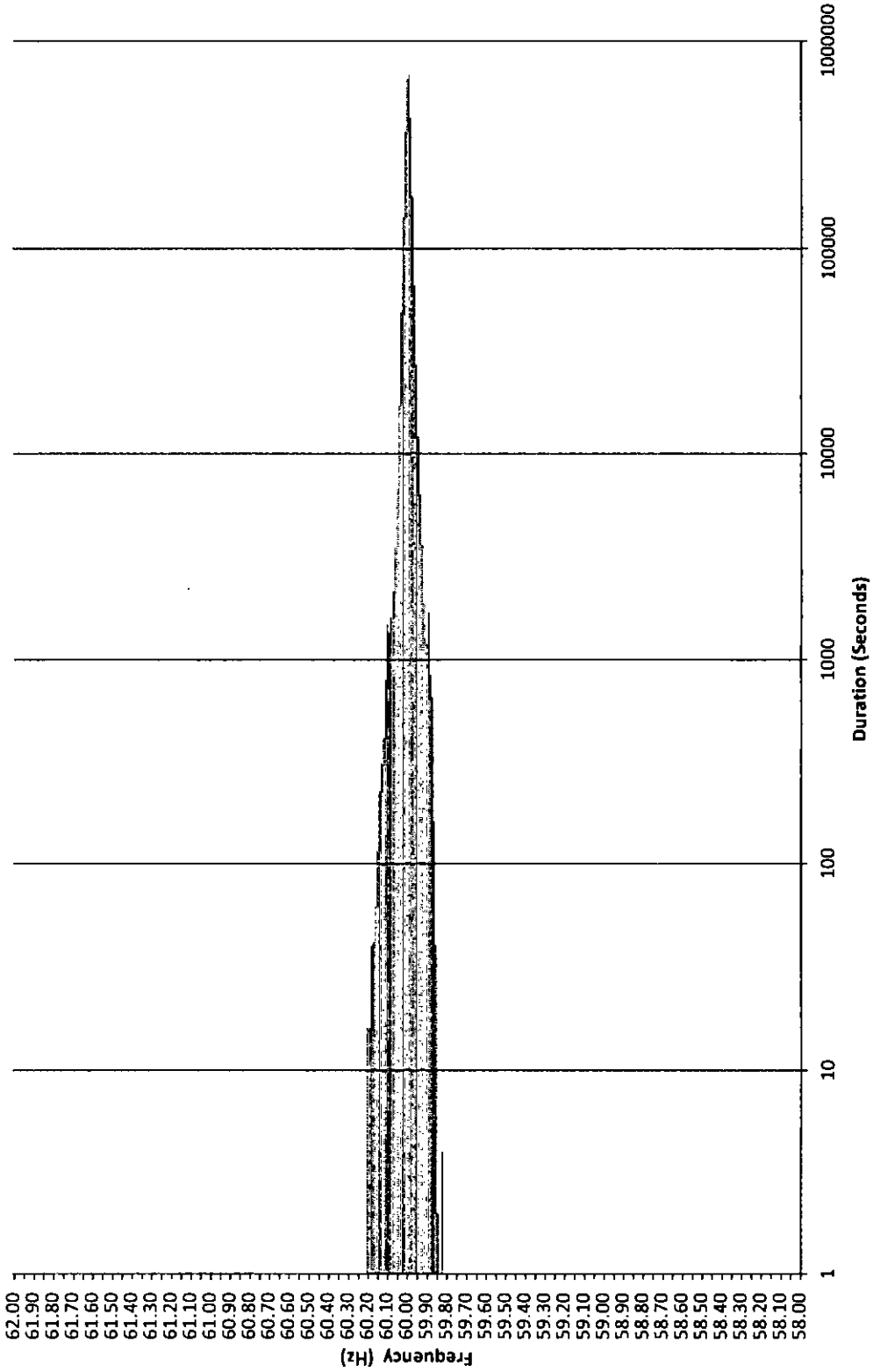
**3b) Total MWh of non-dispatchable renewable resources curtailed for the month:**

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.

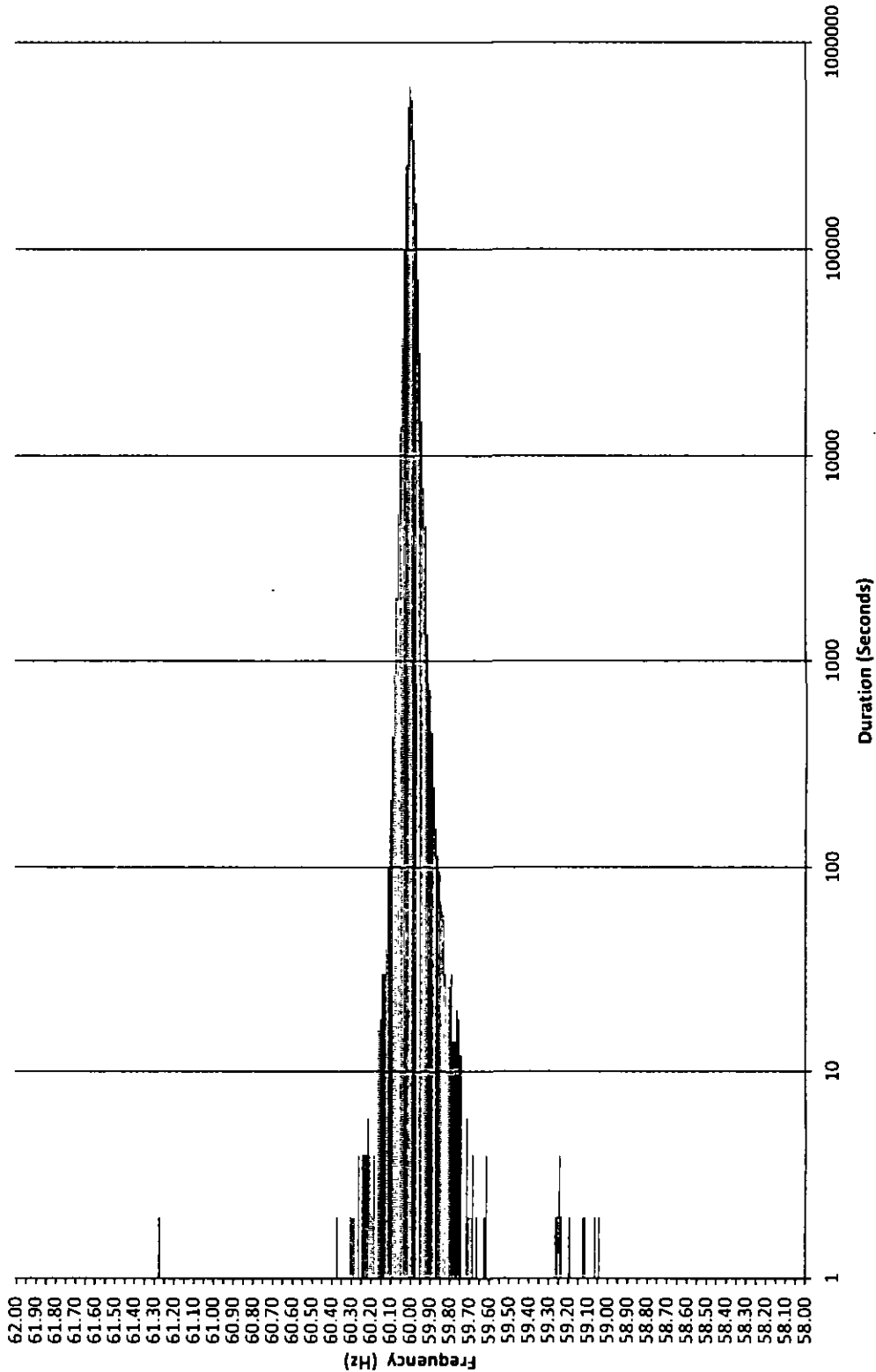




**MECO Frequency Distribution Plot - Maui  
May 2013**



**Frequency Distribution Plot - HELCO  
May 2013**



HECO Frequency Excursion Statistics May 2013		
Data Rounded to the nearest	<59.95 Hz	>60.05 Hz
Number of Excursions	1205	1268
Maximum Duration (sec)	540	438
Maximum Deviation (Hz)	59.544	60.159
Total Duration of Excursions (sec)	25598	26826

MECO Frequency Excursion Statistics May 2013		
	<59.95 Hz	>60.05 Hz
Number of Excursions	6155	697
Maximum Duration (sec)	598	592
Maximum Deviation (Hz)	59.81641	60.19629
Total Duration of Excursions (sec)	55674	12162

HELCO Frequency Excursion Statistics May 2013		
	<59.95 Hz	>60.05 Hz
Number of Excursions	5895	2772
Maximum Duration (sec)	354	90
Maximum Deviation (Hz)	59.03613	61.27344
Total Duration of Excursions (sec)	42632	14214











HECO Curtailment Report May 2013

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
05/08/13 05:53	0 0	0 00	05/08/13 17:23	0	*	KLS2	Kahe-Standard OI 2 line clearance required for 138 kV structure replacement
05/08/13 06:24	0 0	0 00	05/08/13 07:23	0	*	Makai	Pole and equipment replacement on Koolau-Kahuku 46kV line.
05/08/13 15:04	0 0	0 00	05/08/13 15:48	0	*	Makai	Pole and equipment replacement on Koolau-Kahuku 46kV line
05/09/13 05:55	0 0	0 00	05/09/13 17:00	0	*	KLS2	Kahe-Standard OI 2 line clearance required for 138 kV structure replacement.
05/10/13 06:36	0 0	0 00	05/10/13 16:25	0	*	KLS2	Interrupter replacement at Makakilo Substation
05/11/13 05:41	0 0	0 00	05/11/13 17:41	0	*	KLS2	Kahe-Standard OI 2 line clearance required for 138 kV structure replacement.
05/21/13 06:43	0 0	1 00	05/21/13 19:53	0	*	Makai	Interrupter and lightning arrester replacement at Waialua Substation.
05/21/13 06:43	0 0	0 00	05/21/13 07:49	0	*	Mauka	Interrupter and lightning arrester replacement at Waialua Substation.
05/21/13 18:54	0 0	0 00	05/21/13 19:54	0	*	Mauka	Interrupter and lightning arrester replacement at Waialua Substation.
05/22/13 06:38	0 0	0 00	05/22/13 15:33	0	*	Makai	Interrupter and lightning arrester replacement at Waialua Substation
05/22/13 06:38	0 0	1 00	05/22/13 08:06	0	*	Mauka	Interrupter and lightning arrester replacement at Waialua Substation
05/22/13 14:33	0 0	0 00	05/22/13 15:33	0	*	Mauka	Interrupter and lightning arrester replacement at Waialua Substation
05/23/13 07:19	0 0	0 00	05/23/13 18:10	0	*	Makai	Interrupter and lightning arrester replacement at Waialua Substation
05/23/13 07:20	0 0	0 00	05/23/13 08:30	0	*	Mauka	Interrupter and lightning arrester replacement at Waialua Substation
05/23/13 16:55	0 0	11 00	05/23/13 18:10	0	*	Mauka	Interrupter and lightning arrester replacement at Waialua Substation
05/24/13 06:31	0 0	1 00	05/24/13 17:15	0	*	Makai	Switch repair at Waialua Substation
05/24/13 06:32	0 0	0 00	05/24/13 07:35	0	*	Mauka	Switch repair at Waialua Substation
05/24/13 15:57	0 0	10 00	05/24/13 17:15	0	*	Mauka	Switch repair at Waialua Substation

