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COMPANY NAME: PacifiCorp

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Report is required by: OAR 860-023-0151

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Compliance Filing - Annual Reliability Report for Calendar Year 2019

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825 NE Multnomah, Suite 2000
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April 28, 2020

VIA ELECTRONIC FILING

Public Utility Commission of Oregon
201 High Street SE, Suite 100
Salem, OR 97301-3398

Attn: Filing Center

RE: Annual Reliability Report for Calendar Year 2019

PacifiCorp d/b/a Pacific Power submits for filing its Annual Reliability Report for calendar year 2019. This filing is made in compliance with OAR 860-023-0151.

Please direct any questions on this report to Cathie Allen at 503-813-5934.

Sincerely,

Michael Wilding
Director, Regulation

Enclosure



Pacific Power's Annual Report:

Oregon Administrative Rules
860-023, 024 and 028

Calendar Year 2019 Review
(January 1 – December 31, 2019)

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RELIABILITY

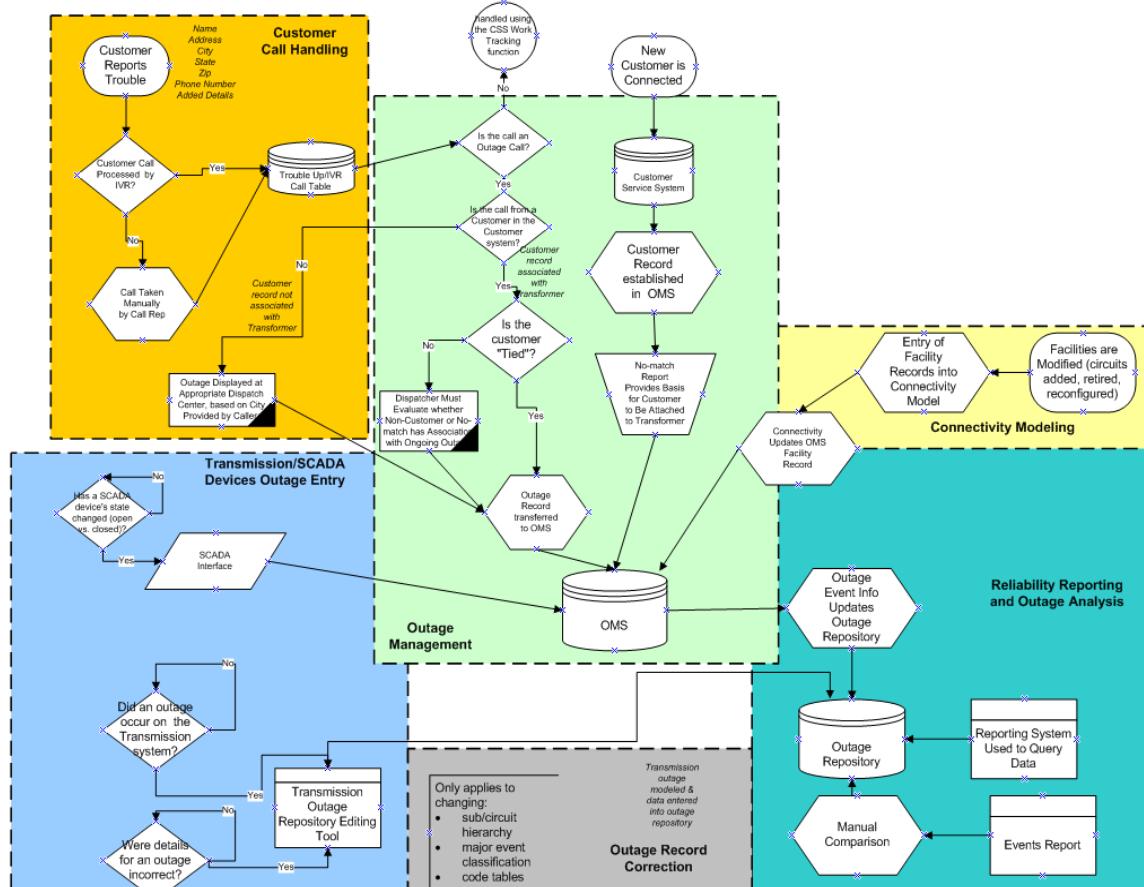
Introduction and Reliability Discussion

This year's reliability report includes a brief overview of Pacific Power's programs and initiatives to evaluate and enhance reliability. This report is consistent with Oregon Administration Rules 860-023, 024 and 028.

Monitoring, Recording, and Reporting Reliability

How Pacific Power Monitors Reliability

Pacific Power operates automated outage management and reporting systems; a diagram of the data flow process is shown below. Customer trouble calls and SCADA events are interfaced with the Company's real-time network connectivity model, its CADOPS system (Computer Aided Distribution Operations System). By overlaying these events onto the network model, the program infers outages at the appropriate devices (such as a transformer, fuse or other interrupting device) for all customers down line of the interrupting device. The outage is then routed to appropriate field operations staff for restoration and the outage event is recorded in the Company's Prosper/US outage repository. In addition to this real-time model of the system's electrical flow, the Company relies heavily upon the SCADA system it has in place. This includes the Dispatch Log System (an SQL database application) which serves to collect all events on SCADA-operable circuits. That data is then analyzed for momentary interruptions to establish state-level and circuit-level momentary interruption indices, per agreement with the Oregon PUC Staff. The Company has completed its implementation of an advanced metering infrastructure (AMI) system, which did result in modifications to how the Company becomes aware of outages. The Company hasn't identified substantial impacts with regard to "metric uplift" (that could result in an inability to compare legacy metric levels against future performance levels) but recognizes that such might be recognized in the future. The Company is also reviewing whether AMI data can replace momentary interruption reporting data, however its development of these analytics is still underway.



Reliability Reporting: Interpreting Indices and Metrics

Raw reliability data comes in the form of outage start and stop times, numbers of customers interrupted and outage cause codes. Out of these are derived an array of indices and acronyms that attempt to reduce complex data to a handful of numbers. This section briefly describes the metrics used by Pacific Power for reliability measurements.

SAIDI, SAIFI, CAIDI and MAIFI_e are the most common indicators or indices used by utilities across the nation for measuring and reporting reliability. Along with other indices, they were first rigorously documented in Institute of Electrical and Electronics Engineers (IEEE) Standard 1366-1998, and since modified in IEEE 1366-2003/2012, IEEE Guide for Electric Power Distribution Reliability Indices. This standard for reporting reliability performance was adopted in OAR 860-023 and reports provided thereafter have adhered to this standard.

For performance reporting as contained within this document¹, Pacific Power uses the current standard indices, applied at the state level as well as to its defined reliability reporting regions. In years preceding 2012 the major events excluded from performance during the period were determined using the historic “10% of operating area customers” method, not the IEEE 1366 “2.5 beta” TMed method applied to these reliability reporting regions. Therefore, year-on-year comparisons need to be made carefully.

Regional reliability reporting areas were established by using statistical tools to determine the granular level at which performance complied with assumptions underlying the development of the major event thresholds adopted within the standard. For the Customer Guarantee element of the Performance Standards Program, exceptions to the guarantees may also be determined based on data at a state level.

In order to devise circuit-level performance measures, Pacific Power performed research into which metrics are appropriate for ranking reliability investments in order to better serve the needs of customers. The need to reliably serve the areas with the greatest numbers of customers must be balanced against the need to maintain focus on service levels where there are fewer customers. To do this, Pacific Power implemented in 1999 a balanced set of circuit performance indices (known as CPI⁹⁹) and methods that improve on those documented in IEEE 1366. Circuit performance is reviewed at least annually against these various metrics to determine the selection of circuits to be addressed within the Company’s Worst-Performing Feeders Program; as time has elapsed and tools have evolved the Company has focused its analysis at a lower level than circuit, i.e. sub-circuit selection may have been chosen as the optimal improvement activity. Mining of this data allows the company to optimize cost against reliability metric improvements.

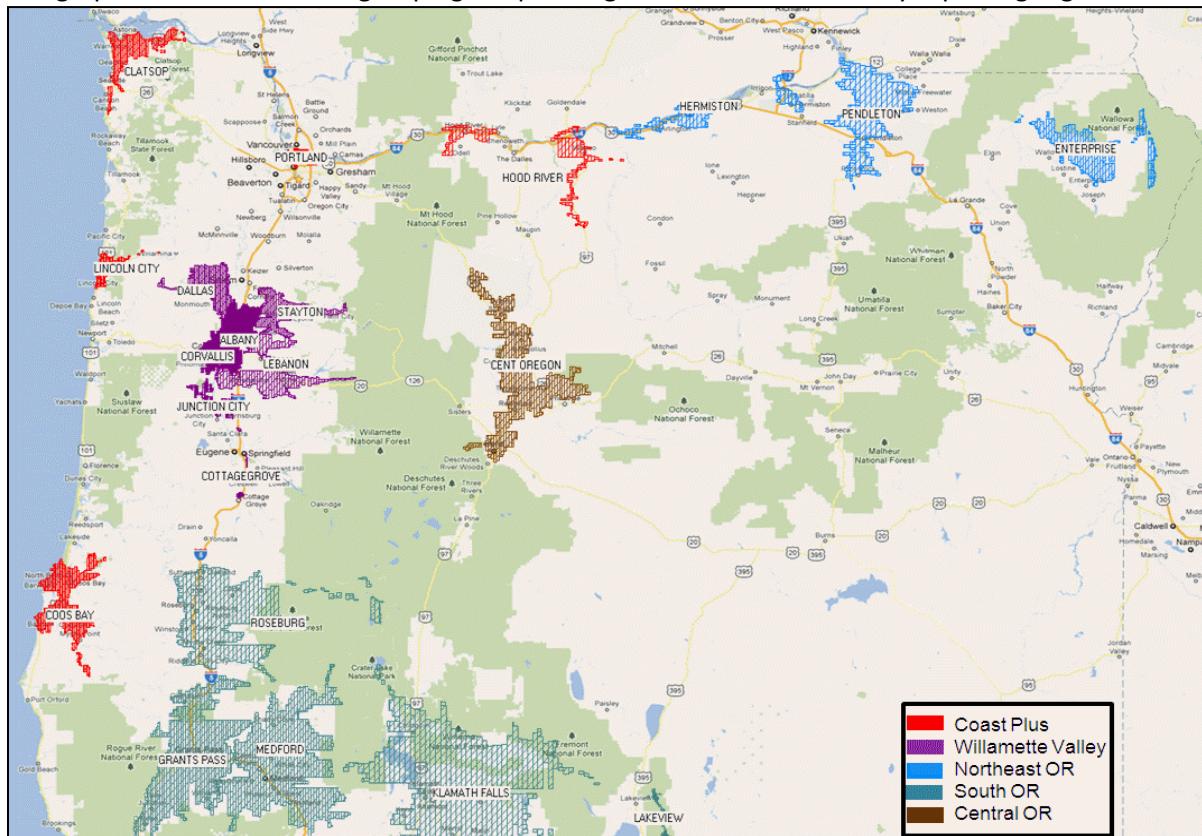
¹ State administrative rules regarding service reliability were modified during 2011, which has resulted in significant modifications to this section of the report.

Reliability Tools: Improving Indices and Metrics

Pacific Power uses the reliability data in a variety of ways that are designed to improve reliability to its customers. It has devised methods that are contained in the recently-adopted industry guide for electric reliability, IEEE 1782-2014². Some of these analytical methods render the outage data in a tabular, graphical and geospatial manner. All of them serve as input to developing projects that improve reliability, including the Company's fuse coordination program, Fuse It or Lose It (FIOLI), its circuit hardening program, Saving SAIDI, and its capital construction program, Network Initiatives. These programs are evaluated for their forecast improvements to network reliability, as measured by the avoidance of customer interruptions, customer minutes interrupted and momentary customer interruptions. Each project is assigned a value for reduced interruptions along with the cost for that project, and based upon the best cost projects, selected to align with budget and resource capacity targets. Other tools the Company has created to deliver better reliability to customers include web-based notifications when interrupting devices (such as circuit breakers, reclosers or fuses) have experienced more operations within a given time period than expected. This enables field engineering and operations management team members to promptly evaluate means to modify performance in that area of the system. These ad-hoc activities augment the Company's reliability planning process (which is conducted annually with interim updates); review of historic reliability performance demonstrates the process' efficacy. Annually the Company identifies five circuits that are designated as "underperforming circuits" against which the Company reports blended reliability metrics (SAIDI, SAIFI, MAIFI and breaker lockouts) to highlight performance changes for that family of circuits over the next five years; these circuits are reported later in this section.

Reliability Reporting Regions Map

The graphic below shows the grouping of operating areas into five reliability reporting regions.



² IEEE-1782 (PE/T&D) Guide for Collecting, Categorizing and Utilization of Information Related to Electric Power Distribution Interruption Events was approved on March 27, 2014 and contains many of the approaches used by Pacific Power to evaluate system reliability and determine areas where improvements should be deployed.

Major Event Thresholds

Effective CY2012, the administrative rules were modified to replace the 10% of operating area customers methodology with IEEE P1366 “2.5 beta” or T_{med} methodology for determining major events. For Pacific Power’s service territory in Oregon, all operating areas were grouped into five reliability reporting regions and each reliability region’s threshold determined according to IEEE 1366-2003/2012. The tables below depict the composition of each region and its threshold as used during 2019 and for application during 2020. Since certain major events may be filed as a statewide event, the state threshold and history is also supplied.

2019 Major Event Threshold			
Reliability Region	TMed SAIDI	TMed CMI	Operating Areas within Region
Central OR	5.72	484,821	Bend/Redmond, Madras
Coast Plus	11.91	1,860,107	Clatsop/Astoria, Coos Bay/Coquille, Hood River, Lincoln City, Portland
Northeast OR	13.22	334,025	Enterprise, Hermiston, Milton-Freewater, Pendleton, Walla Walla
South OR	13.10	2,975,868	Grants Pass, Klamath Falls, Lakeview, Medford, Roseburg/Myrtle Creek
Willamette Valley	18.81	2,336,645	Albany, Corvallis, Cottage Grove/J. City, Dallas/Independence, Lebanon, Stayton
Oregon	7.09	4,379,315	

2020 Major Event Threshold			
Reliability Region	TMed SAIDI	TMed CMI	Operating Areas within Region
Central OR	5.71	482,924	Bend/Redmond, Madras
Coast Plus	12.50	1,965,286	Clatsop/Astoria, Coos Bay/Coquille, Hood River, Lincoln City, Portland
Northeast OR	11.94	305,107	Enterprise, Hermiston, Milton-Freewater, Pendleton, Walla Walla
South OR	14.83	3,354,813	Grants Pass, Klamath Falls, Lakeview, Medford, Roseburg/Myrtle Creek
Willamette Valley	17.42	2,156,406	Albany, Corvallis, Cottage Grove/J. City, Dallas/Independence, Lebanon, Stayton
Oregon	7.26	4,480,143	

The following table is a 5-year view of each region’s TMed values.

Calendar Year	2019		2018		2017		2016		2015	
	Region	CMI	SAIDI	CMI	SAIDI	CMI	SAIDI	CMI	SAIDI	CMI
Central OR	482,924	5.71	484,821	5.72	469,072	5.71	429,381	5.40	383,788	4.95
Coast Plus	1,965,286	12.50	1,860,107	11.91	1,722,410	11.20	1,687,255	11.09	1,421,626	9.45
Northeast OR	305,107	11.94	334,025	13.22	321,673	12.90	302,667	12.27	277,008	10.82
South OR	3,354,813	14.83	2,975,868	13.10	2,914,386	12.98	2,740,682	12.35	2,471,653	11.24
Willamette Valley	2,156,406	17.42	2,336,645	18.81	2,411,644	19.74	2,439,916	20.28	2,124,571	17.84
Oregon	4,480,143	7.26	4,379,315	7.09	4,501,730	7.41	4,698,658	7.85	4,262,263	7.21

Major Events Excluded Report

Pacific Power filed written documentation for two Major Events in 2019 that were excluded from underlying reliability performance results. They are summarized in the table below.

Oregon 2019 Major Events - Written Filings									
Event Date	Reliability Reporting Region – Description	CML	CI	PUC Report Required	Region TMed SAIDI	Region Event SAIDI	Oregon SAIDI	Oregon SAIFI	Oregon CAIDI
February 24-March 5	Oregon - Storm	169,820,575	146,538	Yes	274.94	0.237	274.94	0.237	1159
August 9-10	Central - Lightning	940,563	2,741	Yes	11.09	0.032	1.52	0.004	343
TOTAL Oregon Major Events Filed	170,761,138	149,279					276.46	0.242	1144

In addition, the company excluded six events where CAIDI was less than five hours (300 CAIDI minutes), for which no filing is required according to Oregon Administrative Rules.

Oregon 2019 Major Events - Low CAIDI (<300) No Filings									
Event Date	Reliability Reporting Region –Description	CML	CIS	PUC Report Required	Region TMed SAIDI	Region Event SAIDI	Oregon SAIDI	Oregon SAIFI	Oregon CAIDI
January 5-6	Oregon - Wind/Tree	4,474,086	31,561	No	7.24	0.05	7.24	0.05	142
May 24, 2020	CoastPlus - Loss of Supply (animal)	1,989,430	7,675	No	12.73	0.05	3.22	0.01	259
June 25-26	Central - Loss of Supply (PGE)	602,089	14,534	No	7.10	0.17	0.97	0.02	41
July 18-19	Southern - Loss of Transmission Line	5,109,777	45,208	No	22.49	0.20	8.27	0.07	113
August 4-5	Central - Loss of Transmission Line	555,293	13,720	No	6.55	0.16	0.90	0.02	40
December 19-21	Oregon - Wind/Tree	6,404,746	41,784	No	10.37	0.07	10.37	0.07	153
TOTAL Major Events with low CAIDI	19,135,421	154,482					30.98	0.25	124

Total Performance Summary

Oregon 2018 Major Events - Summary		CML	CIS	PUC Report Required	Oregon SAIDI	Oregon SAIFI	Oregon CAIDI
Total Oregon Major Events Filed	170,761,138	149,279		Yes	276.46	0.24	1144
Total Major Events with low CAIDI (no filling required)²	19,135,421	154,482		No	30.98	0.25	124
TOTAL MAJOR EVENTS	189,896,558	303,761		-	307.44	0.49	625
Oregon Underlying Events - <u>Excludes</u> Major Event	66,742,398	596,533		-	108.06	0.97	112
Oregon Total Performance - <u>Includes</u> Major Event	256,638,956	900,294		-	415.50	1.46	285

Under-Performing Circuits

After the completion of the development of reliability improvement plans, the Company evaluates those circuits whose blended reliability scores rank low, using its Circuit Performance Indicator (CPI). This is the primary basis for the next year's Worst Performing Feeders element of its Targeted Reliability Program. CPI is an acronym for Circuit Performance Indicator, which uses 3-year weighted reliability metrics of the circuit to identify underperformance. The Company has evaluated the effectiveness of the CPI, determining whether inclusion of major events and transmission outages produce better results. The inclusion of major event and transmission outages, reporting period comparisons yielded a limited ability to identify the benefits of improvements made on each of the circuits. The application of CPI99 proved to demonstrate more consistently how performance comparisons could be made. The variables and equation for calculating CPI are:

$$\text{CPI} = \text{Index} * ((\text{SAIDI} * \text{WF} * \text{NF}) + (\text{SAIFI} * \text{WF} * \text{NF}) + (\text{MAIFI} * \text{WF} * \text{NF}) + (\text{Lockouts} * \text{WF} * \text{NF}))$$

Index: 10.645

SAIDI: Weighting Factor 0.30, Normalizing Factor 0.029

SAIFI: Weighting Factor 0.30, Normalizing Factor 2.439

MAIFI: Weighting Factor 0.20, Normalizing Factor 0.70

Lockouts: Weighting Factor 0.20, Normalizing Factor 2.00

Therefore, $10.645 * ((3\text{-year SAIDI} * 0.30 * 0.029) + (3\text{-year SAIFI} * 0.30 * 2.439) + (3\text{-year MAIFI} * 0.20 * 0.70) + (3\text{-year breaker lockouts} * 0.20 * 2.00)) = \text{CPI Score}$

The following distribution feeders were selected as under-performing based on CPI scores ending 12/31/2019 and identified as Program Year 21 (2020) circuits in the Network Initiatives program:

Program Year 21 (2020) UNDER-PERFORMING CIRCUITS				
CIRCUIT ID	CIRCUIT NAME	KV	OPERATING AREA	CPI ⁹⁹
4C37	Maple Street	20.8	Myrtle Point	43
4M17	Calapooia	12.5	Brownsville	158
4M243	Scravel Hill	20.8	Murder Creek	136
5P288	Cully #3-UG	12.5	Cully	74
5R245	Valley View	12.5	Ashland (Mtn. Ave., PUD)	78
				TARGET SCORE

The status of prior years' under-performing circuits is shown in the following table. (Targets for Program Years 1-10 were met and filed previously.)

