



December 26, 2019

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PUBLIC UTILITIES  
COMMISSION

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

Dear Commissioners:

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

In accordance with Ordering Paragraph 3 of Order No. 30371, filed May 4, 2012 in the subject proceeding, enclosed as Exhibit A is the Hawaiian Electric Companies'<sup>1</sup> monthly report for November 2019 on: (1) system frequency control performance during month; (2) significant system events during month; and (3) curtailment of non-dispatchable renewable resources.

An electronic copy of each report is also included with this filing, as the files are voluminous, and therefore are being provided on a compact disc ("CD") to both the Commission and the Consumer Advocate. Any party to this proceeding may obtain a copy of this CD by emailing Marisa Chun at [marisa.chun@hawaiianelectric.com](mailto:marisa.chun@hawaiianelectric.com).

Sincerely,

Kevin M. Katsura  
Director  
Regulatory Non-Rate Proceedings

Enclosure

c: Service List

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<sup>1</sup> Hawaiian Electric Company, Inc., Hawai'i Electric Light Company, Inc., and Maui Electric Company, Limited are collectively referred to as the "Hawaiian Electric Companies" or "Companies."

**The Commission's Order No. 30371 (Docket No 2011-0206 – Relating To Various Matters in RSWG Process), filed May 4, 2012, ordered the following information for each island grid:**

- (1) System frequency control performance during month:
  - a) Frequency duration plot based on the highest resolution SCADA data available for the month detailing how many seconds each power system operated at frequencies above 60 hertz and at frequencies below 60 Hz.
  - b) Tabulation of the number, magnitude and duration of frequency excursions (high and low) outside normal frequency control range (59.95 to 60.05 Hz).

The following provides information with respect to items 1a) through 1b) – (all statements are current as of the month ending November 30, 2019):

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

The frequency duration plots for Hawaiian Electric, Maui Electric (Maui Division) and Hawai'i Electric Light based on two-second data are provided in Attachment 1, and the enclosed Excel files. Refer to the electronic files for the individual data points because the information is voluminous and does not translate well to a hard copy.

**1b) Tabulation of the number, magnitude and duration of frequency excursions (high and low) outside normal frequency control range (59.95 to 60.05 Hz):**

Tabulation of the number, magnitude and duration of frequency excursions outside of the frequency range of 59.95 Hz to 60.05 Hz for Hawaiian Electric, Maui Electric (Maui Division) and Hawai'i Electric Light are provided in Attachment 2, and the enclosed Excel files. Refer to the electronic files for the individual data points because the information is voluminous and does not translate well to a hard copy.

- (2) Significant system events during month:
  - a) Tabulation of contingency reserve activations including date and time, MW magnitude, duration, and triggering event.
  - b) Tabulation of under frequency load shed activations including date and time, triggering frequency, MW magnitude, duration, and triggering event.
  - c) Tabulation of demand response activations for system events, including date and time, MW magnitude, duration, and triggering event, (excluding demand response utilization for unit commitment deferral or system operations economics.)

The following provides information with respect to items 2a) through 2c) – (all statements are current as of the month ending November 30, 2019):

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

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

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

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

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

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

The following provides information with respect to items 3a) through 3b) – (all statements are current as of the month ending November 30, 2019):

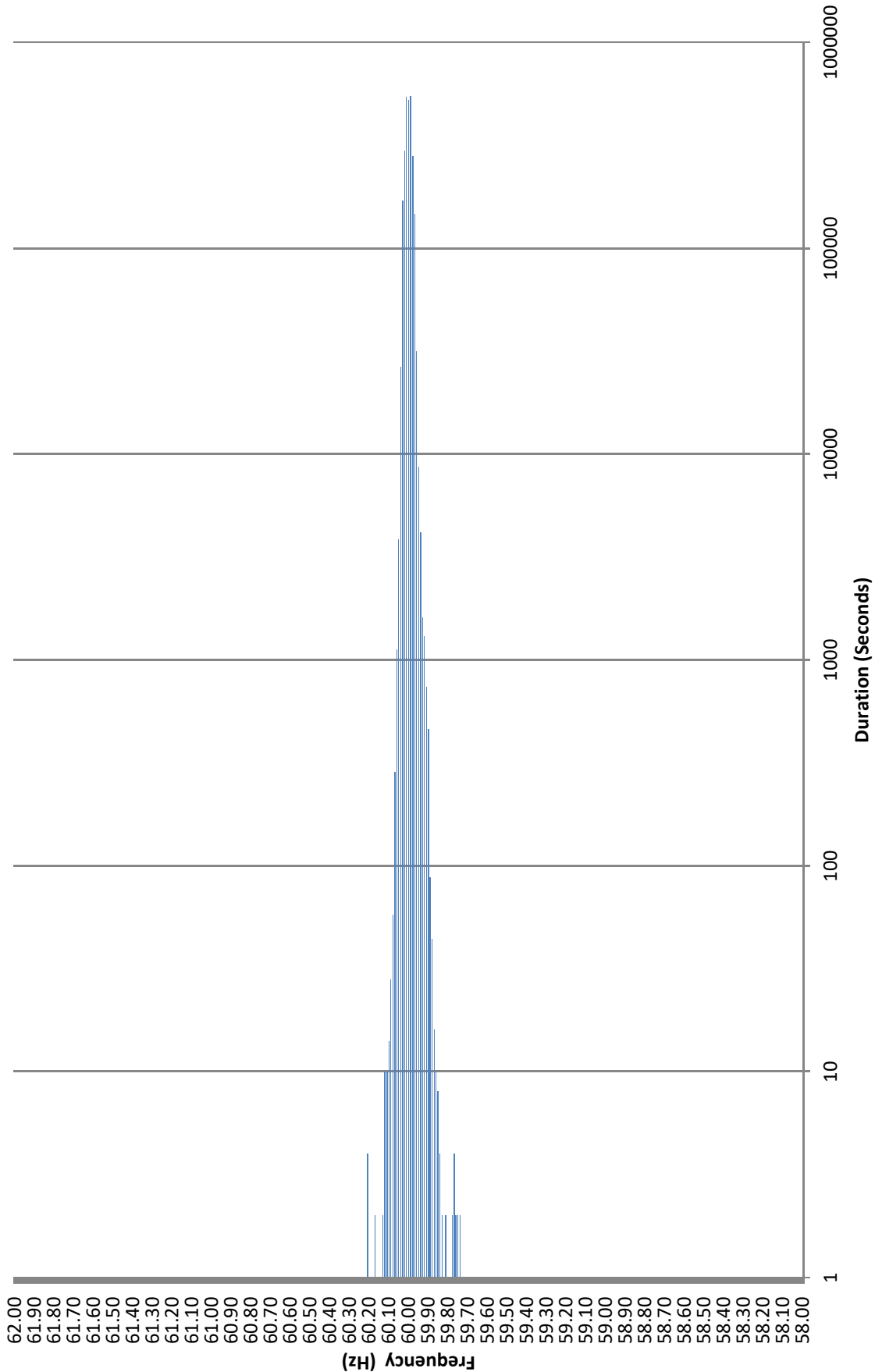
**3a) Tabulation of each curtailment event for each resource including the starting date and time, duration, megawatt hours curtailed, peak MW curtailed, and reason for curtailment:**

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

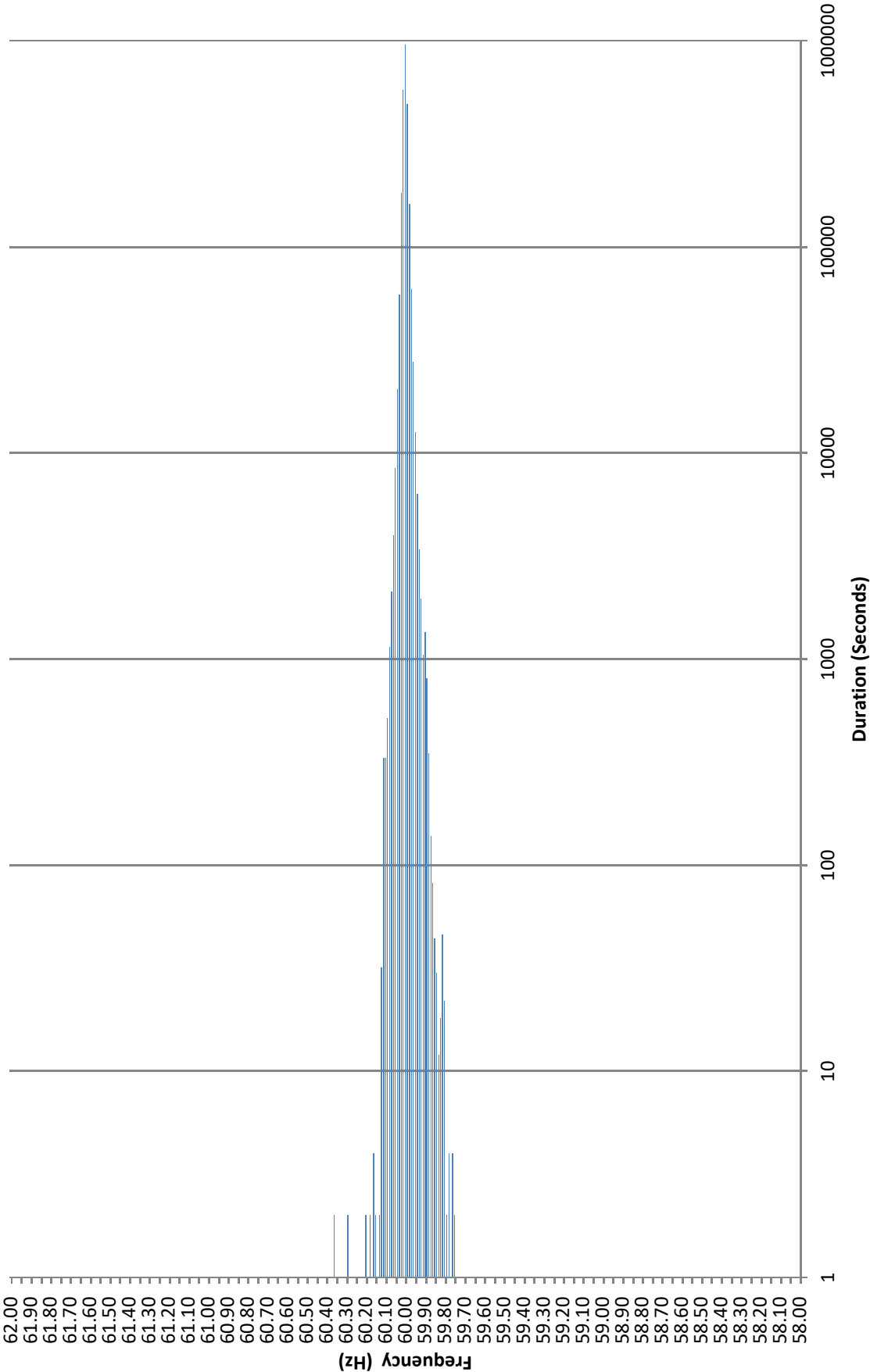
**3b) Total MWh of non-dispatchable renewable resources curtailed for the month:**

Curtailed MWH from non-dispatchable resources are difficult to determine due to the variability of the resource during curtailment periods. In some cases, the curtailed MWH estimates were provided by the IPPs under curtailment. The Hawaiian Electric Companies do not make any representations as to the accuracy of the curtailed MWH. The estimated MWH of non-dispatchable resources curtailed for the month are provided in Attachment 6, corresponding to each curtailment event.

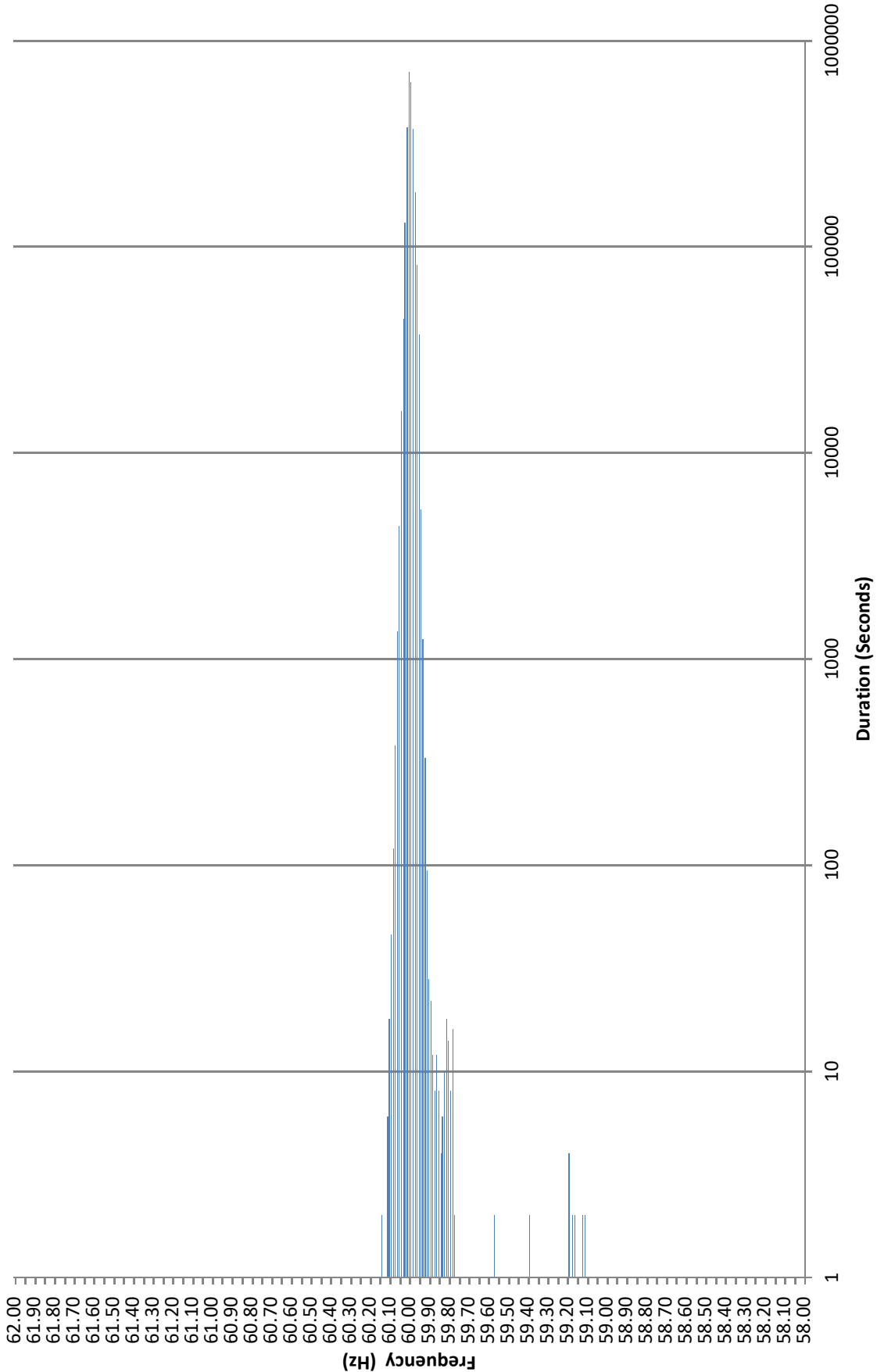
# Frequency Distribution Plot - Hawaiian Electric November 2019



# Frequency Distribution Plot - Maui Electric November 2019



**Frequency Distribution Plot - Hawai'i Electric Light  
November 2019**



Hawaiian Electric Frequency Excursion Statistics November 2019		
Data Rounded to the nearest	<59.95 Hz	>60.05 Hz
Number of Excursions	801	265
Maximum Duration (sec)	456	142
Maximum Deviation (Hz)	56.959	60.214
Total Duration of Excursions (sec)	11206	2520

Maui Electric Frequency Excursion Statistics November 2019		
	<59.95 Hz	>60.05 Hz
Number of Excursions	2891	1703
Maximum Duration (sec)	372	350
Maximum Deviation (Hz)	59.747	60.358
Total Duration of Excursions (sec)	20852	11890



Hawai'i Electric Light Frequency Excursion Statistics November 2019		
	<59.95 Hz	>60.05 Hz
Number of Excursions	4860	713
Maximum Duration (sec)	150	58
Maximum Deviation (Hz)	59.115	60.140
Total Duration of Excursions (sec)	24948	3388

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**HAWAII ELECTRIC LIGHT COMPANY, INC.  
UNDERFREQUENCY LOAD SHEDDING EVENTS  
November 2019**

Event #	Date	Time	Frequency (Hz)			Load Shed (MW)	Duration (HH:MM)	Description
			Prior to Event	Nadir	Level UFLS Occurred			
1	11/19/2019	12:56 PM	59.99	59.09	59.10 & 59.50 (K)	10.46	0:11	Pakini Nui Windfarm tripped offline unexpectedly while producing about 18.3 MW.

Note: (K) indicates "Kicker" (long time delay) stage operation.  
59.50 Hz at 20-seconds  
59.30 Hz at 10-seconds



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Hawaiian Electric Curtailment Report November 2019

Start Date/Time	Curtailment Set Point	MW output prior to start of curtailment	End Date/Time	MW output after curtailment released	Estimated MWh of curtailed energy during event (1)	IPP	Reason for Curtailment
11/01/19 05:28	0.0	0.00	11/01/19 13:44	0	*	KWMakai	System Constraints
11/01/19 05:29	0.0	0.00	11/01/19 06:13	0	*	KWMauka	System Constraints
11/01/19 05:34	0.0	0.00	11/01/19 16:02	0	*	KWF	System Constraints
11/01/19 13:11	0.0	3.60	11/01/19 13:45	0	*	KWMauka	System Constraints
11/02/19 05:44	0.0	0.00	11/02/19 07:06	0	*	KWMakai	System Constraints
11/02/19 05:44	0.0	0.00	11/02/19 11:35	0	*	KWMauka	System Constraints
11/02/19 05:48	0.0	0.00	11/02/19 07:15	0	*	KWF	System Constraints
11/02/19 05:55	0.0	0.00	11/02/19 06:40	0	*	KREP	System Constraints
11/02/19 10:37	0.0	0.00	11/02/19 11:35	0	*	KWMakai	System Constraints
11/02/19 10:41	0.0	0.00	11/02/19 11:37	0	*	KWF	System Constraints
11/02/19 15:17	0.0	2.11	11/02/19 15:40	0	*	KREP	System Constraints
11/04/19 06:51	0.0	0.00	11/04/19 16:20	0	*	Waianae	System Constraints
11/04/19 07:10	0.0	0.00	11/04/19 07:51	0	*	Aloha1	System Constraints
11/04/19 07:18	0.0	0.00	11/04/19 09:03	0	*	KWF	System Constraints
11/04/19 06:53	0.0	0.00	11/04/19 08:57	0	*	KWMakai	System Constraints
11/04/19 06:54	0.0	0.00	11/04/19 13:34	0	*	KWMauka	System Constraints
11/04/19 10:30	0.0	0.00	11/04/19 13:31	0	*	KWF	System Constraints
11/04/19 10:32	0.0	0.00	11/04/19 13:33	0	*	KWMakai	System Constraints
11/04/19 15:29	0.0	2.50	11/04/19 16:16	0	*	Aloha1	System Constraints
11/07/19 07:24	0.0	1.00	11/07/19 08:38	0	*	KWMakai	System Constraints
11/07/19 07:25	0.0	1.00	11/07/19 16:47	0	*	KWMauka	System Constraints
11/07/19 07:45	0.0	1.00	11/07/19 08:49	0	*	KWF	System Constraints
11/07/19 14:57	0.0	2.00	11/07/19 16:47	0	*	KWMakai	System Constraints
11/07/19 14:58	0.0	1.00	11/07/19 16:38	0	*	KWF	System Constraints
11/14/19 06:54	0.0	0.00	11/14/19 16:48	0	*	Aloha1	System Constraints
11/14/19 07:01	0.0	0.00	11/14/19 08:15	0	*	Waianae	System Constraints
11/14/19 16:24	0.0	3.70	11/14/19 16:46	0	*	Waianae	System Constraints
11/22/19 05:45	0.0	0.00	11/22/19 16:06	0	*	Waianae	System Constraints
11/22/19 05:47	0.0	0.00	11/22/19 07:02	0	*	Aloha1	System Constraints
11/22/19 14:34	0.0	5.00	11/22/19 16:10	0	*	Aloha1	System Constraints
11/30/19 07:44	0.0	14.60	11/30/19 08:58	0	*	KWF	System Constraints
11/30/19 07:49	0.0	4.70	11/30/19 09:00	0	*	KWMakai	System Constraints
11/30/19 07:52	0.0	18.00	11/30/19 09:01	0	*	KSMakai	System Constraints
11/30/19 15:33	0.0	14.60	11/30/19 16:00	0	*	KWF	System Constraints
11/30/19 15:36	0.0	3.90	11/30/19 16:02	0	*	KWMakai	System Constraints
11/30/19 15:39	0.0	2.50	11/30/19 16:03	0	*	KSMakai	System Constraints

Aloha1 = Aloha Solar Energy Fund I  
KLS2 = Kalaeloa Solar Two  
KREP = Kalaeloa Renewable Energy Partners  
KWF = Kahuku Wind Power  
Lani = Lanikuhana Solar  
KSMakai = Kawaiolo Solar Makai  
KSMauka = Kawaiolo Solar Mauka  
KWMakai = Kawaiolo Wind Makai  
KWMauka = Kawaiolo Wind Mauka  
North = Waihonu North  
South = Waihonu South  
Waianae = EE Waianae Solar Project  
Waipio = Waipio PV  
WestL = West Loch PV

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

\* Data has not been provided by IPP.



