



August 22, 2014

FILED

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PUBLIC UTILITIES
COMMISSION

The Honorable Chair and Members
of the Hawai'i Public Utilities Commission
Kekuanaoa Building, 1st Floor
465 South King Street
Honolulu, Hawai'i 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 July 2014 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 to request a copy.

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

Sincerely,

Daniel G. Brown
Manager
Regulatory Non-Rate Proceedings

Enclosure

cc: Service List

¹ Hawaiian Electric Company, Inc., Hawai'i 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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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 July 31, 2014):

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, Maui Electric (Maui Division) and Hawai'i Electric Light 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, Maui Electric (Maui Division) and Hawai'i Electric Light 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 July 31, 2014):

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

Hawaiian Electric did not have any contingency reserve activations in the month of July. Maui Electric and Hawai'i Electric Light do not operate with contingency reserve requirements. Therefore, Attachment 3 is not being provided for this reporting period.

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

Maui Electric, and Hawai'i Electric Light's under frequency load shed events are provided in Attachment 4. Hawaiian Electric did not have any under frequency load shed events for the month of July.

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 July. Hawai'i Electric Light currently does not have demand response program. Maui Electric has implemented the Fast Demand Response pilot program on a limited basis. Hawai'i Electric Light plans to use the findings of Maui Electric's pilot program to help in the evaluation and development of future demand response programs. Maui Electric executes a weekly testing protocol which measures customer participation. This program is not currently used in response to actual system events.

- (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 July 31, 2014):

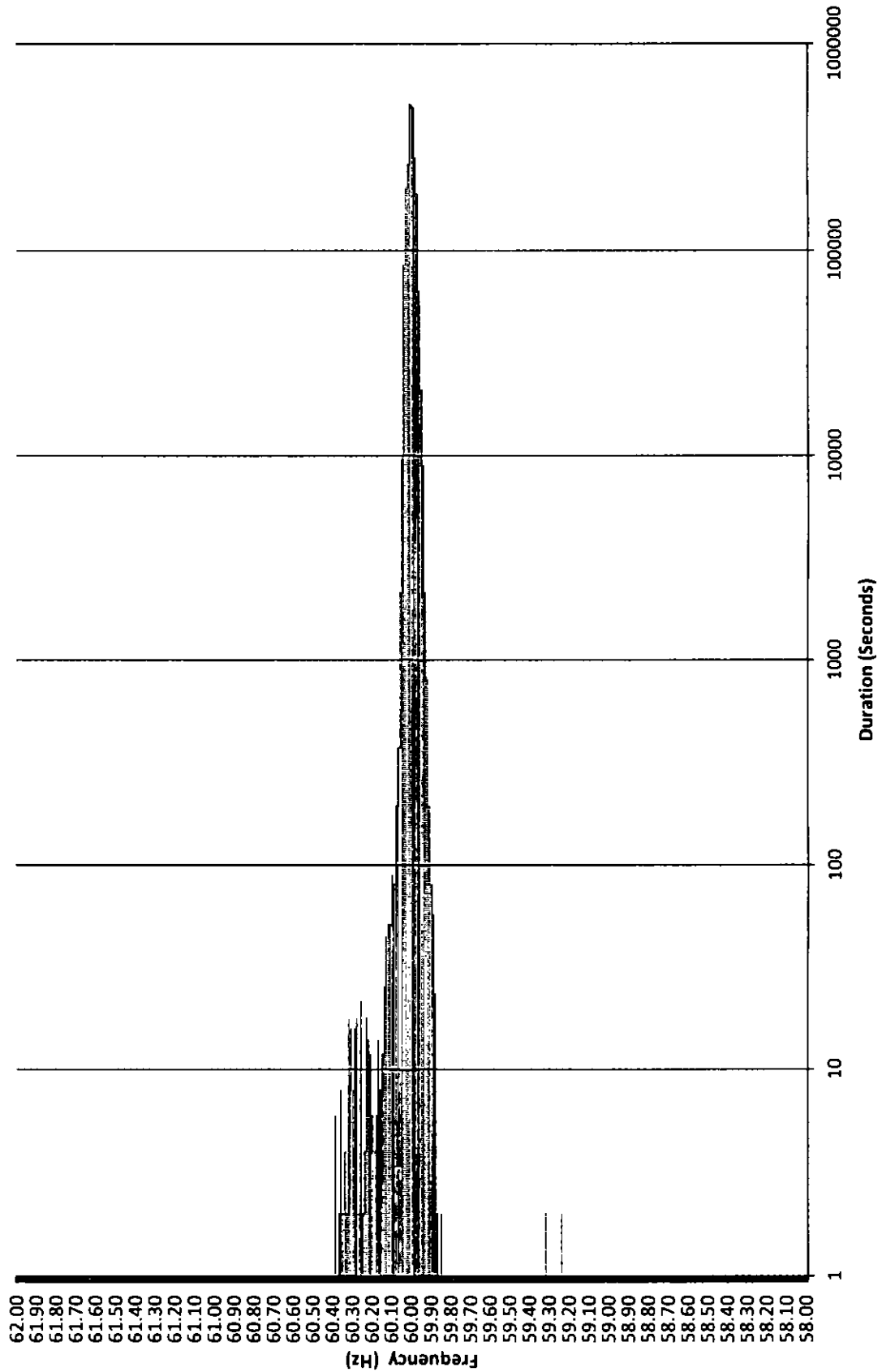
3a) Tabulation of each curtailment event for each resource including the starting date and time, duration, megawatt hours curtailed, peak MW curtailed, and reason for curtailment:

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

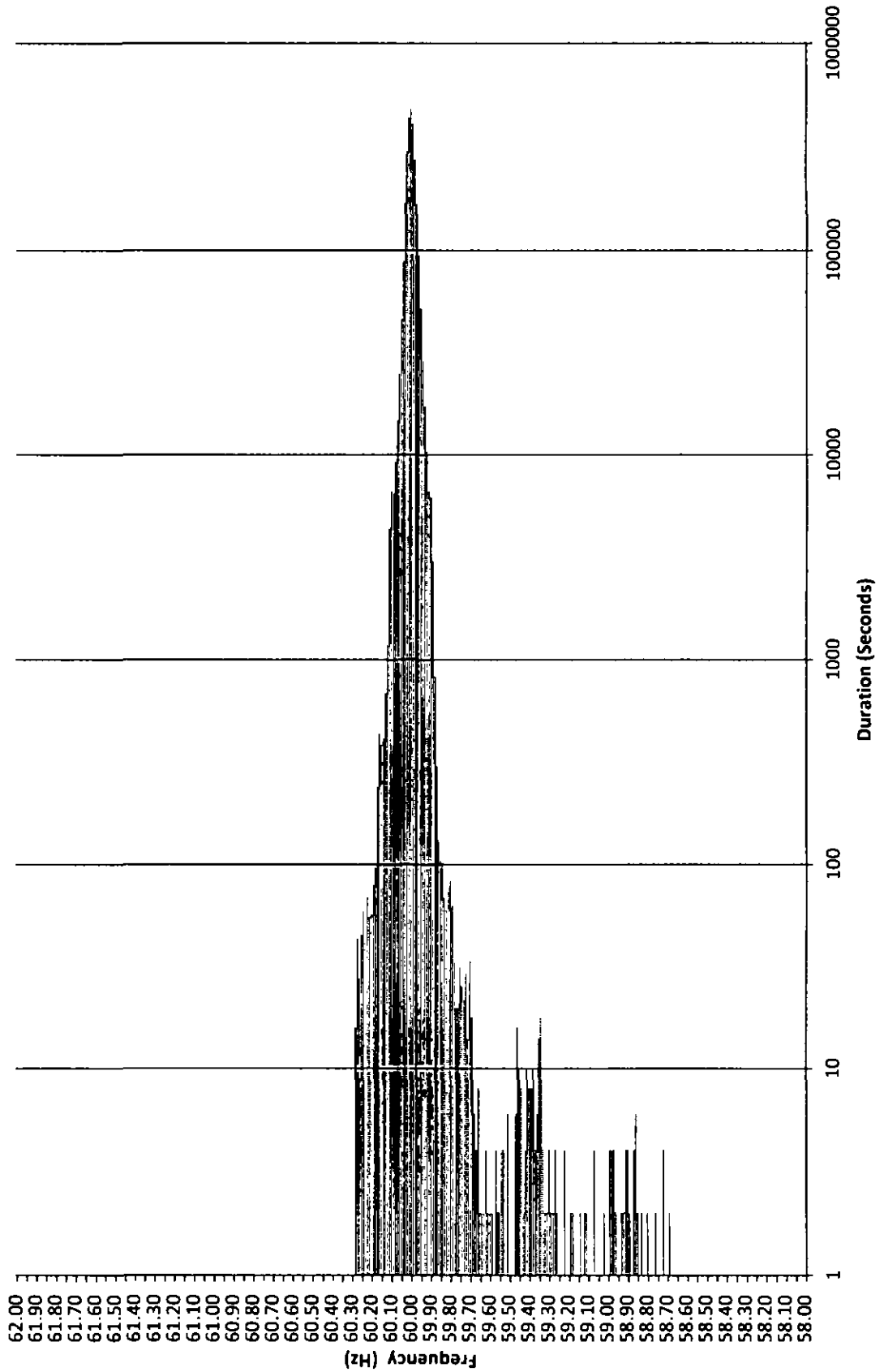
3b) Total MWh of non-dispatchable renewable resources curtailed for the month:

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. Hawai'i Electric Light is not providing an estimate of curtailed MWh, as this information is not provided to Hawai'i Electric Light 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.

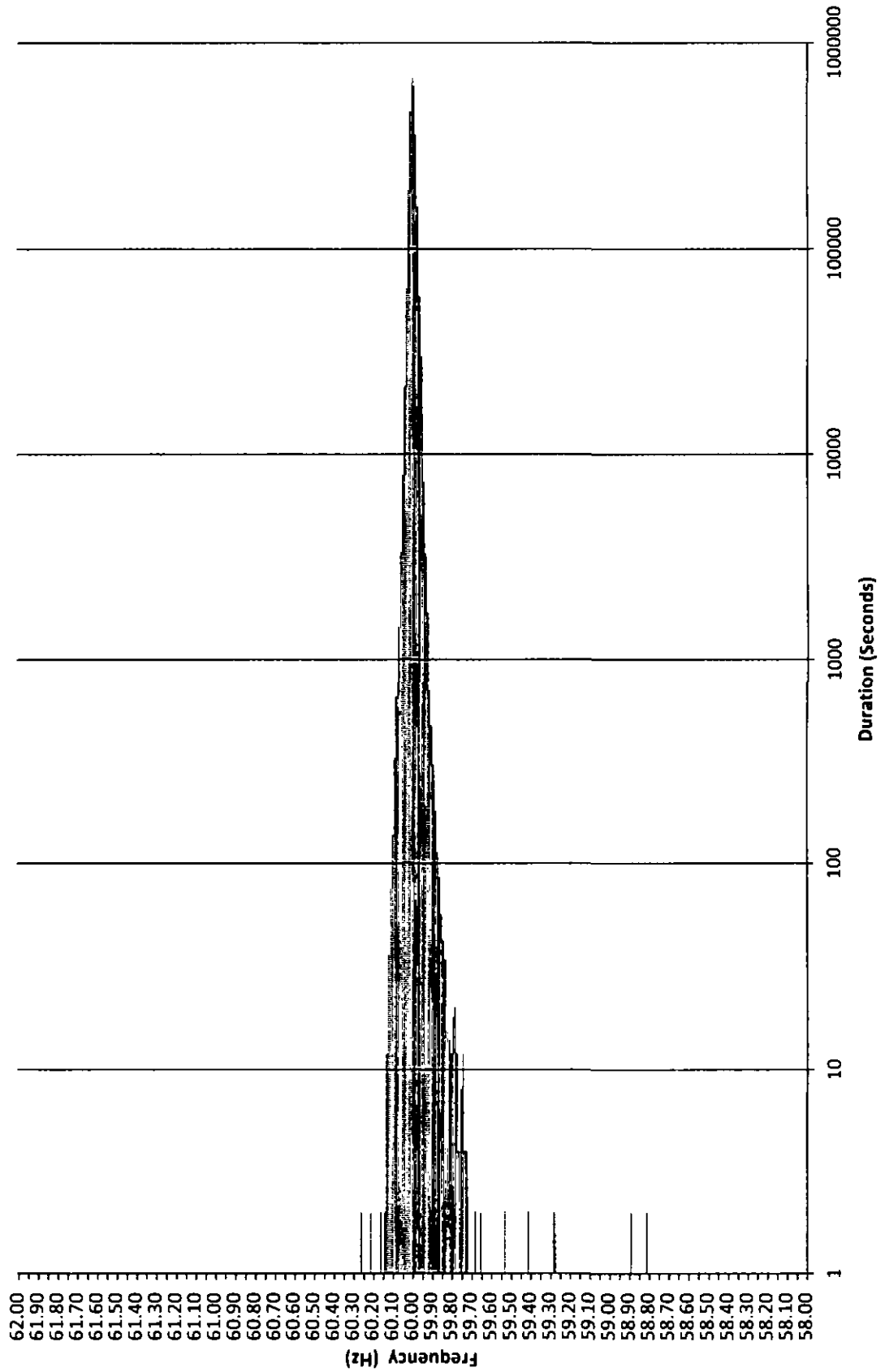
Frequency Distribution Plot - Hawaiian Electric July 2014



**Maui Electric Frequency Distribution Plot - Maui
July 2014**



Frequency Distribution Plot - Hawai'i Electric Light July 2014



Hawaiian Electric Frequency Excursion Statistics July 2014		
Data Rounded to the nearest	<59.95 Hz	>60.05 Hz
Number of Excursions	1762	576
Maximum Duration (sec)	444	278
Maximum Deviation (Hz)	59.243	60.39
Total Duration of Excursions (sec)	19354	5620

