Hawaiian Electric Company • PO Box 2750 • Honolulu, HI 96840

FILED

2013 DEC 30 P 3:44

PUBLIC UTILITIES
COMMISSION

Patsy H. Nanbu
Vice President
Regulatory Affairs

December 30, 2013

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 November 2013 on (1) system frequency control performance during month; (2) significant system events during month; and (3) curtailment of non-dispatchable renewable resources.

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

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

Sincerely,

Patsy H. Nanbu

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)

JEFFREY T. ONO EXECUTIVE DIRECTOR DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS DIVISION OF CONSUMER ADVOCACY P.O. Box 541 Honolulu, HI 96809	2 Copies Via Hand Delivery
GREGG J. KINKLEY, ESQ. DEPARTMENT OF THE ATTORNEY GENERAL 425 Queen Street Honolulu, Hawaii 96813 Counsel for DBEDT	1 Copy Electronically Transmitted
DANIEL W.S. LAWRENCE, ESQ. DEPARTMENT OF THE CORPORATION COUNSEL CITY AND COUNTY OF HONOLULU 530 S. King Street, Room 110 Honolulu, HI 96813 Counsel for the CITY AND COUNTY OF HONOLULU	1 Copy Electronically Transmitted
LINCOLN S.T. ASHIDA, ESQ. WILLIAM V. BRILHANTE, JR., ESQ. MICHAEL J. UDOVIC, ESQ. DEPARTMENT OF THE CORPORATION COUNSEL COUNTY OF HAWAII 101 Aupuni Street, Suite 325 Hilo, HI 96720 Counsel for the COUNTY OF HAWAII	1 Copy Electronically Transmitted
HENRY Q CURTIS KAT BRADY LIFE OF THE LAND P.O. Box 37158 Honolulu, HI 96837-0158	1 Copy Electronically Transmitted
WARREN S. BOLLMEIER II PRESIDENT HAWAII RENEWABLE ENERGY ALLIANCE 46-040 Konane Place, #3816 Kaneohe, HI 96744	1 Copy Electronically Transmitted

SERVICE LIST
(Docket No. 2011-0206)

DOUGLAS A. CODIGA, ESQ.
SCHLACK ITO LLLC
Topa Financial Center
745 Fort Street, Suite 1500
Honolulu, HI 96813
Counsel for BLUE PLANET FOUNDATION

1 Copy
Electronically Transmitted

ISAAC MORIWAKE, ESQ.
DAVID HENKIN, ESQ.
EARTHJUSTICE
850 Richards Street, Suite 400
Honolulu, HI 96813-4501
Counsel for HAWAII SOLAR ENERGY ASSOCIATION

1 Copy
Electronically Transmitted

KENT D. MORIHARA, ESQ.
KRIS N. NAKAGAWA, ESQ.
LAUREN M. IMADA-LEE, ESQ.
Morihara Lau & Fong LLP
841 Bishop Street, Suite 400
Honolulu, Hawaii 96813
Counsel for KAUAI ISLAND UTILITY COOPERATIVE

1 Copy
Electronically Transmitted

ERIK W.KVAM
CHIEF EXECUTIVE OFFICER
ZERO EMISSIONS LEASING LLC
1110 University Avenue, Suite 402
Honolulu, HI 96826

1 Copy
Electronically Transmitted

SANDRA-ANN Y.H. WONG, ESQ.
ATTORNEY AT LAW, A LAW CORPORATION
1050 Bishop Street, #514
Honolulu, HI 96813
Counsel for TAWHIRI POWER LLC

1 Copy
Electronically Transmitted

RILEY SAITO
73-1294 Awakea Street
Kailua-Kona, HI 96740
For SOLAR ENERGY INDUSTRIES ASSOCIATION

1 Copy
Electronically Transmitted

SERVICE LIST
(Docket No. 2011-0206)

DEAN T. YAMAMOTO, ESQ.
YAMAMOTO & SETTLE
700 Bishop Street, Suite 200
Honolulu, HI 96813
Counsel for CASTLE & COOKE HOMES HAWAII, INC.,
CASTLE & COOKE RESORTS, LLC and
LANAI SUSTAINABILITY RESEARCH, LLC

1 Copy
Electronically Transmitted

MICHAEL J. HOPPER, ESQ.
DEPUTY CORPORATION COUNSEL
DEPARTMENT OF THE CORPORATION COUNSEL
COUNTY OF MAUI
200 S. High Street
Wailuku, HI 96793
Counsel for the COUNTY OF MAUI

1 Copy
Electronically Transmitted

MONA W. CLARK, ESQ.
OFFICE OF THE COUNTY ATTORNEY
COUNTY OF KAUAI
4444 Rice Street, Suite 200
Lihue, HI 96766-1300

1 Copy
Electronically Transmitted

BRADLEY ALBERT
PRESIDENT
HAWAII PV COALITION
P.O. Box 81501
Haiku, HI 96708

1 Copy
Electronically Transmitted

HILTON H. UNEMORI
ECM, INC.
130 N. Market Street
Wailuku, HI 96793-1716
For SOUTH MAUI RENEWABLE RESOURCES, LLC

1 Copy
Electronically Transmitted

KEVIN T. FOX
KEYES & FOX, LLP
436 14th Street, Suite 1305
Oakland, CA 94612
For the INTERSTATE RENEWABLE ENERGY COUNCIL

1 Copy
Electronically Transmitted

SERVICE LIST
(Docket No. 2011-0206)

HUGH D. BAKER, JR.
HDBAKER & COMPANY HAWAII LLC
78-7000 Kewalo Street
Kailua-Kona, HI 96740

1 Copy
Electronically Transmitted

PETE COOPER
SOLARCITY CORPORATION
REGIONAL DIRECTOR, HAWAII
599 Kahelu Street
Mililani, HI 96789

1 Copy
Electronically Transmitted

STANLEY ALLEN GRAY, SENIOR DEVELOPER
Pier 1, Bay 3
San Francisco, CA 94111
For MOLOKAI RENEWABLES LLC

1 Copy
Electronically Transmitted

ALISON SILVERSTEIN
19213 Luedtke Lane
Pflugerville, TX 78660

1 Copy
Electronically Transmitted

BRENDAN KIRBY
12011 SW Pineapple Court
Palm City, FL 34990

1 Copy
Electronically Transmitted

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 November 30, 2013):

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

The frequency duration plots for Hawaiian Electric, 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 November 30, 2013):

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

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

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

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

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

Hawaiian Electric did not have any demand response activations for system events for the month of November. 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. Therefore, Attachment 5 is not being provided for this reporting period.

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

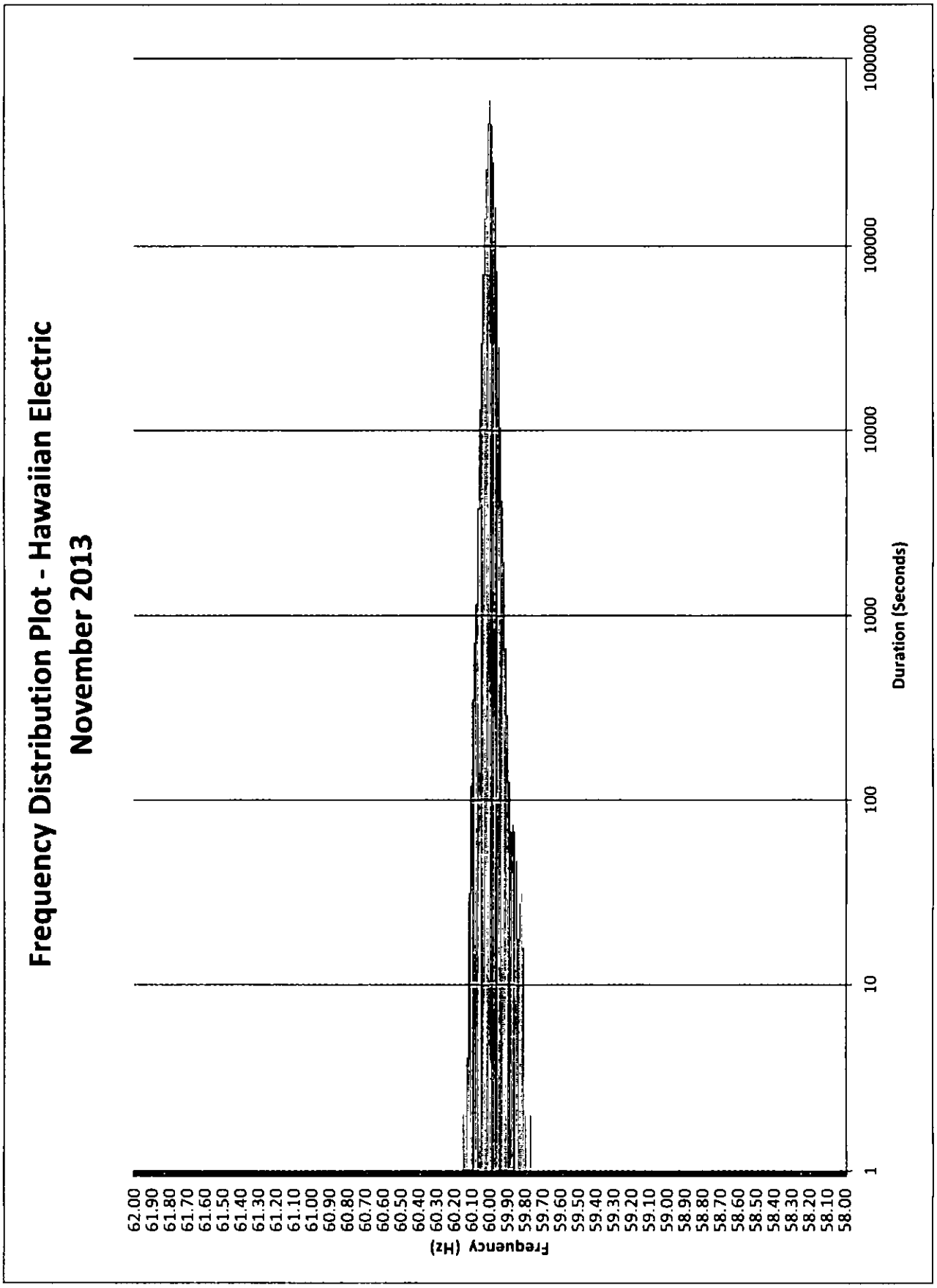
The following provides information with respect to items 3a) through 3b) – (all statements are current as of the month ending November 30, 2013):

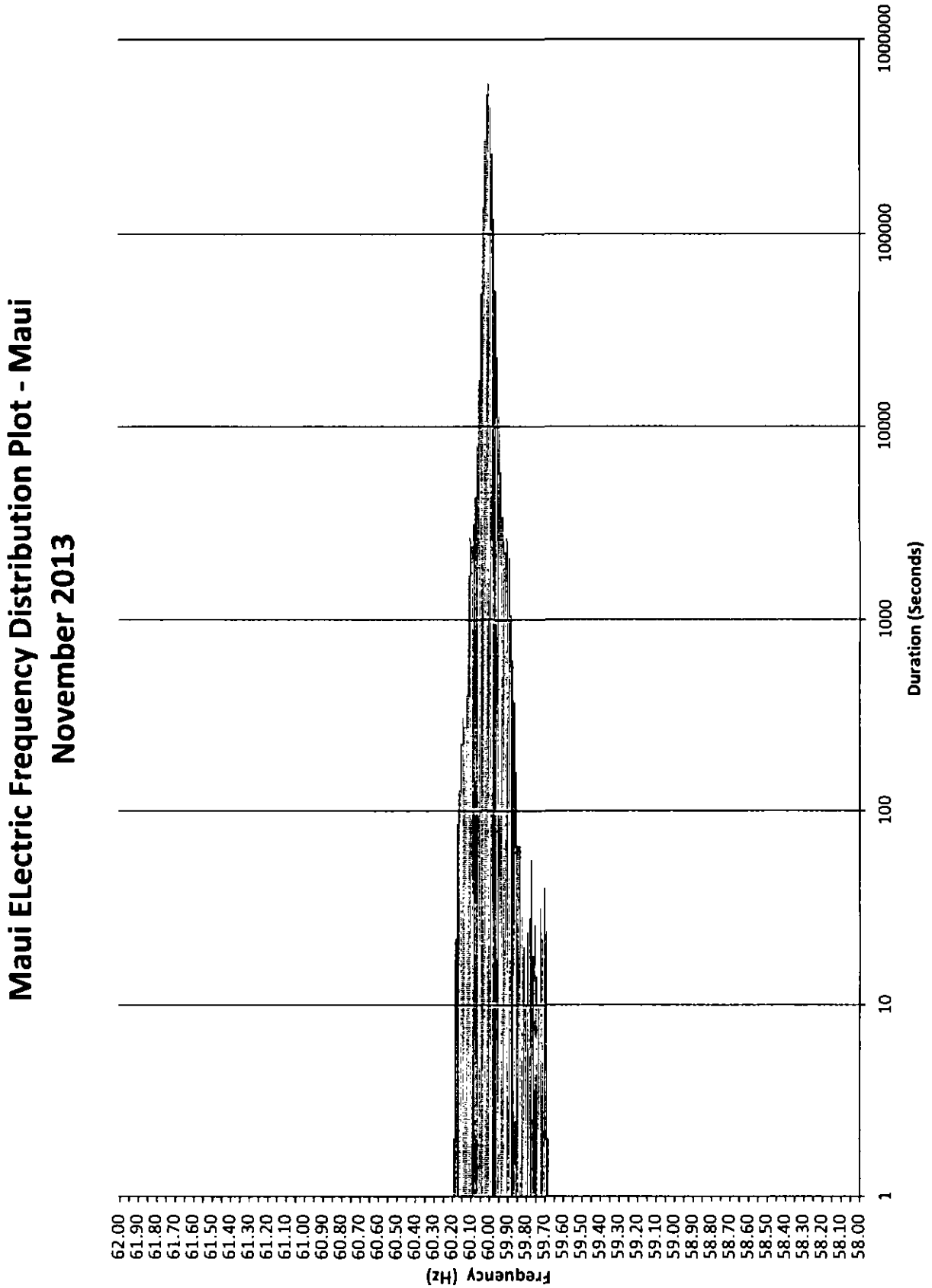
3a) Tabulation of each curtailment event for each resource including the starting date and time, duration, megawatt hours curtailed, peak MW curtailed, and reason for curtailment:

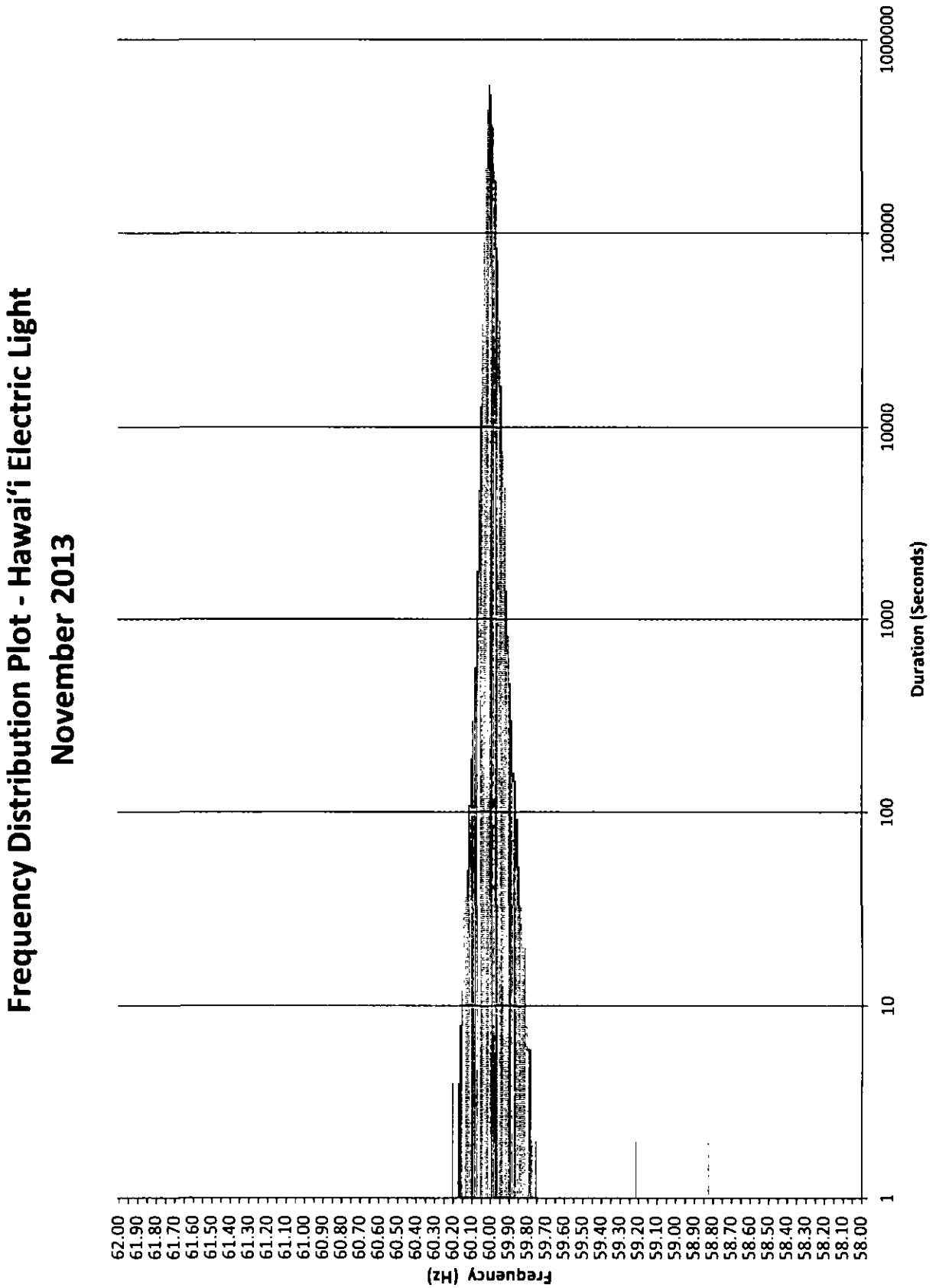
The tabulation of each curtailment event for each resource is provided in Attachment 6.
Hawai'i Electric Light did not have any curtailment events for the month of November.

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
November 2013
Frequency (Hz)
62.00
61.90
61.80
61.70
61.60
61.50
61.40
61.30
61.20
61.10
61.00
60.90
60.80
60.70
60.60
60.50
60.40
60.30
60.20
60.10
60.00
59.90
59.80
59.70
59.60
59.50
59.40
59.30
59.20
59.10
59.00
58.90
58.80
58.70
58.60
58.50
58.40
58.30
58.20
58.10
58.00
Duration (Seconds)
1
10
100
1000
10000
100000
1000000


Maui ELectric Frequency Distribution Plot - Maui
November 2013
Frequency (Hz)
62.00
61.90
61.80
61.70
61.60
61.50
61.40
61.30
61.20
61.10
61.00
60.90
60.80
60.70
60.60
60.50
60.40
60.30
60.20
60.10
60.00
59.90
59.80
59.70
59.60
59.50
59.40
59.30
59.20
59.10
59.00
58.90
58.80
58.70
58.60
58.50
58.40
58.30
58.20
58.10
58.00
1
10
100
1000
10000
100000
1000000
Duration (Seconds)


Frequency Distribution Plot - Hawai'i Electric Light
November 2013
Frequency (Hz)
62.00
61.90
61.80
61.70
61.60
61.50
61.40
61.30
61.20
61.10
61.00
60.90
60.80
60.70
60.60
60.50
60.40
60.30
60.20
60.10
60.00
59.90
59.80
59.70
59.60
59.50
59.40
59.30
59.20
59.10
59.00
58.90
58.80
58.70
58.60
58.50
58.40
58.30
58.20
58.10
58.00
1
10
100
1000
10000
100000
1000000
Duration (Seconds)

Hawaiian Electric Frequency Excursion Statistics November 2013		
Data Rounded to the nearest	<59.95 Hz	>60.05 Hz
Number of Excursions	1331	1181
Maximum Duration (sec)	746	722
Maximum Deviation (Hz)	59.769	60.151
Total Duration of Excursions (sec)	29338	30516

Maui Electric Frequency Excursion Statistics November 2013		
	<59.95 Hz	>60.05 Hz
Number of Excursions	3566	2034
Maximum Duration (sec)	946	1270
Maximum Deviation (Hz)	59.684	60.185
Total Duration of Excursions (sec)	41120	28972

Hawai'i Electric Light Frequency Excursion Statistics November 2013		
	<59.95 Hz	>60.05 Hz
Number of Excursions	6229	2144
Maximum Duration (sec)	154	142
Maximum Deviation (Hz)	58.816	60.198
Total Duration of Excursions (sec)	47248	12550

This page intentionally left blank.

MAUI ELECTRIC COMPANY, LIMITED
UNDERFREQUENCY LOAD SHEDDING EVENTS
NOVEMBER 2013

				Frequency (Hz)					
Event #	IR #	Island	Date & Time	Prior to Event	Nadir	Levels UFLS Occurred	Load Shed (MW)	Duration (HH:MM)	Description
1	700	Moloka'i	11/10/2013 3:19 PM	59.97	55.57	57 5, 57.25	0.90	00:48	A frequency depression of 55.57 Hz occurred on Moloka'i due to suspected high impedance fault.
2	739	Moloka'i	11/22/2013 8:03 AM	60.00	57.13	57.50	1.28	6:20	A frequency depression of 57.13 Hz occurred on Moloka'i due to a fault caused by an overhead conductor falling from a broken insulator.
3	744	Moloka'i	11/24/2013 9:11 AM	60.00	54.78	57.50	2.50	2:20	A frequency depression of 54.78 Hz occurred on Moloka'i due to suspected tree branch in lines

HAWAI'I ELECTRIC LIGHT COMPANY, INC.
UNDERFREQUENCY LOAD SHEDDING EVENTS
NOVEMBER 2013

Event #	Date	Time	Frequency (Hz) Prior to Event	Frequency (Hz) Nadir	Frequency (Hz) Level UFLS Occurred	Load Shed (MW)	Duration (HH:MM)	Description
1	11/25/2013	10:14 AM	59.99	58.46	58.80	24.50	0:42	Hill 6 Thurst Gearing Failure

This page intentionally left blank.

Hawaiian Electric Curtailment Report November 2013

Start Date/Time	Curtailment Set Point	MW output prior to start of curtailment	End Date/Time	MW output after curtailment released	Estimated MWh of curtailed energy during event (1)	IPP	Reason for Curtailment
11/13/13 05 39	0.0	0 00	11/13/13 07.23	0	*	KWF	Pole replacement and upgrades on Koolau-Kahuku 46kV line
11/13/13 05 39	0 0	0 00	11/13/13 07 23	0	*	Makai	Pole replacement and upgrades on Koolau-Kahuku 46kV line
11/13/13 14 49	0.0	1 10	11/13/13 15 29	0	*	KWF	Pole replacement and upgrades on Koolau-Kahuku 46kV line
11/13/13 14 49	0.0	1 90	11/13/13 15 30	0	*	Makai	Pole replacement and upgrades on Koolau-Kahuku 46kV line
11/21/13 06 18	0 0	0 00	11/21/13 07.31	0	*	KLS2	Pole replacement on Kahe Standard Oil 2 46kV line
11/21/13 06 21	0 0	0 00	11/21/13 07 26	0	*	KREP	Pole replacement on Kahe Standard Oil 2 46kV line
11/21/13 17 44	0 0	0 00	11/21/13 18 08	0	*	KLS2	Pole replacement on Kahe Standard Oil 2 46kV line
11/21/13 17 44	0 0	0 00	11/21/13 18 09	0	*	KREP	Pole replacement on Kahe Standard Oil 2 46kV line

KLS2 = Kalaeloa Solar 2 PV Farm
KREP = Kalaeloa Renewable Energy Park
KWF = Kahuku Wind Farm
Makai = Kawailoa Makai Wind Farm
Mauka = Kawailoa Mauka Wind Farm
(1) The estimated MWh of energy curtailed during the event is supplied by Kahuku Wind Farm and/or Kawailoa Wind Farm, and HECO does not make any representations as to its accuracy
* Data has not been provided by IPP

