



March 28, 2018

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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 February 2018 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 Companies are 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@hawaiianelectric.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

c: 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".

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 February 28, 2018):

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 February 28, 2018):

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

Hawaiian Electric's 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 did not have any under frequency load shed activations for the month of February. Therefore, Attachment 4 is not being provided for this reporting period.

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 a 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 February 28, 2018):

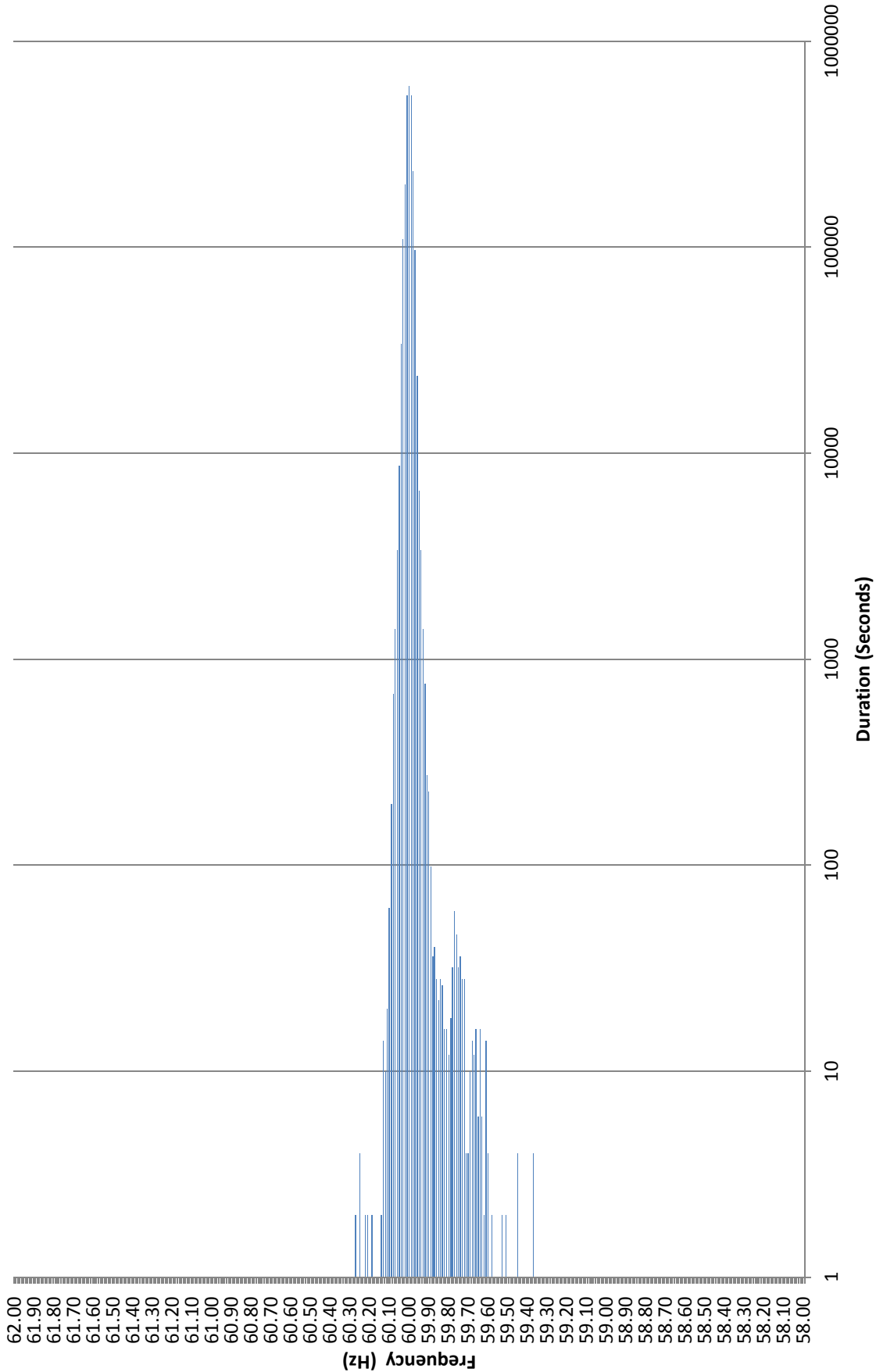
3a) Tabulation of each curtailment event for each resource including the starting date and time, duration, megawatt hours curtailed, peak MW curtailed, and reason for curtailment:

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

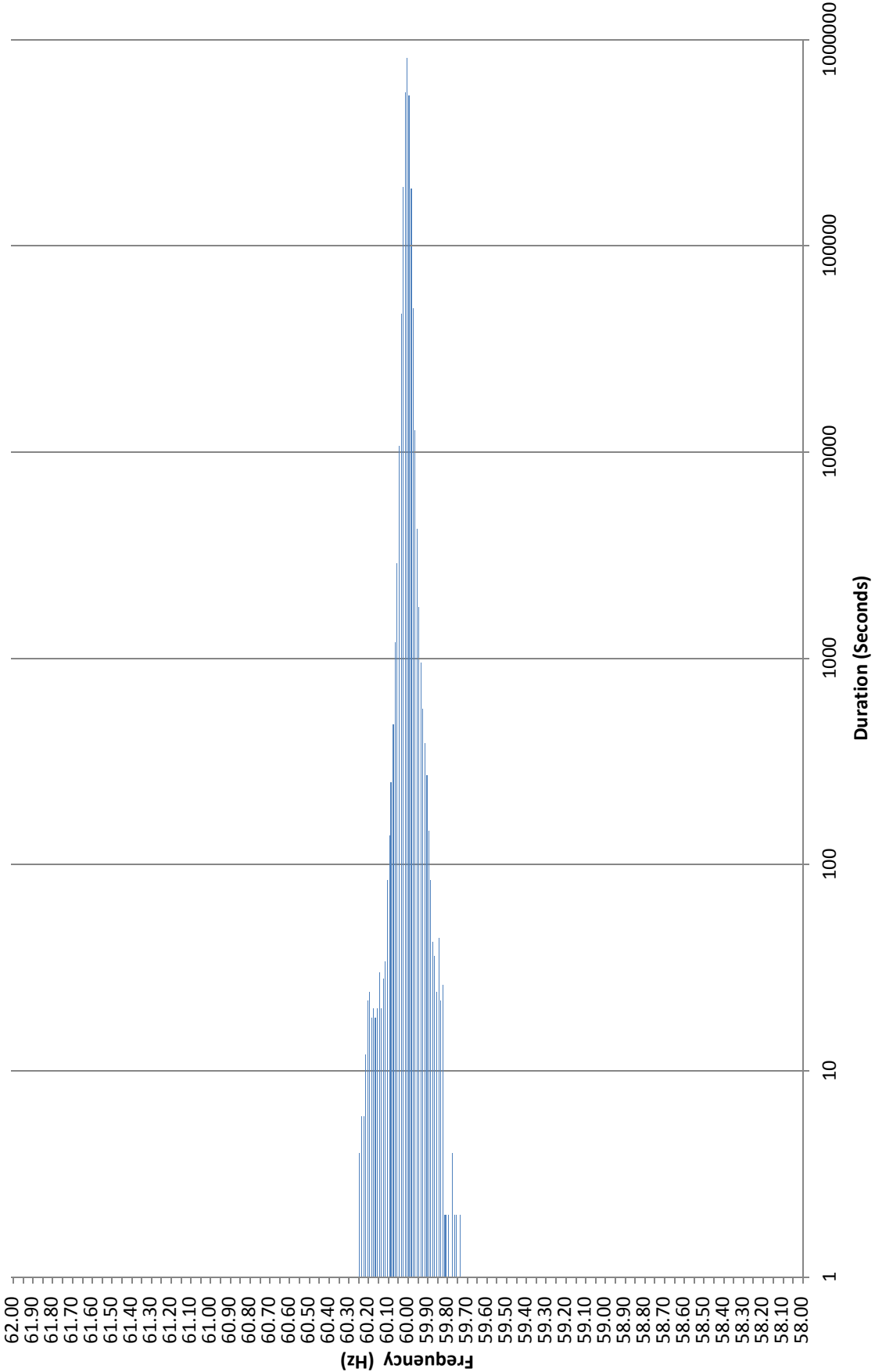
3b) Total MWh of non-dispatchable renewable resources curtailed for the month:

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. 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.

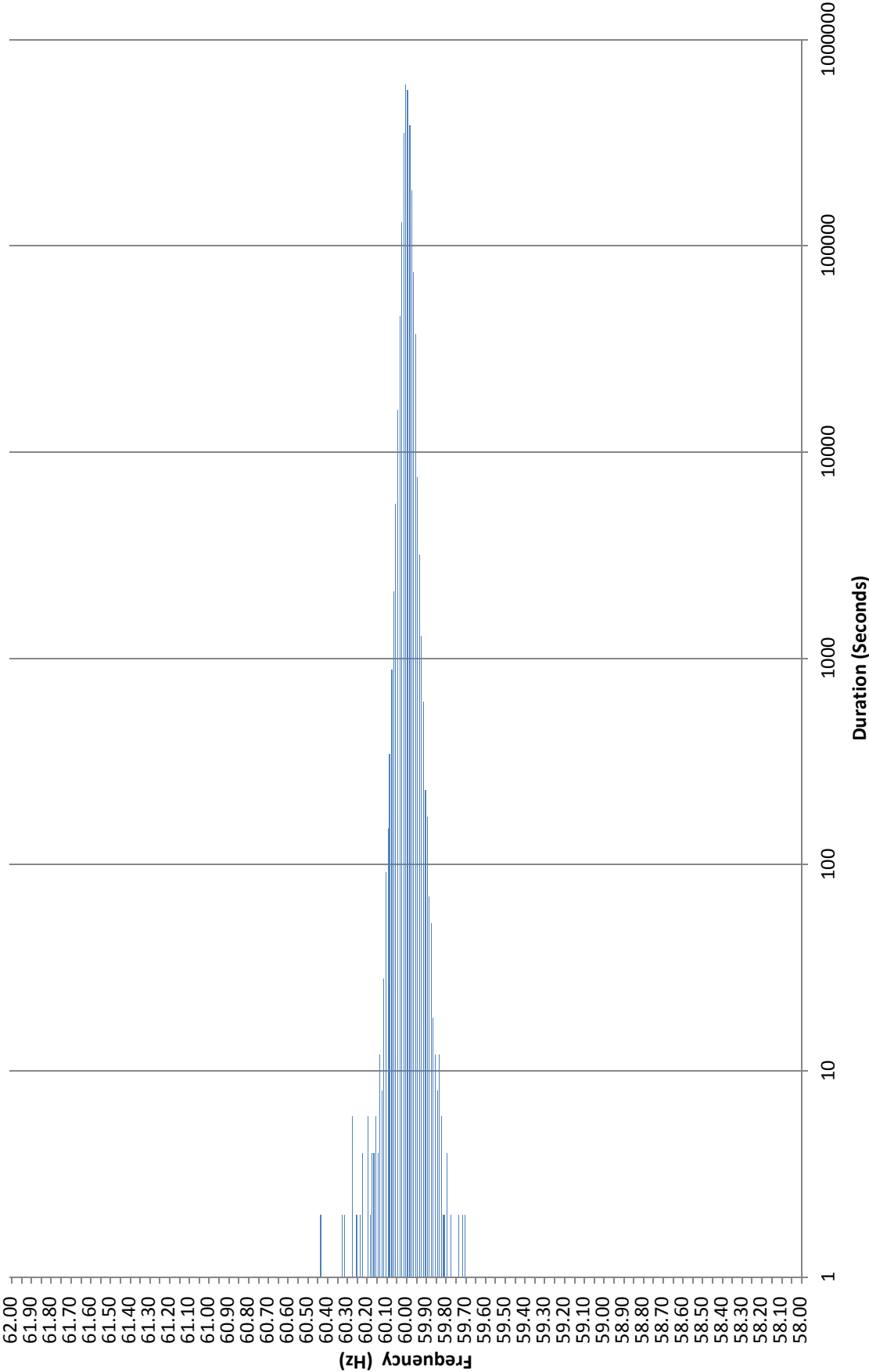
Frequency Distribution Plot - Hawaiian Electric February 2018