UNDER-PERFORMING CIRCUITS				
CIRCUIT ID	CIRCUIT NAME	OPERATING AREA	BASELINE	Performance 12/31/19
Circuit Performance Indicator (CPI99)				
Program Year 2020 (2019):				
5L43	Dairy	Klamath Falls	101	97
5R133	Glendale	Grants Pass	163	251
4M201	Industrial	Dallas/Independence	1,413	20
5A16	Mill (Warrenton)	Clatsop (Astoria)	129	26
5R63	Wood River	Grants Pass	143	124
TARGET SCORE = 312			390	104

UNDER-PERFORMING CIRCUITS				
CIRCUIT ID	CIRCUIT NAME	OPERATING AREA	BASELINE	Performance 12/31/19
Circuit Performance Indicator (CPI99)				
Program Year 19 (2018):				
L804	Bandon	Coos Bay/Coquille	138	134
4M238	Dallas	Dallas/Independence	161	110
4M94	Foster	Lebanon	199	269
4M125	Mint	Albany	151	56
4L50	Rocky Point Feeder (Running Y)	Klamath Falls	249	148
TARGET SCORE = 143			180	143
Program Year 18 (2017):				
4M25	Buena Vista	Dallas/Independence	163	112
4C106	Coos River	Coos Bay/Coquille	212	300
4M120	Mill City	Stayton	261	156
5A211	Olney	Clatsop/Astoria	183	70
5R55	Siskiyou	Medford	220	144
TARGET MET			TARGET SCORE = 166	208
Program Year 17 (2016):				
5A20	SOUTH (Warrenton)	Warrenton	124	46
4C67	INDUSTRIAL	Coos Bay/Coquille	82	25
5L57	CRATER LAKE	Klamath Falls	200	100
4A316	LAKE (DEVILS LAKE)	Lincoln City	172	100
5U52	BEALS CREEK FEEDER	Roseburg/Myrtle Creek	188	134
TARGET MET			TARGET SCORE = 123	153
Program Year 16 (2015):				
4C108	EMPIRE	Coos Bay/Coquille	16	33
5A93	BRADWOOD	Clatsop (Astoria)	114	92
5K43	BELMONT	Hood River	118	39
5R232	MERLIN-HUGO	Grants Pass	41	38
5R65	DEER CREEK	Grants Pass	59	86
TARGET SCORE = 56			70	58
Program Year 15 (2014):				
4M268	KINGS ROAD	Corvallis	115	57
4M269	29 TH STREET	Corvallis	133	77
4U5	DOUGLAS	Roseburg/Myrtle Creek	34	30
4C50	BUNKERHILL	Coos Bay/Coquille	152	49
5R63	WOOD RIVER	Grants Pass	193	124
TARGET MET			TARGET SCORE = 100	125
Program Year 14 (2013):				
4C42	TERRES HGHTS	Coos Bay/Coquille	158	50
5K70	EASTSIDE (Hood River)	Hood River	110	97
5R133	GLENDALE	Grants Pass	171	251
5R259	CHINOOK (Grants Pass)	Grants Pass	131	52
5R53	ROUGH & READY	Grants Pass	69	81
TARGET MET			TARGET SCORE = 102	128
Program Year 13 (2012):				
5D144	D.R.W.	Bend/Redmond	124	17
5D2	DESCHUTES S	Bend/Redmond	104	24
4U39	GOEDECK	Roseburg/Myrtle Creek	24	42
5U84	LITTLE RIVER	Roseburg/Myrtle Creek	70	24
5L59	WEST	Klamath Falls	45	8
TARGET MET			TARGET SCORE = 59	73

Oregon Five-Year Reliability Reporting Region Metrics

Excluding Major Events	SAIDI					SAIFI					MAIFle				
	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
OR REGION	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
Central OR	60	45	52	39	30	0.49	0.40	0.41	0.62	0.23	2.59	2.50	3.29	2.97	1.50
CoastPlus	87	98	111	86	114	0.76	1.01	1.55	1.01	1.11	4.22	3.51	3.59	3.70	1.56
Northeast OR	120	87	95	129	84	1.04	0.66	1.05	1.71	0.54	4.41	5.34	4.63	2.92	3.46
South OR	133	123	106	110	119	0.83	1.01	0.98	1.56	1.08	4.02	3.54	4.41	3.96	1.71
Willamette Valley	176	157	177	124	139	1.66	1.76	2.02	1.23	1.17	3.16	2.79	2.70	3.22	2.92
OREGON	120	111	114	98	108	0.94	1.07	1.26	1.23	0.97	3.65	3.23	3.54	3.59	1.92

Including Major Events	SAIDI					SAIFI					MAIFle				
	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
OR REGION	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
Central OR	117	74	102	83	85	0.88	0.70	0.56	1.09	0.85	2.59	2.50	3.29	2.97	1.50
CoastPlus	175	336	213	158	189	1.21	1.97	2.31	1.28	1.50	4.22	3.51	3.59	3.70	1.56
Northeast OR	289	146	147	164	91	1.70	0.92	1.17	1.80	0.56	4.41	5.34	4.63	2.92	3.46
South OR	389	184	442	166	772	1.28	1.38	1.85	1.83	1.75	4.02	3.54	4.41	3.96	1.71
Willamette Valley	240	264	371	131	340	1.87	2.23	2.65	1.26	1.47	3.16	2.79	2.70	3.22	2.92
OREGON	265	223	312	146	416	1.35	1.59	1.93	1.47	1.46	3.65	3.23	3.54	3.59	1.92

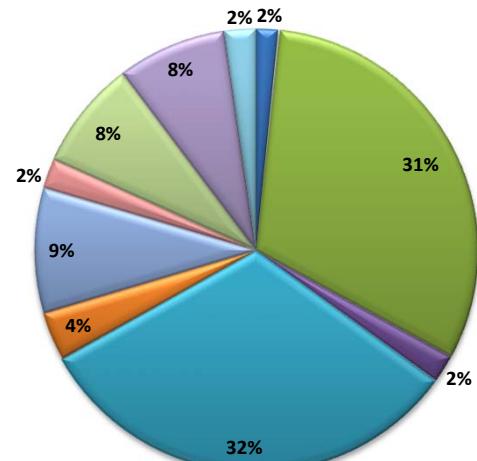
Oregon Five-Year Customer Count by Reliability Region and Operating Area

Region	Op Area	CY2019	CY2018	CY2017	CY2016	CY2015
Central OR	BEND/REDMOND	67,495	65,186	62,949	61,061	63,110
Central OR	MADRAS	17,312	16,897	16,623	16,476	17,325
Central OR		84,807	82,083	79,572	77,537	80,435
CoastPlus	CLATSOP (ASTORIA)	25,060	24,657	24,422	24,146	24,462
CoastPlus	COOS BAY/COQUILLE	26,606	26,409	26,194	26,104	27,376
CoastPlus	HOOD RIVER	9,668	9,409	9,235	9,113	9,545
CoastPlus	LINCOLN CITY	12,280	12,172	12,047	11,926	12,060
CoastPlus	PORLAND	82,618	81,104	80,241	79,156	77,877
CoastPlus		156,232	153,751	152,139	150,445	151,320
Northeast OR	ENTERPRISE	5,510	5,432	5,353	5,316	5,412
Northeast OR	HERMISTON	4,802	4,696	4,639	4,634	4,859
Northeast OR	MILTON/FREEWATER	-	-	-	-	102
Northeast OR	PENDLETON	13,044	12,915	12,795	12,762	13,299
Northeast OR	WALLA WALLA OR	1,902	1,892	1,876	1,723	1,177
Northeast OR		25,258	24,935	24,663	24,435	24,849
South OR	GRANTS PASS	52,457	51,864	51,217	50,709	52,490
South OR	KLAMATH FALLS	38,097	37,704	37,472	37,251	39,334
South OR	LAKEVIEW	2,450	2,439	2,328	2,410	2,543
South OR	MEDFORD	91,202	89,904	88,569	87,494	90,122
South OR	ROSEBURG/MYRTLECREEK	42,952	42,616	42,286	42,116	43,233
South OR		227,158	224,527	221,872	219,980	227,722
Willamette Valley	ALBANY	32,471	31,783	31,250	30,943	32,190
Willamette Valley	CORVALLIS	29,875	29,657	29,445	29,072	29,754
Willamette Valley	COTTAGE GROVE/J.CITY	11,331	11,221	11,092	10,983	11,271
Willamette Valley	DALLAS/INDEPENDENCE	15,547	15,189	14,918	14,717	15,044
Willamette Valley	LEBANON	21,068	20,738	20,297	20,090	20,914
Willamette Valley	STAYTON	13,915	13,578	13,329	13,254	13,951
Willamette Valley		124,207	122,166	120,331	119,059	123,124
Oregon		617,662	607,462	598,577	591,456	607,450

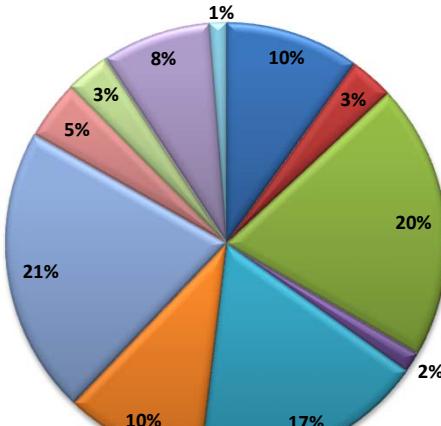
Oregon Five-Year Cause Analysis by State (excluding major events)

OAR Cause	2015			2016			2017			2018			2019		
	Sustained Incident Count	SAIDI	SAIFI												
A Loss of Supply - Transmission	114	9.69	0.156	188	16.12	0.336	270	22.61	0.530	333	16.97	0.594	155	12.43	0.242
B Loss of Supply - Substation	18	8.87	0.039	25	8.37	0.053	20	3.37	0.025	7	1.30	0.010	19	4.05	0.046
C Distribution - Equipment	3,979	27.24	0.171	2,950	26.33	0.156	3,432	23.44	0.148	3,076	20.24	0.148	3,122	25.47	0.171
D Distribution - Lightning	168	1.09	0.006	52	0.20	0.001	153	1.33	0.009	224	2.84	0.016	202	1.87	0.009
E Distribution - Planned	2,174	32.78	0.233	1,786	24.72	0.214	1,523	14.93	0.148	2,249	26.57	0.188	3,192	21.53	0.173
F Distribution - Public	512	17.66	0.116	361	16.42	0.095	326	18.15	0.098	386	15.90	0.079	353	12.87	0.097
G Distribution - Vegetation	1,142	24.86	0.134	773	18.65	0.116	938	21.50	0.154	946	16.29	0.107	914	26.51	0.152
H Distribution - Weather	259	4.52	0.035	89	3.17	0.014	192	4.35	0.031	213	4.73	0.027	216	5.47	0.029
I Distribution - Wildlife	881	5.19	0.047	659	3.31	0.040	763	2.47	0.034	763	2.82	0.029	802	4.07	0.037
J Distribution - Unknown	1,017	5.41	0.075	811	6.76	0.072	829	7.63	0.090	902	7.89	0.095	796	10.05	0.101
K Distribution - Other	218	1.46	0.025	144	1.33	0.046	151	3.37	0.060	222	3.17	0.031	231	1.58	0.024
Grand Total	10,483	138.78	1.036	7,838	125.38	1.143	8,597	123.16	1.327	9,321	118.72	1.322	10,002	125.90	1.082

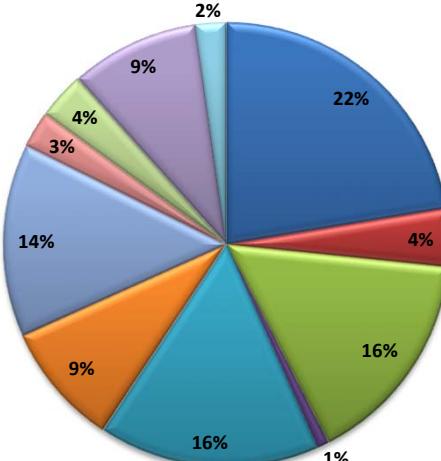
2019 Cause Analysis - Incident Count



2019 Cause Analysis - SAIDI



2019 Cause Analysis - SAIFI



Oregon Five-Year Cause by Reliability Region (excluding major events)

Reliability Region	OAR Cause	2015		2016		2017		2018		2019	
		SAIDI	SAIFI								
Central OR	A Loss of Supply - Transmission	2.25	0.046	0.56	0.027	-	-	5.40	0.344	0.00	0.000
	B Loss of Supply - Substation	-	-	-	-	1.58	0.013	-	-	-	-
	C Distribution - Equipment	31.30	0.193	26.37	0.130	17.70	0.098	19.05	0.102	18.70	0.116
	D Distribution - Lightning	0.05	0.002	0.17	0.002	0.17	0.001	0.46	0.002	3.09	0.015
	E Distribution - Planned	25.09	0.353	3.65	0.066	2.80	0.020	3.66	0.055	14.15	0.093
	F Distribution - Public	4.83	0.025	5.02	0.030	8.40	0.080	2.94	0.050	3.05	0.030
	G Distribution - Vegetation	3.79	0.032	5.38	0.044	12.62	0.113	0.85	0.008	0.93	0.005
	H Distribution - Weather	7.73	0.066	0.24	0.002	2.62	0.009	3.04	0.019	0.46	0.002
	I Distribution - Wildlife	0.68	0.006	1.51	0.026	2.07	0.020	2.02	0.016	3.23	0.022
	J Distribution - Unknown	2.49	0.035	1.73	0.066	5.76	0.052	3.47	0.043	0.73	0.006
	K Distribution - Other	1.69	0.009	1.01	0.008	0.73	0.017	0.48	0.001	0.53	0.029
	Grand Total	79.92	0.768	45.64	0.400	54.44	0.424	41.37	0.640	44.87	0.319
CoastPlus OR	A Loss of Supply - Transmission	0.00	0.000	15.79	0.353	25.83	0.791	18.94	0.486	18.01	0.434
	B Loss of Supply - Substation	-	-	3.15	0.035	3.16	0.035	-	-	3.39	0.072
	C Distribution - Equipment	22.98	0.167	22.82	0.142	17.51	0.131	17.29	0.139	36.75	0.226
	D Distribution - Lightning	0.04	0.000	0.03	0.000	0.17	0.001	0.18	0.001	0.51	0.002
	E Distribution - Planned	45.79	0.285	26.82	0.222	18.85	0.174	49.66	0.227	40.93	0.245
	F Distribution - Public	17.06	0.165	21.70	0.131	9.70	0.066	8.66	0.040	9.70	0.063
	G Distribution - Vegetation	21.10	0.130	21.38	0.168	30.48	0.228	17.82	0.127	26.58	0.142
	H Distribution - Weather	3.96	0.032	0.34	0.002	5.56	0.038	5.13	0.027	6.10	0.022
	I Distribution - Wildlife	1.14	0.010	2.68	0.041	1.83	0.020	2.05	0.021	5.14	0.032
	J Distribution - Unknown	3.04	0.041	1.98	0.022	4.82	0.050	4.67	0.048	4.51	0.056
	K Distribution - Other	0.29	0.022	0.72	0.031	5.01	0.075	6.94	0.054	0.95	0.027
	Grand Total	115.41	0.852	117.42	1.147	122.92	1.609	131.34	1.169	152.57	1.323
Northeast OR	A Loss of Supply - Transmission	9.05	0.075	1.82	0.034	19.39	0.490	33.64	0.870	10.32	0.084
	B Loss of Supply - Substation	0.51	0.007	7.40	0.019	2.91	0.011	2.75	0.056	-	-
	C Distribution - Equipment	32.46	0.181	17.24	0.101	31.72	0.169	29.30	0.150	29.26	0.173
	D Distribution - Lightning	0.36	0.003	0.43	0.006	1.48	0.008	1.10	0.005	2.75	0.019
	E Distribution - Planned	8.17	0.163	11.22	0.084	6.26	0.093	28.10	0.384	19.78	0.116
	F Distribution - Public	21.06	0.151	11.57	0.082	9.78	0.049	24.29	0.129	16.04	0.105
	G Distribution - Vegetation	23.83	0.247	18.85	0.154	5.32	0.028	6.60	0.027	5.21	0.025
	H Distribution - Weather	3.51	0.024	3.30	0.058	2.08	0.028	1.52	0.009	7.63	0.030
	I Distribution - Wildlife	8.85	0.092	12.28	0.097	5.72	0.037	2.37	0.024	2.63	0.021
	J Distribution - Unknown	9.61	0.093	5.30	0.038	7.93	0.110	7.19	0.060	6.79	0.076
	K Distribution - Other	4.39	0.019	0.01	0.000	3.44	0.058	12.09	0.074	2.47	0.004
	Grand Total	121.80	1.055	89.42	0.674	96.04	1.082	148.97	1.788	102.89	0.655

Oregon Five-Year Cause by Reliability Region (excluding major events)

Reliability Region	OAR Cause	2015		2016		2017		2018		2019	
		SAIDI	SAIFI								
Southern OR	A Loss of Supply - Transmission	18.93	0.146	9.22	0.247	19.52	0.349	24.89	0.938	17.33	0.320
	B Loss of Supply - Substation	22.18	0.078	10.42	0.056	4.44	0.027	3.22	0.020	7.68	0.056
	C Distribution - Equipment	24.26	0.145	25.31	0.145	24.32	0.151	21.36	0.140	20.12	0.146
	D Distribution - Lightning	1.64	0.009	0.39	0.001	2.86	0.020	6.90	0.040	1.05	0.007
	E Distribution - Planned	27.79	0.157	30.91	0.243	15.23	0.150	12.74	0.112	13.16	0.145
	F Distribution - Public	11.62	0.065	18.59	0.117	17.03	0.095	11.26	0.070	12.02	0.095
	G Distribution - Vegetation	22.05	0.095	22.65	0.105	18.91	0.125	18.28	0.107	32.94	0.167
	H Distribution - Weather	2.36	0.012	7.17	0.025	4.22	0.036	4.56	0.032	8.38	0.049
	I Distribution - Wildlife	9.80	0.081	3.42	0.035	1.64	0.025	3.58	0.037	3.71	0.050
	J Distribution - Unknown	7.47	0.097	9.26	0.078	6.17	0.059	7.90	0.086	11.32	0.113
	K Distribution - Other	1.17	0.008	1.93	0.038	2.47	0.032	1.80	0.024	1.79	0.020
	Grand Total	149.27	0.894	139.25	1.092	116.80	1.070	116.49	1.606	129.51	1.170
WlmVly OR	A Loss of Supply - Transmission	9.50	0.454	42.34	0.743	39.86	0.892	4.29	0.211	6.25	0.074
	B Loss of Supply - Substation	2.64	0.048	16.84	0.113	2.95	0.017	-	-	2.07	0.036
	C Distribution - Equipment	34.28	0.207	34.47	0.220	31.41	0.194	20.84	0.205	26.98	0.198
	D Distribution - Lightning	2.15	0.011	0.03	0.000	0.69	0.002	0.69	0.003	4.25	0.017
	E Distribution - Planned	36.01	0.243	27.14	0.274	19.23	0.206	38.02	0.328	19.61	0.214
	F Distribution - Public	37.28	0.200	14.16	0.054	39.08	0.166	40.52	0.152	25.47	0.193
	G Distribution - Vegetation	48.66	0.253	16.41	0.109	24.13	0.168	23.04	0.162	38.38	0.274
	H Distribution - Weather	7.30	0.064	1.23	0.006	4.67	0.026	6.35	0.026	2.69	0.019
	I Distribution - Wildlife	3.85	0.046	3.24	0.045	4.43	0.080	3.01	0.033	4.59	0.036
	J Distribution - Unknown	5.57	0.100	11.78	0.136	15.05	0.218	15.02	0.210	22.45	0.214
	K Distribution - Other	2.72	0.072	1.49	0.113	4.69	0.123	0.95	0.026	2.62	0.029
	Grand Total	189.96	1.697	169.12	1.814	186.17	2.092	152.72	1.357	155.35	1.306

Oregon 2019 Active Circuits with Substation, Voltage and Customer Counts

Oregon Region	Op Area Name	Substation Name	Circuit Id	Circuit Name	kV	Circuit Customer Count
Central OR	BEND/REDMOND	BEND	SD10	PORTLAND AVE	12.5	2,418
Central OR	BEND/REDMOND	BEND	SD11	GLEN VISTA	12.5	1,244
Central OR	BEND/REDMOND	BEND	SD12	DIVISION ST.	12.5	217
Central OR	BEND/REDMOND	BEND	SD196	MALLARD	12.5	1,408
Central OR	BEND/REDMOND	BEND	CO08-1	BEND-PILOT BUTTE-69KV	69	0
Central OR	BEND/REDMOND	BEND	CO09B	PENSTOCK-JUNIPER RIDGE(COID)-69KV	69	0
Central OR	BEND/REDMOND	BOND STREET	SD411	BACHELOR	12.5	1,799
Central OR	BEND/REDMOND	BOND STREET	SD413	OLD MILL	12.5	394
Central OR	BEND/REDMOND	BOND STREET	SD418	BLAKELY	12.5	1,250
Central OR	BEND/REDMOND	CHINA HAT	SD140	LAVA (CHINA HAT)	12.5	2,332
Central OR	BEND/REDMOND	CHINA HAT	SD142	HIGH DESERT	12.5	1,737
Central OR	BEND/REDMOND	CHINA HAT	SD144	D.R.W.	12.5	2,455
Central OR	BEND/REDMOND	CLEVELAND AVE.	SD30	ARROWHEAD	12.5	1,211
Central OR	BEND/REDMOND	CLEVELAND AVE.	SD35	WICKIUP	12.5	1,055
Central OR	BEND/REDMOND	CLEVELAND AVE.	SD38	TOMAHAWK	12.5	1,446
Central OR	BEND/REDMOND	CLEVELAND AVE.	SD94	TEEPEE	12.5	3,781
Central OR	BEND/REDMOND	CLEVELAND AVE.	SD96	OBSIDIAN	12.5	907
Central OR	BEND/REDMOND	CLEVELAND AVE.	SD98	HUCKLEBERRY	12.5	1,187
Central OR	BEND/REDMOND	CLEVELAND AVE.	CO11	CLEVELAND-CHINA HAT-69KV	69	0
Central OR	BEND/REDMOND	COVE (OR)	CO20	COVE-ROUND BUTTE(PGE)#1-230KV	230	0
Central OR	BEND/REDMOND	COVE (OR)	CO21	COVE-ROUND BUTTE(PGE)#2-230KV	230	0
Central OR	BEND/REDMOND	CROOKED RIVER RANCH	4D131	CANYON	20.8	1,804
Central OR	BEND/REDMOND	CROOKED RIVER RANCH	4D30	CROOKED R.R.	20.8	790
Central OR	BEND/REDMOND	DESCHUTES	SD184	PRONGHORN	12.5	1,126
Central OR	BEND/REDMOND	DESCHUTES	SD2	DESCHUTES S	12.5	1,002
Central OR	BEND/REDMOND	HUNTERS CIRCLE	SD192	Mackinaw	12.5	695
Central OR	BEND/REDMOND	MIDPOINT	CO01-1	MIDPOINT-HEMINGWAY-500KV	500	0
Central OR	BEND/REDMOND	OVERPASS	SD104	AWBREY	12.5	1
Central OR	BEND/REDMOND	OVERPASS	SD106	NEZ PERCE	12.5	2,644
Central OR	BEND/REDMOND	OVERPASS	SD120	CHINOOK	12.5	1,821
Central OR	BEND/REDMOND	OVERPASS	SD128	PAIUTE	12.5	2,219
Central OR	BEND/REDMOND	OVERPASS	SD155	APACHE	12.5	2,788
Central OR	BEND/REDMOND	PILOT BUTTE	SD261	KLONDIKE	12.5	1,575
Central OR	BEND/REDMOND	PILOT BUTTE	SD263	DRAKE FEEDER	12.5	2,529
Central OR	BEND/REDMOND	PILOT BUTTE	SD265	DOBBIN	12.5	1,676
Central OR	BEND/REDMOND	PILOT BUTTE	CO09	BEND-PILOT BUTTE-TAP TO REDMOND-69KV	69	2
Central OR	BEND/REDMOND	PILOT BUTTE	CO16	PILOT BUTTE-CLEVELAND-69KV	69	0
Central OR	BEND/REDMOND	PILOT BUTTE	CO17	PILOT BUTTE - CEC 69KV	69	0
Central OR	BEND/REDMOND	PILOT BUTTE	CO-1-BPA	PONDEROSA(BPA)-PILOT BUTTE-230KV	230	0
Central OR	BEND/REDMOND	PILOT BUTTE	CO-2-BPA	REDMOND(BPA)-PILOT BUTTE-230KV	230	0
Central OR	BEND/REDMOND	PILOT BUTTE	CO-3-BPA	LAPINE(BPA)-PILOT BUTTE-230KV	230	0
Central OR	BEND/REDMOND	REDMOND	SD21	SOUTH (REDMOND)	12.5	761
Central OR	BEND/REDMOND	REDMOND	SD22	INDUSTRIAL	12.5	1,515
Central OR	BEND/REDMOND	REDMOND	SD223	TETHEROW	12.5	838
Central OR	BEND/REDMOND	REDMOND	SD226	CLINE FALLS	12.5	1,513
Central OR	BEND/REDMOND	REDMOND	SD227	WINDSOR	12.5	3,070
Central OR	BEND/REDMOND	REDMOND	SD228	CITY	12.5	1,303
Central OR	BEND/REDMOND	REDMOND	SD229	JUNIPER	12.5	409
Central OR	BEND/REDMOND	REDMOND	CO006	REDMOND-COVE-69KV	69	1
Central OR	BEND/REDMOND	REDMOND	CO03-1	HOUSTON LAKE-REDMOND(BPA)-115KV	115	0
Central OR	BEND/REDMOND	REDMOND	CO03-3	POWELL BUTTE-REDMOND-115KV	115	0
Central OR	BEND/REDMOND	REDMOND	CO06A	TAP TO CROOKED RIVER-69KV	69	0
Central OR	BEND/REDMOND	REDMOND	CO06B	TAP TO OPAL SPRINGS-69KV	69	0
Central OR	BEND/REDMOND	REDMOND	CO07	REMOND-REDMOND BPA-69KV	69	0
Central OR	BEND/REDMOND	REDMOND BPA	C002	REDMOND BPA-REDMOND-115KV	115	0