Maui Electric

RSWG Maui Curtailment Report November 2013

Start Date and Time	Duration	IPP Curtailed	Estimated Curtailed MWH	Peak MW Curtailed	Reasons for Curtailment
11/1/2013 0:00	5:12	KWPII	54.346	20.700	AGC MAVG - calculated
11/1/2013 4:04	0:01	AWE	0.003	0.200	AGC MAVG - calculated
11/1/2013 5:13	0:03	KWPII	0.073	20.612	AGC MAVG - calculated
11/1/2013 5:18	0:04	KWPII	0.045	20.448	AGC MAVG - calculated
11/1/2013 5:20	0:01	AWE	0.002	0.100	AGC MAVG - calculated
11/1/2013 5:27	0:01	KWPII	0.007	20.615	AGC MAVG - calculated
11/1/2013 5:29	0:01	KWPII	0.008	20.558	AGC MAVG - calculated
11/1/2013 5:32	0:08	KWPII	0.173	20.618	AGC MAVG - calculated
11/1/2013 5:41	0:03	KWPII	0.082	20.440	AGC MAVG - calculated
11/1/2013 5:46	0:05	KWPII	0.094	20.392	AGC MAVG - calculated
11/1/2013 5:52	0:04	KWPII	0.039	20.510	AGC MAVG - calculated
11/1/2013 9:50	0:01	AWE	0.003	0.200	AGC MAVG - calculated
11/1/2013 9:52	0:01	AWE	0.003	0.200	AGC MAVG - calculated
11/1/2013 14:09	0:01	KWPII	0.011	20.673	AGC MAVG - calculated
11/1/2013 14:11	0:01	KWPII	0.005	20.527	AGC MAVG - calculated
11/1/2013 20:59	0:10	KWPII	0.354	20.708	AGC MAVG - calculated
11/1/2013 21:13	0:02	KWPII	0.012	20.708	AGC MAVG - calculated
11/1/2013 21:24	0:01	KWPII	0.008	20.708	AGC MAVG - calculated
11/1/2013 21:28	0:03	KWPII	0.043	20.708	AGC MAVG - calculated
11/1/2013 21:33	0:01	KWPII	0.005	20.708	AGC MAVG - calculated
11/1/2013 21:36	0:02	KWPII	0.010	20.708	AGC MAVG - calculated
11/1/2013 21:40	0:33	KWPII	3.034	20.708	AGC MAVG - calculated
11/1/2013 22:23	0:21	KWPII	1.318	20.708	AGC MAVG - calculated
11/1/2013 23:00	0:04	KWPII	0.058	20.708	AGC MAVG - calculated
11/1/2013 23:07	0:01	KWPII	0.014	20.708	AGC MAVG - calculated
11/1/2013 23:10	0:01	KWPII	0.012	20.708	AGC MAVG - calculated
11/1/2013 23:31	0:02	KWPII	0.003	20.708	AGC MAVG - calculated
11/1/2013 23:34	6:49	KWPII	106.129	20.708	AGC MAVG - calculated
11/2/2013 2:56	0:01	AWE	0.001	9.600	AGC MAVG - calculated
11/2/2013 3:00	0:41	AWE	3.478	17.400	AGC MAVG - calculated
11/2/2013 3:43	0:03	AWE	0.008	8.500	AGC MAVG - calculated
11/2/2013 3:50	0:28	AWE	1.501	9.500	AGC MAVG - calculated
11/2/2013 4:21	0:05	AWE	0.073	8.700	AGC MAVG - calculated
11/2/2013 4:27	0:05	AWE	0.111	11.200	AGC MAVG - calculated
11/2/2013 4:33	0:02	AWE	0.031	9.600	AGC MAVG - calculated
11/2/2013 4:39	0:01	AWE	0.000	8.900	AGC MAVG - calculated
11/2/2013 4:41	0:01	AWE	0.001	8.900	AGC MAVG - calculated
11/2/2013 4:44	0:02	AWE	0.012	10.600	AGC MAVG - calculated
11/2/2013 4:52	0:02	AWE	0.005	11.200	AGC MAVG - calculated
11/2/2013 4:57	0:02	AWE	0.029	12.200	AGC MAVG - calculated
11/2/2013 5:13	0:12	AWE	0.376	17.600	AGC MAVG - calculated
11/2/2013 5:28	0:01	AWE	0.007	15.300	AGC MAVG - calculated
11/2/2013 5:33	0:01	AWE	0.000	16.100	AGC MAVG - calculated
11/2/2013 5:35	0:01	AWE	0.000	16.100	AGC MAVG - calculated
11/2/2013 5:40	0:01	AWE	0.001	16.500	AGC MAVG - calculated
11/2/2013 5:52	0:02	AWE	0.001	18.700	AGC MAVG - calculated
11/2/2013 5:55	0:01	AWE	0.001	19.400	AGC MAVG - calculated
11/2/2013 6:00	0:01	AWE	0.000	20.000	AGC MAVG - calculated and Good Engineering and Operating Practices
11/2/2013 6:25	0:49	KWPII	8.560	20.708	AGC MAVG - calculated and Good Engineering and Operating Practices
11/2/2013 7:15	0:01	KWPII	0.010	20.708	AGC MAVG - calculated and Good Engineering and Operating Practices
11/2/2013 7:24	0:09	KWPII	0.230	20.708	AGC MAVG - calculated and Good Engineering and Operating Practices
11/2/2013 7:34	0:02	KWPII	0.004	20.708	AGC MAVG - calculated and Good Engineering and Operating Practices
11/2/2013 7:41	0:33	KWPII	1.359	20.708	AGC MAVG - calculated and Good Engineering and Operating Practices
11/2/2013 8:15	0:02	KWPII	0.018	20.708	AGC MAVG - calculated and Good Engineering and Operating Practices
11/2/2013 8:21	0:02	KWPII	0.003	20.708	AGC MAVG - calculated and Good Engineering and Operating Practices
11/2/2013 8:35	0:01	KWPII	0.014	20.708	AGC MAVG - calculated and Good Engineering and Operating Practices
11/2/2013 9:08	0:01	KWPII	0.007	20.708	AGC MAVG - calculated and Good Engineering and Operating Practices
11/2/2013 9:13	0:01	KWPII	0.002	20.708	AGC MAVG - calculated and Good Engineering and Operating Practices
11/2/2013 9:18	0:05	KWPII	0.110	20.708	AGC MAVG - calculated and Good Engineering and Operating Practices
11/2/2013 9:37	0:02	KWPII	0.014	20.708	AGC MAVG - calculated
11/2/2013 9:40	0:08	KWPII	0.138	20.708	AGC MAVG - calculated
11/2/2013 9:49	0:02	KWPII	0.019	20.708	AGC MAVG - calculated
11/2/2013 9:53	0:09	KWPII	0.214	20.708	AGC MAVG - calculated
11/2/2013 10:06	3:43	KWPII	18.434	20.708	AGC MAVG - calculated
11/2/2013 13:52	0:01	KWPII	0.002	20.696	AGC MAVG - calculated
11/2/2013 13:54	0:01	KWPII	0.006	20.699	AGC MAVG - calculated
11/2/2013 13:58	0:02	KWPII	0.016	20.664	AGC MAVG - calculated
11/2/2013 14:02	0:01	KWPII	0.003	20.696	AGC MAVG - calculated
11/2/2013 14:06	0:01	KWPII	0.002	20.708	AGC MAVG - calculated
11/2/2013 22:01	0:01	KWPII	0.008	19.211	AGC MAVG - calculated
11/2/2013 22:05	0:07	KWPII	0.204	19.211	AGC MAVG - calculated
11/2/2013 22:14	0:02	KWPII	0.022	19.211	AGC MAVG - calculated
11/2/2013 22:25	3:36	KWPII	57.580	19.211	AGC MAVG - calculated
11/2/2013 23:47	2:14	AWE	17.719	20.000	AGC MAVG - calculated
11/3/2013 2:03	0:07	KWPII	2.124	19.211	AGC MAVG - calculated
11/3/2013 2:03	0:07	AWE	1.246	15.100	AGC MAVG - calculated
11/3/2013 2:11	4:02	AWE	42.590	20.800	AGC MAVG - calculated, AGC MAVG - entered - Maintaining Regulating Reserves, Operating Conditions on Company's System, and AGC MAVG - calculated
11/3/2013 2:14	4:23	KWPII	76.806	17.714	AGC MAVG - entered - Maintaining Regulating Reserves, Operating Conditions on Company's System, and AGC MAVG - calculated
11/3/2013 6:23	0:01	AWE	0.000	19.200	AGC MAVG - calculated
11/3/2013 6:27	0:01	AWE	0.004	19.100	AGC MAVG - calculated
11/3/2013 6:39	2:14	KWPII	17.523	17.714	AGC MAVG - calculated
11/3/2013 8:54	0:07	KWPII	0.064	17.714	AGC MAVG - calculated
11/3/2013 9:11	1:19	KWPII	2.030	17.714	AGC MAVG - calculated and Good Engineering and Operating Practices
11/3/2013 10:32	0:43	KWPII	1.622	17.714	AGC MAVG - calculated
11/3/2013 11:17	0:02	KWPII	0.005	17.714	AGC MAVG - calculated
11/3/2013 11:20	1:31	KWPII	4.689	17.714	AGC MAVG - calculated
11/3/2013 12:52	0:21	KWPII	0.570	17.714	AGC MAVG - calculated
11/3/2013 13:14	0:04	KWPII	0.057	17.714	AGC MAVG - calculated
11/3/2013 13:22	0:05	KWPII	0.093	17.714	AGC MAVG - calculated
11/3/2013 13:28	0:01	KWPII	0.002	17.714	AGC MAVG - calculated
11/3/2013 22:11	0:01	AWE	0.002	0.100	AGC MAVG - calculated
11/3/2013 23:04	0:05	KWPII	0.047	17.578	AGC MAVG - calculated
11/3/2013 23:19	0:02	KWPII	0.034	17.481	AGC MAVG - calculated
11/3/2013 23:29	0:04	KWPII	0.025	17.277	AGC MAVG - calculated
11/3/2013 23:39	0:01	KWPII	0.003	17.486	AGC MAVG - calculated
11/3/2013 23:43	0:03	KWPII	0.029	17.382	AGC MAVG - calculated
11/3/2013 23:47	0:01	KWPII	0.012	16.916	AGC MAVG - calculated
11/3/2013 23:49	0:09	KWPII	0.230	16.742	AGC MAVG - calculated
11/4/2013 0:24	0:01	KWPII	0.001	16.927	AGC MAVG - calculated
11/4/2013 0:27	3:58	KWPII	36.361	17.435	AGC MAVG - calculated
11/4/2013 2:40	0:01	AWE	0.004	5.100	AGC MAVG - calculated
11/4/2013 2:43	0:07	AWE	0.134	6.600	AGC MAVG - calculated
11/4/2013 2:52	0:01	AWE	0.001	2.600	AGC MAVG - calculated
11/4/2013 2:56	0:01	AWE	0.001	2.300	AGC MAVG - calculated
11/4/2013 3:20	0:02	AWE	0.002	4.000	AGC MAVG - calculated
11/4/2013 3:49	0:01	AWE	0.001	5.700	AGC MAVG - calculated
11/4/2013 4:31	0:02	KWPII	0.023	16.084	AGC MAVG - calculated
11/4/2013 4:34	0:03	KWPII	0.029	16.365	AGC MAVG - calculated
11/4/2013 4:39	0:02	KWPII	0.024	15.604	AGC MAVG - calculated
11/4/2013 4:42	0:03	KWPII	0.023	15.764	AGC MAVG - calculated
11/4/2013 4:46	0:01	KWPII	0.016	16.029	AGC MAVG - calculated
11/4/2013 4:49	0:02	KWPII	0.018	15.868	AGC MAVG - calculated

