



February 24, 2015

FILED

2015 FEB 24 P 4 01

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

PUBLIC UTILITIES
COMMISSION

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 January 2015 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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SERVICE LIST
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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 January 31, 2015):

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 January 31, 2015):

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

Hawaiian Electric contingency reserve activations are provided in Attachment 3.
Maui Electric and Hawai'i Electric Light 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:

Hawaiian Electric, Maui Electric, and Hawai'i Electric Light's under frequency load shed events are provided in Attachment 4.

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. 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 January 31, 2015):

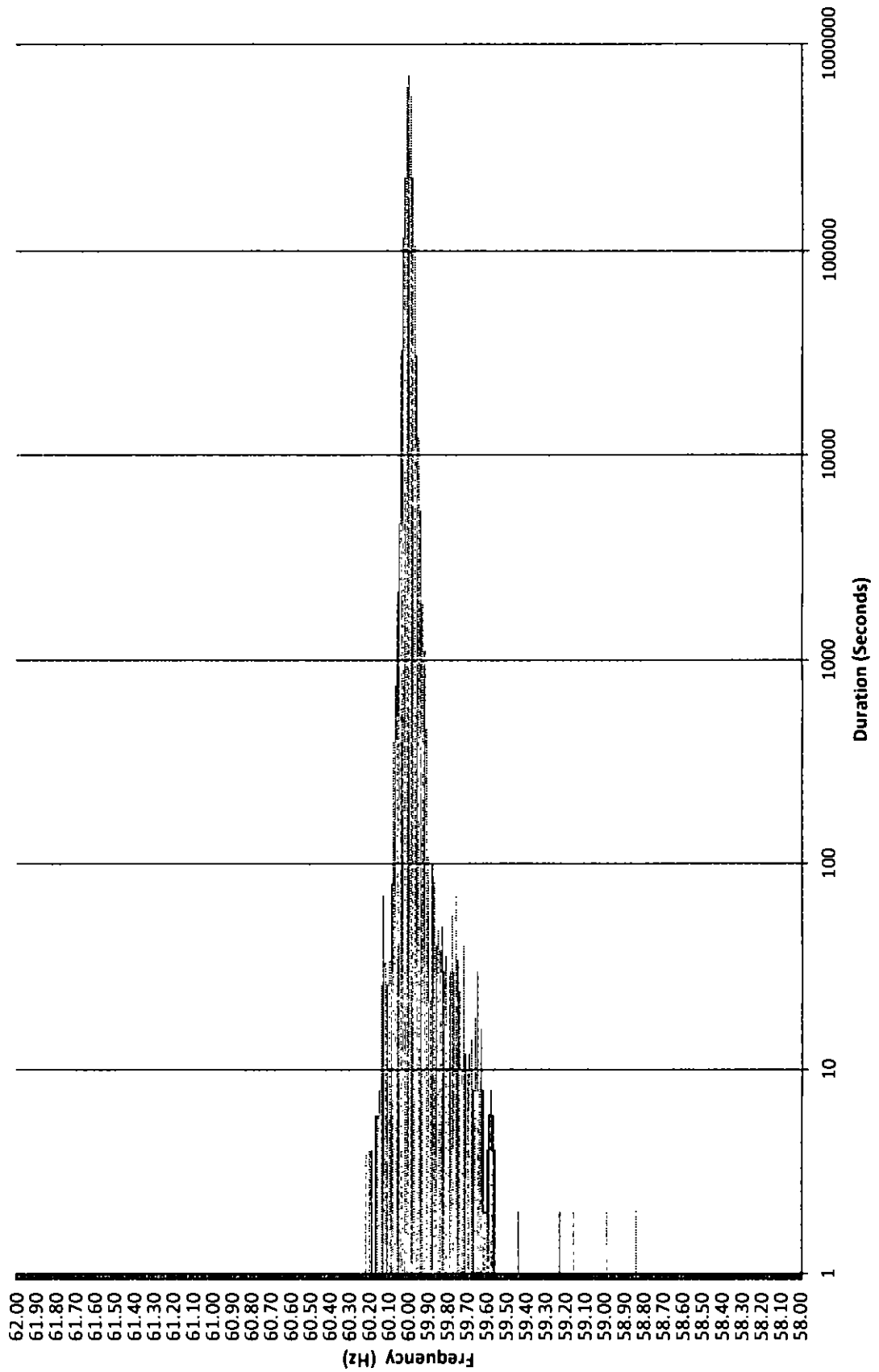
3a) Tabulation of each curtailment event for each resource including the starting date and time, duration, megawatt hours curtailed, peak MW curtailed, and reason for curtailment:

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

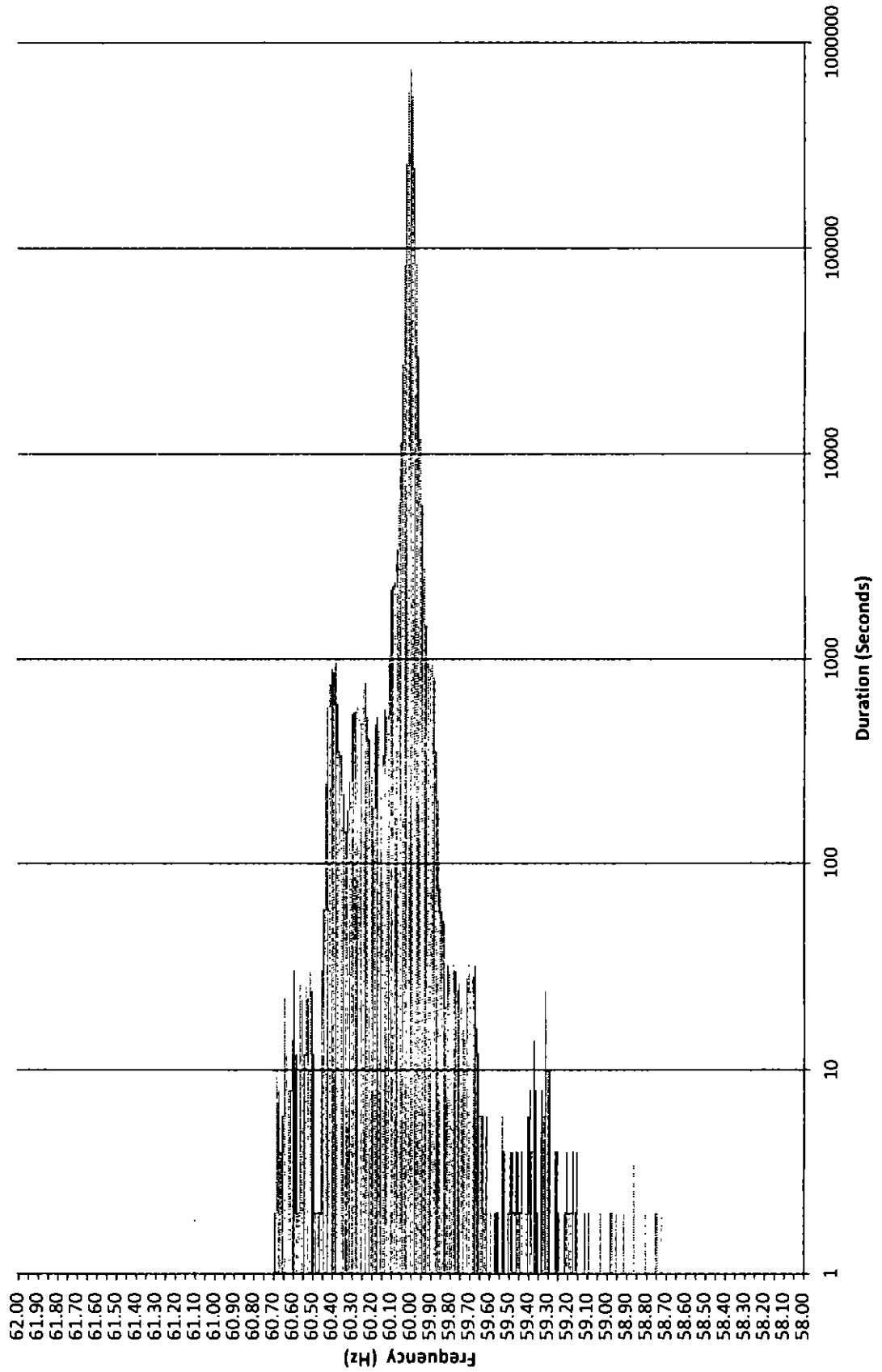
3b) Total MWh of non-dispatchable renewable resources curtailed for the month:

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.

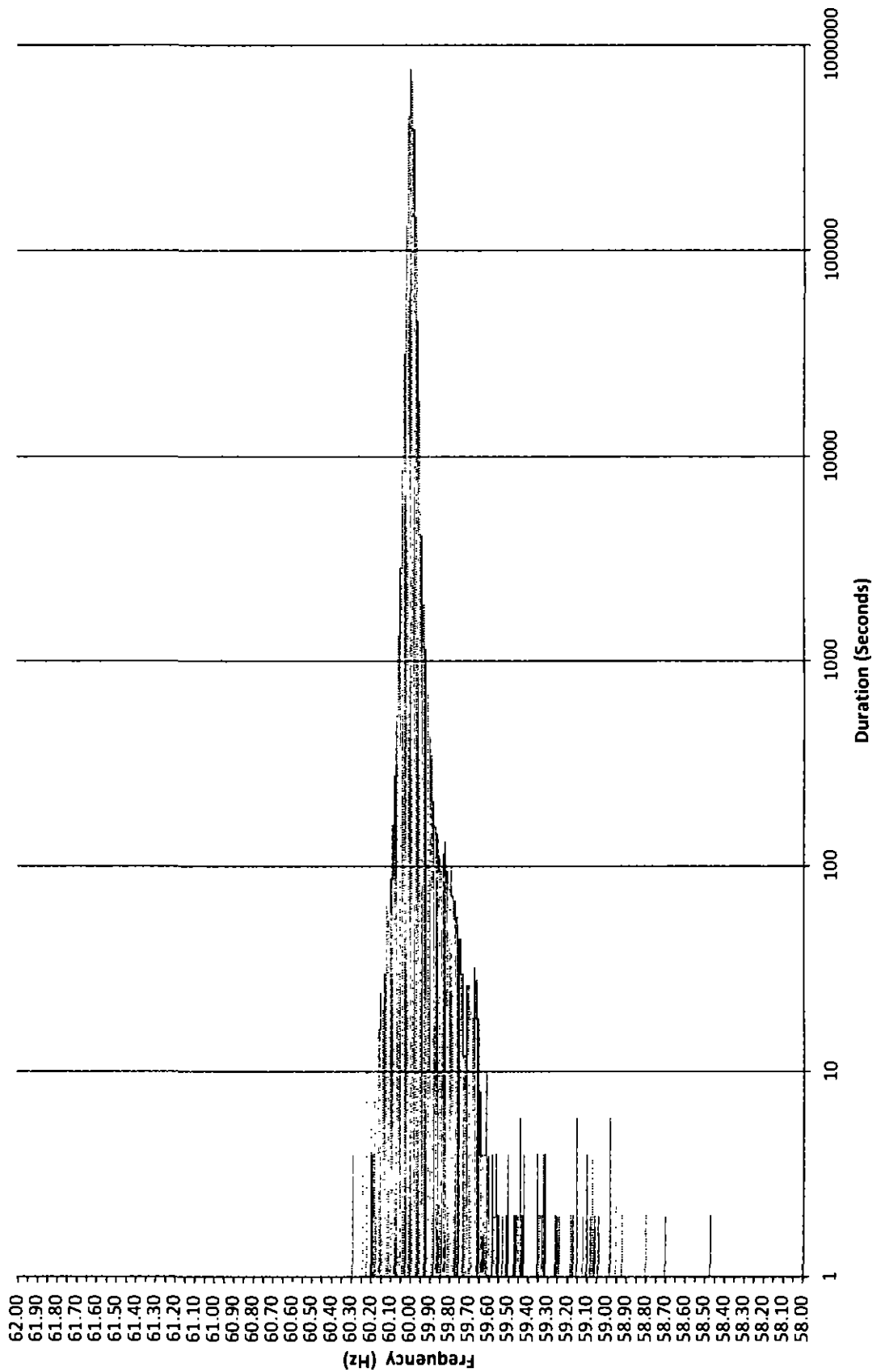
Frequency Distribution Plot - Hawaiian Electric January 2015



Maui Electric Frequency Distribution Plot - Maui January 2015



Frequency Distribution Plot - Hawai'i Electric Light January 2015



Hawaiian Electric Frequency Excursion Statistics January 2015		
Data Rounded to the nearest	<59.95 Hz	>60.05 Hz
Number of Excursions	830	327
Maximum Duration (sec)	992	420
Maximum Deviation (Hz)	58.839	60.215
Total Duration of Excursions (sec)	13778	5036

Maui Electric Frequency Excursion Statistics January 2015		
	<59.95 Hz	>60.05 Hz
Number of Excursions	2207	1753
Maximum Duration (sec)	2356	14748
Maximum Deviation (Hz)	58.7191	61.0965
Total Duration of Excursions (sec)	19890	37642

Hawai'i Electric Light Frequency Excursion Statistics January 2015		
	<59.95 Hz	>60.05 Hz
Number of Excursions	2675	535
Maximum Duration (sec)	324	172
Maximum Deviation (Hz)	58.475	60.292
Total Duration of Excursions (sec)	20016	3694

HAWAIIAN ELECTRIC COMPANY, INC.
CONTINGENCY RESERVE ACTIVATION EVENTS
JANUARY 2015

Event #	Date & Time	Frequency (Hz)			Spinning Reserve Shortfall (MW)	Duration (HH:MM)	Description
		Prior to Event	Nadir	Trigger			
1	01/12/15 05:38	59.977	59.641	N/A	-33.00	0:09	K5 tripped offline while generating ~62 MW. W10 brought online for spinning reserve.
2	01/12/15 13:52	59.997	58.839	N/A	-66.00	0:21	AES was decreasing output from ~180 MW and tripped offline while generating ~60 MW. W9 and CIP brought online for spinning reserve.
3							

HAWAIIAN ELECTRIC COMPANY, INC.
DEMAND RESPONSE EVENTS
JANUARY 2015

Event #	Date & Time	Frequency (Hz)			Load Shed (MW)	Duration (HH:MM)	Description
		Prior to Event	Nadir	Trigger			
1	01/12/15 05:38	59.977	59.641	59.70	N/A	0:02	K5 tripped offline while generating ~62 MW. RDLC activated.
2	01/12/15 13:53	59.992	58.839	59.70	N/A	0:05	AES was decreasing output from ~180 MW and tripped offline while generating ~60 MW. RDLC and CIDLC activated.
3	01/13/15 18:00	60.001	59.953	59.70	N/A	2:00	In a generation shortfall condition. RDLC, CIDLC and Fast DR activated for spinning reserve.
4	01/14/15 17:30	60.003	59.973	59.70	N/A	2:00	In a generation shortfall condition. RDLC, CIDLC and Fast DR activated for spinning reserve.
5	01/15/15 17:30	59.992	59.944	59.70	N/A	2:00	In a generation shortfall condition. RDLC, CIDLC and Fast DR activated for spinning reserve.
6	01/16/15 17:45	59.997	59.970	59.70	N/A	2:00	In a generation shortfall condition. CIDLC and Fast DR activated for spinning reserve.
7	01/19/15 18:10	60.007	59.969	59.70	N/A	1:00	In a generation shortfall condition. RDLC activated for spinning reserve.
8	01/20/15 18:10	59.998	59.959	59.70	N/A	1:00	In a generation shortfall condition. RDLC activated for spinning reserve.
9	01/21/15 18:00	60.008	59.967	59.70	N/A	2:00	In a generation shortfall condition. CIDLC and Fast DR activated for spinning reserve.
10	01/22/15 18:42	59.987	59.961	59.70	N/A	1:00	In a generation shortfall condition. RDLC activated for spinning reserve.