Frequency Distribution Plot - Maui Electric February 2018



**Frequency Distribution Plot - Hawai'i Electric Light
February 2018**



Hawaiian Electric Frequency Excursion Statistics February 2018		
Data Rounded to the nearest	<59.95 Hz	>60.05 Hz
Number of Excursions	605	836
Maximum Duration (sec)	496	278
Maximum Deviation (Hz)	59.365	60.271
Total Duration of Excursions (sec)	8818	8360

Maui Electric Frequency Excursion Statistics February 2018		
	<59.95 Hz	>60.05 Hz
Number of Excursions	767	454
Maximum Duration (sec)	292	242
Maximum Deviation (Hz)	59.730	60.241
Total Duration of Excursions (sec)	5948	3510

Hawai'i Electric Light Frequency Excursion Statistics February 2018		
	<59.95 Hz	>60.05 Hz
Number of Excursions	5042	1074
Maximum Duration (sec)	238	74
Maximum Deviation (Hz)	59.701	60.429
Total Duration of Excursions (sec)	31912	5780

HAWAIIAN ELECTRIC COMPANY, INC.
CONTINGENCY RESERVE ACTIVATION EVENTS
February 2018

Event #	Date & Time	Frequency (Hz)			Spinning Reserve Shortfall (MW)	Duration (HH:MM)	Description
		Prior to Event	Nadir	Trigger			
1	02/09/18 21:25	60.01	59.70	NA	-40	0:40	HRRV TG2 tripped offline while generating ~25 MW.
2	02/20/18 15:47	60.02	59.45	NA	0	0:00	K6 and KPLP Steam unit tripped offline while generating ~111 MW and ~18 MW, respectively.
3	02/22/18 15:49	60.00	59.37	NA	-70	0:27	KPLP CT2 and Steam unit tripped offline while generating ~71 MW and ~18 MW, respectively.
4	02/25/18 21:29	60.01	59.70	NA	-7	0:06	Kawailoa Mauka tripped offline while generating ~37 MW.
5	02/25/18 23:14	60.00	59.68	NA	0	0:00	KPLP CT2 tripped offline while generating ~36 MW.

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HAWAIIAN ELECTRIC COMPANY, INC.
DEMAND RESPONSE EVENTS
February 2018

Event #	Date & Time	Frequency (Hz)			Load Shed (MW)	Duration (HH:MM)	Description
		Prior to Event	Nadir	Trigger			
1	02/20/18 15:49	60.02	59.45	59.70	NA	0:02	K6 and KPLP Steam unit tripped offline while generating ~111 MW and ~18 MW, respectively. RDLC/CIDLC activated.
2	02/22/18 15:51	60.00	59.37	59.70	NA	0:08	KPLP CT2 and Steam unit tripped offline while generating ~71 MW and ~18 MW, respectively. RDLC/CIDLC activated.
3	02/25/18 21:31	60.01	59.70	59.70	NA	0:01	Kawailoa Mauka tripped offline while generating ~37 MW. RDLC activated.
4	02/25/18 23:15	60.00	59.68	59.70	NA	0:01	KPLP CT2 tripped offline while generating ~36 MW. RDLC activated.

Hawaiian Electric Curtailment Report February 2018

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
02/07/18 06:07	0.0	0.00	02/07/18 06:50	0	*	KWF	System constraints
02/07/18 06:09	0.0	0.00	02/07/18 06:51	0	*	Makai	System constraints
02/07/18 15:41	0.0	1.00	02/07/18 17:01	0	*	KWF	System constraints
02/07/18 15:43	0.0	1.00	02/07/18 17:03	0	*	Makai	System constraints
02/15/18 02:09	0.0	0.00	02/15/18 03:38	0	*	KWF	System constraints
02/15/18 02:11	0.0	0.00	02/15/18 03:39	0	*	Makai	System constraints
02/17/18 18:49	0.0	0.00	02/18/18 01:41	0	*	KREP	System constraints
02/17/18 18:52	0.0	0.00	02/18/18 01:38	0	*	Waianae	System constraints
02/17/18 18:55	0.0	0.00	02/18/18 01:44	0	*	Aloha1	System constraints
02/17/18 18:57	0.0	0.00	02/18/18 01:46	0	*	KLS2	System constraints
02/21/18 05:36	0.0	1.00	02/21/18 07:18	0	*	KWF	System constraints
02/21/18 05:41	0.0	0.00	02/21/18 16:33	0	*	Mauka	System constraints
02/21/18 07:27	0.0	0.00	02/21/18 07:30	0	*	Makai	System constraints
02/21/18 15:49	0.0	4.00	02/21/18 16:31	0	*	KWF	System constraints
02/21/18 15:53	0.0	5.00	02/21/18 16:34	0	*	Makai	System constraints
02/22/18 05:45	0.0	6.00	02/22/18 07:30	0	*	KWF	System constraints
02/22/18 05:48	0.0	0.00	02/22/18 07:32	0	*	Makai	System constraints
02/22/18 05:49	0.0	24.00	02/22/18 16:33	0	*	Mauka	System constraints
02/22/18 16:16	0.0	11.10	02/22/18 16:30	0	*	KWF	System constraints
02/22/18 16:22	0.0	0.10	02/22/18 16:33	0	*	Makai	System constraints
02/23/18 05:36	0.0	0.00	02/23/18 06:03	0	*	Waianae	System constraints
02/23/18 05:38	0.0	0.00	02/23/18 06:02	0	*	Aloha1	System constraints
02/23/18 15:55	0.0	23.20	02/23/18 16:33	0	*	Waianae	System constraints
02/23/18 15:57	0.0	3.50	02/23/18 16:34	0	*	Aloha1	System constraints
02/24/18 06:59	0.0	0.00	02/25/18 05:06	0	*	KLS2	System constraints
02/24/18 07:21	0.0	0.00	02/24/18 08:26	0	*	Aloha1	System constraints
02/24/18 07:23	0.0	0.00	02/24/18 08:27	0	*	Waianae	System constraints
02/25/18 03:46	0.0	0.00	02/25/18 04:22	0	*	Aloha1	System constraints
02/25/18 03:48	0.0	0.00	02/25/18 04:24	0	*	Waianae	System constraints
02/26/18 05:35	0.0	0.00	02/26/18 06:25	0	*	Waianae	System constraints
02/26/18 05:37	0.0	0.00	02/26/18 06:26	0	*	Aloha1	System constraints
02/26/18 14:49	0.0	11.40	02/26/18 15:22	0	*	Waianae	System constraints
02/26/18 14:51	0.0	1.20	02/26/18 15:21	0	*	Aloha1	System constraints
02/27/18 06:37	0.0	0.00	02/27/18 19:48	0	*	North	System constraints
02/27/18 06:38	0.0	0.00	02/27/18 19:49	0	*	South	System constraints
02/27/18 09:53	0.0	42.10	02/27/18 11:15	0	*	Mauka	System constraints
02/28/18 06:11	0.0	0.00	02/28/18 18:48	0	*	North	System constraints
02/28/18 06:13	0.0	0.00	02/28/18 18:49	0	*	South	System constraints

Aloha1 = Aloha Solar 1 PV Farm

KLS2 = Kalaeloa Solar 2 PV Farm

KREP = Kalaeloa Renewable Energy Park

KWF = Kahuku Wind Farm

Makai = Kawaiiloa Makai Wind Farm

Mauka = Kawaiiloa Mauka Wind Farm

North = Waihonu North PV Farm

South = Waihonu South PV Farm

Waianae = Waianae Solar PV Farm

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

* Data has not been provided by IPP.