**Maui Curtailment Report**

November 2019

Start Date and Time	Duration	IPP Curtailed	Estimated Curtailed MWH	Peak MW Curtailed	Reasons for Curtailment
11/3/2019 3:31	0:01	KWPll	0.000166326	0.009979553	Oversupply
11/3/2019 16:29	0:01	AWE	0.001666667	0.100000001	Oversupply
11/3/2019 16:34	0:01	AWE	0.001666667	0.100000001	Oversupply
11/3/2019 16:48	0:01	AWE	0.001666667	0.100000001	Oversupply
11/6/2019 13:13	0:01	AWE	0.001666667	0.100000001	Oversupply
11/7/2019 9:07	0:01	AWE	0.001666667	0.100000001	Oversupply
11/8/2019 11:07	0:01	AWE	0.003333333	0.200000003	Oversupply
11/9/2019 12:29	0:01	AWE	0.001666667	0.100000001	Oversupply
11/10/2019 2:13	0:01	AWE	0.001666667	0.100000001	Oversupply
11/10/2019 2:16	0:01	AWE	0.001666667	0.100000001	Oversupply
11/10/2019 2:20	0:01	AWE	0.001666667	0.100000001	Oversupply
11/10/2019 20:11	0:01	AWE	0.001666667	0.100000001	Oversupply
11/12/2019 4:27	0:02	AWE	0.003333333	0.100000001	Oversupply
11/12/2019 18:20	0:01	AWE	0.001666667	0.100000001	Oversupply
11/14/2019 14:22	0:01	KWPll	0.000182958	0.010977509	Oversupply
11/15/2019 11:38	0:01	KWPll	0.000266121	0.015967285	Oversupply
11/16/2019 12:20	0:12	AWE	0.787025436	18.29999924	Oversupply
11/16/2019 12:20	0:12	KWPll	0.494411002	2.926004887	Oversupply
11/16/2019 14:52	0:01	AWE	0.003333333	0.200000003	Oversupply
11/17/2019 11:12	0:01	KWPll	0.000332652	0.019959105	Oversupply
11/17/2019 11:52	0:01	SSA3	0.00214	2.8730	Oversupply
11/17/2019 12:16	0:01	SSA3	0.02207	2.7750	Oversupply
11/17/2019 12:16	0:01	SSA2	0.02060	2.8670	Oversupply
11/17/2019 12:17	0:01	SSA3	0.02207	2.7760	Oversupply
11/17/2019 12:17	0:01	SSA2	0.02060	2.9250	Oversupply
11/17/2019 12:18	0:01	SSA3	0.02114	0.6170	Oversupply
11/17/2019 12:18	0:01	SSA2	0.02060	0.6680	Oversupply
11/17/2019 12:18	0:01	SSA3	0.02207	0.0240	Oversupply
11/17/2019 12:19	0:04	ESA	Data not available	Data not available	Oversupply
11/17/2019 12:19	0:04	ESB	Data not available	Data not available	Oversupply
11/17/2019 12:19	0:03	SSA2	0.08240	0.6240	Oversupply
11/17/2019 12:19	0:01	SSA3	0.02207	0.0240	Oversupply
11/17/2019 12:20	0:03	BS250	Data not available	Data not available	Oversupply
11/17/2019 12:20	0:02	SSA3	0.06575	0.0110	Oversupply
11/17/2019 12:21	0:02	KWPll	0.02489624	12.94148445	Oversupply
11/17/2019 12:22	0:01	SSA2	0.02060	0.0490	Oversupply
11/17/2019 12:22	0:01	SSA3	0.02161	0.0170	Oversupply
11/17/2019 12:23	0:01	SSA3	0.02207	0.1010	Oversupply
11/17/2019 12:23	0:01	SSA2	0.02060	0.0370	Oversupply
11/17/2019 12:24	0:01	SSA3	0.02207	0.1600	Oversupply
11/17/2019 12:24	0:01	SSA2	0.02060	0.1600	Oversupply
11/17/2019 12:25	0:01	SSA3	0.02161	0.3420	Oversupply
11/17/2019 13:03	0:01	SSA2	0.02863	2.6430	Oversupply
11/17/2019 13:03	0:01	SSA3	0.01995	2.5400	Oversupply
11/17/2019 13:04	0:01	SSA2	0.02863	2.6290	Oversupply
11/17/2019 13:04	0:01	SSA3	0.02039	2.1230	Oversupply
11/17/2019 13:05	0:01	SSA2	0.02863	1.0160	Oversupply
11/17/2019 13:05	0:01	SSA3	0.02039	2.1120	Oversupply
11/17/2019 13:05	0:01	SSA2	0.02863	0.1940	Oversupply
11/17/2019 13:06	0:01	SSA3	0.01995	1.2390	Oversupply
11/17/2019 13:06	0:01	SSA3	0.02039	0.8450	Oversupply
11/17/2019 13:06	0:01	SSA2	0.02863	1.2520	Oversupply
11/17/2019 13:07	0:01	SSA3	0.02039	1.1090	Oversupply
11/17/2019 13:07	0:01	SSA2	0.02753	0.9900	Oversupply
11/17/2019 13:08	0:01	SSA3	0.01995	0.1250	Oversupply
11/17/2019 13:08	0:01	SSA2	0.02863	0.4000	Oversupply
11/17/2019 13:09	0:01	SSA3	0.02039	0.2790	Oversupply
11/17/2019 13:09	0:01	SSA2	0.02863	0.1950	Oversupply
11/17/2019 13:09	0:01	SSA3	0.02039	0.1320	Oversupply
11/17/2019 13:10	0:04	SSA2	0.14204	0.0280	Oversupply
11/17/2019 13:10	0:05	SSA3	0.11910	0.0110	Oversupply
11/17/2019 13:11	0:04	BS250	Data not available	Data not available	Oversupply
11/17/2019 13:11	0:04	ESA	Data not available	Data not available	Oversupply
11/17/2019 13:11	0:04	ESB	Data not available	Data not available	Oversupply
11/17/2019 13:12	0:03	KWPll	0.029624844	19.20764542	Oversupply
11/17/2019 13:14	0:01	SSA2	0.02791	0.0000	Oversupply
11/17/2019 13:15	0:01	SSA3	0.00379	0.1060	Oversupply
11/17/2019 13:15	0:01	SSA2	0.01093	0.0870	Oversupply
11/17/2019 13:15	0:01	SSA3	0.00379	0.3080	Oversupply
11/17/2019 13:16	0:01	SSA2	0.01093	0.1830	Oversupply
11/17/2019 13:16	0:01	SSA3	0.00371	0.5790	Oversupply
11/17/2019 13:17	0:01	SSA2	0.01093	0.4000	Oversupply
11/17/2019 13:18	0:01	SSA2	0.01093	0.6250	Oversupply



**Maui Curtailment Report**

**November 2019**

Start Date and Time	Duration	IPP Curtailed	Estimated Curtailed MWH	Peak MW Curtailed	Reasons for Curtailment
11/17/2019 13:18	0:01	SSA2	0.01093	1.1000	Oversupply
11/17/2019 14:02	0:01	SSA2	0.01034	1.8320	Oversupply
11/17/2019 14:02	0:01	SSA3	0.00592	0.5630	Oversupply
11/17/2019 14:02	0:01	SSA2	0.01034	2.1970	Oversupply
11/17/2019 14:02	0:01	SSA3	0.00579	0.5570	Oversupply
11/17/2019 14:03	0:01	SSA3	0.00579	0.2240	Oversupply
11/17/2019 14:03	0:01	SSA2	0.01034	0.3690	Oversupply
11/17/2019 14:04	0:01	SSA3	0.00579	0.9710	Oversupply
11/17/2019 14:04	0:01	SSA2	0.01034	1.3810	Oversupply
11/17/2019 14:11	0:01	SSA3	0.00592	2.7590	Oversupply
11/17/2019 14:11	0:01	SSA2	0.01034	2.8190	Oversupply
11/17/2019 14:12	0:01	SSA3	0.00567	1.2190	Oversupply
11/17/2019 14:12	0:01	SSA2	0.01034	0.0730	Oversupply
11/17/2019 14:12	0:01	SSA3	0.00579	0.1720	Oversupply
11/17/2019 14:13	0:01	SSA2	0.00994	0.4990	Oversupply
11/17/2019 14:13	0:08	SSA3	0.23799	0.1170	Oversupply
11/17/2019 14:14	0:07	BS250	Data not available	Data not available	Oversupply
11/17/2019 14:14	0:07	ESA	Data not available	Data not available	Oversupply
11/17/2019 14:14	0:07	ESB	Data not available	Data not available	Oversupply
11/17/2019 14:14	0:07	SSA2	0.18922	0.0290	Oversupply
11/17/2019 14:15	0:07	KWPll	0.186995347	19.15575218	Oversupply
11/17/2019 14:21	0:01	SSA2	0.02550	0.0200	Oversupply
11/17/2019 14:21	0:01	SSA2	0.02550	0.2630	Oversupply
11/17/2019 14:22	0:01	SSA3	0.02446	0.1970	Oversupply
11/17/2019 14:22	0:01	SSA2	0.02550	0.6880	Oversupply
11/17/2019 14:22	0:01	SSA3	0.02500	0.4230	Oversupply
11/17/2019 14:23	0:01	SSA3	0.02500	0.8450	Oversupply
11/17/2019 14:23	0:01	SSA2	0.02550	0.6560	Oversupply
11/17/2019 14:28	0:01	SSA2	0.02550	2.7610	Oversupply
11/17/2019 14:33	0:01	SSA2	0.00069	2.7410	Oversupply
11/17/2019 14:35	0:01	SSA3	0.00180	2.6290	Oversupply
11/17/2019 14:36	0:01	SSA3	0.00180	1.7020	Oversupply
11/17/2019 23:32	0:01	KWPll	0.017175515	19.20664787	Oversupply
11/17/2019 23:36	0:01	KWPll	0.006544399	19.20864296	Oversupply
11/18/2019 0:20	0:02	KWPll	0.007648945	19.17770767	Oversupply
11/18/2019 0:50	1:39	KWPll	7.242041763	17.71370697	Oversupply
11/18/2019 2:37	0:05	KWPll	0.068636513	17.69374657	Oversupply
11/18/2019 3:06	0:22	KWPll	1.943962415	17.70572281	Oversupply
11/18/2019 12:33	0:01	SSA3	0.01150	2.6830	Oversupply
11/18/2019 12:33	0:01	SSA2	0.01013	2.6300	Oversupply
11/18/2019 12:34	0:01	SSA3	0.01176	2.8610	Oversupply
11/18/2019 12:34	0:01	SSA2	0.01013	1.9970	Oversupply
11/18/2019 12:35	0:01	SSA3	0.01176	1.4660	Oversupply
11/18/2019 12:35	0:01	SSA2	0.01013	1.1640	Oversupply
11/18/2019 12:35	0:01	SSA3	0.01150	0.7770	Oversupply
11/18/2019 12:36	0:01	SSA2	0.01013	0.7400	Oversupply
11/18/2019 12:36	0:01	SSA3	0.01176	0.7670	Oversupply
11/18/2019 12:37	0:01	SSA2	0.01013	0.7480	Oversupply
11/18/2019 12:37	0:01	SSA3	0.01176	0.2530	Oversupply
11/18/2019 12:38	0:01	SSA3	0.01150	1.4470	Oversupply
11/18/2019 12:38	0:01	SSA2	0.01013	1.3020	Oversupply
11/18/2019 12:38	0:01	SSA3	0.01176	1.3170	Oversupply
11/19/2019 1:08	0:01	KWPll	0.002029176	0.121750548	Oversupply
11/19/2019 4:16	0:31	KWPll	3.612900368	18.57993126	Oversupply
11/19/2019 8:12	0:01	KWPll	0.000266121	0.015967285	Oversupply
11/19/2019 11:50	0:01	KWPll	0.000232856	0.013971374	Oversupply
11/19/2019 18:02	0:01	KWPll	0.001164281	0.069856867	Oversupply
11/19/2019 18:56	0:01	AWE	0.005	0.299999982	Oversupply
11/19/2019 19:01	0:01	AWE	0.001666667	0.100000001	Oversupply
11/19/2019 19:03	0:01	AWE	0.001666667	0.100000001	Oversupply
11/20/2019 4:37	0:01	KWPll	3.32652E-05	0.001995911	Oversupply
11/20/2019 9:44	0:01	SSA2	0.00164	1.9890	Oversupply
11/20/2019 9:44	0:01	SSA3	0.00447	2.1460	Oversupply
11/20/2019 9:47	0:01	SSA3	0.00795	2.1690	Oversupply
11/20/2019 9:47	0:01	SSA2	0.00976	1.9420	Oversupply
11/20/2019 9:47	0:01	SSA3	0.00812	0.5380	Oversupply
11/20/2019 9:48	0:01	SSA3	0.00778	1.0180	Oversupply
11/20/2019 9:49	0:01	SSA2	0.00976	0.5420	Oversupply
11/20/2019 9:50	0:01	SSA3	0.00778	2.1790	Oversupply
11/20/2019 9:50	0:01	SSA2	0.00976	1.7230	Oversupply
11/20/2019 9:50	0:01	SSA3	0.00778	0.8440	Oversupply
11/20/2019 9:51	0:01	SSA2	0.00976	0.6970	Oversupply
11/20/2019 9:51	0:01	SSA3	0.00795	1.3350	Oversupply





**Maui Curtailment Report**

**November 2019**

Start Date and Time	Duration	IPP Curtailed	Estimated Curtailed MWH	Peak MW Curtailed	Reasons for Curtailment
11/20/2019 9:52	0:01	SSA2	0.00976	0.7940	Oversupply
11/20/2019 9:52	0:01	SSA3	0.00761	1.2270	Oversupply
11/20/2019 9:53	0:01	SSA3	0.00761	1.3400	Oversupply
11/20/2019 9:53	0:01	SSA2	0.00976	1.6490	Oversupply
11/20/2019 9:54	0:01	SSA3	0.00778	1.7210	Oversupply
11/20/2019 9:54	0:01	SSA2	0.00976	0.5700	Oversupply
11/20/2019 9:54	0:01	SSA3	0.00778	0.8420	Oversupply
11/20/2019 9:55	0:01	SSA2	0.00976	1.5890	Oversupply
11/20/2019 9:55	0:01	SSA3	0.00761	1.0030	Oversupply
11/20/2019 9:55	0:01	SSA2	0.00976	0.2100	Oversupply
11/20/2019 9:56	0:01	SSA3	0.00812	1.4440	Oversupply
11/20/2019 9:56	0:01	SSA2	0.00976	1.3210	Oversupply
11/20/2019 9:57	0:01	SSA3	0.00778	1.7460	Oversupply
11/20/2019 9:57	0:01	SSA2	0.00976	1.0970	Oversupply
11/20/2019 9:57	0:01	SSA3	0.00761	1.3160	Oversupply
11/20/2019 9:58	0:01	SSA2	0.00976	1.8530	Oversupply
11/20/2019 9:58	0:01	SSA3	0.00778	1.8030	Oversupply
11/20/2019 9:59	0:01	SSA3	0.00915	1.9580	Oversupply
11/20/2019 10:00	0:01	SSA3	0.01757	1.5110	Oversupply
11/20/2019 10:00	0:01	SSA2	0.01733	1.4640	Oversupply
11/20/2019 10:00	0:01	SSA3	0.01682	1.6720	Oversupply
11/20/2019 10:01	0:02	SSA2	0.03466	1.0620	Oversupply
11/20/2019 10:01	0:01	SSA3	0.01720	0.3720	Oversupply
11/20/2019 10:02	0:01	SSA3	0.01757	1.2140	Oversupply
11/20/2019 10:02	0:01	SSA2	0.01733	0.6910	Oversupply
11/20/2019 10:03	0:01	SSA3	0.01720	0.5190	Oversupply
11/20/2019 10:03	0:01	SSA2	0.01700	0.8470	Oversupply
11/20/2019 10:04	0:01	SSA3	0.01757	0.9060	Oversupply
11/20/2019 10:04	0:01	SSA2	0.01700	0.3480	Oversupply
11/20/2019 10:04	0:01	SSA3	0.01720	0.8380	Oversupply
11/20/2019 10:05	0:01	SSA2	0.01733	0.6820	Oversupply
11/20/2019 10:05	0:01	SSA3	0.01720	0.8310	Oversupply
11/20/2019 10:06	0:01	SSA3	0.01757	1.7260	Oversupply
11/20/2019 10:07	0:01	SSA3	0.01720	2.3120	Oversupply
11/20/2019 10:08	0:01	SSA2	0.01733	2.1300	Oversupply
11/20/2019 10:08	0:01	SSA3	0.01757	0.7950	Oversupply
11/20/2019 10:08	0:01	SSA2	0.01733	1.2520	Oversupply
11/20/2019 10:09	0:01	SSA3	0.01757	0.9950	Oversupply
11/20/2019 10:09	0:01	SSA2	0.01733	0.6330	Oversupply
11/20/2019 10:10	0:01	SSA3	0.01682	0.6130	Oversupply
11/20/2019 10:10	0:01	SSA2	0.01733	1.3300	Oversupply
11/20/2019 10:10	0:01	SSA3	0.01794	0.7470	Oversupply
11/20/2019 10:11	0:03	SSA2	0.05199	0.0960	Oversupply
11/20/2019 10:11	0:01	SSA3	0.01720	0.0160	Oversupply
11/20/2019 10:12	1:22	BS250	Data not available	Data not available	Oversupply
11/20/2019 10:12	1:22	ESA	Data not available	Data not available	Oversupply
11/20/2019 10:12	1:22	ESB	Data not available	Data not available	Oversupply
11/20/2019 10:12	0:02	SSA3	0.03439	0.0040	Oversupply
11/20/2019 10:13	0:01	KWPPI	0.012583605	16.97721481	Oversupply
11/20/2019 10:14	1:18	SSA3	3.23291	0.0100	Oversupply
11/20/2019 10:14	1:18	SSA2	3.03096	0.0030	Oversupply
11/20/2019 10:15	1:18	KWPPI	8.616009442	18.84838104	Oversupply
11/20/2019 11:31	0:02	SSA2	0.05505	0.0000	Oversupply
11/20/2019 11:32	0:02	SSA3	0.05496	0.0400	Oversupply
11/20/2019 11:33	0:01	SSA2	0.02752	0.0030	Oversupply
11/20/2019 11:33	0:01	SSA3	0.02603	0.3700	Oversupply
11/20/2019 11:34	0:01	SSA2	0.02752	0.0420	Oversupply
11/20/2019 11:34	0:01	SSA3	0.02777	0.1580	Oversupply
11/20/2019 11:35	0:01	SSA2	0.02752	0.8830	Oversupply
11/20/2019 11:35	0:01	SSA3	0.02661	1.4700	Oversupply
11/20/2019 11:36	0:01	SSA2	0.02752	1.8030	Oversupply
11/20/2019 11:36	0:01	SSA3	0.02661	1.3410	Oversupply
11/20/2019 11:37	0:01	SSA3	0.02719	2.1140	Oversupply
11/20/2019 11:37	0:01	SSA2	0.02752	2.2420	Oversupply
11/20/2019 11:37	0:01	SSA3	0.02719	1.5400	Oversupply
11/20/2019 11:37	0:01	SSA2	0.02752	1.3350	Oversupply
11/20/2019 11:38	0:01	SSA3	0.02661	1.3250	Oversupply
11/20/2019 11:38	0:01	SSA2	0.02752	1.4310	Oversupply
11/20/2019 11:39	0:01	SSA3	0.02719	1.2380	Oversupply
11/20/2019 11:39	0:01	SSA2	0.02752	1.4960	Oversupply
11/20/2019 11:40	0:01	SSA3	0.02603	1.1850	Oversupply
11/20/2019 11:40	0:01	SSA2	0.02752	0.7450	Oversupply
11/20/2019 11:40	0:01	SSA3	0.02603	0.4370	Oversupply



