RE 112 e-FILING REPORT COVER SHEET

REPORT NAME:

PGE's Major Storm/Event Exclusion for Period December 8 and 9, 2015

COMPANY NAME:

Portland General Electric

DOES REPORT CONTAIN CONFIDENTIAL INFORMATION?

X No

If known, please select designation:

X RE (Electric)

Report is required by:

X OAR 860-023-0161

Is this report associated with a specific docket/case?

X No

Key words:

PGE's Major Storm/Event Exclusion for Period December 8 and 9, 2015

If known, please select the PUC Section to which the report should be directed:

X Electric Rates and Planning



Portland General Electric Company 121 SW Salmon Street • Portland, Oregon 97204 PortlandGeneral.com

January 20, 2016

Oregon Public Utility Commission Attn: Filing Center 201 High Street, S.E. P.O. Box 1088 Salem, OR 97308-1088

Re:Major Storm/Event ExclusionPeriod:December 8 and 9, 2015

Portland General Electric (PGE) hereby submits this report in compliance with OAR 860-023-0161 which requires the electric company to file a report with the Commission within 30 business days after the conclusion of an event. This report provides a summary of the major storm event that occurred on December 8 and 9, 2015.

OAR 860-023-0161: Major Event Filing by Electric Companies

1. Description of the major event, the interruption causes, and factors that impacted restoration of service.

On December 8 and 9, 2015, PGE's entire service territory experienced widespread outages due to several days of unprecedented rainfall, followed by high winds.

The series of storms to hit the Portland Metro area caused substantial flooding and road closures impacting restoration efforts and making outage response difficult for PGE crews. The major cause(s) of interruption were due to landslides, uprooted trees, high winds, tree limbs, downed wire and sustained flooding.

2 The Reliability reporting area and geographic area impacted.

PGE's entire service territory was impacted by the flooding and winds. The hardest hit area was PGE's Eastern service territory experiencing the highest number of customers affected.

3. The total number of customers affected and the number of customers without service at periodic intervals.

At the peak of the storm, PGE had approximately 27,056 customers without power. During the storm, a total of 53,676 customers were affected.

4. The calculated SAIDI, SAIFI, and CAIDI impacts (i.e., "Event SAIDI¹, SAIFI², CAIDI³ and Tmed⁴") associated with the Major Event to on a reliability reporting area and a system-wide basis.

The following table represents the calculated impacts for SAIDI, SAIFI, CAIDI, Tmed, and system-wide basis totals:

	REL	IABILITY REPORTING	AREAS	SYSTEM-WIDE BASIS
	EASTERN ¹	SOUTHERN	WESTERN	PGE SERVICE TERRITORY
SAIDI ²	12.52	1.57	1.68	15.77
SAIFI ³	0.047	0.007	0.007	.062
CAIDI ⁴	265	212	227	254
Customers out at peak	24,707	697	1,652	27,056
T med				3.80

¹ Eastern and Central regions are now combined and represented as the Eastern region.

² SAIDI - System Average Interruption Duration Index

³ SAIFI - System Average Interruption Frequency Index

⁴ CAIDI - Customer Average Interruption Duration Index

Major Storm/Event Exclusion: December 8 and 9, 2015 Page 3 of 3

Additional Reporting Related to the December 8 and 9, 2015 Storm Event:

Attachment A provides a summary of outages within PGE's service territory lasting 5 hours or longer.

For questions regarding this filing, please contact Terri Bowman at (503) 464-8854. Please direct all formal correspondence and requests to the following email address <u>pge.opuc.filings@pgn.com</u>

Sincerely,

James Landstrom, Manager, Transmission and Distribution Asset Management

Enclosures

Attachment A Summury af Outages 5 Hours and Longer PGE Service Territory December 8¹⁰-9¹⁰, 2015

Major Storm/Event Exclusion Period: December 8 and 9, 2015 Attachment A

Summary of Outages 5 Hours and Longer for the Entire PGE Service Territory Attackment A Summary of Outages 5 Hours and Longor PGE Service Territory December 8¹³-3¹¹, 2015

Attachment A Summary of Outages 5 Hours and Longer PGE Service Territory December 8¹⁰-3¹¹, 2015