Maui Curtailment Report

February 2018

Start Date and Time	Duration	IPP Curtailed	Estimated Curtailed MWH	Peak MW Curtailed	Reasons for Curtailment
2/1/2018 14:50	0:01	AWE	0.002	0.100	Oversupply
2/1/2018 15:17	0:01	AWE	0.003	0.200	Oversupply
2/1/2018 21:27	0:01	AWE	0.002	0.100	Oversupply
2/1/2018 21:46	0:01	AWE	0.002	0.100	Oversupply
2/2/2018 11:13	0:01	AWE	0.003	0.200	Oversupply
2/4/2018 9:11	0:01	KWP	0.001	0.054	Oversupply
2/4/2018 13:40	0:01	AWE	0.002	0.100	Oversupply
2/5/2018 16:15	0:01	AWE	0.002	0.100	Oversupply
2/5/2018 19:47	0:01	KWP	0.003	0.209	Oversupply
2/6/2018 12:43	0:01	AWE	0.002	0.100	Oversupply
2/6/2018 12:48	0:01	AWE	0.002	0.100	Oversupply
2/6/2018 13:19	0:01	AWE	0.003	0.200	Oversupply
2/7/2018 9:33	0:01	KWP	0.327	19.672	Oversupply
2/7/2018 10:48	0:01	AWE	0.002	0.100	Oversupply
2/8/2018 10:51	0:01	KWP	0.331	19.672	Oversupply
2/8/2018 12:53	0:03	KWP	0.090	3.720	Oversupply
2/8/2018 13:46	0:02	KWP	0.010	9.560	Oversupply
2/8/2018 13:50	0:01	KWP	0.007	9.966	Oversupply
2/8/2018 13:52	1:29	BS250	Data is not available	Data is not available	Oversupply
2/8/2018 13:57	0:41	KWP	3.327	14.573	Oversupply
2/8/2018 14:40	0:40	KWP	3.400	13.944	Oversupply
2/8/2018 23:45	0:02	KWP	0.010	11.692	Oversupply
2/8/2018 23:48	0:03	KWP	0.016	12.699	Oversupply
2/9/2018 9:09	0:06	KWP	0.091	17.916	Oversupply
2/9/2018 9:16	0:02	KWP	0.007	18.384	Oversupply
2/9/2018 9:24	0:01	KWP	0.004	17.209	Oversupply
2/9/2018 9:38	5:22	KWP	57.463	19.082	Oversupply
2/9/2018 11:46	3:18	BS250	Data is not available	Data is not available	Oversupply
2/9/2018 12:02	0:01	MH	Data is not available	Data is not available	Oversupply
2/9/2018 12:02	0:06	5A	Data is not available	Data is not available	Oversupply
2/9/2018 12:02	0:02	ESB	Data is not available	Data is not available	Oversupply
2/9/2018 12:02	0:06	ESB	Data is not available	Data is not available	Oversupply
2/9/2018 12:02	0:02	MH	Data is not available	Data is not available	Oversupply
2/9/2018 12:02	0:06	MH	Data is not available	Data is not available	Oversupply
2/9/2018 12:02	0:04	KWP	0.654	19.672	Oversupply
2/9/2018 12:09	0:06	KWP	1.135	19.672	Oversupply
2/9/2018 12:10	0:01	5A	Data is not available	Data is not available	Oversupply
2/9/2018 12:10	0:01	MH	Data is not available	Data is not available	Oversupply
2/9/2018 12:13	0:02	5A	Data is not available	Data is not available	Oversupply
2/9/2018 12:13	0:02	ESB	Data is not available	Data is not available	Oversupply
2/9/2018 12:13	0:02	MH	Data is not available	Data is not available	Oversupply
2/9/2018 12:16	0:01	KWP	0.198	19.672	Oversupply
2/9/2018 12:17	0:03	5A	Data is not available	Data is not available	Oversupply
2/9/2018 12:17	0:01	ESB	Data is not available	Data is not available	Oversupply
2/9/2018 12:17	0:02	ESB	Data is not available	Data is not available	Oversupply
2/9/2018 12:17	0:03	ESB	Data is not available	Data is not available	Oversupply
2/9/2018 12:17	0:04	ESB	Data is not available	Data is not available	Oversupply
2/9/2018 12:17	0:01	MH	Data is not available	Data is not available	Oversupply
2/9/2018 12:17	0:02	MH	Data is not available	Data is not available	Oversupply
2/9/2018 12:18	0:08	KWP	1.567	19.672	Oversupply
2/9/2018 12:20	0:01	MH	Data is not available	Data is not available	Oversupply
2/9/2018 12:22	0:01	ESB	Data is not available	Data is not available	Oversupply
2/9/2018 12:22	0:01	MH	Data is not available	Data is not available	Oversupply
2/9/2018 12:24	0:01	5A	Data is not available	Data is not available	Oversupply
2/9/2018 12:24	0:02	5A	Data is not available	Data is not available	Oversupply
2/9/2018 12:24	0:01	ESB	Data is not available	Data is not available	Oversupply
2/9/2018 12:24	0:01	MH	Data is not available	Data is not available	Oversupply
2/9/2018 12:32	0:01	ESB	Data is not available	Data is not available	Oversupply
2/9/2018 12:32	0:01	MH	Data is not available	Data is not available	Oversupply
2/9/2018 12:32	0:04	KWP	0.497	19.672	Oversupply
2/9/2018 12:34	0:01	ESB	Data is not available	Data is not available	Oversupply
2/9/2018 12:34	0:04	ESB	Data is not available	Data is not available	Oversupply
2/9/2018 12:34	0:01	MH	Data is not available	Data is not available	Oversupply
2/9/2018 12:34	0:06	5A	Data is not available	Data is not available	Oversupply
2/9/2018 12:34	0:07	5A	Data is not available	Data is not available	Oversupply
2/9/2018 12:34	0:02	ESB	Data is not available	Data is not available	Oversupply
2/9/2018 12:34	0:03	ESB	Data is not available	Data is not available	Oversupply
2/9/2018 12:34	0:05	ESB	Data is not available	Data is not available	Oversupply
2/9/2018 12:34	0:06	ESB	Data is not available	Data is not available	Oversupply
2/9/2018 12:34	0:07	ESB	Data is not available	Data is not available	Oversupply
2/9/2018 12:36	0:01	MH	Data is not available	Data is not available	Oversupply
2/9/2018 12:36	0:02	MH	Data is not available	Data is not available	Oversupply
2/9/2018 12:36	0:03	MH	Data is not available	Data is not available	Oversupply
2/9/2018 12:36	0:04	MH	Data is not available	Data is not available	Oversupply
2/9/2018 12:36	0:05	MH	Data is not available	Data is not available	Oversupply
2/9/2018 12:37	0:03	KWP	0.376	19.672	Oversupply
2/10/2018 1:10	0:06	KWP	0.099	19.208	Oversupply
2/10/2018 8:55	0:04	KWP	0.040	17.988	Oversupply
2/10/2018 9:04	0:02	KWP	0.048	18.638	Oversupply
2/10/2018 9:35	0:01	AWE	0.002	0.100	Oversupply
2/10/2018 9:39	0:01	AWE	0.002	0.100	Oversupply
2/10/2018 9:43	0:01	AWE	0.002	0.100	Oversupply



Maui Curtailment Report

February 2018

Start Date and Time	Duration	IPP Curtailed	Estimated Curtailed MWH	Peak MW Curtailed	Reasons for Curtailment
2/10/2018 10:08	0:04	KWP2	0.150	14.685	Oversupply
2/10/2018 10:41	0:04	KWP2	0.030	15.089	Oversupply
2/10/2018 10:48	1:15	KWP2	8.452	16.540	Oversupply
2/10/2018 10:49	5:00	BS250	Data is not available	Data is not available	Oversupply
2/10/2018 12:07	0:05	KWP2	0.103	8.436	Oversupply
2/10/2018 12:15	2:06	KWP2	13.895	13.896	Oversupply
2/10/2018 15:59	0:01	AWE	0.002	0.100	Oversupply
2/11/2018 9:48	0:13	KWP2	0.263	2.451	Oversupply
2/11/2018 9:51	0:01	5A	Data is not available	Data is not available	Oversupply
2/11/2018 9:51	0:01	ESB	Data is not available	Data is not available	Oversupply
2/11/2018 9:56	0:02	KWP	0.653	19.672	Oversupply
2/11/2018 9:57	0:01	5A	Data is not available	Data is not available	Oversupply
2/11/2018 9:57	0:01	ESB	Data is not available	Data is not available	Oversupply
2/11/2018 9:57	0:01	MH	Data is not available	Data is not available	Oversupply
2/11/2018 9:57	0:02	5A	Data is not available	Data is not available	Oversupply
2/11/2018 9:57	0:02	ESB	Data is not available	Data is not available	Oversupply
2/11/2018 9:57	0:02	MH	Data is not available	Data is not available	Oversupply
2/11/2018 10:00	0:01	KWP	0.327	19.672	Oversupply
2/11/2018 11:22	0:01	KWP2	0.004	1.329	Oversupply
2/12/2018 10:00	0:09	AWE	0.098	7.000	Oversupply
2/12/2018 10:10	0:05	AWE	0.064	6.800	Oversupply
2/12/2018 11:15	0:01	AWE	0.006	6.400	Oversupply
2/12/2018 11:22	0:05	AWE	0.076	7.100	Oversupply
2/12/2018 11:29	1:32	BS250	Data is not available	Data is not available	Oversupply
2/12/2018 11:30	0:02	AWE	0.031	6.900	Oversupply
2/12/2018 11:34	0:01	AWE	0.008	6.100	Oversupply
2/12/2018 11:37	0:01	AWE	0.004	6.900	Oversupply
2/12/2018 11:57	0:03	AWE	0.035	6.900	Oversupply
2/12/2018 12:01	0:01	AWE	0.007	6.300	Oversupply
2/12/2018 12:05	0:02	AWE	0.006	7.100	Oversupply
2/13/2018 3:54	0:14	AWE	0.399	18.700	Oversupply
2/13/2018 3:54	0:16	KWP2	0.499	3.090	Oversupply
2/13/2018 4:17	0:03	KWP2	0.049	2.060	Oversupply
2/13/2018 13:23	0:01	ESA	Data is not available	Data is not available	Oversupply
2/13/2018 13:23	0:01	ESB	Data is not available	Data is not available	Oversupply
2/13/2018 13:23	0:01	MH	Data is not available	Data is not available	Oversupply
2/13/2018 13:25	0:01	5A	Data is not available	Data is not available	Oversupply
2/13/2018 13:25	0:01	ESA	Data is not available	Data is not available	Oversupply
2/13/2018 13:25	0:01	ESB	Data is not available	Data is not available	Oversupply
2/13/2018 13:25	0:01	MH	Data is not available	Data is not available	Oversupply
2/13/2018 13:28	0:01	5A	Data is not available	Data is not available	Oversupply
2/13/2018 13:28	0:01	ESA	Data is not available	Data is not available	Oversupply
2/13/2018 13:28	0:01	ESB	Data is not available	Data is not available	Oversupply
2/13/2018 13:28	0:01	MH	Data is not available	Data is not available	Oversupply
2/14/2018 10:54	0:01	5A	Data is not available	Data is not available	Oversupply
2/14/2018 10:54	0:01	BS	Data is not available	Data is not available	Oversupply
2/14/2018 10:54	0:01	BS250	Data is not available	Data is not available	Oversupply
2/14/2018 10:54	0:01	ESA	Data is not available	Data is not available	Oversupply
2/14/2018 10:54	0:01	ESB	Data is not available	Data is not available	Oversupply
2/14/2018 10:54	0:01	MH	Data is not available	Data is not available	Oversupply
2/14/2018 10:54	0:01	KWP2	0.006	0.345	Oversupply
2/14/2018 11:41	0:01	KWP2	0.002	3.836	Oversupply
2/14/2018 11:43	0:01	KWP2	0.005	3.612	Oversupply
2/14/2018 11:47	0:01	KWP2	0.000	4.107	Oversupply
2/14/2018 11:56	0:01	AWE	0.003	0.200	Oversupply
2/14/2018 12:02	0:08	KWP2	0.237	8.189	Oversupply
2/14/2018 12:17	0:01	KWP2	0.003	9.448	Oversupply
2/14/2018 13:27	0:25	BS250	Data is not available	Data is not available	Oversupply
2/14/2018 13:29	0:21	KWP2	1.601	14.656	Oversupply
2/14/2018 14:47	0:22	BS250	Data is not available	Data is not available	Oversupply
2/14/2018 14:50	0:03	KWP2	0.100	18.862	Oversupply
2/14/2018 15:10	0:01	AWE	0.002	0.100	Oversupply
2/14/2018 15:29	0:01	AWE	0.002	0.100	Oversupply
2/14/2018 23:17	0:06	KWP2	0.269	12.209	Oversupply
2/15/2018 0:46	0:05	KWP2	0.379	13.916	Oversupply
2/15/2018 1:01	0:04	KWP2	0.085	11.680	Oversupply
2/15/2018 1:06	0:01	KWP2	0.000	10.914	Oversupply
2/15/2018 1:13	0:01	KWP2	0.003	12.797	Oversupply
2/15/2018 2:02	0:05	KWP2	0.340	18.226	Oversupply
2/15/2018 2:40	0:01	KWP2	0.006	14.506	Oversupply
2/15/2018 2:46	0:12	KWP2	0.959	18.774	Oversupply
2/15/2018 3:01	0:37	KWP2	5.949	18.910	Oversupply
2/15/2018 3:51	0:06	KWP2	0.641	17.663	Oversupply
2/15/2018 4:14	0:01	KWP2	0.010	17.280	Oversupply
2/15/2018 4:16	0:01	KWP2	0.006	18.143	Oversupply
2/15/2018 5:02	0:01	KWP2	0.003	17.125	Oversupply
2/15/2018 5:24	0:02	KWP2	0.011	16.183	Oversupply
2/15/2018 6:22	0:09	KWP2	0.188	18.752	Oversupply
2/15/2018 6:32	0:04	KWP2	0.174	17.446	Oversupply
2/15/2018 15:23	0:46	KWP2	3.024	17.928	Oversupply
2/15/2018 16:10	0:02	KWP2	0.023	7.081	Oversupply
2/17/2018 9:15	0:01	KWP2	0.003	0.884	Oversupply