**Maui Curtailment Report**

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Start Date and Time	Duration	IPP Curtailed	Estimated Curtailed MWH	Peak MW Curtailed	Reasons for Curtailment
11/20/2019 11:41	0:02	SSA2	0.05505	0.1930	Oversupply
11/20/2019 11:41	0:01	SSA3	0.02719	0.0540	Oversupply
11/20/2019 11:42	0:01	SSA3	0.02719	0.3670	Oversupply
11/20/2019 11:43	0:01	SSA2	0.02752	0.1240	Oversupply
11/20/2019 11:43	0:01	SSA3	0.02661	0.2060	Oversupply
11/20/2019 11:43	0:01	SSA3	0.02719	1.3320	Oversupply
11/20/2019 11:44	0:01	SSA2	0.02752	1.1720	Oversupply
11/20/2019 11:44	0:01	SSA3	0.02048	0.0640	Oversupply
11/20/2019 11:44	0:01	SSA2	0.01854	0.2400	Oversupply
11/20/2019 11:45	0:01	SSA3	0.01835	0.7330	Oversupply
11/20/2019 11:45	0:01	SSA2	0.02198	0.4460	Oversupply
11/20/2019 11:46	0:01	SSA3	0.01995	1.3630	Oversupply
11/20/2019 11:46	0:01	SSA2	0.02198	1.0910	Oversupply
11/20/2019 11:47	0:01	SSA3	0.01835	0.1290	Oversupply
11/20/2019 11:47	0:01	SSA2	0.02198	0.1910	Oversupply
11/20/2019 11:47	0:01	SSA3	0.01875	0.7670	Oversupply
11/20/2019 11:48	0:01	SSA2	0.02198	0.5780	Oversupply
11/20/2019 11:48	0:01	SSA3	0.01875	0.3570	Oversupply
11/20/2019 11:49	0:01	SSA2	0.02198	1.2130	Oversupply
11/20/2019 11:49	0:01	SSA3	0.01835	1.4960	Oversupply
11/20/2019 11:50	0:01	SSA2	0.02198	0.2650	Oversupply
11/20/2019 11:50	0:01	SSA3	0.01795	0.0630	Oversupply
11/20/2019 11:50	0:01	SSA2	0.02198	0.3230	Oversupply
11/20/2019 11:51	0:01	SSA3	0.01795	0.4400	Oversupply
11/20/2019 11:51	0:01	SSA3	0.01875	0.2150	Oversupply
11/20/2019 11:51	0:01	SSA2	0.02156	0.3080	Oversupply
11/20/2019 11:52	0:02	SSA3	0.03630	1.2780	Oversupply
11/20/2019 11:52	0:01	SSA2	0.02198	0.6830	Oversupply
11/20/2019 11:53	0:01	SSA2	0.02198	1.7740	Oversupply
11/20/2019 11:54	0:01	SSA3	0.01875	1.8260	Oversupply
11/20/2019 11:54	0:01	SSA2	0.02198	1.4900	Oversupply
11/20/2019 11:54	0:01	SSA3	0.01835	2.6170	Oversupply
11/20/2019 11:55	0:01	SSA3	0.01835	2.1680	Oversupply
11/20/2019 11:56	0:01	SSA2	0.02198	2.5470	Oversupply
11/20/2019 12:30	0:01	SSA3	0.00565	2.9190	Oversupply
11/20/2019 12:32	0:02	SSA2	0.00036	0.5850	Oversupply
11/20/2019 12:32	0:01	SSA3	0.00578	2.3790	Oversupply
11/20/2019 12:33	0:01	SSA3	0.00565	2.1140	Oversupply
11/20/2019 12:35	0:01	SSA3	0.00553	1.7620	Oversupply
11/20/2019 12:35	0:01	SSA2	0.00018	0.5030	Oversupply
11/20/2019 12:36	0:01	SSA3	0.00578	1.4430	Oversupply
11/20/2019 13:17	0:01	SSA2	0.03261	0.7810	Oversupply
11/20/2019 13:17	0:01	SSA3	0.01924	1.1650	Oversupply
11/20/2019 13:18	0:01	SSA2	0.03324	0.4110	Oversupply
11/20/2019 13:18	0:03	SSA3	0.07575	0.4940	Oversupply
11/20/2019 13:19	0:02	BS250	Data not available	Data not available	Oversupply
11/20/2019 13:19	0:02	ESA	Data not available	Data not available	Oversupply
11/20/2019 13:19	0:02	ESB	Data not available	Data not available	Oversupply
11/20/2019 13:19	0:03	SSA2	0.09721	0.0300	Oversupply
11/20/2019 13:21	0:02	SSA3	0.03767	0.0350	Oversupply
11/20/2019 13:21	0:01	SSA2	0.03261	0.0670	Oversupply
11/20/2019 13:22	0:01	SSA2	0.03261	0.1340	Oversupply
11/20/2019 13:23	0:01	SSA3	0.01924	0.1070	Oversupply
11/20/2019 13:23	0:01	SSA2	0.03261	0.1120	Oversupply
11/20/2019 13:23	0:01	SSA3	0.01883	0.1470	Oversupply
11/20/2019 13:24	0:01	SSA2	0.03261	0.1060	Oversupply
11/20/2019 13:24	0:01	SSA3	0.01924	0.1520	Oversupply
11/20/2019 13:25	0:01	SSA2	0.03261	0.2370	Oversupply
11/20/2019 13:25	0:01	SSA3	0.01965	0.0500	Oversupply
11/20/2019 13:26	0:01	SSA2	0.03261	0.2690	Oversupply
11/20/2019 13:26	0:01	SSA3	0.01883	0.4270	Oversupply
11/20/2019 13:27	0:01	SSA2	0.03261	0.1890	Oversupply
11/20/2019 13:27	0:01	SSA3	0.01883	0.3780	Oversupply
11/20/2019 13:27	0:01	SSA3	0.01883	0.4710	Oversupply
11/20/2019 13:27	0:01	SSA2	0.03261	1.0880	Oversupply
11/20/2019 13:28	0:01	SSA3	0.01883	0.1660	Oversupply
11/20/2019 13:28	0:01	SSA2	0.03261	0.0320	Oversupply
11/20/2019 13:29	0:01	SSA3	0.01783	0.4940	Oversupply
11/20/2019 13:29	0:02	SSA2	0.03597	0.3320	Oversupply
11/20/2019 13:30	0:01	BS250	Data not available	Data not available	Oversupply
11/20/2019 13:30	0:02	ESA	Data not available	Data not available	Oversupply
11/20/2019 13:30	0:02	ESB	Data not available	Data not available	Oversupply
11/20/2019 13:30	0:02	SSA3	0.03893	0.0070	Oversupply



Maui Curtailment Report

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Start Date and Time	Duration	IPP Curtailed	Estimated Curtailed MWH	Peak MW Curtailed	Reasons for Curtailment
11/20/2019 13:31	0:01	KWPll	0.001225662	17.71071243	Oversupply
11/20/2019 13:31	0:01	SSA2	0.01033	0.0390	Oversupply
11/20/2019 13:31	0:01	SSA3	0.01968	-0.0030	Oversupply
11/20/2019 13:32	0:01	SSA2	0.01033	0.2180	Oversupply
11/20/2019 13:32	0:01	SSA3	0.01968	0.0950	Oversupply
11/20/2019 13:33	0:01	SSA3	0.02011	0.0970	Oversupply
11/20/2019 13:35	0:01	SSA2	0.01033	1.6810	Oversupply
11/20/2019 13:37	0:01	SSA3	0.01968	0.6780	Oversupply
11/20/2019 13:38	0:01	SSA2	0.01033	1.6200	Oversupply
11/20/2019 13:38	0:01	SSA3	0.02011	1.7210	Oversupply
11/20/2019 13:48	0:01	SSA3	0.01110	2.5000	Oversupply
11/20/2019 13:48	0:01	SSA2	0.00342	0.6490	Oversupply
11/20/2019 13:49	0:01	SSA3	0.01134	2.0810	Oversupply
11/20/2019 13:49	0:01	SSA2	0.00342	0.5040	Oversupply
11/20/2019 13:51	0:01	SSA2	0.00342	0.7200	Oversupply
11/20/2019 13:51	0:01	SSA3	0.01134	2.7490	Oversupply
11/20/2019 13:52	0:01	SSA3	0.01134	2.1610	Oversupply
11/20/2019 13:53	0:01	SSA2	0.00342	0.8480	Oversupply
11/20/2019 13:53	0:01	SSA3	0.01110	1.7180	Oversupply
11/20/2019 13:53	0:01	SSA2	0.00342	0.8910	Oversupply
11/20/2019 13:54	0:02	SSA3	0.02244	2.3210	Oversupply
11/20/2019 13:55	0:01	SSA2	0.00342	0.7850	Oversupply
11/20/2019 13:55	0:01	SSA3	0.01134	2.6940	Oversupply
11/20/2019 13:56	0:05	SSA3	0.10905	0.1850	Oversupply
11/20/2019 13:56	0:05	SSA2	0.03500	0.4740	Oversupply
11/20/2019 13:57	0:04	BS250	Data not available	Data not available	Oversupply
11/20/2019 13:57	0:04	ESA	Data not available	Data not available	Oversupply
11/20/2019 13:57	0:04	ESB	Data not available	Data not available	Oversupply
11/20/2019 13:58	0:05	KWPll	0.093634176	17.71370697	Oversupply
11/20/2019 14:01	0:01	SSA2	0.01017	0.0110	Oversupply
11/20/2019 14:01	0:01	SSA3	0.02205	0.0750	Oversupply
11/20/2019 14:02	0:01	SSA2	0.01017	0.0250	Oversupply
11/20/2019 14:02	0:01	SSA3	0.02253	0.1280	Oversupply
11/20/2019 14:03	0:02	SSA3	0.04457	0.0710	Oversupply
11/20/2019 14:03	0:01	SSA2	0.01017	0.0090	Oversupply
11/20/2019 14:04	0:01	SSA2	0.01017	0.0370	Oversupply
11/20/2019 14:04	0:01	SSA3	0.02253	0.0310	Oversupply
11/20/2019 14:05	0:01	SSA2	0.01017	0.0750	Oversupply
11/20/2019 14:05	0:01	SSA3	0.02253	0.7010	Oversupply
11/20/2019 14:06	0:01	SSA2	0.01017	0.1750	Oversupply
11/20/2019 14:06	0:01	SSA3	0.02157	1.0660	Oversupply
11/20/2019 14:06	0:01	SSA2	0.01017	0.3780	Oversupply
11/20/2019 14:07	0:01	SSA3	0.02253	0.8830	Oversupply
11/20/2019 14:07	0:01	SSA2	0.01017	0.0780	Oversupply
11/20/2019 14:08	0:04	ESA	Data not available	Data not available	Oversupply
11/20/2019 14:08	0:04	ESB	Data not available	Data not available	Oversupply
11/20/2019 14:08	0:04	SSA3	0.11359	0.1800	Oversupply
11/20/2019 14:08	0:03	SSA2	0.03052	0.0090	Oversupply
11/20/2019 14:09	0:03	BS250	Data not available	Data not available	Oversupply
11/20/2019 14:09	0:03	KWPll	0.040409708	17.71370697	Oversupply
11/20/2019 14:11	0:01	SSA2	0.01017	0.0700	Oversupply
11/20/2019 14:12	0:01	SSA3	0.02157	0.1000	Oversupply
11/20/2019 14:12	0:01	SSA2	0.00998	0.0920	Oversupply
11/20/2019 14:12	0:32	SSA3	1.15765	0.0900	Oversupply
11/20/2019 14:12	0:32	SSA2	0.81493	0.3020	Oversupply
11/20/2019 14:13	0:32	BS250	Data not available	Data not available	Oversupply
11/20/2019 14:13	0:32	ESA	Data not available	Data not available	Oversupply
11/20/2019 14:13	0:32	ESB	Data not available	Data not available	Oversupply
11/20/2019 14:15	0:30	KWPll	1.978995053	17.71370697	Oversupply
11/20/2019 14:44	0:01	SSA2	0.00749	0.0180	Oversupply
11/20/2019 14:45	0:01	SSA3	0.00603	0.0150	Oversupply
11/20/2019 14:45	0:01	SSA2	0.01301	0.0070	Oversupply
11/20/2019 14:45	0:01	SSA3	0.00616	0.0740	Oversupply
11/20/2019 14:46	0:01	SSA2	0.01301	1.0160	Oversupply
11/20/2019 14:46	0:01	SSA3	0.00603	0.3730	Oversupply
11/20/2019 14:47	0:01	SSA3	0.00616	0.2280	Oversupply
11/20/2019 14:47	0:01	SSA2	0.01301	1.8070	Oversupply
11/20/2019 14:51	0:01	SSA2	0.01301	2.4970	Oversupply
11/20/2019 14:52	0:01	SSA3	0.00616	2.4220	Oversupply
11/20/2019 14:52	0:01	SSA2	0.01301	1.5100	Oversupply
11/20/2019 14:52	0:01	SSA3	0.00603	2.3960	Oversupply
11/20/2019 14:53	0:01	SSA3	0.00616	1.5900	Oversupply
11/20/2019 14:53	0:01	SSA2	0.01301	1.5760	Oversupply



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Start Date and Time	Duration	IPP Curtailed	Estimated Curtailed MWH	Peak MW Curtailed	Reasons for Curtailment
11/20/2019 14:54	0:01	SSA3	0.00616	0.0510	Oversupply
11/20/2019 14:54	0:01	SSA2	0.01301	0.8040	Oversupply
11/20/2019 14:55	0:01	SSA3	0.00603	0.1870	Oversupply
11/20/2019 14:55	0:01	SSA2	0.01301	1.3200	Oversupply
11/20/2019 14:56	0:01	SSA2	0.01301	1.9560	Oversupply
11/20/2019 14:58	0:01	SSA3	0.00630	1.5090	Oversupply
11/20/2019 14:59	0:01	SSA2	0.01491	1.5190	Oversupply
11/20/2019 14:59	0:01	SSA3	-0.00028	1.5690	Oversupply
11/20/2019 21:22	0:01	AWE	0.003333333	0.20000003	Oversupply
11/21/2019 1:35	0:01	KWPll	0.02992541	18.0320549	Oversupply
11/21/2019 1:48	0:20	KWPll	0.544237598	18.98310471	Oversupply
11/21/2019 2:23	0:01	KWPll	0.001095486	17.07601357	Oversupply
11/21/2019 3:56	0:02	KWPll	0.046308899	18.56895447	Oversupply
11/21/2019 4:40	0:01	KWPll	0.005425962	18.32046318	Oversupply
11/21/2019 4:42	0:02	KWPll	0.020843697	18.59988976	Oversupply
11/21/2019 4:46	0:02	KWPll	0.030164337	18.71465492	Oversupply
11/21/2019 5:05	0:01	KWPll	0.003891691	14.68291664	Oversupply
11/21/2019 5:20	0:41	KWPll	2.078722731	19.21063995	Oversupply
11/21/2019 8:28	0:01	SSA3	-0.00026	1.2600	Oversupply
11/21/2019 8:29	0:01	SSA3	0.00472	0.7570	Oversupply
11/21/2019 8:29	0:01	SSA2	0.00207	0.1140	Oversupply
11/21/2019 8:30	0:01	SSA3	0.01254	0.1220	Oversupply
11/21/2019 8:30	0:01	SSA2	0.00309	0.0440	Oversupply
11/21/2019 8:33	0:01	SSA2	0.00309	0.3600	Oversupply
11/21/2019 8:33	0:01	SSA3	0.01085	1.4930	Oversupply
11/21/2019 8:34	0:02	SSA2	0.00617	0.1600	Oversupply
11/21/2019 8:34	0:01	SSA3	0.01133	0.0490	Oversupply
11/21/2019 8:35	0:01	SSA3	0.01133	0.3280	Oversupply
11/21/2019 8:35	0:02	SSA2	0.00611	0.0240	Oversupply
11/21/2019 8:35	0:01	SSA3	0.01109	0.5980	Oversupply
11/21/2019 8:36	0:01	SSA3	0.01133	0.1970	Oversupply
11/21/2019 8:37	0:01	SSA3	0.01133	0.3620	Oversupply
11/21/2019 8:37	0:01	SSA2	0.00309	0.3470	Oversupply
11/21/2019 8:38	0:01	SSA3	0.01109	0.9340	Oversupply
11/21/2019 8:38	0:01	SSA2	0.00309	0.3000	Oversupply
11/21/2019 8:38	0:01	SSA3	0.01133	0.0510	Oversupply
11/21/2019 8:39	0:06	BS250	Data not available	Data not available	Oversupply
11/21/2019 8:39	0:06	ESA	Data not available	Data not available	Oversupply
11/21/2019 8:39	0:06	ESB	Data not available	Data not available	Oversupply
11/21/2019 8:39	0:01	SSA2	0.00309	0.0440	Oversupply
11/21/2019 8:39	0:01	SSA3	0.01133	0.0800	Oversupply
11/21/2019 8:40	0:05	SSA2	0.01801	0.0310	Oversupply
11/21/2019 8:40	0:05	SSA3	0.06688	0.0580	Oversupply
11/21/2019 8:42	0:04	KWPll	0.074207115	19.21063995	Oversupply
11/21/2019 8:45	0:01	SSA3	0.01004	-0.0020	Oversupply
11/21/2019 8:45	0:01	SSA2	0.00226	0.0600	Oversupply
11/21/2019 8:49	0:01	SSA2	0.00226	0.3860	Oversupply
11/21/2019 8:49	0:01	SSA3	0.01004	1.7260	Oversupply
11/21/2019 8:50	0:01	SSA2	0.00226	0.2800	Oversupply
11/21/2019 8:50	0:01	SSA3	0.01004	1.5060	Oversupply
11/21/2019 8:51	0:01	SSA3	0.00982	0.0590	Oversupply
11/21/2019 8:53	0:01	SSA3	0.01046	0.6470	Oversupply
11/21/2019 8:54	0:01	SSA2	0.00226	0.3290	Oversupply
11/21/2019 8:54	0:01	SSA3	0.00961	0.3780	Oversupply
11/21/2019 8:54	0:01	SSA2	0.00226	0.0100	Oversupply
11/21/2019 8:55	0:02	SSA3	0.01943	0.1470	Oversupply
11/21/2019 8:55	0:01	SSA2	0.00226	0.0500	Oversupply
11/21/2019 8:56	0:01	BS250	Data not available	Data not available	Oversupply
11/21/2019 8:56	0:01	ESA	Data not available	Data not available	Oversupply
11/21/2019 8:56	0:01	ESB	Data not available	Data not available	Oversupply
11/21/2019 8:56	0:01	SSA2	0.00226	0.0520	Oversupply
11/21/2019 8:56	0:01	SSA3	0.00982	0.0110	Oversupply
11/21/2019 8:57	0:01	SSA2	0.00226	0.2910	Oversupply
11/21/2019 8:57	0:01	SSA3	0.00982	-0.0020	Oversupply
11/21/2019 8:58	0:09	BS250	Data not available	Data not available	Oversupply
11/21/2019 8:58	0:09	ESA	Data not available	Data not available	Oversupply
11/21/2019 8:58	0:09	ESB	Data not available	Data not available	Oversupply
11/21/2019 8:58	0:08	SSA3	0.10558	-0.0020	Oversupply
11/21/2019 8:58	0:09	SSA2	0.03070	0.0150	Oversupply
11/21/2019 9:00	0:07	KWPll	0.114562925	19.21063995	Oversupply
11/21/2019 9:06	0:01	SSA3	0.00944	0.0030	Oversupply
11/21/2019 9:07	0:01	SSA2	0.00328	0.0020	Oversupply
11/21/2019 9:07	0:01	SSA3	0.00965	0.2160	Oversupply



