Hawaiian Electric Company, Inc. • PO Box 2750 • Honolulu, HI 96840-0001

January 24, 2014

FILED
2014 JAN 24 P 4:11
PUBLIC UTILITIES
COMMISSION

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

Dear Commissioners:

Subject: Docket No. 2011-0206
Reliability Standards Working Group
Monthly Report

Pursuant to Ordering Paragraph 3 of the Commission's Order No. 30371, filed on May 4, 2012, in the above subject proceeding, enclosed as Exhibit A is the Hawaiian Electric Companies'[1] monthly report for December 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,

George S Kaneshiro

(for) Daniel G. Brown
Manager
Non-Rate Proceedings

Enclosure

cc: Service List

[1] Hawaiian Electric Company, Inc., Hawai'i Electric Light Company, Inc., and Maui Electric Company, Limited are collectively referred to as the "Hawaiian Electric Companies" or "Companies".

SERVICE LIST
(Docket No. 2011-0206)

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 December 31, 2013):

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

The frequency duration plots for Hawaiian Electric, 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 December 31, 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 December. 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 December.

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

Hawaiian Electric's demand response activations for system events is provided in Attachment 5. Hawai'i Electric Light currently does not have demand response program. Maui Electric has implemented the Fast Demand Response pilot program on a limited basis. Hawai'i Electric Light plans to use the findings of Maui Electric's pilot program to help in the evaluation and development of future demand response programs. Maui Electric executes a weekly testing protocol which measures customer participation. This program is not currently used in response to actual system events.

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

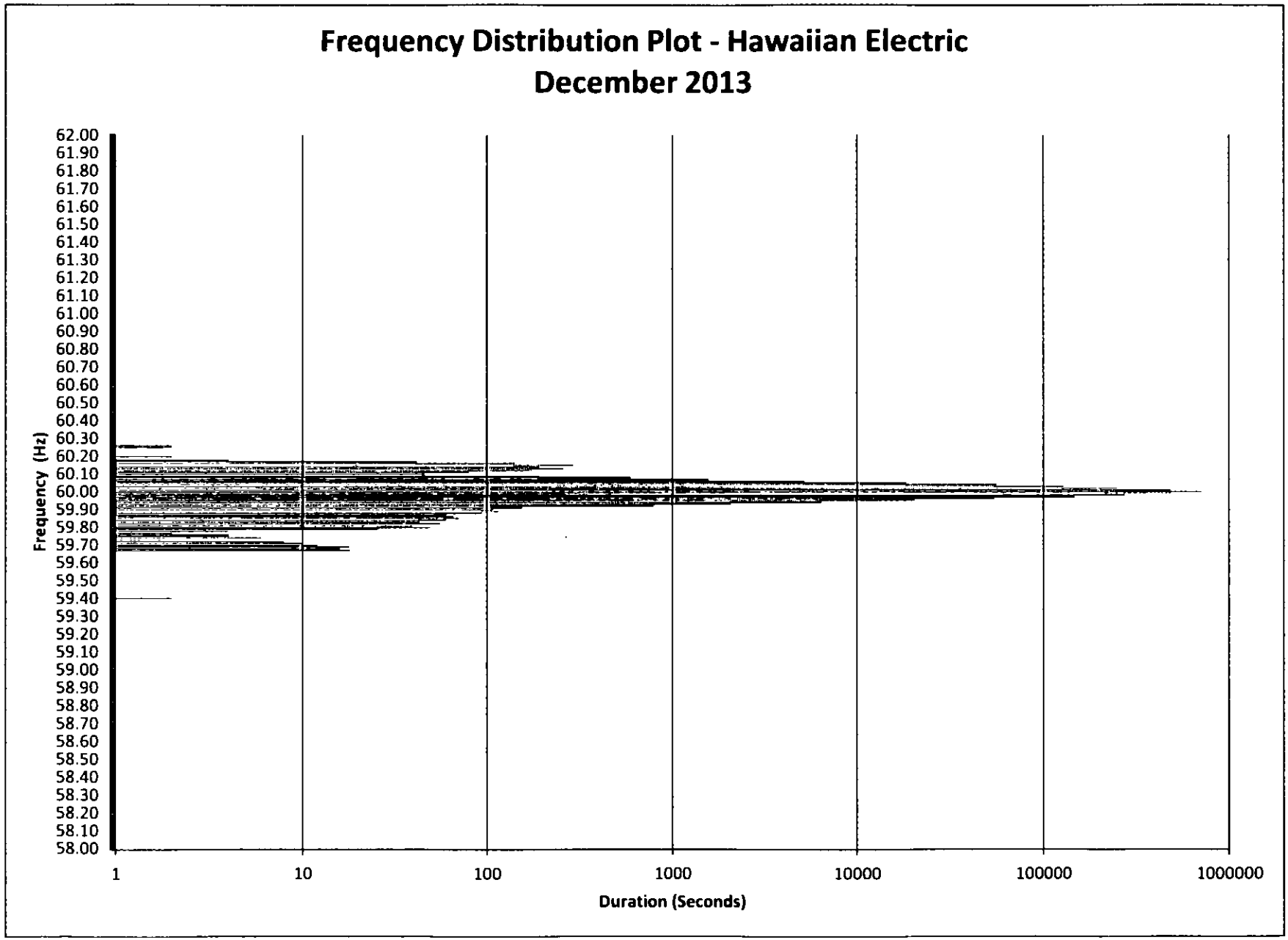
The following provides information with respect to items 3a) through 3b) – (all statements are current as of the month ending December 31, 2013):

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

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

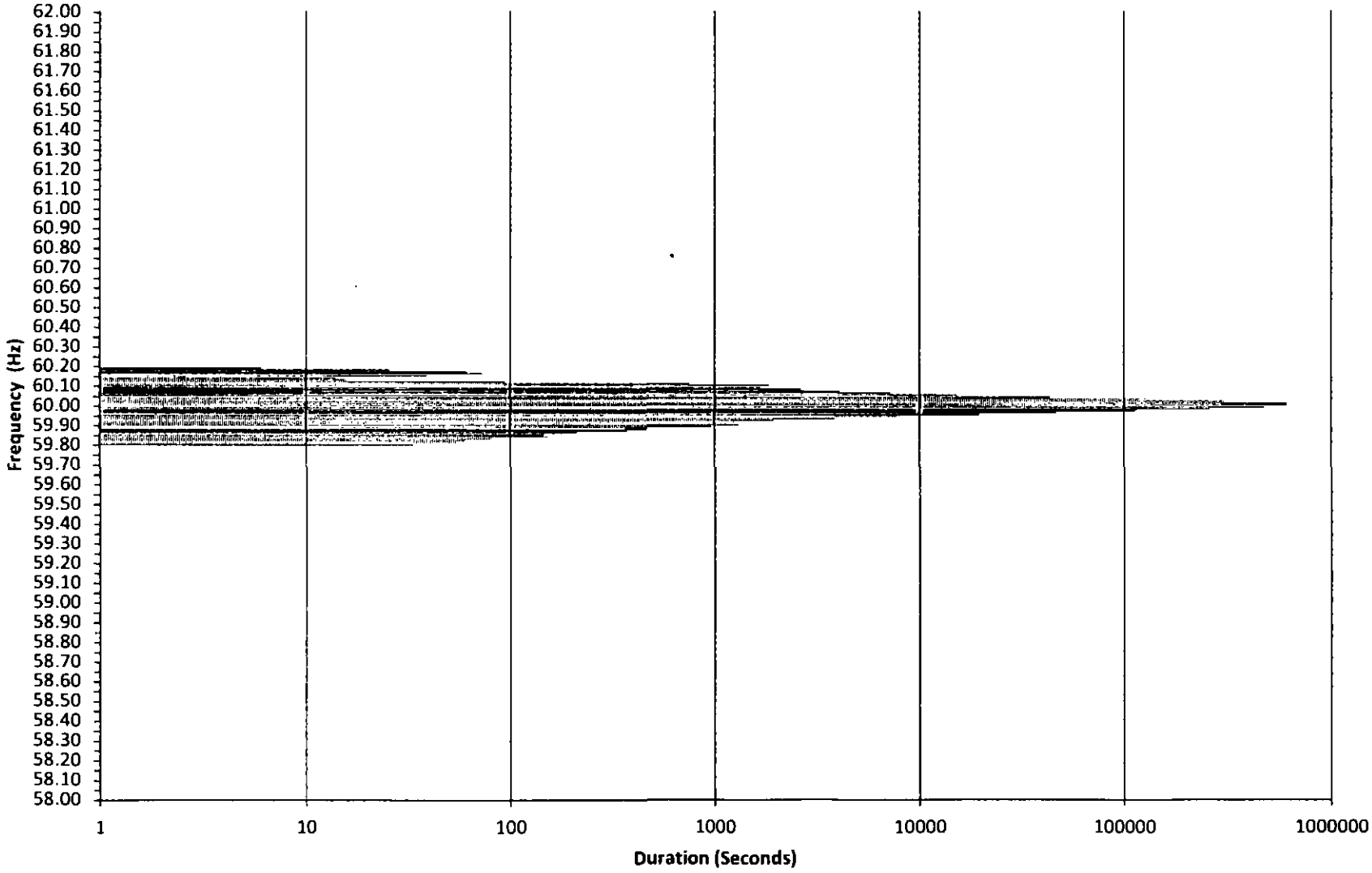
3b) Total MWh of non-dispatchable renewable resources curtailed for the month:

Curtailed MWH from non-dispatchable resources are difficult to determine due to the variability of the resource during curtailment periods. In some cases, the curtailed MWH estimates were provided by the IPPs under curtailment. 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.



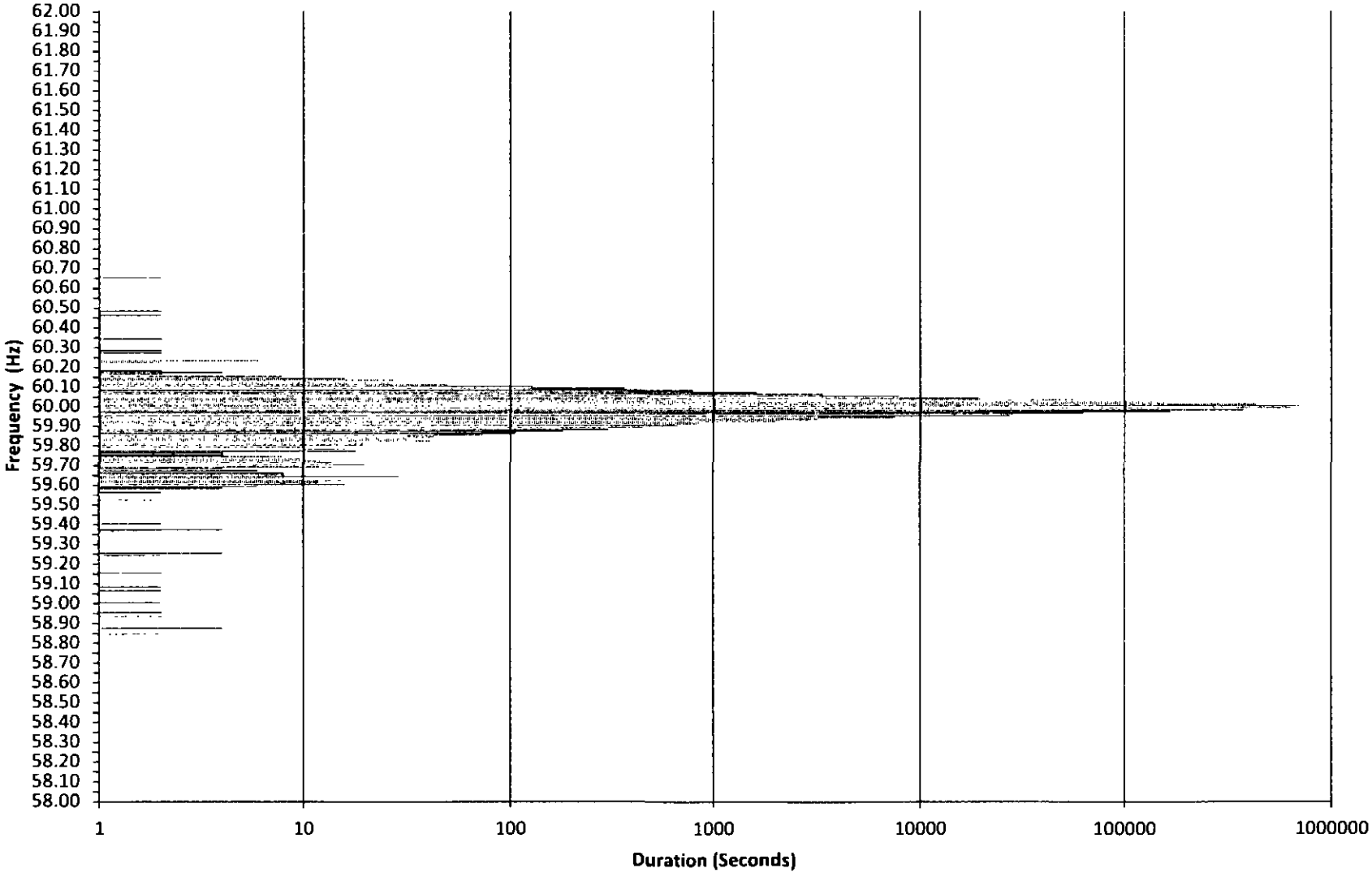
DOCKET NO. 2011-0206
ORDER NO. 30371 I.C.(1)(a)
ATTACHMENT 1
PAGE 1 OF 3

Maui Electric Frequency Distribution Plot - Maui
December 2013



DOCKET NO. 2011-0206
ORDER NO. 30371 I.C.(1)(a)
ATTACHMENT 1
PAGE 2 OF 3

Frequency Distribution Plot - Hawai'i Electric Light
December 2013



DOCKET NO. 2011-0206
ORDER NO. 30371 I.C.(1)(a)
ATTACHMENT 1
PAGE 3 OF 3

Hawaiian Electric Frequency Excursion Statistics December 2013		
Data Rounded to the nearest	<59.95 Hz	>60.05 Hz
Number of Excursions	754	651
Maximum Duration (sec)	830	1300
Maximum Deviation (Hz)	0	0
Total Duration of Excursions (sec)	17878	15024

Maui Electric Frequency Excursion Statistics December 2013		
	<59.95 Hz	>60.05 Hz
Number of Excursions	3035	1907
Maximum Duration (sec)	678	536
Maximum Deviation (Hz)	59.797	60.193
Total Duration of Excursions (sec)	27718	23282

Hawai'i Electric Light Frequency Excursion Statistics December 2013		
	<59.95 Hz	>60.05 Hz
Number of Excursions	4370	1453
Maximum Duration (sec)	536	370
Maximum Deviation (Hz)	58.841	60.653
Total Duration of Excursions (sec)	29250	9600

This page intentionally left blank.