1221	1196	1183	1133	1124	1120	104	1015	1010	125	166	988	983	971	951	942	941	939	938	934	932	899	887	881	873	855	
0.000132	0.000001	0.000013	0.000005	0.000005	0.000064	0.000380	0.000129	0.000005	0.000801	0.000003	0.000035	0.000010	0.000001	0.000001	0.000005	0.000018	0.000028	0.000002	0.000001	0.000151	0.000012	0.000006	0.000002	0.000001	0.000001	
0.1607	0.0014	0.0150	0.0052	0.0052	0.0711	0.0395	0.1313	0.0047	6660.0	0.0034	0.0342	0.0102	0.0011	0.0011	0.0044	0.0174	0.0260	0.0022	0.0011	0.1410	0.0104	0.0051	0.0020	0.0010	0.0010	
WESTERN	EASTERN	EASTERN	SOUTHER N	EASTERN	EASTERN	EASTERN	EASTERN	WESTERN	EASTERN	SOUTHER	EASTERN	EASTERN	SOUTHER N	SOUTHER N	SOUTHER N	SOUTHER N	EASTERN	EASTERN	SOUTHER	EASTERN	SOUTHER N	SOUTHER N	EASTERN	EASTERN	WESTERN	
Primary Conductor	Tree Uprooted	High Winds	Tree Uprooted	Other - Environment / Weather	High Winds	Flooding	High Winds	High Winds	High Winds	Limb on Line	Installation Error - Improper Install	High Winds	Tree Uprooted	Limb on Line	High Winds	High Winds	High Winds	High Winds	High Winds	Car Hit Equipment	Tree Uprooted	Cross Arm	High Winds	High Winds	Felled Tree / Limb	
<inline_jumper.1206></inline_jumper.1206>	SP:15452 S MAPLELANE RD	FUSE_OH:D1532D-746	FUSE_OH:C5723C-429	SP:Null_113	SP:14681 S BRUNNER RD	SC-BKR:HARBORTON EAST R334	FUSE_OH:D3214A-276	SP.Null	SC-BKR:LELAND R116	FUSE_OH:C4116C-1689	FUSE_0H:D1418D-126	FUSE_OH:D2215A-2457	SP:33650 S ODEAN RD	SP:29875 NE MOUNTAIN TOP RD 2	FUSE_OH:D6233C-901	FUSE_OH:C2325B-961	SP:43325 SE WILDCAT MOUNTAIN DR	SP:15400 SE WOODLAND WAY	FUSE_OH:D5307C-91	SP:14331 SE DIVISION ST	FUSE_OH:C6814A-711	FUSE_OH:C2436B-1416	OPEN POINT:NOT SET 3	FUSE_OH:D3234C-18	SP:7215 SW MONTCLAIR DR	
12/9/15 11:44 PM	12/9/15 2:01 PM	12/9/15 4:43 PM	12/9/15 8:26 PM	12/9/15 3:33 PM	12/9/15 2:12 PM	12/9/15 9:17 AM	12/9/15 10:33 AM	12/9/15 1:06 PM	12/9/15 9:18 AM	12/9/15 1:28 PM	12/9/15 11:18 AM	12/9/15 2:11 PM	12/9/15 2:15 PM	12/9/15 12:50 PM	12/9/15 10:20 AM	12/9/15 9:49 AM	12/9/15 4:33 PM	12/9/15 2:04 PM	12/9/15 1:22 PM	12/10/15 3:10 PM	12/9/15 10:00 PM	12/9/15 10:13 PM	12/9/15 1:14 PM	12/9/15 10:03 AM	12/9/15 6:02 PM	
1221	1196	1183	1133	1124	1120	1072	1015	1010	992	166	988	983	971	951	942	941	939	938	934	932	899	~887	881	873	855	
114		11	4	4	55	329	112	4	694	e	30	6			4	16	24	2	1	131	10	5	2		1	
OSWEGO- PALATINE	MT PLEASANT- MT VIEW	DUNNS CORNER-DUNNS CORNER 13	WILLAMINA- BRIDGE	SANDY-362ND	ABERNETHY- OREGON CITY	HARBORTON- LINNTON	REDLAND- HENRICI	MERIDIAN- MERIDIAN 13	LELAND-CARUS	FARGO-FARGO 13	ORIENT- BARLOW	CARVER-SOUTH	COLTON- DHOOGHE	SPRINGBROOK- ZIMRI	SCOTTS MILLS- SCOTTS MILLS- 13	NEWBERG- CHEHALEM	SANDY- WILDCAT	ISLAND-13187	MOLALLA- FOREST	MIDWAY- LYNCH	GRAND RONDE- FORTHILL	YAMHILL- YAMHILL 13	SANDY- WILDCAT	LELAND-CARUS	RALEIGH HILLS- MONTCLAIR	
12/9/15 3:23 AM	12/8/15 6:05 PM	12/8/15 9:00 PM	12/9/15 1:33 AM	12/8/15 8:49 PM	12/8/15 7:32 PM	12/8/15 3:25 PM	12/8/15 5:37 PM	12/8/15 8:16 PM	12/8/15 4:46 PM	12/8/15 8:57 PM	12/8/15 6:50 PM	12/8/15 9:48 PM	12/8/15 10:04 PM	12/8/15 8:59 PM	12/8/15 6:38 PM	12/8/15 6:08 PM	12/9/15 12:54 AM	12/8/15 10:26 PM	12/8/15 9:48 PM	12/9/15 11:38 PM	12/9/15 7:01 AM	12/9/15 7:26 AM	12/8/15 10:33 PM	12/8/15 7:30 PM	12/9/15 3:47 AM	
inline_jumper	point_of_service_oh	fuse_oh	fuse_oh	point_of_service_oh	point_of_service_oh	scada_src_br	fuse_oh	point of service oh	scada_src_br	fuse_oh	fuse_oh	fuse_oh	point of service oh	point of service oh	fuse_oh	fuse_oh	point_of_service_oh	point_of_service_oh	fuse_oh	point_of_service_oh	fuse_oh	fuse_oh	open_point	fuse_oh	point_of_service_oh	
33743	32264	32584	33868	33569	32559	32052	32217	32513	32105	32574	32608	32677	32690	32580	32378	32260	33479	32703	32676	34740	33597	34594	33990	32468	33046	

Attachment A Summary of Outages 5 Hours and Longer PGE Service Territory December 8^{18,}9^{18,} 2015