Hawaiian Electric Curtailment Report January 2015

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
07/17/14 14:29	48.0	41.10	Ongoing	—	—	Mauka	Flicker
01/07/15 07:07	0.0	0.00	01/07/15 08:40	0	*	KREP	Maintenance work
01/07/15 15:12	0.0	4.80	01/07/15 15:54	0	*	KREP	Maintenance work
01/08/15 06:59	0.0	0.00	01/08/15 14:05	0	*	KWF	Maintenance work
01/08/15 06:59	0.0	0.00	01/08/15 14:06	0	*	Makai	Maintenance work
01/08/15 06:59	0.0	2.00	01/08/15 07:55	0	*	Mauka	Maintenance work
01/08/15 07:44	0.0	0.10	01/08/15 08:53	0	*	KREP	Replacement work
01/08/15 13:44	0.0	8.30	01/08/15 14:07	0	*	Mauka	Maintenance work
01/08/15 15:01	0.0	0.90	01/08/15 15:34	0	*	KREP	Replacement work
01/09/15 06:57	0.0	0.00	01/09/15 07:55	0	*	KREP	Maintenance work
01/09/15 16:47	0.0	1.10	01/09/15 17:38	0	*	KREP	Maintenance work
01/17/15 08:16	0.0	0.30	01/17/15 16:13	0	*	KLS2	Replacement work
01/17/15 08:22	0.0	0.30	01/17/15 09:24	0	*	KREP	Replacement work
01/17/15 12:13	0.0	3.40	01/17/15 14:05	0	*	KREP	Replacement work
01/26/15 01:38	0.0	12.50	01/26/15 04:01	0	*	Makai	Excess energy
01/28/15 07:45	0.0	0.00	01/28/15 08:35	0	*	KWF	Maintenance work
01/28/15 07:46	0.0	0.00	01/28/15 08:36	0	*	Makai	Maintenance work
01/28/15 12:52	0.0	0.20	01/28/15 13:21	0	*	KWF	Maintenance work
01/28/15 12:53	0.0	0.60	01/28/15 13:22	0	*	Makai	Maintenance 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 Maul Curtailment Report January 2015



Start Date and Time	Duration	IPP Curtailed	Estimated Curtailed MWH	Peak MW Curtailed	Reasons for Curtailment
1/12/2015 18:32	0:15	KWFP	0:29	1:313	AGC MAVG - calculated
1/12/2015 18:34	0:05	KWPII	0:07	1:032	AGC MAVG - calculated
1/12/2015 18:41	3:15	KWPII	1:269	3:124	AGC MAVG - calculated
1/12/2015 18:45	0:02	AWE	0:01	0:047	AGC MAVG - calculated
1/12/2015 18:48	0:10	KWFP	0:100	1:721	AGC MAVG - calculated
1/12/2015 20:25	0:01	AWE	0:001	1:240	AGC MAVG - calculated
1/12/2015 20:30	0:01	AWE	0:000	1:493	AGC MAVG - calculated
1/12/2015 20:38	0:01	AWE	0:000	1:473	AGC MAVG - calculated
1/12/2015 20:43	0:01	AWE	0:000	1:770	AGC MAVG - calculated
1/12/2015 20:45	0:02	AWE	0:001	1:780	AGC MAVG - calculated
1/12/2015 20:48	0:02	AWE	0:003	2:227	AGC MAVG - calculated
1/12/2015 20:51	0:03	AWE	0:004	2:083	AGC MAVG - calculated
1/12/2015 20:55	0:07	AWE	0:006	2:080	AGC MAVG - calculated
1/12/2015 21:03	0:03	AWE	0:002	1:873	AGC MAVG - calculated
1/12/2015 21:07	0:01	AWE	0:000	1:630	AGC MAVG - calculated
1/12/2015 21:10	0:02	AWE	0:001	1:707	AGC MAVG - calculated
1/12/2015 21:15	0:03	AWE	0:002	1:867	AGC MAVG - calculated
1/12/2015 21:19	0:01	AWE	0:001	1:723	AGC MAVG - calculated
1/12/2015 21:25	0:01	AWE	0:001	1:413	AGC MAVG - calculated
1/12/2015 21:27	0:01	AWE	0:000	1:200	AGC MAVG - calculated
1/12/2015 21:31	0:01	AWE	0:001	1:250	AGC MAVG - calculated
1/12/2015 21:38	0:01	AWE	0:000	1:307	AGC MAVG - calculated
1/12/2015 21:58	0:01	KWPII	0:001	0:888	AGC MAVG - calculated
1/13/2015 3:03	0:55	AWE	0:421	0:783	AGC MAVG - calculated
1/13/2015 4:08	0:11	AWE	0:029	0:300	AGC MAVG - calculated
1/13/2015 4:20	0:02	AWE	0:001	0:040	AGC MAVG - calculated
1/13/2015 5:34	0:27	AWE	0:134	0:577	AGC MAVG - calculated
1/13/2015 8:08	0:01	AWE	0:002	0:123	AGC MAVG - calculated
1/13/2015 8:34	0:01	KWPII	0:006	0:108	AGC MAVG - calculated and Good Engineering and Operating Practices
1/13/2015 8:39	0:06	KWPII	0:004	0:480	AGC MAVG - calculated and Good Engineering and Operating Practices
1/13/2015 8:47	0:02	KWFP	0:004	0:179	AGC MAVG - calculated and Good Engineering and Operating Practices
1/13/2015 8:51	0:03	KWFP	0:006	0:255	AGC MAVG - calculated and Good Engineering and Operating Practices
1/13/2015 8:56	0:03	KWFP	0:010	0:306	AGC MAVG - calculated and Good Engineering and Operating Practices
1/13/2015 9:57	0:02	KWPII	0:002	0:958	AGC MAVG - calculated and Good Engineering and Operating Practices
1/13/2015 10:01	0:01	KWFP	0:001	0:335	AGC MAVG - calculated and Good Engineering and Operating Practices
1/13/2015 10:05	0:02	KWPII	0:004	1:179	AGC MAVG - calculated and Good Engineering and Operating Practices
1/13/2015 10:05	0:05	KWFP	0:015	0:347	AGC MAVG - calculated and Good Engineering and Operating Practices
1/13/2015 10:11	0:08	KWFP	0:015	0:474	AGC MAVG - calculated and Good Engineering and Operating Practices
1/13/2015 10:12	0:01	KWPII	0:001	0:956	AGC MAVG - calculated and Good Engineering and Operating Practices
1/13/2015 10:17	0:01	KWPII	0:002	0:876	AGC MAVG - calculated and Good Engineering and Operating Practices
1/13/2015 10:21	0:01	KWFP	0:001	0:332	AGC MAVG - calculated and Good Engineering and Operating Practices
1/13/2015 10:22	0:02	KWFP	0:003	0:382	AGC MAVG - calculated and Good Engineering and Operating Practices
1/13/2015 10:28	0:01	KWPII	0:003	0:840	AGC MAVG - calculated and Good Engineering and Operating Practices
1/13/2015 10:27	0:01	KWFP	0:000	0:313	AGC MAVG - calculated and Good Engineering and Operating Practices
1/13/2015 10:28	0:03	KWPII	0:006	0:995	AGC MAVG - calculated and Good Engineering and Operating Practices
1/13/2015 10:40	0:02	KWPII	0:003	0:800	AGC MAVG - calculated and Good Engineering and Operating Practices
1/13/2015 10:43	0:02	KWPII	0:011	0:708	AGC MAVG - calculated and Good Engineering and Operating Practices
1/13/2015 10:48	0:05	KWFP	0:003	0:362	AGC MAVG - calculated and Good Engineering and Operating Practices
1/13/2015 10:48	0:01	KWPII	0:002	0:890	AGC MAVG - calculated and Good Engineering and Operating Practices
1/13/2015 10:53	0:10	KWPII	0:040	1:049	AGC MAVG - calculated and Good Engineering and Operating Practices
1/13/2015 11:05	0:03	KWPII	0:005	1:454	AGC MAVG - calculated and Good Engineering and Operating Practices
1/13/2015 11:08	0:01	KWFP	0:005	0:715	AGC MAVG - calculated and Good Engineering and Operating Practices
1/13/2015 11:10	0:10	KWFP	0:065	2:234	AGC MAVG - calculated and Good Engineering and Operating Practices
1/13/2015 11:18	0:10	KWFP	0:061	0:783	AGC MAVG - calculated and Good Engineering and Operating Practices
1/13/2015 11:21	0:08	KWPII	0:018	0:477	AGC MAVG - calculated and Good Engineering and Operating Practices
1/13/2015 11:27	0:12	KWFP	0:058	0:815	AGC MAVG - calculated and Good Engineering and Operating Practices
1/13/2015 11:28	0:08	KWPII	0:015	0:376	AGC MAVG - calculated and Good Engineering and Operating Practices
1/13/2015 11:35	0:04	KWPII	0:010	1:053	AGC MAVG - calculated and Good Engineering and Operating Practices
1/13/2015 11:43	0:01	KWPII	0:005	1:164	AGC MAVG - calculated and Good Engineering and Operating Practices
1/13/2015 11:48	0:02	KWPII	0:002	1:300	AGC MAVG - calculated and Good Engineering and Operating Practices
1/13/2015 11:54	0:01	KWFP	0:003	0:229	AGC MAVG - calculated and Good Engineering and Operating Practices
1/13/2015 11:54	0:02	KWPII	0:004	1:431	AGC MAVG - calculated and Good Engineering and Operating Practices
1/13/2015 11:59	0:01	KWPII	0:003	1:730	AGC MAVG - calculated and Good Engineering and Operating Practices
1/13/2015 12:01	0:05	KWPII	0:011	1:901	AGC MAVG - calculated and Good Engineering and Operating Practices
1/13/2015 12:10	0:12	KWPII	0:030	1:995	AGC MAVG - calculated and Good Engineering and Operating Practices
1/13/2015 12:24	0:02	KWPII	0:010	1:682	AGC MAVG - calculated and Good Engineering and Operating Practices
1/13/2015 12:30	0:02	KWPII	0:006	1:687	AGC MAVG - calculated and Good Engineering and Operating Practices
1/13/2015 12:36	0:04	KWPII	0:014	1:734	AGC MAVG - calculated and Good Engineering and Operating Practices
1/13/2015 12:41	0:04	KWPII	0:006	1:934	AGC MAVG - calculated and Good Engineering and Operating Practices
1/13/2015 12:43	0:01	KWFP	0:004	0:572	AGC MAVG - calculated and Good Engineering and Operating Practices
1/13/2015 12:48	0:02	KWPII	0:007	0:281	AGC MAVG - calculated and Good Engineering and Operating Practices
1/13/2015 12:52	0:01	KWPII	0:003	1:049	AGC MAVG - calculated and Good Engineering and Operating Practices
1/13/2015 12:54	0:01	KWPII	0:007	1:723	AGC MAVG - calculated and Good Engineering and Operating Practices
1/13/2015 12:54	0:01	KWFP	0:007	0:943	AGC MAVG - calculated and Good Engineering and Operating Practices
1/13/2015 12:57	0:01	KWFP	0:007	0:738	AGC MAVG - calculated and Good Engineering and Operating Practices
1/13/2015 12:57	0:02	KWPII	0:000	1:225	AGC MAVG - calculated and Good Engineering and Operating Practices
1/13/2015 13:00	0:02	KWFP	0:012	0:874	AGC MAVG - calculated and Good Engineering and Operating Practices
1/13/2015 13:01	0:02	KWPII	0:008	1:307	AGC MAVG - calculated and Good Engineering and Operating Practices
1/13/2015 13:04	0:03	KWPII	0:003	1:183	AGC MAVG - calculated and Good Engineering and Operating Practices
1/13/2015 13:04	0:04	KWFP	0:018	0:788	AGC MAVG - calculated and Good Engineering and Operating Practices
1/13/2015 13:10	0:01	KWFP	0:002	0:980	AGC MAVG - calculated and Good Engineering and Operating Practices
1/13/2015 13:11	0:03	KWPII	0:004	1:285	AGC MAVG - calculated and Good Engineering and Operating Practices
1/13/2015 13:15	0:01	KWFP	0:003	0:845	AGC MAVG - calculated
1/13/2015 13:18	0:05	KWPII	0:012	1:453	AGC MAVG - calculated and Good Engineering and Operating Practices
1/13/2015 13:18	0:01	KWFP	0:005	0:922	AGC MAVG - calculated and Good Engineering and Operating Practices
1/13/2015 13:22	0:13	KWPII	0:035	1:553	AGC MAVG - calculated and Good Engineering and Operating Practices
1/13/2015 13:29	0:03	KWFP	0:018	1:094	AGC MAVG - calculated and Good Engineering and Operating Practices
1/13/2015 13:33	0:01	KWFP	0:007	1:047	AGC MAVG - calculated and Good Engineering and Operating Practices
1/13/2015 13:37	0:01	KWPII	0:002	1:288	AGC MAVG - calculated and Good Engineering and Operating Practices
1/13/2015 13:40	0:02	AWE	0:001	0:037	AGC MAVG - calculated and Good Engineering and Operating Practices
1/13/2015 13:42	0:01	KWPII	0:003	1:438	AGC MAVG - calculated and Good Engineering and Operating Practices
1/13/2015 13:44	0:04	KWPII	0:019	1:471	AGC MAVG - calculated and Good Engineering and Operating Practices
1/13/2015 13:45	0:06	KWFP	0:043	1:122	AGC MAVG - calculated and Good Engineering and Operating Practices
1/13/2015 13:48	0:01	KWPII	0:000	0:917	AGC MAVG - calculated and Good Engineering and Operating Practices
1/13/2015 13:52	0:01	KWPII	0:005	0:869	AGC MAVG - calculated and Good Engineering and Operating Practices
1/13/2015 13:52	0:02	KWPII	0:002	0:988	AGC MAVG - calculated and Good Engineering and Operating Practices
1/13/2015 13:55	0:05	KWFP	0:025	0:830	AGC MAVG - calculated and Good Engineering and Operating Practices
1/13/2015 13:56	0:03	KWPII	0:008	1:129	AGC MAVG - calculated and Good Engineering and Operating Practices
1/13/2015 14:00	0:01	KWPII	0:001	0:983	AGC MAVG - calculated and Good Engineering and Operating Practices
1/13/2015 14:01	0:04	KWFP	0:003	0:181	AGC MAVG - calculated and Good Engineering and Operating Practices
1/13/2015 14:02	0:12	KWPII	0:050	0:945	AGC MAVG - calculated and Good Engineering and Operating Practices
1/13/2015 14:10	0:02	AWE	0:002	0:117	AGC MAVG - calculated and Good Engineering and Operating Practices
1/13/2015 14:13	0:01	AWE	0:001	0:127	AGC MAVG - calculated
1/14/2015 3:00	0:08	KWPII	0:008	0:145	AGC MAVG - calculated
1/14/2015 3:11	0:04	KWPII	0:028	0:457	AGC MAVG - calculated
1/14/2015 3:18	0:02	KWPII	0:006	0:425	AGC MAVG - calculated
1/14/2015 3:18	1:17	KWFP	0:382	1:422	AGC MAVG - calculated
1/14/2015 3:23	0:02	KWPII	0:001	0:788	AGC MAVG - calculated
1/14/2015 3:29	0:04	KWPII	0:007	0:911	AGC MAVG - calculated
1/14/2015 3:35	0:02	KWPII	0:002	0:886	AGC MAVG - calculated
1/14/2015 3:40	0:03	KWPII	0:009	1:102	AGC MAVG - calculated
1/14/2015 3:45	0:01	KWPII	0:002	0:862	AGC MAVG - calculated
1/14/2015 3:55	0:02	KWPII	0:007	0:482	AGC MAVG - calculated
1/14/2015 3:58	0:15	KWPII	0:055	0:419	AGC MAVG - calculated