Oregon 2019 Active Circuits with Substation, Voltage and Customer Counts

Oregon Region	Op Area Name	Substation Name	Circuit Id	Circuit Name	kV	Circuit Customer Count
Central OR	BEND/REDMOND	SHEVLIN PARK	SD238	WOLVERINE (SHP) (WAS 5D327)	12.5	2,848
Central OR	BEND/REDMOND	SHEVLIN PARK	SD241	BADGER (SHP)	12.5	3,064
Central OR	BEND/REDMOND	SHEVLIN PARK	SD243	Black Bear	12.5	1,720
Central OR	BEND/REDMOND	SUMMER LAKE (BPA)	C001-1A	SUMMER LAKE (BPA)-HEMINGWAY-500KV	500	0
Central OR	BEND/REDMOND	YEW AVENUE	SD322	BIRDIE	12.5	1,899
Central OR	BEND/REDMOND	YEW AVENUE	SD323	FAIRWAY	12.5	391
Central OR	BEND/REDMOND	YEW AVENUE	SD325	EAGLE	12.5	2,650
Central OR	BEND/REDMOND	YEW AVENUE	C018	TAP TO YEW AVE-115KV	115	0
Central OR	MADRAS	CHERRY LANE	SD295	7 PEAKS	12.5	152
Central OR	MADRAS	CHERRY LANE	C005-2	CHERRY LANE-WARM SPRINGS-69KV	69	0
Central OR	MADRAS	COVE (OR)	C0005	COVE-WARM SPRINGS-69KV	69	1
Central OR	MADRAS	COVE (OR)	C0012	COVE-WARM SPRINGS-69KV	69	1
Central OR	MADRAS	COVE (OR)	C005-1	CHERRY LANE-COVE-69KV	69	0
Central OR	MADRAS	CULVER	SD5	CULVER	12.5	1,852
Central OR	MADRAS	MADRAS	SD52	MADRAS RURAL	12.5	1,039
Central OR	MADRAS	MADRAS	SD53	AGATE	12.5	1,290
Central OR	MADRAS	MADRAS	SD57	QUARTZ	12.5	1,399
Central OR	MADRAS	MADRAS	SD61	MADRAS CITY	12.5	1,297
Central OR	MADRAS	PONDEROSA-P	CO14-2	BALDWIN ROAD-PONDEROSA-115KV	115	0
Central OR	MADRAS	PONDEROSA-P	CO14-3	BALDWIN ROAD-PRINEVILLE-115KV	115	0
Central OR	MADRAS	PONDEROSA-P	CO14-4	HOUSTON LAKE-PRINEVILLE-115KV	115	0
Central OR	MADRAS	PONDEROSA-P	CO19	HOUSTON LAKE-PONDEROSA#2-115KV	115	0
Central OR	MADRAS	POWELL BUTTE	SD1	POWELL BUTTE	12.5	645
Central OR	MADRAS	PRINEVILLE	SD126	RIMROCK	12.5	873
Central OR	MADRAS	PRINEVILLE	SD167	NORTHLVILLE	12.5	2,701
Central OR	MADRAS	PRINEVILLE	SD25	OCHOCO	12.5	1,008
Central OR	MADRAS	PRINEVILLE	SD47	MC KAY (PRINEVILLE)	12.5	1,695
Central OR	MADRAS	PRINEVILLE	SD48	LAMONTA	12.5	637
Central OR	MADRAS	PRINEVILLE	SD50	PINE CONE	12.5	81
Central OR	MADRAS	PRINEVILLE	SD69	GRIMES FLAT	12.5	1,608
Central OR	MADRAS	WARM SPRINGS	4D68	WARM SPRINGS (OR)	20.8	1,032
Central OR	MADRAS	WARM SPRINGS	C005	MADRAS-WARM SPRINGS-69KV	69	0
CoastPlus	CLATSOP (ASTORIA)	ASTORIA	CL01-3	ASTORIA-TILLAMOOK-115KV	115	1
CoastPlus	CLATSOP (ASTORIA)	ASTORIA	CL01-3A	ASTORIA-WARRENTON TAP-115KV	115	0
CoastPlus	CLATSOP (ASTORIA)	ASTORIA	CL01-3B	SEASIDE-WARRENTON TAP-115KV	115	0
CoastPlus	CLATSOP (ASTORIA)	ASTORIA	CL01-3C	CANNON BEACH TAP-SEASIDE-115KV	115	0
CoastPlus	CLATSOP (ASTORIA)	ASTORIA	CL01-3D	CANNON BEACH TAP-NEHALEM(TPUD)-115KV	115	0
CoastPlus	CLATSOP (ASTORIA)	ASTORIA	CL01-3E	MOHLER(TPUD)-NEHALEM(TPUD)-115KV	115	0
CoastPlus	CLATSOP (ASTORIA)	ASTORIA	CL01-3F	GARIBALDI(TPUD)-MOHLER(TPUD)-115KV	115	0
CoastPlus	CLATSOP (ASTORIA)	ASTORIA	CL01-3G	GARIBALDI(TPUD)-TILLAMOOK(BPA)-115KV	115	0
CoastPlus	CLATSOP (ASTORIA)	ASTORIA	CL01-4	ASTORIA-DRISCOLL(BPA)-115KV	115	0
CoastPlus	CLATSOP (ASTORIA)	ASTORIA	CL01-AST	ASTORIA SUB	0	0
CoastPlus	CLATSOP (ASTORIA)	ASTORIA	CL02	LEWIS&CLARK-WARRENTON-WARRENTON TAP-115KV	115	0
CoastPlus	CLATSOP (ASTORIA)	ASTORIA	CL04A	CANNON BEACH-CANNON BEACH TAP-115KV	115	0
CoastPlus	CLATSOP (ASTORIA)	ASTORIA	CL04B	CANNON BEACH TAP-NECANICUM(TPUD)-115KV	115	0
CoastPlus	CLATSOP (ASTORIA)	CANNON BEACH	SA10	HAYSTACK	12.5	1,608
CoastPlus	CLATSOP (ASTORIA)	CANNON BEACH	SA8	ECOLA	12.5	1,220
CoastPlus	CLATSOP (ASTORIA)	FERN HILL SUB	SA51	JOHN DAY	12.5	269
CoastPlus	CLATSOP (ASTORIA)	FERN HILL SUB	SA52	SCANDINAVIAN	12.5	384
CoastPlus	CLATSOP (ASTORIA)	KNAPPA SVENSEN	SA92	SVENSEN	12.5	717
CoastPlus	CLATSOP (ASTORIA)	KNAPPA SVENSEN	SA93	BRADWOOD	12.5	935
CoastPlus	CLATSOP (ASTORIA)	LEWIS & CLARK	CL03	LEWIS & CLARK-CLATSOP-BPA-115KV	115	0
CoastPlus	CLATSOP (ASTORIA)	SEASIDE	SA80	GROVE	12.5	2,416
CoastPlus	CLATSOP (ASTORIA)	SEASIDE	SA81	CENTRAL	12.5	1,639
CoastPlus	CLATSOP (ASTORIA)	SEASIDE	SA82	NECANICUM	12.5	1,200

Oregon 2019 Active Circuits with Substation, Voltage and Customer Counts

Oregon Region	Op Area Name	Substation Name	Circuit Id	Circuit Name	kV	Circuit Customer Count
CoastPlus	CLATSOP (ASTORIA)	SEASIDE	5A83	GEARHART	12.5	3,323
CoastPlus	CLATSOP (ASTORIA)	SEASIDE	CL01-SSD	SEASIDE SUB	115	0
CoastPlus	CLATSOP (ASTORIA)	WARRENTON	5A15	CITY	12.5	252
CoastPlus	CLATSOP (ASTORIA)	WARRENTON	5A16	MILL (WARRENTON)	12.5	2,280
CoastPlus	CLATSOP (ASTORIA)	WARRENTON	5A20	SOUTH (WARRENTON)	12.5	1,710
CoastPlus	CLATSOP (ASTORIA)	YOUNGS BAY	5A202	PORT DOCK	12.5	1,207
CoastPlus	CLATSOP (ASTORIA)	YOUNGS BAY	5A204	MOO COW	12.5	1,162
CoastPlus	CLATSOP (ASTORIA)	YOUNGS BAY	5A205	FIFTH STREET	12.5	991
CoastPlus	CLATSOP (ASTORIA)	YOUNGS BAY	5A206	YOUNGS BAY #6	12.5	338
CoastPlus	CLATSOP (ASTORIA)	YOUNGS BAY	5A210	YOUNGS BAY #10	12.5	944
CoastPlus	CLATSOP (ASTORIA)	YOUNGS BAY	5A211	OLNEY	12.5	1,094
CoastPlus	CLATSOP (ASTORIA)	YOUNGS BAY	5A213	INDUSTRIAL	12.5	1,370
CoastPlus	CLATSOP (ASTORIA)	YOUNGS BAY	CL01-1	YOUNGS BAY-ASTORIA-115KV	115	0
CoastPlus	CLATSOP (ASTORIA)	YOUNGS BAY	CL01-YOU	YOUNGS BAY SUB	115	0
CoastPlus	COOS BAY/COQUILLE	BANDON TIE (BPA)	L804	BANDON	20.8	759
CoastPlus	COOS BAY/COQUILLE	COOS RIVER	4C106	COOS RIVER	20.8	1,371
CoastPlus	COOS BAY/COQUILLE	COOS RIVER	CB02-COO	COOS RIVER SUB	115	0
CoastPlus	COOS BAY/COQUILLE	COQUILLE	4C41	HENRY STREET	20.8	1,696
CoastPlus	COOS BAY/COQUILLE	COQUILLE	4C42	TERRES HIGHTS	20.8	1,563
CoastPlus	COOS BAY/COQUILLE	COQUILLE	4C43	INDUSTRIAL	20.8	156
CoastPlus	COOS BAY/COQUILLE	COQUILLE	CB02-4	EMPIRE-RED DIKE TAP-115KV	115	0
CoastPlus	COOS BAY/COQUILLE	COQUILLE	CB02-5	COQUILLE-NORWAY SW STATION-115KV	115	0
CoastPlus	COOS BAY/COQUILLE	COQUILLE	CB02-6	MYRTLE POINT-NORWAY SW STATION-115KV	115	0
CoastPlus	COOS BAY/COQUILLE	COQUILLE	CB02-COO	COQUILLE SUB	115	0
CoastPlus	COOS BAY/COQUILLE	EMPIRE	4C108	EMPIRE	20.8	1,740
CoastPlus	COOS BAY/COQUILLE	EMPIRE	4C89	SCOTT	20.8	1,440
CoastPlus	COOS BAY/COQUILLE	EMPIRE	4C90	CHARLESTON	20.8	2,142
CoastPlus	COOS BAY/COQUILLE	EMPIRE	CB02-EMP	EMPIRE SUB	115	0
CoastPlus	COOS BAY/COQUILLE	EMPIRE	CB03-2	EMPIRE-STATE STREET-115KV	115	0
CoastPlus	COOS BAY/COQUILLE	FAIRVIEW (BPA)	CB01	FAIRVIEW-ISTHMUS-230KV	230	0
CoastPlus	COOS BAY/COQUILLE	FAIRVIEW (BPA)	CB02	COQUILLE-LOCKHART-MYRTLE POINT-BPA FAIRVIEW-115KV	115	0
CoastPlus	COOS BAY/COQUILLE	FAIRVIEW (BPA)	CB02-1	COQUILLE-BPA FAIRVIEW115KV	115	0
CoastPlus	COOS BAY/COQUILLE	ISTHMUS	CB01-IST	ISTHMUS SUB	115	0
CoastPlus	COOS BAY/COQUILLE	ISTHMUS	CB06	ISTHMUS-LOCKHART-115KV	115	0
CoastPlus	COOS BAY/COQUILLE	ISTHMUS	CB06-1	COOS RIVER-ISTHMUS-115KV	115	0
CoastPlus	COOS BAY/COQUILLE	JORDAN POINT	5C11	WEYCO#2	12.5	1
CoastPlus	COOS BAY/COQUILLE	JORDAN POINT	5C5	MENASHA	12.5	0
CoastPlus	COOS BAY/COQUILLE	JORDAN POINT	5C6	SAND DUNES (JORDAN POINT)	12.5	31
CoastPlus	COOS BAY/COQUILLE	LOCKHART	4C48	CITY CENTER	20.8	1,526
CoastPlus	COOS BAY/COQUILLE	LOCKHART	4C49	EASTSIDE	20.8	779
CoastPlus	COOS BAY/COQUILLE	LOCKHART	4C5	GEORGIA-PAC	20.8	89
CoastPlus	COOS BAY/COQUILLE	LOCKHART	4C50	BUNKERHILL	20.8	1,850
CoastPlus	COOS BAY/COQUILLE	LOCKHART	4C97	ENGLEWOOD	20.8	1,395
CoastPlus	COOS BAY/COQUILLE	LOCKHART	CB02-2	COQUILLE-RED DIKE TAP-115KV	115	0
CoastPlus	COOS BAY/COQUILLE	LOCKHART	CB02-3	LOCKHART-RED DIKE TAP-115KV	115	0
CoastPlus	COOS BAY/COQUILLE	LOCKHART	CB02-LHS	LOCKHART SUB	115	0
CoastPlus	COOS BAY/COQUILLE	LOCKHART	CB03	EMPIRE-LOCKHART-SOUTH DUNES-115KV	115	0
CoastPlus	COOS BAY/COQUILLE	LOCKHART	CB03-1	LOCKHART-STATE STREET-115KV	115	0
CoastPlus	COOS BAY/COQUILLE	LOCKHART	CB06-2	COOS RIVER-LOCKHART-115KV	115	0
CoastPlus	COOS BAY/COQUILLE	MYRTLE POINT	4C36	NORTH (MYRTLE POINT)	20.8	339
CoastPlus	COOS BAY/COQUILLE	MYRTLE POINT	4C37	MAPLE STREET	20.8	2,104
CoastPlus	COOS BAY/COQUILLE	SOUTH DUNES	5C9	DOUGLAS CHIP	12.5	3
CoastPlus	COOS BAY/COQUILLE	STATE STREET	4C112	WOODLAND	20.8	1,872
CoastPlus	COOS BAY/COQUILLE	STATE STREET	4C66	BAYSHORE	20.8	1,725
CoastPlus	COOS BAY/COQUILLE	STATE STREET	4C67	INDUSTRIAL	20.8	2,220

Oregon 2019 Active Circuits with Substation, Voltage and Customer Counts

Oregon Region	Op Area Name	Substation Name	Circuit Id	Circuit Name	kV	Circuit Customer Count
CoastPlus	COOS BAY/COQUILLE	STATE STREET	4C86	BANGOR	20.8	1,805
CoastPlus	COOS BAY/COQUILLE	STATE STREET	CB03-3	JORDAN POINT-STATE STREET-115KV	115	0
CoastPlus	COOS BAY/COQUILLE	STATE STREET	CB03-4	JORDAN POINT-SOUTH DUNES-115KV	115	0
CoastPlus	COOS BAY/COQUILLE	STATE STREET	CB03-ST5	STATE STREET SUB	115	0
CoastPlus	HOOD RIVER	GORDON HOLLOW	4K1	SHERMAN 208	20.8	721
CoastPlus	HOOD RIVER	GORDON HOLLOW	WW13-1	DEMOSS(BPA)-GORDON HOLLOW-69KV	69	0
CoastPlus	HOOD RIVER	HOOD RIVER	5K37	RESIDENTIAL	12.5	2,161
CoastPlus	HOOD RIVER	HOOD RIVER	5K43	BELMONT	12.5	1,187
CoastPlus	HOOD RIVER	HOOD RIVER	5K44	NORTH (HOOD RIVER)	12.5	1,822
CoastPlus	HOOD RIVER	HOOD RIVER	5K70	EASTSIDE	7.2	1,096
CoastPlus	HOOD RIVER	HOOD RIVER	5K74	SOUTH (HOOD RIVER)	12.5	1,681
CoastPlus	HOOD RIVER	KENWOOD	5K50	OAKGROVE	12.5	730
CoastPlus	HOOD RIVER	POWERDALE JUNCTION SWITCHYARD 69KV	HR03-1	POWERDALE JUNCTION-BALD MOUNTAIN(BPA)-69KV	69	0
CoastPlus	HOOD RIVER	TUCKER	HR01	TUCKER-POWERDALE-69KV	69	0
CoastPlus	HOOD RIVER	TUCKER	HR04	TUCKER-POWERDALE-69KV	69	2
CoastPlus	HOOD RIVER	WASCO	7K1	WASCO	4.1	268
CoastPlus	LINCOLN CITY	BOYER	LC01	BOYER-DEVILS LAKE #1-115KV	115	0
CoastPlus	LINCOLN CITY	BOYER	LC01-A	BOYER-GRAND RONDE(PGE)-115KV	115	0
CoastPlus	LINCOLN CITY	BOYER	LC01-BOY	BOYER SUB	115	0
CoastPlus	LINCOLN CITY	BOYER	LC02	BOYER-DEVILS LAKE #2-115KV	115	0
CoastPlus	LINCOLN CITY	BOYER	LC03	BOYER-TILLAMOOK(BPA)-115KV	115	0
CoastPlus	LINCOLN CITY	DEVILS LAKE	4A310	INLAND FEEDER	20.8	1,891
CoastPlus	LINCOLN CITY	DEVILS LAKE	4A312	OCEAN	20.8	3,020
CoastPlus	LINCOLN CITY	DEVILS LAKE	4A316	LAKE (DEVILS LAKE)	20.8	4,545
CoastPlus	LINCOLN CITY	DEVILS LAKE	4A338	SIUSLAW	20.8	659
CoastPlus	LINCOLN CITY	DEVILS LAKE	LC01-DVK	DEVILS LAKE SUB	115	0
CoastPlus	LINCOLN CITY	GLENEDEN	7A364	GLENEDEN	4.1	714
CoastPlus	LINCOLN CITY	GLENEDEN	7A366	SALISHAN	4.1	357
CoastPlus	LINCOLN CITY	NELSCOTT	7A390	NELSCOTT	4.1	355
CoastPlus	LINCOLN CITY	PGE GRAND RONDE	R114	BOYER	12	19
CoastPlus	LINCOLN CITY	WECOMA BEACH	7A354	WECOMA	4.1	720
CoastPlus	PORLAND	ALBINA	SP111	ALBINA 11C01-UG	11.7	617
CoastPlus	PORLAND	ALBINA	SP150	ALBINA 11C15	11.7	0
CoastPlus	PORLAND	ALBINA	SP194	11C24-UG	11.7	227
CoastPlus	PORLAND	ALBINA	SP196	11C16-UG	11.7	550
CoastPlus	PORLAND	ALBINA	SP200	11C20-UG	11.7	461
CoastPlus	PORLAND	ALBINA	SP66	11C25	11.7	0
CoastPlus	PORLAND	ALBINA	SP91	11C11-UG	11.7	320
CoastPlus	PORLAND	ALBINA	SP92	11C12-UG	11.7	168
CoastPlus	PORLAND	ALBINA	P12-2	ALBINA-KNOTT-115KV	115	0
CoastPlus	PORLAND	ALDERWOOD 115/12.5	SP22	ALDERWOOD #2	12.5	201
CoastPlus	PORLAND	ALDERWOOD 115/12.5	SP23	ALDERWOOD #1-UG	12.5	0
CoastPlus	PORLAND	ALDERWOOD 115/12.5	SP33	ALDERWOOD #4	12.5	178
CoastPlus	PORLAND	ALDERWOOD 115/12.5	SP604	ALDERWOOD #3	12.5	209
CoastPlus	PORLAND	BLOSS	SP170	OFFICE	12.5	0
CoastPlus	PORLAND	BLOSS	SP172	FURNACE	12.5	1
CoastPlus	PORLAND	BPA ST JOHNS	P10-2	BPA ST JOHNS-ST JOHNS-115KV	115	0
CoastPlus	PORLAND	BPA ST JOHNS	P11	ST JOHNS-KNOTT-115KV	115	0
CoastPlus	PORLAND	COLUMBIA (OR)	SP266	COLUMBIA #2	12.5	2,604
CoastPlus	PORLAND	COLUMBIA (OR)	SP268	COLUMBIA #1	12.5	348
CoastPlus	PORLAND	COLUMBIA (OR)	SP474	COLUMBIA #6	12.5	548
CoastPlus	PORLAND	COLUMBIA (OR)	SP476	COLUMBIA #3	12.5	837
CoastPlus	PORLAND	COLUMBIA (OR)	SP478	COLUMBIA #4	12.5	895
CoastPlus	PORLAND	COLUMBIA (OR)	SP480	COLUMBIA #5	12.5	37
CoastPlus	PORLAND	COLUMBIA (OR)	P23	COLUMBIA-KNOTT-57KV (OR)	57	0

Oregon 2019 Active Circuits with Substation, Voltage and Customer Counts

Oregon Region	Op Area Name	Substation Name	Circuit Id	Circuit Name	kV	Circuit Customer Count
CoastPlus	PORLAND	COLUMBIA (OR)	P25	COLUMBIA-KILLINGSWORTH-69KV	57	0
CoastPlus	PORLAND	CULLY	SP288	CULLY #3-UG	12.5	824
CoastPlus	PORLAND	CULLY	SP290	CULLY #2	12.5	2,396
CoastPlus	PORLAND	CULLY	SP292	CULLY #1	12.5	2,916
CoastPlus	PORLAND	CULLY	P14-1	CULLY-PARKROSE TAP-115KV	115	0
CoastPlus	PORLAND	CULLY	P14-2	PARKROSE TAP-HEMLOCK-TROUTDALE-115KV	115	0
CoastPlus	PORLAND	CULLY	P14-3	CULLY-HOLLYWOOD-115KV	115	0
CoastPlus	PORLAND	HARRISON	P17	HARRISON-PGE EASTPORT-115KV	115	0
CoastPlus	PORLAND	HARRISON	P18	HARRISON-LINCOLN-115KV	115	0
CoastPlus	PORLAND	HOLLADAY (OR)	SP145	HOLLADAY #1-UG	11.7	206
CoastPlus	PORLAND	HOLLADAY (OR)	SP146	HOLLADAY #2-UG	11.7	343
CoastPlus	PORLAND	HOLLADAY (OR)	SP147	HOLLADAY #3-UG	11.7	163
CoastPlus	PORLAND	HOLLADAY (OR)	SP156	HOLLADAY #4-UG	11.7	553
CoastPlus	PORLAND	HOLLADAY (OR)	SP157	HOLLADAY #5-UG	11.7	139
CoastPlus	PORLAND	HOLLADAY (OR)	SP158	HOLLADAY #6	11.7	899
CoastPlus	PORLAND	HOLLADAY (OR)	P13	HOLLADAY-HARRISON-115KV	115	0
CoastPlus	PORLAND	HOLLADAY (OR)	P13-1	HOLLADAY-KNOTT-115KV	115	0
CoastPlus	PORLAND	HOLLYWOOD	SP203	HOLLYWOOD #3	12.5	1,469
CoastPlus	PORLAND	HOLLYWOOD	SP204	HOLLYWOOD #2	12.5	908
CoastPlus	PORLAND	HOLLYWOOD	SP205	HOLLYWOOD #1	12.5	2,156
CoastPlus	PORLAND	HOLLYWOOD	SP208	HOLLYWOOD #5	12.5	2,967
CoastPlus	PORLAND	HOLLYWOOD	SP209	HOLLYWOOD #4	12.5	2,370
CoastPlus	PORLAND	KENNEDY	SP12	CB 5P12	12.5	0
CoastPlus	PORLAND	KENNEDY	SP14	CB 5P14	12.5	0
CoastPlus	PORLAND	KENNEDY	SP15	CB 5P15	12.5	0
CoastPlus	PORLAND	KILLINGSWORTH	SP123	KILLINGSWORTH #3	12.5	316
CoastPlus	PORLAND	KILLINGSWORTH	SP217	KILLINGSWORTH #5	12.5	424
CoastPlus	PORLAND	KILLINGSWORTH	SP41	KILLINGSWORTH #4	12.5	2,789
CoastPlus	PORLAND	KILLINGSWORTH	SP88	KILLINGSWORTH #1-UG	12.5	1
CoastPlus	PORLAND	KILLINGSWORTH	SP89	KILLINGSWORTH #2	12.5	3,165
CoastPlus	PORLAND	KNOTT	SP231	KNOTT #1	12.5	3,529
CoastPlus	PORLAND	KNOTT	SP232	KNOTT #2	12.5	1,545
CoastPlus	PORLAND	KNOTT	SP233	KNOTT #3	12.5	2,290
CoastPlus	PORLAND	KNOTT	SP366	11010	11.7	51
CoastPlus	PORLAND	KNOTT	SP368	11022	11.7	176
CoastPlus	PORLAND	KNOTT	SP372	11046	11.7	707
CoastPlus	PORLAND	KNOTT	SP374	11020	11.7	988
CoastPlus	PORLAND	KNOTT	P14-4	HOLLYWOOD-KNOTT-115KV	115	0
CoastPlus	PORLAND	KNOTT	P26	KNOTT-PARKROSE-57KV	57	1
CoastPlus	PORLAND	KNOTT	P26-1	KNOTT-SW3P278-57KV	57	0
CoastPlus	PORLAND	KNOTT	P26-2	SW3P214-SW3P208-57KV	57	1
CoastPlus	PORLAND	KNOTT	P26-3	SW3P278-SW3P214-57KV	57	0
CoastPlus	PORLAND	LINCOLN (OR)	SP418	11D17	11.7	134
CoastPlus	PORLAND	LINCOLN (OR)	SP420	11D14	11.7	24
CoastPlus	PORLAND	LINCOLN (OR)	SP422	11D06-UG	11.7	543
CoastPlus	PORLAND	LINCOLN (OR)	SP424	11D03-UG	11.7	1
CoastPlus	PORLAND	LINCOLN (OR)	SP426	11D04-UG	11.7	320
CoastPlus	PORLAND	LINCOLN (OR)	SP430	11D05-UG	11.7	370
CoastPlus	PORLAND	LINCOLN (OR)	SP432	11D02-UG	11.7	478
CoastPlus	PORLAND	LINCOLN (OR)	SP434	11D12-UG	11.7	15
CoastPlus	PORLAND	LINCOLN (OR)	SP436	11G18-UG	11.7	100
CoastPlus	PORLAND	LINCOLN (OR)	SP438	11D08-UG	11.7	16
CoastPlus	PORLAND	LINCOLN (OR)	SP456	11D09-UG	11.7	182
CoastPlus	PORLAND	LINCOLN (OR)	SP458	11D07-UG	11.7	217
CoastPlus	PORLAND	LINCOLN (OR)	SP460	11D01-UG	11.7	1