	AM										
xfm_oh	12/9/15 12:44 AM	LELAND- BEAVERCREEK	_	838	12/9/15 2:41 PM	XFM_OH:A 15 22624	High Winds	EASTERN	0.0010	0.000001	838
point_of_service_oh		SANDY-SANDY 13	1	835	12/9/15 6:48 PM	SP:23101 SE FIRWOOD RD	High Winds	EASTERN	0.0010	0.000001	835
point_of_service_oh		WELCHES-ZIG ZAG	_	829	12/8/15 10:39 PM	SP:RD 10 LOT 16	High Winds	EASTERN	0.0010	0.000001	829
fuse_oh	12/8/15 10:49 AM	RALEIGH HILLS- MONTCLAIR	17	822	12/9/15 12:31 AM	FUSE_OH:C1113C-4177	Primary Cable	WESTERN	0.0161	0.000020	822
recloser_oh	12/8/15 7:20 PM	LELAND-CARUS	695	822	12/9/15 9:02 AM	RECL:2576	Limb on Line	EASTERN	0.6597	0.000803	822
fuse_oh	12/9/15 2:06 AM	FARGO-FARGO 13	19	821	12/9/15 3:47 PM	FUSE_OH:C4108B-1033	Tree Uprooted	SOUTHER N	0.0180	0.000022	821
point_of_service_oh		MOLALLA- FOREST	_	806	12/9/15 9:53 PM	SP:31644 S GRIMM RD	Tree Uprooted	SOUTHER N	0.0009	0.000001	806
point_of_service_oh		BELL-BATTIN	5	791	12/9/15 9:38 AM	SP:7418 SE 71ST AVE	High Winds	EASTERN	0.0018	0.000002	191
fuse_oh	12/8/15 8:12 PM	BELL-BATTIN	101	789	12/9/15 9:21 AM	FUSE_OH:D1220A-2	High Winds	EASTERN	0.0920	0.000117	789
point_of_service_oh	h 12/8/15 9:50 PM	NEWBERG- CHEHALEM	_	787	12/9/15 10:56 AM	SP:9645 NE RED HILLS RD	Tree / Limb Burning	SOUTHER N	0.0009	0.000001	787
point_of_service_oh	h 12/8/15 7:35 PM	COLTON-GRAYS HILL	_	785	12/9/15 8:40 AM	SP:28188 S COX RD	High Winds	SOUTHER N	0.0009	0.000001	785
fuse_oh	12/9/15 3:52 AM	SIL VERTON- NORTH	-	782	12/9/15 4:54 PM	FUSE_OH:C6133A-2767	High Winds	SOUTHER N	0.0009	0.000001	782
primary_meter	12/9/15 5:34 AM	SILVERTON- SOUTH	-	781	12/9/15 6:35 PM	PM:381917878	Tree Uprooted	SOUTHER N	0.0009	0.000001	781
point_of_service_oh		ESTACADA- ESTACADA 13	m	773	12/9/15 2:54 PM	SP:28225 SE STARR RD	Tree Uprooted	EASTERN	0.0027	0.000003	773
xfmoh	12/9/15 12:14 AM	LELAND-CARUS		771	12/9/15 1:06 PM	XFM_OH:B 10 25020	Limb on Line	EASTERN	0.000	0.000001	771
point_of_service_oh		GALES CREEK- GALES CREEK 13	14	768	12/9/15 9:54 AM	SP:2303 NW CREEKWOOD PL	Tree Uprooted	WESTERN	0.0124	0.000016	768
point_of_service_oh	h 12/9/15 5:58 AM	SANDY-SANDY 13		764	12/9/15 6:42 PM	SP:22601 SE FIRWOOD RD	Other - Environment / Weather	EASTERN	0.0009	0.000001	764
fuse_oh	12/8/15 8:14 PM	EAGLE CREEK- BARTON	183	747	12/9/15 8:42 AM	FUSE_OH:D2428B-3535	Fuse / Cutout	EASTERN	0.1579	0.000211	747
point_of_service_oh	h 12/9/15 6:04 AM	SILVERTON- SOUTH	-	746	12/9/15 6.31 PM	SP:Null_6	Tree Uprooted	SOUTHER N	0.0009	0.000001	746
point_of_service_oh	h 12/9/15 2:33 PM	NEWBERG- NORTH COLLEGE	1	743	12/10/15 2:56 AM	SP:308 E OXFORD ST	Secondary Cable	SOUTHER N	6000.0	0.000001	743
fuse_oh	12/8/15 5:02 PM	MULINO-SOUTH	4	739	12/9/15 5:21 AM	FUSE_OH:D4216D-229_1	High Winds	EASTERN	0.0034	0.000005	739
point_of_service_oh	h 12/9/15 6:34 AM	RAMAPO- RAMAPO 13	1	725	12/9/15 6:39 PM	SP:14226 SE FOSTER RD	High Winds	EASTERN	0.0008	0.000001	725
fuse_oh	12/8/15 4:21 AM	NEWBERG- CHEHALEM	36	724	12/8/15 4:25 PM	FUSE_OH:C3309C-767	Tree Uprooted	SOUTHER N	0.0301	0.000042	724
fuse_oh	12/9/15 4:18 AM	ABERNETHY- CLACKAMAS HEIGHTS	6	723	12/9/15 4:21 PM	FUSE_OH:D2221C-1940	High Winds	EASTERN	0.0075	0.000010	723
point_of_service_oh	h 12/9/15	MULTNOMAH-	2	721	12/9/15	SP:9207 SW 43RD AVE	OH Connector / Clamp	EASTERN	0.0017	0.000002	721

Attachment A Summary of Outages 5 Hour Land Longer PGE Service Territory December 8¹²-9¹³, 2015