Maui Electric

RSWG Maui Curtailment Report November 2013

Start Date and Time	Duration	IPP Curtailed	Estimated Curtailed MWH	Peak MW Curtailed	Reasons for Curtailment
11/4/2013 5:01	0:02	KWPII	0.032	17.486	AGC MAVG - calculated
11/4/2013 5:07	0:01	KWPII	0.000	17.218	AGC MAVG - calculated
11/4/2013 5:39	0:01	KWPII	0.004	16.685	AGC MAVG - calculated
11/4/2013 5:44	0:01	KWPII	0.001	17.147	AGC MAVG - calculated
11/4/2013 5:45	0:01	AWE	0.005	0.300	AGC MAVG - calculated
11/4/2013 5:53	0:01	AWE	0.003	0.200	AGC MAVG - calculated
11/4/2013 6:00	0:01	AWE	0.005	0.300	AGC MAVG - calculated
11/4/2013 7:21	0:01	AWE	0.002	0.100	AGC MAVG - calculated
11/4/2013 22:16	0:13	KWPII	0.507	6.488	AGC MAVG - calculated
11/4/2013 22:30	0:01	KWPII	0.017	5.693	AGC MAVG - calculated
11/4/2013 23:07	0:01	KWPII	0.004	9.618	AGC MAVG - calculated
11/4/2013 23:10	0:03	KWPII	0.040	9.800	AGC MAVG - calculated
11/4/2013 23:17	0:04	KWPII	0.060	8.998	AGC MAVG - calculated
11/5/2013 0:06	0:01	KWPII	0.009	6.362	AGC MAVG - calculated
11/5/2013 0:08	0:01	KWPII	0.007	7.240	AGC MAVG - calculated
11/5/2013 0:10	0:04	KWPII	0.042	8.242	AGC MAVG - calculated
11/5/2013 3:10	0:01	AWE	0.005	0.300	AGC MAVG - calculated
11/5/2013 3:23	0:01	AWE	0.003	0.200	AGC MAVG - calculated
11/5/2013 3:30	0:01	AWE	0.003	0.200	AGC MAVG - calculated
11/5/2013 4:15	0:05	KWPII	0.112	7.571	AGC MAVG - calculated
11/5/2013 6:48	0:01	AWE	0.003	0.200	AGC MAVG - calculated
11/5/2013 8:49	0:03	KWPII	0.020	8.712	AGC MAVG - calculated and Testing
11/5/2013 13:47	0:01	KWPII	0.010	5.974	AGC MAVG - calculated, Testing, and Good Engineering and Operating Practices
11/5/2013 13:49	0:01	KWPII	0.013	5.814	AGC MAVG - calculated, Testing, and Good Engineering and Operating Practices
11/5/2013 13:51	0:03	KWPII	0.028	7.181	AGC MAVG - calculated, Testing, and Good Engineering and Operating Practices
11/5/2013 13:56	0:09	KWPII	0.148	8.126	AGC MAVG - calculated, Testing, and Good Engineering and Operating Practices
11/5/2013 14:11	0:04	KWPII	0.066	8.144	AGC MAVG - calculated, Testing, and Good Engineering and Operating Practices
11/5/2013 14:16	0:01	KWPII	0.018	8.751	AGC MAVG - calculated, Testing, and Good Engineering and Operating Practices
11/5/2013 14:18	0:01	KWPII	0.023	8.549	AGC MAVG - calculated, Testing, and Good Engineering and Operating Practices
11/6/2013 1:54	0:01	AWE	0.005	0.300	AGC MAVG - calculated and Good Engineering and Operating Practices
11/6/2013 1:59	0:01	AWE	0.003	0.200	AGC MAVG - calculated and Good Engineering and Operating Practices
11/6/2013 2:23	0:01	AWE	0.002	0.100	AGC MAVG - calculated and Good Engineering and Operating Practices
11/6/2013 7:34	0:01	AWE	0.002	0.100	AGC MAVG - calculated, Good Engineering and Operating Practices, and Testing
11/6/2013 8:04	0:01	AWE	0.003	0.200	AGC MAVG - calculated, Good Engineering and Operating Practices, and Testing
11/6/2013 8:22	0:01	AWE	0.002	0.100	AGC MAVG - calculated, Good Engineering and Operating Practices, and Testing
11/8/2013 14:00	0:01	KWP	0.001	0.064	AGC MAVG - calculated, Good Engineering and Operating Practices, and Testing
11/8/2013 15:24	0:01	KWP	0.001	0.048	AGC MAVG - calculated and Good Engineering and Operating Practices
11/8/2013 15:41	0:01	KWPII	0.000	0.005	AGC MAVG - calculated
11/8/2013 19:52	0:01	KWP	0.001	0.048	AGC MAVG - calculated and Good Engineering and Operating Practices
11/8/2013 18:59	0:20	KWPII	1.233	20.687	AGC MAVG - calculated
11/8/2013 19:20	0:01	KWPII	0.012	19.796	AGC MAVG - calculated
11/8/2013 21:20	0:39	KWPII	3.904	20.707	AGC MAVG - calculated
11/8/2013 22:01	0:01	KWPII	0.002	20.708	AGC MAVG - calculated
11/8/2013 22:03	0:05	KWPII	0.107	20.698	AGC MAVG - calculated
11/8/2013 22:12	0:34	KWPII	3.094	20.542	AGC MAVG - calculated
11/8/2013 23:07	0:01	KWPII	0.027	17.516	AGC MAVG - calculated
11/8/2013 23:09	0:49	KWPII	4.135	18.259	AGC MAVG - calculated
11/8/2013 23:58	0:03	KWPII	0.032	5.064	AGC MAVG - calculated
11/9/2013 0:09	0:02	KWPII	0.022	9.523	AGC MAVG - calculated
11/9/2013 0:14	0:02	KWPII	0.075	11.708	AGC MAVG - calculated
11/9/2013 1:35	0:09	KWPII	0.219	9.344	AGC MAVG - calculated
11/9/2013 2:11	0:01	KWPII	0.016	9.294	AGC MAVG - calculated
11/9/2013 2:18	0:01	KWPII	0.036	11.231	AGC MAVG - calculated
11/9/2013 2:20	0:01	KWPII	0.001	10.395	AGC MAVG - calculated
11/9/2013 2:23	0:10	KWPII	0.420	13.420	AGC MAVG - calculated
11/9/2013 2:35	0:02	KWPII	0.011	9.918	AGC MAVG - calculated
11/9/2013 3:07	0:05	KWPII	0.141	12.678	AGC MAVG - calculated
11/9/2013 3:13	0:01	KWPII	0.021	11.751	AGC MAVG - calculated
11/9/2013 3:17	0:05	KWPII	0.078	12.951	AGC MAVG - calculated
11/9/2013 3:41	0:01	KWPII	0.019	11.439	AGC MAVG - calculated
11/9/2013 3:44	0:03	KWPII	0.046	12.213	AGC MAVG - calculated
11/9/2013 3:50	0:01	KWPII	0.004	10.339	AGC MAVG - calculated
11/9/2013 9:14	0:01	AWE	0.002	0.100	AGC MAVG - calculated
11/9/2013 9:17	0:01	AWE	0.002	0.100	AGC MAVG - calculated
11/9/2013 11:10	0:01	KWP	0.000	0.016	AGC MAVG - calculated
11/9/2013 11:14	0:01	KWP	0.000	0.016	AGC MAVG - calculated
11/9/2013 13:17	0:07	KWPII	0.595	20.650	AGC MAVG - entered - Maintaining Regulating Reserves
11/9/2013 14:17	0:12	KWPII	0.781	20.392	AGC MAVG - calculated
11/9/2013 14:50	0:01	KWPII	0.009	20.549	AGC MAVG - calculated
11/9/2013 14:58	0:03	KWPII	0.038	20.495	AGC MAVG - calculated
11/9/2013 15:04	0:01	KWPII	0.004	19.713	AGC MAVG - calculated
11/9/2013 15:41	0:01	KWPII	0.014	19.760	AGC MAVG - calculated and Testing
11/9/2013 15:44	0:01	KWPII	0.001	20.117	AGC MAVG - calculated and Testing
11/9/2013 23:38	0:01	AWE	0.003	0.200	AGC MAVG - calculated
11/10/2013 0:42	0:22	KWPII	1.442	20.670	AGC MAVG - calculated
11/10/2013 1:05	1:05	KWPII	4.429	20.626	AGC MAVG - calculated
11/10/2013 2:11	0:07	KWPII	0.136	20.218	AGC MAVG - calculated
11/10/2013 2:24	0:10	KWPII	0.341	17.395	AGC MAVG - calculated
11/10/2013 3:11	3:36	KWPII	45.463	20.708	AGC MAVG - calculated and AGC MAVG - entered - Maintaining Regulating Reserves
11/10/2013 4:11	0:01	AWE	0.002	0.100	AGC MAVG - calculated
11/10/2013 7:02	0:01	KWPII	0.015	16.195	AGC MAVG - calculated
11/10/2013 7:07	0:02	KWPII	0.050	19.202	AGC MAVG - calculated
11/10/2013 8:38	0:01	AWE	0.005	0.300	AGC MAVG - calculated
11/10/2013 9:11	0:01	AWE	0.006	0.300	AGC MAVG - calculated
11/10/2013 11:24	0:01	KWPII	0.009	20.680	AGC MAVG - calculated
11/10/2013 11:27	0:01	KWPII	0.002	20.654	AGC MAVG - calculated
11/10/2013 12:55	0:01	KWPII	0.001	20.708	AGC MAVG - calculated
11/10/2013 15:20	0:01	AWE	0.002	0.100	AGC MAVG - calculated
11/10/2013 17:16	0:01	AWE	0.002	0.100	AGC MAVG - calculated
11/10/2013 22:31	0:01	KWPII	0.012	19.211	AGC MAVG - calculated
11/10/2013 23:15	6:02	KWPII	93.387	19.211	AGC MAVG - calculated
11/11/2013 1:47	0:42	AWE	0.302	1.300	AGC MAVG - entered - Maintaining Regulating Reserves AGC MAVG - entered - Excess Energy and AGC MAVG - calculated
11/11/2013 1:59	2:44	SA	Data is not available	Data is not available	AGC MAVG - entered - Maintaining Regulating Reserves, AGC MAVG - entered - Excess Energy, and AGC MAVG - calculated
11/11/2013 2:14	2:22	KWP	12.765	28.496	AGC MAVG - entered - Excess Energy and AGC MAVG - calculated
11/11/2013 2:50	0:01	AWE	0.002	0.100	AGC MAVG - calculated
11/11/2013 3:23	0:02	AWE	0.003	0.100	AGC MAVG - calculated
11/11/2013 3:27	0:01	AWE	0.005	0.300	AGC MAVG - calculated
11/11/2013 3:30	1:23	AWE	1.436	2.600	AGC MAVG - calculated
11/11/2013 4:56	0:01	AWE	0.002	0.100	AGC MAVG - calculated
11/11/2013 5:03	0:01	AWE	0.002	0.100	AGC MAVG - calculated
11/11/2013 5:06	0:01	AWE	0.002	0.100	AGC MAVG - calculated
11/11/2013 5:19	0:50	KWPII	4.281	20.708	AGC MAVG - calculated
11/11/2013 8:40	0:01	AWE	0.003	0.200	AGC MAVG - calculated
11/11/2013 8:50	0:01	AWE	0.003	0.200	AGC MAVG - calculated
11/11/2013 10:34	0:01	KWPII	0.007	19.199	AGC MAVG - calculated
11/11/2013 10:38	0:02	KWPII	0.016	19.201	AGC MAVG - calculated
11/11/2013 10:41	0:01	KWPII	0.010	19.202	AGC MAVG - calculated
11/11/2013 10:59	0:02	KWPII	0.006	19.195	AGC MAVG - calculated
11/12/2013 1:43	0:01	AWE	0.002	0.100	AGC MAVG - calculated
11/12/2013 4:04	0:01	KWP	0.001	0.032	AGC MAVG - calculated
11/12/2013 5:41	0:02	AWE	0.003	0.100	AGC MAVG - calculated
11/12/2013 8:08	0:01	AWE	0.003	0.200	AGC MAVG - calculated and Testing

Maui Electric

RSWG Maui Curtailment Report November 2013

Start Date and Time	Duration	IPP Curtailed	Estimated Curtailed MWH	Peak MW Curtailed	Reasons for Curtailment
11/12/2013 8:28	0:01	AWE	0.002	0.100	AGC MAVG - calculated and Testing
11/12/2013 9:01	0:01	AWE	0.002	0.100	AGC MAVG - calculated and Testing
11/12/2013 10:35	0:01	AWE	0.002	0.100	AGC MAVG - calculated, Testing, and Good Engineering and Operating Practices
11/12/2013 11:07	0:01	KWP	0.001	0.064	AGC MAVG - calculated and Testing
11/12/2013 12:25	0:01	KWP	0.001	0.032	AGC MAVG - calculated and Testing
11/12/2013 18:37	0:01	AWE	0.003	0.200	AGC MAVG - calculated and Testing
11/12/2013 18:51	0:01	AWE	0.002	0.100	AGC MAVG - calculated and Testing
11/14/2013 3:26	0:01	AWE	0.002	0.100	AGC MAVG - calculated
11/14/2013 8:51	0:01	AWE	0.005	0.300	AGC MAVG - calculated and Testing
11/14/2013 9:33	0:01	AWE	0.003	0.200	AGC MAVG - calculated and Testing
11/14/2013 16:52	0:01	KWP	0.001	0.048	AGC MAVG - calculated and Testing
11/15/2013 1:50	0:01	AWE	0.003	0.200	AGC MAVG - calculated
11/15/2013 2:31	0:01	AWE	0.005	0.300	AGC MAVG - calculated
11/15/2013 3:30	0:01	AWE	0.002	0.100	AGC MAVG - calculated
11/15/2013 5:54	0:09	KWPII	0.368	14.251	AGC MAVG - calculated and Testing
11/15/2013 6:10	0:03	KWPII	0.048	17.468	AGC MAVG - calculated and Testing
11/15/2013 6:14	0:01	KWPII	0.002	16.130	AGC MAVG - calculated and Testing
11/15/2013 6:17	0:01	KWPII	0.006	12.831	AGC MAVG - calculated and Testing
11/15/2013 6:21	0:01	KWPII	0.000	10.895	AGC MAVG - calculated and Testing
11/15/2013 12:07	0:01	KWP	0.000	0.016	AGC MAVG - calculated and Testing
11/16/2013 8:31	0:05	KWPII	0.104	11.418	AGC MAVG - calculated and Good Engineering and Operating Practices
11/16/2013 6:45	0:06	KWPII	0.135	18.048	AGC MAVG - calculated
11/16/2013 12:57	0:01	KWPII	0.000	0.004	AGC MAVG - calculated
11/17/2013 11:28	0:01	KWPII	0.038	9.840	AGC MAVG - calculated
11/18/2013 9:41	0:02	AWE	0.003	0.100	AGC MAVG - calculated
11/18/2013 11:40	0:01	KWP	0.000	0.016	AGC MAVG - calculated and Testing
11/19/2013 13:22	0:01	KWP	0.001	0.064	AGC MAVG - calculated and Good Engineering and Operating Practices
11/19/2013 13:24	0:01	KWP	0.000	0.016	AGC MAVG - calculated and Good Engineering and Operating Practices
11/19/2013 17:02	0:01	KWP	0.000	0.016	AGC MAVG - calculated and Good Engineering and Operating Practices
11/20/2013 14:48	0:01	KWP	0.000	0.016	AGC MAVG - calculated
11/21/2013 3:16	0:01	AWE	0.003	0.200	AGC MAVG - calculated
11/21/2013 4:40	0:01	KWPII	0.000	0.008	AGC MAVG - calculated
11/21/2013 8:19	0:01	AWE	0.002	0.100	AGC MAVG - calculated
11/21/2013 9:31	0:01	AWE	0.002	0.100	AGC MAVG - calculated
11/21/2013 9:37	0:01	AWE	0.005	0.300	AGC MAVG - calculated
11/21/2013 21:17	0:01	AWE	0.002	0.100	AGC MAVG - calculated
11/22/2013 0:49	0:01	KWPII	0.000	0.014	AGC MAVG - calculated
11/22/2013 1:07	0:01	KWPII	0.000	0.005	AGC MAVG - calculated
11/22/2013 1:16	0:01	KWPII	0.000	0.005	AGC MAVG - calculated
11/22/2013 13:38	0:01	AWE	0.003	0.200	AGC MAVG - calculated
11/22/2013 14:09	0:01	AWE	0.003	0.200	AGC MAVG - calculated
11/22/2013 17:15	0:01	AWE	0.003	0.200	AGC MAVG - calculated
11/22/2013 17:23	0:01	AWE	0.002	0.100	AGC MAVG - calculated
11/23/2013 9:55	0:01	AWE	0.002	0.100	AGC MAVG - calculated
11/23/2013 23:38	0:01	AWE	0.003	0.200	AGC MAVG - calculated
11/24/2013 0:48	0:01	KWPII	0.003	15.200	AGC MAVG - calculated
11/24/2013 1:00	0:02	KWPII	0.020	15.604	AGC MAVG - calculated
11/24/2013 1:03	0:04	KWPII	0.051	16.188	AGC MAVG - calculated
11/24/2013 1:10	0:02	KWPII	0.003	16.117	AGC MAVG - calculated
11/24/2013 1:15	0:01	KWPII	0.015	14.903	AGC MAVG - calculated
11/24/2013 1:17	0:01	KWPII	0.013	15.017	AGC MAVG - calculated
11/24/2013 1:21	0:40	KWPII	1.674	17.473	AGC MAVG - calculated
11/24/2013 2:03	0:01	KWPII	0.008	17.644	AGC MAVG - calculated
11/24/2013 2:37	0:02	KWPII	0.018	12.488	AGC MAVG - calculated
11/24/2013 2:50	0:01	KWPII	0.018	12.903	AGC MAVG - calculated
11/24/2013 2:55	0:01	KWPII	0.001	12.388	AGC MAVG - calculated
11/24/2013 3:04	0:01	KWPII	0.004	11.273	AGC MAVG - calculated
11/24/2013 3:15	0:02	KWPII	0.011	12.291	AGC MAVG - calculated
11/24/2013 3:18	0:02	KWPII	0.040	13.018	AGC MAVG - calculated
11/24/2013 3:29	0:02	KWPII	0.056	14.374	AGC MAVG - calculated
11/24/2013 3:39	0:01	KWPII	0.005	12.749	AGC MAVG - calculated
11/24/2013 3:49	0:03	KWPII	0.032	12.980	AGC MAVG - calculated
11/24/2013 3:53	0:01	KWPII	0.003	13.716	AGC MAVG - calculated
11/24/2013 3:55	0:06	KWPII	0.122	15.061	AGC MAVG - calculated
11/24/2013 4:24	0:01	KWPII	0.004	13.874	AGC MAVG - calculated
11/24/2013 4:29	0:03	KWPII	0.044	14.334	AGC MAVG - calculated
11/24/2013 4:33	0:02	KWPII	0.013	14.694	AGC MAVG - calculated
11/24/2013 4:38	0:02	KWPII	0.023	14.490	AGC MAVG - calculated
11/24/2013 4:42	0:01	KWPII	0.022	16.234	AGC MAVG - calculated
11/24/2013 4:44	0:11	KWPII	0.489	17.633	AGC MAVG - calculated
11/24/2013 4:56	0:02	KWPII	0.017	15.800	AGC MAVG - calculated
11/24/2013 6:35	0:01	AWE	0.005	0.300	AGC MAVG - calculated
11/24/2013 7:33	0:01	KWPII	0.000	17.477	AGC MAVG - calculated
11/24/2013 7:35	0:01	KWPII	0.029	17.882	AGC MAVG - calculated
11/24/2013 7:37	0:09	KWPII	0.370	18.263	AGC MAVG - calculated and Good Engineering and Operating Practices
11/24/2013 10:20	0:01	KWPII	0.001	16.491	AGC MAVG - calculated
11/24/2013 11:54	0:01	KWPII	0.007	19.563	AGC MAVG - calculated
11/24/2013 11:56	0:01	KWPII	0.007	19.657	AGC MAVG - calculated
11/24/2013 12:00	0:01	KWPII	0.009	20.279	AGC MAVG - calculated
11/24/2013 12:02	0:02	KWPII	0.035	20.305	AGC MAVG - calculated
11/24/2013 12:05	0:02	KWPII	0.034	20.028	AGC MAVG - calculated
11/24/2013 12:30	0:02	KWPII	0.017	19.681	AGC MAVG - calculated
11/24/2013 12:34	0:03	KWPII	0.041	19.389	AGC MAVG - calculated
11/24/2013 22:54	0:01	KWPII	0.013	18.786	AGC MAVG - calculated
11/24/2013 22:56	0:01	KWPII	0.017	18.750	AGC MAVG - calculated
11/24/2013 22:59	4:16	KWPII	50.701	20.378	AGC MAVG - calculated, AGC MAVG - entered - Excess Energy, AGC MAVG - calculated, AGC MAVG - entered - Excess Energy, and AGC MAVG - calculated
11/25/2013 0:15	0:01	AWE	0.000	9.400	AGC MAVG - calculated
11/25/2013 0:18	0:20	AWE	0.800	7.400	AGC MAVG - calculated
11/25/2013 0:39	0:10	AWE	0.195	7.700	AGC MAVG - calculated
11/25/2013 0:50	0:02	AWE	0.017	6.000	AGC MAVG - calculated
11/25/2013 0:53	0:04	AWE	0.051	6.500	AGC MAVG - calculated
11/25/2013 0:58	0:01	AWE	0.000	7.200	AGC MAVG - calculated
11/25/2013 1:06	0:21	AWE	1.132	7.100	AGC MAVG - calculated, AGC MAVG - entered - Excess Energy, and AGC MAVG - calculated
11/25/2013 1:11	0:02	KWP	0.019	27.072	AGC MAVG - calculated
11/25/2013 1:17	0:08	SA	Data is not available	Data is not available	AGC MAVG - entered - Excess Energy
11/25/2013 1:18	0:03	MH	Data is not available	Data is not available	AGC MAVG - entered - Excess Energy
11/25/2013 1:28	0:01	AWE	0.026	6.800	AGC MAVG - entered - Excess Energy
11/25/2013 1:30	0:18	AWE	1.096	15.600	AGC MAVG - calculated
11/25/2013 1:49	0:02	AWE	0.014	11.700	AGC MAVG - calculated
11/25/2013 1:53	0:49	AWE	3.129	10.900	AGC MAVG - calculated, and AGC MAVG - entered - Excess Energy
11/25/2013 2:27	0:06	KWP	0.149	24.896	AGC MAVG - entered - Excess Energy
11/25/2013 2:28	0:13	SA	Data is not available	Data is not available	AGC MAVG - entered - Excess Energy
11/25/2013 2:29	0:11	MH	Data is not available	Data is not available	AGC MAVG - entered - Excess Energy
11/25/2013 2:34	0:03	KWP	0.051	25.360	AGC MAVG - entered - Excess Energy and AGC MAVG - calculated
11/25/2013 2:44	0:12	AWE	1.013	10.800	AGC MAVG - entered - Excess Energy and AGC MAVG - calculated
11/25/2013 2:57	0:10	AWE	0.550	11.700	AGC MAVG - calculated
11/25/2013 3:16	0:28	KWPII	2.693	10.041	AGC MAVG - calculated
11/25/2013 3:38	0:01	AWE	0.000	9.400	AGC MAVG - calculated
11/25/2013 3:46	1:05	KWPII	8.552	16.742	AGC MAVG - calculated
11/25/2013 3:57	0:01	AWE	0.000	12.700	AGC MAVG - calculated
11/25/2013 4:07	0:02	AWE	0.001	10.700	AGC MAVG - calculated
11/25/2013 4:23	0:01	AWE	0.001	10.500	AGC MAVG - calculated
11/25/2013 4:52	0:06	KWPII	0.238	10.828	AGC MAVG - calculated