Maui Electric Frequency Excursion Statistics July 2014		
	<59.95 Hz	>60.05 Hz
Number of Excursions	11272	8599
Maximum Duration (sec)	696	1834
Maximum Deviation (Hz)	58.693	60.2794
Total Duration of Excursions (sec)	96816	89500

Hawai'i Electric Light Frequency Excursion Statistics July 2014		
	<59.95 Hz	>60.05 Hz
Number of Excursions	5563	2251
Maximum Duration (sec)	242	140
Maximum Deviation (Hz)	58.812	60.258
Total Duration of Excursions (sec)	30476	9070

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Hawaiian Electric Curtailment Report July 2014

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
06/12/14 21:52	40.0	42.00	07/10/14 13:29	0	*	Mauka	Flicker
07/02/14 08:33	0.0	1.40	07/02/14 08:51	0	*	KREP	Replacement work
07/02/14 17:36	0.0	1.20	07/02/14 17:53	0	*	KREP	Replacement work
07/14/14 05:34	0.0	0.00	07/14/14 06:23	0	*	KREP	Maintenance work
07/14/14 16:17	0.0	1.60	07/14/14 17:16	0	*	KREP	Maintenance work
07/15/14 05:30	0.0	0.00	07/15/14 06:11	0	*	KREP	Maintenance work
07/15/14 16:20	0.0	2.70	07/15/14 16:38	0	*	KREP	Maintenance work
07/16/14 06:26	0.0	0.00	07/16/14 07:37	0	*	KREP	Maintenance work
07/16/14 15:31	0.0	3.70	07/16/14 15:39	0	*	KREP	Maintenance work
07/16/14 15:55	0.0	3.10	07/16/14 16:43	0	*	KREP	Maintenance work
07/17/14 06:52	0.0	0.00	07/17/14 07:47	0	*	KREP	Maintenance work
07/17/14 14:29	48.0	41.10	Ongoing	—	—	Mauka	Flicker
07/17/14 16:36	0.0	2.70	07/17/14 16:55	0	*	KREP	Maintenance work
07/18/14 06:23	0.0	0.00	07/18/14 07:13	0	*	KREP	Maintenance work
07/18/14 16:34	0.0	2.60	07/18/14 16:57	0	*	KREP	Maintenance work
07/19/14 06:48	0.0	0.20	07/19/14 07:45	0	*	KREP	Maintenance work
07/19/14 16:55	0.0	1.90	07/19/14 17:06	0	*	KREP	Maintenance work
07/21/14 06:45	0.0	0.20	07/21/14 07:53	0	*	KREP	Maintenance work
07/21/14 16:40	0.0	2.00	07/21/14 16:53	0	*	KREP	Maintenance work
07/22/14 05:28	0.0	0.00	07/22/14 06:27	0	*	KREP	Maintenance work
07/22/14 16:30	0.0	1.10	07/22/14 16:47	0	*	KREP	Maintenance work
07/23/14 06:21	0.0	0.00	07/23/14 07:15	0	*	KREP	Maintenance work
07/23/14 16:41	0.0	2.30	07/23/14 17:00	0	*	KREP	Maintenance work
07/24/14 06:18	0.0	0.00	07/24/14 06:44	0	*	KREP	Maintenance work
07/24/14 16:44	0.0	2.00	07/24/14 17:00	0	*	KREP	Maintenance work
07/25/14 06:29	0.0	0.00	07/25/14 07:12	0	*	KREP	Maintenance work
07/25/14 18:11	0.0	0.40	07/25/14 18:30	0	*	KREP	Maintenance work
07/26/14 06:52	0.0	0.00	07/26/14 07:48	0	*	KREP	Maintenance work
07/26/14 16:07	0.0	2.90	07/26/14 16:21	0	*	KREP	Maintenance work
07/27/14 07:17	0.0	0.40	07/27/14 07:51	0	*	KREP	Maintenance work
07/27/14 15:55	0.0	3.10	07/27/14 16:10	0	*	KREP	Maintenance work
07/28/14 06:38	0.0	0.10	07/28/14 07:35	0	*	KREP	Maintenance work
07/28/14 09:11	0.0	3.10	07/28/14 09:22	0	*	KREP	Maintenance work
07/30/14 06:27	0.0	0.00	07/30/14 11:19	0	*	KREP	Replacement work
07/30/14 16:28	0.0	2.50	07/31/14 12:26	0	*	KREP	Replacement work

KLS2 = Kalaheo Solar 2 PV Farm
KREP = Kalaheo Renewable Energy Park
KWF = Kahuku Wind Farm
Makai = Kawaihoa Makai Wind Farm
Mauka = Kawaihoa Mauka Wind Farm

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

* Data has not been provided by IPP.

RSWG Maui Curtailment Report July 2014

Start Date and Time	Duration	IPP Curtailer	Estimated Curtaild MWH	Peak MW Curtaild	Reasons for Curtailment
7/1/2014 0:50	0:01	KWPII	0.002	14.502	AGC MAVG - calculated
7/1/2014 2:09	0:06	KWPII	0.223	16.804	AGC MAVG - calculated
7/1/2014 2:16	0:07	KWPII	0.219	15.929	AGC MAVG - calculated
7/1/2014 2:44	0:01	KWPII	0.012	14.328	AGC MAVG - calculated
7/1/2014 2:58	0:04	KWPII	0.058	17.594	AGC MAVG - calculated
7/1/2014 3:18	0:01	KWPII	0.001	6.868	AGC MAVG - calculated
7/1/2014 5:08	0:02	KWPII	0.022	18.987	AGC MAVG - calculated
7/1/2014 5:09	0:05	KWPII	0.185	19.133	AGC MAVG - calculated
7/1/2014 5:15	0:01	KWPII	0.002	19.150	AGC MAVG - calculated
7/1/2014 5:38	0:18	KWPII	0.651	18.123	AGC MAVG - calculated
7/1/2014 8:02	0:01	KWPII	0.027	18.813	AGC MAVG - calculated
7/1/2014 8:08	0:01	KWPII	0.029	18.937	AGC MAVG - calculated
7/1/2014 8:48	0:01	KWPII	0.012	18.341	AGC MAVG - calculated
7/1/2014 8:50	0:02	KWPII	0.050	19.696	AGC MAVG - calculated
7/1/2014 14:23	0:01	KWPII	0.000	0.017	AGC MAVG - calculated Good Engineering Practices, and Testing
7/1/2014 23:02	0:02	KWPII	0.004	17.711	AGC MAVG - calculated
7/2/2014 0:20	0:44	KWPII	4.048	17.808	AGC MAVG - calculated
7/2/2014 1:08	0:01	KWPII	0.027	18.027	AGC MAVG - calculated
7/2/2014 1:13	0:48	KWPII	5.829	18.873	AGC MAVG - calculated
7/2/2014 2:00	1:08	KWPII	15.782	19.131	AGC MAVG - calculated
7/2/2014 2:33	0:02	AWE	0.031	21.000	AGC MAVG - calculated
7/2/2014 2:52	0:02	AWE	0.080	21.000	AGC MAVG - calculated
7/2/2014 2:55	0:05	AWE	0.120	21.000	AGC MAVG - calculated
7/2/2014 3:02	0:01	AWE	0.010	18.100	AGC MAVG - calculated
7/2/2014 3:04	0:01	AWE	0.009	17.800	AGC MAVG - calculated
7/2/2014 3:11	0:29	KWPII	7.871	19.128	AGC MAVG - calculated
7/2/2014 3:24	0:01	AWE	0.007	17.100	AGC MAVG - calculated
7/2/2014 3:26	0:05	AWE	0.135	19.700	AGC MAVG - calculated
7/2/2014 3:33	0:01	AWE	0.028	18.500	AGC MAVG - calculated
7/2/2014 3:35	0:01	AWE	0.028	19.400	AGC MAVG - calculated
7/2/2014 3:42	2:18	KWPII	22.258	19.141	AGC MAVG - calculated
7/2/2014 3:53	0:01	AWE	0.022	19.800	AGC MAVG - calculated
7/2/2014 3:51	0:02	AWE	0.086	21.000	AGC MAVG - calculated
7/2/2014 4:01	0:01	AWE	0.000	20.200	AGC MAVG - calculated
7/2/2014 5:09	0:02	KWPII	0.023	18.851	AGC MAVG - calculated
7/2/2014 8:03	0:01	KWPII	0.003	17.385	AGC MAVG - calculated
7/2/2014 14:61	0:01	KWPII	0.000	0.019	AGC MAVG - calculated and Good Engineering Practices
7/2/2014 18:48	0:03	KWPII	0.148	17.137	AGC MAVG - calculated and Good Engineering Practices
7/2/2014 17:03	0:01	KWPII	0.015	18.484	AGC MAVG - calculated and Good Engineering Practices
7/2/2014 21:47	0:01	KWPII	0.015	18.722	AGC MAVG - calculated
7/2/2014 21:50	0:04	KWPII	0.085	18.033	AGC MAVG - calculated
7/2/2014 21:53	0:01	KWPII	0.004	17.928	AGC MAVG - calculated
7/2/2014 1:48	0:01	KWPII	0.008	3.315	AGC MAVG - calculated
7/2/2014 1:51	0:01	KWPII	0.006	3.884	AGC MAVG - calculated
7/2/2014 1:58	0:03	KWPII	0.055	4.951	AGC MAVG - calculated
7/2/2014 2:03	0:04	KWPII	0.080	3.178	AGC MAVG - calculated
7/2/2014 3:54	1:57	KWPII	19.807	17.714	AGC MAVG - calculated
7/2/2014 4:24	0:01	AWE	0.016	20.900	AGC MAVG - calculated
7/2/2014 4:28	0:01	AWE	0.007	21.000	AGC MAVG - calculated
7/2/2014 4:43	0:01	AWE	0.008	20.100	AGC MAVG - calculated
7/2/2014 4:57	0:02	AWE	0.040	21.000	AGC MAVG - calculated
7/2/2014 5:02	0:02	AWE	0.014	21.000	AGC MAVG - calculated
7/2/2014 5:02	0:01	KWPII	0.018	17.830	AGC MAVG - calculated
7/2/2014 8:00	0:01	KWPII	0.021	17.705	AGC MAVG - calculated
7/2/2014 8:08	0:01	KWPII	0.016	17.712	AGC MAVG - calculated
7/2/2014 8:22	0:04	KWPII	0.087	19.182	AGC MAVG - calculated
7/2/2014 8:27	0:04	KWPII	0.098	19.197	AGC MAVG - calculated
7/2/2014 8:30	0:06	KWPII	0.111	19.208	AGC MAVG - calculated
7/2/2014 15:52	0:01	KWPII	0.027	20.341	AGC MAVG - calculated and Good Engineering Practices
7/2/2014 23:50	0:03	KWPII	0.141	20.708	AGC MAVG - calculated
7/2/2014 23:53	0:30	KWPII	3.044	20.708	AGC MAVG - calculated
7/4/2014 1:13	0:03	KWPII	0.038	20.708	AGC MAVG - calculated and Testing
7/4/2014 1:22	0:02	KWPII	0.022	20.708	AGC MAVG - calculated
7/4/2014 1:26	0:01	KWPII	0.013	20.708	AGC MAVG - calculated
7/4/2014 1:29	0:02	KWPII	0.013	20.708	AGC MAVG - calculated
7/4/2014 1:32	0:01	KWPII	0.010	19.208	AGC MAVG - calculated
7/4/2014 1:36	0:10	KWPII	0.538	20.708	AGC MAVG - calculated
7/4/2014 2:21	0:01	KWPII	0.002	20.708	AGC MAVG - calculated
7/4/2014 2:24	0:02	KWPII	0.005	20.708	AGC MAVG - calculated
7/4/2014 2:28	0:30	KWPII	0.881	20.708	AGC MAVG - calculated
7/4/2014 2:58	0:02	KWPII	0.068	20.700	AGC MAVG - calculated
7/4/2014 3:02	0:07	KWPII	0.128	20.819	AGC MAVG - calculated
7/4/2014 3:38	0:02	KWPII	0.005	20.703	AGC MAVG - calculated
7/4/2014 3:40	0:04	KWPII	0.030	20.708	AGC MAVG - calculated
7/4/2014 3:45	0:01	KWPII	0.004	20.708	AGC MAVG - calculated
7/4/2014 3:47	0:08	KWPII	0.081	20.708	AGC MAVG - calculated
7/4/2014 4:04	0:58	KWPII	8.215	20.708	AGC MAVG - calculated
7/4/2014 5:52	0:04	KWPII	0.171	20.708	AGC MAVG - calculated
7/4/2014 5:57	0:01	KWPII	0.002	20.708	AGC MAVG - calculated
7/4/2014 8:08	0:08	KWPII	0.015	20.708	AGC MAVG - calculated
7/4/2014 8:14	0:08	KWPII	0.178	20.708	AGC MAVG - calculated
7/4/2014 8:23	0:02	KWPII	0.026	20.704	AGC MAVG - calculated
7/4/2014 8:28	2:03	KWPII	12.885	20.708	AGC MAVG - calculated
7/4/2014 8:30	0:01	KWPII	0.008	20.708	AGC MAVG - calculated
7/4/2014 8:45	0:34	KWPII	1.824	20.708	AGC MAVG - calculated
7/4/2014 9:23	0:28	KWPII	1.428	20.708	AGC MAVG - calculated
7/4/2014 9:53	0:03	KWPII	0.036	20.897	AGC MAVG - calculated
7/4/2014 9:57	0:20	KWPII	0.853	20.708	AGC MAVG - calculated
7/4/2014 10:18	0:01	KWPII	0.022	20.660	AGC MAVG - calculated
7/4/2014 10:20	0:03	KWPII	0.197	20.701	AGC MAVG - calculated
7/4/2014 10:24	0:51	KWPII	4.174	20.708	AGC MAVG - calculated
7/4/2014 11:18	1:26	KWPII	8.184	20.704	AGC MAVG - calculated
7/4/2014 13:06	0:01	KWPII	0.008	20.421	AGC MAVG - calculated
7/4/2014 15:30	0:01	KWPII	0.004	20.202	AGC MAVG - calculated
7/4/2014 16:45	0:04	KWPII	0.280	20.597	AGC MAVG - calculated
7/4/2014 15:51	0:02	KWPII	0.078	20.839	AGC MAVG - calculated
7/4/2014 16:06	0:02	KWPII	0.159	20.987	AGC MAVG - calculated
7/4/2014 16:29	0:01	KWPII	0.030	20.818	AGC MAVG - calculated
7/4/2014 21:06	0:01	AWE	0.002	0.100	AGC MAVG - calculated
7/5/2014 2:06	0:01	KWPII	0.004	20.708	AGC MAVG - calculated
7/5/2014 2:07	2:30	KWPII	33.364	20.708	AGC MAVG - calculated
7/5/2014 3:35	0:08	AWE	0.128	21.000	AGC MAVG - calculated
7/5/2014 4:44	0:01	KWPII	0.021	19.419	AGC MAVG - calculated
7/5/2014 5:06	0:03	KWPII	0.070	13.077	AGC MAVG - calculated
7/5/2014 5:10	0:01	KWPII	0.012	15.265	AGC MAVG - calculated
7/5/2014 6:12	0:04	KWPII	0.342	18.820	AGC MAVG - calculated
7/5/2014 6:20	0:02	KWPII	0.038	18.798	AGC MAVG - calculated
7/5/2014 6:23	0:01	KWPII	0.015	18.098	AGC MAVG - calculated
7/5/2014 6:26	0:04	KWPII	0.108	15.188	AGC MAVG - calculated
7/5/2014 6:38	0:02	KWPII	0.038	10.000	AGC MAVG - calculated
7/5/2014 6:42	0:02	KWPII	0.007	9.364	AGC MAVG - calculated