Oregon 2019 Active Circuits with Substation, Voltage and Customer Counts

Oregon Region	Op Area Name	Substation Name	Circuit Id	Circuit Name	kV	Circuit Customer Count
CoastPlus	PORLAND	LINCOLN (OR)	SP462	11G13-UG	11.7	35
CoastPlus	PORLAND	LINCOLN (OR)	SP464	11G16-UG	11.6	170
CoastPlus	PORLAND	LINCOLN (OR)	P16	LINCOLN-URBAN-115KV	115	1
CoastPlus	PORLAND	MALLORY	SP162	MALLORY #1	12.8	2,146
CoastPlus	PORLAND	MALLORY	SP164	MALLORY #2	12.8	3,172
CoastPlus	PORLAND	MERWIN	P08	MERWIN-BPA CARDWELL-115KV	115	0
CoastPlus	PORLAND	MERWIN	P09	MERWIN-YALE-115KV	115	1
CoastPlus	PORLAND	MERWIN	P10-1	MERWIN-ST JOHNS-115KV	115	0
CoastPlus	PORLAND	MERWIN	P-GEN1	MERWIN #1-MERWIN-115KV	115	0
CoastPlus	PORLAND	MERWIN	P-GEN2	MERWIN #2-MERWIN-115KV	115	0
CoastPlus	PORLAND	MERWIN	P-GEN3	MERWIN #3-MERWIN-115KV	115	0
CoastPlus	PORLAND	PARKROSE	SP244	PARKROSE#4	12.5	3,125
CoastPlus	PORLAND	PARKROSE	SP246	PARKROSE#3	12.5	3,077
CoastPlus	PORLAND	PARKROSE	SP250	PARKROSE#2	12.5	657
CoastPlus	PORLAND	PARKROSE	SP252	PARKROSE#1	12.5	1,794
CoastPlus	PORLAND	PARKROSE	SP717	PARKROSE 5	12.5	67
CoastPlus	PORLAND	PARKROSE	SP728	PARKROSE 6	12.5	0
CoastPlus	PORLAND	RUSSELLVILLE	SP274	RUSSELLVILLE #3	12.5	3,110
CoastPlus	PORLAND	RUSSELLVILLE	SP276	RUSSELLVILLE #4	12.5	2,338
CoastPlus	PORLAND	RUSSELLVILLE	SP278	RUSSELLVILLE #1	12.5	3,288
CoastPlus	PORLAND	RUSSELLVILLE	SP280	RUSSELLVILLE #2	12.5	1,260
CoastPlus	PORLAND	SWIFT	P-GEN4	SWIFT UNIT #1-SWIFT-230KV	230	0
CoastPlus	PORLAND	SWIFT	P-GEN5	SWIFT UNIT #2-SWIFT-230KV	230	0
CoastPlus	PORLAND	TROUTDALE	P14	TROUTDALE-KNOTT-115KV	115	0
CoastPlus	PORLAND	TROUTDALE	P22-1	TROUTDALE-LADY-SUB #8-69KV	69	0
CoastPlus	PORLAND	TROUTDALE	P22-2	TROUTDALE-JAMES RIV WEST-69KV	69	1
CoastPlus	PORLAND	TROUTDALE	P22-3	TROUTDALE-JAMES RIV EAST-69KV	69	0
CoastPlus	PORLAND	TROUTDALE	P34	TROUTDALE-CPU RUNYAN-115KV	115	0
CoastPlus	PORLAND	TROUTDALE TIE (BPA)	P03	BPA TROUTDALE-PGE GRESHAM-230KV	230	0
CoastPlus	PORLAND	TROUTDALE TIE (BPA)	P04	BPA TROUTDALE-PGE LINNEMAN-230KV	230	0
CoastPlus	PORLAND	VERNON	SP391	VERNON #1	12.5	1,844
CoastPlus	PORLAND	VERNON	SP392	VERNON NO. 2	12.5	2,575
CoastPlus	PORLAND	VERNON	SP393	VERNON #3	12.5	3,329
CoastPlus	PORLAND	VERNON	SP394	VERNON # 4	12.5	3,451
CoastPlus	PORLAND	VERNON	SP395	VERNON # 5	12.5	2,282
CoastPlus	PORLAND	YALE	SP53	YALE VILLAGE	12.5	0
Northeast	ENTERPRISE	ENTERPRISE (OR)	4W8	CREIGHTON LN	20.8	1,482
Northeast	ENTERPRISE	ENTERPRISE (OR)	SW15	CITY	12.5	954
Northeast	ENTERPRISE	ENTERPRISE (OR)	SW26	RURAL (ENTERPRISE)	12.5	1,083
Northeast	ENTERPRISE	ENTERPRISE (OR)	WW07	ENTERPRISE-ELGIN-69KV	69	0
Northeast	ENTERPRISE	ENTERPRISE (OR)	WW07A	TAP TO MINAM-69KV	69	0
Northeast	ENTERPRISE	HURRICANE (OR)	WW01-2	HURRICANE-HELLS CANYON(IPCO)-230KV	230	0
Northeast	ENTERPRISE	HURRICANE (OR)	WW08	HURRICANE-ENTERPRISE-69KV	69	0
Northeast	ENTERPRISE	JOSEPH	5W21	PRAIRIE	12.5	858
Northeast	ENTERPRISE	MINAM	5W18	MINAM	12.5	13
Northeast	ENTERPRISE	PALLETTE	4W14	PALLETTE NORTH	19.9	175
Northeast	ENTERPRISE	PALLETTE	4W15	PALLETTE SOUTH	19.9	55
Northeast	ENTERPRISE	WALLOWA	5W28	CITY	12.5	890
Northeast	HERMISTON	ARLINGTON	5K25	ARLINGTON	12.5	528
Northeast	HERMISTON	BLALOCK	5K40	BLALOCK	12.5	20
Northeast	HERMISTON	COLD SPRINGS	WW16	COLD SPRINGS-HERMISTON-69KV	69	0
Northeast	HERMISTON	CREEK	4K30	WILLOW CREEK	34.5	0
Northeast	HERMISTON	CREEK	WW13	WILLOW CREEK-BPA DEMOSS-69KV	69	0
Northeast	HERMISTON	DALREED	4K16	WILLOW COVE	34.5	74
Northeast	HERMISTON	DALREED	4K36	SIMTAG	34.5	19

Oregon 2019 Active Circuits with Substation, Voltage and Customer Counts

Oregon Region	Op Area Name	Substation Name	Circuit Id	Circuit Name	kV	Circuit Customer Count
Northeast	HERMISTON	DALREED	4K46	BOEING	34.5	181
Northeast	HERMISTON	HERMISTON	5W602	RURAL (HERMISTON)	12.5	1,399
Northeast	HERMISTON	HERMISTON	WW14-1	HERMISTON-HINKLE-69KV	69	0
Northeast	HERMISTON	HINKLE	5W82	MEADOWS	12.5	379
Northeast	HERMISTON	MCNARY (BPA)	WW15	BPA MCNARY-HERMISTON-69KV	69	0
Northeast	HERMISTON	UMATILLA	5W658	UMATILLA	12.5	1,190
Northeast	HERMISTON	UMATILLA	5W660	MCNARY	12.5	953
Northeast	HERMISTON	UMATILLA	5W664	PORT FEEDER	12.5	59
Northeast	PENDLETON	ATHENA	5W703	CITY	12.5	855
Northeast	PENDLETON	ATHENA	5W705	HELIX	12.5	437
Northeast	PENDLETON	BUCKAROO	5W201	STATE HOSP.	12.5	385
Northeast	PENDLETON	BUCKAROO	5W202	REITH	12.5	1,555
Northeast	PENDLETON	BUCKAROO	5W203	MONTEE	12.5	1,718
Northeast	PENDLETON	HERMISTON	WW14	HERMISTON-PENDLETON-69KV	69	0
Northeast	PENDLETON	PENDLETON	5W401	WEST HILLS	12.5	1,702
Northeast	PENDLETON	PENDLETON	5W402	HARRIS HTS	12.5	2,085
Northeast	PENDLETON	PENDLETON	5W403	MISSION	12.5	1,063
Northeast	PENDLETON	PENDLETON	7W451	BUSINESS	4.1	253
Northeast	PENDLETON	PENDLETON	7W452	NORTHWEST	4.1	526
Northeast	PENDLETON	PENDLETON	7W453	SOUTHWEST (PENDLETON)	4.1	337
Northeast	PENDLETON	PENDLETON	7W454	EAST END	4.1	256
Northeast	PENDLETON	PENDLETON	WW09-2	PENDLETON-WESTON-69KV	69	0
Northeast	PENDLETON	PENDLETON	WW10	PENDLETON-BPA ROUNDUP-69KV	69	0
Northeast	PENDLETON	PENDLETON	WW12	PENDLETON-BPA ROUNDUP-69KV	69	0
Northeast	PENDLETON	PILOT ROCK	5W404	MILL (PILOT ROCK)	12.5	1
Northeast	PENDLETON	PILOT ROCK	5W406	PILOT ROCK CITY	12.5	1,398
Northeast	PENDLETON	ROUNDUP (BPA)	WW11	BPA ROUNDUP-PILOT ROCK-69KV	69	0
Northeast	PENDLETON	WESTON NEW (OR)	5W40	WESTON CANNERY	12.5	16
Northeast	PENDLETON	WESTON NEW (OR)	5W7	SCOTTS FEEDER	12.5	457
Northeast	WALLA WALLA	UMAPINE	SW105	UMAPINE FEEDER	12.5	979
Northeast	WALLA WALLA	UMAPINE	SW106	FERNDALE	12.5	1,372
Southern OR	GRANTS PASS	AGNESS AVE	SR172	SPALDING MILL	12.5	889
Southern OR	GRANTS PASS	AGNESS AVE	SR173	JONES CREEK	12.5	899
Southern OR	GRANTS PASS	AGNESS AVE	SR322	ANTEATER	12.5	989
Southern OR	GRANTS PASS	APPLEGATE	SR267	MURPHY	12.5	1,058
Southern OR	GRANTS PASS	APPLEGATE	SR278	HIGHWAY	12.5	1,639
Southern OR	GRANTS PASS	APPLEGATE	R02-3	APPLEGATE-CAVE JUNCTION-115KV	115	0
Southern OR	GRANTS PASS	APPLEGATE	R23-2	APPLEGATE-HUMBUG CREEK-69KV	69	0
Southern OR	GRANTS PASS	APPLEGATE	R23-21	APPLEGATE-PROVOLT-69KV	69	0
Southern OR	GRANTS PASS	APPLEGATE	R23-22	PROVOLT-HUMBUG CREEK-69KV	69	0
Southern OR	GRANTS PASS	APPLEGATE	R23-A	TAP TO PROVOLT-69KV	69	0
Southern OR	GRANTS PASS	BEACON	SR104	SAVAGE ST	12.5	1,271
Southern OR	GRANTS PASS	BEACON	SR105	BEACON ST	12.5	847
Southern OR	GRANTS PASS	CAVE JUNCTION	SR52	FREE& EASY	12.5	2,407
Southern OR	GRANTS PASS	CAVE JUNCTION	SR53	ROUGH &READY	12.5	1,544
Southern OR	GRANTS PASS	CAVE JUNCTION	R02	CAVE JUNCTION-GRANTS PASS-115KV	115	0
Southern OR	GRANTS PASS	CAVE JUNCTION	R02-2	CAVE JCTN-DEL NORTE-115KV	115	0
Southern OR	GRANTS PASS	CAVE JUNCTION	R04	CAVE JCTN-DEL NORTE-115KV	115	0
Southern OR	GRANTS PASS	CAVE JUNCTION	R04-1	CAVE JCTN-O BRIEN-115KV	115	0
Southern OR	GRANTS PASS	CAVE JUNCTION	R04-2	O BRIEN-PATRICK CREEK-115KV	115	0
Southern OR	GRANTS PASS	CAVE JUNCTION	S15	CAVE JCTN-HAPPY CAMP-69KV	69	0
Southern OR	GRANTS PASS	CAVEMAN	SR295	QUAIL	12.5	1,126
Southern OR	GRANTS PASS	CAVEMAN	SR82	WASHINGTON	12.5	1,207
Southern OR	GRANTS PASS	CAVEMAN	SR98	MANZANITA	12.5	598
Southern OR	GRANTS PASS	CAVEMAN	SR99	CAVEMAN	12.5	1,214

Oregon 2019 Active Circuits with Substation, Voltage and Customer Counts

Oregon Region	Op Area Name	Substation Name	Circuit Id	Circuit Name	kV	Circuit Customer Count
Southern OR	GRANTS PASS	DOWELL	5R330	DOWELL CB 5R330	12.5	0
Southern OR	GRANTS PASS	DOWELL	5R331	DOVE	12.5	1,447
Southern OR	GRANTS PASS	DOWELL	5R334	DUCK	12.5	2,575
Southern OR	GRANTS PASS	EASY VALLEY	5R123	G STREET	12.5	2,166
Southern OR	GRANTS PASS	EASY VALLEY	5R125	ROGUE	12.5	1,778
Southern OR	GRANTS PASS	EASY VALLEY	5R259	CHINOOK	12.5	1,324
Southern OR	GRANTS PASS	FIELDER CREEK	4R33	ELK FDR.	20.8	1,857
Southern OR	GRANTS PASS	FIELDER CREEK	4R34	BEAR FDR	20.8	872
Southern OR	GRANTS PASS	GLENDALE SUBSTATION	5R133	GLENDALE	12.5	1,926
Southern OR	GRANTS PASS	GLENDALE SUBSTATION	5R143	INDUSTRIAL	12.5	662
Southern OR	GRANTS PASS	GLENDALE SUBSTATION	BB08-3	GLENDALE-HANNA TAP-230KV	230	0
Southern OR	GRANTS PASS	GRANTS PASS	BB08-4	GRANTS PASS-GLENDALE-230KV	230	0
Southern OR	GRANTS PASS	GRANTS PASS	BB13-2	GRANTS PASS-WHETSTONE-230KV	230	0
Southern OR	GRANTS PASS	GRANTS PASS	R01-B	GRANTS PASS-WHITE CITY-115KV	115	0
Southern OR	GRANTS PASS	GRANTS PASS	R02-1	APPLEGATE-GRANTS PASS-115KV	115	0
Southern OR	GRANTS PASS	GRANTS PASS	R03	GRANTS PASS-CAVE JCTN-115KV	115	0
Southern OR	GRANTS PASS	GRANTS PASS	R03-1	GRANTS PASS-PARK DALE JCT-115KV	115	0
Southern OR	GRANTS PASS	GRANTS PASS	R03-2	JEROME PRAIRIE-PARK DALE JCT-115KV	115	0
Southern OR	GRANTS PASS	GRANTS PASS	R03-3	JEROME PRAIRIE-SELMA-115KV	115	0
Southern OR	GRANTS PASS	GRANTS PASS	R03-4	CAVE JCTN-SELMA-115KV	115	0
Southern OR	GRANTS PASS	GRANTS PASS	R06	DOWELL-GRANTS PASS-115KV	115	0
Southern OR	GRANTS PASS	GRANTS PASS	R06-1	AGNESS AVE-GRANTS PASS-115KV	115	0
Southern OR	GRANTS PASS	GRANTS PASS	R06-2	AGNESS AVE-PARK ST-115KV	115	0
Southern OR	GRANTS PASS	GRANTS PASS	R06-3	PARK ST-PARK DALE JCT-115KV	115	0
Southern OR	GRANTS PASS	GRANTS PASS	R06-4	DOWELL-PARK DALE JCT-115KV	115	0
Southern OR	GRANTS PASS	GRANTS PASS	R1	GRANTS PASS-WHETSTONE-115KV	115	0
Southern OR	GRANTS PASS	GRANTS PASS	R1-1	GRANTS PASS-FIELDER CREEK-115KV	115	0
Southern OR	GRANTS PASS	GRANTS PASS	R13	GRANTS PASS-TOLO-69KV	69	0
Southern OR	GRANTS PASS	GRANTS PASS	R13-1	GRANTS PASS-ROGUE RIVER-69KV	69	0
Southern OR	GRANTS PASS	GRANTS PASS	R13-6	GRANTS PASS-SAVAGE RAPIDS-69KV	69	0
Southern OR	GRANTS PASS	GRANTS PASS	R13-7	ROGUE RIVER-SAVAGE RAPIDS-69KV	69	0
Southern OR	GRANTS PASS	GRANTS PASS	R24	GRANTS PASS-BEACON-69KV	69	0
Southern OR	GRANTS PASS	GRANTS PASS	R7	DOWELL-GRANTS PASS 2-115KV	115	0
Southern OR	GRANTS PASS	GRANTS PASS	R7-1	CAVEMAN-GRANTS PASS-115KV	115	0
Southern OR	GRANTS PASS	GRANTS PASS	R7-2	CAVEMAN-MERLIN-115KV	115	0
Southern OR	GRANTS PASS	GRANTS PASS	R7-3	EASY VALLEY-MERLIN-115KV	115	0
Southern OR	GRANTS PASS	GRANTS PASS	R7-4	DOWELL-EASY VALLEY-115KV	115	0
Southern OR	GRANTS PASS	JEROME PRAIRIE	SR62	WILD PRAIRIE	12.5	1,636
Southern OR	GRANTS PASS	JEROME PRAIRIE	SR63	WOOD RIVER	12.5	1,610
Southern OR	GRANTS PASS	MERLIN	5R232	MERLIN-HUGO	12.5	2,104
Southern OR	GRANTS PASS	MERLIN	5R234	PARADISE	12.5	1,215
Southern OR	GRANTS PASS	MERLIN	5R248	PLEASANT VALLEY-MERLIN FEEDER	12.5	1,818
Southern OR	GRANTS PASS	MERLIN	5R251	BADGER	12.5	929
Southern OR	GRANTS PASS	MERLIN	5R288	MONARCH	12.5	0
Southern OR	GRANTS PASS	OBRIEN	SR106	O'BRIEN	12.5	435
Southern OR	GRANTS PASS	PARK STREET (OR)	SR114	FRUITDALE	12.5	2,201
Southern OR	GRANTS PASS	PARK STREET (OR)	SR115	ALLEN CREEK	12.5	1,017
Southern OR	GRANTS PASS	PARK STREET (OR)	SR121	NEW HOPE	12.5	1,867
Southern OR	GRANTS PASS	PARK STREET (OR)	SR164	EXPRESS	12.5	321
Southern OR	GRANTS PASS	PARK STREET (OR)	SR169	PORTOLA	12.5	1,396
Southern OR	GRANTS PASS	PROVOLT	5R67	NORTH-SOUTH	12.5	1,450
Southern OR	GRANTS PASS	ROGUE RIVER	5R77	SAVAGE/WIMER	12.5	1,881
Southern OR	GRANTS PASS	ROGUE RIVER	5R78	ROCKY POINT (ROGUE RIVER)	12.5	1,064
Southern OR	GRANTS PASS	ROGUE RIVER	R13-3	GOLD HILL-ROGUE RIVER-69KV	69	0
Southern OR	GRANTS PASS	SELMA	5R65	DEER CREEK	12.5	1,218

Oregon 2019 Active Circuits with Substation, Voltage and Customer Counts

Oregon Region	Op Area Name	Substation Name	Circuit Id	Circuit Name	kV	Circuit Customer Count
Southern OR	KLAMATH FALLS	BEATTY	SL1	BEATTY	12.5	406
Southern OR	KLAMATH FALLS	BLY	SL14	TOWN (BLY)	12.5	433
Southern OR	KLAMATH FALLS	BOISE CASCADE	7L9	BOISE CASCAD	4.1	1
Southern OR	KLAMATH FALLS	BONANZA (OR)	SL7	POE VALLEY	12.5	470
Southern OR	KLAMATH FALLS	BRYANT	SL2	GARY STREET	12.5	2,144
Southern OR	KLAMATH FALLS	BRYANT	SL3	WASHBURN	12.5	1,835
Southern OR	KLAMATH FALLS	BRYANT	SL4	SUMMERS LANE	12.5	1,968
Southern OR	KLAMATH FALLS	BRYANT	SL5	MOYINA HTS.	12.5	2,455
Southern OR	KLAMATH FALLS	CAPTAIN JACK (BPA)	BB02-1A	KLAMATH COGEN-SNOW GOOSE-500KV	500	0
Southern OR	KLAMATH FALLS	CAPTAIN JACK (BPA)	BB02-1B	CAPTAIN JACK(BPA)-SNOW GOOSE-500KV	500	0
Southern OR	KLAMATH FALLS	CASEBEER SUB	4L16	LANGELL VLY	20.8	1,175
Southern OR	KLAMATH FALLS	CHILOQUIN	SL57	CRATER LAKE	12	1,071
Southern OR	KLAMATH FALLS	CHILOQUIN	BB04-1	KLAMATH FALLS-CHILOQUIN-230KV	230	0
Southern OR	KLAMATH FALLS	CHILOQUIN	BB04-2	CHILOQUIN-LA PINE-230KV	230	0
Southern OR	KLAMATH FALLS	CHILOQUIN	K02	CHILOQUIN-MILE HI-115KV	115	0
Southern OR	KLAMATH FALLS	CHILOQUIN	K02-1	CHILOQUIN-FISH HOLE-115KV	115	0
Southern OR	KLAMATH FALLS	CHILOQUIN	K02-2	FISH HOLE-MILE HI-115KV	115	0
Southern OR	KLAMATH FALLS	CHILOQUIN	K11	CHILOQUIN-CHILOQUIN MARKET-69KV	69	0
Southern OR	KLAMATH FALLS	CHILOQUIN	K11-1	BOISE CASCADE-CHILOQUIN-69KV	69	0
Southern OR	KLAMATH FALLS	CHILOQUIN	K11-2	BOISE CASCADE-MODOC-69KV	69	0
Southern OR	KLAMATH FALLS	CHILOQUIN	K11-3	CHILOQUIN MARKET-MODOC-69KV	69	0
Southern OR	KLAMATH FALLS	CHILOQUIN MRKT	SL37	WILLIAMSON	12.5	559
Southern OR	KLAMATH FALLS	DAIRY	SL42	SWAN LAKE	12.5	258
Southern OR	KLAMATH FALLS	DAIRY	SL43	DAIRY	12.5	509
Southern OR	KLAMATH FALLS	DORRIS	K10	DORRIS-TUNNEL TAP-69KV	69	0
Southern OR	KLAMATH FALLS	FISHHOLE	K05-4	BONANZA TAP-FISHHOLE-69KV	69	0
Southern OR	KLAMATH FALLS	FISHHOLE	K05-4A	BONANZA TAP-SPRAGUE RIVER-69KV	69	0
Southern OR	KLAMATH FALLS	FISHHOLE	K05-4B	BEATTY-SPRAGUE RIVER-69KV	69	0
Southern OR	KLAMATH FALLS	FISHHOLE	K05-4C	BEATTY-BLY-69KV	69	0
Southern OR	KLAMATH FALLS	FISHHOLE	K05-4D	BLY-FISHHOLE-69KV	69	0
Southern OR	KLAMATH FALLS	HAMAKER	SL55	KENO	12.5	1,720
Southern OR	KLAMATH FALLS	HAMAKER	SL56	MOUNTAIN	12.5	161
Southern OR	KLAMATH FALLS	HENLEY	SL58	HENLEY	12.5	235
Southern OR	KLAMATH FALLS	HENLEY	SL59	WEST	12.5	541
Southern OR	KLAMATH FALLS	HORNET	SL44	HOMEDALE	12.5	2,813
Southern OR	KLAMATH FALLS	HORNET	SL45	CRYSTAL SPR	12.5	1,486
Southern OR	KLAMATH FALLS	HORNET	K04-2K	HENLEY TAP-MERRILL-69KV	69	0
Southern OR	KLAMATH FALLS	HORNET	K04-2L	HENLEY TAP-HENLEY-69KV	69	0
Southern OR	KLAMATH FALLS	HORNET	K04-2M	HENLEY TAP-HORNET-69KV	69	0
Southern OR	KLAMATH FALLS	JOHN C. BOYLE SUB	BB06-4	BOYLE-COPCO 2-230KV	230	0
Southern OR	KLAMATH FALLS	JOHN C. BOYLE SUB	K12-3	JC BOYLE TAP-KLAMATH FALLS-WEYEHAUSER-69KV	69	0
Southern OR	KLAMATH FALLS	JOHN C. BOYLE SUB	K12-3A	HAMAKER-JC BOYLE TAP-69KV	69	0
Southern OR	KLAMATH FALLS	JOHN C. BOYLE SUB	K12-3B	HAMAKER-WEYERHAUSER TAP-69KV	69	0
Southern OR	KLAMATH FALLS	KLAMATH	BB06-1	BOYLE-KLAMATH FALLS-230KV	230	0
Southern OR	KLAMATH FALLS	KLAMATH	K05-1	KLAMATH FALLS-BONANZA-69KV	69	0
Southern OR	KLAMATH FALLS	KLAMATH	K05-1A	KLAMATH FALLS-HORNET-TEXUM TAP-69KV	69	0
Southern OR	KLAMATH FALLS	KLAMATH	K05-1B	DAIRY-HORNET-LAKEVIEW JCT-69KV	69	0
Southern OR	KLAMATH FALLS	KLAMATH	K05-1C	BONANZA TAP-DAIRY-69KV	69	0
Southern OR	KLAMATH FALLS	KLAMATH	K05-A	TEXUM-TEXUM TAP-69KV	69	0
Southern OR	KLAMATH FALLS	KLAMATH	K05-B	BONANZA-BONANZA TAP-CASEBEER-69KV	69	0
Southern OR	KLAMATH FALLS	KLAMATH	K07-1	KLAMATH FALLS-WESTSIDE-69KV	69	0
Southern OR	KLAMATH FALLS	KLAMATH	K07-2	KLAMATH FALLS-LAKEVIEW JCT-LAKEPORT-69KV	69	0
Southern OR	KLAMATH FALLS	KLAMATH	K07-2A	KLAMATH FALLS-TEXUM-69KV	69	0
Southern OR	KLAMATH FALLS	KLAMATH	K07-2B	BRYANT-TEXUM-69KV	69	0
Southern OR	KLAMATH FALLS	KLAMATH	K07-2C	BRYANT-BRYANT TAP-ROSS AVE-69KV	69	0