		3:59 AM	13181			3:59 PM		/ Jumper				
33390	fuse_oh	12/9/15 12:12 AM	PLEASANT VALLEY-MOON	43	717	12/9/15 12:09 PM	FUSE_OH:D1329A-8777	Primary Conductor	EASTERN	0.0356	0.000050	717
33371	fuse_oh	12/9/15 4:17 AM	AMITY- BELLEVUE	19	703	12/9/15 4:00 PM	FUSE_OH:C6510B-12	Limb on Line	SOUTHER N	0.0154	0.000022	703
32822	xfm_oh	12/9/15 2:54 AM	BANKS-CEDAR CANYON	2	702	12/9/15 2:37 PM	XFM_OH:C 15 27704	Flooding	WESTERN	0.0016	0.000002	702
33566	point of service oh	12/9/15 4:11 AM	BRIGHTWOOD- BRIGHTWOOD 13	17	696	12/9/15 3:48 PM	SP:63400 E OLD COUNTY RD	Limb on Line	EASTERN	0.0137	0.000020	696
32821	fuse_oh	12/9/15 2:53 AM	BANKS-CEDAR CANYON	14	693	12/9/15 2:26 PM	FUSE_OH:B2433A-626_1	Other - Environment / Weather	WESTERN	0.0112	0.000016	693
31875	xfm_oh	12/8/15 11:04 AM	RIVERGATE SOUTH-11010	2	691	12/8/15 10:35 PM	XFM_OH:C 25 52658 B 25 52660 A 25 52659	Other - Animal	EASTERN	0.0016	0.000002	169
32865	point_of_service_oh	12/9/15 3.34 AM	GLENCOE- SUNNYSIDE	_	687	12/9/15 3:02 PM	SP:2932 NE GLISAN ST	High Winds	EASTERN	0.0008	0.000001	687
33485	point_of_service_oh	12/9/15 3:53 AM	MOLALLA- MARQUAM	46	679	12/9/15 3:12 PM	SP:16897 S CALLAHAN RD	High Winds	SOUTHER N	0.0360	0.000053	679
33397	xfm_oh	12/9/15 4:28 AM	CENTENNIAL- TREELAND	8	673	12/9/15 3:41 PM	XFM_OH:B 50 6432	Limb on Line	EASTERN	0.0062	0.00000	673
33797	point_of_service_oh	12/9/15 8:54 AM	SANDY- WILDCAT	-	672	12/9/15 8:06 PM	SP:46360 SE ROCKY POINT CT	High Winds	EASTERN	0.0008	0.000001	672
32820	fuse_oh	12/9/15 2:44 AM	MAIN-AIRPORT	34	658	12/9/15 1:43 PM	FUSE_OH:B1232B-1968	Other - Underground Hardware Failure	WESTERN	0.0258	0.000039	658
32655	load_break_disc_oh	12/8/15 8:36 PM	ARLETA- FOSTER	1383	646	12/9/15 7:23 AM	SW_OHLB:1444	Limb on Line	EASTERN	1.0319	0.001597	646
33484	recloser_oh	12/9/15 7:35 AM	SANDY-SANDY 13	258	632	12/9/15 6:07 PM	RECL:3372	High Winds	EASTERN	0.1883	0.000298	632
33454	fuse_oh	12/9/15 5:01 AM	NEWBERG- CHEHALEM	36	629	12/9/15 3:31 PM	FUSE_OH:C3309C-767	High Winds	SOUTHER N	0.0262	0.000042	629
34060	xfm_oh	12/9/15 11:23 AM	MULTNOMAH- 13181	15	627	12/9/15 9:49 PM	XFM_OH:B 50 2720	High Winds	EASTERN	0.0109	0.000017	627
34317	fuse_oh	12/9/15 11:47 AM	GLENCULLEN- BRIDLEMILE	50	622	12/9/15 10:09 PM	FUSE_OH:D1108A-59	Tree Uprooted	EASTERN	0.0359	0.000058	622
34080	point_of_service_oh	12/9/15 11:38 AM	WELCHES-ZIG ZAG	-	617	12/9/15 9:54 PM	SP:RD 30B LOT 7	Other - Environment / Weather	EASTERN	0.0007	0.000001	617
33440	point_of_service_oh	12/9/15 4:50 AM	LELAND-CARUS		615	12/9/15 3:05 PM	SP:20581 S UPPER HIGHLAND RD	Tree Uprooted	EASTERN	0.0007	0.000001	615
33535	point_of_service_oh	12/9/15 6:06 AM	SCOTTS MILLS- SCOTTS MILLS- 13		610	12/9/15 4:16 PM	SP:15085 S BUTTE CREEK RD	Tree Uprooted	SOUTHER N	0.0007	0.000001	610
33327	fuse_oh	12/9/15 4:05 AM	DENNY-EAST	5	. 609	12/9/15 2:15 PM	FUSE_OH:C1123A-29	High Winds	WESTERN	0.0035	0.000006	609
32578	fuse_oh	12/8/15 8:57 PM	MIDWAY- DOUGLAS	19	608	12/9/15 7:06 AM	FUSE_OH:D1202A-6251	Limb on Line	EASTERN	0.0133	0.000022	608
31768	point_of_service_oh	12/8/15 10:43 AM	SELLWOOD- KELLOGG PARK		607	12/8/15 8:51 PM	SP:2723 SE OLSEN ST	Flooding	EASTERN	0.0007	0.000001	607
33512	point_of_service_oh	12/9/15 5:47 AM	HARBORTON- BURLINGTON	-	606	12/9/15 3:53 PM	SP:13825 NW CHARLTON RD_2	High Winds	EASTERN	0.0007	0.000001	606
33383	recloser_oh	12/9/15 4:11 AM	BRIGHTWOOD- NORTH BANK	43	600	12/9/15 2:11 PM	RECL:7350	High Winds	EASTERN	0.0298	0.000050	600

Attachment A Summary of Outages 5 Hours and tonger PGE Service Territory December 8¹⁰,5¹¹, 2015