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Start Date and Time	Duration	IPP Curtailed	Estimated Curtailed MWH	Peak MW Curtailed	Reasons for Curtailment
2/17/2018 19:49	0:01	AWE	0.002	0.100	Oversupply
2/17/2018 19:55	0:01	AWE	0.002	0.100	Oversupply
2/17/2018 23:22	0:01	KWP	0.000	0.028	Oversupply
2/17/2018 23:55	0:01	KWP	0.005	0.312	Oversupply
2/18/2018 3:02	0:01	AWE	0.002	0.100	Oversupply
2/18/2018 11:24	0:01	KWP	0.000	0.008	Oversupply
2/18/2018 12:37	0:01	KWP	0.001	0.063	Oversupply
2/18/2018 13:47	1:24	KWP	17.085	17.714	Oversupply
2/18/2018 14:03	0:02	5A	Data is not available	Data is not available	Oversupply
2/18/2018 14:03	0:03	5A	Data is not available	Data is not available	Oversupply
2/18/2018 14:03	0:03	BS	Data is not available	Data is not available	Oversupply
2/18/2018 14:03	0:02	BS250	Data is not available	Data is not available	Oversupply
2/18/2018 14:03	0:03	BS250	Data is not available	Data is not available	Oversupply
2/18/2018 14:03	0:03	ESA	Data is not available	Data is not available	Oversupply
2/18/2018 14:03	0:01	ESB	Data is not available	Data is not available	Oversupply
2/18/2018 14:03	0:02	ESB	Data is not available	Data is not available	Oversupply
2/18/2018 14:03	0:03	ESB	Data is not available	Data is not available	Oversupply
2/18/2018 14:03	0:01	MH	Data is not available	Data is not available	Oversupply
2/18/2018 14:03	0:02	MH	Data is not available	Data is not available	Oversupply
2/18/2018 14:03	0:03	MH	Data is not available	Data is not available	Oversupply
2/18/2018 14:05	0:01	KWP	0.015	25.558	Oversupply
2/18/2018 14:08	0:01	5A	Data is not available	Data is not available	Oversupply
2/18/2018 14:08	0:01	BS	Data is not available	Data is not available	Oversupply
2/18/2018 14:08	0:01	BS250	Data is not available	Data is not available	Oversupply
2/18/2018 14:08	0:01	ESA	Data is not available	Data is not available	Oversupply
2/18/2018 14:08	0:01	ESB	Data is not available	Data is not available	Oversupply
2/18/2018 14:08	0:01	MH	Data is not available	Data is not available	Oversupply
2/18/2018 14:08	0:02	AWE	0.003	0.400	Oversupply
2/18/2018 14:08	0:02	KWP	0.049	26.112	Oversupply
2/18/2018 15:13	0:09	KWP	0.221	17.714	Oversupply
2/18/2018 15:23	0:08	KWP	0.152	17.714	Oversupply
2/18/2018 15:37	0:02	KWP	0.021	19.211	Oversupply
2/18/2018 21:02	0:12	KWP	0.625	18.776	Oversupply
2/18/2018 21:15	0:01	KWP	0.005	18.905	Oversupply
2/18/2018 23:28	0:04	KWP	0.211	17.815	Oversupply
2/18/2018 23:29	0:01	AWE	0.008	3.500	Oversupply
2/18/2018 23:29	0:01	KWP	0.009	15.569	Oversupply
2/19/2018 1:16	0:01	AWE	0.003	17.500	Oversupply
2/19/2018 1:16	0:01	KWP	0.000	0.011	Oversupply
2/19/2018 1:19	0:12	KWP	0.699	6.012	Oversupply
2/19/2018 9:03	0:01	KWP	0.000	0.022	Oversupply
2/19/2018 9:43	0:02	KWP	0.031	3.847	Oversupply
2/19/2018 9:46	0:01	KWP	0.003	3.679	Oversupply
2/19/2018 9:53	0:02	KWP	0.027	4.337	Oversupply
2/19/2018 9:56	0:13	KWP	0.539	7.999	Oversupply
2/19/2018 10:01	0:01	5A	Data is not available	Data is not available	Oversupply
2/19/2018 10:01	0:01	BS	Data is not available	Data is not available	Oversupply
2/19/2018 10:01	0:01	BS250	Data is not available	Data is not available	Oversupply
2/19/2018 10:01	0:01	ESA	Data is not available	Data is not available	Oversupply
2/19/2018 10:01	0:01	ESB	Data is not available	Data is not available	Oversupply
2/19/2018 10:16	0:18	KWP	0.242	5.755	Oversupply
2/19/2018 11:26	0:01	KWP	0.004	1.653	Oversupply
2/19/2018 11:41	0:01	5A	Data is not available	Data is not available	Oversupply
2/19/2018 11:41	0:01	BS	Data is not available	Data is not available	Oversupply
2/19/2018 11:41	0:01	BS250	Data is not available	Data is not available	Oversupply
2/19/2018 11:41	0:01	ESA	Data is not available	Data is not available	Oversupply
2/19/2018 11:47	0:03	5A	Data is not available	Data is not available	Oversupply
2/19/2018 11:47	0:04	5A	Data is not available	Data is not available	Oversupply
2/19/2018 11:47	0:04	BS	Data is not available	Data is not available	Oversupply
2/19/2018 11:47	0:03	BS250	Data is not available	Data is not available	Oversupply
2/19/2018 11:47	0:04	BS250	Data is not available	Data is not available	Oversupply
2/19/2018 11:47	0:04	ESA	Data is not available	Data is not available	Oversupply
2/19/2018 11:56	0:01	5A	Data is not available	Data is not available	Oversupply
2/19/2018 11:56	0:01	BS250	Data is not available	Data is not available	Oversupply
2/19/2018 11:56	0:02	BS	Data is not available	Data is not available	Oversupply
2/19/2018 11:56	0:02	ESA	Data is not available	Data is not available	Oversupply
2/19/2018 11:59	0:01	BS	Data is not available	Data is not available	Oversupply
2/19/2018 11:59	0:01	ESA	Data is not available	Data is not available	Oversupply
2/19/2018 12:01	0:36	5A	Data is not available	Data is not available	Oversupply
2/19/2018 12:01	0:37	5A	Data is not available	Data is not available	Oversupply
2/19/2018 12:01	0:37	BS	Data is not available	Data is not available	Oversupply
2/19/2018 12:01	0:36	BS250	Data is not available	Data is not available	Oversupply
2/19/2018 12:01	0:37	BS250	Data is not available	Data is not available	Oversupply
2/19/2018 12:01	0:37	ESA	Data is not available	Data is not available	Oversupply
2/19/2018 12:01	0:18	ESB	Data is not available	Data is not available	Oversupply
2/19/2018 12:01	0:19	ESB	Data is not available	Data is not available	Oversupply
2/19/2018 12:01	0:20	ESB	Data is not available	Data is not available	Oversupply
2/19/2018 12:01	0:22	ESB	Data is not available	Data is not available	Oversupply
2/19/2018 12:01	0:23	ESB	Data is not available	Data is not available	Oversupply
2/19/2018 12:01	0:25	ESB	Data is not available	Data is not available	Oversupply
2/19/2018 12:01	0:26	ESB	Data is not available	Data is not available	Oversupply
2/19/2018 12:01	0:27	ESB	Data is not available	Data is not available	Oversupply