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Start Date and Time	Duration	IPP Curtailled	Estimated Curtailled MWh	Peak MW Curtailled	Reasons for Curtailment
1/14/2015 4:15	0:01	KWPII	0:005	0:404	AGC MAVG - calculated
1/14/2015 4:17	0:03	KWPII	0:012	0:390	AGC MAVG - calculated
1/14/2015 4:23	0:02	KWPII	0:010	0:488	AGC MAVG - calculated
1/14/2015 4:26	0:07	KWPII	0:035	0:632	AGC MAVG - calculated
1/14/2015 4:53	0:01	KWPII	0:003	1:517	AGC MAVG - calculated
1/14/2015 4:57	0:08	KWPII	0:022	2:354	AGC MAVG - calculated
1/14/2015 5:01	0:01	KWPII	0:001	1:121	AGC MAVG - calculated
1/14/2015 5:04	0:01	KWPII	0:000	1:194	AGC MAVG - calculated
1/14/2015 5:00	0:10	KWPII	0:029	2:250	AGC MAVG - calculated
1/14/2015 5:07	0:07	KWPII	0:018	1:450	AGC MAVG - calculated
1/14/2015 5:16	0:01	KWPII	0:002	1:360	AGC MAVG - calculated
1/14/2015 7:25	0:29	KWPII	0:182	2:082	AGC MAVG - calculated
1/14/2015 7:29	0:02	KWPII	0:004	2:381	AGC MAVG - calculated
1/14/2015 7:35	0:01	KWPII	0:003	2:112	AGC MAVG - calculated
1/14/2015 7:37	0:05	KWPII	0:022	2:264	AGC MAVG - calculated
1/14/2015 7:39	0:11	KWPII	0:050	2:184	AGC MAVG - calculated
1/14/2015 7:55	0:24	KWPII	0:081	3:022	AGC MAVG - calculated
1/14/2015 7:56	0:12	KWPII	0:058	1:629	AGC MAVG - calculated
1/14/2015 8:09	0:02	KWPII	0:004	1:087	AGC MAVG - calculated
1/14/2015 8:13	0:06	KWPII	0:023	1:384	AGC MAVG - calculated
1/14/2015 8:21	0:11	KWPII	0:053	1:485	AGC MAVG - calculated
1/14/2015 8:22	1:47	KWPII	0:484	2:918	AGC MAVG - calculated
1/14/2015 8:35	0:02	KWPII	0:002	0:888	AGC MAVG - calculated
1/14/2015 8:38	0:19	KWPII	0:061	1:039	AGC MAVG - calculated and Good Engineering and Operating Practices
1/14/2015 8:58	0:08	KWPII	0:018	0:932	AGC MAVG - calculated and Good Engineering and Operating Practices
1/14/2015 9:05	0:10	KWPII	0:045	1:008	AGC MAVG - calculated and Good Engineering and Operating Practices
1/14/2015 9:18	0:08	KWPII	0:036	0:905	AGC MAVG - calculated and Good Engineering and Operating Practices
1/14/2015 9:27	0:01	KWPII	0:008	0:549	AGC MAVG - calculated and Good Engineering and Operating Practices
1/14/2015 9:29	0:06	KWPII	0:022	0:707	AGC MAVG - calculated and Good Engineering and Operating Practices
1/14/2015 9:58	0:05	KWPII	0:024	0:632	AGC MAVG - calculated and Good Engineering and Operating Practices
1/14/2015 9:44	0:15	KWPII	0:058	0:535	AGC MAVG - calculated and Good Engineering and Operating Practices
1/14/2015 10:00	0:35	KWPII	0:110	0:457	AGC MAVG - calculated
1/14/2015 10:10	0:37	KWPII	0:152	2:078	AGC MAVG - calculated
1/14/2015 10:30	0:03	AWE	0:002	0:050	AGC MAVG - calculated
1/14/2015 10:36	0:33	KWPII	0:093	0:365	AGC MAVG - calculated and Testing
1/14/2015 10:42	0:08	AWE	0:008	0:147	AGC MAVG - calculated
1/14/2015 10:48	0:08	KWPII	0:024	2:278	AGC MAVG - calculated
1/14/2015 10:51	0:27	AWE	0:154	0:810	AGC MAVG - calculated and Testing
1/14/2015 10:55	0:20	KWPII	0:130	1:848	AGC MAVG - calculated and Testing
1/14/2015 11:10	0:05	KWPII	0:012	0:284	AGC MAVG - calculated
1/14/2015 11:18	0:01	KWPII	0:009	1:754	AGC MAVG - calculated
1/14/2015 11:18	0:02	KWPII	0:005	0:403	AGC MAVG - calculated
1/14/2015 11:19	0:08	AWE	0:021	0:750	AGC MAVG - calculated
1/14/2015 11:22	0:03	KWPII	0:024	1:738	AGC MAVG - calculated
1/14/2015 11:23	0:02	KWPII	0:008	0:471	AGC MAVG - calculated
1/14/2015 11:26	0:01	KWPII	0:005	1:605	AGC MAVG - calculated
1/14/2015 11:26	0:02	KWPII	0:012	0:449	AGC MAVG - calculated
1/14/2015 11:30	0:01	AWE	0:001	0:953	AGC MAVG - calculated
1/14/2015 11:32	0:02	KWPII	0:002	0:787	AGC MAVG - calculated
1/14/2015 11:35	0:01	AWE	0:001	0:640	AGC MAVG - calculated
1/14/2015 11:38	0:05	KWPII	0:012	0:850	AGC MAVG - calculated
1/14/2015 11:38	0:05	AWE	0:018	0:823	AGC MAVG - calculated
1/14/2015 11:39	0:02	KWPII	0:012	1:702	AGC MAVG - calculated
1/14/2015 11:43	0:03	KWPII	0:007	2:011	AGC MAVG - calculated
1/14/2015 11:44	0:01	KWPII	0:003	0:820	AGC MAVG - calculated
1/14/2015 11:44	0:02	AWE	0:003	0:183	AGC MAVG - calculated
1/14/2015 11:47	0:03	AWE	0:008	0:357	AGC MAVG - calculated
1/14/2015 11:47	0:08	KWPII	0:049	1:739	AGC MAVG - calculated
1/14/2015 11:48	0:14	KWPII	0:085	0:802	AGC MAVG - calculated
1/14/2015 11:51	0:04	AWE	0:010	0:633	AGC MAVG - calculated
1/14/2015 11:58	0:01	AWE	0:000	1:250	AGC MAVG - calculated
1/14/2015 12:00	0:01	AWE	0:001	1:473	AGC MAVG - calculated
1/14/2015 12:03	0:03	AWE	0:007	1:720	AGC MAVG - calculated
1/14/2015 12:03	0:08	KWPII	0:012	0:885	AGC MAVG - calculated
1/14/2015 12:06	0:01	AWE	0:001	1:120	AGC MAVG - calculated
1/14/2015 12:12	0:01	AWE	0:001	1:133	AGC MAVG - calculated
1/14/2015 12:15	0:01	AWE	0:000	0:857	AGC MAVG - calculated
1/14/2015 12:17	0:05	KWPII	0:018	1:089	AGC MAVG - calculated
1/14/2015 12:20	0:02	KWPII	0:007	0:757	AGC MAVG - calculated
1/14/2015 12:23	0:04	AWE	0:021	1:080	AGC MAVG - calculated
1/14/2015 12:25	0:02	KWPII	0:005	0:885	AGC MAVG - calculated
1/14/2015 12:26	0:04	AWE	0:015	0:380	AGC MAVG - calculated
1/14/2015 12:30	0:02	KWPII	0:014	0:950	AGC MAVG - calculated
1/14/2015 12:37	0:02	AWE	0:003	0:130	AGC MAVG - calculated
1/14/2015 12:38	0:05	KWPII	0:025	1:133	AGC MAVG - calculated
1/14/2015 12:41	0:03	AWE	0:012	0:433	AGC MAVG - calculated
1/14/2015 12:45	0:02	AWE	0:007	0:327	AGC MAVG - calculated
1/14/2015 12:48	0:01	KWPII	0:002	0:812	AGC MAVG - calculated
1/14/2015 12:48	0:02	KWPII	0:007	0:822	AGC MAVG - calculated
1/14/2015 12:48	0:02	AWE	0:008	0:247	AGC MAVG - calculated
1/14/2015 12:51	0:01	AWE	0:001	0:957	AGC MAVG - calculated
1/14/2015 12:52	0:01	KWPII	0:008	1:079	AGC MAVG - calculated
1/14/2015 12:55	0:06	KWPII	0:013	1:183	AGC MAVG - calculated
1/14/2015 12:58	0:01	AWE	0:001	0:100	AGC MAVG - calculated
1/14/2015 13:01	0:01	AWE	0:001	0:657	AGC MAVG - calculated
1/14/2015 13:02	0:04	KWPII	0:023	1:340	AGC MAVG - calculated
1/14/2015 13:08	0:02	KWPII	0:008	1:849	AGC MAVG - calculated
1/14/2015 13:00	0:02	KWPII	0:010	1:038	AGC MAVG - calculated
1/14/2015 13:13	0:04	KWPII	0:018	1:411	AGC MAVG - calculated
1/14/2015 13:19	0:05	KWPII	0:024	1:675	AGC MAVG - calculated
1/14/2015 13:22	0:01	KWPII	0:009	1:385	AGC MAVG - calculated
1/14/2015 13:26	0:10	KWPII	0:041	1:307	AGC MAVG - calculated
1/14/2015 13:32	0:01	KWPII	0:002	1:863	AGC MAVG - calculated
1/14/2015 13:37	0:02	KWPII	0:005	2:522	AGC MAVG - calculated
1/14/2015 13:37	0:18	KWPII	0:082	2:170	AGC MAVG - calculated
1/14/2015 13:40	0:02	AWE	0:003	0:100	AGC MAVG - calculated
1/14/2015 13:48	0:02	AWE	0:002	0:077	AGC MAVG - calculated
1/14/2015 13:51	0:01	AWE	0:006	0:347	AGC MAVG - calculated
1/14/2015 13:54	0:01	AWE	0:002	0:347	AGC MAVG - calculated
1/14/2015 13:54	0:02	KWPII	0:001	1:117	AGC MAVG - calculated
1/14/2015 13:59	0:01	AWE	0:002	0:327	AGC MAVG - calculated
1/14/2015 13:58	0:05	KWPII	0:023	1:278	AGC MAVG - calculated
1/14/2015 14:01	0:02	AWE	0:005	0:200	AGC MAVG - calculated
1/14/2015 14:14	0:19	KWPII	0:078	1:849	AGC MAVG - calculated
1/14/2015 14:21	0:04	AWE	0:019	0:660	AGC MAVG - calculated
1/14/2015 14:29	0:03	AWE	0:016	0:363	AGC MAVG - calculated
1/14/2015 14:34	0:07	KWPII	0:018	1:265	AGC MAVG - calculated
1/14/2015 14:35	0:02	AWE	0:012	0:493	AGC MAVG - calculated
1/14/2015 14:48	0:03	KWPII	0:009	1:180	AGC MAVG - calculated
1/14/2015 14:47	0:01	KWPII	0:007	0:618	AGC MAVG - calculated
1/14/2015 14:51	0:01	KWPII	0:005	1:849	AGC MAVG - calculated
1/14/2015 14:54	0:01	KWPII	0:010	1:348	AGC MAVG - calculated
1/14/2015 14:54	0:08	KWPII	0:031	1:135	AGC MAVG - calculated
1/14/2015 14:58	0:22	KWPII	0:160	1:693	AGC MAVG - calculated