588	580	575	574	572	571	569	564	561	557	555	555	546	534	529	527	524	522	520	516	515	514	508	508	503
0.000002	0.000001	0.000006	0.000001	0.000003	0.000002	0.000008	0.00001	0.000029	0.000001	0.000001	0.000001	0.000350	0.000001	0.000132	0.000002	0.000002	0.000009	0.000001	0.000224	0.000001	0.000132	600000.0	0.000001	0.000001
0.0014	0.0007	0.0033	0.0007	0.0020	0.0013	0.0046	0.0007	0.0162	0.0006	0.0006	0.0006	0.1909	0.0006	0.0696	0.0012	0.0012	0.0048	0.0006	0.1157	0.0006	0.0676	0.0047	0.0006	0.0006
SOUTHER N	SOUTHER N	EASTERN	EASTERN	EASTERN	SOUTHER N	EASTERN	SOUTHER N	EASTERN	WESTERN	SOUTHER N	SOUTHER N	EASTERN	SOUTHER N	EASTERN	EASTERN	EASTERN	SOUTHER N	SOUTHER N	SOUTHER N	EASTERN	EASTERN	EASTERN	WESTERN	EASTERN
Tree Uprooted	Tree Uprooted	Limb on Line	High Winds	Other - Environment / Weather	High Winds	High Winds	High Winds	Submersible Transformer	High Winds	Tree Uprooted	Fuse / Cutout	Flooding	High Winds	Car Hit Equipment	High Winds	OH Connector / Clamp / Jumper	High Winds	Limb on Line	High Winds	Tree Uprooted	High Winds	Limb on Line	Primary Cable	Secondary Cable
SP:13963 S VICK RD	SP:11525 S BUTTE Creek RD	XFM_OH:C 25 12736	FUSE_OH:D2209B-4573	SP:13551 SE ORIENT DR	FUSE_0H:D7132B-113	FUSE_0H:D2321C-638	XFM_OH:C 15 15833	SP:15010 NE ROSE PKWY	SP:13430 SW 107TH AVE	SP:22444 NORTH FORK RD SE	SP:4328 MARTHALER RD NE	FUSE_OH:DI327A-2	SP:30830 S KAUFFMAN RD	FUSE_OH:D2404B-1392	FUSE_OH:D1408C-1093	XFM_OH:C 15 8736	XFM_OH:A 25 94341	SP:4306 MARTHALER RD NE	FUSE_OH:C8411D-126	SP:9090 SE 242ND AVE	FUSE_OH:D1222A-4365	FUSE_OH:D4227B-67	FUSE_OH:C1430C-538	SP:64783 E LUPINE DR
12/9/15 1:58 PM	12/9/15 4:14 PM	12/9/15 3:49 PM	12/9/15 11:50 AM	12/8/15 11:50 PM	12/8/15 9:14 PM	12/9/15 1:23 PM	12/9/15 4:56 PM	12/8/15 12:21 PM	12/9/15 1:21 PM	12/9/15 6:33 PM	12/9/15 12:51 PM	12/8/15 1:49 PM	12/9/15 3:36 PM	12/8/15 11:47 PM	12/9/15 12:42 PM	12/9/15 3:15 PM	12/9/15 12:15 PM	12/9/15 12:49 PM	12/9/15 12:08 PM	12/8/15 1:47 PM	12/9/15 12:15 PM	12/9/15 4:58 AM	12/8/15 10:27 PM	12/8/15 6:32 PM
588	580	575	574	572	571	569	564	561	557	555	555	546	534	529	527	524	522	520	516	515	514	508	508	503
. 2	1	5	-	e	2	7	1	25	I	1	-	303		114	2	2	8	1	194	-1	114	8	I	1
MOLALLA- YODER	SCOTTS MILLS- SCOTTS MILLS- 13	MULINO-SOUTH	CLACKAMAS- TOLBERT	DUNNS CORNER-DUNNS CORNER 13	SILVERTON- WEST	REDLAND- REDLAND 13	SIL VERTON- NORTH	GLENDOVEER- NORTHEAST	TIGARD-TIGARD 13	SILVERTON- SOUTH	ST LOUIS-WEST	HOGAN NORTH- HOGAN NORTH 13	MOLALLA- YODER	DUNNS CORNER-DUNNS CORNER 13	ORIENT- BARLOW	SANDY-SANDY 13	WOODBURN- WEST	ST LOUIS-WEST	FAIRMOUNT MISSION	HOGAN NORTH- HOGAN NORTH 13	RAMAPO- RAMAPO 13	MULINO-SOUTH	SCOGGINS- CHERRY GROVE	BRIGHTWOOD- NORTH BANK
12/9/15 4:10 AM	12/9/15 6:34 AM	12/9/15 6:14 AM	12/9/15 2:17 AM	12/8/15 2:18 PM	12/8/15 11:42 AM	12/9/15 3:54 AM	12/9/15 7:32 AM	12/8/15 3:00 AM	12/9/15 4:04 AM	12/9/15 9:18 AM	12/9/15 3:37 AM	12/8/15 4:43 AM	12/9/15 6:42 AM	12/8/15 2:58 PM	12/9/15 3:56 AM	12/9/15 6:31 AM	12/9/15 3:33 AM	12/9/15 4:08 AM	12/9/15 3:31 AM	12/8/15 5:13 AM	12/9/15 3:41 AM	12/8/15 8:30 PM	12/8/15 1:59 PM	12/8/15 10:08 AM
point_of_service_oh	point_of_service_oh	xfm_oh	fuse_oh	point_of_service_oh	fuse_oh	fuse_oh	xfm_oh	point_of_service_oh	point_of_service_oh	point_of_service_oh	point_of_service_oh	fuse_oh	point_of_service_oh	fuse_oh	fuse_oh	xfin_oh	xfm_oh	point_of_service_oh	fuse_oh	point_of_service_oh	fuse_oh	fuse_oh	fuse_oh	point_of_service_oh
34164	33576	33545	32815	32003	31907	33167	33639	31447	33313	33847	32884	31457	33583	32030	33192	33905	32855	33340	33019	31470	32945	32534	31988	31590

Attachingent A Summary	of Outages 5 Hours and Longer PGE	service Territory December 8 ¹⁰ -9 ¹⁰ , 2011
		- 22

2
500
500
499
494
493
489
488
483 12/9/15 5:20 PM
478 12/9/15 8:43 AM
477 12/9/15 4:44 PM
472 12/9/15 11:21 AM
471 12/9/15 11:37 AM
468 12/8/15 3:28 PM
466 12/9/15 1:15 PM
466 12/9/15 11:20 AM
466 12/9/15 3:48 AM
463 12/9/15 9:55 PM
461 12/9/15 9:55 PM
461 12/9/15 8:45 AM
461 12/9/15 5:16 AM
460 12/9/15 4:50 PM
460 12/8/15 4.04 PM
449 12/9/15 1:11 AM
445 12/9/15 9:22 AM
442 12/9/15 10:58 AM
442 12/9/15 11:54 AM

Attachment A Summary of Outages 5 Hours and Longer PGE Service Territory December 8¹⁰-9¹⁶, 2015