Maui Electric

RSWG Maui Curtailment Report November 2013

Start Date and Time	Duration	IPP Curtailed	Estimated Curtailed MWH	Peak MW Curtailed	Reasons for Curtailment
11/25/2013 4:56	0:05	KWPII	0.127	11.197	AGC MAVG - calculated
11/25/2013 5:05	0:02	KWPII	0.017	11.422	AGC MAVG - calculated
11/25/2013 5:10	0:04	KWPII	0.063	11.018	AGC MAVG - calculated
11/25/2013 5:15	0:04	KWPII	0.149	11.397	AGC MAVG - calculated
11/25/2013 5:20	0:05	KWPII	0.184	12.470	AGC MAVG - calculated
11/25/2013 5:26	0:08	KWPII	0.310	15.176	AGC MAVG - calculated
11/25/2013 5:36	0:13	KWPII	0.423	15.540	AGC MAVG - calculated
11/25/2013 5:51	0:03	KWPII	0.060	15.510	AGC MAVG - calculated
11/25/2013 7:52	0:06	KWPII	0.088	20.267	AGC MAVG - calculated
11/25/2013 8:00	0:01	KWPII	0.025	19.719	AGC MAVG - calculated
11/25/2013 8:02	0:03	KWPII	0.034	20.149	AGC MAVG - calculated
11/25/2013 8:06	0:09	KWPII	0.081	20.319	AGC MAVG - calculated
11/25/2013 8:21	0:01	KWPII	0.000	19.393	AGC MAVG - calculated
11/25/2013 8:23	0:05	KWPII	0.132	19.326	AGC MAVG - calculated
11/25/2013 8:28	0:04	KWPII	0.077	19.976	AGC MAVG - calculated
11/25/2013 8:34	0:01	KWPII	0.025	19.965	AGC MAVG - calculated
11/25/2013 13:44	0:02	KWPII	0.009	14.828	AGC MAVG - calculated and Testing
11/25/2013 13:47	0:04	KWPII	0.024	15.323	AGC MAVG - calculated and Testing
11/25/2013 15:06	0:07	KWPII	0.254	18.578	AGC MAVG - calculated
11/25/2013 17:36	0:02	KWPII	0.065	17.564	AGC MAVG - calculated
11/25/2013 17:42	0:05	KWPII	0.054	19.258	AGC MAVG - calculated
11/25/2013 17:48	0:01	KWPII	0.005	19.673	AGC MAVG - calculated
11/25/2013 18:29	0:01	KWPII	0.007	19.013	AGC MAVG - calculated
11/25/2013 18:31	0:02	KWPII	0.049	19.407	AGC MAVG - calculated
11/25/2013 18:34	0:01	KWPII	0.035	19.499	AGC MAVG - calculated
11/25/2013 18:37	0:03	KWPII	0.046	20.121	AGC MAVG - calculated
11/25/2013 18:42	0:03	KWPII	0.083	20.134	AGC MAVG - calculated
11/25/2013 18:47	0:01	KWPII	0.007	20.141	AGC MAVG - calculated
11/25/2013 20:19	0:03	KWPII	0.035	20.658	AGC MAVG - calculated
11/25/2013 20:23	0:01	KWPII	0.009	20.415	AGC MAVG - calculated
11/25/2013 20:25	0:09	KWPII	0.417	19.969	AGC MAVG - calculated
11/25/2013 20:46	0:01	KWPII	0.000	20.442	AGC MAVG - calculated
11/25/2013 21:16	0:01	KWPII	0.010	20.622	AGC MAVG - calculated
11/25/2013 21:19	0:06	KWPII	0.084	20.630	AGC MAVG - calculated
11/25/2013 21:26	0:01	KWPII	0.007	20.416	AGC MAVG - calculated
11/25/2013 21:32	0:18	KWPII	0.477	20.677	AGC MAVG - calculated
11/25/2013 21:51	0:02	KWPII	0.018	20.652	AGC MAVG - calculated
11/25/2013 21:54	0:01	KWPII	0.014	20.537	AGC MAVG - calculated
11/25/2013 21:56	0:01	KWPII	0.026	20.129	AGC MAVG - calculated
11/25/2013 21:58	8:08	KWPII	134.949	20.708	AGC MAVG - calculated, Good Engineering and Operating Practices, AGC MAVG - entered - Excess Energy, AGC MAVG - calculated, AGC MAVG - entered - Excess Energy, and AGC MAVG - calculated
11/25/2013 22:50	0:01	AWE	0.000	15.700	AGC MAVG - calculated and Good Engineering and Operating Practices
11/25/2013 22:53	0:01	AWE	0.005	13.600	AGC MAVG - calculated and Good Engineering and Operating Practices
11/25/2013 22:55	0:02	AWE	0.004	14.300	AGC MAVG - calculated
11/25/2013 23:00	0:04	AWE	0.054	13.400	AGC MAVG - calculated
11/25/2013 23:18	0:01	AWE	0.001	12.200	AGC MAVG - calculated
11/25/2013 23:20	0:01	AWE	0.011	12.300	AGC MAVG - calculated
11/25/2013 23:29	0:01	AWE	0.000	12.600	AGC MAVG - calculated
11/25/2013 23:39	5:16	AWE	52.545	20.600	AGC MAVG - calculated, AGC MAVG - entered - Excess Energy, AGC MAVG - calculated AGC MAVG - entered - Excess Energy, and AGC MAVG - calculated
11/26/2013 0:26	0:02	KWP	0.009	28.480	AGC MAVG - entered - Excess Energy
11/26/2013 0:27	0:49	SA	Data is not available	Data is not available	AGC MAVG - entered - Excess Energy and AGC MAVG - calculated
11/26/2013 0:28	0:46	MH	Data is not available	Data is not available	AGC MAVG - entered - Excess Energy and AGC MAVG - calculated
11/26/2013 0:29	0:06	KWP	0.113	29.664	AGC MAVG - entered - Excess Energy
11/26/2013 0:36	0:01	KWP	0.002	27.776	AGC MAVG - entered - Excess Energy
11/26/2013 0:41	0:01	KWP	0.029	28.784	AGC MAVG - entered - Excess Energy
11/26/2013 0:45	0:01	KWP	0.045	29.280	AGC MAVG - entered - Excess Energy and AGC MAVG - calculated
11/26/2013 0:47	0:04	KWP	0.086	28.848	AGC MAVG - calculated
11/26/2013 0:52	0:15	KWP	0.543	29.744	AGC MAVG - calculated
11/26/2013 1:20	0:01	KWP	0.047	26.176	AGC MAVG - calculated
11/26/2013 1:30	0:01	KWP	0.000	23.504	AGC MAVG - calculated
11/26/2013 1:32	0:02	KWP	0.081	26.432	AGC MAVG - calculated
11/26/2013 2:19	0:01	KWP	0.037	22.272	AGC MAVG - calculated
11/26/2013 2:32	0:01	KWP	0.012	20.672	AGC MAVG - calculated
11/26/2013 2:42	0:01	KWP	0.017	20.176	AGC MAVG - calculated
11/26/2013 2:47	0:40	KWP	3.285	28.656	AGC MAVG - calculated, AGC MAVG - entered - Excess Energy, and AGC MAVG - calculated
11/26/2013 2:53	1:01	SA	Data is not available	Data is not available	AGC MAVG - entered - Excess Energy and AGC MAVG - calculated
11/26/2013 2:54	0:58	MH	Data is not available	Data is not available	AGC MAVG - entered - Excess Energy and AGC MAVG - calculated
11/26/2013 3:29	0:01	KWP	0.000	19.232	AGC MAVG - calculated
11/26/2013 3:31	0:01	KWP	0.018	20.784	AGC MAVG - calculated
11/26/2013 3:33	0:18	KWP	1.336	28.480	AGC MAVG - calculated
11/26/2013 5:14	0:02	AWE	0.001	17.900	AGC MAVG - calculated
11/26/2013 5:17	0:01	AWE	0.000	17.600	AGC MAVG - calculated
11/26/2013 5:19	0:39	AWE	2.379	17.500	AGC MAVG - calculated
11/26/2013 6:09	0:01	KWPII	0.025	13.896	AGC MAVG - calculated
11/26/2013 6:29	0:13	KWPII	0.732	19.392	AGC MAVG - calculated and Testing
11/26/2013 6:45	0:05	KWPII	0.153	20.451	AGC MAVG - calculated and Testing
11/26/2013 6:52	0:01	KWPII	0.003	19.865	AGC MAVG - calculated and Testing
11/26/2013 6:59	0:08	KWPII	0.131	20.460	AGC MAVG - calculated and Testing
11/26/2013 7:07	0:11	KWPII	0.364	18.570	AGC MAVG - calculated and Testing
11/26/2013 12:05	0:01	KWP	0.000	0.016	AGC MAVG - calculated and Testing
11/26/2013 19:23	0:01	KWPII	0.005	19.115	AGC MAVG - calculated
11/26/2013 19:26	0:04	KWPII	0.161	20.082	AGC MAVG - calculated
11/26/2013 19:31	0:01	KWPII	0.020	19.695	AGC MAVG - calculated
11/26/2013 22:23	0:01	KWPII	0.008	20.605	AGC MAVG - calculated
11/26/2013 22:26	0:01	KWPII	0.003	19.001	AGC MAVG - calculated
11/26/2013 22:28	0:01	KWPII	0.002	19.145	AGC MAVG - calculated
11/26/2013 22:36	0:06	KWPII	0.049	19.211	AGC MAVG - calculated
11/26/2013 22:45	0:03	KWPII	0.054	19.194	AGC MAVG - calculated
11/26/2013 22:49	1:01	KWPII	11.143	20.617	AGC MAVG - calculated
11/26/2013 23:51	0:32	KWPII	3.090	19.661	AGC MAVG - calculated
11/27/2013 0:24	0:03	KWPII	0.074	16.672	AGC MAVG - calculated
11/27/2013 0:28	0:01	KWPII	0.002	16.147	AGC MAVG - calculated
11/27/2013 0:30	0:11	KWPII	0.268	17.502	AGC MAVG - calculated
11/27/2013 0:42	2:03	KWPII	19.455	20.002	AGC MAVG - calculated
11/27/2013 2:52	0:01	KWPII	0.002	8.815	AGC MAVG - calculated
11/27/2013 3:07	1:19	KWPII	11.836	15.029	AGC MAVG - calculated
11/27/2013 3:21	0:01	AWE	0.000	3.100	AGC MAVG - calculated
11/27/2013 3:44	0:01	AWE	0.000	3.700	AGC MAVG - calculated
11/27/2013 3:44	0:01	KWP	0.003	13.456	AGC MAVG - calculated
11/27/2013 4:00	0:01	AWE	0.001	6.300	AGC MAVG - calculated
11/27/2013 4:29	0:29	KWPII	1.413	7.965	AGC MAVG - calculated
11/27/2013 4:38	0:02	AWE	0.012	11.000	AGC MAVG - calculated
11/27/2013 5:01	0:01	KWPII	0.012	5.850	AGC MAVG - calculated
11/27/2013 5:08	0:07	KWPII	0.153	9.784	AGC MAVG - calculated
11/27/2013 5:16	0:08	KWPII	0.396	11.352	AGC MAVG - calculated
11/27/2013 5:25	0:01	KWPII	0.022	7.177	AGC MAVG - calculated
11/27/2013 5:27	0:02	KWPII	0.025	6.524	AGC MAVG - calculated
11/27/2013 5:33	0:23	KWPII	2.221	10.862	AGC MAVG - calculated
11/27/2013 5:39	0:01	AWE	0.000	17.000	AGC MAVG - calculated
11/27/2013 5:41	0:01	AWE	0.000	16.800	AGC MAVG - calculated
11/27/2013 5:58	0:08	KWPII	0.550	10.627	AGC MAVG - calculated
11/27/2013 6:09	0:01	KWPII	0.019	10.248	AGC MAVG - calculated
11/27/2013 7:05	0:01	KWP	0.000	0.016	AGC MAVG - calculated