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Start Date and Time	Duration	IPP Curtailed	Estimated Curtailed MWh	Peak MW Curtailed	Reasons for Curtailment
7/5/2014 6:44	0:00	KWPII	0.193	14.803	AGC MAVG - calculated
7/5/2014 6:55	0:01	KWPII	0.037	14.782	AGC MAVG - calculated
7/5/2014 7:04	0:03	KWPII	0.082	15.842	AGC MAVG - calculated and Good Engineering Practices
7/5/2014 7:49	0:01	KWPII	0.016	6.806	AGC MAVG - calculated and Good Engineering Practices
7/5/2014 8:57	0:16	KWPII	1.453	13.369	AGC MAVG - calculated and Good Engineering Practices
7/5/2014 8:52	0:01	AWE	0.004	20.900	AGC MAVG - calculated and Good Engineering Practices
7/5/2014 9:28	0:02	KWPII	0.070	14.360	AGC MAVG - calculated and Good Engineering Practices
7/5/2014 9:35	0:01	KWPII	0.005	13.752	AGC MAVG - calculated and Good Engineering Practices
7/5/2014 11:15	0:01	KWPII	0.002	9.810	AGC MAVG - calculated and Good Engineering Practices
7/5/2014 11:27	0:01	KWPII	0.002	9.126	AGC MAVG - calculated and Good Engineering Practices
7/5/2014 11:34	0:03	KWPII	0.020	11.105	AGC MAVG - calculated and Good Engineering Practices
7/5/2014 12:42	0:02	KWPII	0.089	13.327	AGC MAVG - calculated and Good Engineering Practices
7/5/2014 12:45	0:01	KWPII	0.019	11.980	AGC MAVG - calculated and Good Engineering Practices
7/5/2014 15:50	0:02	KWPII	0.012	12.626	AGC MAVG - calculated and Good Engineering Practices
7/5/2014 18:29	0:02	KWPII	0.042	17.852	AGC MAVG - calculated and Good Engineering Practices
7/5/2014 21:47	0:01	KWPII	0.028	12.674	AGC MAVG - calculated
7/5/2014 22:40	0:01	KWPII	0.034	16.581	AGC MAVG - calculated
7/5/2014 23:00	0:05	KWPII	0.109	20.051	AGC MAVG - calculated
7/5/2014 23:16	0:01	KWPII	0.005	20.337	AGC MAVG - calculated
7/5/2014 23:20	0:01	KWPII	0.014	20.417	AGC MAVG - calculated
7/5/2014 23:22	0:06	KWPII	0.153	20.547	AGC MAVG - calculated
7/5/2014 23:47	0:37	KWPII	1.908	20.708	AGC MAVG - calculated
7/5/2014 0:28	4:09	KWPII	50.487	20.708	AGC MAVG - calculated
7/5/2014 2:00	0:02	AWE	0.011	19.700	AGC MAVG - calculated
7/5/2014 2:00	0:01	AWE	0.008	19.100	AGC MAVG - calculated
7/5/2014 2:12	0:01	AWE	0.007	20.000	AGC MAVG - calculated
7/5/2014 2:14	0:01	AWE	0.017	18.700	AGC MAVG - calculated
7/5/2014 2:35	0:16	AWE	0.395	21.000	AGC MAVG - calculated
7/5/2014 2:58	0:01	AWE	0.003	16.800	AGC MAVG - calculated
7/5/2014 3:01	0:01	AWE	0.004	16.800	AGC MAVG - calculated
7/5/2014 4:05	0:11	AWE	0.353	21.000	AGC MAVG - calculated
7/5/2014 4:17	0:02	AWE	0.050	21.000	AGC MAVG - calculated
7/5/2014 4:20	0:01	AWE	0.003	21.000	AGC MAVG - calculated
7/5/2014 4:52	0:07	AWE	0.078	21.000	AGC MAVG - calculated
7/5/2014 4:26	0:01	AWE	0.028	20.800	AGC MAVG - calculated
7/5/2014 4:39	1:43	KWPII	12.345	20.702	AGC MAVG - calculated
7/5/2014 6:23	0:01	KWPII	0.024	16.872	AGC MAVG - calculated
7/5/2014 6:25	0:02	KWPII	0.039	20.518	AGC MAVG - calculated
7/5/2014 6:30	0:22	KWPII	1.605	20.708	AGC MAVG - calculated
7/5/2014 6:50	0:01	KWPII	0.019	18.203	AGC MAVG - calculated
7/5/2014 7:03	0:02	KWPII	0.034	17.941	AGC MAVG - calculated
7/5/2014 7:07	0:01	KWPII	0.015	18.397	AGC MAVG - calculated
7/5/2014 7:10	0:05	KWPII	0.138	19.554	AGC MAVG - calculated
7/5/2014 7:17	0:19	KWPII	1.220	20.689	AGC MAVG - calculated
7/5/2014 7:42	0:04	KWPII	0.053	20.894	AGC MAVG - calculated
7/5/2014 7:47	0:03	KWPII	0.078	20.586	AGC MAVG - calculated
7/5/2014 7:52	0:11	KWPII	0.354	20.426	AGC MAVG - calculated
7/5/2014 8:08	0:06	KWPII	0.087	20.181	AGC MAVG - calculated
7/5/2014 8:12	0:02	KWPII	0.054	20.353	AGC MAVG - calculated
7/5/2014 8:16	0:01	KWPII	0.029	20.472	AGC MAVG - calculated
7/5/2014 8:17	0:02	KWPII	0.050	20.812	AGC MAVG - calculated
7/5/2014 10:07	0:01	KWPII	0.031	18.296	AGC MAVG - calculated
7/5/2014 10:10	0:18	KWPII	1.542	19.750	AGC MAVG - calculated
7/5/2014 10:20	0:02	KWPII	0.046	19.848	AGC MAVG - calculated
7/5/2014 10:47	0:02	KWPII	0.048	18.173	AGC MAVG - calculated
7/5/2014 10:51	0:02	KWPII	0.017	17.575	AGC MAVG - calculated
7/5/2014 10:54	0:01	KWPII	0.044	17.832	AGC MAVG - calculated
7/5/2014 10:57	0:02	KWPII	0.026	17.844	AGC MAVG - calculated
7/5/2014 11:00	0:01	KWPII	0.006	16.837	AGC MAVG - calculated
7/5/2014 11:35	0:01	KWPII	0.003	18.039	AGC MAVG - calculated
7/5/2014 11:38	0:02	KWPII	0.049	19.499	AGC MAVG - calculated
7/5/2014 11:42	0:02	KWPII	0.080	19.738	AGC MAVG - calculated
7/5/2014 11:45	0:01	KWPII	0.004	18.860	AGC MAVG - calculated
7/5/2014 13:59	0:01	KWPII	0.003	18.113	AGC MAVG - calculated
7/5/2014 14:54	0:01	KWPII	0.027	15.144	AGC MAVG - calculated
7/5/2014 15:26	0:01	KWPII	0.028	13.321	AGC MAVG - calculated
7/5/2014 21:43	0:01	KWPII	0.000	20.850	AGC MAVG - calculated
7/5/2014 22:25	0:03	KWPII	0.033	20.832	AGC MAVG - calculated
7/5/2014 22:31	0:02	KWPII	0.039	20.375	AGC MAVG - calculated
7/5/2014 23:17	0:04	KWPII	0.180	20.341	AGC MAVG - calculated
7/5/2014 23:22	0:03	KWPII	0.045	20.490	AGC MAVG - calculated
7/5/2014 23:45	0:01	KWPII	0.001	20.450	AGC MAVG - calculated
7/5/2014 23:51	1:58	KWPII	12.707	20.898	AGC MAVG - calculated
7/7/2014 2:12	0:01	KWPII	0.023	9.808	AGC MAVG - calculated
7/7/2014 4:44	0:01	KWPII	0.027	18.977	AGC MAVG - calculated
7/7/2014 4:48	0:17	KWPII	0.781	19.811	AGC MAVG - calculated
7/7/2014 5:10	0:02	KWPII	0.015	20.495	AGC MAVG - calculated
7/7/2014 5:13	0:18	KWPII	1.142	20.857	AGC MAVG - calculated
7/7/2014 5:32	0:05	KWPII	0.171	20.085	AGC MAVG - calculated
7/7/2014 5:36	0:51	KWPII	7.241	20.586	AGC MAVG - calculated
7/7/2014 8:32	0:19	KWPII	1.035	20.858	AGC MAVG - calculated
7/7/2014 9:52	0:08	KWPII	0.255	20.498	AGC MAVG - calculated
7/7/2014 7:11	0:01	KWPII	0.011	20.535	AGC MAVG - calculated
7/7/2014 7:30	0:01	KWPII	0.035	20.558	AGC MAVG - calculated
7/7/2014 7:35	0:07	KWPII	0.139	20.551	AGC MAVG - calculated
7/7/2014 7:44	0:06	KWPII	0.130	20.820	AGC MAVG - calculated and Good Engineering Practices
7/7/2014 7:51	0:04	KWPII	0.051	20.575	AGC MAVG - calculated and Good Engineering Practices
7/7/2014 8:05	0:01	KWPII	0.004	20.885	AGC MAVG - calculated and Good Engineering Practices
7/7/2014 8:07	0:04	KWPII	0.054	20.891	AGC MAVG - calculated and Good Engineering Practices
7/7/2014 8:13	0:01	KWPII	0.000	20.453	AGC MAVG - calculated and Good Engineering Practices
7/7/2014 8:18	0:01	KWPII	0.011	20.407	AGC MAVG - calculated and Good Engineering Practices
7/7/2014 8:20	0:04	KWPII	0.081	20.460	AGC MAVG - calculated and Good Engineering Practices
7/7/2014 8:32	0:01	KWPII	0.001	20.084	AGC MAVG - calculated and Good Engineering Practices
7/7/2014 8:35	0:01	KWPII	0.000	20.433	AGC MAVG - calculated and Good Engineering Practices
7/7/2014 8:37	0:02	KWPII	0.011	20.480	AGC MAVG - calculated and Good Engineering Practices
7/7/2014 8:42	0:01	KWPII	0.011	20.248	AGC MAVG - calculated and Good Engineering Practices
7/7/2014 8:44	0:15	KWPII	0.341	20.826	AGC MAVG - calculated and Good Engineering Practices
7/7/2014 10:00	0:01	KWPII	0.012	20.068	AGC MAVG - calculated and Good Engineering Practices
7/7/2014 10:02	0:01	KWPII	0.014	20.480	AGC MAVG - calculated and Good Engineering Practices
7/7/2014 10:08	0:01	KWPII	0.006	20.830	AGC MAVG - calculated and Good Engineering Practices
7/7/2014 10:13	0:02	KWPII	0.042	20.414	AGC MAVG - calculated and Good Engineering Practices
7/7/2014 10:53	0:04	KWPII	0.181	18.813	AGC MAVG - calculated and Good Engineering Practices
7/7/2014 10:57	1:58	KWPII	4.788	20.590	AGC MAVG - calculated and Good Engineering Practices
7/7/2014 11:56	0:04	KWPII	0.075	20.404	AGC MAVG - calculated and Good Engineering Practices
7/7/2014 12:03	0:08	KWPII	0.414	19.788	AGC MAVG - calculated and Good Engineering Practices
7/7/2014 12:18	0:17	KWPII	0.897	20.559	AGC MAVG - calculated and Good Engineering Practices
7/7/2014 12:39	0:13	KWPII	0.243	20.853	AGC MAVG - calculated and Good Engineering Practices
7/7/2014 14:34	0:03	KWPII	0.108	20.284	AGC MAVG - calculated, Good Engineering Practices, and Testing
7/7/2014 14:40	0:02	KWPII	0.069	19.028	AGC MAVG - calculated, Good Engineering Practices, and Testing
7/7/2014 23:59	0:01	KWPII	0.012	16.065	AGC MAVG - calculated
7/8/2014 3:07	0:02	AWE	0.030	13.100	AGC MAVG - calculated