KLS2 = Kalaheo Solar 2 PV Farm

KWF = Kahuku Wind Farm

Makai = Kawailoa Makai Wind Farm

Mauka = Kawailoa Mauka Wind Farm

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

\* Data has not been provided by IPP

MECO - Maui Curtailment Report May 2013

Start Date and Time	Duration	IPP Curtailed	Estimated Curtailed MWh	Peak MW Curtailed	Reason for Curtailment
5/1/2013 2 14	0:03	AWE	0.008	11.400	AGC MAVG - calculated
5/1/2013 2 19	0:01	AWE	0.007	10.900	AGC MAVG - calculated
5/1/2013 3 43	0:01	AWE	0.001	8.300	AGC MAVG - calculated
5/1/2013 3 46	0:01	AWE	0.008	8.200	AGC MAVG - calculated
5/1/2013 3 49	0:02	AWE	0.009	8.500	AGC MAVG - calculated
5/1/2013 3 52	0:06	AWE	0.027	8.800	AGC MAVG - calculated
5/1/2013 3 59	0:01	AWE	0.061	8.700	AGC MAVG - calculated
5/1/2013 4 08	0:01	AWE	0.002	7.200	AGC MAVG - calculated
5/1/2013 4 10	0:03	AWE	0.011	8.700	AGC MAVG - calculated
5/1/2013 4 25	0:01	AWE	0.002	7.000	AGC MAVG - calculated
5/1/2013 4 25	0:02	KWPII	0.011	0.480	AGC MAVG - calculated
5/1/2013 5 09	0:01	KWPII	0.004	4.222	AGC MAVG - calculated
5/1/2013 5 07	0:38	KWPII	4.783	14.315	AGC MAVG - calculated
5/1/2013 5 13	0:03	AWE	0.005	8.200	AGC MAVG - calculated
5/1/2013 5 18	0:01	AWE	0.002	7.900	AGC MAVG - entered - Maintaining Regulating Reserves
5/1/2013 5 20	0:04	AWE	0.014	7.700	AGC MAVG - entered - Maintaining Regulating Reserves
5/1/2013 5 46	1:29	KWPII	18.670	19.834	AGC MAVG - entered - Maintaining Regulating Reserves
5/1/2013 7 19	0:03	KWPII	0.013	10.389	AGC MAVG - calculated
5/1/2013 12 09	0:01	KWPII	0.002	0.145	AGC MAVG - calculated
5/1/2013 14 00	0:01	KWPII	0.000	0.021	AGC MAVG - calculated
5/1/2013 16 01	0:01	KWPII	0.003	11.748	AGC MAVG - calculated and Good Engineering and Operating Practices
5/1/2013 17 17	0:01	KWPII	0.006	13.958	AGC MAVG - calculated
5/1/2013 23 13	0:04	AWE	0.031	18.800	AGC MAVG - calculated
5/1/2013 23 20	0:02	AWE	0.005	18.700	AGC MAVG - calculated
5/1/2013 23 24	0:06	AWE	0.030	15.400	AGC MAVG - calculated
5/2/2013 0 44	0:01	AWE	0.005	19.200	AGC MAVG - calculated and Good Engineering and Operating Practices
5/2/2013 1 16	0:01	AWE	0.000	20.000	AGC MAVG - calculated and Good Engineering and Operating Practices
5/2/2013 1 36	0:01	AWE	0.000	17.800	AGC MAVG - calculated and Good Engineering and Operating Practices
5/2/2013 1 57	0:02	AWE	0.008	18.600	AGC MAVG - calculated and Good Engineering and Operating Practices
5/2/2013 2 00	0:04	AWE	0.009	18.100	AGC MAVG - calculated and Good Engineering and Operating Practices
5/2/2013 2 05	0:01	AWE	0.007	18.600	AGC MAVG - calculated and Good Engineering and Operating Practices
5/2/2013 2 11	0:05	AWE	0.017	17.100	AGC MAVG - calculated and Good Engineering and Operating Practices
5/2/2013 2 23	0:01	AWE	0.001	16.300	AGC MAVG - calculated and Good Engineering and Operating Practices
5/2/2013 2 25	0:04	AWE	0.023	15.400	AGC MAVG - calculated and Good Engineering and Operating Practices
5/2/2013 2 30	0:03	AWE	0.012	15.400	AGC MAVG - calculated and Good Engineering and Operating Practices
5/2/2013 2 36	0:03	AWE	0.037	16.100	AGC MAVG - calculated and Good Engineering and Operating Practices
5/2/2013 2 41	0:02	AWE	0.011	16.200	AGC MAVG - calculated and Good Engineering and Operating Practices
5/2/2013 2 45	0:01	AWE	0.000	16.100	AGC MAVG - calculated and Good Engineering and Operating Practices
5/2/2013 2 47	0:01	AWE	0.006	16.800	AGC MAVG - calculated and Good Engineering and Operating Practices
5/2/2013 5 55	0:03	AWE	0.009	19.700	AGC MAVG - entered and AGC MAVG - entered - Maintaining Regulating Reserves
5/2/2013 6 00	0:02	AWE	0.010	19.500	AGC MAVG - entered - Maintaining Regulating Reserves
5/2/2013 6 21	0:01	AWE	0.000	17.800	AGC MAVG - calculated
5/2/2013 13 14	0:01	KWPII	0.006	1.309	AGC MAVG - calculated
5/4/2013 13 40	0:01	KWPII	0.002	8.673	AGC MAVG - calculated and Good Engineering and Operating Practices
5/4/2013 14 28	0:01	KWPII	0.002	8.660	AGC MAVG - calculated and Good Engineering and Operating Practices
5/5/2013 10 05	0:01	AWE	0.005	0.300	AGC MAVG - calculated and Good Engineering and Operating Practices
5/5/2013 11 13	0:01	KWPII	0.004	8.725	AGC MAVG - calculated and Good Engineering and Operating Practices
5/5/2013 12 37	0:01	KWPII	0.014	7.518	AGC MAVG - calculated and Good Engineering and Operating Practices
5/5/2013 12 33	0:01	KWPII	0.015	7.712	AGC MAVG - calculated and Good Engineering and Operating Practices
5/5/2013 12 35	0:01	KWPII	0.005	7.891	AGC MAVG - entered and Good Engineering and Operating Practices
5/5/2013 12 35	0:01	AWE	0.001	0.300	AGC MAVG - entered and Good Engineering and Operating Practices
5/5/2013 12 37	0:01	AWE	0.002	0.100	AGC MAVG - entered and Good Engineering and Operating Practices
5/5/2013 13 12	0:01	KWPII	0.005	10.875	AGC MAVG - calculated and Good Engineering and Operating Practices
5/5/2013 14 24	0:01	KWPII	0.011	13.064	AGC MAVG - calculated and Good Engineering and Operating Practices
5/5/2013 14 27	0:11	KWPII	0.437	14.662	AGC MAVG - calculated, AGC MAVG - entered, and Good Engineering and Operating Practices
5/5/2013 14 51	0:01	KWPII	0.010	12.189	AGC MAVG - calculated and Good Engineering and Operating Practices
5/5/2013 15 07	0:04	KWPII	0.026	14.576	AGC MAVG - calculated and Good Engineering and Operating Practices
5/5/2013 15 48	0:01	KWPII	0.018	15.700	AGC MAVG - calculated and Good Engineering and Operating Practices
5/5/2013 15 54	0:02	KWPII	0.017	17.300	AGC MAVG - calculated and Good Engineering and Operating Practices
5/5/2013 15 57	0:02	KWPII	0.046	17.380	AGC MAVG - calculated and Good Engineering and Operating Practices
5/5/2013 16 04	0:02	KWPII	0.054	17.550	AGC MAVG - entered and Good Engineering and Operating Practices
5/5/2013 17 18	0:01	KWPII	0.018	18.810	AGC MAVG - calculated and Good Engineering and Operating Practices
5/5/2013 18 18	0:01	KWPII	0.002	18.323	AGC MAVG - calculated, Good Engineering and Operating Practices, and Testing
5/5/2013 19 57	0:03	KWPII	0.021	18.287	AGC MAVG - calculated, Good Engineering and Operating Practices, Testing, and AGC MAVG - entered
5/5/2013 21 08	0:04	KWPII	0.075	20.407	AGC MAVG - entered - Maintaining Regulating Reserves, Good Engineering and Operating Practices, and Testing
5/5/2013 21 12	0:02	AWE	0.007	0.300	AGC MAVG - entered - Maintaining Regulating Reserves, Good Engineering and Operating Practices, and Testing
5/5/2013 22 53	0:06	KWPII	0.193	19.836	AGC MAVG - calculated and Testing
5/5/2013 23 49	0:01	AWE	0.004	0.300	AGC MAVG - calculated and Testing
5/6/2013 0 58	0:01	KWPII	0.003	7.225	AGC MAVG - calculated and Testing
5/6/2013 7 56	0:01	AWE	0.003	0.200	AGC MAVG - calculated and Testing
5/6/2013 10 07	0:01	AWE	0.007	0.400	AGC MAVG - calculated and Testing
5/6/2013 10 09	0:01	AWE	0.003	0.200	AGC MAVG - calculated and Testing
5/6/2013 11 06	0:01	AWE	0.002	0.100	AGC MAVG - calculated, Testing, and Good Engineering and Operating Practices
5/6/2013 12 34	0:01	AWE	0.003	0.200	AGC MAVG - calculated, Testing, and Good Engineering and Operating Practices
5/6/2013 12 43	0:01	AWE	0.002	0.100	AGC MAVG - calculated, Testing, and Good Engineering and Operating Practices
5/6/2013 12 55	0:01	AWE	0.002	0.100	AGC MAVG - calculated, Testing, and Good Engineering and Operating Practices
5/6/2013 18 02	0:01	AWE	0.005	0.300	AGC MAVG - calculated, Testing, and Good Engineering and Operating Practices
5/6/2013 18 05	0:01	AWE	0.005	0.300	AGC MAVG - calculated, Testing, and Good Engineering and Operating Practices
5/7/2013 9 23	0:01	AWE	0.003	0.200	AGC MAVG - calculated and Good Engineering and Operating Practices
5/7/2013 10 30	0:01	AWE	0.000	0.300	AGC MAVG - calculated and Good Engineering and Operating Practices
5/7/2013 11 35	0:01	AWE	0.003	0.200	AGC MAVG - calculated and Good Engineering and Operating Practices
5/7/2013 13 04	0:01	AWE	0.002	0.100	AGC MAVG - calculated, Good Engineering and Operating Practices, and Testing
5/7/2013 13 23	0:01	AWE	0.003	0.200	AGC MAVG - calculated, Good Engineering and Operating Practices, and Testing
5/7/2013 13 30	0:01	AWE	0.002	0.100	AGC MAVG - calculated, Good Engineering and Operating Practices, and Testing
5/7/2013 13 33	0:01	AWE	0.002	0.100	AGC MAVG - calculated, Good Engineering and Operating Practices, and Testing
5/7/2013 14 55	0:01	AWE	0.002	0.100	AGC MAVG - calculated, Good Engineering and Operating Practices, and Testing
5/7/2013 15 27	0:02	AWE	0.003	0.100	AGC MAVG - calculated, Good Engineering and Operating Practices, and Testing
5/7/2013 16 01	0:01	AWE	0.005	0.300	AGC MAVG - calculated, Good Engineering and Operating Practices, and Testing
5/7/2013 17 28	0:01	AWE	0.003	0.200	AGC MAVG - calculated, Good Engineering and Operating Practices, and Testing
5/7/2013 17 38	0:01	AWE	0.003	0.200	AGC MAVG - calculated, Good Engineering and Operating Practices, and Testing
5/8/2013 7 25	0:01	AWE	0.002	0.100	AGC MAVG - calculated
5/8/2013 10 37	0:01	AWE	0.002	0.100	AGC MAVG - calculated
5/8/2013 11 59	0:01	AWE	0.002	0.100	AGC MAVG - calculated and Testing
5/8/2013 12 12	0:01	AWE	0.002	0.100	AGC MAVG - calculated and Testing
5/8/2013 12 38	0:01	AWE	0.005	0.300	AGC MAVG - calculated and Testing
5/8/2013 13 38	0:01	AWE	0.002	0.100	AGC MAVG - calculated and Testing
5/8/2013 13 48	0:01	AWE	0.002	0.100	AGC MAVG - calculated and Testing
5/8/2013 16 00	0:01	AWE	0.003	0.200	AGC MAVG - calculated and Testing
5/8/2013 16 43	0:01	AWE	0.002	0.100	AGC MAVG - calculated and Testing
5/8/2013 17 00	0:01	AWE	0.003	0.200	AGC MAVG - calculated and Testing
5/8/2013 0 35	0:01	AWE	0.002	0.100	AGC MAVG - calculated
5/8/2013 5 30	0:01	AWE	0.002	0.100	AGC MAVG - calculated
5/8/2013 5 50	0:01	AWE	0.005	0.300	AGC MAVG - calculated
5/8/2013 8 35	0:01	AWE	0.002	0.100	AGC MAVG - calculated
5/8/2013 8 48	0:01	AWE	0.002	0.100	AGC MAVG - calculated
5/8/2013 8 54	0:01	AWE	0.002	0.100	AGC MAVG - calculated
5/8/2013 9 03	0:01	AWE	0.002	0.100	AGC MAVG - calculated
5/8/2013 9 10	0:01	AWE	0.002	0.100	AGC MAVG - calculated
5/8/2013 9 40	0:01	AWE	0.007	0.400	AGC MAVG - calculated
5/8/2013 8 44	0:01	AWE	0.002	0.100	AGC MAVG - calculated
5/8/2013 11 31	0:01	AWE	0.002	0.100	AGC MAVG - calculated
5/8/2013 11 59	0:02	AWE	0.003	0.100	AGC MAVG - calculated
5/8/2013 12 14	0:01	AWE	0.002	0.100	AGC MAVG - calculated