MAUI ELECTRIC COMPANY, LIMITED
UNDERFREQUENCY LOAD SHEDDING EVENTS
DECEMBER 2013

				Frequency (Hz)					
Event #	IR #	Island	Date & Time	Prior to Event	Nadir	Levels UFLS Occurred	Load Shed (MW)	Duration (HH:MM)	Description
1	752	Lana'i	12/1/2013 9:58 PM	60.00	58.41	58.70	0 30	00:07	A frequency depression of 58.41 Hz occurred on Lana'i when generator LL3 at Miki Basin Power Plant tripped offline due to a hot water temperature relay.
2	753	Moloka'i	12/2/2013 5:03 PM	59.99	57.46	58.70, 57 50	1.29	00:18	A frequency depression to 57.46 Hz occurred when the Moloka'i Operator was in the process of taking the gas turbine generator offline
3	774	Moloka'i	12/16/2013 3:02 AM	60.00	54.91	57.75, 57.50, 56.00	2.18	1:34	A frequency depression of 54.91 Hz occurred on Moloka'i when Generator #9 at Palaau Power Plant tripped offline due to faulty governor.
4	775	Moloka'i	12/16/2013 7:40 AM	60.00	57.00	57.50	1.15	0:43	A frequency depression of 57.00 Hz occurred on Moloka'i when Generator #9 at Palaau Power Plant tripped offline due to governor failing in service.
5	780	Moloka'i	12/19/2013 12:44 PM	60.00	56.16	57.50	0.51	2 32	A frequency depression of 56.16 Hz occurred on Moloka'i due to a fault on the overhead system caused by the line crew when working on a pole.
6	785	Moloka'i	12/22/2013 5:56 AM	N/A	55.89	57.50, 57.25	0.95	2:00	A frequency depression of 55.89 Hz occurred on Moloka'i at Palaau Power Plant due to an unknown cause.
7	786	Moloka'i	12/22/2013 6:09 AM	N/A	53.42	56.00	0.22	1:30	A frequency depression of 53.42 Hz occurred on Moloka'i at Palaau Power Plant due to an unknown cause.
8	787	Moloka'i	12/22/2013 6:10 AM	N/A	46.56	57.75	0.46	1:36	A frequency depression of 46.56 Hz occurred on Moloka'i at Palaau Power Plant due to an unknown cause.
9	796	Moloka'i	12/26/2013 8:18 AM	60.00	56.58	57.50	1.10	1 27	A frequency depression of 56.58 Hz occurred on Moloka'i at Palaau Power Plant due to an unknown cause

HAWAI'I ELECTRIC LIGHT COMPANY, INC.
UNDERFREQUENCY LOAD SHEDDING EVENTS
DECEMBER 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	12/1/2013	4 43 AM	59.01	58.84	59 30	6.50	0:06	Kamaoa shutdown due to high winds (using SCADA 2-second data)
2	12/30/2013	3:57 AM	60.00	58.70	58.80	7.79	0:11	PGV generation tie line tripped off during lightning storm

HAWAIIAN ELECTRIC COMPANY, INC.
DEMAND RESPONSE EVENTS
DECEMBER 2013

Event #	Date & Time	Frequency (Hz)			Load Shed (MW)	Duration (HH:MM)	Description
		Prior to Event	Nadir	Trigger			
1	12/15/13 09:10	59.939	59.671	59.70	12.14	0:05	K4 and K5 output decreased to ~89 MW and ~100 MW during a lightning storm. A lighting strike at Kahe Power Plant was observed just prior to the change in generator outputs. RDLC and CIDLC activated.

Hawaiian Electric Curtailment Report December 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
12/02/13 06 42	0 0	0 00	12/02/13 07 44	0	*	Makai	Overhead conductor removal on Wahiawa Waialua 46kV line
12/02/13 06 44	0 0	0 00	12/02/13 07 45	0	*	KWF	Overhead conductor removal on Wahiawa Waialua 46kV line
12/02/13 06 44	0 0	0 00	12/02/13 16 35	0	*	Mauka	Overhead conductor removal on Wahiawa Waialua 46kV line
12/02/13 15 19	0 0	0 00	12/02/13 16 34	0	*	KWF	Overhead conductor removal on Wahiawa Waialua 46kV line
12/02/13 15 39	0 0	0 00	12/02/13 16 34	0	*	Makai	Overhead conductor removal on Wahiawa Waialua 46kV line
12/03/13 07:33	0 0	4 60	12/03/13 17 52	0	*	Mauka	Overhead conductor removal on Wahiawa Waialua 46kV line
12/03/13 07:32	0 0	0 00	12/03/13 08.17	0	*	Makai	Overhead conductor removal on Wahiawa Waialua 46kV line
12/03/13 07:33	0 0	1 60	12/03/13 08:17	0	*	KWF	Overhead conductor removal on Wahiawa Waialua 46kV line
12/03/13 17.14	0 0	2 00	12/03/13 17 51	0	*	KWF	Overhead conductor removal on Wahiawa Waialua 46kV line
12/03/13 17 16	0 0	0 10	12/03/13 17 50	0	*	Makai	Overhead conductor removal on Wahiawa Waialua 46kV line
12/05/13 08:23	0 0	0 00	12/05/13 09 06	0	*	KWF	Pole repairs on Koolau Kahuku 46kV line
12/05/13 08 23	0 0	0 00	12/05/13 09 06	0	*	Makai	Pole repairs on Koolau Kahuku 46kV line
12/05/13 14 21	0 0	0 20	12/05/13 14 55	0	*	Makai	Pole repairs on Koolau Kahuku 46kV line
12/05/13 14 21	0 0	0 20	12/05/13 14 55	0	*	KWF	Pole repairs on Koolau Kahuku 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 estimted 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

RSWG Maui Curtailment Report December 2013

Start Date and Time	Duration	IPP Curtailed	Estimated Curtailed MWH	Peak MW Curtailed	Reasons for Curtailment
12/1/2013 0:53	0:01	KWP	0 000	0 016	AGC MAVG - calculated
12/1/2013 1:03	0:01	KWPII	0 003	1 500	AGC MAVG - calculated
12/1/2013 1:07	0:06	KWPII	0 082	3 480	AGC MAVG - calculated
12/1/2013 1:15	0:19	KWPII	1 043	5 822	AGC MAVG - calculated
12/1/2013 1:37	0:03	KWPII	0 083	5 623	AGC MAVG - calculated
12/1/2013 5:20	0:01	AWE	0 002	0 100	AGC MAVG - calculated
12/1/2013 8:34	0:01	AWE	0 002	0 100	AGC MAVG - calculated
12/1/2013 10:40	0:02	KWPII	0 039	8 115	AGC MAVG - calculated
12/1/2013 15:31	0:01	KWP	0 000	0 016	AGC MAVG - calculated
12/1/2013 15:40	0:01	KWP	0 000	0 016	AGC MAVG - calculated and Testing
12/1/2013 19:40	0:01	KWP	0 002	0 128	AGC MAVG - calculated
12/2/2013 2:47	0:01	KWPII	0 000	0 006	AGC MAVG - calculated
12/2/2013 2:55	0:01	KWPII	0 001	0 037	AGC MAVG - calculated
12/2/2013 3:07	0:01	KWPII	0 000	0 005	AGC MAVG - calculated
12/2/2013 3:42	0:01	AWE	0 003	0 200	AGC MAVG - calculated
12/2/2013 3:46	0:01	AWE	0 005	0 300	AGC MAVG - calculated
12/3/2013 14:19	0:01	KWPII	0 000	0 009	AGC MAVG - calculated
12/3/2013 22:03	0:01	KWP	0 001	0 048	AGC MAVG - calculated
12/4/2013 0:59	0:04	KWPII	0 008	0 549	AGC MAVG - calculated
12/4/2013 12:16	0:01	KWPII	0 002	9 189	AGC MAVG - calculated
12/4/2013 12:36	0:02	KWPII	0 005	7 213	AGC MAVG - calculated
12/4/2013 12:44	0:02	KWPII	0 005	5 358	AGC MAVG - calculated
12/4/2013 12:48	0:02	KWPII	0 026	7 215	AGC MAVG - calculated
12/4/2013 23:56	0:01	KWPII	0 000	0 020	AGC MAVG - calculated
12/5/2013 0:01	0:01	KWPII	0 001	0 041	AGC MAVG - calculated
12/5/2013 2:36	0:01	KWPII	0 000	0 007	AGC MAVG - calculated
12/5/2013 5:37	0:01	KWP	0 009	0 560	AGC MAVG - calculated
12/5/2013 11:15	0:01	KWP	0 000	0 016	AGC MAVG - calculated and Good Engineering and Operating Practices
12/5/2013 13:58	0:01	KWP	0 000	0 016	AGC MAVG - calculated and Good Engineering and Operating Practices
12/5/2013 14:18	0:01	KWP	0 000	0 016	AGC MAVG - calculated and Good Engineering and Operating Practices
12/5/2013 14:48	0:04	AWE	0 017	0 400	AGC MAVG - calculated and Good Engineering and Operating Practices
12/5/2013 14:48	0:04	KWP	0 007	0 176	AGC MAVG - calculated and Good Engineering and Operating Practices
12/5/2013 22:41	0:01	KWPII	0 000	0 057	AGC MAVG - calculated
12/6/2013 5:02	0:01	KWP	0 001	0 064	AGC MAVG - calculated
12/6/2013 11:26	0:04	KWP	0 019	1 832	AGC MAVG - calculated
12/6/2013 11:28	0:01	AWE	0 001	10 600	AGC MAVG - calculated
12/6/2013 13:16	0:01	KWP	0 000	0 016	AGC MAVG - calculated
12/6/2013 22:25	0:02	KWPII	0 057	18 126	AGC MAVG - calculated
12/7/2013 1:16	0:01	KWPII	0 002	0 106	AGC MAVG - calculated
12/7/2013 1:29	0:04	KWPII	0 022	0 813	AGC MAVG - calculated
12/7/2013 1:34	0:24	KWPII	0 846	3 570	AGC MAVG - calculated
12/7/2013 1:35	0:17	AWE	0 647	11 300	AGC MAVG - calculated
12/7/2013 2:49	0:02	AWE	0 000	15 400	AGC MAVG - calculated
12/7/2013 5:58	0:01	KWP	0 000	0 016	AGC MAVG - calculated
12/7/2013 11:33	0:01	KWP	0 001	0 032	AGC MAVG - calculated
12/7/2013 13:05	0:01	KWPII	0 001	0 039	AGC MAVG - calculated
12/8/2013 1:16	0:01	AWE	0 003	0 200	AGC MAVG - calculated
12/8/2013 6:53	0:01	KWP	0 001	0 032	AGC MAVG - calculated
12/8/2013 7:18	0:01	AWE	0 005	0 300	AGC MAVG - calculated
12/8/2013 7:27	0:01	AWE	0 002	0 100	AGC MAVG - calculated
12/8/2013 9:43	0:01	AWE	0 005	0 300	AGC MAVG - calculated
12/8/2013 10:01	0:01	AWE	0 003	0 200	AGC MAVG - calculated
12/8/2013 23:37	0:01	AWE	0 003	0 200	AGC MAVG - calculated
12/8/2013 23:41	0:01	AWE	0 003	0 200	AGC MAVG - calculated
12/9/2013 0:04	0:01	AWE	0 003	0 200	AGC MAVG - calculated
12/9/2013 0:52	0:01	AWE	0 003	0 200	AGC MAVG - calculated
12/9/2013 3:10	0:01	AWE	0 005	0 300	AGC MAVG - calculated
12/9/2013 3:44	0:01	AWE	0 002	0 100	AGC MAVG - calculated
12/9/2013 4:45	0:04	AWE	0 060	16 800	AGC MAVG - calculated
12/9/2013 4:53	0:01	AWE	0 011	12 900	AGC MAVG - calculated
12/9/2013 4:59	0:02	AWE	0 048	14 200	AGC MAVG - calculated
12/9/2013 7:08	0:01	KWP	0 001	0 032	AGC MAVG - calculated
12/9/2013 10:36	0:01	KWPII	0 000	0.003	AGC MAVG - calculated and Good Engineering and Operating Practices
12/9/2013 23:58	0:45	KWPII	10 137	20 474	AGC MAVG - calculated Good Engineering and Operating Practices, AGC MAVG - entered - Maintaining Regulating Reserves, and AGC MAVG - calculated
12/10/2013 0:00	0:13	AWE	0 475	3 500	AGC MAVG - calculated and AGC MAVG - entered - Maintaining Regulating Reserves
12/10/2013 0:20	0:04	AWE	0 051	6 800	AGC MAVG - entered - Maintaining Regulating Reserves and Good Engineering and Operating Practices
12/10/2013 0:25	0:09	AWE	0 297	3 600	AGC MAVG - entered - Maintaining Regulating Reserves and Good Engineering and Operating Practices
12/10/2013 0:37	0:01	AWE	0.014	4 400	AGC MAVG - calculated and Good Engineering and Operating Practices
12/10/2013 0:46	3:44	KWPII	54 045	20.708	AGC MAVG - calculated and Good Engineering and Operating Practices
12/10/2013 1:52	0:01	AWE	0 009	15 300	AGC MAVG - calculated
12/10/2013 3:20	0:01	AWE	0 018	15 600	AGC MAVG - calculated
12/10/2013 3:54	0:02	AWE	0 010	15 400	AGC MAVG - calculated
12/10/2013 4:19	0:01	AWE	0 010	18 300	AGC MAVG - calculated
12/10/2013 4:32	0:08	KWPII	0 350	7 368	AGC MAVG - calculated
12/10/2013 4:41	0:01	KWPII	0 029	6 629	AGC MAVG - calculated
12/10/2013 4:52	0:07	KWPII	0.142	9 235	AGC MAVG - calculated
12/10/2013 5:02	0:02	KWPII	0 054	10 581	AGC MAVG - calculated
12/10/2013 5:05	0:04	KWPII	0 083	12 365	AGC MAVG - calculated
12/10/2013 5:11	0:16	KWPII	1 212	18 481	AGC MAVG - calculated
12/10/2013 8:11	0:17	KWPII	0 818	20 708	AGC MAVG - calculated
12/10/2013 8:36	0:01	KWPII	0 007	20 708	AGC MAVG - calculated
12/10/2013 8:47	0:19	KWPII	0 428	20 708	AGC MAVG - calculated
12/10/2013 9:10	0:02	KWPII	0 021	20 708	AGC MAVG - calculated
12/10/2013 9:14	0:01	KWPII	0 008	20 708	AGC MAVG - calculated
12/10/2013 9:36	0:01	KWPII	0 002	20 708	AGC MAVG - calculated and Testing
12/10/2013 9:38	0:01	KWPII	0 003	20 708	AGC MAVG - calculated and Testing
12/10/2013 11:45	0:31	KWPII	2 213	20 668	AGC MAVG - calculated
12/10/2013 12:17	0:07	KWPII	0 317	20 042	AGC MAVG - calculated
12/10/2013 12:25	0:04	KWPII	0 116	20 655	AGC MAVG - calculated
12/10/2013 12:37	0:01	KWPII	0 007	19 559	AGC MAVG - calculated
12/10/2013 12:56	0:01	KWPII	0 012	19 158	AGC MAVG - calculated
12/10/2013 14:12	0:03	KWPII	0 049	20 697	AGC MAVG - calculated
12/10/2013 14:16	0:01	KWPII	0 012	20 702	AGC MAVG - calculated
12/10/2013 15:43	0:01	KWPII	0 015	20 631	AGC MAVG - calculated and Testing
12/10/2013 15:46	0:08	KWPII	0 697	20 684	AGC MAVG - entered - Maintaining Regulating Reserves and Testing
12/10/2013 18:00	0:31	KWPII	1 352	20 299	AGC MAVG - entered - Maintaining Regulating Reserves and Testing
12/10/2013 18:36	0:01	KWPII	0 009	19 541	AGC MAVG - entered - Maintaining Regulating Reserves and Testing
12/10/2013 19:44	0:21	KWPII	1 388	20 708	AGC MAVG - calculated
12/10/2013 20:10	0:01	KWPII	0 010	20 708	AGC MAVG - calculated
12/10/2013 20:13	0:01	KWPII	0 000	20 708	AGC MAVG - calculated
12/10/2013 20:17	0:02	KWPII	0 045	20 708	AGC MAVG - calculated
12/10/2013 20:21	0:01	KWPII	0 007	20 708	AGC MAVG - calculated
12/10/2013 20:34	0:35	KWPII	1 876	20 708	AGC MAVG - calculated
12/10/2013 21:33	0:03	KWPII	0 015	20 708	AGC MAVG - calculated
12/10/2013 21:38	0:01	KWPII	0 004	20 708	AGC MAVG - calculated
12/10/2013 21:43	0:01	KWPII	0 000	20 708	AGC MAVG - calculated
12/10/2013 21:54	8:03	KWPII	115 792	20 708	AGC MAVG - calculated AGC MAVG - entered - Maintaining Regulating Reserves, AGC MAVG - entered - Excess Energy, AGC MAVG - entered - Maintaining Regulating Reserves, AGC MAVG - entered - Excess Energy, and AGC MAVG - calculated
12/10/2013 23:15	6:36	AWE	98 233	21 000	AGC MAVG - calculated AGC MAVG - entered - Maintaining Regulating Reserves AGC MAVG - entered - Excess Energy AGC MAVG - entered - Maintaining Regulating Reserves, and AGC MAVG - entered - Excess Energy
12/11/2013 0:47	3:39	BS	Data is not available	Data is not available	AGC MAVG - entered - Maintaining Regulating Reserves AGC MAVG - entered - Excess Energy, AGC MAVG - entered - Maintaining Regulating Reserves and AGC MAVG - entered - Excess Energy