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Start Date and Time	Duration	IPP Curtailed	Estimated Curtailed MWH	Peak MW Curtailed	Reasons for Curtailment
7/8/2014 3 07	0:02	KWPII	0 030	13 100	AGC MAVG - calculated
7/8/2014 3 40	0:01	AWE	0 030	14 100	AGC MAVG - calculated
7/8/2014 3 40	0:01	KWPII	0 030	14 100	AGC MAVG - calculated
7/8/2014 3 47	0:06	AWE	0 128	14 300	AGC MAVG - calculated
7/8/2014 3 47	0:06	KWPII	0 128	14 300	AGC MAVG - calculated
7/8/2014 3 50	0:02	AWE	0 076	14 700	AGC MAVG - calculated
7/8/2014 3 50	0:02	KWPII	0 076	14 700	AGC MAVG - calculated
7/8/2014 3 53	0:02	AWE	0 054	14 800	AGC MAVG - calculated
7/8/2014 3 53	0:02	KWPII	0 054	14 800	AGC MAVG - calculated
7/8/2014 3 56	0:01	AWE	0 009	13 900	AGC MAVG - calculated
7/8/2014 3 56	0:01	KWPII	0 009	13 900	AGC MAVG - calculated
7/8/2014 3 56	0:02	AWE	0 008	13 700	AGC MAVG - calculated
7/8/2014 3 56	0:02	KWPII	0 008	13 700	AGC MAVG - calculated
7/8/2014 4 06	0:01	AWE	0 012	16 500	AGC MAVG - calculated
7/8/2014 4 06	0:01	KWPII	0 012	16 500	AGC MAVG - calculated
7/8/2014 4 54	0:01	AWE	0 008	19 000	AGC MAVG - calculated
7/8/2014 4 54	0:01	KWPII	0 008	19 000	AGC MAVG - calculated
7/8/2014 1 45	0:02	AWE	0 012	19 600	AGC MAVG - calculated
7/8/2014 1 45	0:02	KWPII	0 012	19 600	AGC MAVG - calculated
7/8/2014 1 48	0:02	AWE	0 004	19 400	AGC MAVG - calculated
7/8/2014 1 48	0:02	KWPII	0 004	19 400	AGC MAVG - calculated
7/8/2014 1 51	0:02	AWE	0 014	19 300	AGC MAVG - calculated
7/8/2014 1 51	0:02	KWPII	0 014	19 300	AGC MAVG - calculated
7/8/2014 1 54	0:06	AWE	0 072	19 600	AGC MAVG - calculated
7/8/2014 1 54	0:06	KWPII	0 072	19 600	AGC MAVG - calculated
7/8/2014 2 01	0:01	AWE	0 008	19 400	AGC MAVG - calculated
7/8/2014 2 01	0:01	KWPII	0 008	19 400	AGC MAVG - calculated
7/8/2014 2 03	0:03	AWE	0 008	19 600	AGC MAVG - calculated
7/8/2014 2 03	0:03	KWPII	0 008	19 600	AGC MAVG - calculated
7/8/2014 2 36	0:26	AWE	0 755	19 200	AGC MAVG - calculated
7/8/2014 2 36	0:26	KWPII	0 755	19 200	AGC MAVG - calculated
7/8/2014 3 18	0:06	AWE	0 084	18 400	AGC MAVG - calculated
7/8/2014 3 18	0:06	KWPII	0 084	18 400	AGC MAVG - calculated
7/8/2014 3 25	0:08	AWE	0 150	18 000	AGC MAVG - calculated
7/8/2014 3 25	0:08	KWPII	0 150	18 000	AGC MAVG - calculated
7/8/2014 3 37	0:01	AWE	0 010	16 100	AGC MAVG - calculated
7/8/2014 3 37	0:01	KWPII	0 010	16 100	AGC MAVG - calculated
7/8/2014 3 48	0:01	AWE	0 015	16 900	AGC MAVG - calculated
7/8/2014 3 48	0:01	KWPII	0 015	16 900	AGC MAVG - calculated
7/8/2014 3 50	0:01	AWE	0 012	16 200	AGC MAVG - calculated
7/8/2014 3 50	0:01	KWPII	0 012	16 200	AGC MAVG - calculated
7/8/2014 3 57	0:01	AWE	0 010	17 200	AGC MAVG - calculated
7/8/2014 3 57	0:01	KWPII	0 010	17 200	AGC MAVG - calculated
7/8/2014 3 59	0:04	AWE	0 034	19 400	AGC MAVG - calculated
7/8/2014 3 59	0:04	KWPII	0 034	19 400	AGC MAVG - calculated
7/8/2014 4 08	0:01	AWE	0 017	18 900	AGC MAVG - calculated
7/8/2014 4 08	0:01	KWPII	0 017	18 900	AGC MAVG - calculated
7/8/2014 4 10	0:01	AWE	0 024	18 600	AGC MAVG - calculated
7/8/2014 4 10	0:01	KWPII	0 024	18 600	AGC MAVG - calculated
7/8/2014 4 13	0:02	AWE	0 023	20 300	AGC MAVG - calculated
7/8/2014 4 13	0:02	KWPII	0 023	20 300	AGC MAVG - calculated
7/8/2014 4 16	0:03	AWE	0 031	20 100	AGC MAVG - calculated
7/8/2014 4 16	0:03	KWPII	0 031	20 100	AGC MAVG - calculated
7/8/2014 4 20	0:01	AWE	0 005	19 300	AGC MAVG - calculated
7/8/2014 4 20	0:01	KWPII	0 005	19 300	AGC MAVG - calculated
7/10/2014 2 06	0:02	AWE	0 021	21 000	AGC MAVG - calculated
7/10/2014 2 06	0:02	KWPII	0 021	21 000	AGC MAVG - calculated
7/10/2014 2 31	1:25	AWE	4 116	21 000	AGC MAVG - calculated
7/10/2014 2 31	1:25	KWPII	4 116	21 000	AGC MAVG - calculated
7/10/2014 3 57	0:08	AWE	0 115	21 000	AGC MAVG - calculated
7/10/2014 3 57	0:08	KWPII	0 115	21 000	AGC MAVG - calculated
7/11/2014 2 25	1 01	AWE	3 488	20 800	AGC MAVG - calculated and 7
7/11/2014 2 25	1 01	KWPII	3 488	20 800	AGC MAVG - calculated and 7
7/11/2014 3 27	0:01	AWE	0 003	18 900	AGC MAVG - calculated
7/11/2014 3 27	0:01	KWPII	0 003	18 900	AGC MAVG - calculated
7/11/2014 3 26	0:12	AWE	0 381	20 500	AGC MAVG - calculated
7/11/2014 3 26	0:12	KWPII	0 381	20 500	AGC MAVG - calculated
7/11/2014 3 49	0:06	AWE	0 289	20 800	AGC MAVG - calculated
7/11/2014 3 49	0:06	KWPII	0 289	20 800	AGC MAVG - calculated
7/11/2014 3 58	0:01	AWE	0 009	18 000	AGC MAVG - calculated
7/11/2014 3 58	0:01	KWPII	0 009	18 000	AGC MAVG - calculated
7/11/2014 4 02	0:03	AWE	0 040	20 100	AGC MAVG - calculated
7/11/2014 4 02	0:03	KWPII	0 040	20 100	AGC MAVG - calculated
7/11/2014 4 19	0:02	AWE	0 012	20 200	AGC MAVG - calculated
7/11/2014 4 19	0:02	KWPII	0 012	20 200	AGC MAVG - calculated
7/11/2014 4 22	0:02	AWE	0 030	21 000	AGC MAVG - calculated
7/11/2014 4 22	0:02	KWPII	0 030	21 000	AGC MAVG - calculated
7/11/2014 4 25	0:02	AWE	0 005	20 400	AGC MAVG - calculated
7/11/2014 4 25	0:02	KWPII	0 005	20 400	AGC MAVG - calculated
7/12/2014 0 44	0:08	AWE	0 218	19 000	AGC MAVG - calculated and 7
7/12/2014 0 44	0:08	KWPII	0 218	19 000	AGC MAVG - calculated and 7
7/12/2014 0 54	0:03	AWE	0 056	17 700	AGC MAVG - calculated and 7
7/12/2014 0 54	0:03	KWPII	0 056	17 700	AGC MAVG - calculated and 7
7/12/2014 0 58	0:02	AWE	0 055	16 500	AGC MAVG - calculated and 7
7/12/2014 0 58	0:02	KWPII	0 055	16 500	AGC MAVG - calculated and 7
7/12/2014 1 47	0:20	AWE	1 232	21 000	AGC MAVG - calculated
7/12/2014 1 47	0:20	KWPII	1 232	21 000	AGC MAVG - calculated
7/12/2014 2 08	0:03	AWE	0 076	19 400	AGC MAVG - calculated
7/12/2014 2 08	0:03	KWPII	0 076	19 400	AGC MAVG - calculated
7/12/2014 4 17	0:01	AWE	0 002	0 100	AGC MAVG - calculated
7/12/2014 4 17	0:01	KWPII	0 002	0 100	AGC MAVG - calculated
7/15/2014 0 00	0:02	KWPII	0 160	20 708	AGC MAVG - calculated
7/15/2014 0 04	0:01	KWPII	0 073	19 296	AGC MAVG - calculated
7/15/2014 0 08	0:06	KWPII	0 702	20 705	AGC MAVG - calculated
7/15/2014 0 14	0:02	KWPII	0 318	20 704	AGC MAVG - calculated
7/15/2014 0 19	0:03	KWPII	0 331	20 708	AGC MAVG - calculated
7/15/2014 0 24	0:02	KWPII	0 184	20 708	AGC MAVG - calculated
7/15/2014 0 28	0:03	KWPII	0 275	20 708	AGC MAVG - calculated
7/15/2014 0 32	0:05	KWPII	0 404	20 708	AGC MAVG - calculated
7/15/2014 0 40	0:01	KWPII	0 056	20 708	AGC MAVG - calculated
7/15/2014 0 42	0:01	KWPII	0 044	20 708	AGC MAVG - calculated
7/15/2014 0 46	0:02	KWPII	0 128	20 708	AGC MAVG - calculated
7/15/2014 0 49	0:02	KWPII	0 188	20 708	AGC MAVG - calculated
7/15/2014 0 52	0:02	KWPII	0 203	20 708	AGC MAVG - calculated
7/15/2014 0 55	0:02	KWPII	0 191	20 705	AGC MAVG - calculated
7/15/2014 0 58	0:03	KWPII	0 347	20 872	AGC MAVG - calculated
7/15/2014 1 02	2 47	KWPII	38 948	20 708	AGC MAVG - calculated
7/15/2014 3 53	0:01	KWPII	0 220	20 702	AGC MAVG - calculated
7/15/2014 3 57	0:06	KWPII	0 863	20 708	AGC MAVG - calculated
7/15/2014 4 05	0:12	KWPII	1 747	20 702	AGC MAVG - calculated
7/15/2014 4 19	0:01	KWPII	0 122	19 168	AGC MAVG - calculated