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Start Date and Time	Duration	IPP Curtailed	Estimated Curtailed MWh	Peak MW Curtailed	Reason for Curtailment
5/9/2013 13:16	0:01	AWE	0.002	0.100	AGC MAVG - calculated and Testing
5/9/2013 14:55	0:01	AWE	0.002	0.100	AGC MAVG - calculated, Testing, and Good Engineering and Operating Practices
5/9/2013 20:39	0:01	KWPII	0.000	0.024	AGC MAVG - calculated and Testing
5/10/2013 14:38	0:01	AWE	0.002	0.100	AGC MAVG - calculated and Testing
5/10/2013 14:43	0:01	AWE	0.002	0.100	AGC MAVG - calculated and Testing
5/10/2013 15:57	0:01	AWE	0.002	0.100	AGC MAVG - calculated and Testing
5/10/2013 18:01	0:01	AWE	0.003	0.200	AGC MAVG - calculated and Testing
5/10/2013 19:12	0:01	AWE	0.002	0.100	AGC MAVG - calculated and Testing
5/10/2013 19:39	0:01	AWE	0.002	0.100	AGC MAVG - calculated and Testing
5/10/2013 21:37	0:08	KWPII	0.394	19.417	AGC MAVG - calculated and Testing
5/10/2013 21:48	0:01	KWPII	0.021	18.653	AGC MAVG - calculated
5/10/2013 21:49	0:03	KWPII	0.097	19.448	AGC MAVG - calculated
5/10/2013 21:54	0:01	KWPII	0.007	19.264	AGC MAVG - calculated
5/10/2013 22:03	0:01	AWE	0.002	0.100	AGC MAVG - calculated
5/10/2013 22:22	0:24	KWPII	0.582	20.340	AGC MAVG - entered and AGC MAVG - calculated
5/10/2013 23:32	5:58	KWPII	85.425	20.578	AGC MAVG - calculated, AGC MAVG - entered, AGC MAVG - entered - Maintaining Regulating Reserves, AGC MAVG - entered - Excess Energy, AGC MAVG - entered - Maintaining Regulating Reserves, and AGC MAVG - calculated
5/11/2013 2:30	0:51	SA	Data not available	Data not available	AGC MAVG - entered - Excess Energy
5/11/2013 2:32	0:48	MH	Data not available	Data not available	AGC MAVG - entered - Excess Energy
5/11/2013 2:35	0:01	KWP	0.006	24.153	AGC MAVG - entered - Excess Energy
5/11/2013 3:00	0:24	AWE	0.146	0.500	AGC MAVG - entered - Excess Energy
5/11/2013 6:26	0:01	AWE	0.002	0.100	AGC MAVG - calculated
5/11/2013 6:32	0:01	KWPII	0.001	20.194	AGC MAVG - calculated
5/11/2013 6:34	0:08	KWPII	0.159	19.976	AGC MAVG - calculated
5/11/2013 6:43	0:02	KWPII	0.018	20.025	AGC MAVG - calculated
5/11/2013 9:50	0:01	KWPII	0.007	19.950	AGC MAVG - calculated and Testing
5/11/2013 9:52	0:01	KWPII	0.002	20.142	AGC MAVG - calculated and Testing
5/11/2013 9:53	0:01	KWPII	0.001	19.782	AGC MAVG - calculated and Testing
5/11/2013 9:58	0:07	KWPII	0.138	19.267	AGC MAVG - calculated and Testing
5/11/2013 10:18	0:01	KWPII	0.008	18.922	AGC MAVG - calculated and Testing
5/11/2013 10:22	0:01	KWPII	0.004	18.362	AGC MAVG - calculated and Testing
5/11/2013 10:30	0:04	KWPII	0.051	18.841	AGC MAVG - calculated and Testing
5/11/2013 10:38	0:20	KWPII	0.775	19.629	AGC MAVG - calculated and Testing
5/11/2013 10:57	0:01	KWPII	0.003	18.327	AGC MAVG - calculated and Testing
5/11/2013 10:59	0:04	KWPII	0.077	19.934	AGC MAVG - calculated and Testing
5/11/2013 11:04	0:01	KWPII	0.008	19.611	AGC MAVG - calculated and Testing
5/11/2013 11:08	0:01	KWPII	0.012	18.475	AGC MAVG - calculated and Testing
5/11/2013 11:18	0:01	KWPII	0.000	19.484	AGC MAVG - calculated and Testing
5/11/2013 16:02	0:01	KWPII	0.015	18.535	AGC MAVG - calculated and Testing
5/11/2013 16:48	0:01	AWE	0.002	0.100	AGC MAVG - calculated and Testing
5/11/2013 17:18	0:01	KWPII	0.001	18.800	AGC MAVG - calculated and Testing
5/11/2013 19:33	11:36	KWPII	183.405	20.708	AGC MAVG - entered - Maintaining Regulating Reserves and AGC MAVG - entered - Excess Energy
5/12/2013 0:05	8:34	SA	Data not available	Data not available	AGC MAVG - entered - Excess Energy
5/12/2013 0:06	8:38	MH	Data not available	Data not available	AGC MAVG - entered - Excess Energy
5/12/2013 0:17	5:31	KWP	40.221	27.547	AGC MAVG - entered - Excess Energy
5/12/2013 1:56	0:23	AWE	0.127	0.500	AGC MAVG - entered - Excess Energy
5/12/2013 3:10	1:03	AWE	0.106	0.100	AGC MAVG - entered - Excess Energy
5/12/2013 5:16	0:16	AWE	0.078	0.500	AGC MAVG - entered - Excess Energy
5/12/2013 5:49	0:02	AWE	0.003	0.100	AGC MAVG - entered - Excess Energy
5/12/2013 5:50	0:01	KWP	0.004	24.234	AGC MAVG - entered - Excess Energy
5/12/2013 6:16	0:18	AWE	0.117	0.600	AGC MAVG - entered - Excess Energy
5/12/2013 6:41	0:06	AWE	0.058	1.600	AGC MAVG - entered - Excess Energy
5/12/2013 7:11	4:38	KWPII	45.726	20.708	AGC MAVG - entered - Excess Energy and AGC MAVG - calculated
5/12/2013 11:50	17:43	KWPII	295.860	20.708	AGC MAVG - entered - Maintaining Regulating Reserves, AGC MAVG - entered - Excess Energy, AGC MAVG - entered - Maintaining Regulating Reserves, AGC MAVG - entered - Excess Energy, AGC MAVG - calculated, and AGC MAVG - entered - Maintaining Regulating Reserves
5/12/2013 12:07	0:14	AWE	0.102	20.400	AGC MAVG - entered - Maintaining Regulating Reserves
5/12/2013 12:22	0:04	AWE	0.011	20.300	AGC MAVG - entered - Maintaining Regulating Reserves
5/12/2013 12:27	0:01	AWE	0.001	20.100	AGC MAVG - entered - Maintaining Regulating Reserves
5/12/2013 12:39	0:01	AWE	0.003	20.200	AGC MAVG - entered - Maintaining Regulating Reserves
5/12/2013 12:51	1:06	AWE	2.207	20.600	AGC MAVG - entered - Maintaining Regulating Reserves
5/12/2013 13:38	1:17	AWE	1.994	20.800	AGC MAVG - entered - Maintaining Regulating Reserves and AGC MAVG - entered - Excess Energy
5/12/2013 21:57	0:16	AWE	0.077	20.900	AGC MAVG - entered - Maintaining Regulating Reserves
5/12/2013 22:15	7:08	AWE	108.890	20.900	AGC MAVG - entered - Maintaining Regulating Reserves, AGC MAVG - entered - Excess Energy, AGC MAVG - calculated, AGC MAVG - entered, and AGC MAVG - calculated
5/13/2013 0:02	0:01	KWP	0.003	26.154	AGC MAVG - entered - Excess Energy
5/13/2013 0:04	1:27	KWP	3.207	25.280	AGC MAVG - entered - Excess Energy
5/13/2013 1:34	0:32	KWP	1.683	22.952	AGC MAVG - entered - Excess Energy
5/13/2013 2:07	2:01	KWP	10.254	24.612	AGC MAVG - entered - Excess Energy
5/13/2013 4:06	0:04	KWP	0.060	23.180	AGC MAVG - entered - Excess Energy
5/13/2013 5:25	0:01	AWE	0.025	19.000	AGC MAVG - calculated
5/13/2013 5:35	0:05	KWPII	0.182	3.612	AGC MAVG - calculated
5/13/2013 5:55	0:01	KWPII	0.002	1.081	AGC MAVG - calculated
5/13/2013 5:58	0:22	KWPII	4.060	16.393	AGC MAVG - calculated
5/13/2013 6:01	0:01	AWE	0.002	19.300	AGC MAVG - calculated
5/13/2013 6:03	0:04	AWE	0.011	17.900	AGC MAVG - calculated
5/13/2013 6:23	0:59	KWPII	15.932	19.211	AGC MAVG - calculated, Testing, and AGC MAVG - entered - Maintaining Regulating Reserves
5/13/2013 7:23	3:44	KWPII	57.534	20.019	AGC MAVG - entered - Maintaining Regulating Reserves, Testing, and AGC MAVG - calculated
5/13/2013 7:36	0:02	AWE	0.009	19.500	AGC MAVG - entered - Maintaining Regulating Reserves and Testing
5/13/2013 7:41	0:02	AWE	0.003	18.200	AGC MAVG - entered - Maintaining Regulating Reserves and Testing
5/13/2013 7:44	0:01	AWE	0.001	18.100	AGC MAVG - entered - Maintaining Regulating Reserves and Testing
5/13/2013 7:46	0:13	AWE	0.038	18.600	AGC MAVG - entered - Maintaining Regulating Reserves and Testing
5/13/2013 8:00	0:03	AWE	0.002	18.100	AGC MAVG - entered - Maintaining Regulating Reserves and Testing
5/13/2013 8:05	0:03	AWE	0.009	18.500	AGC MAVG - entered - Maintaining Regulating Reserves and Testing
5/13/2013 8:09	0:03	AWE	0.012	18.400	AGC MAVG - entered - Maintaining Regulating Reserves and Testing
5/13/2013 8:13	0:10	AWE	0.111	19.300	AGC MAVG - entered - Maintaining Regulating Reserves and Testing
5/13/2013 8:24	0:02	AWE	0.003	18.200	AGC MAVG - entered - Maintaining Regulating Reserves and Testing
5/13/2013 8:39	0:01	AWE	0.002	18.100	AGC MAVG - entered - Maintaining Regulating Reserves and Testing
5/13/2013 8:57	0:01	AWE	0.006	20.400	AGC MAVG - entered - Maintaining Regulating Reserves and Testing
5/13/2013 8:59	0:01	AWE	0.004	20.300	AGC MAVG - entered - Maintaining Regulating Reserves and Testing
5/13/2013 11:10	0:41	KWPII	2.875	20.171	AGC MAVG - calculated and Testing
5/13/2013 11:55	1:03	KWPII	4.354	20.100	AGC MAVG - calculated and Testing
5/13/2013 12:59	0:03	KWPII	0.035	18.498	AGC MAVG - calculated and Testing
5/13/2013 13:03	0:12	KWPII	0.811	19.244	AGC MAVG - calculated, AGC MAVG - entered, and Testing
5/13/2013 13:23	0:01	KWPII	0.004	15.605	AGC MAVG - calculated and Testing
5/13/2013 16:48	0:17	KWPII	2.409	16.962	AGC MAVG - calculated, AGC MAVG - entered, and Testing
5/13/2013 17:06	0:50	KWPII	12.405	19.701	AGC MAVG - entered, AGC MAVG - entered - Maintaining Regulating Reserves, and Testing
5/13/2013 20:29	0:19	KWPII	0.974	10.261	AGC MAVG - calculated and Testing
5/13/2013 20:49	0:02	KWPII	0.056	10.722	AGC MAVG - calculated and Testing
5/13/2013 20:53	0:02	KWPII	0.033	9.797	AGC MAVG - calculated
5/13/2013 20:57	0:03	KWPII	0.068	10.655	AGC MAVG - calculated and Testing
5/13/2013 21:06	0:07	KWPII	0.125	13.861	AGC MAVG - calculated and Testing
5/13/2013 21:56	3:42	KWPII	42.013	20.173	AGC MAVG - calculated, AGC MAVG - entered - Maintaining Regulating Reserves, AGC MAVG - calculated, AGC MAVG - entered - Excess Energy, Testing, and Good Engineering and Operating Practices
5/13/2013 23:23	0:01	AWE	0.009	14.500	AGC MAVG - calculated
5/13/2013 23:29	5:39	AWE	58.237	21.000	AGC MAVG - calculated, AGC MAVG - entered - Excess Energy, and AGC MAVG - calculated
5/14/2013 2:31	2:14	KWPII	17.501	18.885	AGC MAVG - entered - Excess Energy
5/14/2013 3:03	0:45	SA	Data not available	Data not available	AGC MAVG - entered - Excess Energy
5/14/2013 3:04	0:45	MH	Data not available	Data not available	AGC MAVG - entered - Excess Energy
5/14/2013 3:09	0:36	KWP	3.120	26.800	AGC MAVG - entered - Excess Energy
5/14/2013 3:20	0:04	KWPII	0.084	10.713	AGC MAVG - calculated
5/14/2013 3:45	1:26	KWPII	5.976	19.931	AGC MAVG - calculated and Testing
5/14/2013 6:12	0:02	KWPII	0.053	17.539	AGC MAVG - calculated and Testing
5/14/2013 8:17	0:02	KWPII	0.021	15.823	AGC MAVG - calculated and Testing