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Start Date and Time	Duration	IPP Curtailed	Estimated Curtailed MWH	Peak MW Curtailed	Reasons for Curtailment
11/21/2019 9:07	0:01	SSA2	0.00328	0.2570	Oversupply
11/21/2019 9:08	0:01	SSA3	0.00965	0.6870	Oversupply
11/21/2019 9:08	0:01	SSA2	0.00328	0.1380	Oversupply
11/21/2019 9:09	0:01	SSA3	0.00944	0.5290	Oversupply
11/21/2019 9:27	0:01	SSA2	0.00036	0.6070	Oversupply
11/21/2019 9:34	0:01	SSA3	0.01417	1.3910	Oversupply
11/21/2019 9:34	0:01	SSA2	0.00590	0.5760	Oversupply
11/21/2019 9:35	0:01	SSA3	0.01568	1.6310	Oversupply
11/21/2019 9:35	0:01	SSA2	0.00590	0.0280	Oversupply
11/21/2019 9:36	0:01	SSA3	0.01357	0.0220	Oversupply
11/21/2019 9:36	0:01	SSA2	0.00590	0.0090	Oversupply
11/21/2019 9:36	0:01	SSA3	0.01357	0.4600	Oversupply
11/21/2019 9:37	0:01	SSA2	0.00590	0.3230	Oversupply
11/21/2019 9:37	0:01	SSA3	0.01448	1.2960	Oversupply
11/21/2019 9:38	0:21	SSA2	0.21594	0.3750	Oversupply
11/21/2019 9:38	0:21	SSA3	0.56236	0.1020	Oversupply
11/21/2019 9:39	1:01	BS250	Data not available	Data not available	Oversupply
11/21/2019 9:39	1:01	ESA	Data not available	Data not available	Oversupply
11/21/2019 9:39	1:01	ESB	Data not available	Data not available	Oversupply
11/21/2019 9:40	0:19	KWPIL	1.053818003	19.21063995	Oversupply
11/21/2019 9:58	0:01	SSA2	0.01053	0.1080	Oversupply
11/21/2019 9:59	0:06	SSA3	0.20812	0.0050	Oversupply
11/21/2019 9:59	0:06	SSA2	0.07901	0.0050	Oversupply
11/21/2019 10:00	0:06	KWPIL	0.165968148	19.21063995	Oversupply
11/21/2019 10:05	0:34	SSA3	1.25009	0.0450	Oversupply
11/21/2019 10:05	0:34	SSA2	0.72092	0.0260	Oversupply
11/21/2019 10:07	0:33	KWPIL	3.095388126	19.21063995	Oversupply
11/21/2019 10:39	0:01	SSA3	0.02787	-0.0010	Oversupply
11/21/2019 10:39	0:01	SSA2	0.02629	0.1520	Oversupply
11/21/2019 10:40	0:01	SSA3	0.02728	0.1080	Oversupply
11/21/2019 10:40	0:01	SSA2	0.02629	1.2130	Oversupply
11/21/2019 10:40	0:01	SSA3	0.02787	0.1260	Oversupply
11/21/2019 10:41	0:01	BS250	Data not available	Data not available	Oversupply
11/21/2019 10:41	0:01	ESA	Data not available	Data not available	Oversupply
11/21/2019 10:41	0:01	ESB	Data not available	Data not available	Oversupply
11/21/2019 10:41	0:01	SSA2	0.02629	0.4110	Oversupply
11/21/2019 10:41	0:01	SSA3	0.02787	0.0570	Oversupply
11/21/2019 10:42	0:01	SSA2	0.02579	0.1360	Oversupply
11/21/2019 10:42	0:01	SSA3	0.02787	0.2180	Oversupply
11/21/2019 10:43	0:01	SSA2	0.02629	0.0340	Oversupply
11/21/2019 10:43	0:02	SSA3	0.08261	0.0390	Oversupply
11/21/2019 10:43	0:01	SSA2	0.02629	0.0160	Oversupply
11/21/2019 10:44	0:02	BS250	Data not available	Data not available	Oversupply
11/21/2019 10:44	0:02	ESA	Data not available	Data not available	Oversupply
11/21/2019 10:44	0:02	ESB	Data not available	Data not available	Oversupply
11/21/2019 10:44	0:01	SSA2	0.02199	0.0010	Oversupply
11/21/2019 10:45	0:01	KWPIL	0.003245036	19.21063995	Oversupply
11/21/2019 10:45	0:01	SSA3	0.02674	0.1130	Oversupply
11/21/2019 10:45	0:01	SSA2	0.01599	0.0220	Oversupply
11/21/2019 10:46	0:01	SSA3	0.02674	0.2240	Oversupply
11/21/2019 10:46	0:01	SSA2	0.01599	0.0170	Oversupply
11/21/2019 10:47	0:01	SSA3	0.02617	0.7330	Oversupply
11/21/2019 10:47	0:01	SSA2	0.01568	0.0880	Oversupply
11/21/2019 10:47	0:01	SSA3	0.02674	0.3220	Oversupply
11/21/2019 10:48	0:01	SSA2	0.01630	0.0810	Oversupply
11/21/2019 10:48	0:06	SSA3	0.21167	0.2030	Oversupply
11/21/2019 10:49	0:06	BS250	Data not available	Data not available	Oversupply
11/21/2019 10:49	0:06	ESA	Data not available	Data not available	Oversupply
11/21/2019 10:49	0:06	ESB	Data not available	Data not available	Oversupply
11/21/2019 10:49	0:01	SSA2	0.01568	-0.0010	Oversupply
11/21/2019 10:50	0:01	SSA2	0.01599	0.0950	Oversupply
11/21/2019 10:50	0:01	SSA2	0.01599	0.0220	Oversupply
11/21/2019 10:51	0:03	SSA2	0.06396	0.0120	Oversupply
11/21/2019 10:53	0:02	KWPIL	0.041149362	19.21063995	Oversupply
11/21/2019 10:54	0:01	SSA3	0.02617	0.1190	Oversupply
11/21/2019 10:55	0:01	SSA2	0.01599	0.1940	Oversupply
11/21/2019 11:15	0:01	SSA3	0.00275	2.1950	Oversupply
11/21/2019 11:17	0:01	SSA3	0.00275	2.3530	Oversupply
11/21/2019 11:17	0:01	SSA3	0.00269	2.4700	Oversupply
11/21/2019 11:20	0:01	SSA3	0.00275	2.2090	Oversupply
11/21/2019 11:20	0:01	SSA2	0.00175	1.4220	Oversupply
11/21/2019 11:21	0:01	SSA3	0.00275	2.1900	Oversupply
11/21/2019 11:27	0:01	SSA2	0.00172	0.8550	Oversupply



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Start Date and Time	Duration	IPP Curtailed	Estimated Curtailed MWH	Peak MW Curtailed	Reasons for Curtailment
11/21/2019 11:27	0:01	SSA3	0.00275	2.5420	Oversupply
11/21/2019 11:28	0:01	SSA3	0.00269	0.8610	Oversupply
11/21/2019 11:28	0:01	SSA2	0.00175	0.6340	Oversupply
11/21/2019 11:28	0:01	SSA3	0.00263	0.2440	Oversupply
11/21/2019 11:28	0:01	SSA2	0.00175	0.1910	Oversupply
11/21/2019 11:29	0:01	SSA3	0.00759	1.0720	Oversupply
11/21/2019 11:29	0:01	SSA2	0.00681	0.3740	Oversupply
11/21/2019 11:30	0:01	SSA3	0.01030	0.2590	Oversupply
11/21/2019 11:38	0:01	SSA2	0.00617	-0.0030	Oversupply
11/21/2019 12:55	0:01	SSA3	0.00097	1.2400	Oversupply
11/21/2019 12:55	0:01	SSA2	0.00141	2.2190	Oversupply
11/21/2019 12:56	0:01	SSA3	0.00095	1.2840	Oversupply
11/21/2019 12:57	0:01	SSA2	0.00138	2.6040	Oversupply
11/21/2019 12:57	0:01	SSA3	0.00101	1.3780	Oversupply
11/21/2019 12:58	0:01	SSA2	0.00141	2.1200	Oversupply
11/21/2019 12:58	0:01	SSA3	0.00093	0.9660	Oversupply
11/21/2019 12:58	0:01	SSA2	0.00141	1.7410	Oversupply
11/21/2019 12:59	0:01	SSA3	0.00205	0.7000	Oversupply
11/21/2019 12:59	0:01	SSA2	0.01947	0.0500	Oversupply
11/21/2019 13:00	0:01	SSA3	0.02064	0.0860	Oversupply
11/21/2019 13:00	0:01	SSA2	0.02311	0.1230	Oversupply
11/21/2019 13:00	0:01	SSA3	0.02019	0.2350	Oversupply
11/21/2019 13:01	0:01	SSA2	0.02311	0.8900	Oversupply
11/21/2019 13:01	0:01	SSA3	0.02064	1.1670	Oversupply
11/21/2019 13:02	0:01	BS250	Data not available	Data not available	Oversupply
11/21/2019 13:02	0:01	ESA	Data not available	Data not available	Oversupply
11/21/2019 13:02	0:01	ESB	Data not available	Data not available	Oversupply
11/21/2019 13:02	0:01	SSA3	0.02064	0.0720	Oversupply
11/21/2019 13:02	0:01	SSA2	0.02311	0.1000	Oversupply
11/21/2019 13:03	0:01	SSA3	0.02019	0.8720	Oversupply
11/21/2019 13:03	0:01	SSA2	0.02311	0.7810	Oversupply
11/21/2019 13:03	0:01	SSA3	0.02064	0.5090	Oversupply
11/21/2019 13:04	0:01	BS250	Data not available	Data not available	Oversupply
11/21/2019 13:04	0:01	ESA	Data not available	Data not available	Oversupply
11/21/2019 13:04	0:01	ESB	Data not available	Data not available	Oversupply
11/21/2019 13:04	0:01	SSA2	0.02311	0.1120	Oversupply
11/21/2019 13:04	0:01	SSA3	0.02109	0.0210	Oversupply
11/21/2019 13:05	0:01	SSA2	0.02311	0.0200	Oversupply
11/21/2019 13:05	0:01	SSA3	0.02109	0.1010	Oversupply
11/21/2019 13:05	0:01	SSA2	0.02311	0.0990	Oversupply
11/21/2019 13:06	0:01	SSA3	0.02064	0.2410	Oversupply
11/21/2019 13:06	0:01	SSA2	0.02311	0.0890	Oversupply
11/21/2019 13:06	0:01	SSA3	0.02109	0.3190	Oversupply
11/21/2019 13:07	0:01	SSA2	0.02311	0.1340	Oversupply
11/21/2019 13:07	0:01	SSA3	0.02109	0.4880	Oversupply
11/21/2019 13:08	0:01	SSA2	0.02311	0.1400	Oversupply
11/21/2019 13:08	0:01	SSA3	0.02019	0.6530	Oversupply
11/21/2019 13:09	0:01	SSA3	0.02109	0.0280	Oversupply
11/21/2019 13:09	0:01	SSA2	0.02311	0.0610	Oversupply
11/21/2019 13:10	0:01	SSA3	0.02019	0.1810	Oversupply
11/21/2019 13:10	0:03	SSA2	0.06932	0.0070	Oversupply
11/21/2019 13:10	0:02	SSA3	0.04128	0.0440	Oversupply
11/21/2019 13:11	0:02	BS250	Data not available	Data not available	Oversupply
11/21/2019 13:11	0:02	ESA	Data not available	Data not available	Oversupply
11/21/2019 13:11	0:02	ESB	Data not available	Data not available	Oversupply
11/21/2019 13:12	0:01	KWP11	0.005244605	19.21063995	Oversupply
11/21/2019 13:12	0:01	SSA3	0.02109	0.0040	Oversupply
11/21/2019 13:12	0:01	SSA2	0.02266	0.0110	Oversupply
11/21/2019 13:13	0:01	SSA3	0.02109	0.2250	Oversupply
11/21/2019 13:13	0:01	SSA2	0.02311	1.1390	Oversupply
11/21/2019 13:13	0:01	SSA3	0.02064	0.6520	Oversupply
11/21/2019 13:14	0:01	SSA2	0.01357	0.4230	Oversupply
11/21/2019 13:14	0:01	SSA3	0.00675	0.8030	Oversupply
11/21/2019 13:15	0:01	SSA2	0.00180	0.8800	Oversupply
11/21/2019 13:15	0:01	SSA3	0.00062	1.4000	Oversupply
11/21/2019 13:21	0:01	SSA3	0.00062	2.4460	Oversupply
11/21/2019 13:51	0:01	SSA3	-0.00069	2.0970	Oversupply
11/22/2019 0:28	0:16	KWP11	0.788351488	19.21063995	Oversupply
11/22/2019 1:21	4:36	KWP11	67.69138561	19.21063995	Oversupply
11/22/2019 1:27	0:01	AWE	0.011376826	12.89999962	Oversupply
11/22/2019 1:37	0:01	AWE	0.004240545	21	Oversupply
11/22/2019 2:04	0:11	AWE	0.060477924	20.79999924	Oversupply
11/22/2019 2:36	0:03	AWE	0.017492072	20.5	Oversupply



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**November 2019**

Start Date and Time	Duration	IPP Curtailed	Estimated Curtailed MWH	Peak MW Curtailed	Reasons for Curtailment
11/22/2019 2:41	1:30	AWE	5.114352894	21	Oversupply
11/22/2019 4:16	0:01	AWE	0.000903829	20.69999886	Oversupply
11/22/2019 4:18	0:02	AWE	0.028876241	20.79999924	Oversupply
11/22/2019 4:21	0:07	AWE	0.019223817	20.89999962	Oversupply
11/22/2019 4:31	0:01	AWE	0.00293684	20.69999886	Oversupply
11/22/2019 8:12	0:08	KWPll	0.209205103	14.719841	Oversupply
11/22/2019 8:40	1:06	KWPll	4.639477587	19.21063995	Oversupply
11/22/2019 9:23	0:01	SSA3	0.00177	2.0280	Oversupply
11/22/2019 9:23	0:01	SSA2	0.00082	1.2490	Oversupply
11/22/2019 9:23	0:01	SSA3	0.00174	2.0240	Oversupply
11/22/2019 9:24	0:01	SSA3	0.00177	0.2610	Oversupply
11/22/2019 9:24	0:01	SSA2	0.00082	1.0890	Oversupply
11/22/2019 9:25	0:01	SSA3	0.00170	0.4400	Oversupply
11/22/2019 9:28	0:01	SSA2	0.00082	1.2180	Oversupply
11/22/2019 9:28	0:01	SSA3	0.00177	1.9360	Oversupply
11/22/2019 9:35	0:01	SSA2	0.00842	1.0370	Oversupply
11/22/2019 9:35	0:01	SSA3	0.01471	2.0970	Oversupply
11/22/2019 9:36	0:10	BS250	Data not available	Data not available	Oversupply
11/22/2019 9:36	0:10	ESA	Data not available	Data not available	Oversupply
11/22/2019 9:36	0:10	ESB	Data not available	Data not available	Oversupply
11/22/2019 9:36	0:10	SSA3	0.18914	0.7600	Oversupply
11/22/2019 9:36	0:10	SSA2	0.08760	0.9010	Oversupply
11/22/2019 9:45	0:01	SSA2	0.01317	0.0010	Oversupply
11/22/2019 9:46	0:01	SSA3	0.01477	0.0560	Oversupply
11/22/2019 9:46	0:01	SSA2	0.01317	0.3790	Oversupply
11/22/2019 9:47	0:01	SSA3	0.01509	0.7340	Oversupply
11/22/2019 9:47	0:01	SSA2	0.01317	0.6360	Oversupply
11/22/2019 9:47	0:01	SSA3	0.01509	1.0570	Oversupply
11/22/2019 9:50	0:01	SSA3	0.01445	1.7610	Oversupply
11/22/2019 9:50	0:01	SSA2	0.01317	1.4880	Oversupply
11/22/2019 9:51	0:01	SSA2	0.01317	1.7930	Oversupply
11/22/2019 9:52	0:01	SSA3	0.01477	2.1850	Oversupply
11/22/2019 9:52	0:01	SSA2	0.01317	1.6910	Oversupply
11/22/2019 9:53	0:01	SSA3	0.01445	0.0450	Oversupply
11/22/2019 9:53	0:01	SSA2	0.01317	0.0610	Oversupply
11/22/2019 9:53	0:01	SSA3	0.01477	0.5870	Oversupply
11/22/2019 9:54	0:01	SSA2	0.01317	1.3340	Oversupply
11/22/2019 9:54	0:01	SSA3	0.01445	1.1970	Oversupply
11/22/2019 9:55	0:01	SSA2	0.01317	1.0640	Oversupply
11/22/2019 9:55	0:01	SSA3	0.01477	0.5150	Oversupply
11/22/2019 9:56	0:01	SSA2	0.01317	0.2110	Oversupply
11/22/2019 9:56	0:01	SSA3	0.01509	0.2940	Oversupply
11/22/2019 9:56	0:01	SSA3	0.01509	0.9350	Oversupply
11/22/2019 9:57	0:01	SSA2	0.01317	0.9740	Oversupply
11/22/2019 9:57	0:01	SSA3	0.01509	0.7040	Oversupply
11/22/2019 9:57	0:01	SSA2	0.01291	0.8290	Oversupply
11/22/2019 9:58	0:01	SSA3	0.01509	1.0180	Oversupply
11/22/2019 9:58	0:01	SSA2	0.01317	1.7910	Oversupply
11/22/2019 9:59	0:01	SSA3	0.01307	1.8820	Oversupply
11/22/2019 9:59	0:01	SSA2	0.00347	1.7360	Oversupply
11/22/2019 10:00	0:01	SSA3	0.00041	1.7080	Oversupply
11/22/2019 10:00	0:01	SSA2	0.00038	1.4720	Oversupply
11/22/2019 10:06	0:01	SSA3	0.00040	2.2890	Oversupply
11/22/2019 10:29	0:01	SSA3	0.01292	2.3550	Oversupply
11/22/2019 10:30	0:01	SSA3	0.02420	2.3510	Oversupply
11/22/2019 10:30	0:01	SSA2	0.02503	2.3990	Oversupply
11/22/2019 10:31	0:01	SSA3	0.02474	2.3570	Oversupply
11/22/2019 10:31	0:01	SSA2	0.02503	2.2370	Oversupply
11/22/2019 10:31	0:01	SSA3	0.02474	0.7920	Oversupply
11/22/2019 10:32	0:01	SSA2	0.02503	0.0480	Oversupply
11/22/2019 10:32	0:01	SSA3	0.02528	0.1150	Oversupply
11/22/2019 10:33	0:01	SSA2	0.02503	0.5710	Oversupply
11/22/2019 10:33	0:01	SSA3	0.02420	0.6710	Oversupply
11/22/2019 10:34	0:08	BS250	Data not available	Data not available	Oversupply
11/22/2019 10:34	0:08	ESA	Data not available	Data not available	Oversupply
11/22/2019 10:34	0:08	ESB	Data not available	Data not available	Oversupply
11/22/2019 10:34	0:01	SSA3	0.02474	0.0270	Oversupply
11/22/2019 10:34	0:01	SSA2	0.02503	0.2580	Oversupply
11/22/2019 10:35	0:03	SSA3	0.09950	0.0010	Oversupply
11/22/2019 10:35	0:03	SSA2	0.07510	0.0240	Oversupply
11/22/2019 10:37	0:01	KWPll	0.005089315	19.21063995	Oversupply
11/22/2019 10:37	0:01	SSA2	0.02503	0.0170	Oversupply
11/22/2019 10:38	0:01	SSA3	0.02528	0.0340	Oversupply