Maui Electric

RSWG Maui Curtailment Report December 2013

Start Date and Time	Duration	IPP Curtailed	Estimated Curtailed MWH	Peak MW Curtailed	Reasons for Curtailment
12/11/2013 0:50	3:32	SA	Data is not available	Data is not available	AGC MAVG - entered - Maintaining Regulating Reserves AGC MAVG - entered - Excess Energy AGC MAVG entered - Maintaining Regulating Reserves, and AGC MAVG - entered - Excess Energy
12/11/2013 0:51	3:28	MH	Data is not available	Data is not available	AGC MAVG - entered - Maintaining Regulating Reserves AGC MAVG - entered - Excess Energy, AGC MAVG entered - Maintaining Regulating Reserves, and AGC MAVG - entered - Excess Energy
12/11/2013 1:38	0:32	KWP	1.542	28.496	AGC MAVG - entered - Excess Energy
12/11/2013 2:58	0:25	KWP	1.534	28.096	AGC MAVG - entered - Excess Energy
12/11/2013 3:24	0:02	KWP	0.005	22.224	AGC MAVG - entered - Excess Energy
12/11/2013 3:27	0:45	KWP	3.633	28.304	AGC MAVG - entered - Excess Energy
12/11/2013 4:13	0:01	KWP	0.033	24.976	AGC MAVG - entered - Excess Energy
12/11/2013 8:01	0:04	KWPII	0.138	13.392	AGC MAVG - calculated
12/12/2013 0:44	0:03	KWPII	0.040	4.684	AGC MAVG - calculated
12/12/2013 0:54	0:03	KWPII	0.009	3.431	AGC MAVG - calculated
12/12/2013 0:58	0:10	KWPII	0.138	5.771	AGC MAVG - calculated
12/12/2013 1:09	0:01	KWPII	0.016	4.050	AGC MAVG - calculated
12/12/2013 1:16	0:17	KWPII	0.222	4.197	AGC MAVG - calculated
12/12/2013 10:20	0:03	AWE	0.063	19.400	AGC MAVG - calculated and Testing
12/14/2013 3:39	0:02	KWPII	0.013	5.348	AGC MAVG - calculated
12/15/2013 3:44	0:01	AWE	0.004	14.600	AGC MAVG - calculated
12/15/2013 13:36	0:01	KWPII	0.004	4.911	AGC MAVG - calculated
12/16/2013 7:19	0:01	AWE	0.002	0.100	AGC MAVG - calculated
12/16/2013 8:37	0:01	AWE	0.003	0.200	AGC MAVG - calculated
12/17/2013 20:11	0:01	AWE	0.003	0.200	AGC MAVG - calculated
12/17/2013 20:30	0:01	AWE	0.005	0.300	AGC MAVG - calculated
12/17/2013 20:47	0:01	AWE	0.003	0.200	AGC MAVG - calculated
12/17/2013 22:25	0:01	KWPII	0.011	17.581	Operating Conditions on Company's System
12/17/2013 22:27	0:05	KWPII	0.055	17.976	Operating Conditions on Company's System
12/17/2013 23:22	0:01	KWPII	0.011	13.200	Operating Conditions on Company's System
12/17/2013 23:28	0:05	KWPII	0.106	15.666	Operating Conditions on Company's System
12/17/2013 23:41	0:21	KWPII	0.840	15.548	Operating Conditions on Company's System
12/18/2013 0:03	0:05	KWPII	0.101	15.124	Operating Conditions on Company's System
12/18/2013 0:09	0:03	KWPII	0.047	14.191	Operating Conditions on Company's System
12/18/2013 0:17	0:01	KWPII	0.019	13.482	Operating Conditions on Company's System
12/18/2013 0:24	0:05	KWPII	0.056	14.596	Operating Conditions on Company's System
12/18/2013 0:34	0:17	KWPII	0.590	16.404	AGC MAVG - calculated
12/18/2013 0:53	0:01	KWPII	0.011	15.310	AGC MAVG - calculated
12/18/2013 1:32	0:10	KWPII	0.216	9.381	AGC MAVG - calculated
12/18/2013 1:44	0:02	KWPII	0.006	9.710	AGC MAVG - calculated
12/18/2013 1:53	0:01	KWPII	0.009	10.031	AGC MAVG - calculated
12/18/2013 2:03	0:01	KWPII	0.005	9.164	AGC MAVG - calculated
12/18/2013 2:44	0:01	KWPII	0.010	9.586	AGC MAVG - calculated
12/18/2013 2:47	0:02	KWPII	0.037	10.466	AGC MAVG - calculated
12/18/2013 8:39	0:01	AWE	0.003	0.200	AGC MAVG - calculated and Testing
12/18/2013 15:10	0:01	AWE	0.003	0.200	AGC MAVG - calculated
12/18/2013 3:25	0:02	KWPII	0.001	0.085	AGC MAVG - calculated
12/18/2013 3:26	0:01	AWE	0.006	20.900	AGC MAVG - calculated
12/18/2013 3:28	1:00	KWPII	4.258	9.493	AGC MAVG - calculated
12/18/2013 3:29	0:01	AWE	0.005	19.800	AGC MAVG - calculated
12/18/2013 3:31	0:03	AWE	0.029	18.700	AGC MAVG - calculated
12/18/2013 3:39	0:01	AWE	0.009	18.700	AGC MAVG - calculated
12/18/2013 3:41	0:03	AWE	0.031	17.100	AGC MAVG - calculated
12/18/2013 3:45	0:24	AWE	1.739	15.300	AGC MAVG - calculated
12/18/2013 4:11	0:14	AWE	0.852	18.900	AGC MAVG - calculated
12/18/2013 13:05	0:39	KWPII	4.897	18.580	AGC MAVG - calculated
12/18/2013 13:45	0:08	KWPII	1.085	15.498	AGC MAVG - calculated
12/18/2013 13:54	0:02	KWPII	0.388	18.248	AGC MAVG - calculated
12/18/2013 13:57	1:11	KWPII	13.896	18.349	AGC MAVG - entered - Maintaining Regulating Reserves, AGC MAVG - calculated, AGC MAVG - entered - Maintaining Regulating Reserves, and AGC MAVG - calculated
12/18/2013 14:11	0:14	AWE	0.370	19.900	AGC MAVG - entered - Maintaining Regulating Reserves, AGC MAVG - calculated, and AGC MAVG - entered - Maintaining Regulating Reserves
12/18/2013 14:26	0:01	AWE	0.001	16.100	AGC MAVG - entered - Maintaining Regulating Reserves
12/18/2013 14:31	0:01	AWE	0.001	16.100	AGC MAVG - entered - Maintaining Regulating Reserves
12/18/2013 14:34	0:06	AWE	0.013	16.300	AGC MAVG - entered - Maintaining Regulating Reserves
12/18/2013 14:50	0:01	AWE	0.019	17.500	AGC MAVG - calculated
12/18/2013 15:10	0:08	KWPII	0.188	6.250	AGC MAVG - calculated
12/19/2013 19:34	0:07	KWPII	0.067	1.215	AGC MAVG - calculated Good Engineering and Operating Practices, and Testing
12/19/2013 19:34	0:07	AWE	0.156	20.500	AGC MAVG - calculated Good Engineering and Operating Practices, and Testing
12/19/2013 21:27	0:20	KWPII	1.562	19.555	AGC MAVG - calculated
12/19/2013 21:49	0:21	KWPII	1.991	20.408	AGC MAVG - calculated
12/19/2013 22:22	0:04	KWPII	0.191	19.181	AGC MAVG - calculated
12/19/2013 22:27	0:07	KWPII	0.508	20.428	AGC MAVG - calculated
12/19/2013 22:44	0:01	KWPII	0.012	19.217	AGC MAVG - calculated
12/19/2013 22:48	0:03	KWPII	0.020	18.778	AGC MAVG - calculated
12/19/2013 22:58	0:04	KWPII	0.054	18.246	AGC MAVG - calculated
12/19/2013 23:03	0:02	KWPII	0.057	17.082	AGC MAVG - calculated
12/19/2013 23:06	0:03	KWPII	0.044	16.481	AGC MAVG - calculated
12/19/2013 23:10	0:03	KWPII	0.032	15.739	AGC MAVG - calculated
12/19/2013 23:16	0:25	KWPII	3.426	19.429	AGC MAVG - calculated
12/19/2013 23:56	0:52	KWPII	12.589	20.375	AGC MAVG - calculated
12/20/2013 0:02	0:46	AWE	4.051	20.600	AGC MAVG - calculated
12/20/2013 0:49	0:03	KWPII	0.020	0.750	AGC MAVG - calculated
12/20/2013 0:50	0:01	AWE	0.012	18.100	AGC MAVG - calculated
12/20/2013 0:52	0:05	AWE	0.252	18.400	AGC MAVG - calculated
12/20/2013 1:02	0:13	AWE	0.943	19.200	AGC MAVG - calculated
12/20/2013 1:03	0:21	KWPII	0.591	4.714	AGC MAVG - calculated
12/20/2013 1:17	0:01	AWE	0.028	16.800	AGC MAVG - calculated
12/20/2013 16:34	0:01	KWP	0.001	0.048	AGC MAVG - calculated
12/21/2013 5:53	0:01	KWPII	0.001	0.056	AGC MAVG - calculated
12/21/2013 12:22	0:01	KWP	0.002	0.112	AGC MAVG - calculated
12/21/2013 19:42	0:01	AWE	0.003	0.200	AGC MAVG - calculated
12/21/2013 21:58	0:01	KWPII	0.001	0.078	AGC MAVG - calculated
12/21/2013 23:17	0:01	KWPII	0.000	0.013	AGC MAVG - calculated
12/22/2013 16:47	0:01	AWE	0.002	0.100	AGC MAVG - calculated
12/22/2013 16:49	0:01	AWE	0.002	0.100	AGC MAVG - calculated
12/23/2013 0:26	0:04	KWPII	0.071	6.268	AGC MAVG - calculated
12/23/2013 0:42	0:11	KWPII	0.231	6.569	AGC MAVG - calculated
12/23/2013 7:57	0:24	KWPII	2.629	14.537	AGC MAVG - calculated
12/23/2013 8:15	0:01	AWE	0.001	15.200	AGC MAVG - calculated
12/23/2013 8:23	0:06	KWPII	0.249	15.358	AGC MAVG - calculated
12/23/2013 8:32	0:09	KWPII	0.508	17.108	AGC MAVG - calculated
12/23/2013 8:42	2:17	KWPII	32.800	19.822	AGC MAVG - calculated
12/23/2013 8:29	0:01	AWE	0.000	15.000	AGC MAVG - calculated
12/23/2013 8:35	0:01	AWE	0.000	13.300	AGC MAVG - calculated
12/23/2013 8:37	0:01	AWE	0.000	13.500	AGC MAVG - calculated
12/23/2013 8:48	0:05	AWE	0.037	15.400	AGC MAVG - calculated
12/23/2013 9:55	0:01	AWE	0.013	15.200	AGC MAVG - calculated
12/23/2013 9:58	0:01	AWE	0.001	15.000	AGC MAVG - calculated
12/23/2013 10:01	0:01	AWE	0.006	15.200	AGC MAVG - calculated
12/23/2013 10:03	0:01	AWE	0.000	15.500	AGC MAVG - calculated
12/23/2013 10:05	0:03	AWE	0.010	16.800	AGC MAVG - calculated
12/23/2013 10:10	0:02	AWE	0.007	17.800	AGC MAVG - calculated
12/23/2013 10:14	0:01	AWE	0.001	18.800	AGC MAVG - calculated
12/23/2013 10:17	0:26	AWE	1.775	18.800	AGC MAVG - calculated
12/23/2013 10:44	0:01	AWE	0.012	18.900	AGC MAVG - calculated
12/23/2013 10:50	0:01	AWE	0.000	18.500	AGC MAVG - calculated
12/23/2013 11:01	0:43	KWPII	6.074	17.009	AGC MAVG - calculated and Testing