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Start Date and Time	Duration	IPP Curtailed	Estimated Curtailed MWH	Peak MW Curtailed	Reason for Curtailment
5/14/2013 8:20	0:02	KWPII	0.014	14.698	AGC MAVG - calculated and Testing
5/14/2013 8:26	0:04	KWPII	0.097	12.628	AGC MAVG - calculated and Testing
5/14/2013 8:31	0:01	KWPII	0.030	9.818	AGC MAVG - calculated and Testing
5/14/2013 8:49	0:01	KWPII	0.005	7.279	AGC MAVG - calculated and Testing
5/14/2013 9:00	0:01	KWPII	0.005	9.242	AGC MAVG - calculated and Testing
5/14/2013 9:03	0:01	KWPII	0.010	12.099	AGC MAVG - calculated and Testing
5/14/2013 9:05	0:32	KWPII	2.921	17.535	AGC MAVG - calculated and Testing
5/14/2013 9:39	9:51	KWPII	157.018	20.708	AGC MAVG - calculated, AGC MAVG - entered, and Testing
5/14/2013 13:35	1:07	AWE	2.135	18.430	AGC MAVG - calculated and Testing
5/14/2013 14:43	0:04	AWE	0.017	18.430	AGC MAVG - entered - Maintaining Regulating Reserves and Testing
5/14/2013 14:49	0:01	AWE	0.002	10.100	AGC MAVG - entered - Maintaining Regulating Reserves and Testing
5/14/2013 20:08	0:03	KWPII	0.034	20.708	AGC MAVG - entered - Maintaining Regulating Reserves
5/14/2013 20:28	9:42	KWPII	180.832	20.708	AGC MAVG - entered - Maintaining Regulating Reserves, AGC MAVG - entered - Excess Energy, AGC MAVG calculated, and Good Engineering and Operating Practices
5/14/2013 22:38	0:03	AWE	0.018	17.000	AGC MAVG - entered - Maintaining Regulating Reserves
5/14/2013 22:53	0:10	AWE	0.141	17.600	AGC MAVG - entered - Maintaining Regulating Reserves
5/14/2013 23:05	0:02	AWE	0.014	15.500	AGC MAVG - entered - Maintaining Regulating Reserves
5/14/2013 23:10	6:57	AWE	70.968	19.300	AGC MAVG - entered - Maintaining Regulating Reserves, AGC MAVG - entered - Excess Energy, and Good Engineering and Operating Practices
5/15/2013 0:06	5:08	SA	Data not available	Data not available	AGC MAVG - entered - Excess Energy
5/15/2013 0:08	5:01	MH	Data not available	Data not available	AGC MAVG - entered - Excess Energy
5/15/2013 0:29	0:07	KWP	0.048	27.636	AGC MAVG - entered - Excess Energy
5/15/2013 0:38	4:30	KWP	30.735	27.688	AGC MAVG - entered - Excess Energy
5/15/2013 8:13	8:38	KWPII	128.840	20.708	AGC MAVG - entered - Maintaining Regulating Reserves, Good Engineering and Operating Practices, Testing, and AGC MAVG - entered - Maintaining Regulating Reserves
5/15/2013 11:35	0:01	AWE	0.006	19.900	AGC MAVG - entered - Maintaining Regulating Reserves and Testing
5/15/2013 12:00	0:01	AWE	0.001	19.900	AGC MAVG - entered - Maintaining Regulating Reserves and Testing
5/15/2013 13:02	0:01	AWE	0.001	19.900	AGC MAVG - entered - Excess Energy
5/15/2013 15:04	0:02	KWPII	0.047	14.869	AGC MAVG - calculated and Testing
5/15/2013 15:07	0:04	KWPII	0.034	13.523	AGC MAVG - calculated and Testing
5/15/2013 16:05	0:01	KWPII	0.028	8.973	AGC MAVG - calculated and Testing
5/15/2013 16:07	1:43	KWPII	17.454	19.968	AGC MAVG - calculated, Testing, and AGC MAVG - entered - Maintaining Regulating Reserves
5/15/2013 19:09	0:02	KWPII	0.046	15.025	AGC MAVG - entered and Testing
5/15/2013 19:13	1:04	KWPII	10.965	10.670	AGC MAVG - entered - Maintaining Regulating Reserves and Testing
5/15/2013 20:18	0:02	KWPII	0.017	13.344	AGC MAVG - calculated, AGC MAVG - entered, and Testing
5/15/2013 20:21	1:52	KWPII	18.302	19.847	AGC MAVG - entered - Maintaining Regulating Reserves, Testing, and AGC MAVG - entered - Maintaining Regulating Reserves
5/15/2013 22:15	1:45	KWPII	30.366	20.657	AGC MAVG - entered - Maintaining Regulating Reserves and AGC MAVG - entered - Excess Energy
5/15/2013 22:44	0:02	AWE	0.005	19.400	AGC MAVG - entered - Maintaining Regulating Reserves
5/15/2013 22:49	0:02	AWE	0.003	17.300	AGC MAVG - entered - Maintaining Regulating Reserves
5/15/2013 22:53	0:01	AWE	0.005	17.400	AGC MAVG - entered - Maintaining Regulating Reserves and AGC MAVG - entered - Excess Energy
5/15/2013 22:57	0:03	AWE	0.006	17.000	AGC MAVG - entered - Excess Energy
5/15/2013 23:01	0:01	AWE	0.001	18.100	AGC MAVG - entered - Excess Energy
5/15/2013 23:03	0:01	AWE	0.003	18.100	AGC MAVG - entered - Excess Energy
5/15/2013 23:08	0:02	AWE	0.008	15.600	AGC MAVG - entered - Excess Energy
5/15/2013 23:09	0:02	AWE	0.011	15.400	AGC MAVG - entered - Excess Energy
5/15/2013 23:13	0:01	AWE	0.004	15.300	AGC MAVG - entered - Excess Energy
5/15/2013 23:17	0:01	AWE	0.008	14.800	AGC MAVG - entered - Excess Energy
5/15/2013 23:20	0:40	AWE	81.045	18.100	AGC MAVG - entered - Excess Energy
5/16/2013 0:20	4:55	SA	Data not available	Data not available	AGC MAVG - entered - Excess Energy
5/16/2013 0:22	4:51	MH	Data not available	Data not available	AGC MAVG - entered - Excess Energy
5/16/2013 0:33	4:35	KWP	26.644	27.688	AGC MAVG - entered - Excess Energy
5/16/2013 6:01	0:01	AWE	0.017	11.000	AGC MAVG - entered - Excess Energy and Good Engineering and Operating Practices
5/16/2013 8:03	0:08	AWE	0.085	12.000	AGC MAVG - entered - Excess Energy and Good Engineering and Operating Practices
5/16/2013 8:18	8:59	KWPII	131.560	20.708	AGC MAVG - entered - Maintaining Regulating Reserves, Testing, and AGC MAVG - calculated
5/16/2013 7:17	0:08	AWE	0.108	20.900	AGC MAVG - entered - Maintaining Regulating Reserves
5/16/2013 7:27	0:36	AWE	0.507	21.000	AGC MAVG - entered - Maintaining Regulating Reserves
5/16/2013 15:21	0:02	KWPII	0.004	17.172	AGC MAVG - entered
5/16/2013 15:30	0:07	KWPII	0.188	18.148	AGC MAVG - calculated and Testing
5/16/2013 15:42	0:19	KWPII	0.355	19.899	AGC MAVG - entered and Testing
5/16/2013 16:37	0:01	KWPII	0.003	18.437	AGC MAVG - calculated and Testing
5/16/2013 16:47	0:06	KWPII	0.059	20.396	AGC MAVG - calculated and Testing
5/16/2013 16:53	0:01	KWPII	0.014	17.377	AGC MAVG - calculated, Testing, and Good Engineering and Operating Practices
5/16/2013 16:55	0:04	KWPII	0.121	17.611	AGC MAVG - calculated, Testing, and Good Engineering and Operating Practices
5/16/2013 17:00	0:25	KWPII	1.636	20.043	AGC MAVG - calculated, Testing, Good Engineering and Operating Practices, and AGC MAVG - entered - Maintaining Regulating Reserves
5/16/2013 17:26	1:14	KWPII	13.139	20.308	AGC MAVG - entered - Maintaining Regulating Reserves, Testing, and Good Engineering and Operating Practices
5/16/2013 19:22	17:30	KWPII	286.195	20.708	AGC MAVG - entered - Maintaining Regulating Reserves, Testing, and Good Engineering and Operating Practices
5/16/2013 22:15	0:04	AWE	0.015	17.800	AGC MAVG - entered - Maintaining Regulating Reserves and Testing
5/16/2013 22:20	0:23	AWE	0.126	17.000	AGC MAVG - entered - Maintaining Regulating Reserves and Testing
5/16/2013 22:44	7:39	AWE	82.354	19.500	AGC MAVG - entered - Maintaining Regulating Reserves, Testing, and AGC MAVG - entered - Excess Energy
5/17/2013 0:05	5:16	SA	Data not available	Data not available	AGC MAVG - entered - Excess Energy
5/17/2013 0:05	5:14	MH	Data not available	Data not available	AGC MAVG - entered - Excess Energy
5/17/2013 0:40	4:27	KWP	29.006	27.658	AGC MAVG - entered - Excess Energy
5/17/2013 0:50	0:03	KWP	0.003	21.333	AGC MAVG - entered - Excess Energy
5/17/2013 14:40	0:01	KWPII	0.014	17.628	AGC MAVG - calculated and Testing
5/17/2013 14:47	0:09	KWPII	0.288	19.504	AGC MAVG - calculated and Testing
5/17/2013 15:00	0:02	KWPII	0.005	17.468	AGC MAVG - calculated and Testing
5/17/2013 15:05	1:48	KWPII	9.511	20.390	AGC MAVG - calculated, Testing, and AGC MAVG - entered - Maintaining Regulating Reserves
5/17/2013 16:53	0:05	KWPII	0.103	19.904	AGC MAVG - entered - Maintaining Regulating Reserves
5/17/2013 23:07	2:17	KWPII	25.683	18.958	AGC MAVG - entered - Maintaining Regulating Reserves, AGC MAVG - entered - Excess Energy, AGC MAVG calculated, AGC MAVG - entered - Maintaining Regulating Reserves, and AGC MAVG - entered - Excess
5/17/2013 23:30	0:12	AWE	0.136	14.400	AGC MAVG - entered - Excess Energy and AGC MAVG - calculated
5/17/2013 23:43	0:02	AWE	0.015	12.700	AGC MAVG - calculated
5/17/2013 23:48	0:01	AWE	0.003	12.200	AGC MAVG - calculated
5/17/2013 23:51	0:05	AWE	0.019	10.500	AGC MAVG - entered - Maintaining Regulating Reserves
5/18/2013 0:00	0:12	AWE	0.078	6.700	AGC MAVG - entered - Maintaining Regulating Reserves
5/18/2013 0:22	0:03	AWE	0.018	8.800	AGC MAVG - entered - Maintaining Regulating Reserves
5/18/2013 0:27	0:01	AWE	0.003	7.200	AGC MAVG - entered - Maintaining Regulating Reserves
5/18/2013 0:29	0:02	AWE	0.003	8.100	AGC MAVG - entered - Maintaining Regulating Reserves
5/18/2013 0:37	0:01	AWE	0.009	9.100	AGC MAVG - entered - Maintaining Regulating Reserves
5/18/2013 0:37	0:04	AWE	0.012	8.700	AGC MAVG - entered - Maintaining Regulating Reserves
5/18/2013 0:42	0:01	AWE	0.003	7.200	AGC MAVG - entered - Maintaining Regulating Reserves and AGC MAVG - entered - Excess Energy
5/18/2013 0:47	0:01	AWE	0.002	7.100	AGC MAVG - entered - Excess Energy
5/18/2013 0:54	0:03	AWE	0.014	7.300	AGC MAVG - entered - Excess Energy
5/18/2013 0:58	0:08	AWE	0.037	7.500	AGC MAVG - entered - Excess Energy
5/18/2013 1:08	0:01	AWE	0.007	8.400	AGC MAVG - entered - Excess Energy
5/18/2013 1:11	0:10	AWE	0.183	12.600	AGC MAVG - entered - Excess Energy
5/18/2013 1:22	0:06	AWE	0.072	14.200	AGC MAVG - entered - Excess Energy
5/18/2013 1:30	0:01	AWE	0.008	14.500	AGC MAVG - entered - Excess Energy
5/18/2013 1:32	0:01	AWE	0.002	14.100	AGC MAVG - entered - Excess Energy
5/18/2013 1:32	0:06	KWPII	0.012	0.294	AGC MAVG - entered - Excess Energy and AGC MAVG - calculated
5/18/2013 1:40	0:01	AWE	0.009	13.200	AGC MAVG - entered
5/18/2013 4:09	0:03	KWPII	0.001	0.128	AGC MAVG - entered - Maintaining Regulating Reserves
5/18/2013 5:54	0:02	AWE	0.014	10.700	AGC MAVG - calculated
5/18/2013 5:50	0:01	AWE	0.001	10.700	AGC MAVG - calculated
5/18/2013 6:15	0:01	KWPII	0.000	0.025	AGC MAVG - calculated
5/19/2013 5:33	0:01	AWE	0.002	0.100	AGC MAVG - calculated
5/19/2013 6:06	0:01	AWE	0.002	0.200	AGC MAVG - calculated
5/19/2013 6:09	0:01	AWE	0.002	0.100	AGC MAVG - calculated
5/19/2013 10:13	0:01	AWE	0.002	0.100	AGC MAVG - calculated
5/19/2013 10:32	0:01	AWE	0.002	0.100	AGC MAVG - calculated
5/19/2013 10:44	0:01	AWE	0.003	0.200	AGC MAVG - calculated