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Start Date and Time	Duration	IPP Curtailed	Estimated Curtailed MWh	Peak MW Curtailed	Reasons for Curtailment
7/15/2014 4:21	0:03	KWPII	0.364	19 278	AGC MAVG - calculated
7/15/2014 4:27	0:04	KWPII	0.587	20 307	AGC MAVG - calculated
7/15/2014 4:34	0:02	KWPII	0.287	20 361	AGC MAVG - calculated
7/15/2014 4:37	0:44	KWPII	0.593	20 702	AGC MAVG - calculated
7/15/2014 5:24	0:11	KWPII	0.695	20 708	AGC MAVG - calculated
7/15/2014 6:48	0:01	KWPII	0.005	20 643	AGC MAVG - calculated
7/15/2014 6:51	0:01	KWPII	0.025	20 659	AGC MAVG - calculated
7/15/2014 6:53	0:01	KWPII	0.006	20 703	AGC MAVG - calculated
7/15/2014 6:41	0:01	KWPII	0.020	20 684	AGC MAVG - calculated, Good Engineering Practices, and Testing
7/15/2014 13:34	0:01	KWPII	0.015	20 384	AGC MAVG - calculated
7/15/2014 13:45	0:07	KWPII	0.298	20 692	AGC MAVG - calculated
7/15/2014 13:53	0:08	KWPII	0.123	20 708	AGC MAVG - calculated
7/15/2014 14:10	0:01	KWPII	0.013	20 516	AGC MAVG - calculated
7/15/2014 23:05	0:01	KWPII	0.005	20 705	AGC MAVG - calculated
7/15/2014 23:58	0:02	KWPII	0.027	20 890	AGC MAVG - calculated
7/16/2014 0:01	2:34	KWPII	21 825	20 768	AGC MAVG - calculated
7/16/2014 2:38	0:31	KWPII	2 682	20 708	AGC MAVG - calculated
7/16/2014 3:13	0:08	KWPII	0.141	20 708	AGC MAVG - calculated
7/16/2014 3:25	1:17	KWPII	8 812	20 708	AGC MAVG - calculated
7/16/2014 4:56	0:01	KWPII	0.018	20 708	AGC MAVG - calculated
7/16/2014 5:31	0:06	KWPII	0.384	20 669	AGC MAVG - calculated
7/16/2014 5:44	0:01	KWPII	0.007	20 660	AGC MAVG - calculated
7/16/2014 5:46	0:05	KWPII	0.174	20 705	AGC MAVG - calculated
7/16/2014 6:13	0:06	KWPII	0.256	20 708	AGC MAVG - calculated
7/16/2014 6:25	0:03	KWPII	0.154	19 206	AGC MAVG - calculated and Good Engineering Practices
7/16/2014 6:26	0:02	KWPII	0.074	19 209	AGC MAVG - calculated and Good Engineering Practices
7/16/2014 6:35	0:01	KWPII	0.011	19 211	AGC MAVG - calculated and Good Engineering Practices
7/16/2014 6:37	0:02	KWPII	0.036	19 211	AGC MAVG - calculated and Good Engineering Practices
7/16/2014 6:43	0:03	KWPII	0.130	19 209	AGC MAVG - calculated and Good Engineering Practices
7/16/2014 6:47	0:04	KWPII	0.136	19 211	AGC MAVG - calculated and Good Engineering Practices
7/16/2014 11:02	0:01	KWPII	0.012	20 651	AGC MAVG - calculated and Good Engineering Practices
7/16/2014 11:19	0:01	KWPII	0.003	20 413	AGC MAVG - calculated and Good Engineering Practices
7/16/2014 11:26	0:01	KWPII	0.010	20 516	AGC MAVG - calculated and Good Engineering Practices
7/16/2014 11:35	0:01	KWPII	0.009	20 656	AGC MAVG - calculated and Good Engineering Practices
7/16/2014 12:53	0:12	KWPII	0.451	20 622	AGC MAVG - calculated and Good Engineering Practices
7/16/2014 13:00	0:07	KWPII	0.328	20 655	AGC MAVG - calculated and Good Engineering Practices
7/16/2014 13:14	0:10	KWPII	0.383	20 410	AGC MAVG - calculated and Good Engineering Practices
7/16/2014 13:28	0:04	KWPII	0.072	20 482	AGC MAVG - calculated and Good Engineering Practices
7/16/2014 13:33	0:02	KWPII	0.032	20 020	AGC MAVG - calculated and Good Engineering Practices
7/16/2014 13:38	0:01	KWPII	0.002	20 257	AGC MAVG - calculated and Good Engineering Practices
7/16/2014 13:42	0:01	KWPII	0.008	20 696	AGC MAVG - calculated and Good Engineering Practices
7/16/2014 13:51	0:01	KWPII	0.008	20 675	AGC MAVG - calculated and Good Engineering Practices
7/16/2014 14:11	0:01	KWPII	0.010	20 589	AGC MAVG - calculated and Good Engineering Practices
7/16/2014 14:18	0:01	KWPII	0.033	20 651	AGC MAVG - calculated and Good Engineering Practices
7/16/2014 14:23	0:01	KWPII	0.010	20 439	AGC MAVG - calculated and Good Engineering Practices
7/16/2014 14:30	0:01	KWPII	0.000	20 457	AGC MAVG - calculated and Good Engineering Practices
7/16/2014 14:32	0:01	KWPII	0.005	20 493	AGC MAVG - calculated and Good Engineering Practices
7/16/2014 14:49	0:02	KWPII	0.083	20 667	AGC MAVG - calculated and Good Engineering Practices
7/16/2014 14:57	0:01	KWPII	0.008	20 184	AGC MAVG - calculated and Good Engineering Practices
7/16/2014 15:00	0:04	KWPII	0.144	20 635	AGC MAVG - calculated and Good Engineering Practices
7/16/2014 15:05	0:17	KWPII	0.812	20 471	AGC MAVG - calculated and Good Engineering Practices
7/16/2014 15:26	0:01	KWPII	0.052	19 590	AGC MAVG - calculated and Good Engineering Practices
7/16/2014 16:03	0:01	KWPII	0.018	18 152	AGC MAVG - calculated and Good Engineering Practices
7/16/2014 17:14	0:01	KWPII	0.017	13 524	AGC MAVG - calculated and Good Engineering Practices
7/16/2014 17:17	0:01	KWPII	0.050	17 319	AGC MAVG - calculated and Good Engineering Practices
7/16/2014 18:23	0:01	KWPII	0.004	16 000	AGC MAVG - calculated and Good Engineering Practices
7/16/2014 18:28	0:01	KWPII	0.012	18 798	AGC MAVG - calculated and Good Engineering Practices
7/16/2014 18:54	0:02	KWPII	0.058	19 162	AGC MAVG - calculated and Good Engineering Practices
7/16/2014 18:59	0:01	KWPII	0.025	19 872	AGC MAVG - calculated
7/16/2014 19:04	0:03	KWPII	0.051	20 230	AGC MAVG - calculated
7/16/2014 19:11	0:01	KWPII	0.005	20 600	AGC MAVG - calculated
7/17/2014 5:02	0:01	KWPII	0.049	20 703	AGC MAVG - calculated
7/17/2014 5:09	0:27	KWPII	2 830	20 708	AGC MAVG - calculated
7/17/2014 5:57	0:13	KWPII	0.731	20 708	AGC MAVG - calculated
7/17/2014 6:11	0:01	KWPII	0.012	20 708	AGC MAVG - calculated
7/17/2014 6:14	0:03	KWPII	0.044	20 708	AGC MAVG - calculated
7/17/2014 6:48	0:03	KWPII	0.031	20 708	AGC MAVG - calculated
7/17/2014 7:08	0:14	KWPII	0.331	20 708	AGC MAVG - calculated
7/17/2014 7:25	0:02	KWPII	0.007	20 708	AGC MAVG - calculated
7/17/2014 7:30	0:02	KWPII	0.041	20 708	AGC MAVG - calculated
7/18/2014 0:04	0:06	KWPII	0.474	20 847	AGC MAVG - calculated
7/18/2014 0:31	0:01	KWPII	0.001	19 197	AGC MAVG - calculated
7/18/2014 0:36	0:02	KWPII	0.022	19 065	AGC MAVG - calculated
7/18/2014 0:44	0:06	KWPII	0.657	19 133	AGC MAVG - calculated
7/18/2014 0:53	0:16	KWPII	1 290	19 174	AGC MAVG - calculated
7/18/2014 1:12	0:32	KWPII	2 005	19 191	AGC MAVG - calculated
7/18/2014 1:46	0:03	KWPII	0.288	18 160	AGC MAVG - calculated
7/18/2014 1:50	0:05	KWPII	0.785	19 202	AGC MAVG - calculated
7/18/2014 1:56	0:14	KWPII	0.873	18 173	AGC MAVG - calculated
7/18/2014 2:12	0:02	KWPII	0.138	19 150	AGC MAVG - calculated
7/18/2014 2:18	0:05	KWPII	0.481	19 179	AGC MAVG - calculated
7/18/2014 2:20	0:06	KWPII	1 098	19 193	AGC MAVG - calculated
7/18/2014 2:31	0:16	KWPII	3 094	19 151	AGC MAVG - calculated
7/18/2014 2:49	0:09	KWPII	1 242	19 132	AGC MAVG - calculated
7/18/2014 2:59	0:37	KWPII	7 504	19 180	AGC MAVG - calculated
7/18/2014 3:18	1:15	KWPII	11 884	19 211	AGC MAVG - calculated
7/18/2014 4:56	0:47	KWPII	8 608	19 211	AGC MAVG - calculated
7/18/2014 5:51	0:04	KWPII	0.118	19 211	AGC MAVG - calculated
7/18/2014 6:02	0:01	KWPII	0.001	19 211	AGC MAVG - calculated
7/18/2014 6:38	0:01	AWE	0.003	0 200	AGC MAVG - calculated
7/18/2014 6:52	0:01	AWE	0.002	0 100	AGC MAVG - calculated
7/18/2014 6:54	0:01	AWE	0.002	0 100	AGC MAVG - calculated
7/18/2014 6:58	0:01	AWE	0.003	0 200	AGC MAVG - calculated
7/18/2014 7:41	0:11	KWPII	0.600	20 708	AGC MAVG - calculated and Good Engineering Practices
7/18/2014 8:03	0:43	KWPII	3 875	20 708	AGC MAVG - calculated and Good Engineering Practices
7/18/2014 8:46	0:01	KWPII	0.012	20 708	AGC MAVG - calculated and Good Engineering Practices
7/18/2014 8:50	0:01	KWPII	0.004	20 704	AGC MAVG - calculated and Good Engineering Practices
7/18/2014 10:55	0:01	KWPII	0.000	20 708	AGC MAVG - calculated and Good Engineering Practices
7/18/2014 11:10	0:01	KWPII	0.008	20 708	AGC MAVG - calculated and Good Engineering Practices
7/18/2014 11:20	0:01	KWPII	0.003	20 660	AGC MAVG - calculated and Good Engineering Practices
7/18/2014 11:31	0:08	KWPII	0.127	20 708	AGC MAVG - calculated and Good Engineering Practices
7/18/2014 11:40	0:02	KWPII	0.042	20 708	AGC MAVG - calculated and Good Engineering Practices
7/18/2014 11:47	0:01	KWPII	0.004	20 708	AGC MAVG - calculated and Good Engineering Practices
7/18/2014 11:50	0:02	KWPII	0.000	20 708	AGC MAVG - calculated and Good Engineering Practices
7/18/2014 11:54	0:16	KWPII	0.351	20 708	AGC MAVG - calculated and Good Engineering Practices
7/18/2014 12:11	0:08	KWPII	0.168	20 708	AGC MAVG - calculated and Good Engineering Practices
7/18/2014 12:21	0:01	KWPII	0.004	20 703	AGC MAVG - calculated and Good Engineering Practices
7/18/2014 12:23	0:05	KWPII	0.080	20 708	AGC MAVG - calculated and Good Engineering Practices
7/18/2014 12:32	0:10	KWPII	0.065	20 707	AGC MAVG - calculated and Good Engineering Practices
7/18/2014 12:43	0:01	KWPII	0.003	20 704	AGC MAVG - calculated and Good Engineering Practices
7/18/2014 12:45	0:03	KWPII	0.022	20 708	AGC MAVG - calculated and Good Engineering Practices