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Start Date and Time	Duration	IPP Curtailed	Estimated Curtailed MWH	Peak MW Curtailed	Reasons for Curtailment
2/19/2018 12:01	0:28	ESB	Data is not available	Data is not available	Oversupply
2/19/2018 12:01	0:29	ESB	Data is not available	Data is not available	Oversupply
2/19/2018 12:01	0:30	ESB	Data is not available	Data is not available	Oversupply
2/19/2018 12:01	0:31	ESB	Data is not available	Data is not available	Oversupply
2/19/2018 12:01	0:32	ESB	Data is not available	Data is not available	Oversupply
2/19/2018 12:01	0:33	ESB	Data is not available	Data is not available	Oversupply
2/19/2018 12:01	0:34	ESB	Data is not available	Data is not available	Oversupply
2/19/2018 12:01	0:35	ESB	Data is not available	Data is not available	Oversupply
2/19/2018 12:01	0:36	ESB	Data is not available	Data is not available	Oversupply
2/19/2018 12:01	0:37	ESB	Data is not available	Data is not available	Oversupply
2/19/2018 12:04	0:15	MH	Data is not available	Data is not available	Oversupply
2/19/2018 12:04	0:16	MH	Data is not available	Data is not available	Oversupply
2/19/2018 12:04	0:17	MH	Data is not available	Data is not available	Oversupply
2/19/2018 12:04	0:18	MH	Data is not available	Data is not available	Oversupply
2/19/2018 12:04	0:19	MH	Data is not available	Data is not available	Oversupply
2/19/2018 12:04	0:20	MH	Data is not available	Data is not available	Oversupply
2/19/2018 12:04	0:22	MH	Data is not available	Data is not available	Oversupply
2/19/2018 12:04	0:23	MH	Data is not available	Data is not available	Oversupply
2/19/2018 12:04	0:24	MH	Data is not available	Data is not available	Oversupply
2/19/2018 12:04	0:25	MH	Data is not available	Data is not available	Oversupply
2/19/2018 12:04	0:26	MH	Data is not available	Data is not available	Oversupply
2/19/2018 12:04	0:27	MH	Data is not available	Data is not available	Oversupply
2/19/2018 12:04	0:28	MH	Data is not available	Data is not available	Oversupply
2/19/2018 12:04	0:29	MH	Data is not available	Data is not available	Oversupply
2/19/2018 12:04	0:30	MH	Data is not available	Data is not available	Oversupply
2/19/2018 12:04	0:31	MH	Data is not available	Data is not available	Oversupply
2/19/2018 12:04	0:32	MH	Data is not available	Data is not available	Oversupply
2/19/2018 12:04	0:33	MH	Data is not available	Data is not available	Oversupply
2/19/2018 12:04	0:34	MH	Data is not available	Data is not available	Oversupply
2/19/2018 12:04	0:21	MH	Data is not available	Data is not available	Oversupply
2/19/2018 12:07	0:04	AWE	0.007	0.100	Oversupply
2/19/2018 12:12	0:07	AWE	0.027	0.400	Oversupply
2/19/2018 12:41	0:01	5A	Data is not available	Data is not available	Oversupply
2/19/2018 12:41	0:01	BS	Data is not available	Data is not available	Oversupply
2/19/2018 12:41	0:01	BS250	Data is not available	Data is not available	Oversupply
2/19/2018 12:41	0:01	ESA	Data is not available	Data is not available	Oversupply
2/19/2018 12:41	0:01	ESB	Data is not available	Data is not available	Oversupply
2/19/2018 12:44	0:01	5A	Data is not available	Data is not available	Oversupply
2/19/2018 12:44	0:01	BS	Data is not available	Data is not available	Oversupply
2/19/2018 12:44	0:01	BS250	Data is not available	Data is not available	Oversupply
2/19/2018 12:44	0:01	ESA	Data is not available	Data is not available	Oversupply
2/19/2018 12:44	0:01	ESB	Data is not available	Data is not available	Oversupply
2/19/2018 15:09	0:01	KWP11	0.001	0.034	Oversupply
2/19/2018 16:17	0:01	KWP11	0.000	0.001	Oversupply
2/19/2018 16:42	0:01	KWP11	0.001	0.031	Oversupply
2/19/2018 19:24	0:01	KWP11	0.001	0.038	Oversupply
2/21/2018 9:44	0:01	KWP11	0.001	0.058	Oversupply
2/21/2018 10:14	0:03	AWE	0.035	15.800	Oversupply
2/21/2018 10:16	0:02	KWP11	0.004	0.198	Oversupply
2/22/2018 13:04	0:01	KWP11	0.000	0.014	Oversupply
2/23/2018 10:53	0:27	AWE	1.827	17.600	Oversupply
2/23/2018 11:19	0:02	KWP11	0.006	0.225	Oversupply
2/23/2018 11:32	0:41	AWE	3.567	17.700	Oversupply
2/23/2018 14:25	0:12	KWP11	0.941	12.130	Oversupply
2/23/2018 15:17	0:02	KWP11	0.008	13.474	Oversupply
2/24/2018 3:30	0:01	AWE	0.001	20.800	Oversupply
2/24/2018 9:49	0:04	AWE	0.029	20.700	Oversupply
2/24/2018 13:10	0:01	KWP11	0.000	0.026	Oversupply
2/24/2018 14:23	0:01	KWP11	0.000	0.007	Oversupply
2/24/2018 19:54	0:01	KWP11	0.000	0.014	Oversupply
2/25/2018 3:10	0:02	KWP11	0.040	5.107	Oversupply
2/25/2018 3:13	0:02	KWP11	0.009	4.567	Oversupply
2/25/2018 12:16	0:01	KWP11	0.001	0.070	Oversupply
2/25/2018 20:13	0:01	KWP11	0.001	0.066	Oversupply
2/25/2018 22:04	0:01	KWP11	0.001	0.057	Oversupply
2/25/2018 22:29	2:12	KWP11	27.288	19.146	Oversupply
2/25/2018 22:46	0:03	AWE	0.042	20.600	Oversupply
2/26/2018 0:20	0:04	AWE	0.033	20.800	Oversupply
2/26/2018 0:25	0:01	AWE	0.004	20.600	Oversupply
2/26/2018 0:28	0:01	AWE	0.008	20.800	Oversupply
2/26/2018 0:31	0:01	AWE	0.013	20.600	Oversupply
2/26/2018 0:43	4:49	KWP11	75.971	19.211	Oversupply
2/26/2018 1:26	0:01	AWE	0.011	20.700	Oversupply
2/26/2018 1:28	2:49	AWE	9.903	20.800	Oversupply
2/26/2018 4:22	0:01	AWE	0.002	20.800	Oversupply
2/26/2018 4:28	0:03	AWE	0.028	20.700	Oversupply
2/26/2018 4:32	0:01	AWE	0.002	20.800	Oversupply
2/26/2018 7:37	0:09	KWP11	0.321	12.052	Oversupply
2/26/2018 10:20	0:04	AWE	0.025	20.700	Oversupply
2/26/2018 12:46	0:04	KWP11	0.026	0.820	Oversupply
2/26/2018 12:46	0:03	AWE	0.023	20.700	Oversupply
2/26/2018 13:02	0:01	KWP11	0.000	0.014	Oversupply



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Start Date and Time	Duration	IPP Curtailed	Estimated Curtailed MWH	Peak MW Curtailed	Reasons for Curtailment
2/26/2018 14:02	0:06	KWP/II	0.174	7.782	Oversupply
2/26/2018 14:19	0:08	KWP/II	0.261	9.104	Oversupply
2/26/2018 14:29	0:04	KWP/II	0.062	6.766	Oversupply
2/26/2018 16:42	0:01	KWP/II	0.000	0.006	Oversupply
2/27/2018 9:07	0:01	BS250	Data is not available	Data is not available	Oversupply
2/27/2018 9:08	0:05	AWE	0.027	20.800	Oversupply
2/27/2018 9:10	0:03	BS250	Data is not available	Data is not available	Oversupply
2/27/2018 9:10	0:02	BS250	Data is not available	Data is not available	Oversupply
2/27/2018 9:17	0:03	BS250	Data is not available	Data is not available	Oversupply
2/27/2018 9:17	0:04	BS250	Data is not available	Data is not available	Oversupply
2/27/2018 9:17	0:01	AWE	0.009	20.700	Oversupply
2/27/2018 9:19	0:03	AWE	0.077	20.700	Oversupply
2/27/2018 9:52	0:01	BS250	Data is not available	Data is not available	Oversupply
2/27/2018 10:44	0:01	BS250	Data is not available	Data is not available	Oversupply
2/27/2018 10:44	0:01	AWE	0.006	20.800	Oversupply
2/27/2018 11:56	0:11	BS250	Data is not available	Data is not available	Oversupply
2/27/2018 11:56	0:12	BS250	Data is not available	Data is not available	Oversupply
2/27/2018 11:56	0:05	KWP/II	0.010	0.333	Oversupply
2/27/2018 11:56	0:01	AWE	0.001	17.500	Oversupply
2/27/2018 11:58	0:03	AWE	0.016	17.600	Oversupply
2/27/2018 12:02	0:01	KWP/II	0.000	0.058	Oversupply
2/27/2018 12:02	0:05	AWE	0.081	17.600	Oversupply
2/27/2018 12:08	0:01	AWE	0.003	17.500	Oversupply
2/27/2018 12:10	1:40	BS250	Data is not available	Data is not available	Oversupply
2/27/2018 12:10	1:41	BS250	Data is not available	Data is not available	Oversupply
2/27/2018 12:11	1:35	AWE	9.721	20.800	Oversupply
2/27/2018 12:12	1:39	KWP/II	3.800	4.359	Oversupply
2/27/2018 13:48	0:01	AWE	0.002	20.800	Oversupply
2/27/2018 13:56	0:01	BS250	Data is not available	Data is not available	Oversupply
2/27/2018 13:57	0:01	KWP/II	0.006	3.420	Oversupply
2/28/2018 11:12	0:01	KWP/II	0.001	0.087	Oversupply
2/28/2018 11:46	1:19	KWP/II	1.547	2.095	Oversupply
2/28/2018 11:46	1:18	AWE	16.029	21.000	Oversupply
2/28/2018 23:06	0:25	AWE	0.279	21.000	Oversupply
2/28/2018 23:35	0:14	AWE	0.164	20.900	Oversupply
Total Estimated Curtailed MWH			281.367		

Notes:

- Curtailment for Kaheawa Wind Power ("KWP"), Makila Hydroelectric ("MH"), AAAAA Rent-A-Space Maui LTD ("5A"), Bioreal Solar, LLC ("BS"), Auwahi Wind Energy ("AWE"), Kaheawa Wind Power II ("KWP/II") Bioreal Solar 250, LLC ("BS250"), Extra Spaces A ("ESA"), and Extra Spaces B ("ESB") 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 KWP/II. 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 5A, BS, BS 250, ESA, ESB, or MH.
- Curtailment signals sent to 5A, BS, BS250, ESA, or ESB during nighttime hours are not recorded as curtailment events because no energy generation is possible during that time.
- The curtailment reasons have been modified to oversupply, system constraints, and facility requested, to provide continuity with HPUC Docket No. 2013-0141 Decoupling for HECO companies metrics.