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Start Date and Time	Duration	IPP Curtailed	Estimated Curtailed MWH	Peak MW Curtailed	Reason for Curtailment
5/20/2013 9:00	0:01	AWE	0.003	0.200	AGC MAVG - calculated and Testing
5/20/2013 9:28	0:10	KWP	0.258	14.830	AGC MAVG - entered - Maintenance
5/20/2013 9:36	0:01	AWE	0.003	0.200	AGC MAVG - calculated
5/20/2013 10:42	0:01	AWE	0.002	0.100	AGC MAVG - calculated
5/20/2013 10:55	0:02	AWE	0.003	0.100	AGC MAVG - calculated
5/20/2013 10:59	0:01	AWE	0.002	0.100	AGC MAVG - calculated
5/20/2013 11:19	0:01	AWE	0.002	0.100	AGC MAVG - calculated
5/20/2013 11:40	0:01	AWE	0.002	0.100	AGC MAVG - calculated
5/20/2013 15:14	0:01	KWP	0.000	0.007	AGC MAVG - calculated
5/20/2013 15:47	0:01	AWE	0.002	0.100	AGC MAVG - calculated
5/20/2013 16:22	0:01	KWP	0.001	0.079	AGC MAVG - calculated
5/20/2013 17:19	0:01	AWE	0.005	0.300	AGC MAVG - calculated
5/21/2013 1:33	0:01	AWE	0.003	0.200	AGC MAVG - calculated
5/21/2013 1:36	0:01	AWE	0.003	0.200	AGC MAVG - calculated
5/21/2013 2:32	0:01	AWE	0.002	0.100	AGC MAVG - calculated
5/21/2013 12:39	0:01	KWP	0.000	0.016	AGC MAVG - calculated
5/21/2013 15:38	0:01	AWE	0.002	0.100	AGC MAVG - calculated
5/21/2013 17:05	0:02	AWE	0.003	0.100	AGC MAVG - calculated
5/21/2013 18:26	0:01	AWE	0.003	0.200	AGC MAVG - calculated
5/22/2013 9:10	0:01	AWE	0.003	0.200	AGC MAVG - calculated
5/22/2013 9:27	0:01	AWE	0.003	0.200	AGC MAVG - calculated
5/22/2013 9:49	0:01	AWE	0.005	0.300	AGC MAVG - calculated
5/22/2013 11:00	0:01	AWE	0.002	0.100	AGC MAVG - calculated
5/22/2013 12:57	0:01	AWE	0.002	0.100	AGC MAVG - calculated
5/22/2013 14:48	0:01	AWE	0.002	0.100	AGC MAVG - calculated
5/23/2013 2:50	0:01	KWP	0.000	0.008	AGC MAVG - calculated
5/23/2013 2:56	0:15	KWP	0.374	20.855	AGC MAVG - calculated
5/24/2013 0:17	0:01	KWP	0.001	19.863	AGC MAVG - calculated
5/24/2013 0:23	0:01	KWP	0.002	20.185	AGC MAVG - calculated
5/24/2013 0:26	0:06	KWP	0.037	20.248	AGC MAVG - calculated
5/24/2013 0:33	0:06	KWP	0.178	20.400	AGC MAVG - calculated
5/24/2013 0:42	0:01	KWP	0.008	19.836	AGC MAVG - calculated
5/24/2013 1:03	0:01	KWP	0.002	19.382	AGC MAVG - calculated
5/24/2013 1:28	0:03	KWP	0.044	19.100	AGC MAVG - calculated
5/24/2013 1:32	0:12	KWP	0.132	19.918	AGC MAVG - calculated
5/24/2013 2:01	0:04	KWP	0.018	20.634	AGC MAVG - calculated
5/24/2013 2:28	0:01	KWP	0.000	20.471	AGC MAVG - calculated
5/24/2013 2:30	0:01	KWP	0.001	20.489	AGC MAVG - calculated
5/24/2013 2:37	0:07	KWP	0.079	20.517	AGC MAVG - calculated
5/24/2013 3:38	0:08	KWP	0.191	17.831	AGC MAVG - calculated
5/24/2013 3:48	0:11	KWP	0.561	18.033	AGC MAVG - calculated
5/24/2013 4:00	0:01	KWP	0.003	18.409	AGC MAVG - calculated
5/24/2013 5:08	0:02	KWP	0.005	20.007	AGC MAVG - calculated
5/24/2013 5:13	0:06	KWP	0.073	20.443	AGC MAVG - calculated
5/24/2013 5:28	0:06	KWP	0.090	20.388	AGC MAVG - calculated
5/24/2013 6:07	0:08	KWP	0.158	20.458	AGC MAVG - calculated
5/24/2013 6:23	0:04	KWP	0.051	20.569	AGC MAVG - calculated
5/24/2013 11:13	0:02	KWP	0.007	0.852	AGC MAVG - calculated
5/24/2013 12:50	0:01	KWP	0.005	20.135	AGC MAVG - calculated
5/24/2013 13:22	0:01	KWP	0.006	20.031	AGC MAVG - calculated
5/24/2013 13:25	0:03	KWP	0.034	19.811	AGC MAVG - calculated
5/24/2013 13:39	2:23	KWP	16.803	20.708	AGC MAVG - calculated
5/24/2013 16:05	0:06	KWP	0.099	20.705	AGC MAVG - calculated
5/24/2013 16:59	0:03	KWP	0.007	20.705	AGC MAVG - calculated
5/24/2013 17:05	0:41	KWP	2.751	20.706	AGC MAVG - calculated
5/24/2013 17:47	0:02	KWP	0.018	20.634	AGC MAVG - calculated
5/24/2013 18:00	0:16	KWP	0.365	20.707	AGC MAVG - calculated
5/24/2013 18:28	0:48	KWP	4.798	20.708	AGC MAVG - calculated
5/24/2013 19:39	0:11	KWP	0.305	20.708	AGC MAVG - calculated
5/24/2013 19:52	0:03	KWP	0.021	20.708	AGC MAVG - calculated
5/24/2013 20:00	0:01	KWP	0.000	20.708	AGC MAVG - calculated
5/24/2013 21:18	0:01	AWE	0.002	0.100	AGC MAVG - calculated
5/24/2013 21:25	0:03	KWP	0.010	20.708	AGC MAVG - calculated
5/24/2013 21:30	0:35	KWP	1.820	20.708	AGC MAVG - calculated
5/24/2013 22:06	0:02	KWP	0.016	20.708	AGC MAVG - calculated
5/24/2013 22:08	0:33	KWP	2.974	20.708	AGC MAVG - calculated
5/24/2013 22:57	0:17	KWP	0.816	20.708	AGC MAVG - calculated
5/24/2013 23:20	0:04	KWP	0.019	20.708	AGC MAVG - calculated
5/24/2013 23:25	11:04	KWP	177.788	20.708	AGC MAVG - calculated
5/25/2013 0:16	0:01	AWE	0.002	0.100	AGC MAVG - calculated
5/25/2013 1:44	0:25	AWE	0.087	1.800	AGC MAVG - entered - Maintaining Regulating Reserves and AGC MAVG - entered - Excess Energy
5/25/2013 1:55	3:29	SA	Data not available	Data not available	AGC MAVG - entered - Maintaining Regulating Reserves and AGC MAVG - entered - Excess Energy
5/25/2013 2:02	3:16	MH	Data not available	Data not available	AGC MAVG - entered - Maintaining Regulating Reserves and AGC MAVG - entered - Excess Energy
5/25/2013 2:10	0:01	AWE	0.002	0.100	AGC MAVG - entered - Excess Energy
5/25/2013 2:12	3:16	AWE	16.498	12.700	AGC MAVG - entered - Excess Energy
5/25/2013 2:34	1:58	KWP	3.374	23.523	AGC MAVG - entered - Excess Energy
5/25/2013 4:34	0:11	KWP	0.039	23.449	AGC MAVG - entered - Excess Energy
5/25/2013 4:46	0:01	KWP	0.007	23.456	AGC MAVG - entered - Excess Energy
5/25/2013 5:28	1:00	AWE	2.285	14.200	AGC MAVG - entered - Excess Energy
5/25/2013 6:31	0:01	AWE	0.002	13.100	AGC MAVG - entered - Excess Energy
5/25/2013 6:33	0:02	AWE	0.025	17.800	AGC MAVG - entered - Excess Energy
5/25/2013 6:36	0:06	AWE	0.022	13.800	AGC MAVG - entered - Excess Energy
5/25/2013 6:43	0:02	AWE	0.009	13.400	AGC MAVG - entered - Excess Energy
5/25/2013 7:07	0:18	AWE	0.497	20.700	AGC MAVG - entered - Excess Energy
5/25/2013 7:29	0:02	AWE	0.014	20.800	AGC MAVG - entered - Maintaining Regulating Reserves
5/25/2013 10:32	0:02	KWP	0.032	20.573	AGC MAVG - calculated
5/25/2013 10:36	0:01	KWP	0.007	20.607	AGC MAVG - calculated
5/25/2013 10:42	0:03	KWP	0.030	20.280	AGC MAVG - calculated
5/25/2013 10:51	0:01	KWP	0.017	19.497	AGC MAVG - calculated
5/25/2013 11:04	0:07	KWP	0.188	20.182	AGC MAVG - calculated
5/25/2013 11:12	0:03	KWP	0.055	20.582	AGC MAVG - calculated
5/25/2013 11:18	0:01	KWP	0.010	20.378	AGC MAVG - calculated
5/25/2013 11:18	0:06	KWP	0.053	20.218	AGC MAVG - calculated
5/25/2013 11:25	0:01	KWP	0.009	19.704	AGC MAVG - calculated
5/25/2013 11:31	0:01	KWP	0.002	17.748	AGC MAVG - calculated
5/25/2013 11:40	0:01	KWP	0.010	19.670	AGC MAVG - calculated
5/25/2013 11:42	0:25	KWP	1.012	20.582	AGC MAVG - calculated
5/25/2013 12:08	0:10	KWP	0.192	20.688	AGC MAVG - calculated
5/25/2013 12:20	0:01	KWP	0.008	20.678	AGC MAVG - calculated
5/25/2013 12:22	0:02	KWP	0.016	20.873	AGC MAVG - calculated
5/25/2013 12:25	0:08	KWP	0.059	20.700	AGC MAVG - calculated
5/25/2013 12:32	0:36	KWP	1.358	20.675	AGC MAVG - calculated and AGC MAVG - entered - Maintaining Regulating Reserves
5/25/2013 13:18	9:35	KWP	118.814	20.708	AGC MAVG - entered - Maintaining Regulating Reserves
5/25/2013 21:52	0:06	AWE	0.032	20.300	AGC MAVG - entered - Maintaining Regulating Reserves
5/25/2013 21:59	0:03	AWE	0.035	18.900	AGC MAVG - entered - Maintaining Regulating Reserves
5/25/2013 22:13	0:02	AWE	0.013	18.400	AGC MAVG - entered - Maintaining Regulating Reserves
5/25/2013 22:16	0:13	AWE	0.114	19.100	AGC MAVG - entered - Maintaining Regulating Reserves
5/25/2013 22:31	0:01	AWE	0.005	18.300	AGC MAVG - entered - Maintaining Regulating Reserves
5/25/2013 22:33	0:01	AWE	0.010	18.600	AGC MAVG - entered - Maintaining Regulating Reserves
5/25/2013 22:43	0:01	AWE	0.000	18.100	AGC MAVG - entered - Maintaining Regulating Reserves
5/25/2013 22:55	9:05	KWP	172.699	19.211	AGC MAVG - entered - Maintaining Regulating Reserves
5/25/2013 23:22	0:02	AWE	0.020	18.800	AGC MAVG - entered - Maintaining Regulating Reserves
5/26/2013 0:10	7:44	AWE	86.007	21.000	AGC MAVG - entered - Maintaining Regulating Reserves and AGC MAVG - entered - Excess Energy
5/26/2013 1:31	3:15	KWP	11.291	23.523	AGC MAVG - entered - Excess Energy
5/26/2013 4:47	0:03	KWP	0.057	23.488	AGC MAVG - entered - Excess Energy