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440	439	436	434	431	431	427	423	423	423	420	417	417	415	414	412	410	406	400	398	397	395	395	394	389	388	386	384
0.000062	0.000006	0.000001	0.000017	0.000001	0.000001	0.000001	0.003961	0.000001	0.000024	0.000001	0.000002	0.00001	0.000057	0.000028	0.000001	0.000003	0.000052	0.000330	0.000001	0.000013	0.000081	0.00001	0.000008	0.000001	0.000001	0.000001	0.000001
0.0275	0.0025	0.0005	0.0075	0.0005	0.0005	0.0005	1.6763	0.0005	0.0102	0.0005	0.0010	0.0005	0.0235	0.0115	0.0005	0.0014	0.0211	0.1320	0.0005	0.0050	0.0319	0.0005	0.0032	0.0004	0.0004	0.0004	0.0004
EASTERN	WESTERN	EASTERN	EASTERN	EASTERN	SOUTHER N	EASTERN	EASTERN	EASTERN	WESTERN	EASTERN	EASTERN	EASTERN	EASTERN	WESTERN	EASTERN	SOUTHER N	SOUTHER N	WESTERN	EASTERN	SOUTHER N	EASTERN	SOUTHER N	WESTERN	EASTERN	EASTERN	SOUTHER	EASTERN
Limb on Line	High Winds	Flooding	High Winds	High Winds	High Winds	Limb on Line	Other - Substation Equipment Failure	High Winds	High Winds	High Winds	High Winds	High Winds	High Winds	High Winds	Tree Uprooted	Fuse / Cutout	High Winds	Limb on Line	Fuse / Cutout	Tree Uprooted	Recloser / Sectionalizer	High Winds	High Winds	High Winds	Tree Uprooted	Limb on Line	High Winds
FUSE_OH:D4316C-124	XFM_OH:C 25 92821	SP:12951 SE RUSK RD	FUSE_OH:D3323B-70	SP:26800 S BITZ RD_1	SP:3988 DAVIDSON RD NE	SP:4829 SE 60TH AVE	BKR:MULTNOMAH R106	SP:16001 S UNION MILLS RD	FUSE_OH:D1106C-648	SP:305 NE 61ST AVE	XFM_UG:C 15 41504	SP:16122 S UNION MILLS RD	FUSE_OH:D1120B-3	FUSE_OH:C1328B-580	SP:9125 N TIME OIL RD	XFM_UG:B 50 13453	FUSE_OH:D5306A-312	FUSE_OH:C1113B-18	SP:22641 S DAY HILL RD	FUSE_OH:D5305B-975	RECL:6558	SP:31021 S KAUFFMAN RD	SP:39588 SW SNOWCREST DR	SP:25305 SE FIRWOOD RD	SP:44380 SE TUCKRIDGE RD	XFM_OH:C 15 11547	SP:6320 SE ROETHE RD
12/9/15 10:26 AM	12/9/15 10:54 AM	12/9/15 10:00 PM	12/9/15 8:42 AM	12/9/15 3:20 PM	12/9/15 11:46 AM	12/9/15 11:41 AM	12/9/15 10:31 AM	12/9/15 11:35 AM	12/9/15 10:32 AM	12/9/15 2:02 PM	12/9/15 7:59 AM	12/9/15 11:33 AM	12/9/15 10:28 AM	12/9/15 10:03 AM	12/9/15 11:11 AM	12/9/15 12:18 AM	12/9/15 11:41 AM	12/9/15 10:12 AM	12/9/15 3:14 PM	12/9/15 11:09 AM	12/9/15 9:50 AM	12/9/15 11:21 AM	12/9/15 11:03 AM	12/9/15 10:04 PM	12/9/15 3:45 PM	12/9/15 12:48 PM	12/9/15 11:13 AM
440	439	436	434	431	431	427	423	423	423	420	417	417	415	414	412	410	406	400	398	397	395	395	394	389	388	386	384
54	5		15	1	_		3430	I	21	1	2	1	49	24	_	e	45	286	I	11	70		7	1	1		1
MOLALLA- FOREST	DENNY-EAST	HARMONY- MILWAUKIE	REDLAND- HENRICI	MULINO-SOUTH	ST LOUIS-WEST	ARLETA- HAROLD	MULTNOMAH- 13177	HLUOS-ONITIM	SYLVAN- BARNES	TABOR-82ND	ESTACADA- ESTACADA 13	MULINO-SOUTH	MULTNOMAH- 13181	HILLSBORO- LAUREL	RIVERGATE SOUTH-SWIFT	LIBERTY- MORNINGSIDE	COLTON- DHOOGHE	TTS-	ESTACADA- FARADAY	COLTON- DHOOGHE	HARBORTON- BURLINGTON	MOLALLA- YODER	HILLSBORO- LAUREL	SANDY- WILDCAT	DUNNS CORNER-DUNNS CORNER 13	ST LOUIS-WEST	JENNINGS LODGE-
12/9/15 3:05 AM	12/9/15 3:35 AM	12/9/15 2:44 PM	12/9/15 1:28 AM	12/9/15 8:10 AM	12/9/15 4:36 AM	12/9/15 4:33 AM	12/9/15 3:28 AM	12/9/15 4:31 AM	12/9/15 3:29 AM	12/9/15 7:01 AM	12/9/15 1:02 AM	12/9/15 4:36 AM	12/9/15 3:33 AM	12/9/15 3:09 AM	12/9/15 4:19 AM	12/8/15 5:28 PM	12/9/15 4:55 AM	12/9/15 3:32 AM	12/9/15 8:37 AM	12/9/15 4:32 AM	12/9/15 3:15 AM	12/9/15 4:46 AM	12/9/15 4:29 AM	12/9/15 3:35 PM	12/9/15 9:17 AM	12/9/15 6:22 AM	12/9/15 4:48 AM
fuse_oh	xfm_oh	point_of_service_oh	fuse_oh	point_of_service_oh	point_of_service_oh	point_of_service_oh	src_br	point_of_service_oh	fuse_oh	point_of_service_oh	xfm_pm	point_of_service_oh	fuse_oh	fuse_oh	point_of_service_oh	xfm_pm	fuse_oh	fuse_oh	point_of_service_oh	fuse_oh	recloser_oh	point_of_service_oh	point_of_service_oh	point_of_service_oh	point_of_service_oh	xfin_oh	point_of_service_oh
32823	32874	34415	32784	33699	33417	33413	32834	33405	32839	33598	32779	33418	32853	32825	33377	32197	33446	32850	33765	33407	32833	33432	33456	34490	33842	33554	33435

	99d	. 2015
Attachment A Summary	of Outages 5 Hours and Longer PGE	Service Territory December 3 th -9 th , 2015