Start Date and Time	Duration	IPP Curtailed	Estimated MWh Curtailed	Peak MW Curtailed	Reasons for Curtailment
2/1/2018 9:06	0:01	LSR	Data is not available	Data is not available	
2/1/2018 9:11	0:01	LSR	Data is not available	Data is not available	
2/1/2018 9:37	0:01	LSR	Data is not available	Data is not available	
2/1/2018 9:40	0:10	LSR	Data is not available	Data is not available	
2/1/2018 9:54	0:08	LSR	Data is not available	Data is not available	
2/1/2018 10:05	0:13	LSR	Data is not available	Data is not available	
2/1/2018 10:25	0:01	LSR	Data is not available	Data is not available	
2/1/2018 10:28	0:14	LSR	Data is not available	Data is not available	
2/1/2018 10:44	0:02	LSR	Data is not available	Data is not available	
2/1/2018 10:49	0:02	LSR	Data is not available	Data is not available	
2/1/2018 10:56	0:03	LSR	Data is not available	Data is not available	
2/1/2018 11:00	0:40	LSR	Data is not available	Data is not available	
2/1/2018 11:44	0:11	LSR	Data is not available	Data is not available	
2/1/2018 12:01	1:44	LSR	Data is not available	Data is not available	
2/1/2018 13:46	0:07	LSR	Data is not available	Data is not available	
2/1/2018 13:54	0:08	LSR	Data is not available	Data is not available	
2/1/2018 14:03	2:09	LSR	Data is not available	Data is not available	
2/2/2018 9:27	0:01	LSR	Data is not available	Data is not available	
2/2/2018 9:54	0:03	LSR	Data is not available	Data is not available	
2/2/2018 10:00	0:05	LSR	Data is not available	Data is not available	
2/2/2018 10:06	0:01	LSR	Data is not available	Data is not available	
2/2/2018 10:09	0:01	LSR	Data is not available	Data is not available	
2/2/2018 10:11	0:08	LSR	Data is not available	Data is not available	
2/2/2018 10:20	0:02	LSR	Data is not available	Data is not available	
2/2/2018 10:27	0:01	LSR	Data is not available	Data is not available	
2/2/2018 10:54	0:01	LSR	Data is not available	Data is not available	
2/2/2018 10:58	0:04	LSR	Data is not available	Data is not available	
2/2/2018 11:05	0:03	LSR	Data is not available	Data is not available	
2/2/2018 11:13	0:02	LSR	Data is not available	Data is not available	
2/2/2018 11:16	0:02	LSR	Data is not available	Data is not available	
2/2/2018 11:28	0:01	LSR	Data is not available	Data is not available	
2/2/2018 11:30	1:34	LSR	Data is not available	Data is not available	
2/2/2018 13:06	0:07	LSR	Data is not available	Data is not available	
2/2/2018 13:14	0:02	LSR	Data is not available	Data is not available	
2/2/2018 13:17	0:14	LSR	Data is not available	Data is not available	
2/2/2018 13:32	0:10	LSR	Data is not available	Data is not available	
2/2/2018 13:45	0:21	LSR	Data is not available	Data is not available	
2/2/2018 14:11	0:03	LSR	Data is not available	Data is not available	
2/2/2018 14:33	0:02	LSR	Data is not available	Data is not available	
2/2/2018 14:46	0:03	LSR	Data is not available	Data is not available	
2/2/2018 14:51	0:04	LSR	Data is not available	Data is not available	
2/2/2018 15:21	0:01	LSR	Data is not available	Data is not available	
2/3/2018 7:24	2:32	LSR	Data is not available	Data is not available	
2/3/2018 9:57	4:59	LSR	Data is not available	Data is not available	
2/3/2018 15:13	0:01	LSR	Data is not available	Data is not available	
2/3/2018 15:30	0:01	LSR	Data is not available	Data is not available	
2/3/2018 15:32	0:06	LSR	Data is not available	Data is not available	
2/3/2018 15:44	0:01	LSR	Data is not available	Data is not available	
2/4/2018 7:52	0:01	LSR	Data is not available	Data is not available	
2/4/2018 7:56	0:02	LSR	Data is not available	Data is not available	
2/4/2018 8:49	0:04	LSR	Data is not available	Data is not available	
2/4/2018 8:56	0:10	LSR	Data is not available	Data is not available	
2/4/2018 10:07	0:06	LSR	Data is not available	Data is not available	
2/4/2018 10:23	0:03	LSR	Data is not available	Data is not available	
2/4/2018 10:27	0:01	LSR	Data is not available	Data is not available	
2/4/2018 11:02	0:15	LSR	Data is not available	Data is not available	
2/4/2018 11:28	0:05	LSR	Data is not available	Data is not available	
2/4/2018 11:39	0:05	LSR	Data is not available	Data is not available	
2/4/2018 11:50	0:42	LSR	Data is not available	Data is not available	
2/4/2018 12:33	0:01	LSR	Data is not available	Data is not available	
2/4/2018 12:35	0:30	LSR	Data is not available	Data is not available	
2/4/2018 13:07	4:02	LSR	Data is not available	Data is not available	
2/5/2018 9:57	0:01	LSR	Data is not available	Data is not available	
2/5/2018 9:59	0:02	LSR	Data is not available	Data is not available	
2/5/2018 12:08	0:13	LSR	Data is not available	Data is not available	
2/5/2018 13:45	0:07	LSR	Data is not available	Data is not available	
2/6/2018 10:00	0:01	LSR	Data is not available	Data is not available	
2/6/2018 10:05	0:08	LSR	Data is not available	Data is not available	
2/6/2018 10:14	0:02	LSR	Data is not available	Data is not available	
2/6/2018 10:17	0:06	LSR	Data is not available	Data is not available	
2/6/2018 10:24	0:08	LSR	Data is not available	Data is not available	
2/6/2018 10:36	0:02	LSR	Data is not available	Data is not available	
2/6/2018 10:41	0:05	LSR	Data is not available	Data is not available	
2/6/2018 10:52	0:16	LSR	Data is not available	Data is not available	
2/6/2018 11:09	0:02	LSR	Data is not available	Data is not available	
2/6/2018 11:16	0:07	LSR	Data is not available	Data is not available	
2/6/2018 11:29	0:02	LSR	Data is not available	Data is not available	
2/6/2018 11:33	0:05	LSR	Data is not available	Data is not available	
2/6/2018 11:55	0:01	LSR	Data is not available	Data is not available	
2/6/2018 11:57	0:07	LSR	Data is not available	Data is not available	
2/6/2018 12:05	0:06	LSR	Data is not available	Data is not available	
2/6/2018 12:15	0:06	LSR	Data is not available	Data is not available	
2/6/2018 12:26	0:08	LSR	Data is not available	Data is not available	
2/6/2018 12:35	0:01	LSR	Data is not available	Data is not available	
2/6/2018 15:20	0:05	LSR	Data is not available	Data is not available	
2/6/2018 15:28	0:01	LSR	Data is not available	Data is not available	
2/6/2018 16:41	0:08	LSR	Data is not available	Data is not available	
2/7/2018 7:42	1:13	LSR	Data is not available	Data is not available	
2/7/2018 8:56	0:02	LSR	Data is not available	Data is not available	
2/7/2018 9:03	0:03	LSR	Data is not available	Data is not available	
2/7/2018 9:12	0:01	LSR	Data is not available	Data is not available	
2/7/2018 9:24	0:07	LSR	Data is not available	Data is not available	
2/7/2018 9:36	0:05	LSR	Data is not available	Data is not available	
2/7/2018 9:43	0:03	LSR	Data is not available	Data is not available	
2/7/2018 9:57	0:02	LSR	Data is not available	Data is not available	
2/7/2018 10:03	0:02	LSR	Data is not available	Data is not available	
2/7/2018 10:07	0:07	LSR	Data is not available	Data is not available	