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Start Date and Time	Duration	IPP Curtailed	Estimated Curtailed MAWH	Peak MW Curtailed	Reason for Curtailment
5/28/2013 8:02	2:47	KWPII	32 618	20 178	AGC MAVG - entered - Excess Energy, AGC MAVG - calculated, Good Engineering and Operating Practices
5/28/2013 10:50	0:02	KWPII	0 018	17 519	AGC MAVG - calculated
5/28/2013 12:42	0:01	KWPII	0 024	15 977	AGC MAVG - calculated
5/28/2013 12:50	0:08	KWPII	0 231	19 118	AGC MAVG - calculated
5/28/2013 12:57	20:54	KWPII	306 777	20 708	AGC MAVG - calculated, AGC MAVG - entered - Maintaining Regulating Reserves, AGC MAVG - entered - Excess Energy, AGC MAVG - calculated, AGC MAVG - entered - Maintaining Regulating Reserves, and AGC MAVG - calculated
5/28/2013 23:38	0:01	AWE	0 002	14 900	AGC MAVG - entered - Maintaining Regulating Reserves
5/28/2013 23:39	7:56	AWE	07 800	21 000	AGC MAVG - entered - Maintaining Regulating Reserves and AGC MAVG - entered - Excess Energy
5/27/2013 1:17	3:58	SA	Data not available	Data not available	AGC MAVG - entered - Maintaining Regulating Reserves and AGC MAVG - entered - Excess Energy
5/27/2013 1:17	3:58	MH	Data not available	Data not available	AGC MAVG - entered - Maintaining Regulating Reserves and AGC MAVG - entered - Excess Energy
5/27/2013 1:27	0:01	KWP	0 004	23 367	AGC MAVG - entered - Excess Energy
5/27/2013 1:32	0:01	KWP	0 000	23 026	AGC MAVG - entered - Excess Energy
5/27/2013 1:34	0:02	KWP	0 008	23 278	AGC MAVG - entered - Excess Energy
5/27/2013 1:37	0:02	KWP	0 008	23 337	AGC MAVG - entered - Excess Energy
5/27/2013 1:40	0:02	KWP	0 008	23 367	AGC MAVG - entered - Excess Energy
5/27/2013 1:44	3:17	KWP	13 802	23 530	AGC MAVG - entered - Excess Energy
5/27/2013 7:36	0:03	AWE	0 020	19 900	AGC MAVG - entered - Excess Energy
5/27/2013 7:40	0:08	AWE	0 068	21 000	AGC MAVG - entered - Excess Energy
5/27/2013 10:28	0:04	KWPII	0 075	17 415	AGC MAVG - calculated
5/27/2013 10:45	0:01	KWPII	0 004	16 687	AGC MAVG - calculated
5/27/2013 11:48	0:03	KWPII	0 022	16 855	AGC MAVG - calculated and Good Engineering and Operating Practices
5/27/2013 11:57	0:16	KWPII	0 830	19 759	AGC MAVG - calculated and Good Engineering and Operating Practices
5/27/2013 12:34	0:01	KWPII	0 006	17 295	AGC MAVG - calculated and Good Engineering and Operating Practices
5/27/2013 12:55	0:02	KWPII	0 022	17 836	AGC MAVG - calculated
5/27/2013 12:58	1:22	KWPII	13 807	20 608	AGC MAVG - calculated and AGC MAVG - entered - Maintaining Regulating Reserves
5/27/2013 14:21	1:30	KWPII	9 401	20 208	AGC MAVG - entered - Maintaining Regulating Reserves and AGC MAVG - calculated
5/27/2013 15:57	0:01	KWPII	0 004	18 438	AGC MAVG - calculated
5/27/2013 18:02	0:39	KWPII	3 014	19 908	AGC MAVG - calculated, AGC MAVG - entered - Maintaining Regulating Reserves, and AGC MAVG - calculated
5/27/2013 18:45	0:01	KWPII	0 006	16 097	AGC MAVG - calculated
5/27/2013 18:47	0:01	KWPII	0 001	14 591	AGC MAVG - calculated
5/27/2013 18:52	0:28	KWPII	1 871	18 525	AGC MAVG - calculated
5/27/2013 17:30	0:11	KWPII	0 402	16 721	AGC MAVG - calculated
5/27/2013 17:43	0:04	KWPII	0 055	12 423	AGC MAVG - calculated
5/28/2013 1:53	0:04	AWE	0 013	20 400	AGC MAVG - calculated
5/28/2013 1:56	0:01	AWE	0 003	20 400	AGC MAVG - calculated
5/28/2013 2:02	0:02	AWE	0 005	21 000	AGC MAVG - calculated
5/28/2013 2:06	0:02	AWE	0 006	20 700	AGC MAVG - calculated
5/28/2013 2:12	0:02	AWE	0 004	20 500	AGC MAVG - calculated
5/28/2013 2:16	0:17	AWE	0 174	20 700	AGC MAVG - calculated
5/28/2013 2:35	0:01	AWE	0 002	19 200	AGC MAVG - calculated
5/28/2013 2:37	0:01	AWE	0 003	19 500	AGC MAVG - calculated
5/28/2013 2:39	0:13	AWE	0 175	20 500	AGC MAVG - calculated
5/28/2013 3:54	0:01	AWE	0 081	19 500	AGC MAVG - calculated
5/28/2013 3:08	0:02	AWE	0 004	19 300	AGC MAVG - calculated
5/28/2013 3:14	0:01	AWE	0 002	18 700	AGC MAVG - calculated
5/28/2013 3:22	0:01	AWE	0 004	19 300	AGC MAVG - calculated
5/28/2013 3:27	0:02	AWE	0 001	18 900	AGC MAVG - calculated
5/28/2013 3:32	0:01	AWE	0 000	18 600	AGC MAVG - calculated
5/28/2013 3:41	0:01	AWE	0 002	19 200	AGC MAVG - calculated
5/28/2013 4:34	0:01	AWE	0 002	20 300	AGC MAVG - calculated
5/28/2013 4:37	0:01	AWE	0 001	20 200	AGC MAVG - calculated
5/28/2013 4:40	0:01	AWE	0 004	21 000	AGC MAVG - calculated
5/30/2013 15:21	0:01	KWPII	0 001180914	0 07085482	AGC MAVG - calculated
5/30/2013 16:18	0:01	KWPII	0 001147649	0 068858914	AGC MAVG - calculated
5/30/2013 17:41	0:02	KWPII	0 077382278	14 18294048	AGC MAVG - calculated
5/30/2013 17:44	0:02	KWPII	0 050239992	15 39545536	AGC MAVG - calculated
5/30/2013 18:07	0:01	KWPII	0 009740925	18 13484363	AGC MAVG - calculated
5/30/2013 18:10	0:01	KWPII	0 003941472	19 02002907	AGC MAVG - calculated
5/30/2013 18:18	0:02	KWPII	0 026678701	18 68772018	AGC MAVG - calculated
5/30/2013 18:04	0:01	KWPII	0 003092925	20 3712616	AGC MAVG - calculated
5/30/2013 20:20	1:41	KWPII	7 921096881	20 69759178	AGC MAVG - entered - Maintaining Regulating Reserves and AGC MAVG - calculated
5/30/2013 22:25	0:01	KWPII	0 027011442	10 56032151	AGC MAVG - calculated
5/30/2013 22:43	0:02	KWPII	0 066888019	11 74194145	AGC MAVG - calculated
5/30/2013 22:48	0:06	KWPII	0 42725982	13 99432659	AGC MAVG - calculated
5/30/2013 23:05	0:01	KWPII	0 000880575	13 27480125	AGC MAVG - calculated
5/30/2013 23:07	0:15	KWPII	0 785565578	14 05320644	AGC MAVG - calculated
5/31/2013 3:41	0:01	KWPII	5 93421E-05	0 163664669	AGC MAVG - entered - Maintaining Regulating Reserves
5/31/2013 3:46	0:05	KWPII	0 0210311	0 758445978	AGC MAVG - entered - Maintaining Regulating Reserves
5/31/2013 7:55	0:01	KWPII	0 000299387	0 017963195	AGC MAVG - calculated
5/31/2013 8:46	0:01	KWPII	3 32632E-05	0 00189581	AGC MAVG - calculated
5/31/2013 12:13	0:05	KWPII	0 078753871	11 92057514	Operating Conditions on Company's System
5/31/2013 12:27	0:04	KWPII	0 064349794	12 052730527	Operating Conditions on Company's System
5/31/2013 12:32	0:07	KWPII	0 068617371	11 97346887	Operating Conditions on Company's System
5/31/2013 12:40	0:46	KWPII	1 220854995	15 51321411	Operating Conditions on Company's System
5/31/2013 13:30	0:04	KWPII	0 035224328	11 34874725	Operating Conditions on Company's System
5/31/2013 13:38	0:05	KWPII	0 092287985	11 99242878	Operating Conditions on Company's System
5/31/2013 13:47	0:03	KWPII	0 04451855	12 06827259	Operating Conditions on Company's System
5/31/2013 19:28	0:24	KWPII	1 602977435	18 24361992	AGC MAVG - entered - Maintaining Regulating Reserves, AGC MAVG - calculated, AGC MAVG - entered - Maintaining Regulating Reserves, and AGC MAVG - calculated
5/31/2013 22:25	0:05	KWPII	0 067245992	10 56934452	AGC MAVG - calculated