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Start Date and Time	Duration	IPP Curtailed	Estimated Curtailed MWh	Peak MW Curtailed	Reasons for Curtailment
7/18/2014 12 50	0 02	KWPH	0 002	20 708	AGC MAVG - calculated and Good Engineering Practices
7/18/2014 12 57	0 01	KWPH	0 017	20 890	AGC MAVG - calculated and Good Engineering Practices
7/19/2014 0 39	0 01	KWPH	0 001	20 529	AGC MAVG - calculated
7/19/2014 0 42	1 38	KWPH	13 067	20 704	AGC MAVG - calculated
7/19/2014 2 21	0 01	KWPH	0 052	18 170	AGC MAVG - calculated
7/19/2014 2 23	0 02	KWPH	0 070	18 223	AGC MAVG - calculated
7/19/2014 2 29	0 01	KWPH	0 025	19 213	AGC MAVG - calculated
7/19/2014 2 34	2 23	KWPH	20 008	20 898	AGC MAVG - calculated
7/19/2014 4 56	0 02	KWPH	0 083	19 418	AGC MAVG - calculated
7/19/2014 5 04	0 01	KWPH	0 024	20 060	AGC MAVG - calculated
7/19/2014 5 18	0 01	KWPH	0 010	20 158	AGC MAVG - calculated
7/19/2014 5 22	0 04	KWPH	0 080	20 627	AGC MAVG - calculated
7/19/2014 5 52	0 01	KWPH	0 002	19 252	AGC MAVG - calculated
7/19/2014 6 31	0 04	KWPH	0 069	20 563	AGC MAVG - calculated
7/19/2014 6 38	0 08	KWPH	0 138	20 389	AGC MAVG - calculated
7/19/2014 6 45	0 04	KWPH	0 041	20 383	AGC MAVG - calculated
7/19/2014 6 50	0 01	KWPH	0 002	20 340	AGC MAVG - calculated
7/19/2014 7 30	0 08	KWPH	0 106	20 670	AGC MAVG - calculated
7/19/2014 10 02	0 01	KWPH	0 014	19 807	AGC MAVG - calculated
7/19/2014 10 04	0 14	KWPH	0 402	20 341	AGC MAVG - calculated
7/19/2014 10 22	0 02	KWPH	0 102	20 677	AGC MAVG - calculated
7/19/2014 10 25	0 01	KWPH	0 010	20 701	AGC MAVG - calculated
7/19/2014 10 27	0 06	KWPH	0 139	20 705	AGC MAVG - calculated
7/19/2014 10 35	0 01	KWPH	0 001	20 708	AGC MAVG - calculated
7/19/2014 12 49	0 03	KWPH	0 058	15 819	AGC MAVG - calculated
7/20/2014 4 06	0 08	KWPH	0 403	7 831	AGC MAVG - calculated
7/20/2014 4 17	0 08	KWPH	0 080	5 751	AGC MAVG - calculated
7/20/2014 4 32	0 04	KWPH	0 085	11 490	AGC MAVG - calculated
7/20/2014 4 51	0 14	KWPH	0 511	12 159	AGC MAVG - calculated
7/20/2014 5 38	0 02	KWPH	0 029	10 080	AGC MAVG - calculated
7/20/2014 6 04	0 23	KWPH	1 436	18 405	AGC MAVG - calculated
7/20/2014 6 27	0 02	KWPH	0 072	19 223	AGC MAVG - calculated
7/20/2014 7 21	0 35	KWPH	8 689	20 708	AGC MAVG - calculated
7/20/2014 7 59	0 22	KWPH	2 698	19 211	AGC MAVG - calculated
7/20/2014 8 24	0 36	KWPH	8 894	19 211	AGC MAVG - calculated
7/20/2014 9 03	1 28	KWPH	11 041	18 217	AGC MAVG - calculated
7/20/2014 10 33	0 01	AWE	0 003	0 200	AGC MAVG - calculated
7/20/2014 10 40	3 01	KWPH	24 854	20 708	AGC MAVG - calculated
7/20/2014 14 04	0 01	KWPH	0 000	20 657	AGC MAVG - calculated
7/20/2014 16 02	0 04	KWPH	0 105	20 708	AGC MAVG - calculated and Good Engineering Practices
7/20/2014 16 08	0 10	KWPH	0 332	20 708	AGC MAVG - calculated and Good Engineering Practices
7/20/2014 21 03	0 01	KWPH	0 042	16 407	AGC MAVG - calculated
7/21/2014 22 43	0 03	KWPH	0 143	10 042	AGC MAVG - calculated
7/21/2014 23 38	0 08	KWPH	0 088	16 570	AGC MAVG - calculated and Good Engineering Practices
7/22/2014 8 01	0 01	KWPH	0 001	0 072	AGC MAVG - calculated, Testing, and Good Engineering Practices
7/22/2014 8 34	0 01	KWPH	0 000	0 009	AGC MAVG - calculated, Testing, and Good Engineering Practices
7/22/2014 13 29	0 03	KWPH	0 079	13 873	AGC MAVG - calculated and Good Engineering Practices
7/22/2014 13 48	0 02	KWPH	0 015	14 305	AGC MAVG - calculated and Good Engineering Practices
7/22/2014 13 52	0 01	KWPH	0 006	18 142	AGC MAVG - calculated and Good Engineering Practices
7/22/2014 13 54	0 03	KWPH	0 041	18 298	AGC MAVG - calculated and Good Engineering Practices
7/22/2014 13 58	0 05	KWPH	0 226	17 023	AGC MAVG - calculated and Good Engineering Practices
7/22/2014 14 05	0 05	KWPH	0 177	20 064	AGC MAVG - calculated and Good Engineering Practices
7/22/2014 14 30	0 03	KWPH	0 023	18 350	AGC MAVG - calculated and Good Engineering Practices
7/22/2014 14 35	0 01	KWPH	0 022	19 509	AGC MAVG - calculated and Good Engineering Practices
7/22/2014 23 12	0 01	KWPH	0 000	10 724	AGC MAVG - calculated
7/22/2014 23 14	0 04	KWPH	0 156	10 722	AGC MAVG - calculated
7/22/2014 23 19	0 03	KWPH	0 058	8 921	AGC MAVG - calculated
7/22/2014 23 23	0 29	KWPH	3 080	20 623	AGC MAVG - calculated
7/22/2014 23 55	0 08	KWPH	0 173	18 727	AGC MAVG - calculated
7/23/2014 0 07	1 29	KWPH	12 443	20 549	AGC MAVG - calculated
7/23/2014 0 19	0 02	AWE	0 043	14 200	AGC MAVG - calculated
7/23/2014 1 38	0 01	KWPH	0 005	20 041	AGC MAVG - calculated
7/23/2014 1 43	0 01	KWPH	0 018	20 167	AGC MAVG - calculated
7/23/2014 1 42	0 01	KWPH	0 059	20 377	AGC MAVG - calculated
7/23/2014 1 44	1 53	KWPH	23 233	20 694	AGC MAVG - calculated
7/23/2014 2 34	0 01	AWE	0 003	18 806	AGC MAVG - calculated
7/23/2014 2 37	0 01	AWE	0 025	18 000	AGC MAVG - calculated
7/23/2014 3 03	0 02	AWE	0 049	21 000	AGC MAVG - calculated
7/23/2014 3 15	0 05	AWE	0 157	18 800	AGC MAVG - calculated
7/23/2014 3 22	0 08	AWE	0 252	18 000	AGC MAVG - calculated
7/23/2014 3 38	0 44	KWPH	14 810	20 690	AGC MAVG - calculated
7/23/2014 3 44	0 32	AWE	1 838	21 000	AGC MAVG - calculated
7/23/2014 4 24	0 43	KWPH	13 191	20 694	AGC MAVG - calculated and Testing
7/23/2014 4 37	0 04	AWE	0 112	20 700	AGC MAVG - calculated and Testing
7/23/2014 4 42	0 10	AWE	0 251	21 000	AGC MAVG - calculated and Testing
7/23/2014 4 55	0 03	AWE	0 072	21 000	AGC MAVG - calculated and Testing
7/23/2014 4 59	0 01	AWE	0 000	21 000	AGC MAVG - calculated and Testing
7/23/2014 5 08	5 37	KWPH	56 576	20 708	AGC MAVG - calculated and Testing
7/23/2014 10 54	0 03	KWPH	0 008	20 707	AGC MAVG - calculated
7/23/2014 11 10	0 02	KWPH	0 008	20 708	AGC MAVG - calculated
7/23/2014 11 32	0 01	KWPH	0 003	20 708	AGC MAVG - calculated
7/23/2014 11 42	0 01	KWPH	0 008	20 708	AGC MAVG - calculated
7/23/2014 11 47	0 01	KWPH	0 008	20 704	AGC MAVG - calculated
7/23/2014 11 56	0 01	KWPH	0 009	20 706	AGC MAVG - calculated
7/23/2014 12 12	0 03	KWPH	0 065	20 708	AGC MAVG - calculated
7/23/2014 12 40	0 08	KWPH	0 085	20 708	AGC MAVG - calculated
7/23/2014 12 49	0 08	KWPH	0 048	20 708	AGC MAVG - calculated
7/23/2014 12 56	0 01	KWPH	0 003	20 708	AGC MAVG - calculated
7/23/2014 13 01	0 07	KWPH	0 074	20 708	AGC MAVG - calculated
7/23/2014 13 10	0 01	KWPH	0 008	20 707	AGC MAVG - calculated
7/23/2014 23 04	0 03	KWPH	0 045	20 708	AGC MAVG - calculated
7/23/2014 23 12	0 01	KWPH	0 015	20 708	AGC MAVG - calculated
7/23/2014 23 33	8 22	KWPH	105 809	20 708	AGC MAVG - calculated
7/24/2014 0 37	0 01	AWE	0 005	21 000	AGC MAVG - calculated
7/24/2014 0 40	3 33	AWE	20 900	21 000	AGC MAVG - calculated
7/24/2014 4 23	0 01	AWE	0 011	12 700	AGC MAVG - calculated
7/24/2014 7 32	0 14	KWPH	1 760	20 885	AGC MAVG - calculated and Good Engineering Practices
7/24/2014 7 48	1 20	KWPH	9 532	20 898	AGC MAVG - calculated, Good Engineering Practices, and Testing
7/24/2014 9 11	0 14	KWPH	1 315	20 709	AGC MAVG - calculated, Good Engineering Practices, and Testing
7/24/2014 9 28	0 01	KWPH	0 073	20 707	AGC MAVG - calculated, Good Engineering Practices, and Testing
7/24/2014 9 33	0 09	KWPH	0 424	20 708	AGC MAVG - calculated, Good Engineering Practices, and Testing
7/24/2014 9 47	0 20	KWPH	3 098	20 708	AGC MAVG - calculated, Good Engineering Practices, and Testing
7/24/2014 10 42	0 12	KWPH	1 884	20 708	AGC MAVG - calculated, Good Engineering Practices, and Testing
7/24/2014 10 55	0 03	KWPH	0 488	20 708	AGC MAVG - calculated, Good Engineering Practices, and Testing
7/24/2014 10 51	0 04	KWPH	0 767	20 707	AGC MAVG - calculated, Good Engineering Practices, and Testing
7/24/2014 10 38	2 50	KWPH	25 237	20 708	AGC MAVG - calculated, Good Engineering Practices, and Testing
7/24/2014 13 33	0 02	KWPH	0 133	20 675	AGC MAVG - calculated and Good Engineering Practices
7/24/2014 13 36	0 02	KWPH	0 026	20 656	AGC MAVG - calculated and Good Engineering Practices
7/24/2014 13 40	0 08	KWPH	0 158	20 677	AGC MAVG - calculated and Good Engineering Practices
7/24/2014 13 47	0 02	KWPH	0 070	20 508	AGC MAVG - calculated and Good Engineering Practices
7/24/2014 13 50	0 05	KWPH	0 139	20 593	AGC MAVG - calculated and Good Engineering Practices