Maui Electric

RSWG Maui Curtailment Report December 2013

Start Date and Time	Duration	IPP Curtailed	Estimated Curtailed MWH	Peak MW Curtailed	Reasons for Curtailment
12/23/2013 11:49	0:03	KWPII	0.080	13.376	AGC MAVG - calculated and Testing
12/23/2013 11:54	0:06	KWPII	0.191	13.262	AGC MAVG - calculated and Testing
12/23/2013 12:03	0:10	KWPII	0.352	12.917	AGC MAVG - calculated
12/23/2013 12:14	0:01	KWPII	0.003	10.061	AGC MAVG - calculated
12/23/2013 12:16	0:10	KWPII	0.227	12.551	AGC MAVG - calculated
12/23/2013 12:27	0:31	KWPII	1.580	13.471	AGC MAVG - calculated
12/23/2013 13:11	0:01	KWPII	0.013	14.320	AGC MAVG - calculated
12/23/2013 13:34	0:01	KWPII	0.040	17.908	AGC MAVG - calculated
12/23/2013 13:37	0:02	KWPII	0.059	17.509	AGC MAVG - calculated
12/23/2013 13:40	0:02	KWPII	0.044	17.499	AGC MAVG - calculated
12/23/2013 13:44	0:02	KWPII	0.026	17.809	AGC MAVG - calculated
12/23/2013 13:57	0:01	KWPII	0.001	14.249	AGC MAVG - calculated
12/23/2013 14:02	0:01	KWPII	0.030	14.959	AGC MAVG - calculated
12/23/2013 14:04	0:03	KWPII	0.038	15.150	AGC MAVG - calculated
12/23/2013 14:14	0:01	KWPII	0.027	15.266	AGC MAVG - calculated
12/23/2013 14:22	0:01	KWPII	0.011	19.677	AGC MAVG - calculated
12/23/2013 14:49	0:01	KWPII	0.012	15.263	AGC MAVG - calculated
12/23/2013 15:04	2:06	KWPII	22.302	20.891	AGC MAVG - calculated
12/23/2013 17:11	0:06	KWPII	0.165	20.805	AGC MAVG - calculated
12/23/2013 17:20	0:03	KWPII	0.032	20.296	AGC MAVG - calculated
12/23/2013 23:05	8:32	KWPII	145.948	20.708	AGC MAVG - calculated, AGC MAVG - entered - Excess Energy, and AGC MAVG - calculated
12/24/2013 0:32	0:01	AWE	0.001	10.000	AGC MAVG - calculated
12/24/2013 0:43	0:30	AWE	0.690	10.300	AGC MAVG - calculated
12/24/2013 1:14	0:01	AWE	0.000	3.700	AGC MAVG - calculated
12/24/2013 1:16	0:34	AWE	1.952	9.000	AGC MAVG - calculated
12/24/2013 1:51	0:04	AWE	0.019	2.900	AGC MAVG - calculated
12/24/2013 1:59	3:25	AWE	23.050	15.100	AGC MAVG - calculated, AGC MAVG - entered - Excess Energy, and AGC MAVG - calculated
12/24/2013 2:53	1:23	BS	Data is not available	Data is not available	AGC MAVG - entered - Excess Energy
12/24/2013 2:53	1:21	SA	Data is not available	Data is not available	AGC MAVG - entered - Excess Energy
12/24/2013 2:53	1:19	MH	Data is not available	Data is not available	AGC MAVG - entered - Excess Energy
12/24/2013 3:00	0:01	KWP	0.005	26.960	AGC MAVG - calculated
12/24/2013 3:10	0:01	KWP	0.004	26.928	AGC MAVG - calculated
12/24/2013 3:20	0:01	KWP	0.000	26.720	AGC MAVG - calculated
12/24/2013 3:29	0:43	KWP	1.727	26.992	AGC MAVG - calculated
12/24/2013 4:15	0:05	KWP	0.040	26.092	AGC MAVG - calculated
12/24/2013 4:21	0:02	KWP	0.001	26.944	AGC MAVG - calculated
12/24/2013 4:24	0:02	KWP	0.012	26.896	AGC MAVG - calculated
12/24/2013 5:28	0:02	AWE	0.000	8.500	AGC MAVG - calculated
12/24/2013 5:33	0:01	AWE	0.000	10.500	AGC MAVG - calculated
12/24/2013 5:40	0:01	AWE	0.004	11.400	AGC MAVG - calculated
12/24/2013 5:56	0:01	AWE	0.000	17.600	AGC MAVG - calculated
12/24/2013 5:59	0:01	AWE	0.000	18.700	AGC MAVG - calculated
12/24/2013 7:38	0:07	KWPII	0.288	20.708	AGC MAVG - calculated
12/24/2013 7:46	0:07	KWPII	0.287	20.705	AGC MAVG - calculated
12/24/2013 7:54	0:10	KWPII	0.171	20.706	AGC MAVG - calculated
12/24/2013 11:05	0:01	KWPII	0.000	20.698	AGC MAVG - calculated
12/24/2013 11:09	0:02	KWPII	0.009	20.706	AGC MAVG - calculated
12/24/2013 11:12	0:03	KWPII	0.025	20.704	AGC MAVG - calculated
12/24/2013 11:16	0:02	KWPII	0.026	20.701	AGC MAVG - calculated
12/24/2013 11:19	0:03	KWPII	0.018	20.672	AGC MAVG - calculated
12/24/2013 11:29	0:01	KWPII	0.002	20.690	AGC MAVG - calculated
12/24/2013 11:31	0:03	KWPII	0.018	20.686	AGC MAVG - calculated
12/24/2013 11:36	0:04	KWPII	0.047	20.640	AGC MAVG - calculated
12/24/2013 11:41	0:01	KWPII	0.021	20.667	AGC MAVG - calculated
12/24/2013 11:43	0:16	KWPII	0.538	20.708	AGC MAVG - calculated
12/24/2013 12:00	0:02	KWPII	0.023	20.696	AGC MAVG - calculated
12/24/2013 12:03	0:20	KWPII	0.553	20.708	AGC MAVG - calculated
12/24/2013 12:25	0:01	KWPII	0.004	20.689	AGC MAVG - calculated
12/24/2013 12:29	0:01	KWPII	0.001	20.704	AGC MAVG - calculated
12/24/2013 12:35	0:06	KWPII	0.045	20.707	AGC MAVG - calculated
12/24/2013 12:43	0:03	KWPII	0.051	20.702	AGC MAVG - calculated
12/24/2013 12:47	0:01	KWPII	0.026	20.708	AGC MAVG - calculated
12/24/2013 12:49	0:05	KWPII	0.072	20.708	AGC MAVG - calculated
12/24/2013 12:55	0:01	KWPII	0.001	20.703	AGC MAVG - calculated
12/24/2013 12:59	0:03	KWPII	0.019	20.686	AGC MAVG - calculated
12/24/2013 13:03	0:02	KWPII	0.019	20.677	AGC MAVG - calculated
12/24/2013 13:13	0:02	KWPII	0.001	20.708	AGC MAVG - calculated
12/24/2013 13:16	0:02	KWPII	0.027	20.708	AGC MAVG - calculated
12/24/2013 13:19	0:02	KWPII	0.020	20.697	AGC MAVG - calculated
12/24/2013 13:22	0:09	KWPII	0.203	20.707	AGC MAVG - calculated
12/24/2013 13:32	0:01	KWPII	0.007	20.701	AGC MAVG - calculated
12/24/2013 13:35	0:01	KWPII	0.018	20.681	AGC MAVG - calculated
12/24/2013 13:38	0:02	KWPII	0.008	20.535	AGC MAVG - calculated
12/24/2013 13:42	0:01	KWPII	0.000	20.621	AGC MAVG - calculated
12/24/2013 13:46	0:01	KWPII	0.006	20.273	AGC MAVG - calculated
12/24/2013 23:13	0:02	KWPII	0.007	20.657	AGC MAVG - calculated
12/24/2013 23:17	0:03	KWPII	0.078	20.587	AGC MAVG - calculated
12/24/2013 23:30	5:30	KWPII	87.630	20.708	AGC MAVG - calculated
12/25/2013 2:08	0:01	AWE	0.001	7.700	AGC MAVG - calculated
12/25/2013 2:12	0:01	AWE	0.001	6.800	AGC MAVG - calculated
12/25/2013 2:23	0:01	AWE	0.000	6.400	AGC MAVG - calculated
12/25/2013 2:38	0:01	AWE	0.003	5.100	AGC MAVG - calculated
12/25/2013 2:42	0:04	AWE	0.060	6.100	AGC MAVG - calculated
12/25/2013 2:48	0:03	AWE	0.021	6.500	AGC MAVG - calculated
12/25/2013 2:56	0:01	AWE	0.001	7.700	AGC MAVG - calculated
12/25/2013 3:04	0:01	AWE	0.017	6.900	AGC MAVG - calculated
12/25/2013 3:06	0:05	AWE	0.210	10.000	AGC MAVG - calculated
12/25/2013 3:14	0:01	AWE	0.001	4.000	AGC MAVG - calculated
12/25/2013 3:17	0:01	AWE	0.000	4.500	AGC MAVG - calculated
12/25/2013 3:20	0:01	AWE	0.000	2.700	AGC MAVG - calculated
12/25/2013 3:35	0:29	AWE	0.925	5.600	AGC MAVG - calculated
12/25/2013 4:06	0:02	AWE	0.062	5.200	AGC MAVG - calculated
12/25/2013 4:32	0:01	AWE	0.000	6.800	AGC MAVG - calculated
12/25/2013 5:02	1:52	KWPII	13.920	20.670	AGC MAVG - calculated
12/25/2013 6:55	0:01	KWPII	0.001	20.160	AGC MAVG - calculated
12/25/2013 6:57	0:01	KWPII	0.002	20.107	AGC MAVG - calculated
12/25/2013 7:03	0:02	KWPII	0.025	20.372	AGC MAVG - calculated
12/25/2013 7:11	0:01	KWPII	0.001	20.335	AGC MAVG - calculated
12/25/2013 7:14	0:08	KWPII	0.122	20.617	AGC MAVG - calculated
12/25/2013 7:22	0:01	KWPII	0.001	20.670	AGC MAVG - calculated
12/25/2013 7:27	0:05	KWPII	0.091	20.701	AGC MAVG - calculated
12/25/2013 7:33	0:01	KWPII	0.008	20.620	AGC MAVG - calculated
12/25/2013 7:43	0:01	KWPII	0.003	20.505	AGC MAVG - calculated
12/25/2013 7:56	0:02	KWPII	0.014	20.705	AGC MAVG - calculated
12/25/2013 8:52	0:01	KWPII	0.018	20.705	AGC MAVG - calculated
12/25/2013 8:55	2:27	KWPII	15.054	20.708	AGC MAVG - calculated
12/25/2013 11:23	0:04	KWPII	0.134	20.330	AGC MAVG - calculated
12/25/2013 11:28	0:05	KWPII	0.140	20.133	AGC MAVG - calculated
12/25/2013 11:34	0:01	KWPII	0.006	19.927	AGC MAVG - calculated
12/25/2013 11:36	0:02	KWPII	0.030	20.279	AGC MAVG - calculated
12/25/2013 11:41	0:02	KWPII	0.032	20.313	AGC MAVG - calculated
12/25/2013 11:50	0:03	KWPII	0.040	20.286	AGC MAVG - calculated
12/25/2013 11:54	0:04	KWPII	0.068	20.561	AGC MAVG - calculated
12/25/2013 12:04	0:02	KWPII	0.022	20.548	AGC MAVG - calculated
12/25/2013 12:07	0:02	KWPII	0.037	20.515	AGC MAVG - calculated

