# Public Utility Commission

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REPORT NAME: Major Event Report for August 11, 2015
COMPANY NAME: Idaho Power Company
DOES REPORT CONTAIN CONFIDENTIAL INFORMATION?   No   Yes
If yes, please submit only the cover letter electronically. Submit confidential information as directed in OAR 860-001-0070 or the terms of an applicable protective order.
If known, please select designation: $\square RE$ (Electric) $\square RG$ (Gas) $\square RW$ (Water) $\square RO$ (Other)
Report is required by:  OAR  860-023-0161
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Accident reports required by ORS 654.715



LISA D. NORDSTROM Lead Counsel Inordstrom@idahopower.com

August 21, 2015

Public Utility Commission of Oregon Filing Center 3930 Fairview Industrial Drive SE P.O. Box 1088 Salem, Oregon 97308-1088

Re: Major Event: August 21, 2015

Docket No. RE 114

#### Attention Filing Center:

We have discovered that a series of outage events starting on August 11, 2015, affected our Oregon service territory in our Canyon Operating Region and met the criteria as a Major Event Day with SAIDI (System Average Interruption Duration Index) equal to 67.43 minutes (TMED = 14.19) and CAIDI (Customer Average Interruption Duration Index) equal to 2,336.27 minutes.

The initial cause of the outage was the Soda Fire which impacted structures and the conductor on the Gem to Jordan Valley 69 kV transmission line. The Oregon customers on the Jordan Valley and Rockville circuits were impacted from August 11, 2015, to August 15, 2015.

An original and one copy of the **confidential** maps showing the affected area will be provided via Federal Express.

This filing should be forwarded to Lori Koho in the Safety, Reliability and Security Division. If you have any questions, please do not hesitate to contact Perry Van Patten, Manager, Delivery Reliability and Maintenance, at 208-388-5944.

Very truly yours,

Lisa D. Nordstrom

Lin D. Madstrom

LDN/kkt

Enclosure

cc: Adam Richins

Brent Lulloff
Perry E. Van Patten
Marc Patterson
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## Oregon Administrative Rule 860-023-0161 Major Event Filing August 11, 2015

**Description:** On August 11, 2015, a major event day occurred in Idaho Power Company's ("Idaho Power") Oregon service territory in the Canyon Operating Region. Subsequent outage events on August 13, 14, and 15 that were related to the event on the 11<sup>th</sup> are also included in this report. The affected area was Jordan Valley, Oregon and the cause of the initial outage was the Soda Fire<sup>1</sup>. Additional outage events occurred during restoration attempts with a mobile generator in the Jordan Valley substation while the damaged structures and conductor on the Gem to Jordan Valley 69 kV line were rebuilt. Our Oregon 2015 System Average Interruption Duration Index ("SAIDI") threshold for a major event day is 14.19 minutes. This threshold was exceeded on August 11<sup>th</sup> with a value of 67.43 minutes and on August 13<sup>th</sup> with a value of 15.55 minutes. The Customer Average Interruption Duration Index ("CAIDI") threshold of 300 minutes was only exceeded on August 11<sup>th</sup> with a value of 2,336.27 minutes.

Given the scope of the damage to the transmission line and that its estimated service restoration would take 5 days, Idaho Power installed a 2 megawatt ("MW") generator (largest available) in the Jordon Valley substation that was energized at 2:05 AM on August 13<sup>th</sup>. The generator was down-rated to 1.6 MW at the altitude installed. Customers were asked via both phone communication and local publication to use critical appliances only. The generator provided intermittent service to Jordan Valley circuits 11 and 12, and partial service to Jordan Valley circuit 31. The Jordan Valley feeders contain a significant amount of single-phase load, which caused balancing issues between the phases on the generator as load changed or was brought online. To minimize tripping on the lines, Idaho Power crews worked in tandem with the generator operators to monitor balancing of the phases by adding or reducing load on specific phases to maintain consistent generator operations; this resulted in intermittent service on various segments of the three Jordan Valley feeders.