Notes

- Curtailment for KWP, AWE, and KWP II is now controlled by MECO's Automatic Generation Control System (AGC). The AGC curtailment control automatically calculates the amount of Maximum Allowable Variable Generation (MAVG) that MECO can accept into the local system, based on the system current available variable generation (CAVG), regulating reserve down requirement (RRDR) and available regulating reserve down (ARRD). Thus, the AGC MAVG - calculated is equal to CAVG less (RRDR less ARRD). Additionally, the AGC curtailment control allows the MECO operator to enter an AGC MAVG value. The AGC curtailment control will employ the lesser of the AGC MAVG - calculated and AGC MAVG - entered values in the control logic.
- The Estimated Curtailed MW and Peak MW Curtailed are formulated with information provided by the IPPs, and MECO does not make any representation as to its accuracy.
- MECO recently upgraded the SCADA controls to permit the curtailment of the Maile Hydro facility to Net Zero Protocol and uncurtailment of the Maile Hydro facility without opening and closing the MECO and Maile Hydro interconnection circuit breaker. The SCADA control upgrade decreased the durations of the Maile Hydro curtailment events beginning from 2/17/13.
- Estimated Curtailed MW and Peak MW Curtailed data is not provided by the IPPs for Maile Hydro, or AAAAA Renu-A-Space Maui LTD.