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Start Date and Time	Duration	IPP Curtaild	Estimated Curtaild MWh	Peak MW Curtaild	Reasons for Curtailment
1/14/2015 15:01	0:02	AWE	0.002	0.007	AGC MAVG - calculated
1/14/2015 15:03	0:10	KWPFII	0.058	0.048	AGC MAVG - calculated
1/14/2015 15:05	0:02	AWE	0.001	0.037	AGC MAVG - calculated
1/14/2015 15:06	0:04	AWE	0.004	0.147	AGC MAVG - calculated
1/14/2015 15:23	0:01	KWPF	0.000	0.145	AGC MAVG - calculated
1/14/2015 15:27	0:01	KWPF	0.001	0.180	AGC MAVG - calculated
1/14/2015 15:34	0:02	AWE	0.002	0.053	AGC MAVG - calculated
1/14/2015 15:54	0:01	KWPF	0.000	0.148	AGC MAVG - calculated
1/14/2015 18:37	0:35	KWPF	0.071	1.656	AGC MAVG - calculated
1/14/2015 19:13	0:07	KWPF	0.012	1.899	AGC MAVG - calculated
1/14/2015 19:21	0:05	KWPF	0.007	2.013	AGC MAVG - calculated
1/14/2015 19:27	0:45	KWPF	0.156	2.911	AGC MAVG - calculated
1/14/2015 19:28	0:31	KWPFII	0.115	3.358	AGC MAVG - calculated
1/14/2015 20:17	0:35	KWPF	0.236	3.199	AGC MAVG - calculated
1/14/2015 20:20	0:04	KWPFII	0.003	0.083	AGC MAVG - calculated
1/14/2015 20:27	0:45	KWPFII	0.110	0.798	AGC MAVG - calculated and Testing
1/14/2015 22:26	0:26	KWPFII	0.100	1.050	AGC MAVG - calculated
1/14/2015 22:29	0:36	KWPF	0.170	4.157	AGC MAVG - calculated
1/14/2015 22:50	0:15	KWPFII	0.060	0.680	AGC MAVG - calculated
1/14/2015 23:13	0:07	KWPFII	0.041	0.567	AGC MAVG - calculated
1/14/2015 23:13	0:06	KWPF	0.031	2.716	AGC MAVG - calculated
1/14/2015 23:21	0:01	KWPFII	0.007	0.416	AGC MAVG - calculated
1/14/2015 23:41	1:48	KWPF	0.432	3.108	AGC MAVG - calculated
1/14/2015 23:42	0:02	KWPFII	0.014	0.439	AGC MAVG - calculated
1/14/2015 23:45	0:14	KWPFII	0.048	0.408	AGC MAVG - calculated
1/15/2015 0:35	0:05	KWPFII	0.007	0.181	AGC MAVG - calculated
1/15/2015 0:43	0:06	KWPFII	0.020	0.715	AGC MAVG - calculated
1/15/2015 0:53	0:03	KWPFII	0.015	0.447	AGC MAVG - calculated
1/15/2015 0:58	0:05	KWPFII	0.020	0.374	AGC MAVG - calculated
1/15/2015 1:07	0:21	KWPFII	0.067	0.554	AGC MAVG - calculated and Good Engineering and Operating Practices
1/15/2015 2:34	0:02	KWPF	0.024	1.653	AGC MAVG - calculated and Good Engineering and Operating Practices
1/15/2015 2:40	0:17	KWPF	0.182	1.670	AGC MAVG - calculated and Good Engineering and Operating Practices
1/15/2015 3:13	0:15	KWPF	0.151	1.521	AGC MAVG - calculated and Good Engineering and Operating Practices
1/15/2015 3:32	0:07	KWPF	0.071	1.318	AGC MAVG - calculated and Good Engineering and Operating Practices
1/15/2015 3:47	0:25	KWPF	0.278	1.638	AGC MAVG - calculated and Good Engineering and Operating Practices
1/15/2015 4:08	0:01	AWE	0.002	0.173	AGC MAVG - calculated and Good Engineering and Operating Practices
1/15/2015 4:10	0:02	AWE	0.008	0.287	AGC MAVG - calculated and Good Engineering and Operating Practices
1/15/2015 6:29	8:14	AWE	1.307	10.783	AGC MAVG - calculated and Good Engineering and Operating Practices
1/15/2015 12:24	0:04	KWPFII	0.004	0.101	AGC MAVG - calculated and Good Engineering and Operating Practices
1/15/2015 12:37	0:04	KWPFII	0.004	0.138	AGC MAVG - calculated and Good Engineering and Operating Practices
1/15/2015 12:38	0:02	KWPFII	0.007	0.361	AGC MAVG - calculated and Good Engineering and Operating Practices
1/15/2015 12:41	0:02	KWPFII	0.020	0.379	AGC MAVG - calculated and Good Engineering and Operating Practices
1/15/2015 12:44	0:05	AWE	0.005	2.833	AGC MAVG - calculated and Good Engineering and Operating Practices
1/15/2015 12:48	0:01	KWPFII	0.004	0.301	AGC MAVG - calculated and Good Engineering and Operating Practices
1/15/2015 12:48	0:01	KWPFII	0.003	0.285	AGC MAVG - calculated and Good Engineering and Operating Practices
1/15/2015 12:50	0:11	AWE	0.009	2.773	AGC MAVG - calculated and Good Engineering and Operating Practices
1/15/2015 12:55	0:01	KWPFII	0.003	0.868	AGC MAVG - calculated and Good Engineering and Operating Practices
1/15/2015 13:01	0:01	KWPFII	0.008	0.527	AGC MAVG - calculated and Good Engineering and Operating Practices
1/15/2015 13:04	0:03	AWE	0.001	1.447	AGC MAVG - calculated and Good Engineering and Operating Practices
1/15/2015 13:06	0:02	AWE	0.007	1.197	AGC MAVG - calculated and Good Engineering and Operating Practices
1/15/2015 13:17	0:01	KWPFII	0.005	2.114	AGC MAVG - calculated and Good Engineering and Operating Practices
1/15/2015 13:18	0:06	KWPFII	0.020	2.785	AGC MAVG - calculated and Good Engineering and Operating Practices
1/15/2015 13:29	0:34	KWPFII	0.125	3.053	AGC MAVG - calculated and Good Engineering and Operating Practices
1/15/2015 13:35	0:01	AWE	0.001	1.840	AGC MAVG - calculated and Good Engineering and Operating Practices
1/15/2015 14:04	0:16	KWPFII	0.148	4.324	AGC MAVG - calculated and Good Engineering and Operating Practices
1/15/2015 14:21	0:41	KWPFII	0.445	4.531	AGC MAVG - calculated and Good Engineering and Operating Practices
1/15/2015 16:54	0:03	KWPFII	0.012	1.524	AGC MAVG - calculated and Good Engineering and Operating Practices
1/15/2015 16:54	2:25	KWPF	0.718	1.330	AGC MAVG - calculated and Good Engineering and Operating Practices
1/15/2015 17:01	0:13	KWPFII	0.039	1.436	AGC MAVG - calculated and Good Engineering and Operating Practices
1/15/2015 17:15	0:21	KWPFII	0.072	1.738	AGC MAVG - calculated and Good Engineering and Operating Practices
1/15/2015 17:37	0:13	KWPFII	0.058	1.396	AGC MAVG - calculated and Good Engineering and Operating Practices
1/15/2015 17:51	0:07	KWPFII	0.021	0.925	AGC MAVG - calculated and Good Engineering and Operating Practices
1/15/2015 17:59	0:51	KWPFII	0.124	0.977	AGC MAVG - calculated and Good Engineering and Operating Practices
1/15/2015 18:51	0:18	KWPFII	0.036	0.973	AGC MAVG - calculated, Good Engineering and Operating Practices, and Testing
1/15/2015 19:10	0:03	KWPFII	0.001	0.858	AGC MAVG - calculated, Good Engineering and Operating Practices, and Testing
1/15/2015 19:15	0:08	KWPFII	0.009	0.837	AGC MAVG - calculated, Good Engineering and Operating Practices, and Testing
1/15/2015 19:20	0:05	KWPF	0.007	0.374	AGC MAVG - calculated, Good Engineering and Operating Practices, and Testing
1/15/2015 19:22	0:02	AWE	0.001	0.443	AGC MAVG - calculated, Good Engineering and Operating Practices, and Testing
1/15/2015 19:25	0:01	AWE	0.001	0.083	AGC MAVG - calculated, Good Engineering and Operating Practices, and Testing
1/15/2015 19:25	0:01	KWPFII	0.001	0.787	AGC MAVG - calculated, Good Engineering and Operating Practices, and Testing
1/15/2015 19:27	0:07	AWE	0.013	0.270	AGC MAVG - calculated and Good Engineering and Operating Practices
1/15/2015 19:27	0:40	KWPFII	0.178	0.778	AGC MAVG - calculated and Good Engineering and Operating Practices
1/15/2015 19:28	1:38	KWPF	0.328	0.378	AGC MAVG - calculated and Good Engineering and Operating Practices
1/15/2015 20:12	0:01	KWPFII	0.002	0.449	AGC MAVG - calculated and Good Engineering and Operating Practices
1/15/2015 20:16	0:02	KWPFII	0.005	0.501	AGC MAVG - calculated and Good Engineering and Operating Practices
1/15/2015 20:23	0:02	KWPFII	0.001	0.807	AGC MAVG - calculated and Good Engineering and Operating Practices
1/15/2015 20:27	0:01	KWPFII	0.000	0.839	AGC MAVG - calculated and Good Engineering and Operating Practices
1/15/2015 20:31	0:06	KWPFII	0.003	0.878	AGC MAVG - calculated and Good Engineering and Operating Practices
1/15/2015 20:36	0:01	KWPFII	0.000	0.931	AGC MAVG - calculated and Good Engineering and Operating Practices
1/15/2015 20:42	0:06	KWPFII	0.008	0.888	AGC MAVG - calculated and Good Engineering and Operating Practices
1/15/2015 20:52	0:58	KWPFII	0.216	1.065	AGC MAVG - calculated and Good Engineering and Operating Practices
1/15/2015 22:03	0:38	KWPFII	0.004	1.035	AGC MAVG - calculated and Good Engineering and Operating Practices
1/15/2015 22:13	0:36	KWPFII	0.112	1.277	AGC MAVG - calculated and Good Engineering and Operating Practices
1/16/2015 5:21	0:01	AWE	0.001	0.080	AGC MAVG - calculated and Good Engineering and Operating Practices
1/16/2015 5:24	1:02	AWE	0.607	0.753	AGC MAVG - calculated and Good Engineering and Operating Practices
1/16/2015 12:37	0:03	AWE	0.004	0.127	AGC MAVG - calculated, Good Engineering and Operating Practices, Testing, and Operating Conditions on Company's System
1/16/2015 12:44	0:05	AWE	0.011	0.387	AGC MAVG - calculated, Good Engineering and Operating Practices, Testing, and Operating Conditions on Company's System
1/16/2015 23:58	0:21	AWE	0.065	1.150	AGC MAVG - calculated and Good Engineering and Operating Practices
1/17/2015 0:20	0:02	AWE	0.001	1.153	AGC MAVG - calculated and Good Engineering and Operating Practices
1/17/2015 0:31	0:01	AWE	0.000	1.487	AGC MAVG - calculated and Good Engineering and Operating Practices
1/17/2015 0:33	0:01	AWE	0.000	1.503	AGC MAVG - calculated and Good Engineering and Operating Practices
1/17/2015 0:35	0:01	AWE	0.000	1.507	AGC MAVG - calculated and Good Engineering and Operating Practices
1/17/2015 0:40	0:02	AWE	0.001	1.780	AGC MAVG - calculated and Good Engineering and Operating Practices
1/17/2015 0:44	0:01	AWE	0.000	1.780	AGC MAVG - calculated and Good Engineering and Operating Practices
1/17/2015 0:48	0:04	AWE	0.001	1.893	AGC MAVG - calculated and Good Engineering and Operating Practices
1/17/2015 0:51	0:10	AWE	0.010	2.007	AGC MAVG - calculated and Good Engineering and Operating Practices
1/17/2015 1:26	0:01	AWE	0.000	1.573	AGC MAVG - calculated and Good Engineering and Operating Practices
1/17/2015 1:28	0:01	AWE	0.000	1.550	AGC MAVG - calculated and Good Engineering and Operating Practices
1/17/2015 1:32	0:01	AWE	0.000	1.563	AGC MAVG - calculated and Good Engineering and Operating Practices
1/17/2015 1:35	0:02	AWE	0.000	1.500	AGC MAVG - calculated and Good Engineering and Operating Practices
1/17/2015 1:38	0:01	AWE	0.000	1.400	AGC MAVG - calculated and Good Engineering and Operating Practices
1/17/2015 1:43	0:16	AWE	0.017	2.550	AGC MAVG - calculated and Good Engineering and Operating Practices
1/17/2015 2:00	0:35	AWE	0.050	3.500	AGC MAVG - calculated and Good Engineering and Operating Practices
1/17/2015 4:44	1:37	KWPF	0.412	1.237	AGC MAVG - calculated and Good Engineering and Operating Practices
1/17/2015 4:49	0:04	AWE	0.007	0.163	AGC MAVG - calculated and Good Engineering and Operating Practices
1/17/2015 5:35	0:46	AWE	0.263	1.113	AGC MAVG - calculated and Good Engineering and Operating Practices
1/17/2015 7:44	0:22	KWPF	0.148	1.469	AGC MAVG - calculated and Good Engineering and Operating Practices
1/17/2015 7:57	0:01	AWE	0.001	0.887	AGC MAVG - calculated and Good Engineering and Operating Practices
1/17/2015 7:59	0:01	AWE	0.000	1.193	AGC MAVG - calculated and Good Engineering and Operating Practices
1/17/2015 8:01	0:03	KWPF	0.002	1.193	AGC MAVG - calculated and Good Engineering and Operating Practices
1/17/2015 8:01	0:02	AWE	0.001	2.487	AGC MAVG - calculated and Good Engineering and Operating Practices
1/17/2015 9:10	0:03	KWPFII	0.002	0.048	AGC MAVG - calculated and Good Engineering and Operating Practices
1/17/2015 9:13	0:12	AWE	0.024	0.440	AGC MAVG - calculated and Good Engineering and Operating Practices
1/17/2015 9:24	0:01	KWPFII	0.001	0.038	AGC MAVG - calculated and Good Engineering and Operating Practices