#### **Transmission Events:**

				Duration		
Line	Begin Time	End Time	<b>Event Type</b>	(min)	Comments	
Gem-Jordan	8/11/2015	8/11/2015	Danga Fire	120	128	Opened Blacker 070T4 and closed
Valley 69 kV	6:29 pm	8:37 pm	Range Fire	128	Gem 061A	
Gem-Jordan	8/14/2015	8/15/2015	Pango Firo	2.002	Burned poles	
Valley 69 kV	9:53 am	8:35 pm	Range Fire	2,082		

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<sup>1</sup> http://inciweb.nwcg.gov/incident/4475/

**Customers Affected:** All of the Oregon customers on Jordan Valley circuits ("JNVY") 11, 12, and 31 and Rockville circuit ("RKVL") 11 were affected. The customers on the Jordan Valley circuits experienced multiple outage events on August 13, 14, and 15 during attempts to restore power with a mobile generator. The customers on the Rockville circuit were impacted once for the entire duration of the Gem to Jordan Valley line being out of service. The duration column below is rounded to the nearest minute. The Customer Minutes Out column is the product of the customers out and the duration in minutes and seconds.

minutes and seconds.				Customer
		Customers	Duration	Minutes
Outage Begin – End Date/Time	Feeder - Device	Out	(Minutes)	Out
8/11/2015 6:29 pm – 8/13/2015 2:05 am	JNVY11 – BKR	87	1,896	164,916
8/11/2015 6:29 pm – 8/13/2015 2:20 am	JNVY31 – BKR	139	1,911	265,629
8/11/2015 6:29 pm – 8/13/2015 2:20 am	JNVY12 – BKR	84	1,911	160,489
8/11/2015 6:29 pm – 8/13/2015 7:59 am	JNVY31 – R2X	65	2,250	146,250
8/11/2015 6:29 pm – 8/13/2015 1:30 pm	JNVY31 - X82	133	2,581	343,273
8/11/2015 6:29 pm – 8/15/2015 8:35 pm	RKVL11 – BKR	28	5,886	164,796
8/11/2015 6:29 pm – 8/15/2015 8:51 pm	JNVY31 – DCW8A_511445	2	5,902	11,804
Total for ou	tages starting on 8/11/2015	538		1,257,157
8/13/2015 6:54 am – 8/13/2015 7:51 am	JNVY11 – BKR	87	57	4,931
8/13/2015 6:54 am – 8/13/2015 7:51 am	JNVY12 – BKR*	223	57	12,655
8/13/2015 8:11 am – 8/13/2015 8:43 am	JNVY11 – BKR	87	32	2,761
8/13/2015 8:11 am – 8/13/2015 8:43 am	JNVY12 – BKR	84	32	2,666
8/13/2015 8:11 am – 8/13/2015 8:50 am	JNVY12 - T5*	204	39	7,902
8/13/2015 10:00 am – 8/13/2015 10:10 am	JNVY11 – BKR	87	10	848
8/13/2015 10:00 am – 8/13/2015 10:23 am	JNVY12 – BKR	84	23	1,912
8/13/2015 10:00 am – 8/14/2015 5:54am	JNVY31 – R2X	174	1,194	207,756
8/13/2015 10:00 am – 8/14/2015 6:10a m	JNVY31 – R16	1	1,210	1,210
8/13/2015 10:30 am – 8/13/2015 10:40 am	JNVY12 – BKR	84	10	840
8/13/2015 6:57 pm – 8/13/2015 7:21 pm	JNVY11 – BKR	87	23	2,037
8/13/2015 6:57 pm – 8/13/2015 7:21 pm	JNVY12 – BKR	84	23	1,967
8/13/2015 6:57 pm – 8/13/2015 8:24 pm	JNVY31 – BKR	139	86	12,012
8/13/2015 8:32 pm – 8/13/2015 8:46 pm	JNVY11 – BKR	87	13	1,153
8/13/2015 8:32 pm – 8/13/2015 10:47 pm	JNVY12 – BKR	84	134	11,277
8/13/2015 8:32 pm – 8/13/2015 10:47 pm	JNVY31 – BKR	139	134	18,661
	tages starting on 8/13/2015	1,735		290,588
8/14/2015 4:55 am – 8/15/2015 11:04 pm	JNVY31 – F75	1	2,529	2,529
8/14/2015 5:10 am – 8/14/2015 7:34 am	JNVY31 – R5	6	144	864
8/14/2015 5:15 am – 8/15/2015 11:11 pm	JNVY31 – F70	8	2,516	20,128
8/14/2015 6:45 am – 8/14/2015 7:52 am	JNVY31 – S17	8	67	536
8/14/2015 2:15 pm – 8/14/2015 2:32 pm	JNVY11 – BKR	87	17	1,479
8/14/2015 2:15 pm – 8/14/2015 2:32 pm	JNVY12 – BKR	84	17	1,428
8/14/2015 2:15 pm – 8/14/2015 2:32 pm	JNVY31 – BKR	328	17	5,576
	tages starting on 8/14/2015	522		32,540
8/15/2015 3:31 pm – 8/15/2015 8:25 pm	JNVY11 – X28	3	294	882
8/15/2015 7:20 pm – 8/15/2015 8:42 pm	JNVY11 – BKR	84	82	6,888
8/15/2015 7:20 pm – 8/15/2015 8:45 pm	JNVY12 – BKR	84	85	7,140
8/15/2015 7:20 pm – 8/15/2015 8:51 pm	JNVY31 – BKR	328	91	29,848
Total for ou	tages starting on 8/15/2015	499		44,758
*A tie quiteb (INI)/V/12 TE) between INI)/V/	Total for all outages	3,294	111111111111111111111111111111111111111	1,625,043