Lanai Curtailment Report

February 2018

Start Date and Time	Duration	IPP Curtailed	Estimated MWh Curtailed	Peak MW Curtailed	Reasons for Curtailment
2/7/2018 10:16	0:05	LSR	Data is not available	Data is not available	
2/7/2018 10:28	0:12	LSR	Data is not available	Data is not available	
2/7/2018 10:41	0:19	LSR	Data is not available	Data is not available	
2/7/2018 11:15	0:01	LSR	Data is not available	Data is not available	
2/7/2018 11:18	0:25	LSR	Data is not available	Data is not available	
2/7/2018 11:47	0:05	LSR	Data is not available	Data is not available	
2/7/2018 11:53	0:02	LSR	Data is not available	Data is not available	
2/7/2018 11:56	0:29	LSR	Data is not available	Data is not available	
2/7/2018 12:26	0:07	LSR	Data is not available	Data is not available	
2/7/2018 12:37	0:05	LSR	Data is not available	Data is not available	
2/7/2018 12:45	0:10	LSR	Data is not available	Data is not available	
2/7/2018 12:58	0:01	LSR	Data is not available	Data is not available	
2/7/2018 13:00	0:05	LSR	Data is not available	Data is not available	
2/7/2018 13:07	0:12	LSR	Data is not available	Data is not available	
2/7/2018 13:20	0:13	LSR	Data is not available	Data is not available	
2/7/2018 13:35	0:19	LSR	Data is not available	Data is not available	
2/7/2018 13:55	0:02	LSR	Data is not available	Data is not available	
2/7/2018 13:59	0:04	LSR	Data is not available	Data is not available	
2/7/2018 14:05	0:07	LSR	Data is not available	Data is not available	
2/7/2018 14:14	0:11	LSR	Data is not available	Data is not available	
2/7/2018 14:28	0:02	LSR	Data is not available	Data is not available	
2/7/2018 14:32	0:07	LSR	Data is not available	Data is not available	
2/7/2018 14:41	0:11	LSR	Data is not available	Data is not available	
2/7/2018 14:55	0:06	LSR	Data is not available	Data is not available	
2/7/2018 15:02	0:03	LSR	Data is not available	Data is not available	
2/7/2018 15:07	0:34	LSR	Data is not available	Data is not available	
2/7/2018 15:42	0:19	LSR	Data is not available	Data is not available	
2/7/2018 16:03	0:06	LSR	Data is not available	Data is not available	
2/7/2018 16:13	0:09	LSR	Data is not available	Data is not available	
2/7/2018 16:24	0:05	LSR	Data is not available	Data is not available	
2/7/2018 16:30	0:16	LSR	Data is not available	Data is not available	
2/7/2018 16:57	0:02	LSR	Data is not available	Data is not available	
2/7/2018 17:01	0:01	LSR	Data is not available	Data is not available	
2/7/2018 17:16	0:02	LSR	Data is not available	Data is not available	
2/7/2018 17:19	0:04	LSR	Data is not available	Data is not available	
2/7/2018 17:24	0:08	LSR	Data is not available	Data is not available	
2/8/2018 7:20	10:21	LSR	Data is not available	Data is not available	
2/9/2018 11:38	5:44	LSR	Data is not available	Data is not available	
2/9/2018 17:23	0:03	LSR	Data is not available	Data is not available	
2/10/2018 11:35	0:01	LSR	Data is not available	Data is not available	
2/11/2018 8:18	0:49	LSR	Data is not available	Data is not available	
2/11/2018 9:48	2:21	LSR	Data is not available	Data is not available	
2/11/2018 12:10	1:25	LSR	Data is not available	Data is not available	
2/11/2018 13:37	0:08	LSR	Data is not available	Data is not available	
2/11/2018 13:51	0:34	LSR	Data is not available	Data is not available	
2/11/2018 14:30	0:02	LSR	Data is not available	Data is not available	
2/11/2018 14:33	0:12	LSR	Data is not available	Data is not available	
2/11/2018 14:47	0:01	LSR	Data is not available	Data is not available	
2/11/2018 14:53	0:03	LSR	Data is not available	Data is not available	
2/11/2018 14:58	0:09	LSR	Data is not available	Data is not available	
2/11/2018 15:13	0:20	LSR	Data is not available	Data is not available	
2/11/2018 15:38	0:02	LSR	Data is not available	Data is not available	
2/11/2018 16:02	0:03	LSR	Data is not available	Data is not available	
2/11/2018 16:11	0:05	LSR	Data is not available	Data is not available	
2/11/2018 16:44	0:02	LSR	Data is not available	Data is not available	
2/11/2018 16:47	0:23	LSR	Data is not available	Data is not available	
2/11/2018 17:13	0:02	LSR	Data is not available	Data is not available	
2/12/2018 7:58	8:47	LSR	Data is not available	Data is not available	
2/12/2018 16:46	0:32	LSR	Data is not available	Data is not available	
2/13/2018 8:29	0:03	LSR	Data is not available	Data is not available	
2/13/2018 10:38	0:03	LSR	Data is not available	Data is not available	
2/13/2018 10:46	0:51	LSR	Data is not available	Data is not available	
2/13/2018 11:44	0:02	LSR	Data is not available	Data is not available	
2/13/2018 11:50	0:06	LSR	Data is not available	Data is not available	
2/13/2018 12:08	0:20	LSR	Data is not available	Data is not available	
2/13/2018 12:29	0:08	LSR	Data is not available	Data is not available	
2/13/2018 12:38	0:02	LSR	Data is not available	Data is not available	
2/13/2018 12:42	0:01	LSR	Data is not available	Data is not available	
2/13/2018 12:44	0:31	LSR	Data is not available	Data is not available	
2/13/2018 13:20	0:12	LSR	Data is not available	Data is not available	
2/13/2018 13:33	0:15	LSR	Data is not available	Data is not available	
2/13/2018 14:25	0:11	LSR	Data is not available	Data is not available	
2/13/2018 15:55	0:04	LSR	Data is not available	Data is not available	
2/14/2018 8:35	0:01	LSR	Data is not available	Data is not available	
2/14/2018 11:52	0:01	LSR	Data is not available	Data is not available	
2/14/2018 11:55	0:01	LSR	Data is not available	Data is not available	
2/14/2018 12:04	0:01	LSR	Data is not available	Data is not available	
2/14/2018 12:09	0:01	LSR	Data is not available	Data is not available	
2/14/2018 12:13	0:01	LSR	Data is not available	Data is not available	
2/14/2018 12:15	0:01	LSR	Data is not available	Data is not available	
2/14/2018 12:19	0:02	LSR	Data is not available	Data is not available	
2/14/2018 14:55	0:01	LSR	Data is not available	Data is not available	
2/14/2018 15:12	0:01	LSR	Data is not available	Data is not available	
2/14/2018 16:12	0:03	LSR	Data is not available	Data is not available	
2/15/2018 9:42	0:01	LSR	Data is not available	Data is not available	
2/15/2018 10:16	0:02	LSR	Data is not available	Data is not available	
2/15/2018 10:21	0:02	LSR	Data is not available	Data is not available	
2/15/2018 11:16	0:01	LSR	Data is not available	Data is not available	
2/15/2018 11:21	0:08	LSR	Data is not available	Data is not available	
2/15/2018 11:37	0:07	LSR	Data is not available	Data is not available	
2/15/2018 11:47	0:06	LSR	Data is not available	Data is not available	



Start Date and Time	Duration	IPP Curtailed	Estimated MWh Curtailed	Peak MW Curtailed	Reasons for Curtailment
2/15/2018 11:55	0:01	LSR	Data is not available	Data is not available	
2/15/2018 11:57	1:51	LSR	Data is not available	Data is not available	
2/15/2018 13:50	0:05	LSR	Data is not available	Data is not available	
2/15/2018 13:59	0:08	LSR	Data is not available	Data is not available	
2/15/2018 14:09	0:07	LSR	Data is not available	Data is not available	
2/15/2018 14:19	0:11	LSR	Data is not available	Data is not available	
2/15/2018 14:37	0:09	LSR	Data is not available	Data is not available	
2/15/2018 14:52	0:02	LSR	Data is not available	Data is not available	
2/15/2018 14:59	0:04	LSR	Data is not available	Data is not available	
2/15/2018 15:05	0:03	LSR	Data is not available	Data is not available	
2/15/2018 15:13	0:12	LSR	Data is not available	Data is not available	
2/15/2018 15:28	0:02	LSR	Data is not available	Data is not available	
2/15/2018 15:33	0:32	LSR	Data is not available	Data is not available	
2/15/2018 16:13	0:02	LSR	Data is not available	Data is not available	
2/15/2018 16:26	0:22	LSR	Data is not available	Data is not available	
2/15/2018 16:50	0:04	LSR	Data is not available	Data is not available	
2/15/2018 16:59	0:08	LSR	Data is not available	Data is not available	
2/15/2018 17:09	0:30	LSR	Data is not available	Data is not available	
2/15/2018 17:40	0:02	LSR	Data is not available	Data is not available	
2/16/2018 7:36	0:33	LSR	Data is not available	Data is not available	
2/16/2018 8:17	0:11	LSR	Data is not available	Data is not available	
2/16/2018 8:32	0:01	LSR	Data is not available	Data is not available	
2/16/2018 8:41	0:03	LSR	Data is not available	Data is not available	
2/16/2018 8:50	0:09	LSR	Data is not available	Data is not available	
2/16/2018 9:09	0:01	LSR	Data is not available	Data is not available	
2/16/2018 9:11	0:04	LSR	Data is not available	Data is not available	
2/16/2018 9:20	0:04	LSR	Data is not available	Data is not available	
2/16/2018 9:29	0:08	LSR	Data is not available	Data is not available	
2/16/2018 9:40	0:03	LSR	Data is not available	Data is not available	
2/16/2018 9:45	0:53	LSR	Data is not available	Data is not available	
2/16/2018 10:41	1:03	LSR	Data is not available	Data is not available	
2/16/2018 11:46	0:06	LSR	Data is not available	Data is not available	
2/16/2018 11:53	0:08	LSR	Data is not available	Data is not available	
2/16/2018 12:02	0:03	LSR	Data is not available	Data is not available	
2/16/2018 12:07	0:01	LSR	Data is not available	Data is not available	
2/16/2018 12:09	1:16	LSR	Data is not available	Data is not available	
2/16/2018 13:46	0:01	LSR	Data is not available	Data is not available	
2/16/2018 13:50	0:04	LSR	Data is not available	Data is not available	
2/16/2018 13:55	0:03	LSR	Data is not available	Data is not available	
2/16/2018 14:25	0:01	LSR	Data is not available	Data is not available	
2/16/2018 14:34	0:02	LSR	Data is not available	Data is not available	
2/16/2018 14:50	0:06	LSR	Data is not available	Data is not available	
2/16/2018 14:58	0:03	LSR	Data is not available	Data is not available	
2/16/2018 15:05	0:03	LSR	Data is not available	Data is not available	
2/16/2018 15:09	0:05	LSR	Data is not available	Data is not available	
2/16/2018 15:23	0:01	LSR	Data is not available	Data is not available	
2/16/2018 15:26	0:01	LSR	Data is not available	Data is not available	
2/16/2018 15:28	0:02	LSR	Data is not available	Data is not available	
2/16/2018 15:40	0:06	LSR	Data is not available	Data is not available	
2/16/2018 15:49	0:02	LSR	Data is not available	Data is not available	
2/16/2018 15:54	0:04	LSR	Data is not available	Data is not available	
2/16/2018 15:59	0:02	LSR	Data is not available	Data is not available	
2/16/2018 16:03	0:03	LSR	Data is not available	Data is not available	
2/16/2018 16:09	0:03	LSR	Data is not available	Data is not available	
2/16/2018 16:18	0:12	LSR	Data is not available	Data is not available	
2/16/2018 16:50	0:03	LSR	Data is not available	Data is not available	
2/16/2018 16:56	0:02	LSR	Data is not available	Data is not available	
2/16/2018 16:59	0:02	LSR	Data is not available	Data is not available	
2/16/2018 17:09	0:03	LSR	Data is not available	Data is not available	
2/16/2018 17:15	0:02	LSR	Data is not available	Data is not available	
2/16/2018 17:30	0:01	LSR	Data is not available	Data is not available	
2/16/2018 17:41	0:07	LSR	Data is not available	Data is not available	
2/16/2018 17:50	0:09	LSR	Data is not available	Data is not available	
2/17/2018 7:49	0:25	LSR	Data is not available	Data is not available	
2/17/2018 8:20	0:01	LSR	Data is not available	Data is not available	
2/17/2018 8:29	0:22	LSR	Data is not available	Data is not available	
2/17/2018 9:52	0:05	LSR	Data is not available	Data is not available	
2/17/2018 10:02	0:07	LSR	Data is not available	Data is not available	
2/17/2018 10:29	0:36	LSR	Data is not available	Data is not available	
2/17/2018 11:12	0:11	LSR	Data is not available	Data is not available	
2/17/2018 11:27	0:02	LSR	Data is not available	Data is not available	
2/17/2018 11:32	0:10	LSR	Data is not available	Data is not available	
2/17/2018 12:05	0:07	LSR	Data is not available	Data is not available	
2/17/2018 12:20	0:03	LSR	Data is not available	Data is not available	
2/17/2018 12:25	0:54	LSR	Data is not available	Data is not available	
2/17/2018 15:24	0:05	LSR	Data is not available	Data is not available	
2/17/2018 15:33	0:03	LSR	Data is not available	Data is not available	
2/17/2018 17:29	0:05	LSR	Data is not available	Data is not available	
2/18/2018 8:46	0:06	LSR	Data is not available	Data is not available	
2/18/2018 8:55	0:08	LSR	Data is not available	Data is not available	
2/18/2018 9:55	0:02	LSR	Data is not available	Data is not available	
2/18/2018 10:04	0:45	LSR	Data is not available	Data is not available	
2/18/2018 10:56	2:09	LSR	Data is not available	Data is not available	
2/18/2018 13:46	0:08	LSR	Data is not available	Data is not available	
2/18/2018 13:55	0:11	LSR	Data is not available	Data is not available	
2/18/2018 14:07	0:03	LSR	Data is not available	Data is not available	
2/18/2018 14:29	0:14	LSR	Data is not available	Data is not available	
2/18/2018 14:51	0:02	LSR	Data is not available	Data is not available	
2/18/2018 14:56	0:02	LSR	Data is not available	Data is not available	