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Start Date and Time	Duration	IPP Curtailled	Estimated Curtailled MWH	Peak MW Curtailled	Reasons for Curtailment
1/17/2015 8:33	0:10	AWE	0.028	5.677	AGC MAVG - calculated
1/17/2015 8:33	0:10	KWPII	0.013	0.134	AGC MAVG - calculated
1/17/2015 11:44	0:10	AWE	0.164	10.040	AGC MAVG - calculated
1/17/2015 11:53	0:04	KWPII	0.007	0.153	AGC MAVG - calculated
1/18/2015 3:53	0:02	AWE	0.010	19.060	AGC MAVG - calculated
1/18/2015 3:58	0:02	AWE	0.008	20.807	AGC MAVG - calculated
1/18/2015 4:06	0:02	AWE	0.001	21.000	AGC MAVG - calculated
1/18/2015 4:38	0:01	AWE	0.002	20.723	AGC MAVG - calculated
1/18/2015 4:49	0:02	AWE	0.008	20.270	AGC MAVG - calculated
1/18/2015 4:52	0:01	AWE	0.002	18.413	AGC MAVG - calculated
1/18/2015 12:48	0:05	AWE	0.010	20.967	AGC MAVG - calculated and Testing
1/18/2015 13:50	0:01	KWPII	0.004	1.106	AGC MAVG - calculated
1/18/2015 14:07	0:01	KWPII	0.005	1.029	AGC MAVG - calculated
1/18/2015 15:20	0:01	KWPII	0.006	3.456	AGC MAVG - calculated
1/18/2015 15:26	0:01	KWPII	0.006	3.385	AGC MAVG - calculated
1/18/2015 15:44	0:01	KWPII	0.016	2.738	AGC MAVG - calculated
1/18/2015 15:55	0:02	KWPII	0.013	2.488	AGC MAVG - calculated
1/18/2015 16:02	0:01	KWPII	0.007	2.500	AGC MAVG - calculated
1/18/2015 16:06	0:01	KWPII	0.007	2.156	AGC MAVG - calculated
1/18/2015 16:12	0:01	KWPII	0.005	1.964	AGC MAVG - calculated
1/18/2015 16:20	0:03	KWPII	0.020	1.949	AGC MAVG - calculated
1/18/2015 16:36	0:01	KWPII	0.007	1.998	AGC MAVG - calculated
1/18/2015 16:45	0:02	KWPII	0.000	1.504	AGC MAVG - calculated
1/18/2015 16:57	0:02	KWPII	0.010	1.785	AGC MAVG - calculated
1/18/2015 17:06	0:01	KWPII	0.003	1.704	AGC MAVG - calculated
1/18/2015 17:11	0:01	KWPII	0.001	1.566	AGC MAVG - calculated
1/18/2015 17:13	0:02	KWPII	0.006	1.422	AGC MAVG - calculated
1/18/2015 17:25	0:01	KWPII	0.004	0.783	AGC MAVG - calculated
1/18/2015 17:36	0:08	AWE	0.063	14.080	AGC MAVG - calculated and Testing
1/18/2015 17:40	0:08	KWPII	0.027	8.818	AGC MAVG - calculated and Testing
1/18/2015 17:48	0:01	AWE	0.006	10.290	AGC MAVG - calculated and Testing
1/20/2015 2:17	0:01	KWPII	0.008	4.261	AGC MAVG - calculated
1/20/2015 2:21	0:05	KWPII	0.108	5.132	AGC MAVG - calculated
1/20/2015 5:40	0:01	KWPII	0.006	1.900	AGC MAVG - calculated
1/20/2015 6:03	0:01	KWPII	0.007	2.073	AGC MAVG - calculated
1/20/2015 6:31	0:01	KWPII	0.005	2.723	AGC MAVG - calculated
1/20/2015 7:22	0:03	KWPII	0.024	2.865	AGC MAVG - calculated
1/20/2015 7:33	0:01	KWPII	0.008	0.986	AGC MAVG - calculated
1/20/2015 8:57	0:01	KWPII	0.001	2.863	AGC MAVG - calculated and Testing
1/20/2015 10:39	0:01	KWPII	0.015	3.294	AGC MAVG - calculated and Testing
1/20/2015 10:52	0:02	KWPII	0.024	2.322	AGC MAVG - calculated and Testing
1/20/2015 10:58	0:01	KWPII	0.011	1.427	AGC MAVG - calculated and Testing
1/20/2015 11:11	0:01	KWPII	0.003	2.218	AGC MAVG - calculated and Testing
1/20/2015 11:19	0:03	KWPII	0.034	2.113	AGC MAVG - calculated and Testing
1/20/2015 11:30	0:01	KWPII	0.020	2.470	AGC MAVG - calculated and Testing
1/20/2015 11:37	0:01	KWPII	0.018	3.147	AGC MAVG - calculated and Testing
1/20/2015 11:45	0:02	KWPII	0.003	2.367	AGC MAVG - calculated and Testing
1/20/2015 12:01	0:02	KWPII	0.035	2.534	AGC MAVG - calculated and Testing
1/20/2015 12:27	0:03	KWPII	0.021	0.937	AGC MAVG - calculated and Testing
1/20/2015 12:36	0:02	KWPII	0.013	0.851	AGC MAVG - calculated and Testing
1/20/2015 12:45	0:01	KWPII	0.014	1.227	AGC MAVG - calculated and Testing
1/20/2015 12:58	0:03	KWPII	0.029	2.136	AGC MAVG - calculated and Testing
1/20/2015 13:11	0:01	KWPII	0.017	2.112	AGC MAVG - calculated and Testing
1/20/2015 13:18	0:02	KWPII	0.038	2.087	AGC MAVG - calculated and Testing
1/20/2015 13:25	0:02	KWPII	0.028	2.832	AGC MAVG - calculated and Testing
1/20/2015 13:31	0:02	KWPII	0.026	1.901	AGC MAVG - calculated and Testing
1/20/2015 13:38	0:02	KWPII	0.013	1.175	AGC MAVG - calculated and Testing
1/20/2015 13:52	0:01	KWPII	0.003	1.171	AGC MAVG - calculated and Testing
1/21/2015 1:02	0:17	AWE	0.099	10.277	AGC MAVG - calculated
1/21/2015 2:03	0:03	AWE	0.016	7.847	AGC MAVG - calculated
1/21/2015 3:03	0:14	AWE	0.063	6.150	AGC MAVG - calculated
1/21/2015 3:56	0:05	AWE	0.014	5.400	AGC MAVG - calculated
1/21/2015 5:48	0:46	AWE	0.131	6.483	AGC MAVG - calculated
1/21/2015 7:07	1:01	AWE	0.280	10.007	AGC MAVG - calculated and Testing
1/21/2015 7:32	0:04	KWPII	0.002	0.046	AGC MAVG - calculated and Testing
1/21/2015 7:39	0:11	KWPII	0.014	0.169	AGC MAVG - calculated and Testing
1/21/2015 7:51	0:04	KWPII	0.005	0.144	AGC MAVG - calculated and Testing
1/21/2015 8:01	0:03	KWPII	0.012	0.320	AGC MAVG - calculated and Testing
1/21/2015 8:08	0:01	KWPII	0.001	0.418	AGC MAVG - calculated and Testing
1/21/2015 8:14	0:01	AWE	0.005	6.753	AGC MAVG - calculated and Testing
1/21/2015 8:14	0:04	KWPII	0.027	1.348	AGC MAVG - calculated and Testing
1/21/2015 8:16	3:58	AWE	1.865	21.000	AGC MAVG - calculated and Testing
1/21/2015 8:23	0:04	KWPII	0.022	0.816	AGC MAVG - calculated and Testing
1/21/2015 8:29	0:01	KWPII	0.001	0.323	AGC MAVG - calculated and Testing
1/21/2015 8:35	0:00	KWPII	0.032	0.808	AGC MAVG - calculated and Testing
1/21/2015 9:05	0:01	KWPII	0.001	0.045	AGC MAVG - calculated and Testing
1/21/2015 11:51	0:04	KWPII	0.004	0.085	AGC MAVG - calculated and Testing
1/21/2015 11:58	0:08	KWPII	0.024	0.370	AGC MAVG - calculated and Testing
1/21/2015 12:16	0:02	AWE	0.005	18.893	AGC MAVG - calculated and Testing
1/21/2015 12:16	0:02	KWPII	0.003	1.589	AGC MAVG - calculated and Testing
1/21/2015 12:18	0:01	AWE	0.001	18.333	AGC MAVG - calculated and Testing
1/21/2015 12:21	0:26	KWPII	0.121	2.295	AGC MAVG - calculated and Testing
1/21/2015 12:26	0:01	AWE	0.001	19.267	AGC MAVG - calculated and Testing
1/21/2015 12:32	0:56	AWE	0.338	20.263	AGC MAVG - calculated and Testing
1/21/2015 12:51	0:07	KWPII	0.021	1.603	AGC MAVG - calculated and Testing
1/21/2015 13:00	0:01	KWPII	0.006	0.931	AGC MAVG - calculated and Testing
1/21/2015 13:05	0:02	KWPII	0.001	1.067	AGC MAVG - calculated and Testing
1/21/2015 13:12	0:02	KWPII	0.004	1.172	AGC MAVG - calculated and Testing
1/21/2015 13:16	0:01	KWPII	0.000	1.078	AGC MAVG - calculated and Testing
1/21/2015 13:21	0:01	KWPII	0.001	1.248	AGC MAVG - calculated and Testing
1/21/2015 13:24	0:02	KWPII	0.003	1.227	AGC MAVG - calculated and Testing
1/21/2015 13:31	0:01	KWPII	0.003	1.725	AGC MAVG - calculated and Testing
1/21/2015 13:34	0:20	AWE	0.078	17.257	AGC MAVG - calculated and Testing
1/21/2015 13:34	0:08	KWPII	0.039	1.874	AGC MAVG - calculated and Testing
1/21/2015 13:41	0:02	KWPII	0.019	0.783	AGC MAVG - calculated and Testing
1/21/2015 13:48	0:01	KWPII	0.002	0.898	AGC MAVG - calculated and Testing
1/21/2015 13:52	0:01	KWPII	0.010	0.942	AGC MAVG - calculated and Testing
1/21/2015 14:36	0:43	AWE	0.117	17.740	AGC MAVG - calculated and Testing
1/21/2015 14:36	0:04	KWPII	0.008	0.155	AGC MAVG - calculated and Testing
1/21/2015 15:11	0:06	KWPII	0.014	0.233	AGC MAVG - calculated
1/21/2015 15:20	0:01	KWPII	0.001	1.150	AGC MAVG - calculated
1/21/2015 15:21	0:19	AWE	0.043	10.327	AGC MAVG - calculated
1/21/2015 15:25	0:06	KWPII	0.015	1.294	AGC MAVG - calculated
1/21/2015 15:35	0:02	KWPII	0.004	1.126	AGC MAVG - calculated
1/21/2015 15:38	0:02	KWPII	0.005	1.147	AGC MAVG - calculated
1/21/2015 15:41	0:18	AWE	0.049	11.857	AGC MAVG - calculated
1/21/2015 15:41	0:02	KWPII	0.007	1.188	AGC MAVG - calculated
1/21/2015 15:46	0:01	KWPII	0.001	1.150	AGC MAVG - calculated
1/21/2015 15:51	0:05	KWPII	0.019	1.354	AGC MAVG - calculated
1/21/2015 15:58	0:01	KWPII	0.003	1.253	AGC MAVG - calculated
1/22/2015 4:50	0:23	KWPII	0.044	2.220	AGC MAVG - calculated
1/22/2015 5:03	0:20	KWPII	0.051	0.677	AGC MAVG - calculated
1/22/2015 5:10	0:18	AWE	0.112	0.850	AGC MAVG - calculated
1/22/2015 5:18	0:02	KWPII	0.002	3.208	AGC MAVG - calculated

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Start Date and Time	Duration	IPP Curtail	Estimated Curtail MWh	Peak MW Curtail	Reasons for Curtailment
1/22/2015 5:24	0:01	KWPH	0.002	0.815	AGC MAVG - calculated
1/22/2015 5:26	0:06	KWPH	0.010	0.891	AGC MAVG - calculated
1/22/2015 5:30	0:02	AWE	0.002	1.187	AGC MAVG - calculated
1/22/2015 5:33	0:04	KWPH	0.007	0.987	AGC MAVG - calculated
1/22/2015 5:40	0:48	KWPH	0.251	3.269	AGC MAVG - calculated
1/22/2015 5:43	0:01	AWE	0.001	2.000	AGC MAVG - calculated
1/22/2015 5:48	0:01	AWE	0.001	2.233	AGC MAVG - calculated
1/22/2015 5:53	0:01	AWE	0.001	2.320	AGC MAVG - calculated
1/22/2015 7:24	4:13	KWPH	2.817	6.610	AGC MAVG - calculated
1/22/2015 11:38	3:04	KWPH	2.580	8.142	AGC MAVG - calculated
1/22/2015 14:43	0:29	KWPH	0.207	2.974	AGC MAVG - calculated
1/22/2015 14:58	0:01	AWE	0.001	4.580	AGC MAVG - calculated
1/22/2015 15:01	0:02	AWE	0.004	4.690	AGC MAVG - calculated
1/22/2015 15:13	0:04	KWPH	0.024	1.509	AGC MAVG - calculated
1/22/2015 15:13	0:01	AWE	0.001	2.933	AGC MAVG - calculated
1/22/2015 15:15	0:03	AWE	0.004	3.500	AGC MAVG - calculated
1/22/2015 15:18	0:01	KWPH	0.000	1.152	AGC MAVG - calculated
1/22/2015 15:21	0:06	KWPH	0.008	1.774	AGC MAVG - calculated
1/22/2015 15:26	1:07	KWPH	0.353	2.237	AGC MAVG - calculated
1/22/2015 15:32	0:01	AWE	0.002	5.370	AGC MAVG - calculated
1/22/2015 15:57	0:01	AWE	0.001	2.683	AGC MAVG - calculated
1/22/2015 16:00	0:01	AWE	0.001	2.937	AGC MAVG - calculated
1/22/2015 16:02	0:02	AWE	0.001	2.603	AGC MAVG - calculated
1/22/2015 16:05	0:15	AWE	0.018	6.157	AGC MAVG - calculated
1/22/2015 16:21	0:20	AWE	0.019	4.087	AGC MAVG - calculated
1/22/2015 16:36	5:31	KWPH	3.855	4.782	AGC MAVG - calculated
1/22/2015 16:45	0:02	AWE	0.001	2.907	AGC MAVG - calculated
1/22/2015 22:01	0:01	KWPH	0.003	5.276	AGC MAVG - calculated
1/22/2015 22:08	3:45	KWPH	2.248	3.723	AGC MAVG - calculated
1/22/2015 22:21	0:02	KWPH	0.002	4.163	AGC MAVG - calculated
1/22/2015 22:25	0:02	KWPH	0.010	4.111	AGC MAVG - calculated
1/22/2015 22:29	0:04	KWPH	0.017	3.845	AGC MAVG - calculated
1/22/2015 22:35	0:02	KWPH	0.008	3.610	AGC MAVG - calculated
1/22/2015 22:39	0:02	KWPH	0.011	3.670	AGC MAVG - calculated
1/22/2015 22:42	0:02	KWPH	0.008	3.552	AGC MAVG - calculated
1/22/2015 22:46	0:10	KWPH	0.044	3.455	AGC MAVG - calculated
1/23/2015 1:32	0:32	KWPH	0.331	1.960	AGC MAVG - calculated
1/23/2015 1:54	0:47	KWPH	0.260	2.148	AGC MAVG - calculated
1/23/2015 2:06	0:01	KWPH	0.002	1.859	AGC MAVG - calculated
1/23/2015 2:11	3:14	KWPH	1.537	2.275	AGC MAVG - calculated
1/23/2015 2:44	0:01	KWPH	0.001	0.726	AGC MAVG - calculated
1/23/2015 2:46	0:06	KWPH	0.021	1.004	AGC MAVG - calculated
1/23/2015 2:53	0:01	KWPH	0.002	0.951	AGC MAVG - calculated
1/23/2015 2:58	0:01	KWPH	0.001	0.887	AGC MAVG - calculated
1/23/2015 3:01	0:01	KWPH	0.003	0.695	AGC MAVG - calculated
1/23/2015 3:07	0:10	KWPH	0.039	0.606	AGC MAVG - calculated
1/23/2015 3:33	0:02	KWPH	0.002	0.214	AGC MAVG - calculated
1/23/2015 5:43	0:02	KWPH	0.004	0.333	AGC MAVG - calculated
1/23/2015 7:42	0:26	KWPH	0.087	0.373	AGC MAVG - calculated
1/23/2015 8:14	0:19	KWPH	0.154	0.644	AGC MAVG - calculated
1/23/2015 8:50	0:07	KWPH	0.031	0.672	AGC MAVG - calculated
1/23/2015 8:58	0:07	KWPH	0.024	1.211	AGC MAVG - calculated
1/23/2015 9:23	0:05	KWPH	0.006	0.130	AGC MAVG - calculated
1/23/2015 9:31	0:02	AWE	0.002	0.067	AGC MAVG - calculated
1/23/2015 9:33	0:05	KWPH	0.011	0.259	AGC MAVG - calculated
1/23/2015 9:40	0:04	KWPH	0.022	0.818	AGC MAVG - calculated
1/23/2015 9:40	0:05	AWE	0.008	0.923	AGC MAVG - calculated
1/23/2015 9:45	0:02	KWPH	0.003	0.921	AGC MAVG - calculated
1/23/2015 9:48	0:04	AWE	0.009	1.063	AGC MAVG - calculated
1/23/2015 9:49	0:02	KWPH	0.002	1.135	AGC MAVG - calculated
1/23/2015 9:52	0:06	KWPH	0.033	1.328	AGC MAVG - calculated
1/23/2015 9:55	0:02	AWE	0.001	2.817	AGC MAVG - calculated
1/23/2015 9:58	0:06	AWE	0.005	3.830	AGC MAVG - calculated
1/23/2015 10:03	0:01	KWPH	0.004	1.110	AGC MAVG - calculated
1/23/2015 10:06	0:01	KWPH	0.005	1.189	AGC MAVG - calculated
1/23/2015 10:40	0:04	KWPH	0.014	2.477	AGC MAVG - calculated
1/23/2015 10:50	0:12	KWPH	0.049	2.033	AGC MAVG - calculated
1/23/2015 11:07	0:01	KWPH	0.002	2.834	AGC MAVG - calculated
1/23/2015 11:07	0:26	KWPH	0.191	5.238	AGC MAVG - calculated
1/23/2015 13:36	4:11	KWPH	1.053	13.708	AGC MAVG - calculated
1/23/2015 17:58	0:02	KWPH	0.021	2.926	AGC MAVG - calculated
1/23/2015 18:10	0:01	KWPH	0.006	2.702	AGC MAVG - calculated
1/23/2015 18:18	0:01	KWPH	0.008	1.580	AGC MAVG - calculated
1/23/2015 18:29	0:02	KWPH	0.032	4.817	AGC MAVG - calculated
1/23/2015 18:38	0:03	KWPH	0.066	4.964	AGC MAVG - calculated
1/23/2015 18:45	0:07	KWPH	0.167	7.230	AGC MAVG - calculated
1/23/2015 18:56	0:06	KWPH	0.105	6.710	AGC MAVG - calculated
1/23/2015 19:03	0:02	KWPH	0.021	4.688	AGC MAVG - calculated
1/23/2015 19:08	0:01	KWPH	0.009	4.096	AGC MAVG - calculated
1/23/2015 19:10	0:01	KWPH	0.005	4.227	AGC MAVG - calculated
1/23/2015 19:12	0:01	KWPH	0.011	4.496	AGC MAVG - calculated
1/23/2015 19:14	0:02	KWPH	0.033	4.438	AGC MAVG - calculated
1/23/2015 19:17	0:01	KWPH	0.014	4.080	AGC MAVG - calculated
1/23/2015 19:21	0:05	KWPH	0.058	5.187	AGC MAVG - calculated
1/23/2015 19:20	0:04	KWPH	0.053	5.198	AGC MAVG - calculated
1/23/2015 19:35	0:01	KWPH	0.010	3.875	AGC MAVG - calculated
1/23/2015 19:38	0:02	KWPH	0.022	3.921	AGC MAVG - calculated
1/23/2015 19:50	0:03	KWPH	0.045	4.665	AGC MAVG - calculated
1/23/2015 19:54	0:17	KWPH	0.720	4.600	AGC MAVG - calculated
1/23/2015 20:12	1:01	KWPH	0.458	3.882	AGC MAVG - calculated
1/23/2015 20:44	0:01	AWE	0.002	6.717	AGC MAVG - calculated
1/23/2015 20:48	0:04	AWE	0.010	7.607	AGC MAVG - calculated
1/23/2015 20:53	0:01	AWE	0.003	7.323	AGC MAVG - calculated
1/23/2015 21:00	0:06	AWE	0.011	5.267	AGC MAVG - calculated
1/23/2015 21:07	0:01	AWE	0.001	4.083	AGC MAVG - calculated
1/23/2015 21:08	0:02	AWE	0.003	3.833	AGC MAVG - calculated
1/23/2015 21:09	2:08	KWPH	1.022	3.453	AGC MAVG - calculated
1/24/2015 1:29	0:06	KWPH	0.065	4.787	AGC MAVG - calculated
1/24/2015 1:28	0:10	AWE	0.010	4.863	AGC MAVG - calculated
1/24/2015 1:42	0:02	KWPH	0.006	2.226	AGC MAVG - calculated
1/24/2015 1:47	0:01	KWPH	0.005	3.289	AGC MAVG - calculated
1/24/2015 1:49	0:14	KWPH	0.149	5.374	AGC MAVG - calculated
1/24/2015 4:43	0:06	KWPH	0.013	0.190	AGC MAVG - calculated
1/24/2015 4:43	0:16	KWPH	0.141	0.843	AGC MAVG - calculated
1/24/2015 4:43	0:04	AWE	0.024	0.847	AGC MAVG - calculated
1/24/2015 4:52	0:01	AWE	0.001	0.063	AGC MAVG - calculated
1/24/2015 5:14	0:03	KWPH	0.008	0.193	AGC MAVG - calculated
1/24/2015 10:07	0:06	KWPH	0.064	0.631	AGC MAVG - calculated
1/24/2015 10:07	0:01	AWE	0.000	1.160	AGC MAVG - calculated
1/24/2015 10:10	0:01	AWE	0.000	1.427	AGC MAVG - calculated
1/24/2015 10:14	0:01	AWE	0.001	2.413	AGC MAVG - calculated
1/24/2015 10:31	0:05	AWE	0.003	3.040	AGC MAVG - calculated
1/24/2015 10:37	0:01	AWE	0.000	1.560	AGC MAVG - calculated
1/24/2015 10:38	0:03	AWE	0.001	1.237	AGC MAVG - calculated