Oregon 2019 Active Circuits with Substation, Voltage and Customer Counts

Oregon Region	Op Area Name	Substation Name	Circuit Id	Circuit Name	kV	Circuit Customer Count
Southern OR	KLAMATH FALLS	KLAMATH	K07-2D	LAKEPORT-ROSS AVE-69KV	69	0
Southern OR	KLAMATH FALLS	KLAMATH	K07-B	BRYANT TAP-LAKEVIEW JCT-69KV	69	0
Southern OR	KLAMATH FALLS	KLAMATH	K08	KLAMATH FALLS-WEYERHAUSER-69KV	69	0
Southern OR	KLAMATH FALLS	KLAMATH	K12-3C	RUNNING Y TAP-WEYERHAUSER TAP-69KV	69	0
Southern OR	KLAMATH FALLS	KLAMATH	K12-3D	KLAMATH FALLS-RUNNING Y TAP-WESTSIDE-69KV	69	0
Southern OR	KLAMATH FALLS	KLAMATH	K12B	WEYERHAUSER-WEYERHAUSER TAP-69KV	69	0
Southern OR	KLAMATH FALLS	KLAMATH	K12F	RUNNING Y-RUNNING Y TAP-69KV	69	0
Southern OR	KLAMATH FALLS	KLAMATH	K13	KLAMATH FALLS-LAKEPORT-69KV	69	0
Southern OR	KLAMATH FALLS	KLAMATH	K13-2	KLAMATH FALLS-WESTSIDE-69KV	69	0
Southern OR	KLAMATH FALLS	KLAMATH	K13-3	EASTSIDE-LAKEPORT-WESTSIDE-69KV	69	0
Southern OR	KLAMATH FALLS	KLAMATH	K14-2	KLAMATH FALLS-PICARD SW STATION-69KV	69	0
Southern OR	KLAMATH FALLS	KLAMATH	K14-2A	DORRIS-KLAMATH FALLS-69KV	69	0
Southern OR	KLAMATH FALLS	KLAMATH	K14-2B	DORRIS-PICARD SW STATION-69KV	69	0
Southern OR	KLAMATH FALLS	KLAMATH COGEN 500KV SWITCH	BB02-1	KLAMATH CO-GEN - CAPT JACK	500	0
Southern OR	KLAMATH FALLS	KLAMATH COGEN 500KV SWITCH	BB02-2	KLAMATH COGEN-MERIDAN 500KV LINE	500	0
Southern OR	KLAMATH FALLS	LAKEPORT	SL49	WOCUS	12.5	204
Southern OR	KLAMATH FALLS	LAKEPORT	SL54	SOUTH (LAKEPORT)	12.5	2,435
Southern OR	KLAMATH FALLS	LAKEPORT	SL61	JELDWEN	12.5	7
Southern OR	KLAMATH FALLS	MALIN	BB01	MALIN-ROUND MOUNTAIN #2-525KV	500	0
Southern OR	KLAMATH FALLS	MALIN	BB05	KLAMATH FALLS-MALIN-230KV	230	0
Southern OR	KLAMATH FALLS	MALIN	BB14	CAPTAIN JACK-MALIN-500KV	500	0
Southern OR	KLAMATH FALLS	MALIN	BB17	MALIN-BPA WARNER-230KV	230	0
Southern OR	KLAMATH FALLS	MALIN	K04-2E	MALIN TAP-TULELAKE TAP-69KV	69	0
Southern OR	KLAMATH FALLS	MALIN	K04-2F	MALIN TAP-TURKEY HILL-69KV	69	0
Southern OR	KLAMATH FALLS	MALIN	K04-2G	MERRILL JCT-TURKEY HILL-69KV	69	0
Southern OR	KLAMATH FALLS	MALIN	K04-2H	MERRILL JCT-TUNNEL TAP-69KV	69	0
Southern OR	KLAMATH FALLS	MALIN	K04-2J	MERRILL -MERRILL JCT-69KV	69	0
Southern OR	KLAMATH FALLS	MALIN	K09-1	MALIN-MALIN TAP-69KV	69	0
Southern OR	KLAMATH FALLS	MERRILL (OR)	SL26	LAKE (MERRILL)	12.5	987
Southern OR	KLAMATH FALLS	MERRILL (OR)	SL27	NORTH (MERRILL)	12.5	561
Southern OR	KLAMATH FALLS	MERRILL (OR)	K04-3	MERRILL-HORNET-69KV	69	1
Southern OR	KLAMATH FALLS	MERRILL (OR)	K04B	MERRILL JCT-TUNNEL TAP-69KV	69	0
Southern OR	KLAMATH FALLS	MODOC	SL36	MODOC	12.5	856
Southern OR	KLAMATH FALLS	ROSS AVENUE	SL46	ELDORADO	12.5	1,387
Southern OR	KLAMATH FALLS	ROSS AVENUE	SL47	FORT ROAD	12.5	0
Southern OR	KLAMATH FALLS	ROSS AVENUE	SL48	BROAD ST.	12.5	1,200
Southern OR	KLAMATH FALLS	RUNNING Y	4L50	ROCKY POINT FEEDER (RUNNING Y)	20.8	1,463
Southern OR	KLAMATH FALLS	SHASTA WAY	7L25	SHASTA WAY	4.1	434
Southern OR	KLAMATH FALLS	SNOW GOOSE	SL490	SNOW GOOSE CB 5L490	12.5	0
Southern OR	KLAMATH FALLS	SNOW GOOSE	SL491	SNOW GOOSE CB 5L491	12.5	0
Southern OR	KLAMATH FALLS	SPRAGUE RIVER	SL8	SPRAGUE RIVER	12.5	506
Southern OR	KLAMATH FALLS	SUMMER LAKE (BPA)	CO01-2	MALIN-SUMMER LAKE-500KV	500	0
Southern OR	KLAMATH FALLS	TEXUM	SL112	ANDERSON	12.5	1,204
Southern OR	KLAMATH FALLS	TEXUM	SL113	TOWER	12.5	288
Southern OR	KLAMATH FALLS	TEXUM	SL116	ALTAMONT	12.5	1,493
Southern OR	KLAMATH FALLS	TURKEY HILL	SL20	MALIN CITY	12.5	829
Southern OR	KLAMATH FALLS	TURKEY HILL	SL23	RURAL (TURKEY HILL)	12.5	326
Southern OR	KLAMATH FALLS	WEST SIDE	SL12	ORINDALE	12.5	792
Southern OR	KLAMATH FALLS	WEST SIDE	SL15	CALIFORNIA	12.5	1,371
Southern OR	KLAMATH FALLS	WEST SIDE	SL16	MAIN ST (WEST SIDE HE PLANT)	12.5	111
Southern OR	KLAMATH FALLS	WEST SIDE	SL17	PINE ST (WEST SIDE HE PLANT)	12.5	504
Southern OR	KLAMATH FALLS	WEST SIDE	SL18	RIVERSIDE (WEST SIDE HE PLANT)	12.5	589
Southern OR	KLAMATH FALLS	WEST SIDE	SL19	LAKESHORE	12.5	308
Southern OR	KLAMATH FALLS	WEST SIDE	8L10	CITY WTR PMP	2.4	1
Southern OR	LAKEVIEW	MILE-HI	SL104	INDUSTRIAL	12.5	724

Oregon 2019 Active Circuits with Substation, Voltage and Customer Counts

Oregon Region	Op Area Name	Substation Name	Circuit Id	Circuit Name	kV	Circuit Customer Count
Southern OR	LAKEVIEW	MILE-HI	SL105	BUSINESS	12.5	1,724
Southern OR	LAKEVIEW	MILE-HI	K03	ALTURAS-(BPA)CEDARVILLE-BULLARD-115KV	115	2
Southern OR	LAKEVIEW	MILE-HI	K03-3	DAVIS CREEK-BULLARD-115KV	115	0
Southern OR	LAKEVIEW	MILE-HI	K03-4	BULLARD-MILE HI-115KV	115	0
Southern OR	LAKEVIEW	MILE-HI	K15-1	MILE HI-SVEC-69KV	69	0
Southern OR	MEDFORD	ASHLAND (MTN.AVE, PUD)	SR241	CITY	12.5	13
Southern OR	MEDFORD	ASHLAND (MTN.AVE, PUD)	SR245	VALLEY VIEW	12.5	992
Southern OR	MEDFORD	ASHLAND (MTN.AVE, PUD)	R08-2	ASHLAND-MOUNTAIN AVE(BPA)-115KV	115	0
Southern OR	MEDFORD	ASHLAND (MTN.AVE, PUD)	R08-3	MOUNTAIN AVE(BPA)-OAK KNOLL-115KV	115	0
Southern OR	MEDFORD	ASHLAND (MTN.AVE, PUD)	R18	ASHLAND-BELKNAP-115KV	115	0
Southern OR	MEDFORD	ASHLAND (MTN.AVE, PUD)	R18-1	ASHLAND-BALDY SW STA-BELKNAP-GRIFFIN CREEK-115KV	115	0
Southern OR	MEDFORD	ASHLAND (MTN.AVE, PUD)	R18-2	ASHLAND-TALENT-115KV	115	0
Southern OR	MEDFORD	ASHLAND (MTN.AVE, PUD)	R18-3	TALENT-VORHEES CROSSING-115KV	115	0
Southern OR	MEDFORD	ASHLAND (MTN.AVE, PUD)	R18-4	GRIFFIN CREEK-VORHEES CROSSING-115KV	115	0
Southern OR	MEDFORD	ASHLAND (MTN.AVE, PUD)	R18-5	BELKNAP-VORHEES CROSSING-115KV	115	0
Southern OR	MEDFORD	ASHLAND (MTN.AVE, PUD)	R18-6	CAMPBELL-VORHEES CROSSING-115KV	115	0
Southern OR	MEDFORD	ASHLAND (MTN.AVE, PUD)	R18-7	BALDY SW STA-CAMPBELL-115KV	115	0
Southern OR	MEDFORD	BEALL LANE	SR359	BEEHIVE	12.5	2
Southern OR	MEDFORD	BEALL LANE	SR361	BULLDOG	12.5	1,724
Southern OR	MEDFORD	BEALL LANE	SR364	BOBCAT	12.5	2,151
Southern OR	MEDFORD	BELKNAP	SR1	KOGAP	12.5	1,017
Southern OR	MEDFORD	BELKNAP	SR2	RIVERSIDE (BELKNAP)	12.5	670
Southern OR	MEDFORD	BELKNAP	SR3	BARNETT	12.5	1,640
Southern OR	MEDFORD	BELKNAP	SR47	STEWART	12.5	2,116
Southern OR	MEDFORD	BROOKHURST	SR118	SPRINGBROOK	12.5	1,847
Southern OR	MEDFORD	BROOKHURST	SR135	ROBERTS (BROOKHURST)	12.5	1,646
Southern OR	MEDFORD	BROOKHURST	SR32	ROXY	12.5	1,799
Southern OR	MEDFORD	BROOKHURST	SR33	CRATER LAKE	12.5	1,743
Southern OR	MEDFORD	BROOKHURST	SR75	SUNRISE (BROOKHURST)	12.5	1,243
Southern OR	MEDFORD	CAMPBELL	SR216	VOORHIES	12.5	851
Southern OR	MEDFORD	CAMPBELL	SR218	PHOENIX	12.5	1,522
Southern OR	MEDFORD	CAMPBELL	SR227	FERN VALLEY	12.5	1,418
Southern OR	MEDFORD	CAMPBELL	SR312	COBRA	12.5	1,472
Southern OR	MEDFORD	DODGE BRIDGE	4R1	SALMON	20.8	1,647
Southern OR	MEDFORD	DODGE BRIDGE	4R35	MEADOWS ROAD	20.8	1,386
Southern OR	MEDFORD	FOOTHILLS	SR252	HILLCREST ROAD	12.5	0
Southern OR	MEDFORD	FOOTHILLS	SR38	HOSPITAL	12.5	774
Southern OR	MEDFORD	FOOTHILLS	SR39	PIERCE ROAD	12.5	1,161
Southern OR	MEDFORD	FRALEY	SR87	TABLE ROCK	12.5	527
Southern OR	MEDFORD	FRALEY	SR88	DODGE BRIDGE	12.5	372
Southern OR	MEDFORD	GOLD HILL	SR103	GOLD HILL	12.5	2,036
Southern OR	MEDFORD	GOLD HILL	R13-4	GOLD HILL-TOLO-69KV	69	0
Southern OR	MEDFORD	GRIFFIN CREEK	SR200	ARNOLD LANE	12.5	0
Southern OR	MEDFORD	GRIFFIN CREEK	SR204	HULL RD	12.5	2,741
Southern OR	MEDFORD	GRIFFIN CREEK	SR206	GRIFFIN CREEK	12.5	1,763
Southern OR	MEDFORD	HUMBUG CREEK	SR287	HUMMINGBIRD	12.5	692
Southern OR	MEDFORD	JACKSONVILLE	SR284	STAGE RD	12.5	2,086
Southern OR	MEDFORD	JACKSONVILLE	SR285	JACKSONVILLE HWY	12.5	2,196
Southern OR	MEDFORD	LONE PINE	R10-1	LONE PINE-WHETSTONE-115KV	115	0
Southern OR	MEDFORD	LONE PINE	R10-1B	WHETSTONE-WHITE CITY-115KV	115	0
Southern OR	MEDFORD	LONE PINE	R10-1C	LONE PINE-VILAS ROAD-115KV	115	0
Southern OR	MEDFORD	LONE PINE	R10-1D	VILAS ROAD-WHITE CITY115KV	115	0
Southern OR	MEDFORD	LONE PINE	R12	LONE PINE-PROSPECT CENTRAL-69KV	69	0
Southern OR	MEDFORD	LONE PINE	R12-1	FRALEY-LONE PINE-69KV	69	0
Southern OR	MEDFORD	LONE PINE	R12-2	DODGE BRIDGE-FRALEY-69KV	69	0

Oregon 2019 Active Circuits with Substation, Voltage and Customer Counts

Oregon Region	Op Area Name	Substation Name	Circuit Id	Circuit Name	kV	Circuit Customer Count
Southern OR	MEDFORD	LONE PINE	R12-3	DODGE BRIDGE-PROSPECT CENTRAL-69KV	69	0
Southern OR	MEDFORD	LONE PINE	R19-1	LONE PINE-BELKNAP-69KV	69	0
Southern OR	MEDFORD	LONE PINE	R19-11	FOOTHILL-LONE PINE-69KV	69	0
Southern OR	MEDFORD	LONE PINE	R19-12	BELKNAP-FOOTHILL-69KV	69	0
Southern OR	MEDFORD	LONE PINE	R25	LONE PINE-MEDFORD-69KV	69	0
Southern OR	MEDFORD	LONE PINE	R26	LONE PINE-SAGE ROAD-115KV	115	0
Southern OR	MEDFORD	LONE PINE	R26-1	BROOKHURST-LONE PINE-115KV	115	0
Southern OR	MEDFORD	LONE PINE	R26-2	BROOKHURST-MEDFORD-115KV	115	0
Southern OR	MEDFORD	LONE PINE	R26-3	MEDFORD-SAGE ROAD-115KV	115	0
Southern OR	MEDFORD	LONE PINE	R27-1	LONE PINE-BALDY SW STA-115KV	115	0
Southern OR	MEDFORD	LONE PINE	R27-1A	LONE PINE-ROXY ANN-115KV	115	0
Southern OR	MEDFORD	LONE PINE	R27-1B	BALDY SW STA-ROXY ANN-115KV	115	0
Southern OR	MEDFORD	LONE PINE	R27-2	LONE PINE-PROSPECT CENTRAL-115KV	115	0
Southern OR	MEDFORD	LONE PINE	R27-2A	LONE PINE-STEVENS ROAD-115KV	115	0
Southern OR	MEDFORD	LONE PINE	R27-2B	EAGLE POINT-STEVENS ROAD-115KV	115	0
Southern OR	MEDFORD	LONE PINE	R27-2C	EAGLE POINT-LOST CREEK-115KV	115	0
Southern OR	MEDFORD	LONE PINE	R27-2D	LOST CREEK-TAKELMA-115KV	115	0
Southern OR	MEDFORD	LONE PINE	R27-2E	PROSPECT CENTRAL-TAKELMA-115KV	115	0
Southern OR	MEDFORD	MEDCO	SR280	BOISE CASCADE	12.5	1
Southern OR	MEDFORD	MEDFORD	SR21	MELROSE	12.5	1596
Southern OR	MEDFORD	MEDFORD	SR23	SPRING ST.	12.5	1625
Southern OR	MEDFORD	MEDFORD	SR250	BIG Y	12.5	1868
Southern OR	MEDFORD	MEDFORD	SR253	APPLE	12.5	1111
Southern OR	MEDFORD	MEDFORD	SR257	PEAR	12.5	655
Southern OR	MEDFORD	MEDFORD	SR659	MCLEAN	12.5	680
Southern OR	MEDFORD	MEDFORD	R23-10	HUMBUG CREEK-JACKSONVILLE-MEDFORD-69KV	69	0
Southern OR	MEDFORD	MEDFORD	R23-11	MEDFORD-JACKSONVILLE-69KV	69	0
Southern OR	MEDFORD	MEDFORD	R23-13	JACKSONVILLE-RUCH-69KV	69	0
Southern OR	MEDFORD	MEDFORD	R23-14	HUMBUG CREEK-RUCH-69KV	69	0
Southern OR	MEDFORD	MERIDIAN	BB07	LONE PINE #1-MERIDIAN-230KV	230	0
Southern OR	MEDFORD	MERIDIAN	BB13-1	MERIDIAN-WHETSTONE-230KV	230	0
Southern OR	MEDFORD	MERIDIAN	BB16	LONE PINE #2-MERIDIAN-230KV	230	0
Southern OR	MEDFORD	OAK KNOLL	SR55	SISKIYOU	12.5	1507
Southern OR	MEDFORD	OAK KNOLL	SR56	HIGHWAY 99	12.5	118
Southern OR	MEDFORD	OAK KNOLL	R08	TAP TO OAK KNOLL-115KV	115	0
Southern OR	MEDFORD	OAK KNOLL	R08-1	OAK KNOLL-ASHLAND-115KV	115	1
Southern OR	MEDFORD	OAK KNOLL	R11-2A	BLADY SW STA-OAK KNOLL-115KV	115	0
Southern OR	MEDFORD	OAK KNOLL	R11-2C	GREEN SPRINGS-OAK KNOLL-115KV	115	0
Southern OR	MEDFORD	OAK KNOLL	R11-2E	BALDY SW STA-COPCO2-OAK KNOLL-115KV	115	0
Southern OR	MEDFORD	PROSPECT 3	SR290	P-3 FOREBAY	12.5	1
Southern OR	MEDFORD	PROSPECT CNTRL	SR40	NEW CASCADE	12.5	338
Southern OR	MEDFORD	PROSPECT CNTRL	8R5	COTTAGES	2.4	0
Southern OR	MEDFORD	PROSPECT CNTRL	8R8	DAM & FOREBAY	2.4	0
Southern OR	MEDFORD	PROSPECT CNTRL	R14	PROSPECT CNTRL-PROSPECT #3-69KV	69	1
Southern OR	MEDFORD	PROSPECT CNTRL	R14-1	PROSPECT CENTRAL-RED BLANKET-69KV	69	0
Southern OR	MEDFORD	PROSPECT CNTRL	R14-2	PROSPECT 3-RED BLANKET-69KV	69	1
Southern OR	MEDFORD	PROSPECT CNTRL	R15	PROSPECT-PROSPECT CNTRL #1-69KV	69	0
Southern OR	MEDFORD	PROSPECT CNTRL	R16	PROSPECT-PROSPECT CNTRL #2-69KV	69	0
Southern OR	MEDFORD	PROSPECT CNTRL	R17	PROSPECT-PROSPECT CNTRL #2-69KV	69	0
Southern OR	MEDFORD	RED BLANKET	7R5	PROSPECT	4.1	396
Southern OR	MEDFORD	ROXY ANN	SR350	St. Bernard	12.5	1290
Southern OR	MEDFORD	ROXY ANN	SR352	ROXYANN2	12.5	0
Southern OR	MEDFORD	ROXY ANN	SR354	RACCOON	12.5	1575
Southern OR	MEDFORD	ROXY ANN	SR356	ROXY ANN CB5R356	12.5	0
Southern OR	MEDFORD	RUCH	SR68	APPLEGATE	12.5	934