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Start Date and Time	Duration	IPP Curtailed	Estimated Curtailed MWh	Peak MW Curtailed	Reasons for Curtailment
7/24/2014 13:56	0:01	KWPII	0.051	20 270	AGC MAVG - calculated and Good Engineering Practices
7/24/2014 13:58	0:07	KWPII	0.315	20 818	AGC MAVG - calculated and Good Engineering Practices
7/24/2014 14:00	0:04	KWPII	0.220	20 511	AGC MAVG - calculated and Good Engineering Practices
7/24/2014 14:11	0:01	KWPII	0.007	20 802	AGC MAVG - calculated and Good Engineering Practices
7/24/2014 14:13	0:06	KWPII	0.225	20 448	AGC MAVG - calculated and Good Engineering Practices
7/24/2014 14:23	0:01	KWPII	0.028	20 325	AGC MAVG - calculated and Good Engineering Practices
7/24/2014 14:25	0:01	KWPII	0.031	20 134	AGC MAVG - calculated and Good Engineering Practices
7/24/2014 14:28	0:04	KWPII	0.132	20 339	AGC MAVG - calculated and Good Engineering Practices
7/24/2014 14:33	0:03	KWPII	0.048	20 309	AGC MAVG - calculated and Good Engineering Practices
7/24/2014 14:38	0:02	KWPII	0.022	20 110	AGC MAVG - calculated and Good Engineering Practices
7/24/2014 14:41	0:05	KWPII	0.104	20 475	AGC MAVG - calculated and Good Engineering Practices
7/24/2014 14:47	0:06	KWPII	0.468	20 560	AGC MAVG - calculated and Good Engineering Practices
7/24/2014 14:57	0:09	KWPII	0.184	20 485	AGC MAVG - calculated and Good Engineering Practices
7/24/2014 15:11	0:01	KWPII	0.011	20 862	AGC MAVG - calculated and Good Engineering Practices
7/24/2014 15:18	0:12	KWPII	0.528	20 541	AGC MAVG - calculated and Good Engineering Practices
7/24/2014 15:20	0:02	KWPII	0.058	20 427	AGC MAVG - calculated and Good Engineering Practices
7/24/2014 15:32	0:05	KWPII	0.154	20 517	AGC MAVG - calculated and Good Engineering Practices
7/24/2014 15:38	0:06	KWPII	0.266	20 302	AGC MAVG - calculated and Good Engineering Practices
7/24/2014 15:48	0:04	KWPII	0.037	20 485	AGC MAVG - calculated and Good Engineering Practices
7/24/2014 15:51	0:01	KWPII	0.031	20 163	AGC MAVG - calculated and Good Engineering Practices
7/24/2014 15:53	0:31	KWPII	2.443	20 883	AGC MAVG - calculated and Good Engineering Practices
7/24/2014 16:25	0:07	KWPII	0.337	20 696	AGC MAVG - calculated and Good Engineering Practices
7/24/2014 16:33	0:30	KWPII	1.782	20 700	AGC MAVG - calculated and Good Engineering Practices
7/24/2014 17:04	0:05	KWPII	0.152	20 686	AGC MAVG - calculated and Good Engineering Practices
7/24/2014 17:11	0:04	KWPII	0.077	20 708	AGC MAVG - calculated and Good Engineering Practices
7/24/2014 17:18	0:01	KWPII	0.026	20 877	AGC MAVG - calculated and Good Engineering Practices
7/24/2014 17:21	0:01	KWPII	0.012	20 709	AGC MAVG - calculated and Good Engineering Practices
7/24/2014 17:23	0:03	KWPII	0.022	20 628	AGC MAVG - calculated and Good Engineering Practices
7/24/2014 21:61	0:01	AWE	0.005	0 300	AGC MAVG - calculated
7/24/2014 23:14	0:01	KWPII	0.038	20 981	AGC MAVG - calculated
7/24/2014 23:27	0:01	KWPII	0.026	20 684	AGC MAVG - calculated
7/24/2014 23:38	0:01	KWPII	0.024	20 883	AGC MAVG - calculated
7/24/2014 23:39	0:20	KWPII	0.874	20 704	AGC MAVG - calculated
7/24/2014 23:58	0:12	KWPII	0.487	20 708	AGC MAVG - calculated
7/25/2014 0:35	0:44	KWPII	5.125	20 387	AGC MAVG - calculated
7/25/2014 1:20	0:01	KWPII	0.019	12 368	AGC MAVG - calculated
7/25/2014 1:23	0:05	KWPII	0.222	14 387	AGC MAVG - calculated
7/25/2014 1:46	1:11	KWPII	11.943	19 308	AGC MAVG - calculated
7/25/2014 2:21	0:01	AWE	0.057	13 800	AGC MAVG - calculated
7/25/2014 2:23	0:02	AWE	0.058	14 800	AGC MAVG - calculated
7/25/2014 2:26	0:03	AWE	0.084	14 100	AGC MAVG - calculated
7/25/2014 2:30	0:10	AWE	0.865	15 800	AGC MAVG - calculated
7/25/2014 2:41	0:02	AWE	0.069	12 700	AGC MAVG - calculated
7/25/2014 2:44	0:01	AWE	0.031	10 100	AGC MAVG - calculated
7/25/2014 2:47	0:05	AWE	0.150	10 800	AGC MAVG - calculated
7/25/2014 2:53	0:02	AWE	0.033	13 800	AGC MAVG - calculated
7/25/2014 3:02	0:02	KWPII	0.035	9 696	AGC MAVG - calculated
7/25/2014 3:06	0:58	KWPII	4.914	17 495	AGC MAVG - calculated
7/25/2014 3:22	0:15	AWE	0.878	17 500	AGC MAVG - calculated
7/25/2014 3:38	0:06	AWE	0.156	8 400	AGC MAVG - calculated
7/25/2014 3:50	0:01	AWE	0.012	8 400	AGC MAVG - calculated
7/25/2014 3:52	0:04	AWE	0.048	11 600	AGC MAVG - calculated
7/25/2014 4:03	1:37	KWPII	8.877	15 270	AGC MAVG - calculated
7/25/2014 4:28	0:01	AWE	0.014	12 700	AGC MAVG - calculated
7/25/2014 5:42	0:01	KWPII	0.041	12 057	AGC MAVG - calculated and Testing
7/25/2014 6:55	0:01	KWPII	0.080	16 785	AGC MAVG - calculated and Testing
7/25/2014 6:26	0:13	KWPII	2.384	20 017	AGC MAVG - calculated and Testing
7/25/2014 6:41	0:03	KWPII	0.474	19 365	AGC MAVG - calculated and Testing
7/25/2014 6:45	0:31	KWPII	6.378	20 498	AGC MAVG - calculated and Testing
7/25/2014 6:52	0:01	AWE	0.002	15 300	AGC MAVG - calculated and Testing
7/25/2014 6:54	0:01	AWE	0.018	16 700	AGC MAVG - calculated and Testing
7/25/2014 7:18	1:06	KWPII	14.281	20 311	AGC MAVG - calculated Testing and Good Engineering Practices
7/25/2014 8:28	0:11	KWPII	1.388	17 950	AGC MAVG - calculated Testing and Good Engineering Practices
7/25/2014 8:40	0:08	KWPII	0.232	12 878	AGC MAVG - calculated Testing and Good Engineering Practices
7/25/2014 9:18	0:01	KWPII	0.018	14 672	AGC MAVG - calculated Testing and Good Engineering Practices
7/25/2014 9:36	0:01	KWPII	0.030	13 838	AGC MAVG - calculated Testing and Good Engineering Practices
7/25/2014 9:40	0:08	KWPII	0.526	15 928	AGC MAVG - calculated Testing and Good Engineering Practices
7/25/2014 9:49	0:01	KWPII	0.025	15 143	AGC MAVG - calculated Testing and Good Engineering Practices
7/25/2014 10:32	0:08	KWPII	0.253	11 373	AGC MAVG - calculated Testing and Good Engineering Practices
7/25/2014 10:41	0:08	KWPII	0.292	8 250	AGC MAVG - calculated Testing and Good Engineering Practices
7/25/2014 10:50	0:04	KWPII	0.126	8 674	AGC MAVG - calculated Testing and Good Engineering Practices
7/25/2014 10:58	0:11	KWPII	0.407	9 885	AGC MAVG - calculated Testing and Good Engineering Practices
7/25/2014 11:08	0:36	KWPII	2.109	11 800	AGC MAVG - calculated Testing and Good Engineering Practices
7/25/2014 12:30	0:10	KWPII	0.278	13 368	AGC MAVG - calculated Testing and Good Engineering Practices
7/25/2014 12:48	0:01	KWPII	0.175	10 514	AGC MAVG - calculated Testing and Good Engineering Practices
7/25/2014 12:48	0:01	AWE	0.182	19 800	AGC MAVG - calculated Testing and Good Engineering Practices
7/25/2014 12:54	0:01	KWPII	0.024	9 387	AGC MAVG - calculated Testing and Good Engineering Practices
7/25/2014 12:57	0:20	KWPII	0.823	11 336	AGC MAVG - calculated Testing and Good Engineering Practices
7/25/2014 14:51	0:01	KWPII	0.022	11 000	AGC MAVG - calculated Testing and Good Engineering Practices
7/25/2014 14:53	0:19	KWPII	0.145	3 748	AGC MAVG - calculated Testing and Good Engineering Practices
7/25/2014 15:07	0:03	KWPII	0.034	1 156	AGC MAVG - calculated Testing and Good Engineering Practices
7/25/2014 15:08	0:01	AWE	0.017	20 800	AGC MAVG - calculated Testing and Good Engineering Practices
7/25/2014 15:11	0:01	AWE	0.004	21 000	AGC MAVG - calculated Testing and Good Engineering Practices
7/25/2014 15:11	0:36	KWPII	1.060	3 381	AGC MAVG - calculated Testing and Good Engineering Practices
7/25/2014 15:13	0:06	AWE	0.119	21 000	AGC MAVG - calculated Testing and Good Engineering Practices
7/25/2014 15:21	0:01	AWE	0.011	21 000	AGC MAVG - calculated Testing and Good Engineering Practices
7/25/2014 15:24	0:02	AWE	0.011	21 000	AGC MAVG - calculated Testing and Good Engineering Practices
7/25/2014 15:41	0:01	AWE	0.012	21 000	AGC MAVG - calculated Testing and Good Engineering Practices
7/25/2014 15:58	0:01	KWPII	0.008	4 562	AGC MAVG - calculated Testing and Good Engineering Practices
7/25/2014 18:35	0:01	KWPII	0.000	0.018	AGC MAVG - calculated and Good Engineering Practices
7/25/2014 22:25	0:01	KWPII	0.012	12 678	AGC MAVG - calculated
7/25/2014 22:28	0:02	KWPII	0.051	12 583	AGC MAVG - calculated
7/25/2014 22:34	0:02	KWPII	0.037	12 098	AGC MAVG - calculated
7/25/2014 22:38	0:01	KWPII	0.001	11 235	AGC MAVG - calculated
7/25/2014 22:48	0:02	KWPII	0.039	16 441	AGC MAVG - calculated
7/25/2014 22:49	0:01	KWPII	0.021	15 912	AGC MAVG - calculated
7/25/2014 22:52	0:02	KWPII	0.031	17 701	AGC MAVG - calculated
7/25/2014 22:55	0:07	KWPII	0.389	19 803	AGC MAVG - calculated
7/25/2014 23:38	0:01	KWPII	0.008	15 795	AGC MAVG - calculated
7/25/2014 23:41	0:04	KWPII	0.095	16 801	AGC MAVG - calculated
7/25/2014 23:47	0:02	KWPII	0.025	15 805	AGC MAVG - calculated
7/28/2014 0:48	0:32	KWPII	2.322	13 040	AGC MAVG - calculated
7/28/2014 1:19	0:14	KWPII	1.112	14 414	AGC MAVG - calculated
7/28/2014 2:59	0:30	KWPII	5.217	14 785	AGC MAVG - calculated
7/28/2014 3:02	0:05	AWE	0.073	18 800	AGC MAVG - calculated
7/28/2014 3:20	0:01	AWE	0.007	13 800	AGC MAVG - calculated
7/28/2014 3:22	0:03	AWE	0.048	15 300	AGC MAVG - calculated
7/28/2014 3:39	0:02	KWPII	0.050	15 835	AGC MAVG - calculated
7/28/2014 3:45	0:02	KWPII	0.042	14 157	AGC MAVG - calculated
7/28/2014 3:48	1:09	KWPII	5.426	20 020	AGC MAVG - calculated
7/28/2014 4:58	0:02	KWPII	0.031	19 794	AGC MAVG - calculated

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Start Date and Time	Duration	IPP Curtailed	Estimated Curtailed MWh	Peak MW Curtailed	Reasons for Curtailment
7/28/2014 5:57	0:01	KWPII	0.006	17.436	AGC MAVG - calculated
7/28/2014 23:48	0:06	KWPII	0.609	11.035	AGC MAVG - calculated
7/28/2014 0:05	0:34	KWPII	2.819	17.368	AGC MAVG - calculated
7/28/2014 0:40	0:01	KWPII	0.024	14.484	AGC MAVG - calculated
7/28/2014 1:16	0:11	KWPII	0.687	13.267	AGC MAVG - calculated
7/28/2014 1:28	0:26	KWPII	4.840	17.400	AGC MAVG - calculated
7/28/2014 1:42	0:06	AWE	0.214	21.000	AGC MAVG - calculated
7/28/2014 1:55	1:11	KWPII	19.830	20.397	AGC MAVG - calculated
7/28/2014 2:02	0:03	AWE	0.050	21.000	AGC MAVG - calculated
7/28/2014 2:07	0:01	AWE	0.031	21.000	AGC MAVG - calculated
7/28/2014 2:26	0:01	AWE	0.017	20.800	AGC MAVG - calculated
7/28/2014 2:33	0:17	AWE	0.911	21.000	AGC MAVG - calculated
7/28/2014 2:51	0:01	AWE	0.011	20.700	AGC MAVG - calculated
7/28/2014 2:56	0:01	AWE	0.004	20.100	AGC MAVG - calculated
7/28/2014 2:58	0:01	AWE	0.010	21.000	AGC MAVG - calculated
7/28/2014 3:07	0:59	KWPII	17.730	20.052	AGC MAVG - calculated
7/28/2014 3:17	0:02	AWE	0.023	21.000	AGC MAVG - calculated
7/28/2014 3:25	0:03	AWE	0.041	21.000	AGC MAVG - calculated
7/28/2014 3:28	0:01	AWE	0.016	21.000	AGC MAVG - calculated
7/28/2014 3:33	0:01	AWE	0.013	21.000	AGC MAVG - calculated
7/28/2014 3:30	0:01	AWE	0.018	20.300	AGC MAVG - calculated
7/28/2014 3:38	0:01	AWE	0.003	19.500	AGC MAVG - calculated
7/28/2014 3:40	0:14	AWE	0.401	21.000	AGC MAVG - calculated
7/28/2014 3:55	0:04	AWE	0.078	20.700	AGC MAVG - calculated
7/28/2014 4:08	1:10	KWPII	8.788	20.550	AGC MAVG - calculated
7/28/2014 5:21	0:08	KWPII	1.007	20.297	AGC MAVG - calculated
7/28/2014 5:30	0:17	KWPII	2.490	20.607	AGC MAVG - calculated
7/28/2014 5:48	0:11	KWPII	1.401	18.468	AGC MAVG - calculated
7/28/2014 6:02	0:23	KWPII	2.073	18.374	AGC MAVG - calculated
7/28/2014 6:26	0:01	KWPII	0.028	14.351	AGC MAVG - calculated and Good Engineering Practices
7/28/2014 7:35	0:01	AWE	0.012	21.000	AGC MAVG - calculated and Good Engineering Practices
7/28/2014 7:35	0:01	KWPII	0.842	11.051	AGC MAVG - calculated Good Engineering Practices and Testing
7/28/2014 11:53	0:02	KWPII	0.084	11.370	AGC MAVG - calculated Good Engineering Practices and Testing
7/28/2014 11:58	0:01	KWPII	0.025	12.724	AGC MAVG - calculated Good Engineering Practices and Testing
7/28/2014 15:32	0:01	KWPII	0.000	0.013	AGC MAVG - calculated Good Engineering Practices and Testing
7/28/2014 22:38	0:09	KWPII	0.409	14.204	AGC MAVG - calculated
7/28/2014 22:49	0:05	KWPII	0.272	11.674	AGC MAVG - calculated
7/28/2014 23:01	0:61	KWPII	5.887	18.657	AGC MAVG - calculated
7/28/2014 0:06	0:02	KWPII	0.042	11.928	AGC MAVG - calculated
7/28/2014 0:14	0:02	KWPII	0.032	11.192	AGC MAVG - calculated
7/28/2014 0:31	0:01	KWPII	0.044	14.107	AGC MAVG - calculated
7/28/2014 0:33	0:01	KWPII	0.003	11.071	AGC MAVG - calculated
7/28/2014 1:12	0:01	KWPII	0.019	1.752	AGC MAVG - calculated
7/28/2014 3:01	0:02	KWPII	0.013	0.074	AGC MAVG - calculated
7/28/2014 3:01	0:02	AWE	0.020	17.900	AGC MAVG - calculated
7/28/2014 3:04	0:11	KWPII	0.196	1.494	AGC MAVG - calculated
7/28/2014 3:04	0:11	AWE	0.014	17.800	AGC MAVG - calculated
7/28/2014 3:18	0:01	AWE	0.014	18.900	AGC MAVG - calculated
7/28/2014 3:18	0:02	KWPII	0.030	1.078	AGC MAVG - calculated
7/28/2014 3:19	0:02	KWPII	0.031	2.162	AGC MAVG - calculated
7/28/2014 3:47	0:02	KWPII	0.012	1.551	AGC MAVG - calculated
7/28/2014 4:01	0:02	AWE	0.017	21.000	AGC MAVG - calculated
7/28/2014 4:11	0:01	AWE	0.012	21.000	AGC MAVG - calculated
7/28/2014 4:13	0:01	AWE	0.001	20.200	AGC MAVG - calculated
7/28/2014 8:01	0:01	KWPII	0.010	9.408	AGC MAVG - calculated and Testing
7/28/2014 11:44	0:01	KWPII	0.005	14.731	AGC MAVG - calculated and Testing
7/28/2014 11:47	0:09	KWPII	0.470	18.774	AGC MAVG - calculated and Testing
7/28/2014 11:58	0:07	KWPII	0.474	19.084	AGC MAVG - calculated and Testing
7/28/2014 12:08	0:02	KWPII	0.072	19.487	AGC MAVG - calculated and Testing
7/28/2014 12:11	0:12	KWPII	0.285	20.030	AGC MAVG - calculated and Testing
7/28/2014 12:28	0:01	KWPII	0.008	17.655	AGC MAVG - calculated and Testing
7/28/2014 12:31	0:01	KWPII	0.016	17.779	AGC MAVG - calculated and Testing
7/28/2014 12:34	0:01	KWPII	0.012	18.165	AGC MAVG - calculated and Testing
7/28/2014 12:40	0:01	KWPII	0.011	19.024	AGC MAVG - calculated and Testing
7/28/2014 12:44	0:01	KWPII	0.001	18.181	AGC MAVG - calculated and Testing
7/28/2014 12:53	0:01	KWPII	0.015	19.256	AGC MAVG - calculated and Testing
7/28/2014 13:58	0:01	KWPII	0.005	18.704	AGC MAVG - calculated and Testing
7/28/2014 13:18	0:02	KWPII	0.018	19.498	AGC MAVG - calculated and Testing
7/28/2014 13:23	0:01	KWPII	0.009	19.290	AGC MAVG - calculated and Testing
7/28/2014 13:58	0:02	KWPII	0.090	19.938	AGC MAVG - calculated and Testing
7/28/2014 14:03	0:01	KWPII	0.040	20.383	AGC MAVG - calculated and Testing
7/28/2014 14:05	0:01	KWPII	0.048	20.555	AGC MAVG - calculated and Testing
7/28/2014 14:07	0:02	KWPII	0.051	20.522	AGC MAVG - calculated and Testing
7/28/2014 14:11	0:02	KWPII	0.105	20.832	AGC MAVG - calculated and Testing
7/28/2014 14:14	0:08	KWPII	0.430	20.650	AGC MAVG - calculated and Testing
7/28/2014 14:23	0:28	KWPII	1.854	20.687	AGC MAVG - calculated and Testing
7/28/2014 14:54	0:04	KWPII	0.156	20.703	AGC MAVG - calculated and Testing
7/28/2014 14:59	0:02	KWPII	0.064	20.888	AGC MAVG - calculated and Testing
7/28/2014 15:02	0:57	KWPII	4.837	20.861	AGC MAVG - calculated and Testing
7/28/2014 16:06	0:15	KWPII	0.642	20.889	AGC MAVG - calculated and Testing
7/28/2014 18:37	0:01	KWPII	0.024	20.903	AGC MAVG - calculated and Testing
7/28/2014 18:37	0:07	KWPII	0.234	20.680	AGC MAVG - calculated and Testing
7/28/2014 20:27	0:01	KWPII	0.003	20.707	AGC MAVG - calculated
7/28/2014 22:35	0:01	KWPII	0.001	20.685	AGC MAVG - calculated
7/28/2014 22:37	0:05	KWPII	0.091	20.687	AGC MAVG - calculated
7/28/2014 22:55	0:27	KWPII	1.940	19.837	AGC MAVG - calculated
7/28/2014 23:23	0:02	KWPII	0.018	17.273	AGC MAVG - calculated
7/28/2014 23:35	0:04	KWPII	0.066	14.522	AGC MAVG - calculated
7/28/2014 23:40	0:01	KWPII	0.029	12.229	AGC MAVG - calculated
7/28/2014 23:43	0:02	KWPII	0.008	13.232	AGC MAVG - calculated
7/30/2014 1:07	0:01	KWPII	0.024	13.114	AGC MAVG - calculated
7/30/2014 1:09	2:38	KWPII	18.818	18.175	AGC MAVG - calculated
7/30/2014 3:48	0:13	KWPII	0.587	17.537	AGC MAVG - calculated
7/30/2014 4:03	0:02	KWPII	0.096	17.850	AGC MAVG - calculated
7/30/2014 4:06	0:32	KWPII	1.355	19.077	AGC MAVG - calculated
7/30/2014 4:38	0:01	KWPII	0.000	17.578	AGC MAVG - calculated
7/30/2014 4:41	0:01	KWPII	0.018	18.838	AGC MAVG - calculated
7/30/2014 4:44	0:01	KWPII	0.019	18.658	AGC MAVG - calculated
7/30/2014 5:19	0:01	KWPII	0.015	19.841	AGC MAVG - calculated
7/30/2014 5:22	0:01	KWPII	0.004	19.837	AGC MAVG - calculated
7/30/2014 5:47	0:01	KWPII	0.011	19.851	AGC MAVG - calculated
7/30/2014 6:03	0:02	KWPII	0.101	20.452	AGC MAVG - calculated
7/30/2014 6:11	0:01	KWPII	0.051	20.563	AGC MAVG - calculated
7/30/2014 6:13	0:03	KWPII	0.120	20.575	AGC MAVG - calculated
7/30/2014 6:18	0:06	KWPII	0.335	20.534	AGC MAVG - calculated
7/30/2014 6:25	0:01	KWPII	0.010	20.447	AGC MAVG - calculated
7/30/2014 6:34	0:02	KWPII	0.053	20.651	AGC MAVG - calculated
7/30/2014 8:43	0:03	KWPII	0.052	18.931	AGC MAVG - calculated and Testing
7/30/2014 9:47	0:13	KWPII	0.262	20.139	AGC MAVG - calculated and Testing
7/30/2014 10:01	0:01	KWPII	0.008	20.208	AGC MAVG - calculated
7/30/2014 10:06	0:01	KWPII	0.011	20.194	AGC MAVG - calculated