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Start Date and Time	Duration	IPP Curtailed	Estimated Curtailed MWH	Peak MW Curtailed	Reasons for Curtailment
1/24/2015 10:43	0:01	AWE	0.001	1.727	AGC MAVG - calculated
1/24/2015 10:49	0:03	AWE	0.004	2.073	AGC MAVG - calculated
1/24/2015 10:56	0:02	AWE	0.002	1.420	AGC MAVG - calculated
1/24/2015 11:04	0:01	AWE	0.000	1.190	AGC MAVG - calculated
1/24/2015 11:07	0:01	AWE	0.004	0.880	AGC MAVG - calculated
1/24/2015 11:10	0:04	AWE	0.013	1.783	AGC MAVG - calculated
1/24/2015 11:15	0:02	AWE	0.001	1.197	AGC MAVG - calculated
1/24/2015 11:20	0:01	AWE	0.001	1.100	AGC MAVG - calculated
1/24/2015 11:22	0:01	AWE	0.002	1.087	AGC MAVG - calculated
1/24/2015 11:27	0:02	AWE	0.002	1.330	AGC MAVG - calculated
1/24/2015 11:30	0:02	AWE	0.001	0.983	AGC MAVG - calculated
1/24/2015 11:34	0:01	AWE	0.002	0.887	AGC MAVG - calculated
1/24/2015 11:38	0:03	AWE	0.011	0.990	AGC MAVG - calculated
1/24/2015 11:47	0:01	KWPII	0.001	1.491	AGC MAVG - calculated
1/24/2015 11:49	0:21	KWPII	0.075	2.395	AGC MAVG - calculated
1/24/2015 12:13	0:04	KWPII	0.014	3.358	AGC MAVG - calculated
1/24/2015 12:53	0:06	KWPII	0.058	4.132	AGC MAVG - calculated
1/24/2015 13:01	0:17	KWPII	0.180	5.308	AGC MAVG - calculated
1/24/2015 13:19	0:33	KWPII	0.557	8.816	AGC MAVG - calculated
1/24/2015 13:53	0:18	KWPII	0.206	8.383	AGC MAVG - calculated
1/24/2015 14:33	0:01	KWPII	0.005	15.086	AGC MAVG - calculated
1/24/2015 14:40	0:38	KWPII	0.859	19.892	AGC MAVG - calculated
1/24/2015 15:19	1:45	KWPII	1.519	20.536	AGC MAVG - calculated
1/24/2015 17:05	0:05	KWPII	0.017	20.439	AGC MAVG - calculated
1/24/2015 17:17	0:02	KWPII	0.001	20.983	AGC MAVG - calculated
1/24/2015 17:18	0:01	KWPII	0.001	20.852	AGC MAVG - calculated
1/24/2015 17:22	0:01	KWPII	0.000	20.882	AGC MAVG - calculated
1/24/2015 17:28	0:01	KWPII	0.001	20.638	AGC MAVG - calculated
1/24/2015 17:30	0:01	KWPII	0.000	20.643	AGC MAVG - calculated
1/24/2015 17:35	0:04	KWPII	0.041	20.650	AGC MAVG - calculated
1/24/2015 17:43	0:01	KWPII	0.003	20.589	AGC MAVG - calculated
1/24/2015 17:49	0:03	KWPII	0.002	20.685	AGC MAVG - calculated
1/24/2015 17:53	0:03	KWPII	0.016	20.540	AGC MAVG - calculated
1/24/2015 17:57	0:03	KWPII	0.023	20.562	AGC MAVG - calculated
1/24/2015 18:02	0:01	KWPII	0.000	20.420	AGC MAVG - calculated
1/24/2015 18:11	0:03	KWPII	0.003	20.702	AGC MAVG - calculated
1/24/2015 18:17	0:08	KWPII	0.008	20.704	AGC MAVG - calculated
1/24/2015 18:28	0:18	KWPII	0.015	20.707	AGC MAVG - calculated
1/24/2015 18:45	0:01	KWPII	0.001	20.698	AGC MAVG - calculated
1/24/2015 18:51	0:01	KWPII	0.000	20.670	AGC MAVG - calculated
1/24/2015 18:58	0:02	KWPII	0.002	20.673	AGC MAVG - calculated
1/24/2015 19:03	0:02	KWPII	0.001	20.670	AGC MAVG - calculated
1/24/2015 19:08	0:05	KWPII	0.005	20.684	AGC MAVG - calculated
1/24/2015 19:13	0:34	KWPII	0.075	20.708	AGC MAVG - calculated
1/24/2015 19:48	0:52	KWPII	0.034	20.708	AGC MAVG - calculated
1/24/2015 20:41	0:11	KWPII	0.008	20.708	AGC MAVG - calculated
1/24/2015 20:54	0:02	KWPII	0.001	20.708	AGC MAVG - calculated
1/24/2015 20:57	0:01	KWPII	0.001	20.708	AGC MAVG - calculated
1/24/2015 20:59	0:02	KWPII	0.002	20.708	AGC MAVG - calculated
1/24/2015 21:03	0:05	KWPII	0.004	20.708	AGC MAVG - calculated
1/24/2015 21:09	0:01	KWPII	0.001	20.708	AGC MAVG - calculated
1/24/2015 21:11	0:02	KWPII	0.002	20.704	AGC MAVG - calculated
1/24/2015 21:15	0:03	KWPII	0.001	20.698	AGC MAVG - calculated
1/24/2015 21:19	0:03	KWPII	0.003	20.700	AGC MAVG - calculated
1/24/2015 21:24	0:02	KWPII	0.001	20.699	AGC MAVG - calculated
1/24/2015 21:27	0:06	KWPII	0.003	20.707	AGC MAVG - calculated
1/24/2015 21:38	0:03	KWPII	0.002	20.676	AGC MAVG - calculated
1/24/2015 21:44	0:01	KWPII	0.000	20.695	AGC MAVG - calculated
1/24/2015 21:48	0:02	KWPII	0.002	20.678	AGC MAVG - calculated
1/24/2015 21:52	0:01	KWPII	0.000	20.687	AGC MAVG - calculated
1/24/2015 21:54	0:01	KWPII	0.000	20.684	AGC MAVG - calculated
1/24/2015 22:01	0:03	KWPII	0.001	20.691	AGC MAVG - calculated
1/24/2015 22:08	0:04	KWPII	0.003	20.705	AGC MAVG - calculated
1/24/2015 22:11	0:05	KWPII	0.004	20.705	AGC MAVG - calculated
1/24/2015 22:21	0:01	KWPII	0.000	20.704	AGC MAVG - calculated
1/24/2015 22:31	0:01	KWPII	0.000	20.848	AGC MAVG - calculated
1/24/2015 22:34	0:03	KWPII	0.002	20.887	AGC MAVG - calculated
1/24/2015 22:43	0:01	KWPII	0.002	20.582	AGC MAVG - calculated
1/24/2015 22:49	0:02	KWPII	0.001	20.670	AGC MAVG - calculated
1/24/2015 22:55	0:03	KWPII	0.027	20.674	AGC MAVG - calculated
1/24/2015 23:07	0:01	KWPII	0.000	20.497	AGC MAVG - calculated
1/24/2015 23:07	0:02	KWPII	0.007	20.802	AGC MAVG - calculated
1/24/2015 23:10	0:02	KWPII	0.019	20.220	AGC MAVG - calculated
1/24/2015 23:15	0:03	KWPII	0.010	20.284	AGC MAVG - calculated
1/24/2015 23:19	0:01	KWPII	0.001	20.356	AGC MAVG - calculated
1/24/2015 23:21	0:02	KWPII	0.013	20.800	AGC MAVG - calculated
1/24/2015 23:24	0:02	KWPII	0.008	20.585	AGC MAVG - calculated
1/24/2015 23:32	0:01	KWPII	0.001	20.818	AGC MAVG - calculated
1/24/2015 23:34	0:01	KWPII	0.004	20.528	AGC MAVG - calculated
1/24/2015 23:58	0:02	KWPII	0.003	20.628	AGC MAVG - calculated
1/25/2015 0:01	0:02	KWPII	0.000	20.583	AGC MAVG - calculated
1/25/2015 0:06	0:02	KWPII	0.007	20.637	AGC MAVG - calculated
1/25/2015 0:13	0:01	KWPII	0.005	20.521	AGC MAVG - calculated
1/25/2015 0:15	0:02	KWPII	0.008	20.456	AGC MAVG - calculated
1/25/2015 0:18	5:05	KWPII	38.317	20.686	AGC MAVG - calculated
1/25/2015 5:30	0:02	KWPII	0.035	20.289	AGC MAVG - calculated
1/25/2015 5:43	0:02	KWPII	0.018	20.293	AGC MAVG - calculated
1/25/2015 6:09	0:01	KWPII	0.002	20.613	AGC MAVG - calculated
1/25/2015 6:18	0:01	KWPII	0.002	20.579	AGC MAVG - calculated
1/25/2015 6:22	0:01	KWPII	0.000	20.115	AGC MAVG - calculated
1/25/2015 6:28	0:03	KWPII	0.025	20.283	AGC MAVG - calculated
1/25/2015 6:34	0:01	KWPII	0.003	20.308	AGC MAVG - calculated
1/25/2015 7:45	0:01	KWPII	0.004	20.488	AGC MAVG - calculated
1/25/2015 9:11	0:01	KWPII	0.051	20.643	AGC MAVG - calculated
1/25/2015 9:23	0:01	KWPII	0.008	20.589	AGC MAVG - calculated
1/25/2015 9:47	0:02	KWPII	0.008	20.645	AGC MAVG - calculated
1/25/2015 9:52	0:01	KWPII	0.002	20.456	AGC MAVG - calculated
1/25/2015 10:58	0:02	KWPII	0.008	20.380	AGC MAVG - calculated
1/25/2015 11:03	0:02	KWPII	0.011	20.225	AGC MAVG - calculated
1/25/2015 11:11	0:02	KWPII	0.015	20.313	AGC MAVG - calculated
1/25/2015 11:15	0:02	KWPII	0.019	19.348	AGC MAVG - calculated
1/25/2015 11:18	0:01	KWPII	0.018	18.629	AGC MAVG - calculated
1/25/2015 11:30	0:01	KWPII	0.032	18.633	AGC MAVG - calculated
1/25/2015 11:59	0:01	KWPII	0.002	20.472	AGC MAVG - calculated
1/25/2015 12:25	0:02	KWPII	0.008	20.577	AGC MAVG - calculated
1/25/2015 12:51	0:01	KWPII	0.000	20.658	AGC MAVG - calculated
1/25/2015 13:07	0:01	KWPII	0.000	20.676	AGC MAVG - calculated
1/25/2015 13:35	0:01	KWPII	0.008	20.697	AGC MAVG - calculated
1/26/2015 0:59	0:01	KWPII	0.006	20.632	AGC MAVG - calculated
1/26/2015 1:02	0:04	KWPII	0.013	20.659	AGC MAVG - calculated
1/26/2015 1:08	0:03	KWPII	0.041	20.593	AGC MAVG - calculated
1/26/2015 1:18	2:47	KWPII	7.426	20.700	AGC MAVG - calculated
1/26/2015 4:05	0:01	KWPII	0.001	20.691	AGC MAVG - calculated
1/26/2015 4:19	0:06	KWPII	0.074	20.691	AGC MAVG - calculated