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Start Date and Time	Duration	IPP Curtailed	Estimated Curtailed MWH	Peak MW Curtailed	Reasons for Curtailment
11/22/2019 10:38	0:03	SSA2	0.10013	0.0040	Oversupply
11/22/2019 10:38	0:03	SSA3	0.10003	0.0020	Oversupply
11/22/2019 10:39	0:03	KWPll	0.026487001	19.21063995	Oversupply
11/22/2019 10:41	0:01	SSA3	0.02474	0.0100	Oversupply
11/22/2019 10:42	0:01	SSA2	0.02503	0.1860	Oversupply
11/22/2019 10:42	0:01	SSA3	0.02528	0.3390	Oversupply
11/22/2019 10:42	0:01	SSA2	0.02503	0.1120	Oversupply
11/22/2019 10:43	0:01	SSA3	0.02528	0.0330	Oversupply
11/22/2019 10:43	0:31	SSA2	0.93543	0.0500	Oversupply
11/22/2019 10:44	0:30	BS250	Data not available	Data not available	Oversupply
11/22/2019 10:44	0:30	ESA	Data not available	Data not available	Oversupply
11/22/2019 10:44	0:30	ESB	Data not available	Data not available	Oversupply
11/22/2019 10:44	0:13	SSA3	0.47816	0.0180	Oversupply
11/22/2019 10:45	0:30	KWPll	1.092150688	19.21063995	Oversupply
11/22/2019 10:56	0:18	SSA3	0.69294	0.0230	Oversupply
11/22/2019 11:14	0:01	SSA3	0.02520	0.0920	Oversupply
11/22/2019 11:14	0:01	SSA2	0.01875	0.0200	Oversupply
11/22/2019 11:15	0:01	SSA3	0.01496	0.0080	Oversupply
11/22/2019 11:15	0:01	SSA2	0.02424	0.0600	Oversupply
11/22/2019 11:16	0:01	SSA3	0.01530	0.2200	Oversupply
11/22/2019 11:16	0:01	SSA2	0.02424	0.4130	Oversupply
11/22/2019 11:16	0:01	SSA3	0.01496	0.6710	Oversupply
11/22/2019 11:17	0:01	SSA2	0.02424	0.7120	Oversupply
11/22/2019 11:17	0:01	SSA3	0.01530	0.6960	Oversupply
11/22/2019 11:18	0:01	SSA2	0.02424	0.9530	Oversupply
11/22/2019 11:18	0:01	SSA3	0.01496	1.0700	Oversupply
11/22/2019 11:19	0:01	SSA2	0.02424	0.7440	Oversupply
11/22/2019 11:19	0:01	SSA3	0.01496	1.7710	Oversupply
11/22/2019 11:20	0:01	SSA2	0.02424	0.7190	Oversupply
11/22/2019 11:20	0:01	SSA2	0.02424	0.3880	Oversupply
11/22/2019 11:21	0:01	SSA3	0.01496	1.7580	Oversupply
11/22/2019 11:21	0:01	SSA2	0.02331	0.6630	Oversupply
11/22/2019 11:22	0:01	SSA3	0.01496	0.3190	Oversupply
11/22/2019 11:22	0:01	SSA2	0.02470	0.1990	Oversupply
11/22/2019 11:22	0:01	SSA3	0.01530	0.4680	Oversupply
11/22/2019 11:23	0:01	SSA2	0.02424	0.4430	Oversupply
11/22/2019 11:23	0:01	SSA3	0.01530	0.4050	Oversupply
11/22/2019 11:24	0:01	SSA2	0.02424	0.0640	Oversupply
11/22/2019 11:24	0:01	SSA3	0.01496	0.5050	Oversupply
11/22/2019 11:25	0:01	SSA3	0.01530	0.5250	Oversupply
11/22/2019 11:25	0:01	SSA2	0.02424	0.9940	Oversupply
11/22/2019 11:25	0:01	SSA3	0.01496	0.7170	Oversupply
11/22/2019 11:26	0:01	SSA2	0.02424	1.2520	Oversupply
11/22/2019 11:26	0:01	SSA3	0.01496	0.8130	Oversupply
11/22/2019 11:27	0:01	SSA2	0.02424	1.3230	Oversupply
11/22/2019 11:27	0:01	SSA3	0.01530	0.7410	Oversupply
11/22/2019 11:27	0:01	SSA2	0.02424	1.1340	Oversupply
11/22/2019 11:28	0:01	SSA3	0.01530	0.6340	Oversupply
11/22/2019 11:28	0:01	SSA2	0.02424	2.2010	Oversupply
11/22/2019 11:29	0:01	SSA3	0.01496	1.0190	Oversupply
11/22/2019 11:29	0:01	SSA2	0.02447	0.8550	Oversupply
11/22/2019 11:29	0:01	SSA3	0.01547	0.8800	Oversupply
11/22/2019 11:30	0:03	SSA2	0.07822	0.5800	Oversupply
11/22/2019 11:30	0:01	SSA3	0.01628	0.1880	Oversupply
11/22/2019 11:31	0:02	BS250	Data not available	Data not available	Oversupply
11/22/2019 11:31	0:02	ESA	Data not available	Data not available	Oversupply
11/22/2019 11:31	0:02	ESB	Data not available	Data not available	Oversupply
11/22/2019 11:31	0:02	SSA3	0.03220	0.0190	Oversupply
11/22/2019 11:32	0:02	SSA3	0.03256	0.0020	Oversupply
11/22/2019 11:33	0:01	SSA2	0.02607	0.0480	Oversupply
11/22/2019 11:33	0:01	SSA2	0.02607	0.0130	Oversupply
11/22/2019 11:34	0:01	SSA3	0.01628	0.1380	Oversupply
11/22/2019 11:34	0:01	SSA2	0.02607	0.1220	Oversupply
11/22/2019 11:35	0:01	SSA3	0.01663	0.1140	Oversupply
11/22/2019 11:35	0:01	SSA2	0.02607	0.1140	Oversupply
11/22/2019 11:35	0:01	SSA3	0.01628	0.1330	Oversupply
11/22/2019 11:36	0:01	SSA2	0.02607	0.1420	Oversupply
11/22/2019 11:36	0:01	SSA3	0.01628	0.1330	Oversupply
11/22/2019 11:37	0:01	SSA2	0.02607	0.3300	Oversupply
11/22/2019 11:37	0:01	SSA3	0.01592	0.3010	Oversupply
11/22/2019 11:38	0:01	SSA3	0.01628	0.6250	Oversupply
11/22/2019 11:38	0:01	SSA2	0.02507	0.8120	Oversupply
11/22/2019 11:39	0:01	SSA3	0.01592	1.6620	Oversupply





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Start Date and Time	Duration	IPP Curtailed	Estimated Curtailed MWH	Peak MW Curtailed	Reasons for Curtailment
11/22/2019 11:42	0:01	SSA2	0.02607	1.6480	Oversupply
11/22/2019 11:42	0:01	SSA3	0.01628	1.9570	Oversupply
11/22/2019 11:43	0:01	SSA2	0.02607	2.8800	Oversupply
11/22/2019 11:43	0:01	SSA3	0.01628	2.0200	Oversupply
11/22/2019 11:44	0:01	SSA3	0.01589	0.0660	Oversupply
11/22/2019 11:44	0:01	SSA2	0.02682	0.1010	Oversupply
11/22/2019 11:45	0:01	SSA3	0.02008	0.7010	Oversupply
11/22/2019 11:45	0:01	SSA2	0.02713	0.6980	Oversupply
11/22/2019 11:45	0:01	SSA3	0.02008	0.0560	Oversupply
11/22/2019 11:46	0:02	ESA	Data not available	Data not available	Oversupply
11/22/2019 11:46	0:02	ESB	Data not available	Data not available	Oversupply
11/22/2019 11:46	0:01	SSA2	0.02713	0.0970	Oversupply
11/22/2019 11:46	0:01	SSA3	0.02008	0.0300	Oversupply
11/22/2019 11:46	0:02	SSA2	0.05427	0.0500	Oversupply
11/22/2019 11:47	0:01	BS250	Data not available	Data not available	Oversupply
11/22/2019 11:47	0:01	SSA3	0.01965	0.0310	Oversupply
11/22/2019 11:48	0:01	KWPPII	0.005803331	19.21063995	Oversupply
11/22/2019 11:48	0:01	SSA3	0.01965	0.0480	Oversupply
11/22/2019 11:48	0:01	SSA2	0.02713	0.0610	Oversupply
11/22/2019 11:48	0:01	SSA3	0.02008	0.5390	Oversupply
11/22/2019 11:49	0:01	SSA2	0.02713	0.1130	Oversupply
11/22/2019 11:49	0:01	SSA3	0.02008	0.6530	Oversupply
11/22/2019 11:50	0:01	SSA3	0.01965	0.7050	Oversupply
11/22/2019 11:50	0:01	SSA2	0.02713	0.1220	Oversupply
11/22/2019 11:51	0:01	SSA3	0.02008	1.1380	Oversupply
11/22/2019 11:51	0:01	SSA2	0.02713	0.1300	Oversupply
11/22/2019 11:51	0:01	SSA3	0.02008	1.6140	Oversupply
11/22/2019 11:52	0:01	SSA2	0.02713	0.1290	Oversupply
11/22/2019 11:52	0:01	SSA3	0.02008	0.5750	Oversupply
11/22/2019 11:53	0:01	SSA2	0.02713	0.2660	Oversupply
11/22/2019 11:53	0:01	SSA3	0.01965	1.1440	Oversupply
11/22/2019 11:53	0:01	SSA2	0.02713	0.7950	Oversupply
11/22/2019 11:54	0:01	SSA3	0.02008	1.8150	Oversupply
11/22/2019 11:54	0:01	SSA2	0.02713	1.3060	Oversupply
11/22/2019 11:54	0:01	SSA3	0.02008	2.4130	Oversupply
11/22/2019 11:55	0:01	SSA2	0.02713	1.8090	Oversupply
11/22/2019 11:55	0:01	SSA3	0.01965	0.6120	Oversupply
11/22/2019 11:56	0:01	SSA2	0.02713	0.9630	Oversupply
11/22/2019 11:56	0:01	SSA3	0.02008	1.1400	Oversupply
11/22/2019 11:57	0:01	SSA3	0.02052	0.5600	Oversupply
11/22/2019 11:57	0:01	SSA2	0.02713	0.2650	Oversupply
11/22/2019 11:58	0:01	SSA3	0.02008	0.2580	Oversupply
11/22/2019 11:58	0:01	SSA2	0.02661	0.5670	Oversupply
11/22/2019 11:58	0:01	SSA3	0.02052	1.3230	Oversupply
11/22/2019 11:59	0:01	SSA2	0.02713	0.2720	Oversupply
11/22/2019 11:59	0:01	SSA3	0.01886	0.4530	Oversupply
11/22/2019 11:59	0:01	SSA2	0.01862	0.6470	Oversupply
11/22/2019 12:00	0:01	SSA3	0.01786	1.6610	Oversupply
11/22/2019 12:00	0:01	SSA2	0.02331	1.0460	Oversupply
11/22/2019 12:01	0:01	SSA3	0.01747	0.5120	Oversupply
11/22/2019 12:01	0:01	SSA2	0.02331	1.2890	Oversupply
11/22/2019 12:01	0:02	SSA3	0.03573	1.3730	Oversupply
11/22/2019 12:02	0:01	SSA2	0.02331	1.6010	Oversupply
11/22/2019 12:03	0:01	SSA2	0.02331	2.0650	Oversupply
11/22/2019 12:03	0:01	SSA3	0.01825	1.6530	Oversupply
11/22/2019 12:04	0:01	SSA3	0.01903	1.5920	Oversupply
11/22/2019 12:04	0:01	SSA2	0.02286	2.3100	Oversupply
11/22/2019 12:05	0:01	SSA3	0.01825	2.3300	Oversupply
11/22/2019 12:05	0:01	SSA2	0.02331	1.9060	Oversupply
11/22/2019 12:05	0:01	SSA3	0.01747	1.9190	Oversupply
11/22/2019 12:06	0:01	SSA3	0.01786	2.3990	Oversupply
11/22/2019 12:06	0:01	SSA2	0.02331	0.5380	Oversupply
11/22/2019 12:07	0:01	SSA3	0.01786	1.5510	Oversupply
11/22/2019 12:07	0:01	SSA2	0.02331	0.6060	Oversupply
11/22/2019 12:08	0:01	SSA3	0.01786	0.6730	Oversupply
11/22/2019 12:08	0:01	SSA2	0.02331	1.2960	Oversupply
11/22/2019 12:08	0:01	SSA3	0.01786	1.4560	Oversupply
11/22/2019 12:09	0:01	SSA2	0.02331	0.9310	Oversupply
11/22/2019 12:09	0:01	SSA3	0.01747	0.0870	Oversupply
11/22/2019 12:10	0:01	SSA2	0.02331	1.0340	Oversupply
11/22/2019 12:10	0:01	SSA3	0.01786	0.7800	Oversupply
11/22/2019 12:11	0:01	SSA3	0.01786	1.4380	Oversupply
11/22/2019 12:11	0:01	SSA2	0.02331	0.6210	Oversupply



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Start Date and Time	Duration	IPP Curtailed	Estimated Curtailed MWH	Peak MW Curtailed	Reasons for Curtailment
11/22/2019 12:11	0:01	SSA3	0.01825	0.9920	Oversupply
11/22/2019 12:12	0:01	SSA2	0.02331	0.3300	Oversupply
11/22/2019 12:12	0:01	SSA3	0.01825	0.0790	Oversupply
11/22/2019 12:12	0:01	SSA2	0.02331	0.5870	Oversupply
11/22/2019 12:13	0:02	SSA3	0.03611	0.1970	Oversupply
11/22/2019 12:13	0:01	SSA2	0.02331	0.2060	Oversupply
11/22/2019 12:14	0:01	BS250	Data not available	Data not available	Oversupply
11/22/2019 12:14	0:01	ESA	Data not available	Data not available	Oversupply
11/22/2019 12:14	0:01	ESB	Data not available	Data not available	Oversupply
11/22/2019 12:14	0:01	SSA2	0.02177	0.0540	Oversupply
11/22/2019 12:15	0:01	SSA3	0.01909	0.1660	Oversupply
11/22/2019 12:15	0:01	SSA2	0.02233	0.4270	Oversupply
11/22/2019 12:15	0:01	SSA3	0.01868	0.0630	Oversupply
11/22/2019 12:16	0:01	SSA2	0.02233	0.2470	Oversupply
11/22/2019 12:16	0:01	SSA3	0.01868	0.6900	Oversupply
11/22/2019 12:17	0:01	SSA2	0.02233	1.1700	Oversupply
11/22/2019 12:17	0:01	SSA3	0.01909	0.8230	Oversupply
11/22/2019 12:18	0:01	SSA2	0.02233	1.2200	Oversupply
11/22/2019 12:18	0:01	SSA3	0.01868	1.4980	Oversupply
11/22/2019 12:18	0:01	SSA3	0.01909	1.6660	Oversupply
11/22/2019 12:18	0:01	SSA2	0.02233	1.5510	Oversupply
11/22/2019 12:19	0:01	SSA3	0.01950	1.3580	Oversupply
11/22/2019 12:19	0:01	SSA2	0.02233	1.4520	Oversupply
11/22/2019 12:20	0:01	SSA3	0.01909	1.8590	Oversupply
11/22/2019 12:20	0:01	SSA2	0.02233	2.4220	Oversupply
11/22/2019 12:21	0:01	SSA3	0.01868	2.2880	Oversupply
11/22/2019 12:21	0:01	SSA2	0.02233	2.6640	Oversupply
11/22/2019 12:22	0:01	SSA3	0.01868	2.4230	Oversupply
11/22/2019 12:22	0:01	SSA2	0.02233	2.7920	Oversupply
11/22/2019 12:22	0:01	SSA3	0.01909	1.8120	Oversupply
11/22/2019 12:23	0:01	SSA2	0.02233	2.2670	Oversupply
11/22/2019 12:23	0:01	SSA3	0.01828	1.9930	Oversupply
11/22/2019 12:24	0:01	SSA2	0.02233	2.0970	Oversupply
11/22/2019 12:24	0:01	SSA3	0.01828	1.7020	Oversupply
11/22/2019 12:25	0:01	SSA2	0.02233	1.4450	Oversupply
11/22/2019 12:25	0:01	SSA3	0.01950	1.0820	Oversupply
11/22/2019 12:25	0:01	SSA3	0.01828	0.7960	Oversupply
11/22/2019 12:25	0:01	SSA2	0.02233	0.8830	Oversupply
11/22/2019 12:26	0:01	SSA3	0.01828	0.2290	Oversupply
11/22/2019 12:26	0:01	SSA2	0.02233	0.1800	Oversupply
11/22/2019 12:27	0:01	SSA3	0.01909	0.0990	Oversupply
11/22/2019 12:27	0:01	SSA2	0.02233	0.2660	Oversupply
11/22/2019 12:28	0:01	SSA3	0.01868	0.7150	Oversupply
11/22/2019 12:28	0:01	SSA2	0.02190	0.7870	Oversupply
11/22/2019 12:28	0:01	SSA3	0.01909	1.0280	Oversupply
11/22/2019 12:29	0:01	SSA2	0.02146	1.1340	Oversupply
11/22/2019 12:29	0:01	SSA3	0.01293	1.1680	Oversupply
11/22/2019 12:30	0:01	SSA2	0.01431	1.4520	Oversupply
11/22/2019 12:30	0:01	SSA3	0.00975	1.4770	Oversupply
11/22/2019 12:31	0:01	SSA2	0.01431	1.7070	Oversupply
11/22/2019 12:31	0:01	SSA3	0.00975	1.6920	Oversupply
11/22/2019 12:31	0:01	SSA2	0.01431	0.8120	Oversupply
11/22/2019 12:32	0:01	SSA3	0.00996	1.3660	Oversupply
11/22/2019 12:32	0:01	SSA3	0.00975	2.0580	Oversupply
11/22/2019 12:32	0:01	SSA2	0.01431	2.1200	Oversupply
11/22/2019 12:33	0:01	SSA3	0.00996	2.2160	Oversupply
11/22/2019 12:33	0:01	SSA2	0.01431	1.4400	Oversupply
11/22/2019 12:34	0:01	SSA3	0.00996	2.4120	Oversupply
11/22/2019 12:34	0:01	SSA2	0.01431	1.8730	Oversupply
11/22/2019 12:37	0:01	SSA2	0.01431	1.1190	Oversupply
11/22/2019 12:37	0:01	SSA3	0.01080	2.7760	Oversupply
11/22/2019 12:38	0:01	SSA2	0.01431	3.1210	Oversupply
11/22/2019 12:39	0:01	SSA3	0.00996	2.7380	Oversupply
11/22/2019 12:39	0:01	SSA2	0.01431	1.6590	Oversupply
11/22/2019 12:39	0:01	SSA3	0.00975	0.1230	Oversupply
11/22/2019 12:40	0:01	SSA3	0.00996	0.5320	Oversupply
11/22/2019 12:40	0:01	SSA2	0.01431	0.4580	Oversupply
11/22/2019 12:41	0:01	SSA3	0.00953	1.7930	Oversupply
11/22/2019 12:41	0:01	SSA2	0.01431	1.7090	Oversupply
11/22/2019 12:42	0:01	SSA3	0.00996	2.3430	Oversupply
11/22/2019 12:42	0:01	SSA2	0.01431	0.1160	Oversupply
11/22/2019 12:42	0:01	SSA3	0.00996	2.3620	Oversupply
11/22/2019 12:43	0:01	SSA2	0.01431	0.7880	Oversupply