Maui Electric

RSWG Maui Curtailment Report December 2013

Start Date and Time	Duration	IPP Curtailed	Estimated Curtailed MWH	Peak MW Curtailed	Reasons for Curtailment
12/25/2013 12:12	0:01	KWPII	0.029	20.132	AGC MAVG - calculated
12/25/2013 12:21	0:01	KWPII	0.007	19.890	AGC MAVG - calculated
12/25/2013 12:28	0:01	KWPII	0.017	20.097	AGC MAVG - calculated
12/25/2013 12:34	0:01	KWPII	0.003	20.033	AGC MAVG - calculated
12/25/2013 12:37	0:01	KWPII	0.009	19.868	AGC MAVG - calculated
12/25/2013 14:19	0:01	KWPII	0.002	18.026	AGC MAVG - calculated
12/25/2013 14:21	0:03	KWPII	0.083	18.917	AGC MAVG - calculated
12/25/2013 14:31	0:01	KWPII	0.016	19.405	AGC MAVG - calculated
12/25/2013 14:33	0:03	KWPII	0.029	19.250	AGC MAVG - calculated
12/25/2013 14:40	0:03	KWPII	0.036	19.560	AGC MAVG - calculated
12/25/2013 14:44	0:02	KWPII	0.009	19.155	AGC MAVG - calculated
12/25/2013 14:49	0:02	KWPII	0.046	19.021	AGC MAVG - calculated
12/25/2013 14:52	0:54	KWPII	3.417	20.169	AGC MAVG - calculated
12/25/2013 15:55	0:01	KWPII	0.000	19.211	AGC MAVG - calculated
12/25/2013 16:27	0:02	KWPII	0.011	20.533	AGC MAVG - calculated
12/25/2013 23:27	5:05	KWPII	85.510	20.708	AGC MAVG - calculated, AGC MAVG - entered - Excess Energy, and AGC MAVG - calculated
12/25/2013 23:28	0:01	AWE	0.002	0.100	AGC MAVG - calculated
12/26/2013 1:45	0:01	AWE	0.006	0.900	AGC MAVG - calculated
12/26/2013 1:47	0:02	AWE	0.015	0.800	AGC MAVG - calculated
12/26/2013 1:55	0:01	AWE	0.002	0.700	AGC MAVG - calculated
12/26/2013 2:38	0:01	KWP	0.004	23.920	AGC MAVG - calculated
12/26/2013 2:42	1:26	BS	Data is not available	Data is not available	AGC MAVG - entered - Excess Energy and AGC MAVG - calculated
12/26/2013 2:42	1:26	SA	Data is not available	Data is not available	AGC MAVG - entered - Excess Energy and AGC MAVG - calculated
12/26/2013 2:42	1:26	MH	Data is not available	Data is not available	AGC MAVG - entered - Excess Energy and AGC MAVG - calculated
12/26/2013 2:45	0:01	KWP	0.002	23.984	AGC MAVG - entered - Excess Energy
12/26/2013 2:58	1:02	KWP	1.291	23.984	AGC MAVG - entered - Excess Energy and AGC MAVG - calculated
12/26/2013 3:29	0:01	AWE	0.002	0.100	AGC MAVG - calculated
12/26/2013 3:36	0:02	AWE	0.003	0.100	AGC MAVG - calculated
12/26/2013 3:41	0:22	AWE	0.070	0.400	AGC MAVG - calculated
12/26/2013 4:01	0:03	KWP	0.018	23.824	AGC MAVG - calculated
12/26/2013 4:12	0:01	AWE	0.003	0.200	AGC MAVG - calculated
12/26/2013 4:33	1:39	KWPII	18.727	20.708	AGC MAVG - calculated
12/26/2013 6:13	0:01	KWPII	0.012	20.702	AGC MAVG - calculated
12/26/2013 8:16	0:01	AWE	0.003	0.200	AGC MAVG - calculated
12/26/2013 8:33	0:01	AWE	0.002	0.100	AGC MAVG - calculated
12/26/2013 10:28	0:01	KWPII	0.004	20.708	AGC MAVG - calculated
12/26/2013 10:39	0:03	KWPII	0.056	20.700	AGC MAVG - calculated
12/26/2013 10:47	0:05	KWPII	0.121	20.708	AGC MAVG - calculated
12/26/2013 10:53	0:15	KWPII	0.369	20.708	AGC MAVG - calculated
12/26/2013 11:18	0:09	KWPII	0.257	20.708	AGC MAVG - calculated
12/26/2013 11:30	0:01	KWPII	0.000	20.696	AGC MAVG - calculated
12/26/2013 11:32	0:21	KWPII	1.037	20.708	AGC MAVG - calculated
12/26/2013 11:54	0:01	KWPII	0.026	20.702	AGC MAVG - calculated
12/26/2013 11:58	0:20	KWPII	0.681	20.708	AGC MAVG - calculated
12/26/2013 12:22	0:02	KWPII	0.012	20.708	AGC MAVG - calculated
12/26/2013 12:25	0:02	KWPII	0.006	20.704	AGC MAVG - calculated
12/26/2013 12:28	0:01	KWPII	0.002	20.702	AGC MAVG - calculated
12/26/2013 12:33	0:01	KWPII	0.008	20.693	AGC MAVG - calculated
12/26/2013 12:43	0:01	KWPII	0.006	20.859	AGC MAVG - calculated
12/26/2013 12:47	0:03	KWPII	0.057	20.691	AGC MAVG - calculated
12/26/2013 12:51	0:01	KWPII	0.017	20.680	AGC MAVG - calculated
12/26/2013 12:53	0:01	KWPII	0.001	20.625	AGC MAVG - calculated
12/26/2013 13:00	0:02	KWPII	0.018	20.652	AGC MAVG - calculated
12/26/2013 13:43	0:03	KWPII	0.032	20.459	AGC MAVG - calculated
12/26/2013 14:00	0:01	KWPII	0.001	20.599	AGC MAVG - calculated
12/26/2013 14:55	0:01	AWE	0.003	0.200	AGC MAVG - calculated
12/26/2013 23:18	5:53	KWPII	106.321	20.708	AGC MAVG - calculated, AGC MAVG - entered - Excess Energy, and AGC MAVG - calculated
12/27/2013 0:19	0:02	AWE	0.009	11.200	AGC MAVG - calculated
12/27/2013 0:23	0:06	AWE	0.164	9.200	AGC MAVG - calculated
12/27/2013 0:31	0:01	AWE	0.005	5.100	AGC MAVG - calculated
12/27/2013 0:35	0:05	AWE	0.036	5.200	AGC MAVG - calculated
12/27/2013 0:41	0:03	AWE	0.047	4.300	AGC MAVG - calculated
12/27/2013 0:45	2:47	AWE	6.053	9.000	AGC MAVG - calculated
12/27/2013 1:13	0:01	KWP	0.011	29.344	AGC MAVG - calculated
12/27/2013 1:14	3:48	BS	Data is not available	Data is not available	AGC MAVG - entered - Excess Energy and AGC MAVG - calculated
12/27/2013 1:14	3:48	SA	Data is not available	Data is not available	AGC MAVG - entered - Excess Energy and AGC MAVG - calculated
12/27/2013 1:14	3:48	MH	Data is not available	Data is not available	AGC MAVG - entered - Excess Energy and AGC MAVG - calculated
12/27/2013 1:15	0:02	KWP	0.014	28.592	AGC MAVG - entered - Excess Energy
12/27/2013 1:18	0:01	KWP	0.006	28.736	AGC MAVG - entered - Excess Energy
12/27/2013 1:20	0:02	KWP	0.026	29.088	AGC MAVG - entered - Excess Energy
12/27/2013 1:23	0:01	KWP	0.012	28.304	AGC MAVG - entered - Excess Energy
12/27/2013 1:26	0:01	KWP	0.020	28.480	AGC MAVG - entered - Excess Energy
12/27/2013 1:28	0:01	KWP	0.038	29.168	AGC MAVG - entered - Excess Energy
12/27/2013 1:31	0:03	KWP	0.087	28.656	AGC MAVG - calculated
12/27/2013 1:35	0:46	KWP	2.082	29.216	AGC MAVG - calculated
12/27/2013 2:22	0:02	KWP	0.066	26.848	AGC MAVG - calculated
12/27/2013 2:25	0:01	KWP	0.044	26.512	AGC MAVG - calculated
12/27/2013 2:29	0:02	KWP	0.006	22.848	AGC MAVG - calculated
12/27/2013 2:33	0:03	KWP	0.142	26.048	AGC MAVG - calculated
12/27/2013 2:43	0:01	KWP	0.020	22.752	AGC MAVG - calculated
12/27/2013 2:50	0:04	KWP	0.038	23.264	AGC MAVG - calculated
12/27/2013 2:55	0:02	KWP	0.036	23.840	AGC MAVG - calculated
12/27/2013 3:00	0:01	KWP	0.004	22.352	AGC MAVG - calculated
12/27/2013 3:04	1:53	KWP	8.972	29.952	AGC MAVG - calculated
12/27/2013 3:34	0:01	AWE	0.002	0.100	AGC MAVG - calculated
12/27/2013 3:40	0:02	AWE	0.008	0.400	AGC MAVG - calculated
12/27/2013 3:44	0:01	AWE	0.002	0.100	AGC MAVG - calculated
12/27/2013 4:25	0:02	AWE	0.003	0.100	AGC MAVG - calculated
12/27/2013 4:31	0:33	AWE	0.172	0.600	AGC MAVG - calculated
12/27/2013 4:58	0:03	KWP	0.047	29.248	AGC MAVG - calculated
12/27/2013 5:02	0:01	KWP	0.009	29.136	AGC MAVG - calculated
12/27/2013 5:05	0:01	AWE	0.008	0.600	AGC MAVG - calculated
12/27/2013 5:13	1:35	KWPII	15.503	20.708	AGC MAVG - calculated and Good Engineering and Operating Practices
12/27/2013 6:30	0:01	AWE	0.005	0.300	AGC MAVG - calculated and Good Engineering and Operating Practices
12/27/2013 6:50	0:13	KWPII	0.225	20.708	AGC MAVG - calculated and Good Engineering and Operating Practices
12/27/2013 8:47	0:02	KWPII	0.015	20.708	AGC MAVG - calculated and Good Engineering and Operating Practices
12/27/2013 8:53	0:01	KWPII	0.002	20.708	AGC MAVG - calculated and Good Engineering and Operating Practices
12/27/2013 10:20	0:01	KWPII	0.007	20.708	AGC MAVG - calculated and Good Engineering and Operating Practices
12/27/2013 10:22	0:01	KWPII	0.000	20.708	AGC MAVG - calculated and Good Engineering and Operating Practices
12/27/2013 10:37	0:02	KWPII	0.020	20.708	AGC MAVG - calculated and Good Engineering and Operating Practices
12/27/2013 10:40	0:04	KWPII	0.059	20.708	AGC MAVG - calculated and Good Engineering and Operating Practices
12/27/2013 10:47	1:06	KWPII	7.387	20.708	AGC MAVG - calculated and Good Engineering and Operating Practices
12/27/2013 11:56	0:03	KWPII	0.044	20.708	AGC MAVG - calculated and Good Engineering and Operating Practices
12/27/2013 12:22	0:01	KWPII	0.004	20.704	AGC MAVG - calculated and Good Engineering and Operating Practices
12/27/2013 12:24	1:07	KWPII	6.329	20.708	AGC MAVG - calculated and Good Engineering and Operating Practices
12/27/2013 13:34	0:14	KWPII	0.743	20.708	AGC MAVG - calculated and Good Engineering and Operating Practices
12/27/2013 13:49	0:33	KWPII	3.564	20.708	AGC MAVG - calculated and Good Engineering and Operating Practices
12/27/2013 16:00	0:01	AWE	0.002	0.100	AGC MAVG - calculated
12/27/2013 18:27	0:01	AWE	0.003	0.200	AGC MAVG - calculated
12/27/2013 18:30	0:01	AWE	0.003	0.200	AGC MAVG - calculated
12/27/2013 18:47	0:01	AWE	0.003	0.200	AGC MAVG - calculated
12/27/2013 21:57	0:01	AWE	0.002	0.100	AGC MAVG - calculated
12/27/2013 22:33	0:01	AWE	0.002	0.100	AGC MAVG - calculated
12/27/2013 23:09	0:02	KWPII	0.020	20.708	AGC MAVG - calculated