	380	378	375	374	372	371	371	371	370	368	366	365	364	364	364	363	361	360	359	353	352	350	349	349	347
	0.000670	0.00001	0.00001	0.000070	0.00002	0.00002	0.00001	0.000001	0.000133	0.000005	0.000001	0.000001	0.00001	0.000046	0.000001	0.00002	0.000001	0.000001	0.000003	0.000337	0.000001	0.00001	0.00001	100000'0	0.000518
	0.2545	0.0004	0.0004	0.0264	0.0009	0.000	0.004	0.0004	0.0491	0.0017	0.0004	0.0004	0.0004	0.0168	0.0004	0.0008	0.0004	0.0004	0.0012	0.1189	0.0004	0.0004	0.0004	0.0004	0.1800
	EASTERN	SOUTHER N	SOUTHER N	EASTERN	EASTERN	SOUTHER N	SOUTHER N	EASTERN	WESTERN	WESTERN	WESTERN	WESTERN	SOUTHER N	EASTERN	SOUTHER N	SOUTHER N	WESTERN	EASTERN	EASTERN	EASTERN	SOUTHER	EASTERN	WESTERN	EASTERN	EASTERN
	High Winds	Limb on Line	Tree Uprooted	High Winds	High Winds	High Winds	High Winds	High Winds	High Winds	Other - Pole Hardware Failure	Tree Uprooted	Secondary Cable	High Winds	High Winds	High Winds	Tree Uprooted	High Winds	High Winds	High Winds	Limb on Line	Tree Uprooted	High Winds	High Winds	Secondary Conductor	OH Connector / Clamp
	SW_OHLB:3375	XFM_OH:A 10 50469	SP:4292 DOVER AV NE	FUSE_OH:D2422A-679	FUSE_OH:D4328B-143	XFM_OH:C 10 18016 A 25 21333 B 10 29065	SP:30853 S MARIAN ST	SP:35 SE LAURELHURST PL	FUSE_OH:C2102C-1870	FUSE_OH:C1435A-140	SP:7760 SW COPEL ST	XFM_UG:A 15 45528	SP:30602 S ROARING BULL LN	FUSE_0H:D2315C-1152	XFM_OH:C 15 8391	FUSE_0H:C8314D-3322	SP:4380 SW 96TH AVE	SP:3130 SE BYBEE BLVD	SP:15421 S HILL VALLEY LN	FUSE_OH:D1212B-7591	SP:3095 MONTAIGNE LN S	SP:3208 SE 116TH AVE	XFM_OH:A 15 55960	SP:10972 SE 242ND AVE	RECL:2371
	12/9/15 1:25 PM	12/9/15 12:49 PM	12/9/15 2:26 PM	12/9/15 10:25 AM	12/9/15 2:49 AM	12/9/15 10:42 AM	12/9/15 11:40 AM	12/9/15 2:48 PM	12/9/15 9:37 AM	12/8/15 5:38 PM	12/9/15 10:37 AM	12/9/15 4:23 PM	12/9/15 11:39 AM	12/9/15 10:08 AM	12/9/15 4:56 PM	12/9/15 1:26 AM	12/9/15 4:25 PM	12/9/15 4:47 PM	12/9/15 12:03 AM	12/9/15 1:26 PM	12/9/15 10:00 AM	12/9/15 1:34 PM	12/9/15 9:35 PM	12/8/15 3:39 PM	12/9/15
	380	378	375	374	372	371	371	371	370	368	366	365	364	364	364	363	361	360	359	353	352	350	349	349	347
	580	1	I	61	2	2	_	_	115	4	1	_	1	40		2		1	3	292	-	-			449
WEBSTER	SANDY- WILDCAT	ST LOUIS-WEST	INDIAN-LABISH	SANDY-362ND	MOLALLA- FOREST	ST LOUIS-WEST	COLTON- DHOOGHE	GLENCOE- SUNNYSIDE	TIGARD-TIGARD 13	SCOGGNS- LAURELWOOD	SYLVAN- PATTON	NORTH PLAINS- NORTH PLAINS 13	COLTON- DHOOGHE	BORING- TELFORD	SIL VERTON- NORTH	BARNES- COMMERCIAL	RALEIGH HILLS- DOGWOOD	BELL-WICHITA	MT PLEASANT- MT VIEW	CENTENNIAL- TREELAND	FAIRMOUNT- MISSION	RAMAPO- EMERALD	SCOGGINS- LAURELWOOD	HOGAN NORTH- HOGAN NORTH 13	ESTACADA-
	12/9/15 7:05 AM	12/9/15 6:31 AM	12/9/15 8:11 AM	12/9/15 4:11 AM	12/8/15 8:37 PM	12/9/15 4:31 AM	12/9/15 5:29 AM	12/9/15 8:38 AM	12/9/15 3:27 AM	12/8/15 11:30 AM	12/9/15 4:31 AM		12/9/15 5:35 AM	12/9/15 4:05 AM	12/9/15 10:52 AM	12/8/15 7:23 PM	12/9/15 10:24 AM	12/9/15 10:48 AM	12/8/15 6:03 PM	12/9/15 7:33 AM	12/9/15 4:07 AM	12/9/15 7:44 AM	12/9/15 3:46 PM	12/8/15 9:50 AM	12/9/15
	load_break_disc_oh	xfm_oh	point_of_service_oh	fuse_oh	fuse_oh	xfm_oh	point of service oh	point_of_service_oh	fuse_oh	fuse_oh	point_of_service_oh	xfm_pm	point_of_service_oh	fuse_oh	xfm_oh	fuse_oh	point_of_service_oh	point_of_service_oh	point_of_service_oh	fuse_oh	point_of_service_oh	point_of_service_oh	xfm_oh	point_of_service_oh	recloser_oh
	32748	33570	33704	33353	32549	33402	33497	33769	32836	31899	33403	33956	33500	33320	34012	32464	33966	34006	32275	33659	33338	33656	34500	31571	33954

Attachment A Summery of Outages 5 Hours and Longer PGE Service Territory December 8^{12,}9¹¹, 2015