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Start Date and Time	Duration	IPP Curtailed	Estimated Curtailment MWh	Peak MWh Curtailed	Reasons for Curtailment
1/26/2015 4:26	0:01	KWPII	0.002	20 562 AGC MAVG - calculated	
1/26/2015 4:33	0:01	KWPII	0.005	20 569 AGC MAVG - calculated	
1/26/2015 4:42	0:01	KWPII	0.000	20 606 AGC MAVG - calculated	
1/26/2015 4:49	0:01	KWPII	0.000	20 650 AGC MAVG - calculated	
1/26/2015 4:52	0:01	KWPII	0.002	20 664 AGC MAVG - calculated	
1/26/2015 5:38	0:02	KWPII	0.008	20 684 AGC MAVG - calculated	
1/26/2015 6:11	0:02	KWPII	0.001	20 706 AGC MAVG - calculated and Testing	
1/26/2015 6:16	0:02	KWPII	0.004	20 702 AGC MAVG - calculated and Testing	
1/26/2015 6:41	0:01	KWPII	0.001	20 707 AGC MAVG - calculated and Testing	
1/26/2015 6:44	0:01	KWPII	0.000	20 705 AGC MAVG - calculated and Testing	
1/26/2015 6:48	0:03	KWPII	0.002	20 706 AGC MAVG - calculated and Testing	
1/26/2015 6:55	0:01	KWPII	0.000	20 706 AGC MAVG - calculated and Testing	
1/26/2015 7:34	0:01	KWPII	0.000	20 706 AGC MAVG - calculated and Testing	
1/26/2015 7:39	0:02	KWPII	0.001	20 703 AGC MAVG - calculated and Testing	
1/26/2015 7:42	0:02	KWPII	0.000	20 705 AGC MAVG - calculated and Testing	
1/26/2015 7:45	0:01	KWPII	0.000	20 701 AGC MAVG - calculated and Testing	
1/26/2015 7:49	0:01	KWPII	0.000	20 704 AGC MAVG - calculated and Testing	
1/26/2015 7:52	0:01	KWPII	0.000	20 703 AGC MAVG - calculated and Testing	
1/26/2015 7:55	0:01	KWPII	0.000	20 706 AGC MAVG - calculated and Testing	
1/26/2015 8:00	0:01	KWPII	0.000	20 706 AGC MAVG - calculated and Testing	
1/26/2015 8:04	0:01	KWPII	0.000	20 706 AGC MAVG - calculated and Testing	
1/26/2015 8:06	0:01	KWPII	0.000	20 706 AGC MAVG - calculated and Testing	
1/26/2015 8:09	0:01	KWPII	0.000	20 708 AGC MAVG - calculated and Testing	
1/26/2015 8:11	0:01	KWPII	0.000	20 704 AGC MAVG - calculated and Testing	
1/26/2015 8:14	0:01	KWPII	0.001	20 693 AGC MAVG - calculated and Testing	
1/26/2015 8:21	0:03	KWPII	0.001	20 677 AGC MAVG - calculated and Testing	
1/26/2015 8:31	0:01	KWPII	0.000	20 692 AGC MAVG - calculated and Testing	
1/26/2015 8:54	0:01	KWPII	0.008	20 849 AGC MAVG - calculated and Testing	
1/26/2015 8:58	0:03	KWPII	0.014	20 853 AGC MAVG - calculated and Testing	
1/26/2015 9:02	0:02	KWPII	0.009	20 591 AGC MAVG - calculated and Testing	
1/26/2015 9:08	0:01	KWPII	0.009	20 448 AGC MAVG - calculated and Testing	
1/26/2015 9:10	0:06	KWPII	0.058	20 244 AGC MAVG - calculated and Testing	
1/26/2015 9:20	0:02	KWPII	0.008	20 265 AGC MAVG - calculated and Testing	
1/26/2015 9:23	0:11	KWPII	0.150	20 691 AGC MAVG - calculated and Testing	
1/26/2015 9:36	8:45	KWPII	74 768	0 003 AGC MAVG - calculated and Testing	
1/26/2015 9:53	0:01	AWE	0.000	21 000 AGC MAVG - calculated and Testing	
1/26/2015 11:36	2:39	AWE	9 558	21 000 AGC MAVG - calculated and Testing	
1/26/2015 14:18	0:11	AWE	0.038	21 000 AGC MAVG - calculated and Testing	
1/26/2015 14:30	0:01	AWE	0.001	21 000 AGC MAVG - calculated and Testing	
1/26/2015 16:22	0:03	KWPII	0.032	20 459 AGC MAVG - calculated and Testing	
1/26/2015 16:26	0:08	KWPII	0.078	20 538 AGC MAVG - calculated and Testing	
1/26/2015 16:38	0:01	KWPII	0.009	20 489 AGC MAVG - calculated and Testing	
1/26/2015 16:38	0:13	KWPII	1 291	20 575 AGC MAVG - calculated and Testing	
1/26/2015 16:38	0:38	KWPII	2 635	20 681 AGC MAVG - calculated and Testing	
1/26/2015 17:17	0:33	KWPII	0.149	20 620 AGC MAVG - calculated	
1/26/2015 17:51	0:09	KWPII	0.009	20 549 AGC MAVG - calculated	
1/26/2015 18:01	0:03	KWPII	0.004	20 553 AGC MAVG - calculated	
1/26/2015 18:05	0:01	KWPII	0.005	20 606 AGC MAVG - calculated	
1/26/2015 18:16	0:01	KWPII	0.002	20 650 AGC MAVG - calculated	
1/26/2015 18:20	0:02	KWPII	0.008	20 660 AGC MAVG - calculated	
1/26/2015 18:34	0:04	KWPII	0.033	20 648 AGC MAVG - calculated	
1/26/2015 18:41	0:01	KWPII	0.000	18 900 AGC MAVG - calculated	
1/26/2015 18:48	0:06	KWPII	0.055	20 697 AGC MAVG - calculated	
1/26/2015 18:52	0:01	KWPII	0.002	20 481 AGC MAVG - calculated	
1/26/2015 18:56	0:01	KWPII	0.001	20 663 AGC MAVG - calculated and Testing	
1/26/2015 18:56	0:13	KWPII	0.000	20 684 AGC MAVG - calculated and Testing	
1/26/2015 19:06	0:01	KWPII	0.002	20 686 AGC MAVG - calculated and Testing	
1/26/2015 19:16	0:02	KWPII	0.001	20 695 AGC MAVG - calculated and Testing	
1/26/2015 19:22	0:01	KWPII	0.000	20 692 AGC MAVG - calculated	
1/26/2015 19:28	0:02	KWPII	0.008	20 621 AGC MAVG - calculated	
1/26/2015 19:33	0:02	KWPII	0.420	20 640 AGC MAVG - calculated	
1/26/2015 19:37	0:01	KWPII	0.004	20 589 AGC MAVG - calculated	
1/26/2015 20:06	0:01	KWPII	0.000	20 500 AGC MAVG - calculated	
1/26/2015 20:17	0:03	KWPII	0.008	20 573 AGC MAVG - calculated	
1/26/2015 20:22	2:32	KWPII	3 733	20 579 AGC MAVG - calculated and Good Engineering and Operating Practices	
1/26/2015 23:00	0:07	KWPII	0.007	19 643 AGC MAVG - calculated	
1/27/2015 23:03	1:05	KWPII	1 881	17 274 AGC MAVG - calculated	
1/27/2015 0:10	0:13	KWPII	0.207	7 953 AGC MAVG - calculated	
1/27/2015 0:26	0:06	KWPII	0.136	6 836 AGC MAVG - calculated	
1/27/2015 0:36	0:06	KWPII	0.063	6 830 AGC MAVG - calculated	
1/27/2015 0:44	0:22	KWPII	0.385	11 853 AGC MAVG - calculated	
1/27/2015 1:07	0:07	KWPII	0.037	7 701 AGC MAVG - calculated	
1/27/2015 1:16	1:21	KWPII	14 564	17 236 AGC MAVG - calculated AGC MAVG - entered and AGC MAVG - entered - Maintaining Regulating Reserves	
1/27/2015 1:45	0:28	AWE	0.522	20 993 AGC MAVG - entered - Maintaining Regulating Reserves	
1/27/2015 2:21	0:14	AWE	0.284	14 127 AGC MAVG - entered - Maintaining Regulating Reserves	
1/27/2015 2:38	3:12	KWPII	41 463	18 748 AGC MAVG - entered - Maintaining Regulating Reserves and AGC MAVG - calculated	
1/27/2015 2:41	1:37	AWE	7 237	18 130 AGC MAVG - entered - Maintaining Regulating Reserves and AGC MAVG - calculated	
1/27/2015 4:22	0:01	AWE	0.004	8 900 AGC MAVG - calculated	
1/27/2015 5:03	0:07	AWE	0.093	15 657 AGC MAVG - calculated	
1/27/2015 5:11	0:03	AWE	0.012	15 727 AGC MAVG - calculated	
1/27/2015 5:51	0:52	KWPII	1 107	19 672 AGC MAVG - calculated	
1/27/2015 6:46	0:05	KWPII	0.034	20 184 AGC MAVG - calculated	
1/27/2015 6:52	0:20	KWPII	0.583	19 757 AGC MAVG - calculated	
1/27/2015 7:23	0:01	KWPII	0.001	20 416 AGC MAVG - calculated	
1/27/2015 7:26	1:35	KWPII	2 574	20 506 AGC MAVG - calculated and Testing	
1/27/2015 9:02	2:38	KWPII	10 804	18 632 AGC MAVG - calculated and Testing	
1/27/2015 9:42	0:01	AWE	0.000	21 000 AGC MAVG - calculated and Testing	
1/27/2015 9:44	0:13	AWE	0.063	21 000 AGC MAVG - calculated and Testing	
1/27/2015 11:44	0:08	KWPII	0.064	8 897 AGC MAVG - calculated and Testing	
1/27/2015 11:55	0:12	KWPII	0.150	8 209 AGC MAVG - calculated and Testing	
1/27/2015 12:10	0:06	KWPII	0.060	5 913 AGC MAVG - calculated and Testing	
1/27/2015 12:18	0:08	KWPII	0.073	5 753 AGC MAVG - calculated and Testing	
1/27/2015 12:31	0:06	KWPII	0.050	7 201 AGC MAVG - calculated and Testing	
1/27/2015 12:39	0:14	KWPII	0.110	6 957 AGC MAVG - calculated and Testing	
1/27/2015 12:58	0:03	KWPII	0.022	5 463 AGC MAVG - calculated and Testing	
1/27/2015 13:01	0:06	KWPII	0.071	6 344 AGC MAVG - calculated and Testing	
1/27/2015 13:12	0:05	KWPII	0.073	7 218 AGC MAVG - calculated and Testing	
1/27/2015 13:16	0:02	KWPII	0.011	5 891 AGC MAVG - calculated and Testing	
1/27/2015 13:21	0:10	KWPII	0.131	6 461 AGC MAVG - calculated and Testing	
1/27/2015 13:34	0:05	KWPII	0.032	4 457 AGC MAVG - calculated and Testing	
1/27/2015 13:42	0:08	KWPII	0.062	4 299 AGC MAVG - calculated and Testing	
1/27/2015 13:51	0:09	KWPII	0.057	2 708 AGC MAVG - calculated and Testing	
1/27/2015 13:56	3:52	AWE	1 417	21 000 AGC MAVG - calculated and Testing	
1/27/2015 14:02	0:01	KWPII	0.001	0 958 AGC MAVG - calculated and Testing	
1/27/2015 14:05	0:03	KWPII	0.014	1 144 AGC MAVG - calculated and Testing	
1/27/2015 14:09	0:06	KWPII	0.040	0 792 AGC MAVG - calculated and Testing	
1/27/2015 14:31	0:05	KWPII	0.008	0 234 AGC MAVG - calculated	
1/27/2015 14:37	0:03	KWPII	0.002	0 061 AGC MAVG - calculated	
1/27/2015 15:00	0:06	KWPII	0.032	0 518 AGC MAVG - calculated	
1/27/2015 15:10	0:03	KWPII	0.005	0 162 AGC MAVG - calculated	
1/27/2015 15:15	0:16	KWPII	0.082	0 952 AGC MAVG - calculated	
1/27/2015 15:50	0:01	KWPII	0.000	0 027 AGC MAVG - calculated	
1/27/2015 17:51	0:11	AWE	0.042	16 113 AGC MAVG - calculated	
1/27/2015 19:38	0:42	AWE	0.135	14 253 AGC MAVG - calculated	