Maui Electric

RSWG Maui Curtailment Report December 2013

Start Date and Time	Duration	IPP Curtailed	Estimated Curtailed MWH	Peak MW Curtailed	Reasons for Curtailment
12/27/2013 23:16	5:58	KWPII	101.753	20.708	AGC MAVG - calculated, AGC MAVG - entered - Maintaining Regulating Reserves, AGC MAVG - calculated, AGC MAVG - entered - Excess Energy, and AGC MAVG - calculated
12/28/2013 1:39	2:47	SA	Data is not available	Data is not available	AGC MAVG - entered - Excess Energy
12/28/2013 1:41	0:13	AWE	0.067	0.400	AGC MAVG - entered - Excess Energy
12/28/2013 1:42	2:42	MH	Data is not available	Data is not available	AGC MAVG - entered - Excess Energy
12/28/2013 1:45	2:24	KWP	7.599	29.864	AGC MAVG - entered - Excess Energy
12/28/2013 3:20	1:04	AWE	1.393	3.400	AGC MAVG - entered - Excess Energy
12/28/2013 4:13	0:02	KWP	0.011	28.560	AGC MAVG - entered - Excess Energy
12/28/2013 5:16	1:49	KWPII	14.583	19.211	AGC MAVG - calculated
12/28/2013 6:48	0:01	AWE	0.002	0.100	AGC MAVG - calculated
12/28/2013 10:48	0:01	AWE	0.002	0.100	AGC MAVG - calculated
12/28/2013 11:23	0:01	AWE	0.002	0.100	AGC MAVG - calculated
12/28/2013 11:39	0:03	KWPII	0.075	19.048	AGC MAVG - calculated
12/28/2013 11:47	0:02	KWPII	0.031	17.444	AGC MAVG - calculated
12/28/2013 16:00	0:01	KWP	0.000	0.016	AGC MAVG - calculated
12/28/2013 21:49	0:01	AWE	0.002	0.100	AGC MAVG - calculated
12/29/2013 2:01	0:01	AWE	0.005	0.300	AGC MAVG - calculated
12/29/2013 4:53	0:02	KWPII	0.014	14.524	AGC MAVG - calculated
12/29/2013 5:09	0:06	KWPII	0.071	18.284	AGC MAVG - calculated
12/29/2013 5:16	0:01	KWPII	0.004	18.480	AGC MAVG - calculated
12/29/2013 5:21	0:01	KWPII	0.001	18.810	AGC MAVG - calculated
12/29/2013 6:06	0:01	KWPII	0.015	18.824	AGC MAVG - calculated
12/29/2013 6:28	0:06	KWPII	0.056	18.674	AGC MAVG - calculated
12/29/2013 7:34	0:10	KWPII	0.493	20.087	AGC MAVG - calculated
12/29/2013 9:10	0:01	AWE	0.003	0.200	AGC MAVG - calculated
12/29/2013 11:03	0:01	KWPII	0.000	20.703	AGC MAVG - calculated
12/29/2013 11:16	0:01	AWE	0.002	0.100	AGC MAVG - calculated
12/29/2013 11:54	0:01	KWPII	0.005	20.648	AGC MAVG - calculated

Maui Electric

Lana'i Curtailment Report December 2013

Start Date/Time	Stop Date/Time	Duration (h:mm)	IPP Curtailed	Estimated MWH Curtailed	Peak MW Curtailed	Reasons for Curtailment
12/1/2013 8:52	12/1/2013 8:53	0:02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/1/2013 8:55	12/1/2013 8:55	0:01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/1/2013 9:24	12/1/2013 9:25	0:02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/1/2013 9:46	12/1/2013 9:50	0:05	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/1/2013 9:52	12/1/2013 9:53	0:02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/1/2013 9:57	12/1/2013 9:57	0:01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/1/2013 10:06	12/1/2013 10:08	0:03	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/1/2013 10:11	12/1/2013 10:32	0:22	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/1/2013 10:36	12/1/2013 10:40	0:05	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/1/2013 10:43	12/1/2013 10:51	0:09	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/1/2013 10:53	12/1/2013 10:53	0:01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/1/2013 10:55	12/1/2013 10:56	0:02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/1/2013 11:02	12/1/2013 11:09	0:08	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/1/2013 11:12	12/1/2013 11:12	0:01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/1/2013 11:15	12/1/2013 11:15	0:01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/1/2013 11:17	12/1/2013 11:18	0:02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/1/2013 11:45	12/1/2013 11:48	0:02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/1/2013 11:52	12/1/2013 11:53	0:02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/1/2013 11:55	12/1/2013 11:55	0:01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/1/2013 11:57	12/1/2013 11:57	0:01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/1/2013 12:01	12/1/2013 12:08	0:08	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/1/2013 12:11	12/1/2013 13:19	1:09	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/1/2013 13:21	12/1/2013 13:25	0:05	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/1/2013 13:30	12/1/2013 13:52	0:23	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/1/2013 13:56	12/1/2013 13:57	0:02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/1/2013 14:00	12/1/2013 14:03	0:04	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/1/2013 14:07	12/1/2013 14:08	0:02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/1/2013 14:31	12/1/2013 14:31	0:01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/1/2013 15:28	12/1/2013 15:29	0:02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/1/2013 15:38	12/1/2013 15:38	0:01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/1/2013 15:40	12/1/2013 15:43	0:04	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/1/2013 15:48	12/1/2013 16:01	0:14	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/1/2013 16:11	12/1/2013 16:15	0:05	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/2/2013 8:21	12/2/2013 8:39	0:19	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/2/2013 9:00	12/2/2013 9:09	0:10	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/2/2013 9:40	12/2/2013 10:10	0:31	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/2/2013 10:14	12/2/2013 10:18	0:05	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/2/2013 11:37	12/2/2013 12:14	0:38	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/2/2013 14:18	12/2/2013 14:19	0:02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/2/2013 14:47	12/2/2013 14:56	0:10	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/2/2013 15:31	12/2/2013 15:37	0:07	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/3/2013 7:39	12/3/2013 7:58	0:20	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/3/2013 8:00	12/3/2013 8:22	0:23	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/3/2013 8:28	12/3/2013 9:22	0:57	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/3/2013 9:24	12/3/2013 9:27	0:04	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/3/2013 9:29	12/3/2013 9:30	0:02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/3/2013 9:32	12/3/2013 9:37	0:06	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/3/2013 9:42	12/3/2013 9:43	0:02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/3/2013 9:47	12/3/2013 9:48	0:02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/3/2013 9:50	12/3/2013 10:04	0:15	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/3/2013 10:09	12/3/2013 10:12	0:04	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/3/2013 10:14	12/3/2013 10:19	0:06	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/3/2013 10:22	12/3/2013 10:23	0:02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/3/2013 10:29	12/3/2013 10:30	0:02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/3/2013 10:34	12/3/2013 10:38	0:05	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/3/2013 10:47	12/3/2013 10:49	0:03	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/3/2013 10:51	12/3/2013 10:54	0:04	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/3/2013 11:04	12/3/2013 11:07	0:04	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/3/2013 11:09	12/3/2013 11:12	0:04	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/3/2013 11:39	12/3/2013 11:39	0:01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/3/2013 11:47	12/3/2013 11:51	0:05	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/3/2013 11:57	12/3/2013 11:59	0:03	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/3/2013 12:03	12/3/2013 12:05	0:03	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/3/2013 12:09	12/3/2013 12:20	0:12	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/3/2013 12:23	12/3/2013 12:24	0:02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/3/2013 12:27	12/3/2013 12:34	0:08	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/3/2013 12:36	12/3/2013 12:36	0:01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/3/2013 12:56	12/3/2013 13:02	0:07	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/3/2013 13:23	12/3/2013 13:27	0:05	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/3/2013 13:40	12/3/2013 13:45	0:06	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/3/2013 13:50	12/3/2013 13:51	0:02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/3/2013 13:53	12/3/2013 13:55	0:03	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/3/2013 14:24	12/3/2013 14:34	0:11	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/3/2013 15:15	12/3/2013 15:16	0:02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/3/2013 15:32	12/3/2013 15:33	0:02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/3/2013 15:48	12/3/2013 15:48	0:01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/4/2013 7:50	12/4/2013 9:28	1:39	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/4/2013 9:33	12/4/2013 9:39	0:07	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/4/2013 9:41	12/4/2013 9:48	0:09	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/4/2013 10:07	12/4/2013 10:07	0:01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/4/2013 10:47	12/4/2013 10:50	0:04	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/4/2013 10:53	12/4/2013 10:59	0:07	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/4/2013 11:02	12/4/2013 11:04	0:03	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/4/2013 11:06	12/4/2013 11:06	0:01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/4/2013 11:11	12/4/2013 11:12	0:02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/4/2013 11:55	12/4/2013 11:58	0:04	LSR	Data is not available	Data is not available	Good engineering and operating practices

Maui Electric

Lana'i Curtailment Report December 2013

Start Date/Time	Stop Date/Time	Duration (h:mm)	IPP Curtailed	Estimated MWH Curtailed	Peak MW Curtailed	Reasons for Curtailment
12/4/2013 12:07	12/4/2013 12:08	0:02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/4/2013 12:16	12/4/2013 12:22	0:07	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/4/2013 12:24	12/4/2013 12:31	0:08	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/4/2013 12:34	12/4/2013 12:37	0:04	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/4/2013 12:46	12/4/2013 12:46	0:01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/4/2013 12:50	12/4/2013 12:50	0:01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/4/2013 12:52	12/4/2013 13:03	0:12	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/4/2013 13:07	12/4/2013 13:11	0:05	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/4/2013 13:13	12/4/2013 13:25	0:13	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/4/2013 13:29	12/4/2013 13:31	0:03	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/4/2013 13:33	12/4/2013 13:33	0:01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/4/2013 13:35	12/4/2013 13:41	0:07	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/4/2013 14:02	12/4/2013 14:02	0:01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/4/2013 14:10	12/4/2013 14:10	0:01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/4/2013 14:14	12/4/2013 14:15	0:02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/4/2013 14:17	12/4/2013 14:17	0:01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/4/2013 14:20	12/4/2013 14:20	0:01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/4/2013 14:24	12/4/2013 14:25	0:02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/4/2013 14:27	12/4/2013 14:32	0:06	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/4/2013 14:46	12/4/2013 14:46	0:01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/4/2013 14:53	12/4/2013 15:11	0:19	LSR	Data is not available	Data is not available	Testing
12/4/2013 15:16	12/4/2013 15:32	0:17	LSR	Data is not available	Data is not available	Testing
12/4/2013 15:38	12/4/2013 15:38	0:01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/4/2013 16:36	12/4/2013 16:37	0:02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/4/2013 16:45	12/4/2013 16:59	0:15	LSR	Data is not available	Data is not available	Testing
12/5/2013 9:17	12/5/2013 9:29	0:13	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/5/2013 9:31	12/5/2013 9:36	0:06	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/5/2013 9:43	12/5/2013 9:43	0:01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/5/2013 9:45	12/5/2013 10:48	1:04	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/5/2013 10:50	12/5/2013 11:29	0:40	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/5/2013 11:32	12/5/2013 12:05	0:34	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/5/2013 12:08	12/5/2013 13:13	1:06	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/5/2013 13:19	12/5/2013 13:37	0:19	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/5/2013 13:42	12/5/2013 13:42	0:01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/5/2013 13:45	12/5/2013 14:22	0:38	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/5/2013 14:30	12/5/2013 15:10	0:41	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/5/2013 15:14	12/5/2013 15:58	0:45	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/5/2013 16:00	12/5/2013 16:00	0:01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/5/2013 16:05	12/5/2013 16:39	0:35	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/6/2013 7:40	12/6/2013 11:23	3:44	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/6/2013 11:26	12/6/2013 11:41	0:15	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/6/2013 11:47	12/6/2013 12:24	0:38	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/6/2013 12:27	12/6/2013 12:32	0:06	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/6/2013 12:35	12/6/2013 12:43	0:09	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/6/2013 12:48	12/6/2013 12:52	0:05	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/6/2013 12:56	12/6/2013 12:56	0:01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/6/2013 12:59	12/6/2013 13:08	0:10	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/6/2013 13:10	12/6/2013 13:16	0:07	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/6/2013 13:18	12/6/2013 13:18	0:01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/6/2013 13:20	12/6/2013 13:29	0:10	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/6/2013 13:34	12/6/2013 13:36	0:03	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/6/2013 13:39	12/6/2013 13:46	0:08	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/6/2013 13:49	12/6/2013 13:50	0:02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/6/2013 13:54	12/6/2013 14:00	0:07	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/6/2013 14:02	12/6/2013 14:02	0:01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/6/2013 14:09	12/6/2013 14:11	0:03	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/6/2013 14:14	12/6/2013 14:16	0:03	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/6/2013 14:18	12/6/2013 14:39	0:22	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/6/2013 14:43	12/6/2013 14:47	0:05	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/6/2013 14:55	12/6/2013 14:55	0:01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/6/2013 14:59	12/6/2013 15:02	0:04	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/6/2013 15:05	12/6/2013 15:06	0:02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/6/2013 15:15	12/6/2013 15:16	0:02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/6/2013 15:19	12/6/2013 15:21	0:03	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/6/2013 15:25	12/6/2013 15:26	0:02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/6/2013 15:36	12/6/2013 15:37	0:02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/6/2013 15:40	12/6/2013 15:42	0:03	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/6/2013 15:51	12/6/2013 15:56	0:06	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/6/2013 15:59	12/6/2013 16:01	0:03	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/6/2013 16:05	12/6/2013 16:07	0:03	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/6/2013 16:23	12/6/2013 16:26	0:04	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/7/2013 7:30	12/7/2013 7:32	0:03	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/7/2013 7:43	12/7/2013 8:00	0:18	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/7/2013 8:06	12/7/2013 8:06	0:01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/7/2013 8:08	12/7/2013 8:10	0:03	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/7/2013 8:13	12/7/2013 8:23	0:11	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/7/2013 8:30	12/7/2013 8:30	0:01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/7/2013 8:36	12/7/2013 8:41	0:06	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/7/2013 9:06	12/7/2013 9:06	0:01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/7/2013 9:16	12/7/2013 9:16	0:01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/7/2013 10:01	12/7/2013 10:03	0:03	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/7/2013 10:07	12/7/2013 10:07	0:01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/7/2013 10:09	12/7/2013 10:10	0:02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/7/2013 10:30	12/7/2013 11:03	0:34	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/7/2013 11:27	12/7/2013 11:29	0:03	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/7/2013 12:01	12/7/2013 13:23	1:23	LSR	Data is not available	Data is not available	Good engineering and operating practices