Oregon 2019 Active Circuits with Substation, Voltage and Customer Counts

Oregon Region	Op Area Name	Substation Name	Circuit Id	Circuit Name	kV	Circuit Customer Count
Southern OR	MEDFORD	RUCH	SR69	RUCH	12.5	547
Southern OR	MEDFORD	SAGE ROAD (OR)	SR209	TIMBER PROD	12.5	1
Southern OR	MEDFORD	SAGE ROAD (OR)	SR211	COLUMBUS	12.5	1951
Southern OR	MEDFORD	SAGE ROAD (OR)	SR226	BOISE	12.5	920
Southern OR	MEDFORD	SAGE ROAD (OR)	SR27	MCANDREWS	12.5	114
Southern OR	MEDFORD	SAGE ROAD (OR)	SR28	ROSS	12.5	2014
Southern OR	MEDFORD	SAGE ROAD (OR)	SR29	EDWARDS	12.5	757
Southern OR	MEDFORD	SAGE ROAD (OR)	R10-2	SAGE ROAD-WHETSTONE-115KV	115	0
Southern OR	MEDFORD	SAGE ROAD (OR)	R10-2A	BEALL LANE-MEDCO-115KV	115	0
Southern OR	MEDFORD	SAGE ROAD (OR)	R10-2B	BEALL LANE-SCENIC-115KV	115	0
Southern OR	MEDFORD	SAGE ROAD (OR)	R10-2D	MEDCO-SAGE ROAD-115KV	115	0
Southern OR	MEDFORD	SAGE ROAD (OR)	R27-3	BALDY SW STA-SAGE ROAD-115KV	115	0
Southern OR	MEDFORD	SAGE ROAD (OR)	R27-4	GRIFFIN CREEK-SAGE ROAD-115KV	115	0
Southern OR	MEDFORD	SAGE ROAD (OR)	R27-4A	GRIFFIN CREEK-JACKSONVILLE-115KV	115	0
Southern OR	MEDFORD	SAGE ROAD (OR)	R27-4B	JACKSONVILLE-SAGE ROAD-115KV	115	0
Southern OR	MEDFORD	SCENIC	SR174	UPTON	12.5	2015
Southern OR	MEDFORD	SCENIC	SR180	HEAD RD	12.5	1181
Southern OR	MEDFORD	SCENIC	SR182	TAYLOR RD	12.5	1675
Southern OR	MEDFORD	SCENIC	SR184	CHENEY	12.5	1471
Southern OR	MEDFORD	SCENIC	R13-2	GOLD HILL-SCENIC-69KV	69	0
Southern OR	MEDFORD	SCENIC	R13-5	SCENIC-TOLO-69KV	69	0
Southern OR	MEDFORD	STEVENS ROAD	4R13	HENRY MILLER	20.8	2319
Southern OR	MEDFORD	STEVENS ROAD	4R17	Stingray	20.8	2582
Southern OR	MEDFORD	STEVENS ROAD	4R41	ANTELOPE	20.8	1149
Southern OR	MEDFORD	TAKELMA	4R9	LOST CK. (TAKELMA)	20.8	2678
Southern OR	MEDFORD	TALENT	SR237	TALENT	12.5	2481
Southern OR	MEDFORD	TALENT	SR238	ANDERSON CRK	12.5	1736
Southern OR	MEDFORD	TALENT	SR239	HARTLEY ROAD	12.5	1568
Southern OR	MEDFORD	TALENT	SR240	NORTH HWY	12.5	1186
Southern OR	MEDFORD	TOLO	SR90	TBL ROCK LBR	12.5	163
Southern OR	MEDFORD	TOLO	SR91	SAMS VALLEY	12.5	650
Southern OR	MEDFORD	TOLO	SR92	KIRTLAND RD	12.5	201
Southern OR	MEDFORD	VILAS ROAD	SR110	MCLAUGHLIN	12.5	958
Southern OR	MEDFORD	VILAS ROAD	SR146	KING CENTER	12.5	1473
Southern OR	MEDFORD	VILAS ROAD	SR305	WEBFOOT	12.5	849
Southern OR	MEDFORD	WHETSTONE	R10-2C	SCENIC-WHETSONE-115KV	115	0
Southern OR	MEDFORD	WHETSTONE	R1-2	FIELDER CREEK-WHETSTONE115KV	115	0
Southern OR	MEDFORD	WHITE CITY	SR11	EAGLE POINT	12.5	1485
Southern OR	MEDFORD	WHITE CITY	SR12	INDUSTRIAL	12.5	33
Southern OR	MEDFORD	WHITE CITY	SR13	FIR-PLY	12.5	23
Southern OR	MEDFORD	WHITE CITY	SR14	AGATE	12.5	107
Southern OR	MEDFORD	WHITE CITY	SR19	3M	12.5	111
Southern OR	MEDFORD	WHITE CITY	SR66	4 CORNERS	12.5	1,779
Southern OR	MEDFORD	WHITE CITY	SR76	AVE C	12.5	80
Southern OR	ROSEBURG/MYRTLECREEK	ALVEY (BPA)	BB03	ALVEY-DIXONVILLE-500KV	500	0
Southern OR	ROSEBURG/MYRTLECREEK	ALVEY (BPA)	WI03	ALVEY-DIXONVILLE-230KV	230	0
Southern OR	ROSEBURG/MYRTLECREEK	CANYONVILLE	SU46	CANYONVILLE	12.5	396
Southern OR	ROSEBURG/MYRTLECREEK	CANYONVILLE	SU52	BEALS CREEK FEEDER	12.5	896
Southern OR	ROSEBURG/MYRTLECREEK	CARNES	SU44	RND PRAIRIE	12.5	419
Southern OR	ROSEBURG/MYRTLECREEK	CARNES	SU45	GREEN	12.5	0
Southern OR	ROSEBURG/MYRTLECREEK	CLEARWATER	U07	CLEARWATER-LEMOLO #1-115KV	115	0
Southern OR	ROSEBURG/MYRTLECREEK	CLEARWATER	U08	CLEARWATER-LEMOLO #2-115KV	115	0
Southern OR	ROSEBURG/MYRTLECREEK	CLEARWATER	U09	CLEARWATER-CLEARWATER #1-115KV	115	0
Southern OR	ROSEBURG/MYRTLECREEK	CLEARWATER #1 SUB	6U17	BRIGGS	7.2	2
Southern OR	ROSEBURG/MYRTLECREEK	CLEARWATER #2 SUB	6U33	CLEARWATER	7.2	97

Oregon 2019 Active Circuits with Substation, Voltage and Customer Counts

Oregon Region	Op Area Name	Substation Name	Circuit Id	Circuit Name	kV	Circuit Customer Count
Southern OR	ROSEBURG/MYRTLECREEK	CLOAKE	4U37	RUSA	20.8	1
Southern OR	ROSEBURG/MYRTLECREEK	CLOAKE	4U38	HARVARD	20.8	2,958
Southern OR	ROSEBURG/MYRTLECREEK	CLOAKE	4U39	GOEDECK	20.8	1,264
Southern OR	ROSEBURG/MYRTLECREEK	DAYS CREEK	U01	DAYS CREEK-PROSPECT CNTRL-115KV	115	0
Southern OR	ROSEBURG/MYRTLECREEK	DAYS CREEK	U01-1	DAYS CREEK-TILLER-115KV	115	0
Southern OR	ROSEBURG/MYRTLECREEK	DAYS CREEK	U01-2	PROSPECT CENTRAL-TILLER-115KV	115	0
Southern OR	ROSEBURG/MYRTLECREEK	DAYS CREEK	U14-1	CANYONVILLE-DAYS CREEK-115KV	115	0
Southern OR	ROSEBURG/MYRTLECREEK	DAYS CREEK	U14-2	CANYONVILLE-RIDDLE-115KV	115	0
Southern OR	ROSEBURG/MYRTLECREEK	DAYS CREEK	U14-3	RIDDLE-RIDDLE VENEER-115KV	115	0
Southern OR	ROSEBURG/MYRTLECREEK	DAYS CREEK	U14-4	NICKEL MOUNTAIN-RIDDLE VENEER-115KV	115	0
Southern OR	ROSEBURG/MYRTLECREEK	DAYS CREEK	U17-2	DAYS CREEK-NICKEL MOUNTAIN-115KV	115	0
Southern OR	ROSEBURG/MYRTLECREEK	DIXONVILLE	BB08-1	DIXONVILLE-NICKEL MOUNTAIN-GRANTS PASS-230KV	230	0
Southern OR	ROSEBURG/MYRTLECREEK	DIXONVILLE	BB08-2	DIXONVILLE-HANNA TAP-230KV	230	0
Southern OR	ROSEBURG/MYRTLECREEK	DIXONVILLE	BB09	DIXONVILLE-RESTON-230KV	230	0
Southern OR	ROSEBURG/MYRTLECREEK	DIXONVILLE	BB09-1	DIXONVILLE-BPA-FAIRVIEW-230KV	230	0
Southern OR	ROSEBURG/MYRTLECREEK	DIXONVILLE	BB10	DIXONVILLE-MERIDIAN-500KV	500	0
Southern OR	ROSEBURG/MYRTLECREEK	DIXONVILLE	BB12	DIXONVILLE 500KV-DIXONVILLE-230KV	230	0
Southern OR	ROSEBURG/MYRTLECREEK	DIXONVILLE	U02	DIXONVILLE-DAYS CREEK-115KV	115	0
Southern OR	ROSEBURG/MYRTLECREEK	DIXONVILLE	U03	DIXONVILLE-TOKETEE SW STA-115KV	115	0
Southern OR	ROSEBURG/MYRTLECREEK	DIXONVILLE	U03-1	DIXONVILLE-GLIDE-115KV	115	0
Southern OR	ROSEBURG/MYRTLECREEK	DIXONVILLE	U03-2	GLIDE-STEAMBOAT-115KV	115	0
Southern OR	ROSEBURG/MYRTLECREEK	DIXONVILLE	U03-3	ILLAHEE FLAT-STEAMBOAT-115KV	115	0
Southern OR	ROSEBURG/MYRTLECREEK	DIXONVILLE	U03-4	ILLAHEE FLAT-TOKETEE SW STA-115KV	115	0
Southern OR	ROSEBURG/MYRTLECREEK	DIXONVILLE	U05	DIXONVILLE-SODA SPRINGS-115KV	115	0
Southern OR	ROSEBURG/MYRTLECREEK	DIXONVILLE	U05-1	BOUNDARY ROAD-DIXONVILLE-115KV	115	0
Southern OR	ROSEBURG/MYRTLECREEK	DIXONVILLE	U05-2	BOUNDARY ROAD-ILLAHEE FLAT-115KV	115	0
Southern OR	ROSEBURG/MYRTLECREEK	DIXONVILLE	U05-3	ILLAHEE FLAT-SODA SPRINGS-115KV	115	0
Southern OR	ROSEBURG/MYRTLECREEK	DIXONVILLE	U10	CLOAKE-DIXONVILLE-GREEN-69KV	69	0
Southern OR	ROSEBURG/MYRTLECREEK	DIXONVILLE	U10-4	DIXONVILLE-SOUTHGATE-69KV	69	0
Southern OR	ROSEBURG/MYRTLECREEK	DIXONVILLE	U10-5	SOUTHGATE-SOUTHGATE TAP-69KV	69	0
Southern OR	ROSEBURG/MYRTLECREEK	DIXONVILLE	U10-6	CLOAKE-SOUTHGATE TAP-69KV	69	0
Southern OR	ROSEBURG/MYRTLECREEK	DIXONVILLE	U10-7	LOOKINGGLASS TAP-SOUTHGATE TAP-69KV	69	0
Southern OR	ROSEBURG/MYRTLECREEK	DIXONVILLE	U10-8	GREEN-LOOKINGGLASS TAP-69KV	69	0
Southern OR	ROSEBURG/MYRTLECREEK	DIXONVILLE	U11	DIXONVILLE-ROBERTS CREEK-115KV	115	0
Southern OR	ROSEBURG/MYRTLECREEK	DIXONVILLE	U12-3	DIXONVILLE-WINCHESTER #1-115KV	115	0
Southern OR	ROSEBURG/MYRTLECREEK	DIXONVILLE	U12-3A	DIXONVILLE-SUTHERLIN-115KV	115	0
Southern OR	ROSEBURG/MYRTLECREEK	DIXONVILLE	U12-3B	OAKLAND-SUTHERLIN-115KV	115	0
Southern OR	ROSEBURG/MYRTLECREEK	DIXONVILLE	U12-3C	DOUGLAS COUNTY FOREST PRODUCTS TAP-OAKLAND-115KV	115	0
Southern OR	ROSEBURG/MYRTLECREEK	DIXONVILLE	U12-3D	DOUGLAS COUNTY FOREST PROD TAP-WINCHESTER-115KV	115	0
Southern OR	ROSEBURG/MYRTLECREEK	DIXONVILLE	U12-4	DIXONVILLE-WINCHESTER #2-115KV	115	0
Southern OR	ROSEBURG/MYRTLECREEK	DIXONVILLE	U12-4A	DIXONVILLE-ROSEBURG-115KV	115	0
Southern OR	ROSEBURG/MYRTLECREEK	DIXONVILLE	U12-4B	ROSEBURG-WINCHESTER-115KV	115	0
Southern OR	ROSEBURG/MYRTLECREEK	DIXONVILLE	U15	DIXONVILLE-DOUGLAS VENEER-69KV	69	0
Southern OR	ROSEBURG/MYRTLECREEK	GARDEN VALLEY	4U80	EDENBOWER	20.8	813
Southern OR	ROSEBURG/MYRTLECREEK	GARDEN VALLEY	4U81	VALLEY	20.8	1,376
Southern OR	ROSEBURG/MYRTLECREEK	GLIDE SUBSTATION	5U83	IDLEYLD	12.5	1,002
Southern OR	ROSEBURG/MYRTLECREEK	GLIDE SUBSTATION	5U84	LITTLE RIVER	12.5	1,372
Southern OR	ROSEBURG/MYRTLECREEK	GREEN SUBSTATION	5U32	SAFARI	12.5	2,185
Southern OR	ROSEBURG/MYRTLECREEK	GREEN SUBSTATION	5U33	SUNNYSLOPE	12.5	1,641
Southern OR	ROSEBURG/MYRTLECREEK	GREEN SUBSTATION	U10-3A	CARNES-GREEN-69KV	69	0
Southern OR	ROSEBURG/MYRTLECREEK	GREEN SUBSTATION	U10-3B	CARNES-ROBERTS MOUNTAIN TAP-WINSTON-69KV	69	0
Southern OR	ROSEBURG/MYRTLECREEK	GREEN SUBSTATION	U10-3C	CARNES-ROBERTS CREEK-69KV	69	0
Southern OR	ROSEBURG/MYRTLECREEK	ILLAHEE FLATS	6U13	ILLAHEE FLATS SINGLE PHASE RECLOSER	7.2	25
Southern OR	ROSEBURG/MYRTLECREEK	LEMOLO # 1	5U920	DIAMOND LAKE	12.5	185

Oregon 2019 Active Circuits with Substation, Voltage and Customer Counts

Oregon Region	Op Area Name	Substation Name	Circuit Id	Circuit Name	kV	Circuit Customer Count
Southern OR	ROSEBURG/MYRTLECREEK	MYRTLE CREEK	5U76	SUPER Y	12.5	1,550
Southern OR	ROSEBURG/MYRTLECREEK	MYRTLE CREEK	5U77	BOOMER HILL	12.5	2,321
Southern OR	ROSEBURG/MYRTLECREEK	NICKEL MOUNTAIN	BB11	NICKEL MOUNTAIN-HANNA TAP SW STATION-230KV	230	0
Southern OR	ROSEBURG/MYRTLECREEK	OAKLAND (OR)	5U11	UMPQUA	12.5	1,260
Southern OR	ROSEBURG/MYRTLECREEK	OAKLAND (OR)	5U12	STAGECOACH	12.5	559
Southern OR	ROSEBURG/MYRTLECREEK	RIDDLE	5U1	TRI CITY	12.5	999
Southern OR	ROSEBURG/MYRTLECREEK	RIDDLE	SU2	COW CREEK	12.5	1,560
Southern OR	ROSEBURG/MYRTLECREEK	RIDDLE	SU3	HANNA	12.5	284
Southern OR	ROSEBURG/MYRTLECREEK	RIDDLE	U13-2	MYRTLE CREEK-RIDDLE-69KV	69	0
Southern OR	ROSEBURG/MYRTLECREEK	RIDDLE-VENEER	5U23	FORD MILL	12.5	1
Southern OR	ROSEBURG/MYRTLECREEK	RIDDLE-VENEER	SU50	RFP-LVL (EWP)	12	30
Southern OR	ROSEBURG/MYRTLECREEK	ROBERTS CREEK	U10-3	GREEN-ROBERTS CREEK-69KV	69	0
Southern OR	ROSEBURG/MYRTLECREEK	ROBERTS CREEK	U13	MYRTLE CREEK-ROBERTS CREEK-69KV	69	0
Southern OR	ROSEBURG/MYRTLECREEK	ROBERTS CREEK	U13-3	DILLARD TAP-ROBERTS CREEK-ROBERTS MTN TAP-69KV	69	0
Southern OR	ROSEBURG/MYRTLECREEK	ROBERTS CREEK	U13-4	DILLARD TAP-ROSEBURG LUMBER-69KV	69	0
Southern OR	ROSEBURG/MYRTLECREEK	ROBERTS CREEK	U13-5	DILLARD TAP-MYRTLE CREEK-69KV	69	0
Southern OR	ROSEBURG/MYRTLECREEK	ROSEBURG	4U10	DIAMOND	20.8	2,513
Southern OR	ROSEBURG/MYRTLECREEK	ROSEBURG	4U22	DIXON	20.8	1,137
Southern OR	ROSEBURG/MYRTLECREEK	ROSEBURG	4U5	DOUGLAS	20.8	2,074
Southern OR	ROSEBURG/MYRTLECREEK	SLIDE CREEK	6U76	SLIDE CREEK CAMP	7.2	4
Southern OR	ROSEBURG/MYRTLECREEK	SODA SPRINGS HE PLT	6U1	DRY CREEK	7.2	1
Southern OR	ROSEBURG/MYRTLECREEK	SODA SPRINGS HE PLT	U04	SODA SPRINGS-TOKETEE SW STA-115KV	115	0
Southern OR	ROSEBURG/MYRTLECREEK	SODA SPRINGS HE PLT	U04-1	SLIDE CREEK-SODA SPRINGS-115KV	115	0
Southern OR	ROSEBURG/MYRTLECREEK	SODA SPRINGS HE PLT	U04-2	FISH CREEK-SLIDE CREEK-115KV	115	0
Southern OR	ROSEBURG/MYRTLECREEK	SODA SPRINGS HE PLT	U04-3	FISH CREEK-TOKETEE-115KV	115	0
Southern OR	ROSEBURG/MYRTLECREEK	SODA SPRINGS HE PLT	U04-4	TOKETEE-TOKETEE SW STA-115KV	115	0
Southern OR	ROSEBURG/MYRTLECREEK	SOUTHGATE	4U30	SHADY POINT	20.8	1,610
Southern OR	ROSEBURG/MYRTLECREEK	SOUTHGATE	4U31	BOOTH	20.8	1,581
Southern OR	ROSEBURG/MYRTLECREEK	STEAMBOAT	6U18	STEAMBOAT	7.2	22
Southern OR	ROSEBURG/MYRTLECREEK	SUTHERLIN	SU35	NON-PAREIL	12.5	1,314
Southern OR	ROSEBURG/MYRTLECREEK	SUTHERLIN	SU36	DEADY	12.5	1,351
Southern OR	ROSEBURG/MYRTLECREEK	SUTHERLIN	SU56	Industrial	12.5	548
Southern OR	ROSEBURG/MYRTLECREEK	TILLER	SU89	JACKSON CRK	12.5	309
Southern OR	ROSEBURG/MYRTLECREEK	TOKETEE	6U21	BACK UP FOR CLEARWATER 6U33	6.9	0
Southern OR	ROSEBURG/MYRTLECREEK	TOKETEE	8U12	TOKETEE CITY	2.4	19
Southern OR	ROSEBURG/MYRTLECREEK	TOKETEE	U06	TOKETEE-CLEARWATER-115KV	115	0
Southern OR	ROSEBURG/MYRTLECREEK	WINCHESTER	4U18	WILBUR	20.8	1,646
Southern OR	ROSEBURG/MYRTLECREEK	WINCHESTER	SU15	NEWTON CREEK	12.5	1,743
Southern OR	ROSEBURG/MYRTLECREEK	WINCHESTER	SU17	FISHER	12.5	771
Southern OR	ROSEBURG/MYRTLECREEK	WINCHESTER	SU19	EVANS	12.5	769
Southern OR	ROSEBURG/MYRTLECREEK	WINCHESTER	U10-9	CLOAKE-WINCHESTER-69KV	69	0
Southern OR	ROSEBURG/MYRTLECREEK	WINCHESTER	U10-9A	GARDEN VALLEY-WINCHESTER-69KV	69	0
Southern OR	ROSEBURG/MYRTLECREEK	WINCHESTER	U10-9B	CLOAKE-GARDEN VALLEY-69KV	69	0
Southern OR	ROSEBURG/MYRTLECREEK	WINSTON	5U48	BROCKWAY	12.5	869
Southern OR	ROSEBURG/MYRTLECREEK	WINSTON	SU49	DILLARD	12.5	1,475
Willamette Valley	ALBANY	BPA ALBANY	WI09	BPA ALBANY-HAZELWOOD-115KV	115	0
Willamette Valley	ALBANY	HAZELWOOD	4M335	WEST HIGH	20.8	1,478
Willamette Valley	ALBANY	HAZELWOOD	4M336	RIVERVIEW (HAZELWOOD)	20.8	1,244
Willamette Valley	ALBANY	HAZELWOOD	WI07	HAZELWOOD-FRY-115KV	115	0
Willamette Valley	ALBANY	HAZELWOOD	WI10	HAZELWOOD-MARYS RIVER-115KV	115	0
Willamette Valley	ALBANY	HAZELWOOD	WI10-1	HAZELWOOD-GRANT-115KV	115	0