Maui Electric

RSWG Maui Curtailment Report November 2013

Start Date and Time	Duration	IPP Curtailed	Estimated Curtailed MWH	Peak MW Curtailed	Reasons for Curtailment
11/27/2013 12:17	0:01	KWP	0.001	0.048	AGC MAVG - calculated
11/28/2013 0:01	0:01	KWP	0.001	0.032	AGC MAVG - calculated
11/28/2013 0:54	0:01	KWP	0.001	0.032	AGC MAVG - calculated
11/28/2013 0:59	0:01	KWP	0.001	0.048	AGC MAVG - calculated
11/28/2013 1:14	0:02	KWP	0.001	0.032	AGC MAVG - calculated
11/28/2013 1:17	0:01	KWP	0.001	0.032	AGC MAVG - calculated
11/28/2013 10:56	0:01	KWP	0.000	0.016	AGC MAVG - calculated
11/28/2013 11:08	0:01	KWP	0.001	0.032	AGC MAVG - calculated
11/28/2013 11:14	0:01	KWP	0.001	0.032	AGC MAVG - calculated
11/29/2013 0:02	0:01	KWP	0.000	0.016	AGC MAVG - calculated
11/29/2013 5:33	0:01	KWP	0.000	0.016	AGC MAVG - calculated
11/29/2013 18:46	0:02	KWP	0.001	0.016	AGC MAVG - calculated
11/30/2013 0:14	0:01	KWP	0.002	0.176	AGC MAVG - calculated
11/30/2013 1:51	0:01	AWE	0.005	0.300	AGC MAVG - calculated
11/30/2013 1:55	0:01	KWPII	0.018	13.424	AGC MAVG - calculated
11/30/2013 1:56	0:01	AWE	0.003	0.200	AGC MAVG - calculated
11/30/2013 1:57	0:01	KWPII	0.013	14.348	AGC MAVG - calculated
11/30/2013 3:30	0:06	KWPII	0.404	14.776	AGC MAVG - calculated
11/30/2013 3:47	0:02	KWPII	0.030	10.175	AGC MAVG - calculated
11/30/2013 3:55	0:01	KWPII	0.033	9.865	AGC MAVG - calculated
11/30/2013 4:17	0:01	AWE	0.008	0.500	AGC MAVG - calculated
11/30/2013 4:49	0:01	AWE	0.005	0.300	AGC MAVG - calculated
11/30/2013 6:22	0:01	AWE	0.005	0.300	AGC MAVG - calculated and Testing
11/30/2013 11:28	0:01	KWP	0.000	0.048	AGC MAVG - calculated and Testing
11/30/2013 14:02	0:01	KWP	0.000	0.016	AGC MAVG - calculated and Testing
11/30/2013 14:04	0:01	KWP	0.000	0.016	AGC MAVG - calculated and Testing

Notes:

- Curtailment for KWP, Auwahi and KWP II is now controlled by MECO's Automatic Generation Control System ("AGC"). The AGC curtailment control automatically calculates the amount of Maximum Allowable Variable Generation ("MAVG") that MECO can accept into the 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 MECO operator to enter an AGC MAVG value. The AGC curtailment control will employ the lesser of the AGC MAVG - calculated and AGC MAVG - entered values in the control logic.
- The Estimated Curtailed MW and Peak MW Curtailed are formulated with information provided by the IPPs and MECO does not make any representation as to its accuracy.
- MECO recently upgraded the SCADA controls to permit the curtailment of the Makila Hydro facility to Net Zero Protocol and uncurtailment of the Makila Hydro facility without opening and closing the MECO and Makila Hydro interconnection circuit breaker.
- Estimated Curtailed MW and Peak MW Curtailed data is not provided by the IPPs for Makila Hydro, or AAAAA Rent-A-Space Maui LTD.

Maui Electric

Lana'i Curtailment Report November 2013

Start Date/Time	Stop Date/Time	Duration (h:mm)	IPP	Estimated MWH	Peak MW Curtailed	Reasons for Curtailment
11/1/2013 7:27	11/1/2013 7:27	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/1/2013 7:42	11/1/2013 8:32	0:51	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/1/2013 8:34	11/1/2013 8:57	0:24	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/1/2013 9:07	11/1/2013 9:07	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/1/2013 9:11	11/1/2013 9:27	0:17	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/1/2013 9:31	11/1/2013 11:17	1:47	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/1/2013 11:20	11/1/2013 11:20	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/1/2013 11:22	11/1/2013 11:23	0:02	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/1/2013 11:26	11/1/2013 11:32	0:07	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/1/2013 11:35	11/1/2013 11:41	0:07	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/1/2013 11:43	11/1/2013 11:44	0:02	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/1/2013 11:47	11/1/2013 11:49	0:03	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/1/2013 11:51	11/1/2013 11:54	0:04	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/1/2013 11:59	11/1/2013 11:59	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/1/2013 12:04	11/1/2013 12:07	0:04	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/1/2013 13:01	11/1/2013 13:01	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/1/2013 13:03	11/1/2013 13:23	0:21	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/1/2013 13:26	11/1/2013 13:27	0:02	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/1/2013 13:49	11/1/2013 13:53	0:05	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/1/2013 13:57	11/1/2013 13:57	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/1/2013 15:19	11/1/2013 15:25	0:07	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/1/2013 15:34	11/1/2013 15:40	0:07	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/1/2013 15:42	11/1/2013 15:55	0:14	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/1/2013 15:57	11/1/2013 15:59	0:03	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/2/2013 7:55	11/2/2013 7:57	0:03	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/2/2013 8:00	11/2/2013 8:13	0:14	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/2/2013 8:30	11/2/2013 8:33	0:04	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/2/2013 9:02	11/2/2013 9:06	0:05	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/2/2013 9:12	11/2/2013 9:12	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/2/2013 9:24	11/2/2013 9:24	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/2/2013 10:07	11/2/2013 10:12	0:06	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/2/2013 10:26	11/2/2013 10:36	0:11	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/2/2013 11:05	11/2/2013 11:09	0:05	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/2/2013 11:12	11/2/2013 11:17	0:06	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/2/2013 11:23	11/2/2013 11:23	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/2/2013 11:29	11/2/2013 11:32	0:04	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/2/2013 11:34	11/2/2013 11:34	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/2/2013 11:40	11/2/2013 11:40	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/2/2013 11:42	11/2/2013 11:42	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/2/2013 11:48	11/2/2013 11:48	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/2/2013 11:59	11/2/2013 12:00	0:02	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/2/2013 12:19	11/2/2013 12:20	0:02	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/2/2013 12:27	11/2/2013 12:52	0:26	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/2/2013 12:54	11/2/2013 12:56	0:03	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/2/2013 13:09	11/2/2013 13:11	0:03	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/2/2013 13:31	11/2/2013 13:31	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/2/2013 13:38	11/2/2013 13:39	0:02	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/2/2013 13:46	11/2/2013 13:46	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/2/2013 13:50	11/2/2013 14:18	0:29	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/2/2013 14:20	11/2/2013 14:22	0:03	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/2/2013 14:24	11/2/2013 14:25	0:02	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/2/2013 14:37	11/2/2013 14:41	0:05	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/2/2013 14:44	11/2/2013 15:10	0:27	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/2/2013 15:35	11/2/2013 15:38	0:04	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/2/2013 15:41	11/2/2013 17:02	1:22	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/3/2013 7:12	11/3/2013 8:41	1:30	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/3/2013 8:43	11/3/2013 8:53	0:11	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/3/2013 8:56	11/3/2013 9:17	0:22	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/3/2013 9:19	11/3/2013 9:43	0:25	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/3/2013 9:45	11/3/2013 9:47	0:03	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/3/2013 9:49	11/3/2013 9:50	0:02	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/3/2013 9:55	11/3/2013 10:06	0:12	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/3/2013 10:08	11/3/2013 10:11	0:04	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/3/2013 10:20	11/3/2013 10:21	0:02	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/3/2013 10:25	11/3/2013 10:25	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/3/2013 10:35	11/3/2013 10:35	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/3/2013 10:37	11/3/2013 10:37	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/3/2013 10:41	11/3/2013 10:41	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/3/2013 10:54	11/3/2013 10:54	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/3/2013 11:03	11/3/2013 11:03	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/3/2013 11:09	11/3/2013 11:18	0:10	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/3/2013 11:20	11/3/2013 11:26	0:07	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/3/2013 11:30	11/3/2013 11:30	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/3/2013 11:32	11/3/2013 11:34	0:03	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/3/2013 11:39	11/3/2013 11:39	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/3/2013 11:47	11/3/2013 11:48	0:02	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/3/2013 11:52	11/3/2013 11:52	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/3/2013 12:36	11/3/2013 12:37	0:02	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/3/2013 12:40	11/3/2013 12:55	0:16	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/3/2013 12:57	11/3/2013 13:04	0:08	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/3/2013 13:09	11/3/2013 13:09	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/3/2013 13:12	11/3/2013 13:12	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/3/2013 13:46	11/3/2013 13:46	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/3/2013 14:10	11/3/2013 16:20	2:11	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/3/2013 16:22	11/3/2013 16:46	0:25	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/4/2013 7:36	11/4/2013 7:57	0:22	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices

Maui Electric

Lana'i Curtailment Report November 2013

Start Date/Time	Stop Date/Time	Duration (h:mm)	IPP	Estimated MWH	Peak MW Curtailed	Reasons for Curtailment
11/4/2013 8:00	11/4/2013 8:02	0:03	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/4/2013 8:04	11/4/2013 9:45	1:42	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/4/2013 9:47	11/4/2013 9:50	0:04	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/4/2013 9:54	11/4/2013 10:37	0:44	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/4/2013 10:39	11/4/2013 10:39	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/4/2013 10:41	11/4/2013 11:14	0:34	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/4/2013 11:16	11/4/2013 11:21	0:06	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/4/2013 15:19	11/4/2013 15:27	0:09	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/4/2013 16:13	11/4/2013 16:16	0:03	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/4/2013 16:31	11/4/2013 16:32	0:02	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/4/2013 19:18	11/4/2013 19:18	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/5/2013 8:37	11/5/2013 8:40	0:04	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/5/2013 16:46	11/5/2013 17:03	0:18	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/6/2013 15:49	11/6/2013 15:49	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/7/2013 12:51	11/7/2013 12:55	0:05	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/7/2013 12:58	11/7/2013 12:58	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/7/2013 13:05	11/7/2013 13:05	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/7/2013 13:16	11/7/2013 13:18	0:03	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/7/2013 13:29	11/7/2013 13:29	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/7/2013 15:11	11/7/2013 15:11	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/7/2013 15:21	11/7/2013 15:22	0:02	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/7/2013 15:25	11/7/2013 15:27	0:03	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/8/2013 7:27	11/8/2013 7:27	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/8/2013 7:37	11/8/2013 7:38	0:02	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/8/2013 7:49	11/8/2013 7:50	0:02	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/8/2013 8:44	11/8/2013 8:44	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/8/2013 8:54	11/8/2013 8:55	0:02	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/8/2013 8:57	*11/8/2013 8:59*	*0:03*	*LSR*	*Data is not available*	*Data is not available*	*Good Engineering and Operating Practices*
11/8/2013 9:04	11/8/2013 9:09	0:06	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/8/2013 9:14	11/8/2013 9:39	0:26	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/8/2013 9:41	11/8/2013 9:45	0:05	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/8/2013 9:52	11/8/2013 9:54	0:03	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/8/2013 9:56	11/8/2013 9:58	0:03	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/8/2013 10:01	11/8/2013 10:01	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/8/2013 10:05	11/8/2013 10:11	0:07	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/8/2013 10:28	11/8/2013 10:30	0:03	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/8/2013 10:32	11/8/2013 10:37	0:06	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/8/2013 10:41	11/8/2013 10:41	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/8/2013 10:44	11/8/2013 10:45	0:02	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/8/2013 10:47	11/8/2013 10:51	0:05	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/8/2013 10:54	11/8/2013 11:01	0:08	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/8/2013 11:05	11/8/2013 11:06	0:02	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/8/2013 11:09	11/8/2013 11:19	0:11	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/8/2013 11:22	11/8/2013 11:28	0:07	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/8/2013 11:32	11/8/2013 11:50	0:19	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/8/2013 12:48	11/8/2013 12:46	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/8/2013 12:56	11/8/2013 13:08	0:13	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/8/2013 13:12	11/8/2013 13:48	0:37	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/8/2013 13:50	11/8/2013 14:04	0:15	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/8/2013 14:08	11/8/2013 14:19	0:12	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/8/2013 14:23	11/8/2013 14:23	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/8/2013 14:26	11/8/2013 14:33	0:08	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/8/2013 14:55	11/8/2013 14:58	0:04	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/8/2013 15:05	11/8/2013 15:20	0:16	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/9/2013 7:31	11/9/2013 7:47	0:17	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/9/2013 7:49	11/9/2013 8:00	0:12	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/9/2013 8:04	11/9/2013 8:07	0:04	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/9/2013 8:11	11/9/2013 8:12	0:02	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/9/2013 8:14	11/9/2013 8:14	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/9/2013 8:25	11/9/2013 8:28	0:04	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/9/2013 9:10	11/9/2013 9:23	0:14	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/9/2013 9:25	11/9/2013 9:30	0:06	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/9/2013 9:38	11/9/2013 9:38	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/9/2013 9:40	11/9/2013 10:05	0:26	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/9/2013 10:52	11/9/2013 10:56	0:05	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/9/2013 11:17	11/9/2013 11:25	0:09	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/9/2013 12:41	11/9/2013 12:41	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/9/2013 14:34	11/9/2013 14:34	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/9/2013 15:12	11/9/2013 15:29	0:18	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/10/2013 8:11	11/10/2013 8:14	0:04	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/10/2013 8:17	11/10/2013 8:27	0:11	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/10/2013 8:29	11/10/2013 13:55	5:27	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/10/2013 13:57	11/10/2013 16:41	2:45	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/10/2013 16:43	11/10/2013 16:43	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/10/2013 16:51	11/10/2013 16:51	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/10/2013 16:54	11/10/2013 16:55	0:02	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/10/2013 16:58	11/10/2013 16:59	0:02	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/11/2013 7:23	11/11/2013 11:07	3:45	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/11/2013 11:12	11/11/2013 11:29	0:18	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/11/2013 11:31	11/11/2013 11:58	0:28	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/11/2013 12:04	11/11/2013 12:04	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/11/2013 12:10	11/11/2013 12:10	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/11/2013 12:29	11/11/2013 12:31	0:03	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/11/2013 12:33	11/11/2013 12:36	0:04	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/11/2013 12:46	11/11/2013 12:56	0:11	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/11/2013 13:03	11/11/2013 13:03	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices

Maui Electric

Lana'i Curtailment Report November 2013

Start Date/Time	Stop Date/Time	Duration (h.mm)	IPP	Estimated MWH	Peak MW Curtailed	Reasons for Curtailment
11/11/2013 13:09	11/11/2013 13:10	0:02	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/11/2013 13:12	11/11/2013 13:15	0:04	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/11/2013 13:26	11/11/2013 13:26	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/11/2013 13:28	11/11/2013 13:28	0.01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/11/2013 13:34	11/11/2013 13:39	0:06	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/11/2013 13:42	11/11/2013 14:17	0:36	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/11/2013 14:21	11/11/2013 14:23	0.03	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/11/2013 14:25	11/11/2013 14:26	0.02	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/11/2013 14:28	11/11/2013 14:28	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/11/2013 15:37	11/11/2013 15:39	0:03	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/11/2013 15:42	11/11/2013 15:43	0:02	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/11/2013 15:48	11/11/2013 15:48	0.01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/11/2013 15:52	11/11/2013 15:53	0:02	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/11/2013 15:57	11/11/2013 15:59	0:03	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/11/2013 16:02	11/11/2013 16:15	0:14	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/11/2013 16:17	11/11/2013 16:17	0.01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/11/2013 16:21	11/11/2013 16:23	0.03	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/11/2013 16:25	11/11/2013 16:26	0:02	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/11/2013 16:31	11/11/2013 16:49	0:19	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/11/2013 16:51	11/11/2013 17:00	0:10	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/12/2013 7:26	11/12/2013 9:33	2:08	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/12/2013 9:37	11/12/2013 9:37	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/12/2013 9:41	11/12/2013 9:42	0.02	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/12/2013 9:46	11/12/2013 9:55	0:10	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/12/2013 9:57	11/12/2013 9:59	0.03	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/12/2013 10:59	11/12/2013 10:59	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/12/2013 11:55	11/12/2013 11:56	0.02	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/12/2013 12:19	11/12/2013 12:22	0:04	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/12/2013 12:28	11/12/2013 12:33	0:06	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/12/2013 12:36	11/12/2013 12:39	0.04	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/12/2013 12:44	11/12/2013 12:44	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/12/2013 13:21	11/12/2013 13:22	0:02	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/12/2013 13:24	11/12/2013 13:24	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/12/2013 13:37	11/12/2013 13:37	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/12/2013 13:40	11/12/2013 13:40	0.01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/12/2013 13:50	11/12/2013 13:50	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/13/2013 7:34	11/13/2013 7:34	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/13/2013 7:40	11/13/2013 9:11	1.32	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/13/2013 9:14	11/13/2013 9:15	0:02	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/13/2013 9:32	11/13/2013 9:33	0:02	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/13/2013 9:36	11/13/2013 9:44	0:09	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/13/2013 9:57	11/13/2013 9:57	0.01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/13/2013 10:01	11/13/2013 10:04	0.04	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/13/2013 10:12	11/13/2013 10:21	0:10	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/13/2013 10:31	11/13/2013 10:31	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/13/2013 10:35	11/13/2013 10:40	0:06	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/13/2013 10:42	11/13/2013 10:42	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/13/2013 10:44	11/13/2013 11:42	0:59	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/13/2013 11:44	11/13/2013 11:50	0:07	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/13/2013 11:53	11/13/2013 11:56	0:04	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/13/2013 12:07	11/13/2013 12:09	0:03	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/13/2013 12:19	11/13/2013 12:20	0:02	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/13/2013 12:26	11/13/2013 12:26	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/13/2013 12:29	11/13/2013 12:30	0:02	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/13/2013 15:16	11/13/2013 15:16	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/13/2013 15:23	11/13/2013 15:29	0:07	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/13/2013 15:31	11/13/2013 15:34	0:04	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/13/2013 16:23	11/13/2013 16:33	0:11	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/14/2013 7:41	11/14/2013 8:31	0:51	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/14/2013 8:33	11/14/2013 8:48	0:16	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/14/2013 9:04	11/14/2013 9:13	0:10	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/14/2013 9:20	11/14/2013 9:20	0.01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/14/2013 9:25	11/14/2013 10:14	0.50	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/14/2013 10:16	11/14/2013 10:19	0:04	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/14/2013 10:22	11/14/2013 11:07	0.46	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/14/2013 13:00	11/14/2013 13:23	0:24	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/14/2013 13:38	11/14/2013 13:50	0.13	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/14/2013 13:54	11/14/2013 14:34	0:41	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/14/2013 14:36	11/14/2013 14:42	0:07	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/14/2013 15:27	11/14/2013 15:29	0:03	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/14/2013 15:39	11/14/2013 15:45	0:07	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/15/2013 8:22	11/15/2013 8:25	0:04	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/15/2013 8:54	11/15/2013 8:54	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/15/2013 11:12	11/15/2013 11:31	0:20	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/15/2013 11:56	11/15/2013 12:45	0:50	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/15/2013 12:47	11/15/2013 13:09	0:23	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/15/2013 13:24	11/15/2013 13:51	0:28	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/15/2013 16:45	11/15/2013 16:53	0.09	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/16/2013 7:31	11/16/2013 7:36	0:06	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/16/2013 7:41	11/16/2013 7:42	0:02	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/16/2013 7:46	11/16/2013 10:04	2:19	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/16/2013 10:08	11/16/2013 11:21	1:14	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/16/2013 11:32	11/16/2013 11:39	0.08	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/16/2013 11:42	11/16/2013 11:43	0:02	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/16/2013 11:46	11/16/2013 11:46	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/16/2013 11:52	11/16/2013 11:53	0:02	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices

Maui Electric

Lana'i Curtailment Report November 2013

Start Date/Time	Stop Date/Time	Duration (h:mm)	IPP	Estimated MWH	Peak MW Curtailed	Reasons for Curtailment
11/16/2013 12:02	11/16/2013 12:05	0:04	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/16/2013 12:14	11/16/2013 12:17	0:04	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/16/2013 12:28	11/16/2013 12:29	0:02	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/16/2013 12:45	11/16/2013 13:43	0.59	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/16/2013 14:09	11/16/2013 14:18	0:10	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/17/2013 7:35	11/17/2013 8:25	0:51	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/17/2013 8:27	11/17/2013 8:36	0:10	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/17/2013 8:40	11/17/2013 8:40	0.01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/17/2013 8:43	11/17/2013 8:44	0.02	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/17/2013 8:46	11/17/2013 8:47	0:02	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/17/2013 8:49	11/17/2013 8:50	0 02	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/17/2013 8:55	11/17/2013 8:56	0 02	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/17/2013 9:00	11/17/2013 9:00	0 01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/17/2013 9:05	11/17/2013 9:05	0.01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/17/2013 9:07	11/17/2013 9:08	0 02	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/17/2013 9:10	11/17/2013 9:10	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/17/2013 9:12	11/17/2013 9:12	0.01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/17/2013 9:35	11/17/2013 9:37	0 03	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/17/2013 9:39	11/17/2013 9:40	0.02	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/17/2013 10:05	11/17/2013 10:06	0.02	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/17/2013 10:32	11/17/2013 10:32	0 01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/17/2013 10:44	11/17/2013 10:47	0 04	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/17/2013 11:12	11/17/2013 11:12	0 01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/17/2013 11:39	11/17/2013 11:39	0 01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/17/2013 13:12	11/17/2013 13:14	0 03	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/17/2013 14:30	11/17/2013 14:30	0 01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/17/2013 14:35	11/17/2013 14:35	0.01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/17/2013 14:37	11/17/2013 14:37	0.01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/17/2013 14:40	11/17/2013 15:00	0 21	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/17/2013 15:03	11/17/2013 15:04	0 02	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/17/2013 16:06	11/17/2013 16:08	0 03	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/17/2013 16:19	11/17/2013 16:21	0:03	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/18/2013 8:01	11/18/2013 8:05	0 05	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/18/2013 9:19	11/18/2013 9:50	0 32	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/18/2013 9:59	11/18/2013 10:05	0:07	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/18/2013 10:07	11/18/2013 10:07	0.01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/18/2013 10:10	11/18/2013 10:12	0.03	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/18/2013 10:15	11/18/2013 10:18	0:04	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/18/2013 10:30	11/18/2013 10:31	0:02	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/18/2013 10:36	11/18/2013 10:36	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/18/2013 10:43	11/18/2013 10:43	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/18/2013 10:46	11/18/2013 10:50	0:05	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/18/2013 11:00	11/18/2013 11:01	0:02	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/18/2013 11:10	11/18/2013 11:11	0:02	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/18/2013 11:13	11/18/2013 11:13	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/18/2013 13:38	11/18/2013 13:45	0:08	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/18/2013 16:37	11/18/2013 16:41	0:05	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/19/2013 7:21	11/19/2013 9:31	2:11	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/19/2013 9:33	11/19/2013 9:38	0:04	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/19/2013 9:38	11/19/2013 9:42	0:05	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/19/2013 9:51	11/19/2013 9:52	0:02	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/19/2013 9:55	11/19/2013 10:17	0:23	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/19/2013 10:19	11/19/2013 10:36	0:18	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/19/2013 10:38	11/19/2013 11:00	0:23	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/19/2013 11:02	11/19/2013 11:12	0:11	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/19/2013 11:14	11/19/2013 11:46	0.33	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/19/2013 11:48	11/19/2013 12:04	0.17	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/19/2013 12:07	11/19/2013 12:47	0 41	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/19/2013 12:50	11/19/2013 13:32	0 43	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/19/2013 13:35	11/19/2013 13:47	0 13	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/19/2013 13:50	11/19/2013 14:28	0 39	LSR	Data is not available	Data is not available	Testing
11/19/2013 14:39	11/19/2013 15:01	0 23	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/19/2013 15:03	11/19/2013 15:12	0 10	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/19/2013 15:24	11/19/2013 15:24	0 01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/19/2013 15:27	11/19/2013 15:31	0 05	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/19/2013 15:36	11/19/2013 15:36	0 01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/19/2013 15:39	11/19/2013 15:41	0 03	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/19/2013 16:29	11/19/2013 16:29	0 01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/19/2013 16:31	11/19/2013 16:32	0 02	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/19/2013 16:39	11/19/2013 16:39	0 01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/20/2013 7:17	11/20/2013 7:20	0 04	LSR	Data is not available	Data is not available	Testing
11/20/2013 7:22	11/20/2013 7:44	0 23	LSR	Data is not available	Data is not available	Testing
11/20/2013 9:27	11/20/2013 9:27	0 01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/20/2013 9:52	11/20/2013 9:52	0 01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/20/2013 9:57	11/20/2013 10:19	0.23	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/20/2013 10:21	11/20/2013 10:28	0 08	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/20/2013 10:35	11/20/2013 11:01	0 27	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/20/2013 11:18	11/20/2013 12:05	0:48	LSR	Data is not available	Data is not available	Testing
11/20/2013 13:18	11/20/2013 13:18	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/20/2013 14:00	11/20/2013 14:01	0:02	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/20/2013 14:23	11/20/2013 14:28	0:06	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/20/2013 14:31	11/20/2013 14:35	0:05	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/21/2013 8:27	11/21/2013 8:31	0:05	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/21/2013 9:01	11/21/2013 9:03	0:03	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/21/2013 10:31	11/21/2013 10:31	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/21/2013 13:04	11/21/2013 13:07	0:04	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices

Maui Electric

Lana'i Curtailment Report November 2013

Start Date/Time	Stop Date/Time	Duration (h:mm)	IPP	Estimated MWH	Peak MW Curtailed	Reasons for Curtailment
11/21/2013 13:09	11/21/2013 13:17	0:09	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/21/2013 13:21	11/21/2013 13:24	0:04	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/21/2013 15:53	11/21/2013 15:53	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/21/2013 16:07	11/21/2013 16:07	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/21/2013 16:09	11/21/2013 16:11	0:03	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/21/2013 16:13	11/21/2013 16:59	0:47	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/22/2013 7:38	11/22/2013 9:19	1:42	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/22/2013 9:26	11/22/2013 9:27	0:02	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/22/2013 9:32	11/22/2013 9:32	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/22/2013 9:46	11/22/2013 9:46	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/22/2013 9:50	11/22/2013 9:51	0:02	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/22/2013 9:53	11/22/2013 9:53	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/22/2013 9:57	11/22/2013 9:59	0:03	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/22/2013 10:25	11/22/2013 10:37	0:13	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/22/2013 10:46	11/22/2013 10:46	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/22/2013 10:58	11/22/2013 10:59	0:02	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/22/2013 11:02	11/22/2013 11:02	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/22/2013 11:05	11/22/2013 11:05	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/22/2013 11:07	11/22/2013 11:09	0:03	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/22/2013 11:21	11/22/2013 11:23	0:03	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/22/2013 11:26	11/22/2013 11:28	0:03	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/22/2013 12:02	11/22/2013 12:02	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/22/2013 12:05	11/22/2013 12:10	0:06	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/22/2013 13:06	11/22/2013 13:06	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/22/2013 13:08	11/22/2013 13:08	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/22/2013 13:18	11/22/2013 13:18	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/22/2013 15:12	11/22/2013 15:17	0:06	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/22/2013 15:21	11/22/2013 16:10	0:50	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/22/2013 16:13	11/22/2013 16:17	0:05	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/22/2013 16:19	11/22/2013 16:36	0:18	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/23/2013 7:42	11/23/2013 8:54	1:13	LSR	*Data is not available*	*Data is not available*	*Good Engineering and Operating Practices*
11/23/2013 8:56	11/23/2013 15:49	6:54	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/23/2013 15:51	11/23/2013 16:16	0:26	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/24/2013 7:30	11/24/2013 9:02	1:33	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/24/2013 9:04	11/24/2013 10:58	1:55	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/24/2013 11:05	11/24/2013 11:05	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/24/2013 11:08	11/24/2013 11:08	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/24/2013 11:10	11/24/2013 11:15	0:06	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/24/2013 11:17	11/24/2013 11:21	0:05	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/24/2013 11:31	11/24/2013 11:33	0:03	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/24/2013 11:37	11/24/2013 11:37	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/24/2013 11:40	11/24/2013 11:40	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/24/2013 11:43	11/24/2013 11:44	0:02	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/24/2013 11:46	11/24/2013 11:50	0:05	LSR	*Data is not available*	*Data is not available*	*Good Engineering and Operating Practices*
11/24/2013 11:52	11/24/2013 13:02	1:11	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/24/2013 13:05	11/24/2013 13:08	0:04	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/24/2013 13:12	11/24/2013 15:03	1:52	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/24/2013 16:04	11/24/2013 16:13	0:10	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/24/2013 16:19	11/24/2013 16:29	0:11	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/25/2013 8:35	11/25/2013 8:57	0:23	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/25/2013 9:11	11/25/2013 9:11	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/25/2013 9:20	11/25/2013 11:52	2:33	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/25/2013 11:54	11/25/2013 12:06	0:13	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/25/2013 12:13	11/25/2013 12:25	0:13	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/25/2013 12:30	11/25/2013 12:35	0:06	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/25/2013 12:38	11/25/2013 12:38	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/25/2013 12:43	11/25/2013 12:44	0:02	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/25/2013 12:50	11/25/2013 12:50	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/25/2013 12:53	11/25/2013 12:55	0:03	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/25/2013 13:06	11/25/2013 13:12	0:07	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/25/2013 13:44	11/25/2013 13:46	0:03	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/25/2013 15:08	11/25/2013 15:08	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/25/2013 15:19	11/25/2013 15:20	0:02	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/25/2013 15:24	11/25/2013 15:24	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/25/2013 15:29	11/25/2013 15:29	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/25/2013 16:01	11/25/2013 16:03	0:03	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/25/2013 16:09	11/25/2013 16:10	0:02	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/25/2013 16:19	11/25/2013 16:21	0:03	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/25/2013 16:23	11/25/2013 16:23	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/25/2013 16:25	11/25/2013 17:03	0:39	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/26/2013 8:07	11/26/2013 8:07	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/26/2013 8:28	11/26/2013 8:28	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/26/2013 9:02	11/26/2013 10:43	1:42	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/26/2013 11:03	11/26/2013 11:03	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/26/2013 11:07	11/26/2013 11:07	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/26/2013 11:16	11/26/2013 11:18	0:03	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/26/2013 11:21	11/26/2013 11:21	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/26/2013 11:31	11/26/2013 11:33	0:03	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/26/2013 11:35	11/26/2013 11:36	0:02	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/26/2013 11:38	11/26/2013 11:38	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/26/2013 11:40	11/26/2013 11:40	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/26/2013 11:42	11/26/2013 12:37	0:56	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/26/2013 12:41	11/26/2013 13:23	0:43	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/26/2013 13:26	11/26/2013 13:31	0:06	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/26/2013 13:35	11/26/2013 13:39	0:05	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/26/2013 13:41	11/26/2013 13:43	0:03	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices

Maui Electric

Lana'i Curtailment Report November 2013

Start Date/Time	Stop Date/Time	Duration (h mm)	IPP	Estimated MWH	Peak MW Curtailed	Reasons for Curtailment
11/26/2013 13:45	11/26/2013 13:55	0:11	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/26/2013 13:57	11/26/2013 13:57	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/26/2013 14:00	11/26/2013 14:05	0:06	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/26/2013 14:09	11/26/2013 14:09	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/26/2013 14:12	11/26/2013 14:12	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/26/2013 14:14	11/26/2013 14:32	0:19	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/26/2013 14:34	11/26/2013 14:37	0:04	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/26/2013 14:39	11/26/2013 14:43	0:05	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/26/2013 15:50	11/26/2013 15:59	0:10	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/26/2013 16:09	11/26/2013 16:36	0:28	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/26/2013 16:39	11/26/2013 16:43	0:05	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/27/2013 7:53	11/27/2013 8:45	0:53	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/27/2013 8:47	11/27/2013 9:13	0:27	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/27/2013 9:15	11/27/2013 15:33	6:19	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/27/2013 15:37	11/27/2013 15:52	0:16	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/27/2013 15:55	11/27/2013 15:59	0:05	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/27/2013 16:06	11/27/2013 16:47	0:42	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/28/2013 7:40	11/28/2013 7:42	0:03	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/28/2013 7:44	11/28/2013 8:13	0:30	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/28/2013 8:17	11/28/2013 8:17	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/28/2013 8:23	11/28/2013 8:45	0:23	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/28/2013 8:48	11/28/2013 9:02	0:15	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/28/2013 9:43	11/28/2013 9:45	0:03	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/28/2013 9:56	11/28/2013 9:57	0:02	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/28/2013 10:07	11/28/2013 10:12	0:06	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/28/2013 10:16	11/28/2013 10:24	0:09	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/28/2013 10:28	11/28/2013 10:30	0:03	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/28/2013 10:33	11/28/2013 10:39	0:07	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/28/2013 10:41	11/28/2013 10:41	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/28/2013 10:44	11/28/2013 10:44	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/28/2013 10:46	11/28/2013 10:49	0:04	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/28/2013 10:51	11/28/2013 10:55	0:05	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/28/2013 10:57	11/28/2013 10:57	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/28/2013 11:01	11/28/2013 11:05	0:05	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/28/2013 11:08	11/28/2013 11:27	0:20	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/28/2013 11:38	11/28/2013 11:39	0:02	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/28/2013 11:41	11/28/2013 11:59	0:19	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/28/2013 12:01	11/28/2013 15:25	3:25	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/28/2013 15:28	11/28/2013 15:34	0:07	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/28/2013 15:40	11/28/2013 15:40	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/28/2013 15:43	11/28/2013 16:35	0:53	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/28/2013 16:40	11/28/2013 16:42	0:03	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/29/2013 7:40	11/29/2013 7:45	0:06	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/29/2013 7:48	11/29/2013 7:48	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/29/2013 7:52	11/29/2013 7:52	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/29/2013 8:07	11/29/2013 8:11	0:05	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/29/2013 9:11	11/29/2013 9:12	0:02	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/29/2013 9:17	11/29/2013 9:17	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/29/2013 9:19	11/29/2013 9:19	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/29/2013 10:11	11/29/2013 10:52	0:42	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/29/2013 11:19	11/29/2013 11:25	0:07	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/29/2013 11:35	11/29/2013 11:36	0:02	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/29/2013 11:47	11/29/2013 11:51	0:05	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/29/2013 11:53	11/29/2013 11:55	0:03	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/29/2013 12:02	11/29/2013 12:03	0:02	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/29/2013 12:05	11/29/2013 12:18	0:14	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/29/2013 12:20	11/29/2013 12:24	0:05	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/29/2013 12:28	11/29/2013 12:41	0:14	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/29/2013 12:43	11/29/2013 12:51	0:09	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/29/2013 13:06	11/29/2013 13:23	0:18	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/29/2013 13:33	11/29/2013 14:04	0:32	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/29/2013 14:26	11/29/2013 14:28	0:03	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/29/2013 14:38	11/29/2013 14:38	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/29/2013 15:47	11/29/2013 15:47	0:01	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/30/2013 9:11	11/30/2013 10:05	0:55	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/30/2013 10:09	11/30/2013 10:15	0:07	LSR	Data is not available	Data is not available	Testing
11/30/2013 10:23	11/30/2013 10:25	0:03	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/30/2013 10:42	11/30/2013 11:12	0:31	LSR	Data is not available	Data is not available	Testing
11/30/2013 12:30	11/30/2013 12:36	0:07	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/30/2013 12:38	11/30/2013 13:04	0:27	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices
11/30/2013 13:07	11/30/2013 13:11	0:05	LSR	Data is not available	Data is not available	Good Engineering and Operating Practices

Notes

On June 27, 2012, Maui Electric notified LSR that although LSR has not operated in compliance with the revised ramp rate of 360 kW/minute, Maui Electric would conditionally allow LSR to operate at the allowed capacity of 1.2 MW while the Maui Electric-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.