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Start Date and Time	Duration	IPP Curtailed	Estimated Curtailed MWH	Peak MW Curtailed	Reasons for Curtailment
11/22/2019 13:05	0:01	SSA2	0.00375	2.8310	Oversupply
11/22/2019 13:06	0:01	SSA3	0.00256	2.5530	Oversupply
11/22/2019 13:06	0:01	SSA2	0.00390	2.8340	Oversupply
11/22/2019 13:06	0:01	SSA3	0.00261	1.2270	Oversupply
11/22/2019 13:07	0:01	SSA3	0.00267	0.4150	Oversupply
11/22/2019 13:08	0:01	SSA2	0.00375	1.4810	Oversupply
11/22/2019 13:08	0:01	SSA3	0.00261	1.8800	Oversupply
11/23/2019 0:52	0:07	KWPll	0.112320423	19.21063995	Oversupply
11/23/2019 1:14	2:07	KWPll	9.602815994	19.21063995	Oversupply
11/23/2019 3:22	0:01	KWPll	0.008503151	18.6897068	Oversupply
11/23/2019 4:12	1:01	KWPll	5.490125148	19.21063995	Oversupply
11/23/2019 5:17	0:01	KWPll	0.002895133	19.2096405	Oversupply
11/23/2019 5:21	0:06	KWPll	0.05312856	19.2096405	Oversupply
11/23/2019 5:42	0:07	KWPll	0.101323541	19.21063995	Oversupply
11/23/2019 5:52	0:08	KWPll	0.110894775	19.21063995	Oversupply
11/23/2019 6:01	0:01	KWPll	0.006295458	19.21063995	Oversupply
11/23/2019 6:09	0:13	KWPll	0.300186284	19.21063995	System constraint
11/23/2019 6:30	0:01	BS250	Data not available	Data not available	System constraint
11/23/2019 6:30	0:01	ESA	Data not available	Data not available	System constraint
11/23/2019 6:30	0:01	ESB	Data not available	Data not available	System constraint
11/23/2019 8:37	0:01	SSA2	0.00201	1.0660	System constraint
11/23/2019 8:37	0:01	SSA3	0.00087	1.3870	System constraint
11/23/2019 8:38	0:01	SSA2	0.00194	1.1440	System constraint
11/23/2019 8:38	0:01	SSA3	0.00104	0.8290	System constraint
11/23/2019 8:39	0:01	SSA3	0.00087	0.3870	System constraint
11/23/2019 8:42	0:01	SSA3	0.00085	1.4490	System constraint
11/23/2019 9:26	0:01	SSA3	0.00014	1.9850	System constraint
11/23/2019 9:27	0:01	SSA3	0.00014	1.9670	System constraint
11/23/2019 9:28	0:01	SSA2	0.00033	0.3730	System constraint
11/23/2019 9:28	0:01	SSA3	0.00014	0.8040	System constraint
11/23/2019 9:29	0:01	SSA2	0.00042	0.3490	System constraint
11/23/2019 9:29	0:01	SSA3	0.00051	1.9970	System constraint
11/23/2019 9:30	0:03	SSA2	0.01632	0.3220	System constraint
11/23/2019 9:30	0:01	SSA3	0.01948	1.1120	System constraint
11/23/2019 9:30	0:01	SSA3	0.01948	0.2240	System constraint
11/23/2019 9:31	0:01	SSA3	0.01907	1.3660	System constraint
11/23/2019 9:32	0:01	SSA3	0.01948	1.0360	System constraint
11/23/2019 9:32	0:01	SSA2	0.00544	0.2100	System constraint
11/23/2019 9:33	0:01	SSA3	0.01907	0.8550	System constraint
11/23/2019 9:33	0:01	SSA2	0.00544	0.3010	System constraint
11/23/2019 9:33	0:01	SSA3	0.01907	1.6050	System constraint
11/23/2019 9:34	0:01	SSA2	0.00544	0.4530	System constraint
11/23/2019 9:34	0:01	SSA3	0.01948	1.5350	System constraint
11/23/2019 9:35	0:01	SSA2	0.00544	0.3280	System constraint
11/23/2019 9:35	0:01	SSA3	0.01907	0.7160	System constraint
11/23/2019 9:36	0:21	SSA2	0.17619	0.1510	System constraint
11/23/2019 9:36	0:20	SSA3	0.59141	0.0950	System constraint
11/23/2019 9:37	0:19	BS250	Data not available	Data not available	System constraint
11/23/2019 9:37	0:19	ESA	Data not available	Data not available	System constraint
11/23/2019 9:37	0:19	ESB	Data not available	Data not available	System constraint
11/23/2019 9:38	0:19	KWPll	0.547128042	19.21063995	System constraint
11/23/2019 9:56	0:01	SSA3	0.02617	0.0390	System constraint
11/23/2019 9:56	0:01	SSA2	0.00889	0.0830	System constraint
11/23/2019 9:56	0:01	SSA3	0.02617	0.5500	System constraint
11/23/2019 9:57	0:01	SSA2	0.00872	0.0070	System constraint
11/23/2019 9:57	0:01	SSA3	0.02561	0.0480	System constraint
11/23/2019 9:58	0:01	SSA3	0.02617	0.7790	System constraint
11/23/2019 9:58	0:01	SSA2	0.00872	0.0790	System constraint
11/23/2019 9:59	0:01	SSA3	0.02443	0.1370	System constraint
11/23/2019 9:59	0:01	SSA2	0.00783	0.2010	System constraint
11/23/2019 10:00	0:04	BS250	Data not available	Data not available	System constraint
11/23/2019 10:00	0:04	ESA	Data not available	Data not available	System constraint
11/23/2019 10:00	0:04	ESB	Data not available	Data not available	System constraint
11/23/2019 10:00	0:05	SSA3	0.08583	0.2780	System constraint
11/23/2019 10:00	0:04	SSA2	0.02106	0.0430	System constraint
11/23/2019 10:02	0:03	KWPll	0.042915122	19.21063995	System constraint
11/23/2019 10:04	0:01	SSA2	0.00421	0.0200	System constraint
11/23/2019 10:04	0:01	SSA3	0.01436	0.3010	System constraint
11/23/2019 10:05	0:01	SSA2	0.00421	0.1020	System constraint
11/23/2019 10:05	0:01	SSA3	0.01405	0.5480	System constraint
11/23/2019 10:06	0:01	SSA3	0.01375	0.5470	System constraint
11/23/2019 10:06	0:01	SSA2	0.00421	0.0930	System constraint
11/23/2019 10:07	0:01	SSA3	0.01405	0.7500	System constraint



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Start Date and Time	Duration	IPP Curtailed	Estimated Curtailed MWH	Peak MW Curtailed	Reasons for Curtailment
11/23/2019 10:07	0:01	SSA2	0.00421	0.2580	System constraint
11/23/2019 10:07	0:01	SSA3	0.01436	1.1020	System constraint
11/23/2019 10:34	0:01	SSA3	0.00046	0.8820	System constraint
11/23/2019 10:34	0:01	SSA2	0.00035	0.4720	System constraint
11/23/2019 10:35	0:01	SSA3	0.00045	0.0340	System constraint
11/23/2019 10:35	0:01	SSA2	0.00035	0.1180	System constraint
11/23/2019 11:22	0:01	SSA3	0.01660	2.6970	System constraint
11/23/2019 11:23	0:01	SSA2	0.00386	0.0800	System constraint
11/23/2019 11:23	0:01	SSA3	0.01625	2.6980	System constraint
11/23/2019 11:24	0:01	SSA2	0.00386	0.7360	System constraint
11/23/2019 11:24	0:01	SSA3	0.01589	0.1080	System constraint
11/23/2019 11:25	0:01	SSA3	0.01660	0.6750	System constraint
11/23/2019 11:25	0:01	SSA2	0.00386	0.1690	System constraint
11/23/2019 11:25	0:01	SSA3	0.01625	0.0130	System constraint
11/23/2019 11:25	0:01	SSA2	0.00386	0.0240	System constraint
11/23/2019 11:26	0:01	SSA3	0.01660	0.4580	System constraint
11/23/2019 11:26	0:01	SSA2	0.00386	0.2140	System constraint
11/23/2019 11:27	0:01	SSA3	0.01660	0.8160	System constraint
11/23/2019 11:27	0:01	SSA2	0.00386	0.1320	System constraint
11/23/2019 11:28	0:01	SSA3	0.01625	0.9550	System constraint
11/23/2019 11:28	0:01	SSA2	0.00371	0.3520	System constraint
11/23/2019 11:28	0:01	SSA3	0.01625	1.0040	System constraint
11/23/2019 11:29	0:01	SSA2	0.00542	0.5460	System constraint
11/23/2019 11:29	0:01	SSA3	0.02367	0.9160	System constraint
11/23/2019 11:30	0:01	SSA2	0.00934	0.0900	System constraint
11/23/2019 11:30	0:01	SSA3	0.02270	0.7340	System constraint
11/23/2019 11:31	0:01	SSA2	0.00934	0.1160	System constraint
11/23/2019 11:31	0:01	SSA3	0.02714	0.4570	System constraint
11/23/2019 11:32	0:01	SSA2	0.00934	0.3790	System constraint
11/23/2019 11:32	0:01	SSA3	0.02319	1.2310	System constraint
11/23/2019 11:32	0:05	SSA2	0.05605	0.0170	System constraint
11/23/2019 11:32	0:05	SSA3	0.14064	0.0430	System constraint
11/23/2019 11:33	0:05	BS250	Data not available	Data not available	System constraint
11/23/2019 11:33	0:05	ESA	Data not available	Data not available	System constraint
11/23/2019 11:33	0:05	ESB	Data not available	Data not available	System constraint
11/23/2019 11:34	0:04	KWPll	0.075112025	19.21063995	System constraint
11/23/2019 11:37	0:01	SSA3	0.02319	0.0030	System constraint
11/23/2019 11:38	0:01	SSA2	0.00934	0.0470	System constraint
11/23/2019 11:38	0:01	SSA3	0.02319	0.4590	System constraint
11/23/2019 11:38	0:01	SSA2	0.00934	0.1520	System constraint
11/23/2019 11:39	0:01	SSA3	0.02270	1.3750	System constraint
11/23/2019 11:39	0:01	SSA2	0.00934	0.3520	System constraint
11/23/2019 11:40	0:01	SSA3	0.02319	1.7530	System constraint
11/23/2019 11:43	0:01	SSA3	0.02319	1.8470	System constraint
11/23/2019 11:43	0:01	SSA2	0.00934	0.6630	System constraint
11/23/2019 11:43	0:01	SSA3	0.02319	0.9300	System constraint
11/23/2019 11:44	0:01	SSA2	0.00934	0.2470	System constraint
11/23/2019 11:44	0:12	SSA3	0.49686	0.0380	System constraint
11/23/2019 11:45	0:12	BS250	Data not available	Data not available	System constraint
11/23/2019 11:45	0:12	ESA	Data not available	Data not available	System constraint
11/23/2019 11:45	0:12	ESB	Data not available	Data not available	System constraint
11/23/2019 11:45	0:12	SSA2	0.16400	0.0140	System constraint
11/23/2019 11:46	0:11	KWPll	0.868440978	19.21063995	System constraint
11/23/2019 11:56	0:01	SSA3	0.03146	0.2810	System constraint
11/23/2019 11:57	0:01	SSA2	0.01173	0.4340	System constraint
11/23/2019 12:03	0:01	SSA3	0.01298	2.7540	System constraint
11/23/2019 12:03	0:01	SSA3	0.01326	2.7590	System constraint
11/23/2019 12:04	0:01	SSA3	0.01326	2.7640	System constraint
11/23/2019 12:04	0:01	SSA2	0.00550	0.9410	System constraint
11/23/2019 12:05	0:01	SSA3	0.01298	1.8310	System constraint
11/23/2019 12:05	0:01	SSA2	0.00550	0.3230	System constraint
11/23/2019 12:06	0:01	SSA3	0.01326	-0.0150	System constraint
11/23/2019 12:06	0:01	SSA2	0.00550	0.3800	System constraint
11/23/2019 12:07	0:01	SSA3	0.01298	0.3840	System constraint
11/23/2019 12:07	0:01	SSA2	0.00550	0.0310	System constraint
11/23/2019 12:07	0:01	SSA3	0.01468	0.0210	System constraint
11/23/2019 12:08	0:01	SSA2	0.00550	0.0110	System constraint
11/23/2019 12:08	0:01	SSA3	0.01298	0.2780	System constraint
11/23/2019 12:09	0:01	SSA2	0.00550	0.4640	System constraint
11/23/2019 12:09	0:01	SSA3	0.01298	1.4240	System constraint
11/23/2019 12:10	0:01	SSA2	0.00550	0.2220	System constraint
11/23/2019 12:10	0:01	SSA3	0.01270	0.6320	System constraint
11/23/2019 12:10	0:01	SSA2	0.00550	0.6270	System constraint



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Start Date and Time	Duration	IPP Curtailed	Estimated Curtailed MWH	Peak MW Curtailed	Reasons for Curtailment
11/23/2019 12:10	0:01	SSA3	0.01355	1.3510	System constraint
11/23/2019 12:11	0:01	SSA3	0.01298	1.8620	System constraint
11/23/2019 12:11	0:01	SSA2	0.00550	0.6260	System constraint
11/23/2019 23:55	0:02	KWPPII	0.004025428	18.62783432	System constraint
11/23/2019 23:58	0:01	KWPPII	0.000401465	18.36337471	System constraint
11/24/2019 0:00	5:35	KWPPII	40.4975245	19.19666862	System constraint
11/24/2019 5:40	0:12	KWPPII	0.183526707	17.71370697	System constraint
11/24/2019 5:53	0:05	KWPPII	0.045282427	17.71370697	System constraint
11/24/2019 5:59	0:02	KWPPII	0.018329271	17.71270752	System constraint
11/24/2019 8:43	0:01	SSA2	0.00171	1.0060	System constraint
11/24/2019 8:43	0:01	SSA3	0.00013	1.4850	System constraint
11/24/2019 8:43	0:01	SSA2	0.00171	0.5110	System constraint
11/24/2019 8:43	0:01	SSA3	0.00014	1.1670	System constraint
11/24/2019 8:44	0:01	SSA3	0.00730	0.0240	System constraint
11/24/2019 8:44	0:01	SSA2	0.00718	0.0120	System constraint
11/24/2019 8:45	0:02	BS250	Data not available	Data not available	System constraint
11/24/2019 8:45	0:02	ESA	Data not available	Data not available	System constraint
11/24/2019 8:45	0:02	ESB	Data not available	Data not available	System constraint
11/24/2019 8:45	0:02	SSA3	0.02670	0.2760	System constraint
11/24/2019 8:45	0:02	SSA2	0.01795	0.0240	System constraint
11/24/2019 8:46	0:01	KWPPII	0.00922699	16.67583275	System constraint
11/24/2019 8:47	0:01	SSA3	0.01335	0.1130	System constraint
11/24/2019 8:47	0:01	SSA2	0.00906	0.0170	System constraint
11/24/2019 8:47	0:01	SSA3	0.01335	0.1820	System constraint
11/24/2019 8:49	0:01	SSA2	0.00906	0.9190	System constraint
11/24/2019 8:50	0:01	SSA3	0.01335	1.0560	System constraint
11/24/2019 8:50	0:01	SSA3	0.01364	1.0500	System constraint
11/24/2019 8:51	0:01	SSA3	0.01306	0.8950	System constraint
11/24/2019 8:52	0:01	SSA3	0.01364	1.1680	System constraint
11/24/2019 8:52	0:01	SSA2	0.00906	0.3910	System constraint
11/24/2019 8:53	0:01	SSA3	0.01364	1.2800	System constraint
11/24/2019 8:53	0:01	SSA2	0.00889	0.4140	System constraint
11/24/2019 8:54	0:01	SSA3	0.01335	1.0490	System constraint
11/24/2019 8:54	0:01	SSA2	0.00906	0.2710	System constraint
11/24/2019 8:54	0:08	SSA3	0.12374	0.2410	System constraint
11/24/2019 8:55	0:01	SSA2	0.00906	0.1100	System constraint
11/24/2019 8:55	0:07	SSA2	0.07311	0.0160	System constraint
11/24/2019 8:56	0:07	BS250	Data not available	Data not available	System constraint
11/24/2019 8:56	0:07	ESA	Data not available	Data not available	System constraint
11/24/2019 8:56	0:07	ESB	Data not available	Data not available	System constraint
11/24/2019 8:56	0:07	KWPPII	0.103294532	17.60692596	System constraint
11/24/2019 9:02	0:01	SSA3	0.01019	0.0730	System constraint
11/24/2019 9:02	0:01	SSA2	0.00988	0.0600	System constraint
11/24/2019 9:03	0:01	SSA3	0.00998	0.1800	System constraint
11/24/2019 9:03	0:01	SSA2	0.00988	0.4180	System constraint
11/24/2019 9:08	0:01	SSA3	0.00998	1.7650	System constraint
11/24/2019 9:10	0:01	SSA3	0.00998	1.7970	System constraint
11/24/2019 9:10	0:01	SSA2	0.00988	1.4890	System constraint
11/24/2019 9:11	0:01	SSA3	0.00998	0.9160	System constraint
11/24/2019 9:11	0:01	SSA2	0.00988	0.1640	System constraint
11/24/2019 9:11	0:01	SSA3	0.01019	0.1310	System constraint
11/24/2019 9:12	0:01	SSA2	0.00988	1.1690	System constraint
11/24/2019 9:12	0:01	SSA3	0.00998	1.1750	System constraint
11/24/2019 9:13	0:01	SSA2	0.00988	0.2040	System constraint
11/24/2019 9:13	0:01	SSA3	0.01019	0.1250	System constraint
11/24/2019 9:14	0:01	SSA2	0.01021	0.3050	System constraint
11/24/2019 9:14	0:01	SSA3	0.01019	0.2650	System constraint
11/24/2019 9:14	0:01	SSA3	0.02048	0.2470	System constraint
11/24/2019 9:15	0:01	SSA2	0.02184	0.1600	System constraint
11/24/2019 9:15	0:01	SSA3	0.02329	0.8460	System constraint
11/24/2019 9:15	0:01	SSA2	0.02184	0.0880	System constraint
11/24/2019 9:16	0:14	SSA3	0.40173	0.0210	System constraint
11/24/2019 9:16	0:01	SSA2	0.02184	0.0240	System constraint
11/24/2019 9:17	0:14	KWPPII	0.21273729	16.96324348	System constraint
11/24/2019 9:17	0:09	SSA2	0.21800	0.0250	System constraint
11/24/2019 9:18	0:12	BS250	Data not available	Data not available	System constraint
11/24/2019 9:18	0:12	ESA	Data not available	Data not available	System constraint
11/24/2019 9:18	0:12	ESB	Data not available	Data not available	System constraint
11/24/2019 9:26	0:01	SSA2	0.02184	0.0050	System constraint
11/24/2019 9:27	0:03	SSA2	0.06553	0.0010	System constraint
11/24/2019 9:29	0:01	SSA2	0.01263	0.1240	System constraint
11/24/2019 9:30	0:01	SSA3	0.00642	0.2710	System constraint
11/24/2019 9:30	0:01	SSA2	0.01067	0.2680	System constraint



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Start Date and Time	Duration	IPP Curtailed	Estimated Curtailed MWH	Peak MW Curtailed	Reasons for Curtailment
11/24/2019 9:31	0:01	SSA3	0.00628	0.2030	System constraint
11/24/2019 9:31	0:02	SSA2	0.02133	0.0740	System constraint
11/24/2019 9:31	0:02	SSA3	0.01269	0.0090	System constraint
11/24/2019 9:32	0:02	BS250	Data not available	Data not available	System constraint
11/24/2019 9:32	0:02	ESA	Data not available	Data not available	System constraint
11/24/2019 9:32	0:02	ESB	Data not available	Data not available	System constraint
11/24/2019 9:32	0:02	KWP11	0.00790906	16.30060196	System constraint
11/24/2019 9:33	0:01	SSA2	0.01067	0.0160	System constraint
11/24/2019 9:33	0:01	SSA3	0.00642	0.3470	System constraint
11/24/2019 9:34	0:01	SSA3	0.00642	2.0000	System constraint
11/24/2019 9:34	0:01	SSA2	0.01067	0.3200	System constraint
11/24/2019 10:58	0:01	SSA2	0.00499	1.6590	System constraint
11/24/2019 10:59	0:01	SSA3	0.00060	2.6170	System constraint
11/24/2019 10:59	0:01	SSA2	0.00487	1.2660	System constraint
11/24/2019 10:59	0:01	SSA3	0.00549	1.3530	System constraint
11/24/2019 11:00	0:01	SSA2	0.00825	0.4460	System constraint
11/24/2019 11:00	0:01	SSA3	0.00698	0.1250	System constraint
11/24/2019 11:01	0:01	SSA2	0.00825	1.5210	System constraint
11/24/2019 11:01	0:01	SSA3	0.00683	1.0450	System constraint
11/24/2019 11:11	0:01	SSA2	0.00825	2.8910	System constraint
11/24/2019 11:12	0:01	SSA3	0.00698	2.6720	System constraint
11/24/2019 11:12	0:01	SSA2	0.00825	2.1650	System constraint
11/24/2019 11:13	0:01	SSA3	0.00713	0.1150	System constraint
11/24/2019 11:13	0:01	SSA2	0.00825	1.0560	System constraint
11/24/2019 11:13	0:01	SSA3	0.00713	0.4870	System constraint
11/24/2019 11:14	0:01	SSA2	0.00678	1.4300	System constraint
11/24/2019 11:14	0:01	SSA3	0.00601	1.9000	System constraint
11/24/2019 11:15	0:01	SSA2	0.00773	1.3930	System constraint
11/24/2019 11:15	0:01	SSA3	0.00599	1.0830	System constraint
11/24/2019 11:16	0:01	SSA2	0.00773	1.5060	System constraint
11/24/2019 11:16	0:01	SSA3	0.00599	1.4840	System constraint
11/24/2019 11:16	0:01	SSA3	0.00574	1.3360	System constraint
11/24/2019 11:17	0:01	SSA2	0.00773	1.5160	System constraint
11/24/2019 11:17	0:01	SSA3	0.00574	1.2110	System constraint
11/24/2019 11:17	0:01	SSA2	0.00773	1.5810	System constraint
11/24/2019 11:19	0:01	SSA3	0.00587	2.0300	System constraint
11/24/2019 11:19	0:01	SSA2	0.00773	2.2330	System constraint
11/24/2019 11:20	0:01	SSA3	0.00599	2.6320	System constraint
11/24/2019 11:20	0:01	SSA2	0.00773	2.2600	System constraint
11/24/2019 11:29	0:01	SSA2	0.02354	2.3880	System constraint
11/24/2019 11:30	0:01	SSA3	0.01713	2.7380	System constraint
11/24/2019 11:30	0:01	SSA2	0.01212	1.1440	System constraint
11/24/2019 11:30	0:01	SSA3	0.01750	2.7420	System constraint
11/24/2019 11:31	0:01	SSA3	0.01750	0.0460	System constraint
11/24/2019 11:31	0:01	SSA2	0.01212	0.2450	System constraint
11/24/2019 11:32	0:01	SSA3	0.01675	0.2970	System constraint
11/24/2019 11:32	0:01	SSA2	0.01212	0.5200	System constraint
11/24/2019 11:33	0:01	SSA3	0.01675	1.5630	System constraint
11/24/2019 11:33	0:01	SSA2	0.01212	1.1410	System constraint
11/24/2019 11:33	0:01	SSA3	0.01750	1.3210	System constraint
11/24/2019 11:34	0:01	SSA2	0.01212	0.7140	System constraint
11/24/2019 11:34	0:01	SSA3	0.01713	2.0270	System constraint
11/24/2019 11:35	0:01	SSA3	0.01750	2.7350	System constraint
11/24/2019 11:36	0:01	SSA2	0.01212	1.5070	System constraint
11/24/2019 11:36	0:01	SSA3	0.01750	1.0370	System constraint
11/24/2019 11:36	0:01	SSA2	0.01212	1.3880	System constraint
11/24/2019 11:37	0:01	SSA3	0.01750	0.3130	System constraint
11/24/2019 11:37	0:01	SSA2	0.01212	0.7800	System constraint
11/24/2019 11:37	0:01	SSA3	0.01750	1.4680	System constraint
11/24/2019 11:38	0:01	SSA3	0.01750	1.6540	System constraint
11/24/2019 11:38	0:01	SSA2	0.01212	0.6110	System constraint
11/24/2019 11:39	0:01	SSA3	0.01713	1.2030	System constraint
11/24/2019 11:39	0:01	SSA2	0.01188	0.2270	System constraint
11/24/2019 11:40	0:01	SSA3	0.01750	0.1640	System constraint
11/24/2019 11:40	0:01	SSA2	0.01212	0.4540	System constraint
11/24/2019 11:40	0:01	SSA3	0.01750	1.1640	System constraint
11/24/2019 11:41	0:01	SSA2	0.01212	0.3970	System constraint
11/24/2019 11:42	0:01	SSA3	0.01750	2.7510	System constraint
11/24/2019 11:42	0:01	SSA2	0.01212	2.2580	System constraint
11/24/2019 11:43	0:01	SSA3	0.01750	1.7330	System constraint
11/24/2019 11:43	0:01	SSA2	0.01212	1.6820	System constraint
11/24/2019 11:44	0:01	SSA3	0.01713	0.1210	System constraint
11/24/2019 11:44	0:01	SSA2	0.00876	0.2680	System constraint