<sup>\*</sup>A tie switch (JNVY12 - T5) between JNVY12 and JNVY31 was used to pick-up load on JNVY31 with a mobile generator, which was setup to source the transformer that normally serves the JNVY11 and JNVY12 circuits.

**Circuit Reliability:** The reliability indices for each distribution circuit are shown below for each date that had an outage event begin. Outage events that spanned multiple calendar dates were attributed to the date that the outage began. Also, the customer outages for customers that are normally on the JNVY31 circuit but were fed through the JNVY12 circuit were accounted for in the JNVY31 feeder reliability statistics. The total customer counts are for Idaho Power's entire Oregon service territory.

Date	Circuit	Oregon Customers	SAIDI (Minutes)	SAIFI	CAIDI (Minutes)
8/11/2015	JNVY11	87	1,895.58	1.00	1,895.58
8/11/2015	JNVY12	84	1,910.58	1.00	1,910.58
8/11/2015	JNVY31	339	2,262.41	1.00	2,262.41
8/11/2015	RKVL11	28	5,885.57	1.00	5,885.57
Total for 8		18,606	67.57	0.03	2,336.72
8/13/2015	JNVY11	87	134.83	5.00	26.97
8/13/2015	JNVY12	84	278.92	6.00	46.49
8/13/2015	JNVY31	339	753.48	2.35	320.89
Total for 8		18,610	15.61	0.09	167.49
8/14/2015	JNVY11	87	17.00	1.00	17.00
8/14/2015	JNVY12	84	17.00	1.00	17.00
8/14/2015	JNVY31	339	87.41	1.04	84.42
Total for 8	/14/2015	18,611	1.75	0.03	62.34
8/15/2015	JNVY11	87	89.31	1.00	89.31
8/15/2015	JNVY12	84	85.00	1.00	85.00
8/15/2015	JNVY31	339	87.78	0.96	91.00
Total for 8	/15/2015	18,617	2.40	0.03	89.69
Overall	JNVY11	87	2,136.76	8.00	267.09
Overall	JNVY12	84	2,291.50	9.00	254.61
Overall	JNVY31	339	3,191.08	5.35	596.68
Overall	RKVL11	28	5,885.57	1.00	5,885.57
Over	all		87.33	0.18	493.55