Oregon 2019 Active Circuits with Substation, Voltage and Customer Counts

Oregon Region	Op Area Name	Substation Name	Circuit Id	Circuit Name	kV	Circuit Customer Count
Willamette Valley	ALBANY	HAZELWOOD	WI13-1	HAZELWOOD-VINE ST-69KV	69	0
Willamette Valley	ALBANY	HAZELWOOD	WI14-1	HAZELWOOD-QUEEN AVE-69KV	69	0
Willamette Valley	ALBANY	JEFFERSON (OR)	4M117	MARION	20.8	734
Willamette Valley	ALBANY	JEFFERSON (OR)	4M125	MINT	20.8	2,505
Willamette Valley	ALBANY	MURDER CREEK	4M243	SCRABEL HILL	20.8	3,667
Willamette Valley	ALBANY	MURDER CREEK	4M245	RURAL NW	20.8	2,351
Willamette Valley	ALBANY	MURDER CREEK	4M249	DURA-PACIFIC	20.8	1,227
Willamette Valley	ALBANY	MURDER CREEK	4M250	INDUSTRIAL	20.8	4
Willamette Valley	ALBANY	MURDER CREEK	5M131	WAH CHANG SOUTH	12.5	1
Willamette Valley	ALBANY	MURDER CREEK	5M132	WAH CHANG WEST	12.5	0
Willamette Valley	ALBANY	OREMET	4M295	OAK CREEK	20.8	102
Willamette Valley	ALBANY	OREMET	4M296	ROGERSDALE	20.8	2,178
Willamette Valley	ALBANY	OREMET	5M19	OREMET	12.5	3
Willamette Valley	ALBANY	OREMET	5M20	OREMET-BPA	12.5	0
Willamette Valley	ALBANY	PARRISH GAP	WI15-1	PARRISH GAP-STAYTON-69KV	69	0
Willamette Valley	ALBANY	PARRISH GAP	WI15-3	PARRISH GAP-JEFFERSON-69KV	69	0
Willamette Valley	ALBANY	PARRISH GAP	WI15-4	JEFFERSON-JEFFERSON TAP-69KV	69	1
Willamette Valley	ALBANY	QUEEN AVE	4M217	SANTIAM	20.8	1,905
Willamette Valley	ALBANY	QUEEN AVE	4M258	HILL STREET	20.8	2,573
Willamette Valley	ALBANY	QUEEN AVE	4M261	WAVERLY	20.8	3,586
Willamette Valley	ALBANY	QUEEN AVE	4M262	GEARY STREET	20.8	2,747
Willamette Valley	ALBANY	QUEEN AVE	WI14-2	QUEEN-SCIO-69KV	69	0
Willamette Valley	ALBANY	QUEEN AVE	WI17	JEFFERSON JCT-JEFFERSON TAP-69KV	69	0
Willamette Valley	ALBANY	VINE STREET	4M15	FERRY	20.8	1,826
Willamette Valley	ALBANY	VINE STREET	4M16	WATER STREET	20.8	4,339
Willamette Valley	ALBANY	VINE STREET	WI13-3	VINE ST-INDEPENDENCE-69KV	69	0
Willamette Valley	ALBANY	VINE STREET	WI13-3A	VINE ST-SW3M215-69KV	69	0
Willamette Valley	ALBANY	VINE STREET	WI13-3B	INDEPENDENCE-SW3M215-69KV	69	0
Willamette Valley	ALBANY	VINE STREET	WI16	VINE STREET-JEFFERSON TAP-69KV	69	0
Willamette Valley	CORVALLIS	BUCHANAN	4M130	HEWLETT PACKARD	20.8	2,702
Willamette Valley	CORVALLIS	BUCHANAN	4M133	PEORIA	20.8	2,464
Willamette Valley	CORVALLIS	BUCHANAN	4M134	N. NINTH ST.	20.8	2,614
Willamette Valley	CORVALLIS	BUCHANAN	WI06-3	BUCHANAN-DIXON-115KV	115	0
Willamette Valley	CORVALLIS	CIRCLE BLVD	4M394	H. P. #1	20.8	1
Willamette Valley	CORVALLIS	CIRCLE BLVD	4M396	H. P. #2	20.8	0
Willamette Valley	CORVALLIS	CIRCLE BLVD	4M427	H. P. #3	20.8	1
Willamette Valley	CORVALLIS	CIRCLE BLVD	4M428	H. P. #4	20.8	0
Willamette Valley	CORVALLIS	CIRCLE BLVD	4M429	H. P. #5	20.8	1
Willamette Valley	CORVALLIS	CIRCLE BLVD	4M430	H. P. #6	20.8	0
Willamette Valley	CORVALLIS	CIRCLE BLVD	WI06-2	CIRCLE BLVD-BUCHANAN-115KV	115	0
Willamette Valley	CORVALLIS	DIXON	7M26	FOURTH ST.	4.1	235
Willamette Valley	CORVALLIS	DIXON	7M29	SECOND ST.	4.1	278
Willamette Valley	CORVALLIS	GRANT ST	4M265	HIGH SCHOOL	20.8	2,514
Willamette Valley	CORVALLIS	GRANT ST	4M266	CHINTIMINI	20.8	2,548
Willamette Valley	CORVALLIS	GRANT ST	4M268	KINGS ROAD	20.8	2,554
Willamette Valley	CORVALLIS	GRANT ST	4M269	29TH STREET	20.8	3,300
Willamette Valley	CORVALLIS	GRANT ST	WI10-2	GRANT-HILLVIEW-115KV	115	0
Willamette Valley	CORVALLIS	GRANT ST TEMP	4M265T	HIGH SCHOOL TEMP	12.5	0
Willamette Valley	CORVALLIS	GRANT ST TEMP	4M266T	CHINTIMINI TEMP	12.5	0
Willamette Valley	CORVALLIS	GRANT ST TEMP	4M268T	KINGS ROAD TEMP	12.5	0
Willamette Valley	CORVALLIS	GRANT ST TEMP	4M269T	29TH ST TEMP	12.5	0

Oregon 2019 Active Circuits with Substation, Voltage and Customer Counts

Oregon Region	Op Area Name	Substation Name	Circuit Id	Circuit Name	kV	Circuit Customer Count
Willamette Valley	CORVALLIS	HILLVIEW	4M180	WEST HILLS	20.8	1,940
Willamette Valley	CORVALLIS	HILLVIEW	4M181	PHILOMATH	20.8	932
Willamette Valley	CORVALLIS	HILLVIEW	4M182	SUNSET	20.8	1,779
Willamette Valley	CORVALLIS	HILLVIEW	4M185	PLYMOUTH	20.8	2,025
Willamette Valley	CORVALLIS	MARYS RIVER	4M151	GREENBERRY	20.8	3,635
Willamette Valley	CORVALLIS	MARYS RIVER	4M152	AVERY	20.8	192
Willamette Valley	CORVALLIS	MARYS RIVER	4M153	GALLAGHER	20.8	160
Willamette Valley	CORVALLIS	MARYS RIVER	WI06-4	MARY'S RIVER-DIXON-115KV	115	0
Willamette Valley	CORVALLIS	MARYS RIVER	WI10-3	MARY'S RIVER-HILLVIEW-115KV	115	0
Willamette Valley	COTTAGE GROVE/J.CITY	ALVEY (BPA)	W112	BPA ALVEY-VILLAGE GREEN-115KV	115	1
Willamette Valley	COTTAGE GROVE/J.CITY	COBURG	4M220	DETERING	20.8	583
Willamette Valley	COTTAGE GROVE/J.CITY	DIAMOND HILL	WI02-2	DIAMOND HILL-BPA ALVEY-230KV	230	0
Willamette Valley	COTTAGE GROVE/J.CITY	DIAMOND HILL	WI02-2A	DIAMOND HILL-MCKENZIE(EWEB)-230KV	230	0
Willamette Valley	COTTAGE GROVE/J.CITY	DIAMOND HILL	WI02-2B	BPA ALVEY-MCKENZIE(EWEB)-230KV	230	0
Willamette Valley	COTTAGE GROVE/J.CITY	DIAMOND HILL	WI19-2	DIAMOND HILL-LANCASTER TAP-69KV	69	0
Willamette Valley	COTTAGE GROVE/J.CITY	DIAMOND HILL	WI20	DIAMOND HILL-EWEB MCKENZIE-69KV	69	0
Willamette Valley	COTTAGE GROVE/J.CITY	DIAMOND HILL	WI21	DIAMOND HILL-JUNCTION CITY-69KV	69	0
Willamette Valley	COTTAGE GROVE/J.CITY	GOSHEN (OR)	4M360	GOSHEN FDR	20.8	1,636
Willamette Valley	COTTAGE GROVE/J.CITY	HARRISBURG SUB	4M400	TERRITORIAL	20.8	1,855
Willamette Valley	COTTAGE GROVE/J.CITY	JUNCTION CITY	4M102	6TH STREET	20.8	1,168
Willamette Valley	COTTAGE GROVE/J.CITY	JUNCTION CITY	4M99	PRAIRIE ROAD	20.8	1,007
Willamette Valley	COTTAGE GROVE/J.CITY	JUNCTION CITY	W121-1	WILKINS CORNER-VAUGHN TAP-69KV	69	0
Willamette Valley	COTTAGE GROVE/J.CITY	JUNCTION CITY	W121-2	JUNCTION CITY-VAUGHN TAP-69KV	69	0
Willamette Valley	COTTAGE GROVE/J.CITY	LANCASTER	4M209	MONROE	20.8	1,097
Willamette Valley	COTTAGE GROVE/J.CITY	MARTIN CREEK (BPA)	WI12B	BPA MARTIN CREEK-VLG GREEN-115KV	115	1
Willamette Valley	COTTAGE GROVE/J.CITY	VILLAGE GREEN	4M84	NORTH SIDE	20.8	2,381
Willamette Valley	COTTAGE GROVE/J.CITY	VILLAGE GREEN	4M86	MADISON	20.8	1,602
Willamette Valley	DALLAS/INDEPENDENCE	DALLAS	4M100	RURAL (DALLAS)	20.8	1,815
Willamette Valley	DALLAS/INDEPENDENCE	DALLAS	4M201	INDUSTRIAL	20.8	3,107
Willamette Valley	DALLAS/INDEPENDENCE	DALLAS	4M202	ELLENDALE	20.8	2,957
Willamette Valley	DALLAS/INDEPENDENCE	DALLAS	4M238	DALLAS	20.8	2,323
Willamette Valley	DALLAS/INDEPENDENCE	INDEPENDENCE	4M22	RICKREAL	20.8	3,324
Willamette Valley	DALLAS/INDEPENDENCE	INDEPENDENCE	4M25	BUENA VISTA	20.8	2,021
Willamette Valley	DALLAS/INDEPENDENCE	MONPAC	WI05	MONPAC-BPA SALEM-115KV	115	0
Willamette Valley	DALLAS/INDEPENDENCE	MONPAC	WI05-1	DALLAS-MONPOC-115KV	115	0
Willamette Valley	DALLAS/INDEPENDENCE	MONPAC	WI05-2	BPA SALEM-DALLAS-115KV	115	0
Willamette Valley	DALLAS/INDEPENDENCE	MONPAC	WI13-4	MONPAC-INDEPENDENCE-69KV	69	0
Willamette Valley	LEBANON	BROWNSVILLE	4M17	CALAPOOIA	12.5	1,721
Willamette Valley	LEBANON	BROWNSVILLE	WI18-2	HALSEY-BROWNSVILLE-69KV	69	0
Willamette Valley	LEBANON	CALAPOOYA	4M850	SPAULDING	20.8	1,118
Willamette Valley	LEBANON	CALAPOOYA	4M851	BEAR	20.8	32
Willamette Valley	LEBANON	CALAPOOYA	WI118-1	CALAPOOYA-BROWNSVILLE-69KV	69	0
Willamette Valley	LEBANON	CALAPOOYA	WI23	CALAPOOYA-HALSEY-69KV	69	0
Willamette Valley	LEBANON	CROWFOOT	4M204	CROWFOOT	20.8	1,524
Willamette Valley	LEBANON	CROWFOOT	4M206	US PLYWOOD (LEBANON)	20.8	1,927
Willamette Valley	LEBANON	DIAMOND HILL	WI02-1A	CALAPOOYA-DIAMOND HILL-230KV	230	0
Willamette Valley	LEBANON	DIAMOND HILL	WI19	DIAMOND HILL-BROWNSVILLE-69KV	69	0
Willamette Valley	LEBANON	FRY	WI01-A	FRY-PARRISH GAP-230KV	230	0
Willamette Valley	LEBANON	FRY	WI02-1	FRY-DIAMOND HILL	230	0
Willamette Valley	LEBANON	FRY	WI02-1B	CALAPOOYA-FRY-230KV	230	0
Willamette Valley	LEBANON	FRY	WI06	FRY-MARYS RIVER-115KV	115	0

Oregon 2019 Active Circuits with Substation, Voltage and Customer Counts

Oregon Region	Op Area Name	Substation Name	Circuit Id	Circuit Name	kV	Circuit Customer Count
Willamette Valley	LEBANON	FRY	WI06-1	FRY-CIRCLE BLVD-115KV	115	0
Willamette Valley	LEBANON	FRY	WI08	FRY-WESTERN KRAFT-115KV	115	0
Willamette Valley	LEBANON	FRY	WI08-1	FRY-MURDER CREEK-115KV	115	0
Willamette Valley	LEBANON	FRY	WI08-2	MURDER CREEK-WESTREN KRAFT-115KV	115	0
Willamette Valley	LEBANON	FRY	WI08-3	WESTERN KRAFT-CONSER TAP-115KV	115	0
Willamette Valley	LEBANON	FRY	WI11	FRY-FOSTER-115KV	115	0
Willamette Valley	LEBANON	FRY	WI11-1	FOSTER-BPA LEBANON-115KV	115	0
Willamette Valley	LEBANON	FRY	WI11-2	FRY-LEBANON-115KV	115	0
Willamette Valley	LEBANON	FRY	WI11-3	CROWFOOT-LEBANON-115KV	115	0
Willamette Valley	LEBANON	FRY	WI11-4	CROWFOOT-SWEET HOME-115KV	115	0
Willamette Valley	LEBANON	FRY	WI11-5	FOSTER-SWEET HOME-115KV	115	0
Willamette Valley	LEBANON	HALSEY SW STA	WI19-1	HALSEY-LANCASTER TAP-69KV	69	0
Willamette Valley	LEBANON	LEBANON	4M61	TANGENT	20.8	2,602
Willamette Valley	LEBANON	LEBANON	4M62	RALSTON	20.8	2,006
Willamette Valley	LEBANON	LEBANON	4M63	TENNESSEE	20.8	1,816
Willamette Valley	LEBANON	LEBANON	4M79	CROWN Z	20.8	1,168
Willamette Valley	LEBANON	SWEET HOME	4M37	HOLLEY	20.8	2,031
Willamette Valley	LEBANON	SWEET HOME	4M38	NARROWS	20.8	978
Willamette Valley	LEBANON	SWEET HOME	4M93	AMES CREEK	20.8	1,712
Willamette Valley	LEBANON	SWEET HOME	4M94	FOSTER	20.8	2,433
Willamette Valley	PRINEVILLE	BALDWIN ROAD	CO14-5	BALDWIN ROAD-HOUSTON LAKE-115KV	115	0
Willamette Valley	PRINEVILLE	BALDWIN ROAD	CO29	BALDWIN ROAD-PILLAR(APPLE)	115	1
Willamette Valley	PRINEVILLE	HOUSTON LAKE	CO03-2	HOUSTON LAKE-POWELL BUTTE-115KV	115	0
Willamette Valley	PRINEVILLE	HOUSTON LAKE	CO22	HOUSTON LAKE-PRN1(FACEBOOK)-115KV	115	0
Willamette Valley	PRINEVILLE	HOUSTON LAKE	CO23	HOUSTON LAKE-PRN2(FACEBOOK)-115KV	115	0
Willamette Valley	PRINEVILLE	PONDEROSA-P	CO24	GALA SOLAR- PONDEROSA-115KV	115	0
Willamette Valley	STAYTON	BPA SANTIAM	ZB001	BPA SANTIAM-BPA ALBANY#1-230KV	230	0
Willamette Valley	STAYTON	LYONS	4M120	MILL CITY	20.8	737
Willamette Valley	STAYTON	LYONS	4M70	MEHAMA	20.8	2,181
Willamette Valley	STAYTON	OLD LYONS	WI14-3A	TAP TO EVERGREEN BIO POWER-69KV	69	1
Willamette Valley	STAYTON	OLD LYONS	WI14-4	LYONS-SANTIAM SWITCH STATION-69KV	69	0
Willamette Valley	STAYTON	PARRISH GAP	WI01-B	PARRISH GAP-PGE BETHEL-230KV	230	0
Willamette Valley	STAYTON	SCIO	5M126	THOMAS	12.5	1,584
Willamette Valley	STAYTON	SCIO	WI14-3	SCIO-LYONS-69KV	69	0
Willamette Valley	STAYTON	STAYTON	4M19	AUMSVILLE	20.8	3,346
Willamette Valley	STAYTON	STAYTON	4M353	WEST STAYTON	20.8	3,543
Willamette Valley	STAYTON	STAYTON	4M370	CASCADE	20.8	1,599
Willamette Valley	STAYTON	STAYTON	4M50	3RD STREET	20.8	924
Willamette Valley	STAYTON	STAYTON CITY	WI15-2	STAYTON-SANTIAM SWITCH STATION-69KV	69	0
Willamette Valley	STAYTON	STAYTON CITY	WI15A	SANTIAM SW STA-SANTIAM(BPA)-69KV	69	0

Oregon 2019 Circuit Metrics (excluding major events)

Oregon Regions	Op Area Name	Substation Name	Circuit Id	Circuit Name	Customers in Incident Sustained	Customer Minutes Lost	Circuit Customer Count	SAIDI	SAIFI
Central OR	BEND/REDMOND	BEND	5D10	PORTLAND AVE	100	21,132	2,418	8.74	0.041
Central OR	BEND/REDMOND	BEND	5D11	GLEN VISTA	143	40,084	1,244	32.22	0.115
Central OR	BEND/REDMOND	BEND	5D12	DIVISION ST.	5	307	217	1.42	0.023
Central OR	BEND/REDMOND	BEND	5D196	MALLARD	118	14,111	1,408	10.02	0.084
Central OR	BEND/REDMOND	BOND STREET	5D411	BACHELOR	283	75,993	1,799	42.24	0.157
Central OR	BEND/REDMOND	BOND STREET	5D413	OLD MILL.	86	15,546	394	39.46	0.218
Central OR	BEND/REDMOND	BOND STREET	5D418	BLAKELY	9	1,806	1,250	1.44	0.007
Central OR	BEND/REDMOND	CHINA HAT	5D140	LAVA (CHINA HAT)	531	119,769	2,332	51.36	0.228
Central OR	BEND/REDMOND	CHINA HAT	5D142	HIGH DESERT	173	19,937	1,737	11.48	0.100
Central OR	BEND/REDMOND	CHINA HAT	5D144	D.R.W.	116	23,077	2,455	9.40	0.047
Central OR	BEND/REDMOND	CLEVELAND AVE.	5D30	ARROWHEAD	22	7,520	1,211	6.21	0.018
Central OR	BEND/REDMOND	CLEVELAND AVE.	5D35	WICKIUP	25	1,293	1,055	1.23	0.024
Central OR	BEND/REDMOND	CLEVELAND AVE.	5D38	TOMAHAWK	44	4,669	1,446	3.23	0.030
Central OR	BEND/REDMOND	CLEVELAND AVE.	5D94	TEEPEE	30	5,665	3,781	1.50	0.008
Central OR	BEND/REDMOND	CLEVELAND AVE.	5D96	OBSIDIAN	157	26,613	907	29.34	0.173
Central OR	BEND/REDMOND	CLEVELAND AVE.	5D98	HUCKLEBERRY	1,215	110,955	1,187	93.48	1.024
Central OR	BEND/REDMOND	CROOKED RIVER RANCH	4D131	CANYON	53	7,743	1,804	4.29	0.029
Central OR	BEND/REDMOND	CROOKED RIVER RANCH	4D30	CROOKED R.R.	216	47,360	790	59.95	0.273
Central OR	BEND/REDMOND	DESCHUTES	5D184	PRONGHORN	91	10,300	1,126	9.15	0.081
Central OR	BEND/REDMOND	DESCHUTES	5D2	DESCHUTES S	107	18,393	1,002	18.36	0.107
Central OR	BEND/REDMOND	HUNTERS CIRCLE	5D192	Mackinaw	14	755	695	1.09	0.020
Central OR	BEND/REDMOND	OVERPASS	5D104	AWBREY	434	49,473	1	49,473	434
Central OR	BEND/REDMOND	OVERPASS	5D106	NEZ PERCE	1,158	152,192	2,644	57.56	0.438
Central OR	BEND/REDMOND	OVERPASS	5D120	CHINOOK	129	16,404	1,821	9.01	0.071
Central OR	BEND/REDMOND	OVERPASS	5D128	PAIUTE	181	29,423	2,219	13.26	0.082
Central OR	BEND/REDMOND	OVERPASS	5D155	APACHE	12	2,095	2,788	0.75	0.004
Central OR	BEND/REDMOND	PILOT BUTTE	5D261	KLONDIKE	134	17,068	1,575	10.84	0.085
Central OR	BEND/REDMOND	PILOT BUTTE	5D263	DRAKE FEEDER	273	32,795	2,529	12.97	0.108
Central OR	BEND/REDMOND	PILOT BUTTE	5D265	DOBGIN	670	182,660	1,676	108.99	0.400
Central OR	BEND/REDMOND	REDMOND	5D21	SOUTH (REDMOND)	15	5,449	761	7.16	0.020
Central OR	BEND/REDMOND	REDMOND	5D22	INDUSTRIAL	321	48,101	1,515	31.75	0.212
Central OR	BEND/REDMOND	REDMOND	5D223	TETHEROW	1,098	112,368	838	134.09	1.310
Central OR	BEND/REDMOND	REDMOND	5D226	CLINE FALLS	298	27,215	1,513	17.99	0.197
Central OR	BEND/REDMOND	REDMOND	5D227	WINDSOR	626	76,373	3,070	24.88	0.204
Central OR	BEND/REDMOND	REDMOND	5D228	CITY	3	309	1,303	0.24	0.002
Central OR	BEND/REDMOND	REDMOND	5D229	JUNIPER	111	5,741	409	14.04	0.271
Central OR	BEND/REDMOND	SHEVLIN PARK	5D238	WOLVERINE (SHP) (WAS 5D327)	314	97,477	2,848	34.23	0.110
Central OR	BEND/REDMOND	SHEVLIN PARK	5D241	BADGER (SHP)	60	6,642	3,064	2.17	0.020
Central OR	BEND/REDMOND	SHEVLIN PARK	5D243	Black Bear	82	30,346	1,720	17.64	0.048
Central OR	BEND/REDMOND	YEW AVENUE	5D322	BIRDIE	113	13,078	1,899	6.89	0.060
Central OR	BEND/REDMOND	YEW AVENUE	5D323	FAIRWAY	28	4,188	391	10.71	0.072
Central OR	BEND/REDMOND	YEW AVENUE	5D325	EAGLE	374	13,129	2,650	4.95	0.141
Central OR	MADRAS	CHERRY LANE	5D295	7 PEAKS	6	1,433	152	9.42	0.039

Oregon 2019 Circuit Metrics (excluding major events)

Oregon Regions	Op Area Name	Substation Name	Circuit Id	Circuit Name	Customers in Incident Sustained	Customer Minutes Lost	Circuit Customer Count	SAIDI	SAIFI
Central OR	MADRAS	CULVER	5D5	CULVER	2,317	318,285	1,852	171.86	1.251
	MADRAS	MADRAS	5D52	MADRAS RURAL	134	9,422	1,039	9.07	0.129
	MADRAS	MADRAS	5D53	AGATE	1,400	188,218	1,290	145.91	1.085
	MADRAS	MADRAS	5D57	QUARTZ	172	34,684	1,399	24.79	0.123
	MADRAS	MADRAS	5D61	MADRAS CITY	243	46,475	1,297	35.83	0.187
	MADRAS	POWELL BUTTE	5D1	POWELL BUTTE	104	15,824	645	24.53	0.161
	MADRAS	PRINEVILLE	5D126	RIMROCK	29	7,936	873	9.09	0.033
	MADRAS		5D167	NORTHLVILLE	158	18,890	2,701	6.99	0.058
	MADRAS		5D25	OCHOCO	1,104	231,881	1,008	230.04	1.095
	MADRAS		5D47	MC KAY (PRINEVILLE)	1,858	54,439	1,695	32.12	1.096
	MADRAS		5D48	LAMONTA	683	23,197	637	36.42	1.072
	MADRAS		5D69	GRIMES FLAT	681	62,298	1,608	38.74	0.424
	MADRAS		4D68	WARM SPRINGS (OR)	270	54,269	1,032	52.59	0.262
	WARM SPRINGS								
CoastPlus	CLATSOP (ASTORIA)	CANNON BEACH	5A10	HAYSTACK	2,250	336,128	1,608	209.04	1.399
CoastPlus	CLATSOP (ASTORIA)	CANNON BEACH	5A8	ECOLA	2,023	233,579	1,220	191.46	1.658
CoastPlus	CLATSOP (ASTORIA)	FERN HILL SUB	5A51	JOHN DAY	1,126	110,334	269	410.16	4.186
CoastPlus	CLATSOP (ASTORIA)	FERN HILL SUB	5A52	SCANDINAVIAN	197	67,363	384	175.42	0.513
CoastPlus	CLATSOP (ASTORIA)	KNAPPA SVENSEN	5A92	SVENSEN	728	49,516	717	69.06	1.015
CoastPlus	CLATSOP (ASTORIA)	KNAPPA SVENSEN	5A93	BRADWOOD	539	64,970	935	69.49	0.576
CoastPlus	CLATSOP (ASTORIA)	SEASIDE	5A80	GROVE	4,987	701,463	2,416	290.34	2.064
CoastPlus	CLATSOP (ASTORIA)	SEASIDE	5A81	CENTRAL	70	10,839	1,639	6.61	0.043
CoastPlus	CLATSOP (ASTORIA)	SEASIDE	5A82	NECANICUM	2,188	237,878	1,200	198.23	1.823
CoastPlus	CLATSOP (ASTORIA)	SEASIDE	5A83	GEARHART	3,789	569,311	3,323	171.32	1.140
CoastPlus	CLATSOP (ASTORIA)	WARRENTON	5A15	CITY	49	3,355	252	13.31	0.194
CoastPlus	CLATSOP (ASTORIA)	WARRENTON	5A16	MILL (WARRENTON)	333	48,951	2,280	21.47	0.146
CoastPlus	CLATSOP (ASTORIA)	WARRENTON	5A20	SOUTH (WARRENTON)	2,010	285,760	1,710	167.11	1.175
CoastPlus	CLATSOP (ASTORIA)	YOUNGS BAY	5A202	PORT DOCK	2,980	282,894	1,207	234.38	2.469
CoastPlus	CLATSOP (ASTORIA)		5A204	MOO COW	1,281	93,829	1,162	80.75	1.102
CoastPlus	CLATSOP (ASTORIA)		5A205	FIFTH STREET	1,120	94,352	991	95.21	1.130
CoastPlus	CLATSOP (ASTORIA)		5A206	YOUNGS BAY #6	340	20,989	338	62.10	1.006
CoastPlus	CLATSOP (ASTORIA)		5A210	YOUNGS BAY #10	983	65,484	944	69.37	1.041
CoastPlus	CLATSOP (ASTORIA)		5A211	OLNEY	2,119	138,810	1,094	126.88	1.937
CoastPlus	CLATSOP (ASTORIA)		5A213	INDUSTRIAL	1,708	182,729	1,370	133.38	1.247
CoastPlus	COOS BAY/COQUILLE	BANDON TIE (BPA)	L804	BANDON	1,913	250,110	759	329.53	2.520
CoastPlus	COOS BAY/COQUILLE	COOS RIVER	4C106	COOS RIVER	6,164	950,705	1,371	693.44	4.496
CoastPlus	COOS BAY/COQUILLE	COQUILLE	4C41	HENRY STREET	3,907	127,824	1,696	75.37	2.304
CoastPlus	COOS BAY/COQUILLE	COQUILLE	4C42	TERRES HGHTS	1,840	52,161	1,563	33.37	1.177
CoastPlus	COOS BAY/COQUILLE	COQUILLE	4C43	INDUSTRIAL	154	873	156	5.59	0.987
CoastPlus	COOS BAY/COQUILLE	EMPIRE	4C108	EMPIRE	3,699	177,647	1,740	102.10	2.126
CoastPlus	COOS BAY/COQUILLE	EMPIRE	4C89	SCOTT	4,099	297,452	1,440	206.56	2.847
CoastPlus	COOS BAY/COQUILLE	EMPIRE	4C90	CHARLESTON	2,876	84,063	2,142	39.25	1.343
CoastPlus	COOS BAY/COQUILLE	JORDAN POINT	5C11	WEYCO#2	1	737	1	736.97	1.000
CoastPlus	COOS BAY/COQUILLE	JORDAN POINT	5C6	SAND DUNES (JORDAN POINT)	50	24,704	31	796.92	1.613