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Start Date and Time	Duration	IPP Curtailed	Estimated Curtailed MWH	Peak MW Curtailed	Reasons for Curtailment
11/24/2019 11:44	0:01	SSA3	0.01686	0.9630	System constraint
11/24/2019 11:45	0:01	SSA2	0.01714	0.5080	System constraint
11/24/2019 11:45	0:01	SSA3	0.01686	2.3930	System constraint
11/24/2019 11:46	0:01	SSA3	0.01723	0.7510	System constraint
11/24/2019 11:46	0:01	SSA2	0.01714	1.7030	System constraint
11/24/2019 11:47	0:01	SSA3	0.01686	1.0740	System constraint
11/24/2019 11:47	0:01	SSA2	0.01714	0.0850	System constraint
11/24/2019 11:47	0:01	SSA3	0.01649	0.3330	System constraint
11/24/2019 11:48	0:01	SSA2	0.01714	0.4700	System constraint
11/24/2019 11:48	0:01	SSA3	0.01723	0.9020	System constraint
11/24/2019 11:49	0:01	SSA2	0.01714	0.3410	System constraint
11/24/2019 11:49	0:01	SSA3	0.01723	0.3500	System constraint
11/24/2019 11:49	0:01	SSA2	0.01714	0.5570	System constraint
11/24/2019 11:50	0:01	SSA3	0.01686	1.3310	System constraint
11/24/2019 11:50	0:01	SSA2	0.01714	0.0700	System constraint
11/24/2019 11:51	0:01	SSA3	0.01723	0.4610	System constraint
11/24/2019 11:51	0:01	SSA2	0.01714	0.6270	System constraint
11/24/2019 11:51	0:01	SSA3	0.01723	1.5030	System constraint
11/24/2019 11:52	0:01	SSA3	0.01686	1.7860	System constraint
11/24/2019 11:56	0:01	SSA3	0.01723	2.7690	System constraint
11/24/2019 11:56	0:01	SSA2	0.01714	2.8310	System constraint
11/24/2019 11:57	0:01	SSA3	0.01686	2.7770	System constraint
11/24/2019 11:57	0:01	SSA2	0.01714	2.1630	System constraint
11/24/2019 11:58	0:01	SSA3	0.01723	0.2200	System constraint
11/24/2019 11:58	0:01	SSA2	0.01714	0.5820	System constraint
11/24/2019 11:58	0:01	SSA3	0.01723	0.1930	System constraint
11/24/2019 11:59	0:01	SSA2	0.01561	0.6660	System constraint
11/24/2019 11:59	0:01	SSA3	0.01073	0.5860	System constraint
11/24/2019 12:00	0:01	SSA2	0.00370	0.3180	System constraint
11/24/2019 12:00	0:01	SSA3	0.00318	0.5930	System constraint
11/24/2019 12:01	0:01	SSA2	0.00370	0.6990	System constraint
11/24/2019 12:01	0:01	SSA3	0.00325	2.0570	System constraint
11/24/2019 12:03	0:01	SSA3	0.00318	2.7690	System constraint
11/24/2019 12:03	0:01	SSA3	0.00509	2.7340	System constraint
11/24/2019 13:04	0:01	SSA2	0.00191	0.9410	System constraint
11/24/2019 13:04	0:01	SSA3	0.00498	2.7320	System constraint
11/24/2019 13:05	0:01	SSA2	0.00191	0.4560	System constraint
11/24/2019 13:05	0:01	SSA3	0.00509	1.5280	System constraint
11/24/2019 13:06	0:01	SSA2	0.00191	0.4310	System constraint
11/24/2019 13:06	0:01	SSA3	0.00509	0.0160	System constraint
11/24/2019 13:06	0:01	SSA2	0.00191	0.4430	System constraint
11/24/2019 13:07	0:01	SSA3	0.00498	0.3500	System constraint
11/24/2019 13:42	0:01	SSA3	0.00298	2.6080	System constraint
11/24/2019 13:42	0:01	SSA2	0.00389	2.7430	System constraint
11/24/2019 13:42	0:01	SSA3	0.00298	2.6010	System constraint
11/24/2019 13:43	0:01	SSA2	0.00389	2.3490	System constraint
11/24/2019 13:43	0:01	SSA3	0.00292	0.4030	System constraint
11/24/2019 13:44	0:01	SSA2	0.00389	0.1340	System constraint
11/24/2019 13:44	0:01	SSA3	0.00341	0.1040	System constraint
11/24/2019 13:49	0:01	SSA3	0.00488	2.5480	System constraint
11/24/2019 13:50	0:01	SSA2	0.00724	2.7420	System constraint
11/24/2019 13:51	0:01	SSA3	0.00488	2.5460	System constraint
11/24/2019 13:51	0:01	SSA2	0.00724	2.7410	System constraint
11/24/2019 13:52	0:01	SSA3	0.00488	2.5460	System constraint
11/24/2019 13:52	0:01	SSA2	0.00724	0.5080	System constraint
11/24/2019 13:52	0:01	SSA3	0.00478	0.0510	System constraint
11/24/2019 13:53	0:01	SSA2	0.00724	0.3220	System constraint
11/24/2019 13:53	0:01	SSA3	0.00488	0.2750	System constraint
11/24/2019 13:54	0:01	SSA3	0.00478	1.5200	System constraint
11/24/2019 13:54	0:01	SSA2	0.00724	1.7440	System constraint
11/24/2019 13:57	0:01	SSA3	0.00488	2.5220	System constraint
11/24/2019 13:57	0:01	SSA2	0.00724	2.7800	System constraint
11/24/2019 13:58	0:01	SSA2	0.00724	2.6620	System constraint
11/27/2019 12:07	0:01	KWPll	0.00038255	0.022952972	System constraint
11/27/2019 22:20	0:03	KWPll	0.076492691	11.98244953	System constraint
11/28/2019 9:29	0:01	SSA2	-0.00069	0.3330	System constraint
11/28/2019 9:29	0:01	SSA3	-0.00061	1.9560	System constraint
11/28/2019 9:30	0:01	SSA2	0.00729	0.3160	System constraint
11/28/2019 9:31	0:01	SSA3	0.00763	1.6210	System constraint
11/28/2019 9:31	0:01	SSA2	0.00729	0.4540	System constraint
11/28/2019 9:32	0:01	SSA3	0.00780	0.7990	System constraint
11/28/2019 9:37	0:01	SSA3	0.00747	2.0370	System constraint
11/28/2019 9:39	0:01	SSA3	0.00747	2.0470	System constraint



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Start Date and Time	Duration	IPP Curtailed	Estimated Curtailed MWH	Peak MW Curtailed	Reasons for Curtailment
11/28/2019 9:39	0:01	SSA3	0.00780	2.0500	System constraint
11/28/2019 9:40	0:01	SSA2	0.00729	1.7970	System constraint
11/28/2019 9:40	0:01	SSA3	0.00763	1.9050	System constraint
11/28/2019 9:41	0:01	SSA2	0.00729	0.8930	System constraint
11/28/2019 9:41	0:01	SSA3	0.00780	0.0700	System constraint
11/28/2019 9:42	0:01	SSA2	0.00729	0.3160	System constraint
11/28/2019 9:42	0:01	SSA3	0.00780	0.1840	System constraint
11/28/2019 9:42	0:06	SSA2	0.10361	0.0150	System constraint
11/28/2019 9:43	0:05	BS250	Data not available	Data not available	System constraint
11/28/2019 9:43	0:05	ESA	Data not available	Data not available	System constraint
11/28/2019 9:43	0:05	ESB	Data not available	Data not available	System constraint
11/28/2019 9:43	0:04	KWPll	0.156373946	12.83570099	System constraint
11/28/2019 9:43	0:06	SSA3	0.14198	0.0610	System constraint
11/28/2019 9:48	0:01	KWPll	0.003405921	11.93554497	System constraint
11/28/2019 9:48	0:01	SSA2	0.01946	0.0230	System constraint
11/28/2019 9:49	0:01	SSA3	0.02275	0.1210	System constraint
11/28/2019 9:49	0:01	SSA2	0.01946	0.3740	System constraint
11/28/2019 9:50	0:01	SSA3	0.02178	0.6810	System constraint
11/28/2019 9:50	0:01	SSA2	0.01946	0.8950	System constraint
11/28/2019 9:50	0:01	SSA3	0.02324	1.7310	System constraint
11/28/2019 9:51	0:02	SSA2	0.03892	0.8390	System constraint
11/28/2019 9:51	0:01	SSA3	0.02227	0.0680	System constraint
11/28/2019 9:52	0:01	SSA3	0.02275	1.0270	System constraint
11/28/2019 9:53	0:01	SSA3	0.02227	0.9370	System constraint
11/28/2019 9:53	0:01	SSA2	0.01946	1.2050	System constraint
11/28/2019 9:53	0:01	SSA3	0.02227	1.1000	System constraint
11/28/2019 9:54	0:01	SSA2	0.01946	0.7850	System constraint
11/28/2019 9:54	0:01	SSA3	0.02275	0.0680	System constraint
11/28/2019 9:55	0:03	BS250	Data not available	Data not available	System constraint
11/28/2019 9:55	0:03	ESA	Data not available	Data not available	System constraint
11/28/2019 9:55	0:03	ESB	Data not available	Data not available	System constraint
11/28/2019 9:55	0:01	SSA2	0.01946	0.0990	System constraint
11/28/2019 9:55	0:04	SSA3	0.11134	0.1420	System constraint
11/28/2019 9:55	0:02	SSA2	0.03855	0.0200	System constraint
11/28/2019 9:56	0:03	KWPll	0.068034887	14.92342377	System constraint
11/28/2019 9:57	0:01	SSA2	0.01946	0.0060	System constraint
11/28/2019 9:58	0:01	SSA2	0.01946	0.0430	System constraint
11/28/2019 9:59	0:01	SSA3	0.02081	0.5350	System constraint
11/28/2019 9:59	0:01	SSA2	0.01532	0.1050	System constraint
11/28/2019 10:00	0:01	SSA3	0.00158	0.9470	System constraint
11/28/2019 10:00	0:01	SSA2	0.00398	0.1210	System constraint
11/28/2019 10:12	0:01	SSA2	0.00390	1.7040	System constraint
11/28/2019 10:12	0:01	SSA3	0.00158	2.3130	System constraint
11/28/2019 10:13	0:01	SSA2	0.00398	1.5680	System constraint
11/28/2019 10:13	0:01	SSA3	0.00161	2.3140	System constraint
11/28/2019 10:22	0:01	SSA3	0.00552	2.3630	System constraint
11/28/2019 10:22	0:01	SSA2	0.00180	1.3650	System constraint
11/28/2019 10:23	0:01	SSA3	0.00552	2.3840	System constraint
11/28/2019 10:23	0:01	SSA2	0.00180	0.8220	System constraint
11/28/2019 10:24	0:01	SSA3	0.00541	0.0930	System constraint
11/28/2019 10:24	0:01	SSA2	0.00180	0.8940	System constraint
11/28/2019 10:25	0:01	SSA2	0.00180	0.1070	System constraint
11/28/2019 10:26	0:01	SSA3	0.00611	1.5830	System constraint
11/28/2019 10:27	0:01	SSA2	0.00173	0.7530	System constraint
11/29/2019 0:22	0:09	KWPll	0.344230747	13.73485851	Oversupply
11/29/2019 1:21	0:13	KWPll	0.29100879	14.53621674	Oversupply
11/29/2019 1:46	0:01	KWPll	0.004508416	9.535462379	Oversupply
11/29/2019 2:10	0:09	KWPll	0.226030699	14.03823662	Oversupply
11/29/2019 2:22	0:45	KWPll	4.057792695	15.3695097	Oversupply
11/29/2019 3:00	0:02	AWE	0.015108681	20.5	Oversupply
11/29/2019 3:16	0:20	KWPll	1.142926661	12.87362289	Oversupply
11/29/2019 3:38	0:48	KWPll	9.800451714	16.12396431	Oversupply
11/29/2019 4:04	0:02	AWE	0.021086979	19.60000038	Oversupply
11/29/2019 4:09	0:07	AWE	0.140790399	19.69999886	Oversupply
11/29/2019 4:19	0:02	AWE	0.020327377	20.29999924	Oversupply
11/29/2019 4:28	0:54	KWPll	6.430399543	15.73575878	Oversupply
11/29/2019 4:39	0:01	AWE	0.002850819	19.39999962	Oversupply
11/29/2019 5:23	0:04	KWPll	0.036882877	14.68391418	Oversupply
11/29/2019 5:28	0:01	KWPll	0.00224541	13.81768894	Oversupply
11/29/2019 5:30	0:01	KWPll	0.000245508	13.8156929	Oversupply
11/29/2019 5:35	0:02	KWPll	0.017580175	13.45742702	Oversupply
11/29/2019 5:38	0:18	KWPll	0.823249499	15.79962826	Oversupply
11/29/2019 9:33	0:01	SSA3	0.00987	2.0130	Oversupply





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Start Date and Time	Duration	IPP Curtailed	Estimated Curtailed MWH	Peak MW Curtailed	Reasons for Curtailment
11/29/2019 9:34	0:01	SSA2	0.01064	1.7660	Oversupply
11/29/2019 9:37	0:01	SSA2	0.01044	1.7930	Oversupply
11/29/2019 9:37	0:01	SSA3	0.01031	2.0420	Oversupply
11/29/2019 9:38	0:01	SSA2	0.01064	1.2630	Oversupply
11/29/2019 9:38	0:01	SSA3	0.01075	0.2710	Oversupply
11/29/2019 9:39	0:01	SSA2	0.01064	0.2520	Oversupply
11/29/2019 9:39	0:01	SSA3	0.00987	0.2250	Oversupply
11/29/2019 9:40	0:01	BS250	Data not available	Data not available	Oversupply
11/29/2019 9:40	0:01	ESA	Data not available	Data not available	Oversupply
11/29/2019 9:40	0:01	ESB	Data not available	Data not available	Oversupply
11/29/2019 9:40	0:02	SSA2	0.02128	0.0750	Oversupply
11/29/2019 9:40	0:01	SSA3	0.01009	0.2350	Oversupply
11/29/2019 9:40	0:01	SSA3	0.00987	0.0160	Oversupply
11/29/2019 9:41	1:12	KWPll	12.01456042	20.6846199	Oversupply
11/29/2019 9:41	1:11	SSA3	2.63396	0.0040	Oversupply
11/29/2019 9:41	1:11	SSA2	2.23369	0.1820	Oversupply
11/29/2019 9:42	1:10	BS250	Data not available	Data not available	Oversupply
11/29/2019 9:42	1:10	ESA	Data not available	Data not available	Oversupply
11/29/2019 9:42	1:10	ESB	Data not available	Data not available	Oversupply
11/29/2019 10:40	0:04	AWE	0.03443648	20.89999962	Oversupply
11/29/2019 10:45	0:02	AWE	0.000473086	20.5	Oversupply
11/29/2019 10:52	0:01	SSA3	0.03258	0.0040	Oversupply
11/29/2019 10:52	0:01	SSA2	0.03247	0.3240	Oversupply
11/29/2019 10:53	0:19	BS250	Data not available	Data not available	Oversupply
11/29/2019 10:53	0:19	ESA	Data not available	Data not available	Oversupply
11/29/2019 10:53	0:19	ESB	Data not available	Data not available	Oversupply
11/29/2019 10:53	0:18	SSA3	0.79753	0.1310	Oversupply
11/29/2019 10:53	0:18	SSA2	0.65128	0.0060	Oversupply
11/29/2019 10:54	0:18	KWPll	2.118714857	20.60278702	Oversupply
11/29/2019 11:11	0:01	SSA3	0.03417	0.0030	Oversupply
11/29/2019 11:11	0:01	SSA2	0.02981	0.0730	Oversupply
11/29/2019 11:12	0:26	SSA3	1.14421	0.1150	Oversupply
11/29/2019 11:12	0:15	SSA2	0.60679	0.0700	Oversupply
11/29/2019 11:13	0:25	BS250	Data not available	Data not available	Oversupply
11/29/2019 11:13	0:25	ESA	Data not available	Data not available	Oversupply
11/29/2019 11:13	0:25	ESB	Data not available	Data not available	Oversupply
11/29/2019 11:13	0:26	KWPll	1.220131493	18.79648781	Oversupply
11/29/2019 11:27	0:01	SSA2	0.03553	0.0010	Oversupply
11/29/2019 11:28	0:10	SSA2	0.29887	0.0180	Oversupply
11/29/2019 11:37	0:01	SSA2	0.02352	0.0030	Oversupply
11/29/2019 11:37	0:01	SSA3	0.03510	0.0220	Oversupply
11/29/2019 11:38	0:01	SSA2	0.02352	0.1720	Oversupply
11/29/2019 11:38	0:01	SSA3	0.03436	0.1090	Oversupply
11/29/2019 11:39	0:01	SSA2	0.02352	0.2140	Oversupply
11/29/2019 11:39	0:01	SSA3	0.03436	0.0190	Oversupply
11/29/2019 11:40	0:26	BS250	Data not available	Data not available	Oversupply
11/29/2019 11:40	0:26	ESA	Data not available	Data not available	Oversupply
11/29/2019 11:40	0:26	ESB	Data not available	Data not available	Oversupply
11/29/2019 11:40	0:27	KWPll	1.302993155	20.19262695	Oversupply
11/29/2019 11:40	0:26	SSA3	1.08072	0.0040	Oversupply
11/29/2019 11:40	0:26	SSA2	0.72015	0.0010	Oversupply
11/29/2019 12:06	0:01	SSA2	0.01379	0.0560	Oversupply
11/29/2019 12:06	0:01	SSA3	0.02164	0.0610	Oversupply
11/29/2019 12:08	0:01	SSA3	0.02164	1.4780	Oversupply
11/29/2019 12:08	0:01	SSA2	0.01379	1.3450	Oversupply
11/29/2019 12:08	0:01	SSA3	0.02261	1.8210	Oversupply
11/29/2019 12:31	0:01	SSA3	0.03095	2.8160	Oversupply
11/29/2019 12:31	0:01	SSA2	0.02737	1.3320	Oversupply
11/29/2019 12:31	0:01	SSA3	0.03028	2.7740	Oversupply
11/29/2019 12:32	0:01	SSA2	0.02737	0.1520	Oversupply
11/29/2019 12:32	0:14	SSA3	0.53445	0.0150	Oversupply
11/29/2019 12:33	0:01	BS250	Data not available	Data not available	Oversupply
11/29/2019 12:33	0:01	ESA	Data not available	Data not available	Oversupply
11/29/2019 12:33	0:01	ESB	Data not available	Data not available	Oversupply
11/29/2019 12:33	0:14	KWPll	0.621555964	20.1157856	Oversupply
11/29/2019 12:33	0:15	SSA2	0.42380	0.0400	Oversupply
11/29/2019 12:35	0:11	BS250	Data not available	Data not available	Oversupply
11/29/2019 12:35	0:11	ESA	Data not available	Data not available	Oversupply
11/29/2019 12:35	0:11	ESB	Data not available	Data not available	Oversupply
11/29/2019 12:47	0:01	SSA3	0.01211	0.1110	Oversupply
11/29/2019 22:48	0:52	KWPll	3.972590383	20.70757294	Oversupply
11/29/2019 23:51	0:04	KWPll	0.064828078	20.70757294	Oversupply
11/30/2019 0:18	0:11	KWPll	0.105853653	20.70757294	Oversupply