Maui Electric

Lana'i Curtailment Report December 2013

Start Date/Time	Stop Date/Time	Duration (h:mm)	IPP Curtailed	Estimated MWH Curtailed	Peak MW Curtailed	Reasons for Curtailment
12/7/2013 13:25	12/7/2013 14:02	0:38	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/7/2013 14:04	12/7/2013 14:06	0:03	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/7/2013 14:08	12/7/2013 14:08	0:01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/7/2013 14:14	12/7/2013 14:18	0:05	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/7/2013 14:24	12/7/2013 14:24	0:01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/7/2013 14:37	12/7/2013 14:37	0:01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/7/2013 14:59	12/7/2013 15:02	0:04	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/7/2013 15:23	12/7/2013 15:23	0:01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/7/2013 15:26	12/7/2013 15:28	0:03	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/7/2013 15:36	12/7/2013 15:46	0:11	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/7/2013 15:51	12/7/2013 15:54	0:04	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/7/2013 15:57	12/7/2013 16:14	0:18	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/7/2013 16:22	12/7/2013 16:32	0:11	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/8/2013 8:10	12/8/2013 8:10	0:01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/8/2013 8:24	12/8/2013 8:37	0:14	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/8/2013 8:39	12/8/2013 8:45	0:07	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/8/2013 8:53	12/8/2013 8:54	0:02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/8/2013 9:02	12/8/2013 9:04	0:03	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/8/2013 9:09	12/8/2013 9:11	0:03	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/8/2013 9:15	12/8/2013 9:15	0:01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/8/2013 9:25	12/8/2013 9:34	0:10	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/8/2013 9:37	12/8/2013 9:39	0:03	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/8/2013 9:43	12/8/2013 9:50	0:08	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/8/2013 9:52	12/8/2013 10:10	0:19	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/8/2013 10:33	12/8/2013 10:33	0:01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/8/2013 10:36	12/8/2013 10:37	0:02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/8/2013 10:55	12/8/2013 10:56	0:02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/8/2013 10:59	12/8/2013 10:59	0:01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/8/2013 11:44	12/8/2013 11:45	0:02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/8/2013 11:51	12/8/2013 11:57	0:07	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/8/2013 11:59	12/8/2013 12:01	0:03	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/8/2013 12:06	12/8/2013 12:09	0:04	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/8/2013 12:11	12/8/2013 12:11	0:01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/8/2013 12:17	12/8/2013 12:18	0:02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/8/2013 12:23	12/8/2013 12:26	0:04	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/8/2013 12:28	12/8/2013 12:35	0:08	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/8/2013 12:49	12/8/2013 12:49	0:01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/8/2013 12:53	12/8/2013 12:54	0:02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/8/2013 13:04	12/8/2013 13:06	0:03	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/8/2013 13:19	12/8/2013 13:19	0:01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/8/2013 13:21	12/8/2013 13:23	0:03	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/8/2013 13:28	12/8/2013 13:29	0:02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/8/2013 13:33	12/8/2013 13:37	0:05	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/8/2013 13:40	12/8/2013 13:48	0:09	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/8/2013 13:51	12/8/2013 13:56	0:06	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/8/2013 14:00	12/8/2013 14:04	0:05	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/9/2013 7:56	12/9/2013 7:56	0:01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/9/2013 8:16	12/9/2013 8:20	0:05	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/9/2013 8:27	12/9/2013 8:29	0:03	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/9/2013 8:34	12/9/2013 8:35	0:02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/9/2013 8:42	12/9/2013 8:44	0:03	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/9/2013 8:59	12/9/2013 9:08	0:10	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/9/2013 9:16	12/9/2013 9:25	0:10	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/9/2013 9:30	12/9/2013 9:31	0:02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/9/2013 9:34	12/9/2013 9:34	0:01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/9/2013 9:36	12/9/2013 9:39	0:04	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/9/2013 9:47	12/9/2013 9:50	0:04	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/9/2013 9:58	12/9/2013 10:00	0:03	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/9/2013 10:02	12/9/2013 10:22	0:21	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/9/2013 10:24	12/9/2013 10:42	0:19	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/9/2013 11:19	12/9/2013 11:21	0:03	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/9/2013 11:50	12/9/2013 12:05	0:16	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/9/2013 12:13	12/9/2013 12:20	0:08	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/9/2013 12:22	12/9/2013 12:26	0:05	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/9/2013 12:28	12/9/2013 12:38	0:11	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/9/2013 12:41	12/9/2013 13:08	0:28	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/9/2013 14:00	12/9/2013 14:06	0:07	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/9/2013 14:10	12/9/2013 14:11	0:02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/9/2013 14:29	12/9/2013 14:33	0:05	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/9/2013 14:35	12/9/2013 15:00	0:26	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/9/2013 15:04	12/9/2013 15:17	0:14	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/9/2013 15:19	12/9/2013 15:22	0:04	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/9/2013 15:29	12/9/2013 15:32	0:04	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/9/2013 15:39	12/9/2013 15:39	0:01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/11/2013 11:47	12/11/2013 11:50	0:04	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/11/2013 11:52	12/11/2013 12:01	0:10	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/11/2013 12:03	12/11/2013 12:04	0:02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/11/2013 12:06	12/11/2013 12:19	0:14	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/11/2013 12:21	12/11/2013 12:30	0:10	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/11/2013 12:32	12/11/2013 13:31	1:00	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/11/2013 13:38	12/11/2013 13:40	0:03	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/11/2013 13:47	12/11/2013 13:48	0:02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/11/2013 13:52	12/11/2013 13:53	0:02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/11/2013 14:09	12/11/2013 14:12	0:04	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/12/2013 7:53	12/12/2013 8:08	0:14	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/12/2013 8:08	12/12/2013 9:50	1:43	LSR	Data is not available	Data is not available	Good engineering and operating practices

Maui Electric

Lana'i Curtailment Report December 2013

Start Date/Time	Stop Date/Time	Duration (h:mm)	IPP Curtailed	Estimated MWH Curtailed	Peak MW Curtailed	Reasons for Curtailment
12/12/2013 9:52	12/12/2013 10:28	0:37	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/12/2013 11:37	12/12/2013 11:37	0:01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/12/2013 12:22	12/12/2013 12:34	0:13	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/12/2013 12:38	12/12/2013 12:40	0:03	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/12/2013 12:42	12/12/2013 12:44	0:03	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/12/2013 12:46	12/12/2013 12:51	0:06	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/12/2013 12:53	12/12/2013 12:55	0:03	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/12/2013 13:03	12/12/2013 13:06	0:04	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/12/2013 13:13	12/12/2013 13:27	0:15	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/12/2013 13:32	12/12/2013 13:41	0:10	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/12/2013 13:43	12/12/2013 13:50	0:08	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/12/2013 13:53	12/12/2013 13:53	0:01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/12/2013 13:55	12/12/2013 13:57	0:03	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/12/2013 14:00	12/12/2013 14:04	0:05	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/12/2013 14:11	12/12/2013 14:35	0:25	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/12/2013 14:40	12/12/2013 14:42	0:03	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/12/2013 15:44	12/12/2013 15:53	0:10	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/12/2013 15:58	12/12/2013 16:28	0:31	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/13/2013 9:33	12/13/2013 9:43	0:11	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/13/2013 10:03	12/13/2013 10:04	0:02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/13/2013 10:07	12/13/2013 10:10	0:04	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/13/2013 10:12	12/13/2013 11:35	1:24	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/13/2013 11:40	12/13/2013 11:59	0:20	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/13/2013 12:02	12/13/2013 12:12	0.11	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/13/2013 12:15	12/13/2013 12:21	0:07	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/13/2013 12:44	12/13/2013 13:09	0.26	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/13/2013 13:14	12/13/2013 13:15	0:02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/13/2013 13:18	12/13/2013 13:22	0:05	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/13/2013 13:27	12/13/2013 13:32	0:06	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/13/2013 13:39	12/13/2013 13:41	0:03	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/13/2013 13:45	12/13/2013 13:45	0:01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/13/2013 13:47	12/13/2013 14:00	0.14	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/13/2013 14:03	12/13/2013 14:08	0:06	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/13/2013 14:10	12/13/2013 14:12	0:03	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/13/2013 14:14	12/13/2013 14:19	0:06	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/13/2013 14:21	12/13/2013 14:24	0:04	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/14/2013 7:51	12/14/2013 8:48	0:58	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/14/2013 8:54	12/14/2013 8:59	0:06	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/14/2013 9:02	12/14/2013 9:03	0:02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/14/2013 9:08	12/14/2013 9:09	0:02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/14/2013 9:27	12/14/2013 9:36	0:10	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/14/2013 9:40	*12/14/2013 10:13*	*0:34*	*LSR*	*Data is not available*	*Data is not available*	*Good engineering and operating practices*
12/14/2013 10:16	12/14/2013 10:17	0:02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/14/2013 10:20	12/14/2013 11:06	0:47	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/14/2013 11:37	12/14/2013 12:08	0:32	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/14/2013 12:21	12/14/2013 12:35	0:15	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/14/2013 12:38	12/14/2013 12:49	0:12	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/14/2013 12:51	12/14/2013 12:51	0:01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/14/2013 12:54	12/14/2013 13:00	0:07	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/14/2013 13:05	12/14/2013 13:13	0:09	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/14/2013 13:25	12/14/2013 13:27	0:03	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/14/2013 13:29	12/14/2013 13:29	0:01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/14/2013 14:00	12/14/2013 14:07	0:08	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/14/2013 14:13	12/14/2013 14:14	0:02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/14/2013 15:51	12/14/2013 15:53	0:03	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/14/2013 16:04	12/14/2013 16:04	0:01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/15/2013 7:55	12/15/2013 8:35	0:41	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/15/2013 8:49	12/15/2013 8:49	0:01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/15/2013 9:15	12/15/2013 9:35	0:21	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/15/2013 10:57	12/15/2013 11:02	0:06	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/15/2013 11:09	12/15/2013 11:16	0:08	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/16/2013 7:48	12/16/2013 7:48	0:01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/16/2013 8:34	12/16/2013 9:10	0:37	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/16/2013 9:14	12/16/2013 9:28	0:15	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/16/2013 10:07	12/16/2013 10:15	0:09	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/16/2013 10:20	12/16/2013 10:26	0:07	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/16/2013 10:29	12/16/2013 10:31	0:03	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/16/2013 10:33	12/16/2013 10:36	0:04	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/16/2013 10:43	12/16/2013 10:56	0.14	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/16/2013 10:58	12/16/2013 11:05	0.08	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/16/2013 11:11	12/16/2013 11:19	0:09	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/16/2013 11:29	12/16/2013 11:34	0:06	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/16/2013 11:37	12/16/2013 11:52	0:16	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/17/2013 8:34	12/17/2013 11:30	2.57	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/17/2013 11:32	12/17/2013 11:54	0:23	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/17/2013 11:59	12/17/2013 12:03	0:05	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/17/2013 12:05	12/17/2013 12:10	0.06	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/17/2013 12:13	12/17/2013 12:25	0:13	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/17/2013 12:29	12/17/2013 12:40	0:12	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/17/2013 12:42	12/17/2013 12:42	0:01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/17/2013 12:44	12/17/2013 12:47	0.04	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/17/2013 12:50	12/17/2013 12:50	0.01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/17/2013 12:58	12/17/2013 13:22	0.25	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/17/2013 13:24	12/17/2013 13:24	0.01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/17/2013 13:27	12/17/2013 13:36	0:10	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/17/2013 13:39	12/17/2013 13:53	0:15	LSR	Data is not available	Data is not available	Good engineering and operating practices