						2.00 M						
		8:10 AIVI	FAKADAY			Z:U3 FIM						
33155	fuse_oh	12/9/15 3:53 AM	MERIDIAN- MERIDIAN 13	76	345	12/9/15 9:38 AM	FUSE_OH:C2125A- 1113_1	High Winds	WESTERN	0.0303	0.000088	345
33636	point_of_service_oh	12/9/15 7:29 AM	MERIDIAN- MERIDIAN 13	-	344	12/9/15 1:13 PM	SP:6180 SW PROSPERITY PARK RD 1	Other - Environment / Weather	WESTERN	0.0004	0.000001	344
33884	point_of_service_oh	12/9/15 9:32 AM	MOLALLA- MARQUAM	1	343	12/9/15 3:15 PM	SP:3335 S WRIGHT RD	High Winds	SOUTHER N	0.0004	0.000001	343
33544	point_of_service_oh	12/9/15 6:12 AM	CLACKAMAS- TOLBERT	1	339	12/9/15 11:50 AM	SP:Null_3	High Winds	EASTERN	0.0004	0.000001	339
34613	point_of_service_oh	12/9/15 6:32 PM	NEWBERG- CHEHALEM		334	12/10/15 12:06 AM	SP:9645 NE RED HILLS RD	Tree / Limb Burning	SOUTHER N	0.0004	0.000001	334
32478	fuse_oh	12/8/15 7:48 PM	SCOGGINS- LAURELWOOD	4	333	12/9/15 1:21 AM	FUSE_OH:C1423B-1250	High Winds	WESTERN	0.0015	0.000005	333
33647	point_of_service_oh	12/9/15 7:37 AM	RAMAPO- EMERALD	1	331	12/9/15 1:08 PM	SP:3208 SE 116TH AVE	High Winds	EASTERN	0.0004	0.000001	331
33931	point of service oh	12/9/15 10:02 AM	NEWBERG- CHEHALEM	-	329	12/9/15 3:31 PM	SP:11812 NE WORDEN HILL RD_1	High Winds	SOUTHER N	0.0004	0.000001	329
31494	fuse_oh	12/8/15 8:05 AM	WELCHES-ZIG ZAG	16	328	12/8/15 1:33 PM	FUSE_OH:D3711B-881	Primary Conductor	EASTERN	0.0061	0.000018	328
34029	point_of_service_oh	12/9/15 11:04 AM	HARBORTON- BURLINGTON		326	12/9/15 4:30 PM	SP:31421 NW REEDER RD	High Winds	EASTERN	0.0004	0.000001	326
31517	point_of_service_oh	12/8/15 8:48 AM	SUMMIT- SUMMIT 13	1	325	12/8/15 2:14 PM	SP:27500 E TIMBERLINE RD	Limb on Line	EASTERN	0.0004	0.000001	325
32187	fuse_oh	12/8/15 5:22 PM	ORIENT-ORIENT 13	26	325	12/8/15 10:47 PM	FUSE_OH:D1504A-884_1	High Winds	EASTERN	0.0098	0.000030	325
34170	fuse_oh	12/9/15 12:37 PM		3	324	12/9/15 6:00 PM	FUSE_OH:C6814B-292	High Winds	SOUTHER N	0.0014	0.000003	324
33718	point_of_service_oh	12/9/15 8:19 AM	ESTACADA- FARADAY	_	323	12/9/15 1:42 PM	SP:34247 SE MOSS HILL RD	High Winds	EASTERN	0.0004	0.000001	323
33744	point_of_service_oh	12/9/15 8:30 AM	MERIDIAN- MERIDIAN 13		323	12/9/15 1:53 PM	SP:23510 SW STAFFORD RD	Other - Environment / Weather	WESTERN	0.0004	0.000001	323
34008	point_of_service_oh	12/9/15 10:48 AM	HARBORTON- BURLINGTON	-	322	12/9/15 4:10 PM	SP:29395 NW REEDER RD	High Winds	EASTERN	0.0004	0.000001	322
32192	fuse_oh	12/8/15 5:26 PM	LIBERTY- MORNINGSIDE	72	321	12/8/15 10:47 PM	FUSE_OH:C8310A-3586	High Winds	SOUTHER N	0.0267	0.000083	321
32875	recloser_oh	12/9/15 3:36 AM	BELL-WICHITA	1466	321	12/9/15 8:57 AM	RECL:4162	Recloser / Sectionalizer	EASTERN	0.5431	0.001693	321
34544	xfm_oh	12/9/15 4:33 PM	WELCHES-ZIG ZAG	4	320	12/9/15 9:53 PM	XFM_OH:B 25 71313	High Winds	EASTERN	0.0015	0.000005	320
33546	point_of_service_oh	12/9/15 6:14 AM	MULINO-SOUTH		319	12/9/15 11:34 AM	SP:16141 S UNION MILLS RD	High Winds	EASTERN	0.0004	0.000001	319
33128	fuse_oh	12/9/15 3:51 AM	CLACKAMAS- TOLBERT	32	319	12/9/15 9:10 AM	FUSE_OH:D2216B-1398	Limb on Line	EASTERN	0.0118	0.000037	319
33561	fuse_oh	12/9/15 6:25 AM	COLTON- DHOOGHE	6	316	12/9/15 11:40 AM	FUSE_OH:D5305B-1010	High Winds	SOUTHER N	0.0022	0.000007	316
33169	point_of_service_oh	12/9/15 3:54 AM	BELL-WICHITA	1	315	12/9/15 9:09 AM	SP:4404 SE HARNEY ST	Primary Conductor	EASTERN	0.0004	0.000001	315
34256	fuse_oh	12/9/15 11:16 AM	MULTNOMAH- 13181	4	313	12/9/15 4:29 PM	FUSE_OH:D1120A-3855	High Winds	EASTERN	0.0014	0.000005	313
32878	src_br	12/9/15 3:36 AM	GLENCULLEN- BRIDLEMILE	2389	312	12/9/15 8:48 AM	BKR:GLENCULLEN R116	Other - Environment / Weather	EASTERN	0.8609	0.002759	312

Attachment A Summary of Dutages 5 Hours and Longer PGE Service Territory December 8 "-9", 2015

22800	fuse oh	12/9/15	WALLACE-	1	312	12/9/15	FUSE OH:C6422A-296	High Winds	SOUTHER	0.0004	0.000001	312
	1	3:33 AM	WALLACE 13			8:45 AM)	Z			
33164	scada_src_br	12/9/15	SWAN ISLAND-	52	311	12/9/15	SC-BKR:SWAN ISLAND	Tree Uprooted	EASTERN	0.0187	0.000060	311
		3:54 AM	GOING			9:04 AM	R116					
33943	fuse oh	12/9/15	MULINO-SOUTH	1	308	12/9/15	FUSE OH:D4235B-55	Tree Uprooted	EASTERN	0.0004	0.000001	308
	1	10:12				3:20 PM		1				
		AM										
32835	recloser oh	12/9/15	WACONDA-	178	306	12/9/15	RECL:2590	Limb on Line	SOUTHER	0.0630	0.000206	306
		3:28 AM	RIVER			8:35 AM			z			
34035	the ab	12/9/15	SCOTTS MILLS-	1	305	12/9/15	XFM_OH:B 10 26838	High Winds	SOUTHER	0.0004	0.000001	305
		11:10	SCOTTS MILLS			4:14 PM			Z			
		AM	13									
33533	point_of_service_oh	12/9/15	COLTON-	_	305	12/9/15	SP:30755 S MARIAN ST	Tree Uprooted	SOUTHER	0.0004	0.000001	305
		6:04 AM	DHOOGHE			11:08 AM			Z			
31488	fuse_oh	12/8/15	BRIGHTWOOD-	4	302	12/8/15	FUSE_OH:D2625A-684	High Winds	EASTERN	0.0014	0.000005	302
_		7:29 AM	BRIGHTWOOD			12:31 PM						
			13									
34485	point of service oh	12/9/15	MERIDIAN-	1	301	12/9/15	SP:22195 SW 78TH AVE	High Winds	WESTERN	0.0003	0.000001	301
	1	3:23 PM	MERIDIAN 13			8:23 PM						
33258	fuse oh	12/9/15	RAMAPO-	107	300	12/9/15	FUSE_OH:D1211B-3361	Limb on Line	EASTERN	0.0371	0.000124	300
_		4:00 AM	EMERALD			9:01 AM						