RSWG Maul Curtailment Report January 2015



Start Date and Time	Duration	IPP Curtailment	Estimated Curtailment MWh	Peak MW Curtailment	AGC MAVG - calculated	Reasons for Curtailment
1/28/2015 22:35	0:59	AWE	0:202	11:100	AGC MAVG - calculated	
1/28/2015 22:35	1:11	AWE	0:246	15:960	AGC MAVG - calculated	
1/28/2015 1:10	0:04	AWE	0:015	16:380	AGC MAVG - calculated	
1/28/2015 2:07	0:26	AWE	0:057	9:973	AGC MAVG - calculated	
1/28/2015 2:35	0:26	AWE	0:052	7:407	AGC MAVG - calculated	
1/28/2015 3:02	0:04	AWE	0:007	4:500	AGC MAVG - calculated	
1/28/2015 3:06	0:01	AWE	0:000	4:827	AGC MAVG - calculated	
1/28/2015 3:10	0:06	AWE	0:008	5:310	AGC MAVG - calculated	
1/28/2015 3:17	0:12	AWE	0:011	4:100	AGC MAVG - calculated	
1/28/2015 3:31	0:02	AWE	0:003	3:870	AGC MAVG - calculated	
1/28/2015 3:35	0:04	AWE	0:007	6:727	AGC MAVG - calculated	
1/28/2015 7:04	0:44	KWPI	0:117	0:724	AGC MAVG - calculated	
1/28/2015 7:41	0:06	AWE	0:023	0:600	AGC MAVG - calculated	
1/28/2015 7:52	0:03	AWE	0:001	4:277	AGC MAVG - calculated	
1/28/2015 7:56	0:13	AWE	0:023	5:960	AGC MAVG - calculated	
1/28/2015 8:10	0:15	AWE	0:016	4:187	AGC MAVG - calculated	
1/28/2015 8:26	0:01	AWE	0:000	7:863	AGC MAVG - calculated	
1/28/2015 8:28	0:02	AWE	0:001	2:410	AGC MAVG - calculated	
1/28/2015 8:31	0:02	AWE	0:000	1:803	AGC MAVG - calculated	
1/28/2015 8:35	0:01	AWE	0:000	1:663	AGC MAVG - calculated	
1/28/2015 8:38	0:01	AWE	0:000	1:547	AGC MAVG - calculated	
1/28/2015 8:41	0:05	AWE	0:024	1:113	AGC MAVG - calculated	
1/28/2015 8:26	0:02	AWE	0:001	0:227	AGC MAVG - calculated	
1/28/2015 9:30	0:03	AWE	0:015	2:167	AGC MAVG - calculated	
1/28/2015 9:39	0:01	AWE	0:000	1:347	AGC MAVG - calculated	
1/28/2015 9:42	0:02	AWE	0:000	1:373	AGC MAVG - calculated	
1/28/2015 9:51	0:02	AWE	0:000	2:560	AGC MAVG - calculated	
1/28/2015 9:57	0:05	AWE	0:007	4:950	AGC MAVG - calculated	
1/28/2015 10:03	0:05	AWE	0:005	4:927	AGC MAVG - calculated	
1/28/2015 10:08	0:18	AWE	0:281	10:583	AGC MAVG - calculated	
1/28/2015 10:49	0:01	KWPII	0:001	0:030	AGC MAVG - calculated	
1/28/2015 10:55	0:02	KWPII	0:001	0:023	AGC MAVG - calculated	
1/28/2015 12:30	0:18	AWE	0:033	7:360	AGC MAVG - calculated	
1/28/2015 17:49	0:03	AWE	0:007	5:560	AGC MAVG - calculated	
1/28/2015 12:53	1:10	AWE	0:138	8:047	AGC MAVG - calculated	
1/28/2015 13:06	0:06	KWPII	0:023	0:346	AGC MAVG - calculated	
1/28/2015 13:23	0:01	KWPII	0:001	0:657	AGC MAVG - calculated	
1/28/2015 13:27	0:14	KWPII	0:041	0:683	AGC MAVG - calculated	
1/28/2015 13:42	0:01	KWPII	0:001	0:373	AGC MAVG - calculated	
1/28/2015 13:45	0:02	KWPII	0:004	0:443	AGC MAVG - calculated	
1/28/2015 13:50	0:06	KWPII	0:015	0:578	AGC MAVG - calculated	
1/28/2015 14:01	0:15	KWPII	0:047	0:749	AGC MAVG - calculated	
1/28/2015 14:13	0:02	AWE	0:013	3:453	AGC MAVG - calculated	
1/28/2015 14:21	0:05	AWE	0:006	2:990	AGC MAVG - calculated	
1/28/2015 14:27	0:01	AWE	0:001	2:670	AGC MAVG - calculated	
1/28/2015 14:29	0:36	AWE	0:060	5:127	AGC MAVG - calculated	
1/28/2015 15:06	0:15	AWE	0:075	9:340	AGC MAVG - calculated	
1/28/2015 15:38	0:01	KWPI	0:000	0:003	AGC MAVG - calculated	
1/28/2015 15:59	0:04	AWE	0:009	4:430	AGC MAVG - calculated	
1/28/2015 16:07	0:11	AWE	0:017	4:243	AGC MAVG - calculated	
1/28/2015 16:19	0:04	KWPII	0:008	0:151	AGC MAVG - calculated	
1/28/2015 16:20	0:06	AWE	0:008	3:733	AGC MAVG - calculated	
1/28/2015 16:24	0:02	KWPII	0:001	0:030	AGC MAVG - calculated	
1/28/2015 16:27	0:04	AWE	0:004	2:997	AGC MAVG - calculated	
1/28/2015 16:37	0:02	KWPII	0:002	1:697	AGC MAVG - calculated	
1/28/2015 16:44	0:01	KWPII	0:002	1:593	AGC MAVG - calculated	
1/28/2015 16:45	0:02	AWE	0:000	1:980	AGC MAVG - calculated	
1/28/2015 16:48	0:01	KWPII	0:004	1:580	AGC MAVG - calculated	
1/28/2015 16:48	0:01	KWPII	0:003	1:316	AGC MAVG - calculated	
1/28/2015 16:53	0:01	KWPII	0:007	1:418	AGC MAVG - calculated	
1/28/2015 20:47	0:01	AWE	0:000	1:407	AGC MAVG - calculated	
1/28/2015 20:53	0:04	AWE	0:004	1:100	AGC MAVG - calculated	
1/28/2015 20:58	0:04	AWE	0:001	1:290	AGC MAVG - calculated	
1/28/2015 21:11	0:01	AWE	0:000	1:750	AGC MAVG - calculated	
1/28/2015 21:13	0:06	AWE	0:007	2:000	AGC MAVG - calculated	
1/28/2015 21:24	0:07	KWPII	0:020	0:485	AGC MAVG - calculated	
1/28/2015 21:25	0:01	AWE	0:000	1:760	AGC MAVG - calculated	
1/28/2015 21:28	0:07	AWE	0:004	2:030	AGC MAVG - calculated	
1/28/2015 21:37	0:16	KWPII	0:028	1:513	AGC MAVG - calculated	
1/28/2015 21:37	0:02	AWE	0:001	1:523	AGC MAVG - calculated	
1/28/2015 21:48	0:01	AWE	0:000	1:400	AGC MAVG - calculated	
1/28/2015 21:50	0:01	AWE	0:001	1:657	AGC MAVG - calculated	
1/28/2015 21:52	0:01	AWE	0:001	1:573	AGC MAVG - calculated	
1/28/2015 21:58	0:01	AWE	0:001	1:100	AGC MAVG - calculated	
1/28/2015 22:01	0:28	KWPII	0:084	1:328	AGC MAVG - calculated	
1/28/2015 22:03	0:02	AWE	0:001	1:200	AGC MAVG - calculated	
1/28/2015 22:08	0:07	AWE	0:008	1:123	AGC MAVG - calculated	
1/28/2015 22:20	0:02	AWE	0:001	1:107	AGC MAVG - calculated	
1/28/2015 22:30	0:01	AWE	0:000	1:180	AGC MAVG - calculated	
1/28/2015 22:32	0:06	AWE	0:007	1:160	AGC MAVG - calculated	
1/28/2015 22:42	0:01	AWE	0:000	1:300	AGC MAVG - calculated	
1/28/2015 22:48	0:01	AWE	0:000	1:880	AGC MAVG - calculated	
1/28/2015 22:50	0:02	AWE	0:002	1:990	AGC MAVG - calculated	
1/28/2015 23:13	0:01	AWE	0:001	1:387	AGC MAVG - calculated	
1/28/2015 23:17	0:01	AWE	0:000	1:437	AGC MAVG - calculated	
1/28/2015 23:22	0:01	AWE	0:000	1:600	AGC MAVG - calculated	
1/28/2015 1:36	1:02	AWE	0:351	1:173	AGC MAVG - calculated	
1/28/2015 2:40	0:01	AWE	0:000	1:153	AGC MAVG - calculated	
1/28/2015 2:43	0:22	AWE	0:078	1:100	AGC MAVG - calculated	
1/28/2015 3:20	0:03	AWE	0:020	0:750	AGC MAVG - calculated	
1/28/2015 9:34	0:35	KWPI	0:088	1:412	AGC MAVG - calculated	
1/28/2015 9:49	0:08	KWPII	0:017	0:286	AGC MAVG - calculated	
1/28/2015 9:58	0:03	KWPII	0:014	0:417	AGC MAVG - calculated	
1/28/2015 10:04	0:02	AWE	0:001	0:030	AGC MAVG - calculated	
1/28/2015 10:07	0:24	AWE	0:178	1:063	AGC MAVG - calculated	
1/28/2015 10:15	0:11	KWPI	0:036	1:361	AGC MAVG - calculated	
1/28/2015 10:18	0:02	KWPII	0:002	0:914	AGC MAVG - calculated	
1/28/2015 10:19	0:01	KWPI	0:004	1:247	AGC MAVG - calculated	
1/28/2015 10:23	0:01	KWPII	0:001	0:845	AGC MAVG - calculated	
1/28/2015 10:26	0:01	KWPII	0:003	0:841	AGC MAVG - calculated	
1/28/2015 10:30	0:01	KWPII	0:000	1:077	AGC MAVG - calculated	
1/28/2015 10:33	0:02	KWPII	0:004	1:681	AGC MAVG - calculated	
1/28/2015 10:34	0:02	AWE	0:009	1:453	AGC MAVG - calculated	
1/28/2015 10:37	0:01	AWE	0:011	1:227	AGC MAVG - calculated	
1/28/2015 10:36	0:01	KWPII	0:001	1:406	AGC MAVG - calculated	
1/28/2015 10:40	0:02	KWPII	0:001	1:633	AGC MAVG - calculated	
1/28/2015 10:45	0:02	KWPII	0:003	2:011	AGC MAVG - calculated	
1/28/2015 10:49	0:01	KWPII	0:000	2:445	AGC MAVG - calculated	
1/28/2015 10:52	0:07	KWPII	0:048	3:777	AGC MAVG - calculated	
1/28/2015 11:00	0:16	KWPII	0:048	4:828	AGC MAVG - calculated	
1/28/2015 11:20	4:42	KWPII	5:174	12:317	AGC MAVG - calculated	Operating Conditions on Company's System, and Good Engineering and Operating Practices
1/28/2015 16:06	0:02	KWPII	0:003	10:349	AGC MAVG - calculated	
1/28/2015 16:09	0:02	KWPII	0:032	10:364	AGC MAVG - calculated	
1/28/2015 16:13	10:55	KWPII	20:329	17:625	AGC MAVG - calculated	



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Start Date/Time	Stop Date/Time	Duration (h:mm)	IPP Curtailed	Estimated MWh Curtailed	Peak MW Curtailed	Reasons for Curtailment
1/30/2015 9:23	1/30/2015 9:40	0:18	LSR	Data is not available	Data is not available	Good Engineering Practices
1/30/2015 9:42	1/30/2015 10:03	0:22	LSR	Data is not available	Data is not available	Good Engineering Practices
1/30/2015 10:18	1/30/2015 10:30	0:15	LSR	Data is not available	Data is not available	Good Engineering Practices
1/30/2015 10:36	1/30/2015 10:36	0:01	LSR	Data is not available	Data is not available	Good Engineering Practices
1/30/2015 10:40	1/30/2015 10:43	0:04	LSR	Data is not available	Data is not available	Good Engineering Practices
1/30/2015 11:04	1/30/2015 11:18	0:13	LSR	Data is not available	Data is not available	Good Engineering Practices
1/30/2015 13:26	1/30/2015 13:30	0:05	LSR	Data is not available	Data is not available	Good Engineering Practices
1/30/2015 16:19	1/30/2015 17:03	0:45	LSR	Data is not available	Data is not available	Good Engineering Practices
1/31/2015 8:06	1/31/2015 8:07	0:02	LSR	Data is not available	Data is not available	Good Engineering Practices
1/31/2015 8:10	1/31/2015 8:20	0:11	LSR	Data is not available	Data is not available	Good Engineering Practices
1/31/2015 8:29	1/31/2015 8:29	0:01	LSR	Data is not available	Data is not available	Good Engineering Practices
1/31/2015 8:50	1/31/2015 8:51	0:02	LSR	Data is not available	Data is not available	Good Engineering Practices
1/31/2015 8:53	1/31/2015 9:04	0:12	LSR	Data is not available	Data is not available	Good Engineering Practices
1/31/2015 9:17	1/31/2015 9:24	0:08	LSR	Data is not available	Data is not available	Good Engineering Practices
1/31/2015 9:31	1/31/2015 9:33	0:03	LSR	Data is not available	Data is not available	Good Engineering Practices
1/31/2015 9:35	1/31/2015 9:48	0:14	LSR	Data is not available	Data is not available	Good Engineering Practices
1/31/2015 9:51	1/31/2015 9:51	0:01	LSR	Data is not available	Data is not available	Good Engineering Practices
1/31/2015 9:59	1/31/2015 10:00	0:02	LSR	Data is not available	Data is not available	Good Engineering Practices
1/31/2015 10:32	1/31/2015 10:32	0:01	LSR	Data is not available	Data is not available	Good Engineering Practices
1/31/2015 10:44	1/31/2015 10:45	0:02	LSR	Data is not available	Data is not available	Good Engineering Practices
1/31/2015 10:48	1/31/2015 11:11	0:24	LSR	Data is not available	Data is not available	Good Engineering Practices
1/31/2015 11:14	1/31/2015 11:14	0:01	LSR	Data is not available	Data is not available	Good Engineering Practices
1/31/2015 11:16	1/31/2015 11:18	0:03	LSR	Data is not available	Data is not available	Good Engineering Practices
1/31/2015 11:26	1/31/2015 11:39	0:14	LSR	Data is not available	Data is not available	Good Engineering Practices
1/31/2015 11:48	1/31/2015 11:48	0:01	LSR	Data is not available	Data is not available	Good Engineering Practices
1/31/2015 11:55	1/31/2015 11:59	0:05	LSR	Data is not available	Data is not available	Good Engineering Practices
1/31/2015 12:17	1/31/2015 12:21	0:05	LSR	Data is not available	Data is not available	Good Engineering Practices
1/31/2015 12:26	1/31/2015 12:29	0:02	LSR	Data is not available	Data is not available	Good Engineering Practices
1/31/2015 12:32	1/31/2015 13:09	0:29	LSR	Data is not available	Data is not available	Good Engineering Practices
1/31/2015 13:02	1/31/2015 14:34	1:33	LSR	Data is not available	Data is not available	Good Engineering Practices
1/31/2015 14:36	1/31/2015 15:00	0:25	LSR	Data is not available	Data is not available	Good Engineering Practices
1/31/2015 15:02	1/31/2015 15:47	0:46	LSR	Data is not available	Data is not available	Good Engineering Practices
1/31/2015 15:50	1/31/2015 16:07	0:16	LSR	Data is not available	Data is not available	Good Engineering Practices
1/31/2015 16:13	1/31/2015 16:29	0:17	LSR	Data is not available	Data is not available	Good Engineering Practices
1/31/2015 16:33	1/31/2015 16:41	0:09	LSR	Data is not available	Data is not available	Good Engineering Practices
1/31/2015 16:48	1/31/2015 16:57	0:09	LSR	Data is not available	Data is not available	Good Engineering Practices
1/31/2015 17:04	1/31/2015 17:16	0:13	LSR	Data is not available	Data is not available	Good Engineering 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 Lanai 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.

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Start Date/Time	MW output prior to start of curtailment	End Date/Time	MW output after curtailment released	Reason for Curtailment
01/03/15 05:00	3.2 MW	01/03/15 18:34	0.0 MW	High wind curtailment to 9MW at Tawhir's request.
01/03/15 17:34	0.0 MW	01/09/15 04:31	0.0 MW	HRD curtailed to 5MW output, limited to 5MVA transformer.

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.