Maui Electric

Lana'i Curtailment Report December 2013

Start Date/Time	Stop Date/Time	Duration (h mm)	IPP Curtailed	Estimated MWH Curtailed	Peak MW Curtailed	Reasons for Curtailment
12/17/2013 13:59	12/17/2013 14:43	0:45	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/17/2013 14:58	12/17/2013 15:34	0:37	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/17/2013 15:37	12/17/2013 15:53	0:17	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/17/2013 15:58	12/17/2013 16:04	0:07	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/17/2013 16:06	12/17/2013 16:07	0:02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/17/2013 16:09	12/17/2013 16:24	0:16	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/17/2013 16:52	12/17/2013 16:57	0:06	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/18/2013 8:08	12/18/2013 9:17	1:10	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/18/2013 9:23	12/18/2013 9:24	0:02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/18/2013 9:26	12/18/2013 10:53	1:28	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/18/2013 11:55	12/18/2013 11:58	0:04	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/18/2013 12:31	12/18/2013 12:40	0:10	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/18/2013 13:39	12/18/2013 13:42	0:04	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/18/2013 14:02	12/18/2013 14:10	0:09	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/18/2013 14:27	12/18/2013 14:57	0:31	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/18/2013 15:16	12/18/2013 15:36	0:21	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/18/2013 15:44	12/18/2013 15:51	0:08	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/18/2013 15:53	12/18/2013 16:07	0:15	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/18/2013 16:11	12/18/2013 16:21	0:11	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/19/2013 7:54	12/19/2013 8:51	0:56	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/19/2013 8:59	12/19/2013 9:54	0:56	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/19/2013 9:56	12/19/2013 10:58	1:03	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/19/2013 11:00	12/19/2013 11:54	0:55	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/19/2013 11:57	12/19/2013 12:00	0:04	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/19/2013 12:12	12/19/2013 15:12	3:01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/19/2013 15:15	12/19/2013 16:51	1:37	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/19/2013 17:07	12/19/2013 17:17	0:11	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/19/2013 17:19	12/19/2013 17:28	0:10	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/20/2013 8:16	12/20/2013 9:39	1:24	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/20/2013 9:50	12/20/2013 10:16	0:27	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/20/2013 10:20	12/20/2013 11:06	0:47	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/20/2013 11:11	12/20/2013 11:13	0:03	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/20/2013 11:18	12/20/2013 11:21	0:04	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/20/2013 11:24	12/20/2013 11:31	0:08	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/20/2013 11:35	12/20/2013 11:39	0:05	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/20/2013 11:43	12/20/2013 11:44	0:02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/20/2013 11:49	12/20/2013 11:58	0:08	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/20/2013 12:00	12/20/2013 12:00	0:01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/20/2013 12:06	12/20/2013 12:10	0:05	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/20/2013 12:25	12/20/2013 12:28	0:04	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/20/2013 12:34	12/20/2013 12:44	0:11	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/20/2013 12:48	12/20/2013 13:18	0:33	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/20/2013 13:27	12/20/2013 14:38	1:10	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/20/2013 14:43	12/20/2013 15:12	0:30	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/20/2013 15:14	12/20/2013 15:22	0:09	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/20/2013 15:32	12/20/2013 15:37	0:06	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/20/2013 15:45	12/20/2013 15:51	0:07	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/20/2013 16:44	12/20/2013 16:46	0:03	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/20/2013 16:48	12/20/2013 16:49	0:02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/21/2013 8:03	12/21/2013 8:37	0:35	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/21/2013 8:45	12/21/2013 8:48	0:04	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/21/2013 8:52	12/21/2013 8:54	0:03	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/21/2013 8:57	12/21/2013 8:57	0:01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/21/2013 8:59	12/21/2013 9:46	0:48	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/21/2013 9:51	12/21/2013 9:59	0:09	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/21/2013 10:10	12/21/2013 10:14	0:05	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/21/2013 10:16	12/21/2013 10:17	0:02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/21/2013 10:20	12/21/2013 10:30	0:11	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/21/2013 11:17	12/21/2013 11:20	0:04	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/21/2013 11:22	12/21/2013 11:23	0:02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/21/2013 11:27	12/21/2013 11:40	0:14	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/21/2013 11:43	12/21/2013 11:44	0:02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/21/2013 11:51	12/21/2013 11:52	0:02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/21/2013 11:56	12/21/2013 12:37	0:42	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/21/2013 13:07	12/21/2013 13:08	0:02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/21/2013 14:12	12/21/2013 14:25	0:14	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/21/2013 14:43	12/21/2013 14:44	0:02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/21/2013 14:46	12/21/2013 14:46	0:01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/21/2013 14:50	12/21/2013 14:51	0:02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/21/2013 14:59	12/21/2013 15:01	0:03	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/21/2013 15:24	12/21/2013 15:49	0:25	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/21/2013 15:50	12/21/2013 15:59	0:10	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/21/2013 16:52	12/21/2013 16:54	0:03	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/22/2013 7:50	12/22/2013 7:57	0:08	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/22/2013 8:00	12/22/2013 9:33	1:34	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/22/2013 9:40	12/22/2013 9:41	0:02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/22/2013 9:46	12/22/2013 10:22	0:37	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/22/2013 10:28	12/22/2013 10:28	0:01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/22/2013 10:30	12/22/2013 10:30	0:01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/22/2013 10:33	12/22/2013 10:35	0:03	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/22/2013 10:39	12/22/2013 10:39	0:01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/22/2013 10:42	12/22/2013 10:44	0:03	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/22/2013 10:46	12/22/2013 10:46	0:01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/22/2013 10:56	12/22/2013 10:56	0:01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/22/2013 10:58	12/22/2013 10:58	0:01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/22/2013 11:05	12/22/2013 11:05	0:01	LSR	Data is not available	Data is not available	Good engineering and operating practices

Maui Electric

Lana'i Curtailment Report December 2013

Start Date/Time	Stop Date/Time	Duration (h:mm)	IPP Curtailed	Estimated MWH Curtailed	Peak MW Curtailed	Reasons for Curtailment
12/22/2013 11:07	12/22/2013 11:17	0 11	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/22/2013 11.22	12/22/2013 11.22	0 01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/22/2013 11.25	12/22/2013 11.28	0 02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/22/2013 12 00	12/22/2013 12 07	0 08	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/22/2013 12 12	12/22/2013 12 13	0 02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/22/2013 12 33	12/22/2013 12 34	0 02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/22/2013 13 28	12/22/2013 13 29	0 02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/22/2013 14:07	12/22/2013 14:07	0 01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/22/2013 14:09	12/22/2013 14:12	0 04	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/22/2013 14.17	12/22/2013 14.25	0 09	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/22/2013 15 12	*12/22/2013 15 13*	*0 02*	*LSR*	*Data is not available*	*Data is not available*	*Good engineering and operating practices*
12/22/2013 18.11	12/22/2013 18.14	0 04	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/22/2013 18:21	12/22/2013 16.26	0.06	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/23/2013 8.03	12/23/2013 8.13	0 11	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/23/2013 9.54	12/23/2013 10 25	0 32	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/23/2013 11.43	12/23/2013 11.55	0 13	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/23/2013 11 57	12/23/2013 11.58	0 02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/23/2013 12 48	12/23/2013 12 55	0 08	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/23/2013 13.18	12/23/2013 13 26	0 09	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/23/2013 13 28	12/23/2013 13 28	0 01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/23/2013 13.30	12/23/2013 13 30	0 01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/23/2013 13:40	12/23/2013 13 41	0 02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/23/2013 14.45	12/23/2013 14 52	0 08	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/23/2013 15.17	12/23/2013 15 21	0 05	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/23/2013 15:28	12/23/2013 15 29	0 02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/23/2013 15.38	12/23/2013 15.38	0.01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/24/2013 7:57	12/24/2013 8.51	0 55	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/24/2013 8:53	12/24/2013 9 48	0.56	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/24/2013 10.05	12/24/2013 10 05	0.01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/24/2013 10.12	12/24/2013 10.33	0.22	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/24/2013 10:36	12/24/2013 10 44	0 09	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/24/2013 11.11	12/24/2013 11.11	0.01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/24/2013 11.14	12/24/2013 11:14	0.01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/24/2013 11.17	12/24/2013 11 24	0.08	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/24/2013 12.03	12/24/2013 12 08	0.06	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/24/2013 12.56	12/24/2013 12 59	0 04	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/24/2013 13 01	12/24/2013 13 01	0 01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/24/2013 13 03	12/24/2013 13 03	0 01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/24/2013 13 06	12/24/2013 13 11	0 06	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/24/2013 13 33	12/24/2013 13 34	0 02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/24/2013 13 37	12/24/2013 13 50	0.14	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/24/2013 13 52	12/24/2013 13.55	0.04	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/24/2013 15 54	12/24/2013 15.55	0.02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/24/2013 16:00	12/24/2013 16 01	0:02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/24/2013 16:31	12/24/2013 16:33	0:03	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/24/2013 16 39	*12/24/2013 16:46*	*0:08*	*LSR*	*Data is not available*	*Data is not available*	Good engineering and operating practices
12/25/2013 8 00	12/25/2013 8.54	0.55	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/25/2013 8 57	12/25/2013 8:57	0:01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/25/2013 9 02	12/25/2013 9:30	0:29	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/25/2013 9 34	12/25/2013 10:21	0 48	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/25/2013 10.25	12/25/2013 10.29	0.05	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/25/2013 10 31	12/25/2013 10.31	0 01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/25/2013 10.59	12/25/2013 10:59	0.01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/25/2013 11.19	12/25/2013 11.20	0.02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/25/2013 11:23	12/25/2013 11:23	0:01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/25/2013 11.36	12/25/2013 11:37	0.02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/25/2013 11:44	12/25/2013 11:48	0.03	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/25/2013 12.29	12/25/2013 12.30	0.02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/25/2013 12.55	12/25/2013 12.56	0.02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/25/2013 12.59	12/25/2013 13.01	0.03	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/25/2013 14.40	12/25/2013 14 43	0.04	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/25/2013 14 45	12/25/2013 14 46	0.02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/25/2013 15.10	12/25/2013 15.24	0.15	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/25/2013 15:26	12/25/2013 15.30	0.05	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/25/2013 15:52	12/25/2013 15.56	0.05	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/25/2013 16.10	12/25/2013 16.10	0.01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/25/2013 16 15	12/25/2013 16:20	0 08	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/25/2013 16.27	12/25/2013 16:28	0:02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/25/2013 16 34	12/25/2013 16 38	0 05	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/26/2013 8.10	12/26/2013 8.34	0.25	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/26/2013 9 15	12/26/2013 9 25	0 11	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/26/2013 9 27	12/26/2013 9.27	0 01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/26/2013 9 32	12/26/2013 9.33	0 02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/26/2013 9.35	12/26/2013 9 35	0 01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/26/2013 9 58	12/26/2013 10.00	0 03	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/26/2013 10 05	12/26/2013 10.37	0 33	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/26/2013 10 58	12/26/2013 10.58	0.01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/26/2013 13 01	12/26/2013 13:01	0 01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/26/2013 14 21	12/26/2013 14:59	0 39	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/26/2013 15 06	12/26/2013 15.08	0.03	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/26/2013 16 03	*12/26/2013 16.03*	*0.01*	*LSR*	*Data is not available*	*Data is not available*	Good engineering and operating practices
12/27/2013 8:29	12/27/2013 9.52	1:24	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/27/2013 9 54	12/27/2013 9.55	0.02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/27/2013 9.57	12/27/2013 10.04	0.08	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/27/2013 10.06	12/27/2013 10.18	0 13	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/27/2013 10 26	12/27/2013 11 38	1:13	LSR	Data is not available	Data is not available	Good engineering and operating practices

Maui Electric

Lana'i Curtailment Report December 2013

Start Date/Time	Stop Date/Time	Duration (h:mm)	IPP Curtailed	Estimated MWH Curtailed	Peak MW Curtailed	Reasons for Curtailment
12/27/2013 11:40	12/27/2013 13:16	1:37	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/27/2013 13:18	12/27/2013 16:57	3:40	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/28/2013 6:04	12/28/2013 6:04	0:01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/28/2013 6:09	12/28/2013 6:12	0:04	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/28/2013 6:14	12/28/2013 6:38	0:25	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/28/2013 6:40	12/28/2013 6:42	0:03	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/28/2013 6:44	12/28/2013 6:45	0:02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/28/2013 6:53	12/28/2013 9:37	0:45	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/28/2013 9:39	12/28/2013 9:46	0:08	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/28/2013 9:48	12/28/2013 9:55	0:08	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/28/2013 10:01	12/28/2013 10:03	0:03	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/28/2013 10:08	12/28/2013 10:13	0:06	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/28/2013 10:15	12/28/2013 10:42	0:28	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/28/2013 10:52	12/28/2013 10:53	0:02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/28/2013 11:00	12/28/2013 11:02	0:03	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/28/2013 11:06	12/28/2013 11:06	0:01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/28/2013 11:08	12/28/2013 11:12	0:05	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/28/2013 11:14	12/28/2013 11:27	0:14	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/28/2013 11:29	12/28/2013 11:32	0:04	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/28/2013 11:37	12/28/2013 11:37	0:01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/28/2013 11:39	12/28/2013 11:39	0:01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/28/2013 11:42	12/28/2013 12:14	0:33	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/28/2013 12:17	12/28/2013 12:17	0:01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/28/2013 12:19	12/28/2013 12:19	0:01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/28/2013 12:24	12/28/2013 12:28	0:05	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/28/2013 12:30	12/28/2013 12:38	0:09	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/28/2013 12:45	12/28/2013 12:47	0:03	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/28/2013 12:53	12/28/2013 12:58	0:06	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/28/2013 13:01	12/28/2013 13:01	0:01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/28/2013 13:05	12/28/2013 13:16	0:12	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/28/2013 13:18	12/28/2013 13:55	0:38	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/28/2013 14:03	12/28/2013 14:48	0:46	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/28/2013 14:51	12/28/2013 14:52	0:02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/28/2013 15:36	12/28/2013 15:36	0:01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/28/2013 15:55	12/28/2013 16:38	0:44	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/29/2013 7:56	12/29/2013 7:58	0:03	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/29/2013 8:01	12/29/2013 8:14	0:14	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/29/2013 8:19	12/29/2013 9:17	0:59	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/29/2013 9:25	12/29/2013 9:41	0:17	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/29/2013 9:43	12/29/2013 10:41	0:59	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/29/2013 10:43	12/29/2013 10:44	0:02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/29/2013 10:47	12/29/2013 10:49	0:03	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/29/2013 10:54	12/29/2013 10:54	0:01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/29/2013 10:58	12/29/2013 10:58	0:01	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/29/2013 11:00	12/29/2013 11:01	0:02	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/29/2013 11:49	12/29/2013 11:56	0:08	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/29/2013 11:58	12/29/2013 12:15	0:18	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/29/2013 12:17	12/29/2013 16:58	4:42	LSR	Data is not available	Data is not available	Good engineering and operating practices
12/29/2013 17:18	12/29/2013 17:24	0:07	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.

Hawai`i Electric Light Company Curtailment Report December 2013

Start Date/Time	MW output prior to start of curtailment	End Date/Time	MW output after curtailment released	Reason for Curtailment
12/04/13 03:41	19.8 MW	12/04/13 04:39	17.4 MW	Tawhiri Group B curtailed for excess energy.
12/11/13 21:43	19.9 MW	12/11/13 22:15	19.7 MW	Tawhiri - High wind curtailment at Tawhiri's request.