MECO-Lanai Curtailment Report May 2013

Start Date/Time	Curtailment Event Duration	IPP Curtailed	MWH Curtailed	Peak MW Curtailed	Reason for Curtailment
5/1/13 9:01	0:16	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/1/13 10:02	0:15	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/1/13 11:00	0:14	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/1/13 12:00	0:15	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/1/13 13:01	0:15	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/1/13 14:01	0:15	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/1/13 15:00	0:17	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/1/13 16:02	0:13	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/1/13 17:00	0:18	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/2/13 9:02	0:15	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/2/13 10:01	0:17	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/2/13 11:01	0:12	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/2/13 12:01	0:18	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/2/13 13:02	0:15	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/2/13 14:02	0:16	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/2/13 15:02	0:14	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/2/13 16:01	0:17	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/2/13 17:01	0:18	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/3/13 9:00	0:13	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/3/13 10:02	0:16	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/3/13 11:01	0:16	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/3/13 12:02	0:17	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/3/13 13:00	0:13	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/3/13 14:02	0:12	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/3/13 15:02	0:13	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/3/13 16:01	0:13	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/3/13 17:00	0:15	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/4/13 9:01	0:16	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/4/13 10:01	0:14	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/4/13 11:02	0:12	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/4/13 12:02	0:17	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/4/13 13:00	0:16	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/4/13 14:02	0:14	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/4/13 15:01	0:13	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/4/13 16:00	0:17	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/4/13 17:00	0:13	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/5/13 9:01	0:13	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/5/13 10:01	0:13	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/5/13 11:01	0:15	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/5/13 12:01	0:13	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/5/13 13:00	0:16	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/5/13 14:01	0:18	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/5/13 15:01	0:15	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/5/13 16:00	0:18	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/6/13 9:01	0:14	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/6/13 10:00	0:15	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/6/13 11:00	0:15	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/6/13 12:01	0:17	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/6/13 13:02	0:17	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/6/13 14:02	0:16	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/6/13 15:01	0:16	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/6/13 16:02	0:16	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/6/13 17:02	0:15	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/7/13 9:01	0:15	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/7/13 10:01	0:18	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/7/13 11:01	0:13	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/7/13 12:01	0:17	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/7/13 13:00	0:15	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/7/13 14:00	0:16	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/7/13 15:02	0:13	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/7/13 16:00	0:17	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/7/13 17:00	0:17	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/8/13 9:00	0:15	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/8/13 10:00	0:15	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/8/13 11:01	0:16	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/8/13 12:01	0:12	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/8/13 13:00	0:16	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/8/13 14:02	0:15	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/8/13 15:00	0:15	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/8/13 16:01	0:16	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/8/13 17:02	0:13	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
5/9/13 9:02	0:16	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/9/13 10:01	0:16	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/9/13 11:01	0:16	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/9/13 12:00	0:19	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/9/13 13:00	0:14	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/9/13 14:02	0:14	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/9/13 15:01	0:18	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/9/13 16:00	0:18	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/9/13 17:01	0:16	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/10/13 9:01	0:15	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/10/13 10:00	0:15	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/10/13 11:01	0:16	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/10/13 12:01	0:14	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/10/13 13:02	0:15	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/10/13 14:02	0:13	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/10/13 15:00	0:13	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/10/13 16:02	0:12	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/10/13 17:00	0:15	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/11/13 9:02	0:15	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/11/13 10:01	0:13	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/11/13 11:02	0:12	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/11/13 12:01	0:14	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/11/13 13:01	0:13	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/11/13 14:00	0:15	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/11/13 15:02	0:15	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/11/13 16:01	0:12	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/11/13 17:02	0:16	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/12/13 9:01	0:15	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/12/13 10:00	0:15	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/12/13 11:00	0:17	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/12/13 12:00	0:14	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/12/13 13:01	0:17	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/12/13 14:00	0:17	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/12/13 15:00	0:15	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/12/13 16:00	0:14	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/12/13 17:02	0:12	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/13/13 9:01	0:13	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/13/13 10:01	0:14	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/13/13 11:00	0:15	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/13/13 12:00	0:16	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/13/13 13:02	0:14	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/13/13 14:00	0:17	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/13/13 15:01	0:14	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/13/13 16:02	0:15	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/14/13 9:00	0:14	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/14/13 10:00	0:16	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/14/13 11:00	0:16	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/14/13 12:02	0:14	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/14/13 13:01	0:13	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/14/13 14:02	0:13	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/14/13 15:02	0:16	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/14/13 16:00	0:18	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/14/13 17:02	0:11	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/15/13 9:00	0:17	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/15/13 10:00	0:17	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/15/13 11:02	0:12	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/15/13 12:02	0:17	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/15/13 13:00	0:17	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/15/13 14:02	0:13	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/15/13 15:00	0:17	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/15/13 16:01	0:13	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/15/13 17:01	0:15	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/16/13 9:02	0:13	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/16/13 10:02	0:17	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/16/13 11:01	0:17	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/16/13 12:00	0:15	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/16/13 13:02	0:11	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/16/13 14:00	0:15	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/16/13 15:01	0:13	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/16/13 16:01	0:12	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/16/13 17:02	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
5/17/13 9:00	0:19	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/17/13 10:01	0:14	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/17/13 11:01	0:14	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/17/13 12:01	0:15	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/17/13 13:02	0:15	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/17/13 14:00	0:15	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/17/13 15:01	0:14	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/17/13 16:00	0:16	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/17/13 17:01	0:14	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/18/13 9:01	0:15	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/18/13 10:00	0:17	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/18/13 11:00	0:17	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/18/13 12:00	0:15	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/18/13 13:02	0:16	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/18/13 14:01	0:18	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/18/13 15:00	0:13	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/18/13 16:02	0:17	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/18/13 17:02	0:12	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/19/13 9:01	0:17	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/19/13 10:02	0:14	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/19/13 11:01	0:15	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/19/13 12:01	0:16	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/19/13 13:02	0:16	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/19/13 14:01	0:14	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/19/13 15:00	0:17	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/19/13 16:01	0:15	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/19/13 17:01	0:14	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/20/13 9:02	0:16	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/20/13 10:00	0:17	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/20/13 11:00	0:18	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/20/13 12:02	0:15	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/20/13 13:01	0:13	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/20/13 14:01	0:14	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/20/13 15:02	0:14	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/20/13 16:01	0:16	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/20/13 17:01	0:15	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/21/13 9:02	0:17	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/21/13 10:01	0:14	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/21/13 11:02	0:16	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/21/13 12:01	0:13	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/21/13 13:01	0:13	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/21/13 14:00	0:14	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/21/13 15:02	0:14	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/21/13 16:01	0:15	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/21/13 17:00	0:14	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/22/13 9:00	0:17	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/22/13 10:02	0:14	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/22/13 11:00	0:13	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/22/13 12:02	0:15	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/22/13 13:00	0:15	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/22/13 14:02	0:11	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/22/13 15:00	0:16	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/22/13 16:00	0:14	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/22/13 17:02	0:15	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/23/13 9:00	0:13	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/23/13 10:01	0:15	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/23/13 11:01	0:15	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/23/13 12:02	0:15	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/23/13 13:00	0:16	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/23/13 14:01	0:14	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/23/13 15:02	0:14	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/23/13 16:02	0:15	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/23/13 17:00	0:18	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/24/13 9:00	0:14	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/24/13 10:02	0:17	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/24/13 11:02	0:16	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/24/13 12:01	0:16	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/24/13 13:02	0:14	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/24/13 14:01	0:15	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/24/13 15:00	0:17	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/24/13 16:02	0:14	LSR-La Ola PV	No data	No data	Ramp rate mitigation

MECO-Lanai Curtailment Report May 2013

Start Date/Time	Curtailment Event Duration	IPP Curtailed	MWH Curtailed	Peak MW Curtailed	Reason for Curtailment
5/24/13 17:01	0:16	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/25/13 9:01	0:16	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/25/13 10:01	0:12	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/25/13 11:01	0:18	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/25/13 12:01	0:12	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/25/13 13:00	0:16	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/25/13 14:02	0:14	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/25/13 15:00	0:18	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/25/13 16:01	0:12	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/25/13 17:02	0:13	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/26/13 9:00	0:14	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/26/13 10:02	0:12	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/26/13 11:01	0:13	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/26/13 12:00	0:13	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/26/13 13:02	0:15	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/26/13 14:02	0:15	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/26/13 15:01	0:16	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/26/13 16:01	0:12	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/26/13 17:02	0:17	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/27/13 9:01	0:14	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/27/13 10:01	0:16	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/27/13 11:00	0:16	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/27/13 12:00	0:14	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/27/13 13:00	0:15	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/27/13 14:00	0:18	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/27/13 15:00	0:17	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/27/13 16:00	0:17	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/27/13 17:00	0:14	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/28/13 9:01	0:17	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/28/13 10:00	0:18	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/28/13 11:01	0:12	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/28/13 12:01	0:13	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/28/13 13:02	0:15	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/28/13 14:01	0:16	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/28/13 15:00	0:14	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/28/13 16:00	0:14	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/28/13 17:02	0:14	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/29/13 9:01	0:13	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/29/13 10:01	0:18	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/29/13 11:02	0:16	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/29/13 12:00	0:13	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/29/13 13:00	0:18	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/29/13 14:01	0:14	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/29/13 15:00	0:17	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/29/13 16:01	0:12	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/29/13 17:00	0:15	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/30/13 9:01	0:16	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/30/13 10:02	0:16	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/30/13 11:00	0:15	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/30/13 12:01	0:18	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/30/13 13:01	0:18	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/30/13 14:01	0:16	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/30/13 15:01	0:16	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/30/13 16:02	0:12	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/30/13 17:01	0:14	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/31/13 9:01	0:16	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/31/13 10:02	0:15	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/31/13 11:01	0:13	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/31/13 12:00	0:13	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/31/13 13:02	0:16	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/31/13 14:02	0:14	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/31/13 15:00	0:13	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/31/13 16:02	0:13	LSR-La Ola PV	No data	No data	Ramp rate mitigation
5/31/13 17:01	0:17	LSR-La Ola PV	No data	No data	Ramp rate mitigation

Note: On June 27, 2012, MECO notified LSR that although LSR has not operated in compliance with the revised ramp rate of 360 kW/minute, MECO would conditionally allow LSR to operate at the allowed capacity of 1.2 MW while the MECO-Lanai Diesel Operator was in the control room.

HELCO Curtailment Report April 2013				
Start Date/Time	MW output prior to start of curtailment	End Date/Time	MW output after curtailment released	Reason for Curtailment
05/25/13 23:33	19.5 MW	05/26/13 05:51	19.7 MW	Tawhiri Group B curtailed for excess energy.
05/27/13 01:37	19.8 MW	05/27/13 04:51	16.1 MW	Tawhiri Group B curtailed for excess energy.
05/30/13 01:15	19.8 MW	05/30/13 04:14	18.9 MW	Tawhiri Group B curtailed for excess energy.