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Start Date and Time	Duration	IPP Curtailed	Estimated Curtailed MWH	Peak MW Curtailed	Reasons for Curtailment
7/30/2014 11:58	0:01	KWPII	0.010	19.488	AGC MAVG - calculated
7/30/2014 12:12	0:01	KWPII	0.022	19.814	AGC MAVG - calculated
7/30/2014 12:42	0:01	KWPII	0.017	20.333	AGC MAVG - calculated
7/30/2014 13:43	0:01	KWPII	0.006	19.368	AGC MAVG - calculated
7/30/2014 13:48	0:01	KWPII	0.007	19.426	AGC MAVG - calculated
7/30/2014 16:22	0:02	KWPII	0.028	17.867	AGC MAVG - calculated
7/30/2014 21:58	0:05	KWPII	0.404	16.402	AGC MAVG - calculated and Testing
7/30/2014 22:21	0:12	KWPII	0.815	20.244	AGC MAVG - calculated
7/30/2014 22:34	0:01	KWPII	0.004	18.327	AGC MAVG - calculated
7/30/2014 22:42	0:01	KWPII	0.004	18.410	AGC MAVG - calculated
7/30/2014 22:44	0:02	KWPII	0.018	18.264	AGC MAVG - calculated
7/30/2014 22:51	0:06	KWPII	0.344	18.433	AGC MAVG - calculated
7/30/2014 23:03	0:06	KWPII	0.263	18.519	AGC MAVG - calculated
7/30/2014 23:13	0:18	KWPII	1.368	17.929	AGC MAVG - calculated
7/30/2014 23:34	0:02	KWPII	0.047	17.171	AGC MAVG - calculated
7/30/2014 23:41	0:02	KWPII	0.028	17.161	AGC MAVG - calculated
7/30/2014 23:48	0:02	KWPII	0.052	17.201	AGC MAVG - calculated
7/30/2014 23:49	4:49	KWPII	38.085	18.112	AGC MAVG - calculated
7/31/2014 4:38	0:01	KWPII	0.001	15.614	AGC MAVG - calculated
7/31/2014 4:42	0:04	KWPII	0.020	18.245	AGC MAVG - calculated
7/31/2014 4:48	0:02	KWPII	0.013	15.125	AGC MAVG - calculated
7/31/2014 4:53	0:25	KWPII	1.517	18.555	AGC MAVG - calculated
7/31/2014 5:20	0:18	KWPII	0.993	16.938	AGC MAVG - calculated
7/31/2014 5:40	0:04	KWPII	0.187	17.481	AGC MAVG - calculated
7/31/2014 5:48	1:30	KWPII	10.846	18.774	AGC MAVG - calculated
7/31/2014 7:43	0:04	KWPII	0.058	18.881	AGC MAVG - calculated
7/31/2014 7:50	0:01	KWPII	0.024	18.235	AGC MAVG - calculated
7/31/2014 22:49	0:01	KWPII	0.001	20.585	AGC MAVG - calculated
7/31/2014 22:51	0:02	KWPII	0.018	20.603	AGC MAVG - calculated
7/31/2014 23:20	0:01	KWPII	0.000	20.587	AGC MAVG - calculated
7/31/2014 23:32	0:01	KWPII	0.005	20.583	AGC MAVG - calculated
7/31/2014 23:34	0:02	KWPII	0.023	20.588	AGC MAVG - calculated
7/31/2014 23:41	0:06	KWPII	0.137	20.290	AGC MAVG - calculated
7/31/2014 23:49	0:11	KWPII	0.666	20.632	AGC MAVG - calculated

Notes
 - Curtailment for Kahahele Wind Power ("KWP"), Māhala Hydroelectric ("MH"), AAAAA Rent-A-Space Maui LTD ("SA"), Boreal Solar, LLC ("BS"), Aunahi Wind Energy ("AWE"), and Kahahele Wind Power II ("KWPII") may now be controlled by Maui Electric's Automatic Generation Control System ("AGC") or a Maui Electric operator-entered curtailment limit. The AGC curtailment control automatically calculates the amount of Maximum Allowable Variable Generation ("MAVG") that Maui Electric can accept into the Maui 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 Maui Electric 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 MWH and Peak MW Curtailed are calculated with information provided by AWE, KWP, and KWPII. Maui Electric does not make any representation as to its accuracy.

- The data to calculate the Estimated Curtailed MWH and Peak MW Curtailed is not provided by SA, BS, or MH.

- Curtailment signals sent to SA or BS during nighttime hours are not recorded as curtailment events because no energy generation is possible during that time.



Lana's Curtailment Report July 2014

Start Date/Time	Stop Date/Time	Duration (h:mm)	IPP Curtailed	Estimated MWH Curtailed	Peak MW Curtailed	Reasons for Curtailment
7/29/2014 8:19	7/29/2014 8:21	0:03	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
7/29/2014 8:23	7/29/2014 8:23	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
7/29/2014 8:36	7/29/2014 8:39	0:04	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
7/29/2014 8:48	7/29/2014 8:57	0:12	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
7/29/2014 9:00	7/29/2014 9:23	0:24	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
7/29/2014 9:25	7/29/2014 9:48	0:22	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
7/29/2014 9:51	7/29/2014 10:00	0:10	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
7/29/2014 10:07	7/29/2014 10:12	0:06	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
7/29/2014 10:16	7/29/2014 10:18	0:03	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
7/29/2014 10:39	7/29/2014 10:39	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
7/29/2014 10:51	7/29/2014 10:58	0:08	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
7/29/2014 11:28	7/29/2014 11:28	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
7/29/2014 11:58	7/29/2014 11:58	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
7/29/2014 11:59	7/29/2014 12:03	0:05	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
7/29/2014 12:12	7/29/2014 12:12	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
7/29/2014 12:28	7/29/2014 12:28	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
7/29/2014 12:41	7/29/2014 12:41	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
7/29/2014 12:53	7/29/2014 12:54	0:02	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
7/29/2014 12:56	7/29/2014 12:59	0:04	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
7/29/2014 13:03	7/29/2014 13:03	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
7/29/2014 13:06	7/29/2014 13:11	0:06	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
7/29/2014 13:15	7/29/2014 13:21	0:07	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
7/29/2014 13:41	7/29/2014 13:42	0:02	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
7/29/2014 13:44	7/29/2014 13:44	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
7/29/2014 13:48	7/29/2014 13:52	0:05	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
7/29/2014 14:08	7/29/2014 14:11	0:04	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
7/29/2014 14:13	7/29/2014 14:18	0:06	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
7/29/2014 14:21	7/29/2014 14:22	0:02	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
7/29/2014 14:40	7/29/2014 14:40	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
7/29/2014 14:55	7/29/2014 14:55	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
7/29/2014 15:02	7/29/2014 15:07	0:06	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
7/29/2014 15:09	7/29/2014 15:11	0:03	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
7/29/2014 15:19	7/29/2014 15:19	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
7/29/2014 15:22	7/29/2014 15:22	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
7/30/2014 8:17	7/30/2014 7:45	1:29	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
7/30/2014 7:53	7/30/2014 8:48	0:56	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
7/30/2014 8:10	7/30/2014 9:10	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
7/30/2014 9:44	7/30/2014 9:48	0:05	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
7/30/2014 9:50	7/30/2014 9:50	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
7/30/2014 9:57	7/30/2014 9:57	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
7/30/2014 10:29	7/30/2014 11:17	0:49	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
7/30/2014 11:35	7/30/2014 11:35	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
7/30/2014 11:52	7/30/2014 12:01	0:10	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
7/30/2014 14:01	7/30/2014 14:01	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
7/30/2014 14:16	7/30/2014 14:18	0:03	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
7/30/2014 14:28	7/30/2014 14:34	0:06	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
7/30/2014 14:38	7/30/2014 14:39	0:02	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
7/30/2014 14:42	7/30/2014 14:42	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
7/30/2014 14:58	7/30/2014 18:41	3:44	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
7/31/2014 13:04	7/31/2014 13:15	0:12	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
7/31/2014 13:28	7/31/2014 13:30	0:03	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
7/31/2014 13:40	7/31/2014 13:47	0:08	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
7/31/2014 13:52	7/31/2014 13:52	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
7/31/2014 14:39	7/31/2014 14:41	0:03	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
7/31/2014 14:53	7/31/2014 14:53	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices

Notes
 On June 27, 2012, Maui Electric notified LSR that although LSR has not operated in compliance with the revised ramp rate of 360 kW/minute, Maui Electric would conditionally allow LSR to operate at the allowed capacity of 1.2 MW while the Maui Electric-Lana Diesel Operator was in the control room.
 LSR possible output data is not available. Therefore, Maui Electric assumes LSR is curtailed if the LSR curtailment set point is less than 1,200 kW and LSR's output is within 50 kW of the curtailment set point.

Hawai'i Electric Light Company Curtailment Report July 2014

Start Date/Time	MW output prior to start of curtailment	End Date/Time	MW output after curtailment released ¹	Reason for Curtailment
07/10/14 07:00	1.5 MW	07/10/14 17:35	0.0 MW	Wailuku curtailed - switching 9200 line open
07/11/14 07:02	1.1 MW	07/11/14 16:16	0.5 MW	Wailuku curtailed - switching 7400 line open
07/12/14 06:59	0.9 MW	07/12/14 13:06	0.0 MW	Wailuku curtailed - switching 7400 line open
07/15/14 23:55	11.3 MW	07/17/14 15:10	0.0 MW	Wailuku curtailed - 7400 line open, fallen trees
07/28/14 09:30	3.6 MW	07/28/14 14:46	0.0 MW	Wailuku curtailed - switching 7400 line open

¹ The MW output values are taken soon after curtailment is released by Hawai'i Electric Light and may not reflect their full output depending on ramp rate for the facility. The wind farms generally return immediately to full available levels, whereas PGV and Wailuku may take longer to return to scheduled or full available output levels.