**Maui Curtailment Report**

November 2019

Start Date and Time	Duration	IPP Curtailed	Estimated Curtailed MWH	Peak MW Curtailed	Reasons for Curtailment
11/30/2019 0:41	5:31	KWPll	51.48252834	20.70757294	Oversupply
11/30/2019 8:32	0:01	SSA3	0.00680	1.1810	Oversupply
11/30/2019 8:33	0:01	SSA2	0.00893	1.1090	Oversupply
11/30/2019 8:33	0:01	SSA3	0.00665	1.2570	Oversupply
11/30/2019 8:33	0:01	SSA2	0.00893	0.1670	Oversupply
11/30/2019 8:34	0:01	SSA3	0.00680	0.0860	Oversupply
11/30/2019 8:34	0:01	SSA2	0.00893	0.8860	Oversupply
11/30/2019 8:34	0:01	SSA3	0.00680	0.6840	Oversupply
11/30/2019 8:35	0:02	SSA3	0.01331	0.1240	Oversupply
11/30/2019 8:35	0:01	SSA2	0.00893	0.0890	Oversupply
11/30/2019 8:36	0:01	SSA2	0.00893	0.7140	Oversupply
11/30/2019 8:37	0:01	SSA3	0.00680	0.6900	Oversupply
11/30/2019 8:37	0:01	SSA2	0.00893	0.5150	Oversupply
11/30/2019 8:37	0:01	SSA3	0.00665	0.7610	Oversupply
11/30/2019 8:38	0:01	SSA2	0.00893	0.9010	Oversupply
11/30/2019 8:38	0:01	SSA3	0.00680	0.7730	Oversupply
11/30/2019 8:39	0:01	SSA2	0.00893	0.5360	Oversupply
11/30/2019 8:39	0:01	SSA3	0.00680	0.6570	Oversupply
11/30/2019 8:40	0:01	SSA2	0.00893	0.6030	Oversupply
11/30/2019 8:40	0:01	SSA3	0.00665	0.7470	Oversupply
11/30/2019 8:40	0:01	SSA2	0.00893	0.2130	Oversupply
11/30/2019 8:41	0:01	SSA3	0.00665	0.3010	Oversupply
11/30/2019 8:41	0:01	SSA2	0.00893	0.3150	Oversupply
11/30/2019 8:41	0:01	SSA3	0.00680	0.1340	Oversupply
11/30/2019 8:42	0:01	SSA3	0.00665	0.4110	Oversupply
11/30/2019 8:42	0:01	SSA2	0.00859	0.1220	Oversupply
11/30/2019 8:43	0:01	SSA3	0.00680	0.5850	Oversupply
11/30/2019 8:43	0:01	SSA2	0.00893	0.4690	Oversupply
11/30/2019 8:44	0:01	SSA3	0.00680	0.9420	Oversupply
11/30/2019 8:44	0:01	SSA2	0.00966	0.6800	Oversupply
11/30/2019 8:44	0:01	SSA3	0.00941	0.8000	Oversupply
11/30/2019 8:45	0:01	SSA2	0.01138	0.9900	Oversupply
11/30/2019 8:45	0:01	SSA3	0.01283	1.0260	Oversupply
11/30/2019 8:46	0:01	SSA2	0.01138	1.2030	Oversupply
11/30/2019 8:46	0:01	SSA3	0.01283	0.8710	Oversupply
11/30/2019 8:46	0:01	SSA2	0.01138	0.5150	Oversupply
11/30/2019 8:47	0:01	SSA3	0.01283	0.3870	Oversupply
11/30/2019 8:47	0:01	SSA2	0.01138	0.4020	Oversupply
11/30/2019 8:47	0:01	SSA3	0.01311	0.2880	Oversupply
11/30/2019 8:48	0:01	SSA2	0.01138	0.2240	Oversupply
11/30/2019 8:48	0:01	SSA3	0.01283	0.1070	Oversupply
11/30/2019 8:49	0:01	SSA2	0.01138	0.3220	Oversupply
11/30/2019 8:49	0:01	SSA3	0.01283	0.1800	Oversupply
11/30/2019 8:50	0:01	SSA3	0.01311	0.1230	Oversupply
11/30/2019 8:50	0:01	SSA2	0.01138	0.1210	Oversupply
11/30/2019 8:51	0:01	SSA3	0.01311	0.4560	Oversupply
11/30/2019 8:51	0:01	SSA2	0.01138	0.4970	Oversupply
11/30/2019 8:51	0:01	SSA3	0.01256	0.5200	Oversupply
11/30/2019 8:52	0:01	SSA2	0.01138	0.4910	Oversupply
11/30/2019 8:52	0:01	SSA3	0.01256	0.8570	Oversupply
11/30/2019 8:52	0:01	SSA2	0.01138	0.5260	Oversupply
11/30/2019 8:53	0:01	SSA3	0.01283	0.3890	Oversupply
11/30/2019 8:53	0:01	SSA2	0.01138	0.3010	Oversupply
11/30/2019 8:54	0:01	SSA3	0.01283	0.5220	Oversupply
11/30/2019 8:54	0:01	SSA2	0.01138	0.2750	Oversupply
11/30/2019 8:54	0:01	SSA3	0.01283	0.7160	Oversupply
11/30/2019 8:55	0:01	SSA2	0.01138	0.2280	Oversupply
11/30/2019 8:55	0:01	SSA3	0.01256	0.3180	Oversupply
11/30/2019 8:56	0:01	BS250	Data not available	Data not available	Oversupply
11/30/2019 8:56	0:01	ESA	Data not available	Data not available	Oversupply
11/30/2019 8:56	0:01	ESB	Data not available	Data not available	Oversupply
11/30/2019 8:56	0:01	SSA3	0.01311	0.1000	Oversupply
11/30/2019 8:56	0:01	SSA2	0.01138	0.0270	Oversupply
11/30/2019 8:57	0:01	SSA3	0.01311	0.1240	Oversupply
11/30/2019 8:57	0:01	SSA2	0.01116	0.0180	Oversupply
11/30/2019 8:57	0:01	SSA3	0.01283	0.1740	Oversupply
11/30/2019 8:58	0:01	SSA2	0.01138	0.2670	Oversupply
11/30/2019 8:58	0:01	SSA3	0.01311	0.4550	Oversupply
11/30/2019 8:59	0:01	SSA2	0.01138	0.2310	Oversupply
11/30/2019 8:59	0:01	SSA3	0.00879	0.6860	Oversupply
11/30/2019 8:59	0:01	SSA2	0.00708	0.4470	Oversupply
11/30/2019 9:00	0:01	SSA3	0.00301	0.7120	Oversupply
11/30/2019 9:00	0:01	SSA2	0.00377	0.1920	Oversupply



**Maui Curtailment Report**

November 2019

Start Date and Time	Duration	IPP Curtailed	Estimated Curtailed MWH	Peak MW Curtailed	Reasons for Curtailment
11/30/2019 9:01	0:01	SSA3	0.00295	0.1780	Oversupply
11/30/2019 9:01	0:01	SSA2	0.00377	0.2410	Oversupply
11/30/2019 9:01	0:01	SSA3	0.00308	0.2090	Oversupply
11/30/2019 9:02	0:01	SSA2	0.00377	0.0830	Oversupply
11/30/2019 9:02	0:01	SSA3	0.00308	0.5840	Oversupply
11/30/2019 9:03	0:01	SSA3	0.00301	1.3480	Oversupply
11/30/2019 9:12	0:01	SSA2	0.00362	1.3180	Oversupply
11/30/2019 9:13	0:01	SSA3	0.00308	1.5960	Oversupply
11/30/2019 9:33	0:01	SSA3	0.01059	0.9120	Oversupply
11/30/2019 9:34	0:01	SSA3	0.01059	1.0970	Oversupply
11/30/2019 9:35	0:01	SSA3	0.01059	1.3540	Oversupply
11/30/2019 9:35	0:01	SSA2	0.00748	0.5960	Oversupply
11/30/2019 9:35	0:01	SSA3	0.01036	0.2440	Oversupply
11/30/2019 9:36	0:01	SSA2	0.00748	0.5070	Oversupply
11/30/2019 9:36	0:01	SSA3	0.01036	0.1350	Oversupply
11/30/2019 9:37	0:03	BS250	Data not available	Data not available	Oversupply
11/30/2019 9:37	0:03	ESA	Data not available	Data not available	Oversupply
11/30/2019 9:37	0:03	ESB	Data not available	Data not available	Oversupply
11/30/2019 9:37	0:03	SSA2	0.02243	0.0360	Oversupply
11/30/2019 9:37	0:02	SSA3	0.03199	0.0300	Oversupply
11/30/2019 9:38	0:02	KWPll	0.025928275	20.70757294	Oversupply
11/30/2019 9:39	0:01	SSA3	0.01059	0.0200	Oversupply
11/30/2019 9:39	0:01	SSA2	0.00748	0.0240	Oversupply
11/30/2019 9:40	0:01	SSA3	0.01036	0.3850	Oversupply
11/30/2019 9:40	0:01	SSA2	0.00748	0.0980	Oversupply
11/30/2019 9:41	0:01	SSA3	0.01082	0.7100	Oversupply
11/30/2019 9:41	0:01	SSA2	0.00748	0.4800	Oversupply
11/30/2019 9:41	0:01	SSA3	0.01036	1.0920	Oversupply
11/30/2019 9:42	0:01	SSA2	0.00748	0.6490	Oversupply
11/30/2019 9:42	0:01	SSA3	0.01082	1.1170	Oversupply
11/30/2019 9:43	0:01	SSA2	0.00719	1.0460	Oversupply
11/30/2019 9:43	0:01	SSA3	0.01059	0.8430	Oversupply
11/30/2019 9:44	0:01	SSA2	0.00748	1.3600	Oversupply
11/30/2019 9:44	0:01	SSA3	0.01059	0.9860	Oversupply
11/30/2019 9:46	0:01	SSA3	0.01632	1.9690	Oversupply
11/30/2019 9:46	0:01	SSA2	0.01999	1.9990	Oversupply
11/30/2019 9:47	0:01	SSA3	0.01668	1.8890	Oversupply
11/30/2019 9:48	0:01	SSA3	0.01632	1.6560	Oversupply
11/30/2019 9:48	0:01	SSA2	0.01999	1.4370	Oversupply
11/30/2019 9:48	0:01	SSA3	0.01668	1.1900	Oversupply
11/30/2019 9:49	0:01	SSA2	0.01999	1.0820	Oversupply
11/30/2019 9:49	0:01	SSA3	0.01668	0.4610	Oversupply
11/30/2019 9:50	5:15	BS250	Data not available	Data not available	Oversupply
11/30/2019 9:50	5:15	ESA	Data not available	Data not available	Oversupply
11/30/2019 9:50	5:15	ESB	Data not available	Data not available	Oversupply
11/30/2019 9:50	5:15	SSA2	12.11325	0.0860	Oversupply
11/30/2019 9:50	5:14	SSA3	12.27411	0.0370	Oversupply
11/30/2019 9:51	4:20	KWPll	55.30626051	20.70757294	Oversupply
11/30/2019 12:27	0:01	AWE	0.004049969	20.60000038	Oversupply
11/30/2019 12:32	0:07	AWE	0.040602557	20.79999924	Oversupply
11/30/2019 14:12	0:53	KWPll	3.150347376	20.70757294	Oversupply
11/30/2019 15:04	0:01	SSA3	0.01714	0.0090	Oversupply
11/30/2019 15:05	0:01	SSA2	0.02236	0.1590	Oversupply
11/30/2019 15:05	0:01	SSA3	0.01677	0.3920	Oversupply
11/30/2019 15:05	0:01	SSA2	0.02236	0.9460	Oversupply
11/30/2019 15:05	0:01	SSA3	0.01714	0.8990	Oversupply
11/30/2019 15:06	0:01	SSA2	0.02236	0.4890	Oversupply
11/30/2019 15:06	0:01	SSA3	0.01714	0.6750	Oversupply
11/30/2019 15:07	0:01	SSA3	0.01677	0.3410	Oversupply
11/30/2019 15:07	0:01	SSA2	0.02236	0.6620	Oversupply
11/30/2019 15:08	0:01	SSA3	0.01714	0.8110	Oversupply
11/30/2019 15:08	0:01	SSA2	0.02236	0.6490	Oversupply
11/30/2019 15:09	0:01	SSA3	0.01641	0.7860	Oversupply
11/30/2019 15:09	0:01	SSA2	0.02236	1.1050	Oversupply
11/30/2019 15:09	0:01	SSA3	0.01677	1.0490	Oversupply
11/30/2019 15:10	0:01	SSA2	0.02236	1.3080	Oversupply
11/30/2019 15:10	0:01	SSA3	0.01714	0.7700	Oversupply
11/30/2019 15:11	0:01	SSA2	0.02236	0.6090	Oversupply
11/30/2019 15:11	0:01	SSA3	0.01677	0.7740	Oversupply
11/30/2019 15:11	0:01	SSA2	0.02236	0.6720	Oversupply
11/30/2019 15:12	0:01	SSA3	0.01677	0.3680	Oversupply
11/30/2019 15:12	0:01	SSA2	0.02236	0.8570	Oversupply
11/30/2019 15:12	0:01	SSA3	0.01714	1.0310	Oversupply



**Maui Curtailment Report**

**November 2019**

Start Date and Time	Duration	IPP Curtailed	Estimated Curtailed MWh	Peak MW Curtailed	Reasons for Curtailment
11/30/2019 15:13	0:01	SSA2	0.02236	0.9630	Oversupply
11/30/2019 15:13	0:01	SSA3	0.01677	1.7210	Oversupply
11/30/2019 15:14	0:01	SSA3	0.01279	1.5230	Oversupply
11/30/2019 15:14	0:01	SSA2	0.01516	1.8590	Oversupply
11/30/2019 15:15	0:01	SSA3	0.00075	1.1830	Oversupply
11/30/2019 15:15	0:01	SSA2	0.00212	1.6620	Oversupply
11/30/2019 15:16	0:01	SSA3	0.00075	1.7500	Oversupply
11/30/2019 15:16	0:01	SSA2	0.00212	2.1820	Oversupply
11/30/2019 15:16	0:01	SSA3	0.00074	1.3620	Oversupply
<b>Total Estimated Curtailed MWh</b>			<b>397.879</b>		

**Notes:**

- Curtailment for Kaheawa Wind Power ("KWP"), Makila Hydroelectric ("MH"), AAAAA Rent-A-Space Maui LTD ("5A"), Bioreal Solar, LLC ("BS"), Auwahi Wind Energy ("AWE"), Kaheawa Wind Power II ("KWPII") Bioreal Solar 250, LLC ("BS250"), Extra Spaces A ("ESA"), Extra Spaces B ("ESB"), SSA Solar of Hawaii 3 ("SSA 3") fka South Maui Renewable Resources ("SMRR"), and SSA Solar of HI 2 ("SSA 2") fka Ku'ia Solar ("KS") may now be controlled by Maui Electric's Automatic Generation Control System ("AGC") or a Maui Electric operator-entered curtailment limit. The AGC curtailment control automatically calculates the amount of Maximum Allowable Variable Generation ("MAVG") that Maui Electric can accept into the Maui system, based on the system current available variable generation ("CAVG"), regulating reserve down requirement ("RRDR"), and available regulating reserve down ("ARRD"). Thus, the AGC MAVG - calculated is equal to CAVG less (RRDR less ARRD). Additionally, the AGC curtailment control allows the Maui Electric operator to enter an AGC MAVG value. The AGC curtailment control will employ the lesser of the AGC MAVG - calculated and AGC MAVG - entered values in the control logic.
- Curtailment signals sent to 5A, BS, BS250, ESA, ESB, SSA 3 (fka SMRR), or SSA 2 (fka KS) during nighttime hours only are not recorded as curtailment events because no energy generation is possible during that time.
- The curtailment reasons have been modified to oversupply, system constraints, and facility requested, to provide continuity with HPUC Docket No. 2013-0141 Decoupling for HECO companies metrics.
- The data to calculate the Estimated Curtailed MWh and Peak MW Curtailed is not provided by 5A, BS, BS 250, ESA, ESB, and MH.
- The MH facility was offline for the entire month of November. No curtailment events recorded.
- The Estimated Curtailed MWh and Peak MW Curtailed are calculated with information provided by AWE, KWP, KWPII, SSA 2 (fka KS) and SSA 3 (fka SMRR). Maui Electric does not make any representation as to its accuracy.







Lanai Curtailment Report

November 2019

Start Date and Time	Duration	IPP Curtailed	Estimated MWh Curtailed	Peak MW Curtailed	Reasons for Curtailment
11/15/2019 8:32	0:05	LSR	Data is not available	Data is not available	Oversupply
11/15/2019 8:38	0:01	LSR	Data is not available	Data is not available	Oversupply
11/15/2019 8:43	0:17	LSR	Data is not available	Data is not available	Oversupply
11/15/2019 9:01	0:01	LSR	Data is not available	Data is not available	Oversupply
11/15/2019 9:03	0:10	LSR	Data is not available	Data is not available	Oversupply
11/15/2019 9:14	0:21	LSR	Data is not available	Data is not available	Oversupply
11/15/2019 9:36	0:42	LSR	Data is not available	Data is not available	Oversupply
11/15/2019 10:19	0:01	LSR	Data is not available	Data is not available	Oversupply
11/15/2019 10:22	0:02	LSR	Data is not available	Data is not available	Oversupply
11/15/2019 10:27	0:01	LSR	Data is not available	Data is not available	Oversupply
11/15/2019 10:37	0:05	LSR	Data is not available	Data is not available	Oversupply
11/15/2019 10:43	0:02	LSR	Data is not available	Data is not available	Oversupply
11/15/2019 10:49	0:01	LSR	Data is not available	Data is not available	Oversupply
11/15/2019 10:54	0:01	LSR	Data is not available	Data is not available	Oversupply
11/15/2019 11:00	0:01	LSR	Data is not available	Data is not available	Oversupply
11/15/2019 11:29	0:03	LSR	Data is not available	Data is not available	Oversupply
11/16/2019 8:32	0:01	LSR	Data is not available	Data is not available	Oversupply
11/16/2019 11:36	0:07	LSR	Data is not available	Data is not available	Oversupply
11/25/2019 9:14	6:30	LSR	Data is not available	Data is not available	Oversupply
11/26/2019 10:03	2:33	LSR	Data is not available	Data is not available	Oversupply

Notes:

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

LSR possible output data is not available. Therefore, Maui Electric assumes LSR is curtailed if the LSR curtailment set point is less than 1,200 kW and LSR's output is within 50 kW of the curtailment set point.

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

Hawai'i Electric Light Company Curtailment Report Nov 2019

Start Date/Time	MW output prior to start of curtailment	End Date/Time	MW output after curtailment released <sup>1</sup>	IPP	Reason for Curtailment
11/22/19 06:54	20.0 MW	11/22/19 17:15	19.7 MW	Pakini Nui Windfarm	Facility requested
11/22/19 21:34	19.9 MW	11/23/19 04:39	19.7 MW	Pakini Nui Windfarm	Facility requested
11/23/19 11:11	15.5 MW	11/23/19 11:34	0.0 MW	Pakini Nui Windfarm	Facility requested
11/23/19 11:46	5.9 MW	11/23/19 11:46	5.9 MW	Pakini Nui Windfarm	Facility requested
11/23/19 11:55	12.4 MW	11/24/19 08:11	14.1 MW	Pakini Nui Windfarm	Facility requested
11/26/19 07:59	19.9 MW	11/26/19 11:39	17.7 MW	Pakini Nui Windfarm	Facility requested
11/30/19 07:07	19.9 MW	11/30/19 12:13	18.0 MW	Pakini Nui Windfarm	Facility requested
11/30/19 18:31	19.9 MW	12/01/19 06:20	15.3 MW	Pakini Nui Windfarm	Facility requested

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



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