Outage Timeline (Events): The table below lists the sequence of outage events. The red events indicate

outage beginning, while the green events indicate outage ending.

outage beginning, wi	outage beginning, while the green events indicate outage ending.			
	Event	Customer	Running Total	
Event Date/Time	Туре	Change	<b>Customers Out</b>	Description
8/11/2015 6:29 pm	OFF	538	538	JNVY and RKVL circuits off
8/13/2015 2:05 am	ON	87	451	JNVY11 on
8/13/2015 2:20 am	ON	223	228	JNVY12 and partial JNVY31 on
8/13/2015 6:54 am	OFF	310	538	All off
8/13/2015 7:51 am	ON	310	228	JNVY11, JNVY12 and partial JNVY31 on
8/13/2015 7:59 am	ON	65	163	Partial JNVY31 on
8/13/2015 8:11 am	OFF	375	538	All off
8/13/2015 8:43 am	ON	171	367	JNVY11 and JNVY12 on
8/13/2015 8:50 am	ON	204	163	Partial JNVY31 on
8/13/2015 10:00 am	OFF	346	509	JNVY11, JNVY12 and partial JNVY31 off
8/13/2015 10:10 am	ON	87	422	JNVY11 on
8/13/2015 10:23 am	ON	84	338	JNVY12 on
8/13/2015 10:30 am	OFF	84	422	JNVY12 off
8/13/2015 10:40 am	ON	84	338	JNVY12 on
8/13/2015 1:30 pm	ON	133	205	Partial JNVY31 on
8/13/2015 6:57 pm	OFF	310	515	JNVY11, JNVY12 and partial JNVY31 off
8/13/2015 7:21 pm	ON	171	344	JNVY11 and JNVY12 on
8/13/2015 8:24 pm	ON	139	205	Partial JNVY31 on
8/13/2015 8:32 pm	OFF	310	515	JNVY11, JNVY12 and partial JNVY31 off
8/13/2015 8:46 pm	ON	87	428	JNVY11 on
8/13/2015 10:47 pm	ON	223	205	JNVY12 and partial JNVY31 on
8/14/2015 4:55 am	OFF	1	206	JNVY31F75 off
8/14/2015 5:10 am	OFF	6	212	JNVY31R5 off
8/14/2015 5:15 am	OFF	8	220	JNVY31F70 off
8/14/2015 5:54 am	ON	174	46	JNVY31R2X on
8/14/2015 6:10 am	ON	1	45	JNVY31R16 on
8/14/2015 6:45 am	OFF	8	53	JNVY31S17 off
8/14/2015 7:34 am	ON	6	47	JNVY31R5 on
8/14/2015 7:52 am	ON	8	39	JNVY31S17 on
8/14/2015 2:15 pm	OFF	499	538	All off
8/14/2015 2:32 pm	ON	499	39	JNVY11, JNVY12 and partial JNVY31 on
8/15/2015 3:31 pm	OFF	3	42	JNVY11X28 off
8/15/2015 7:20 pm	OFF	496	538	All off
8/15/2015 8:25 pm	ON	3	535	JNVY11X28 on
8/15/2015 8:35 pm	ON	28	507	RKVL11 on (Gem 061A closed)
8/15/2015 8:42 pm	ON	84	423	Rest of JNVY11 on
8/15/2015 8:45 pm	ON	84	339	JNVY12 on
8/15/2015 8:51 pm	ON	330	9	Partial JNVY31 on (except F75 and F70)
8/15/2015 11:04 pm	ON	1	8	JNVY31F75 on
8/15/2015 11:11 pm	ON	8	0	JNVY31F70 on
<del>ο, 13/2013</del> 11.11 βill	011			31170 011

Outage Timeline (Graph):