Start Date and Time	Duration	IPP Curtailed	Estimated MWh Curtailed	Peak MW Curtailed	Reasons for Curtailment
2/18/2018 15:45	0:09	LSR	Data is not available	Data is not available	
2/19/2018 7:36	9:30	LSR	Data is not available	Data is not available	
2/19/2018 17:09	0:12	LSR	Data is not available	Data is not available	
2/19/2018 17:23	0:07	LSR	Data is not available	Data is not available	
2/19/2018 17:31	0:05	LSR	Data is not available	Data is not available	
2/19/2018 17:37	0:11	LSR	Data is not available	Data is not available	
2/19/2018 17:49	0:01	LSR	Data is not available	Data is not available	
2/20/2018 7:49	0:49	LSR	Data is not available	Data is not available	
2/20/2018 8:39	8:42	LSR	Data is not available	Data is not available	
2/20/2018 17:22	0:11	LSR	Data is not available	Data is not available	
2/21/2018 7:35	0:10	LSR	Data is not available	Data is not available	
2/21/2018 8:52	0:02	LSR	Data is not available	Data is not available	
2/21/2018 9:01	0:13	LSR	Data is not available	Data is not available	
2/21/2018 9:15	1:56	LSR	Data is not available	Data is not available	
2/21/2018 11:24	3:23	LSR	Data is not available	Data is not available	
2/21/2018 14:49	0:28	LSR	Data is not available	Data is not available	
2/21/2018 15:19	0:02	LSR	Data is not available	Data is not available	
2/21/2018 15:22	1:02	LSR	Data is not available	Data is not available	
2/21/2018 16:32	0:04	LSR	Data is not available	Data is not available	
2/21/2018 17:03	0:01	LSR	Data is not available	Data is not available	
2/21/2018 17:05	0:02	LSR	Data is not available	Data is not available	
2/21/2018 17:37	0:04	LSR	Data is not available	Data is not available	
2/22/2018 8:12	1:57	LSR	Data is not available	Data is not available	
2/23/2018 9:09	0:54	LSR	Data is not available	Data is not available	
2/23/2018 10:24	0:01	LSR	Data is not available	Data is not available	
2/23/2018 10:26	3:20	LSR	Data is not available	Data is not available	
2/23/2018 14:12	0:06	LSR	Data is not available	Data is not available	
2/23/2018 14:22	0:07	LSR	Data is not available	Data is not available	
2/23/2018 14:40	0:13	LSR	Data is not available	Data is not available	
2/23/2018 15:12	0:19	LSR	Data is not available	Data is not available	
2/23/2018 15:35	0:01	LSR	Data is not available	Data is not available	
2/23/2018 15:38	0:52	LSR	Data is not available	Data is not available	
2/23/2018 16:31	0:01	LSR	Data is not available	Data is not available	
2/24/2018 8:35	0:12	LSR	Data is not available	Data is not available	
2/24/2018 8:58	4:13	LSR	Data is not available	Data is not available	
2/24/2018 13:26	0:23	LSR	Data is not available	Data is not available	
2/24/2018 14:46	0:02	LSR	Data is not available	Data is not available	
2/25/2018 9:30	0:01	LSR	Data is not available	Data is not available	
2/25/2018 10:02	0:01	LSR	Data is not available	Data is not available	
2/25/2018 10:47	0:23	LSR	Data is not available	Data is not available	
2/25/2018 11:25	0:34	LSR	Data is not available	Data is not available	
2/25/2018 12:12	0:57	LSR	Data is not available	Data is not available	
2/25/2018 13:17	0:19	LSR	Data is not available	Data is not available	
2/25/2018 13:48	0:31	LSR	Data is not available	Data is not available	
2/26/2018 9:02	0:06	LSR	Data is not available	Data is not available	
2/26/2018 9:12	0:07	LSR	Data is not available	Data is not available	
2/26/2018 9:47	7:03	LSR	Data is not available	Data is not available	
2/26/2018 16:59	0:09	LSR	Data is not available	Data is not available	
2/26/2018 17:16	0:19	LSR	Data is not available	Data is not available	
2/27/2018 7:23	0:07	LSR	Data is not available	Data is not available	
2/27/2018 7:41	1:04	LSR	Data is not available	Data is not available	
2/27/2018 8:46	0:02	LSR	Data is not available	Data is not available	
2/27/2018 8:58	0:02	LSR	Data is not available	Data is not available	
2/27/2018 9:01	0:12	LSR	Data is not available	Data is not available	
2/27/2018 9:20	0:04	LSR	Data is not available	Data is not available	
2/27/2018 9:33	0:03	LSR	Data is not available	Data is not available	
2/27/2018 9:48	0:10	LSR	Data is not available	Data is not available	
2/27/2018 10:03	0:30	LSR	Data is not available	Data is not available	
2/27/2018 10:37	1:08	LSR	Data is not available	Data is not available	
2/27/2018 11:47	0:33	LSR	Data is not available	Data is not available	
2/27/2018 12:23	0:02	LSR	Data is not available	Data is not available	
2/27/2018 12:35	3:57	LSR	Data is not available	Data is not available	
2/27/2018 16:33	0:02	LSR	Data is not available	Data is not available	
2/27/2018 16:38	0:04	LSR	Data is not available	Data is not available	
2/28/2018 8:55	4:40	LSR	Data is not available	Data is not available	
2/28/2018 13:39	0:34	LSR	Data is not available	Data is not available	
2/28/2018 14:14	0:45	LSR	Data is not available	Data is not available	
2/28/2018 15:07	0:01	LSR	Data is not available	Data is not available	
2/28/2018 15:10	0:12	LSR	Data is not available	Data is not available	
2/28/2018 15:23	0:02	LSR	Data is not available	Data is not available	
2/28/2018 15:30	0:01	LSR	Data is not available	Data is not available	
2/28/2018 16:04	0:11	LSR	Data is not available	Data is not available	
2/28/2018 16:16	0:11	LSR	Data is not available	Data is not available	

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.

The curtailment reasons have been modified to oversupply, system constraints, and facility requested, to provide continuity with HPUC Docket No. 2013-0141 Decoupling for HECO companies metrics.

Hawai'i Electric Light Company Curtailment Report February 2018

Start Date/Time	MW Output Prior to Start of Curtailment	End Date/Time	MW Output After Curtailment Released ¹	IPP	Reason for Curtailment
02/09/18 12:20	1.2 MW	02/09/18 13:45	0.0 MW	TGUH11	Oversupply
02/09/18 12:23	0.2 MW	02/09/18 13:43	0.0 MW	West Hawai Civic Center	
02/09/18 12:58	1.7 MW	02/09/18 13:38	0.2 MW	Pakini Nui Windfarm	
02/22/18 08:25	19.1 MW	02/22/18 15:10	17.1 MW	Pakini Nui Windfarm	Facility requested
02/23/18 08:02	19.1 MW	02/23/18 16:22	16.9 MW	Pakini Nui Windfarm	Facility requested
02/24/18 04:04	19.8 MW	02/24/18 05:03	18.1 MW	Pakini Nui Windfarm	Oversupply
02/24/18 06:21	19.8 MW	02/24/18 11:41	19.7 MW	Pakini Nui Windfarm	Facility requested
02/24/18 17:11	19.9 MW	02/25/18 14:17	19.7 MW	Pakini Nui Windfarm	Facility requested
02/25/18 20:00	19.7 MW	02/26/18 18:34	19.9 MW	Pakini Nui Windfarm	Facility requested
02/26/18 02:58	17.9 MW	02/26/18 04:19	15.2 MW	Pakini Nui Windfarm	Oversupply
02/27/18 01:28	19.8 MW	02/27/18 04:16	14.8 MW	Pakini Nui Windfarm	Oversupply
02/27/18 07:16	19.8 MW	02/28/18 14:18	19.7 MW	Pakini Nui Windfarm	Facility requested
02/28/18 01:42	16.9 MW	02/28/18 04:43	16.9 MW	Pakini Nui Windfarm	Oversupply

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.

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