Oregon 2019 Circuit Metrics (excluding major events)

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CoastPlus	COOS BAY/COQUILLE	LOCKHART	4C48	CITY CENTER	1,633	66,947	1,526	43.87	1.070
CoastPlus	COOS BAY/COQUILLE	LOCKHART	4C49	EASTSIDE	1,090	43,101	779	55.33	1.399
CoastPlus	COOS BAY/COQUILLE	LOCKHART	4C5	GEORGIA-PAC	2	168	89	1.89	0.022
CoastPlus	COOS BAY/COQUILLE	LOCKHART	4C50	BUNKERHILL	662	107,155	1,850	57.92	0.358
CoastPlus	COOS BAY/COQUILLE	LOCKHART	4C97	ENGLEWOOD	1,476	63,591	1,395	45.58	1.058
CoastPlus	COOS BAY/COQUILLE	MYRTLE POINT	4C36	NORTH (MYRTLE POINT)	792	100,485	339	296.41	2.336
CoastPlus	COOS BAY/COQUILLE	MYRTLE POINT	4C37	MAPLE STREET	3,834	732,318	2,104	348.06	1.822
CoastPlus	COOS BAY/COQUILLE	SOUTH DUNES	5C9	DOUGLAS CHIP	3	2,225	3	741.63	1.000
CoastPlus	COOS BAY/COQUILLE	STATE STREET	4C112	WOODLAND	2,026	265,643	1,872	141.90	1.082
CoastPlus	COOS BAY/COQUILLE	STATE STREET	4C66	BAYSHORE	1,768	219,207	1,725	127.08	1.025
CoastPlus	COOS BAY/COQUILLE	STATE STREET	4C67	INDUSTRIAL	2,446	302,325	2,220	136.18	1.102
CoastPlus	COOS BAY/COQUILLE	STATE STREET	4C86	BANGOR	2,270	271,193	1,805	150.25	1.258
CoastPlus	HOOD RIVER	GORDON HOLLOW	4K1	SHERMAN 208	1,387	164,460	721	228.10	1.924
CoastPlus	HOOD RIVER	HOOD RIVER	5K37	RESIDENTIAL	3,246	204,570	2,161	94.66	1.502
CoastPlus	HOOD RIVER	HOOD RIVER	5K43	BELMONT	1,482	132,336	1,187	111.49	1.249
CoastPlus	HOOD RIVER	HOOD RIVER	5K44	NORTH (HOOD RIVER)	2,039	55,226	1,822	30.31	1.119
CoastPlus	HOOD RIVER	HOOD RIVER	5K70	EASTSIDE	1,992	580,498	1,096	529.65	1.818
CoastPlus	HOOD RIVER	HOOD RIVER	5K74	SOUTH (HOOD RIVER)	1,973	114,589	1,681	68.17	1.174
CoastPlus	HOOD RIVER	KENWOOD	5K50	OAKGROVE	3,863	568,442	730	778.69	5.292
CoastPlus	HOOD RIVER	WASCO	7K1	WASCO	546	69,601	268	259.70	2.037
CoastPlus	LINCOLN CITY	DEVILS LAKE	4A310	INLAND FEEDER	2,068	130,840	1,891	69.19	1.094
CoastPlus	LINCOLN CITY	DEVILS LAKE	4A312	OCEAN	1,666	206,359	3,020	68.33	0.552
CoastPlus	LINCOLN CITY	DEVILS LAKE	4A316	LAKE (DEVILS LAKE)	2,128	282,203	4,545	62.09	0.468
CoastPlus	LINCOLN CITY	DEVILS LAKE	4A338	SIUSLAW	2,007	614,143	659	931.93	3.046
CoastPlus	LINCOLN CITY	GLENEDEN	7A364	GLENEDEN	1,990	948,653	714	1,328.65	2.787
CoastPlus	LINCOLN CITY	GLENEDEN	7A366	SALISHAN	950	492,408	357	1,379.29	2.661
CoastPlus	LINCOLN CITY	NELSCOTT	7A390	NELSCOTT	458	27,929	355	78.67	1.290
CoastPlus	LINCOLN CITY	WECOMA BEACH	7A354	WECOMA	375	36,852	720	51.18	0.521
CoastPlus	PORLAND	BLOSS	5P172	FURNACE	1	16	1	15.65	1.000
CoastPlus	PORLAND	COLUMBIA (OR)	5P266	COLUMBIA #2	5,389	367,382	2,604	141.08	2.070
CoastPlus	PORLAND	COLUMBIA (OR)	5P268	COLUMBIA #1	366	5,922	348	17.02	1.052
CoastPlus	PORLAND	COLUMBIA (OR)	5P474	COLUMBIA #6	1,113	87,542	548	159.75	2.031
CoastPlus	PORLAND	COLUMBIA (OR)	5P476	COLUMBIA #3	853	15,291	837	18.27	1.019
CoastPlus	PORLAND	COLUMBIA (OR)	5P478	COLUMBIA #4	933	18,988	895	21.22	1.042
CoastPlus	PORLAND	COLUMBIA (OR)	5P480	COLUMBIA #5	43	129,379	37	3,496.72	1.162
CoastPlus	PORLAND	CULLY	5P288	CULLY #3-UG	557	34,729	824	42.15	0.676
CoastPlus	PORLAND	CULLY	5P290	CULLY #2	32	4,868	2,396	2.03	0.013
CoastPlus	PORLAND	CULLY	5P292	CULLY #1	262	34,509	2,916	11.83	0.090
CoastPlus	PORLAND	HOLLADAY (OR)	5P158	HOLLADAY #6	917	219,065	899	243.68	1.020
CoastPlus	PORLAND	HOLLYWOOD	5P203	HOLLYWOOD #3	10	1,576	1,469	1.07	0.007
CoastPlus	PORLAND	HOLLYWOOD	5P204	HOLLYWOOD #2	15	4,539	908	5.00	0.017
CoastPlus	PORLAND	HOLLYWOOD	5P205	HOLLYWOOD #1	89	11,904	2,156	5.52	0.041
CoastPlus	PORLAND	HOLLYWOOD	5P208	HOLLYWOOD #5	395	93,619	2,967	31.55	0.133

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CoastPlus	PORLAND	HOLLYWOOD	5P209	HOLLYWOOD #4	42	5,149	2,370	2.17	0.018
CoastPlus	PORLAND	KILLINGSWORTH	5P123	KILLINGSWORTH #3	352	21,432	316	67.82	1.114
CoastPlus	PORLAND	KILLINGSWORTH	5P217	KILLINGSWORTH #5	1,293	75,165	424	177.28	3.050
CoastPlus	PORLAND	KILLINGSWORTH	5P41	KILLINGSWORTH #4	2,991	76,020	2,789	27.26	1.072
CoastPlus	PORLAND	KILLINGSWORTH	5P88	KILLINGSWORTH #1-UG	1	19	1	18.65	1.000
CoastPlus	PORLAND	KILLINGSWORTH	5P89	KILLINGSWORTH #2	3,222	65,389	3,165	20.66	1.018
CoastPlus	PORLAND	KNOTT	5P231	KNOTT #1	291	32,557	3,529	9.23	0.082
CoastPlus	PORLAND	KNOTT	5P232	KNOTT #2	305	149,363	1,545	96.68	0.197
CoastPlus	PORLAND	KNOTT	5P233	KNOTT #3	37	6,565	2,290	2.87	0.016
CoastPlus	PORLAND	KNOTT	5P372	11046	4	779	707	1.10	0.006
CoastPlus	PORLAND	KNOTT	5P374	11020	135	42,592	988	43.11	0.137
CoastPlus	PORLAND	LINCOLN (OR)	5P432	11D02-UG	2	443	478	0.93	0.004
CoastPlus	PORLAND	LINCOLN (OR)	5P460	11D01-UG	1	247	1	246.85	1.000
CoastPlus	PORLAND	MALLORY	5P162	MALLORY #1	4,358	100,713	2,146	46.93	2.031
CoastPlus	PORLAND	MALLORY	5P164	MALLORY #2	8,043	193,269	3,172	60.93	2.536
CoastPlus	PORLAND	PARKROSE	5P244	PARKROSE#4	3,159	159,517	3,125	51.05	1.011
CoastPlus	PORLAND	PARKROSE	5P246	PARKROSE#3	3,436	268,597	3,077	87.29	1.117
CoastPlus	PORLAND	PARKROSE	5P250	PARKROSE#2	8	441	657	0.67	0.012
CoastPlus	PORLAND	PARKROSE	5P252	PARKROSE#1	40	17,079	1,794	9.52	0.022
CoastPlus	PORLAND	PARKROSE	5P717	PARKROSE 5	3	228	67	3.40	0.045
CoastPlus	PORLAND	RUSSELLVILLE	5P274	RUSSELLVILLE #3	3,205	243,790	3,110	78.39	1.031
CoastPlus	PORLAND	RUSSELLVILLE	5P276	RUSSELLVILLE #4	4,419	454,029	2,338	194.20	1.890
CoastPlus	PORLAND	RUSSELLVILLE	5P278	RUSSELLVILLE #1	132	12,581	3,288	3.83	0.040
CoastPlus	PORLAND	RUSSELLVILLE	5P280	RUSSELLVILLE #2	4,061	596,777	1,260	473.63	3.223
CoastPlus	PORLAND	VERNON	5P391	VERNON #1	4,824	630,609	1,844	341.98	2.616
CoastPlus	PORLAND	VERNON	5P392	VERNON NO. 2	5,302	949,606	2,575	368.78	2.059
CoastPlus	PORLAND	VERNON	5P393	VERNON #3	5,216	111,213	3,329	33.41	1.567
CoastPlus	PORLAND	VERNON	5P394	VERNON # 4	3,616	93,369	3,451	27.06	1.048
CoastPlus	PORLAND	VERNON	5P395	VERNON # 5	2,335	54,485	2,282	23.88	1.023
Northeast OR	ENTERPRISE	ENTERPRISE (OR)	4W8	CREIGHTON LN	967	122,691	1,482	82.79	0.652
Northeast OR	ENTERPRISE	ENTERPRISE (OR)	5W15	CITY	55	19,407	954	20.34	0.058
Northeast OR	ENTERPRISE	ENTERPRISE (OR)	5W26	RURAL (ENTERPRISE)	572	85,312	1,083	78.77	0.528
Northeast OR	ENTERPRISE	JOSEPH	5W21	PRAIRIE	315	80,116	858	93.38	0.367
Northeast OR	ENTERPRISE	MINAM	5W18	MINAM	15	5,417	13	416.67	1.154
Northeast OR	ENTERPRISE	PALLETTE	4W14	PALLETTE NORTH	353	109,397	175	625.13	2.017
Northeast OR	ENTERPRISE	PALLETTE	4W15	PALLETTE SOUTH	61	5,220	55	94.90	1.109
Northeast OR	ENTERPRISE	WALLOWA	5W28	CITY	400	59,905	890	67.31	0.449
Northeast OR	HERMISTON	ARLINGTON	5K25	ARLINGTON	628	104,032	528	197.03	1.189
Northeast OR	HERMISTON	BLALOCK	5K40	BLALOCK	20	3,673	20	183.65	1.000
Northeast OR	HERMISTON	DALREED	4K16	WILLOW COVE	81	12,515	74	169.12	1.095
Northeast OR	HERMISTON	DALREED	4K36	SIMTAG	26	17,785	19	936.04	1.368
Northeast OR	HERMISTON	DALREED	4K46	BOEING	211	53,899	181	297.78	1.166
Northeast OR	HERMISTON	HERMISTON	5W602	RURAL (HERMISTON)	1,540	173,848	1,399	124.27	1.101

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Northeast OR	HERMISTON	HINKLE	5W82	MEADOWS	202	33,451	379	88.26	0.533
Northeast OR	HERMISTON	UMATILLA	5W658	UMATILLA	1,284	115,566	1,190	97.11	1.079
Northeast OR	HERMISTON	UMATILLA	5W660	MCNARY	406	96,355	953	101.11	0.426
Northeast OR	HERMISTON	UMATILLA	5W664	PORT FEEDER	120	791	59	13.41	2.034
Northeast OR	PENDLETON	ATHENA	5W703	CITY	998	119,753	855	140.06	1.167
Northeast OR	PENDLETON	ATHENA	5W705	HELIX	491	71,700	437	164.07	1.124
Northeast OR	PENDLETON	BUCKAROO	5W201	STATE HOSP.	16	4,505	385	11.70	0.042
Northeast OR	PENDLETON	BUCKAROO	5W202	REITH	500	110,977	1,555	71.37	0.322
Northeast OR	PENDLETON	BUCKAROO	5W203	MONTEE	90	10,702	1,718	6.23	0.052
Northeast OR	PENDLETON	PENDLETON	5W401	WEST HILLS	103	10,714	1,702	6.30	0.061
Northeast OR	PENDLETON	PENDLETON	5W402	HARRIS HTS	2,450	360,753	2,085	173.02	1.175
Northeast OR	PENDLETON	PENDLETON	5W403	MISSION	79	14,348	1,063	13.50	0.074
Northeast OR	PENDLETON	PENDLETON	7W452	NORTHWEST	7	1,078	526	2.05	0.013
Northeast OR	PENDLETON	PENDLETON	7W454	EAST END	3	345	256	1.35	0.012
Northeast OR	PENDLETON	PILOT ROCK	5W406	PILOT ROCK CITY	872	124,994	1,398	89.41	0.624
Northeast OR	PENDLETON	WESTON NEW (OR)	5W7	SCOTTS FEEDER	92	22,081	457	48.32	0.201
Northeast OR	WALLA WALLA	UMAPINE	5W105	UMAPINE FEEDER	142	20,202	979	20.64	0.145
Northeast OR	WALLA WALLA	UMAPINE	5W106	FERNDALE	538	124,595	1,372	90.81	0.392
Southern OR	GRANTS PASS	AGNESS AVE	5R172	SPALDING MILL	918	16,730	889	18.82	1.033
Southern OR	GRANTS PASS	AGNESS AVE	5R173	JONES CREEK	1,877	80,844	899	89.93	2.088
Southern OR	GRANTS PASS	AGNESS AVE	5R322	ANTEATER	1,092	21,732	989	21.97	1.104
Southern OR	GRANTS PASS	APPLEGATE	5R267	MURPHY	207	27,682	1,058	26.16	0.196
Southern OR	GRANTS PASS	APPLEGATE	5R278	HIGHWAY	979	186,615	1,639	113.86	0.597
Southern OR	GRANTS PASS	BEACON	5R104	SAVAGE ST	1,489	210,185	1,271	165.37	1.172
Southern OR	GRANTS PASS	BEACON	5R105	BEACON ST	32	3,419	847	4.04	0.038
Southern OR	GRANTS PASS	CAVE JUNCTION	5R52	FREE& EASY	7,412	652,842	2,407	271.23	3.079
Southern OR	GRANTS PASS	CAVE JUNCTION	5R53	ROUGH & READY	1,937	84,880	1,544	54.97	1.255
Southern OR	GRANTS PASS	CAVEMAN	5R295	QUAIL	28	5,971	1,126	5.30	0.025
Southern OR	GRANTS PASS	CAVEMAN	5R82	WASHINGTON	132	20,183	1,207	16.72	0.109
Southern OR	GRANTS PASS	CAVEMAN	5R98	MANZANITA	10	3,274	598	5.48	0.017
Southern OR	GRANTS PASS	CAVEMAN	5R99	CAVEMAN	1,332	109,963	1,214	90.58	1.097
Southern OR	GRANTS PASS	DOWELL	5R331	DOVE	91	6,109	1,447	4.22	0.063
Southern OR	GRANTS PASS	DOWELL	5R334	DUCK	863	33,073	2,575	12.84	0.335
Southern OR	GRANTS PASS	EASY VALLEY	5R123	G STREET	2,904	762,490	2,166	352.03	1.341
Southern OR	GRANTS PASS	EASY VALLEY	5R125	ROGUE	207	18,099	1,778	10.18	0.116
Southern OR	GRANTS PASS	EASY VALLEY	5R259	CHINOOK	1,089	148,160	1,324	111.90	0.823
Southern OR	GRANTS PASS	FIELDER CREEK	4R33	ELK FDR.	3,119	537,096	1,857	289.23	1.680
Southern OR	GRANTS PASS	FIELDER CREEK	4R34	BEAR FDR	1,028	135,931	872	155.88	1.179
Southern OR	GRANTS PASS	GLENDALE SUBSTATION	5R133	GLENDALE	9,131	1,969,784	1,926	1,022.73	4.741
Southern OR	GRANTS PASS	GLENDALE SUBSTATION	5R143	INDUSTRIAL	665	44,054	662	66.55	1.005
Southern OR	GRANTS PASS	JEROME PRAIRIE	5R62	WILD PRAIRIE	2,171	282,072	1,636	172.42	1.327
Southern OR	GRANTS PASS	JEROME PRAIRIE	5R63	WOOD RIVER	3,772	523,991	1,610	325.46	2.343
Southern OR	GRANTS PASS	MERLIN	5R232	MERLIN-HUGO	2,903	197,223	2,104	93.74	1.380

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Southern OR	GRANTS PASS	MERLIN	5R234	PARADISE	3,873	302,201	1,215	248.72	3.188
Southern OR	GRANTS PASS	MERLIN	5R248	PLEASANT VALLEY-MERLIN FEEDER	4,195	703,992	1,818	387.23	2.307
Southern OR	GRANTS PASS	MERLIN	5R251	BADGER	177	84,616	929	91.08	0.191
Southern OR	GRANTS PASS	MERLIN	5R288	MONARCH	59	15,574	0	#DIV/0	#DIV/0
Southern OR	GRANTS PASS	OBRIEN	5R106	O'BRIEN	1,092	295,432	435	679.15	2.510
Southern OR	GRANTS PASS	PARK STREET (OR)	5R114	FRUITDALE	4,693	736,954	2,201	334.83	2.132
Southern OR	GRANTS PASS	PARK STREET (OR)	5R115	ALLEN CREEK	176	30,891	1,017	30.37	0.173
Southern OR	GRANTS PASS	PARK STREET (OR)	5R121	NEW HOPE	85	10,452	1,867	5.60	0.046
Southern OR	GRANTS PASS	PARK STREET (OR)	5R169	PORTOLA	96	8,196	1,396	5.87	0.069
Southern OR	GRANTS PASS	PROVOLT	5R67	NORTH-SOUTH	1,185	346,217	1,450	238.77	0.817
Southern OR	GRANTS PASS	ROGUE RIVER	5R77	SAVAGE/WIMER	313	73,936	1,881	39.31	0.166
Southern OR	GRANTS PASS	ROGUE RIVER	5R78	ROCKY POINT (ROGUE RIVER)	1,624	471,354	1,064	443.00	1.526
Southern OR	GRANTS PASS	SELMA	5R65	DEER CREEK	2,480	245,875	1,218	201.87	2.036
Southern OR	KLAMATH FALLS	BEATTY	5L1	BEATTY	1,491	72,897	406	179.55	3.672
Southern OR	KLAMATH FALLS	BLY	5L14	TOWN (BLY)	1,825	148,890	433	343.86	4.215
Southern OR	KLAMATH FALLS	BONANZA (OR)	5L7	POE VALLEY	319	66,949	470	142.44	0.679
Southern OR	KLAMATH FALLS	BRYANT	5L2	GARY STREET	163	31,463	2,144	14.67	0.076
Southern OR	KLAMATH FALLS	BRYANT	5L3	WASHBURN	1,855	238,079	1,835	129.74	1.011
Southern OR	KLAMATH FALLS	BRYANT	5L4	SUMMERS LANE	2,255	112,767	1,968	57.30	1.146
Southern OR	KLAMATH FALLS	BRYANT	5L5	MOYINA HTS.	155	16,041	2,455	6.53	0.063
Southern OR	KLAMATH FALLS	CASEBEER SUB	4L16	LANGELL VLY	1,765	204,789	1,175	174.29	1.502
Southern OR	KLAMATH FALLS	CHILOQUIN	5L57	CRATER LAKE	373	91,362	1,071	85.31	0.348
Southern OR	KLAMATH FALLS	CHILOQUIN MRKT	5L37	WILLIAMSON	59	12,094	559	21.63	0.106
Southern OR	KLAMATH FALLS	DAIRY	5L42	SWAN LAKE	169	20,432	258	79.19	0.655
Southern OR	KLAMATH FALLS	DAIRY	5L43	DAIRY	148	16,846	509	33.10	0.291
Southern OR	KLAMATH FALLS	HAMAKER	5L55	KENO	2,863	831,096	1,720	483.20	1.665
Southern OR	KLAMATH FALLS	HAMAKER	5L56	MOUNTAIN	330	106,000	161	658.39	2.050
Southern OR	KLAMATH FALLS	HENLEY	5L58	HENLEY	486	59,208	235	251.95	2.068
Southern OR	KLAMATH FALLS	HENLEY	5L59	WEST	1,187	139,178	541	257.26	2.194
Southern OR	KLAMATH FALLS	HORNET	5L44	HOMEDALE	3,001	151,444	2,813	53.84	1.067
Southern OR	KLAMATH FALLS	HORNET	5L45	CRYSTAL SPR	2,325	175,475	1,486	118.09	1.565
Southern OR	KLAMATH FALLS	LAKEPORT	5L49	WOCUS	2	98	204	0.48	0.010
Southern OR	KLAMATH FALLS	LAKEPORT	5L54	SOUTH (LAKEPORT)	1,160	151,781	2,435	62.33	0.476
Southern OR	KLAMATH FALLS	LAKEPORT	5L61	JELDWEN	-	-	7	-	-
Southern OR	KLAMATH FALLS	MERRILL (OR)	5L26	LAKE (MERRILL)	2,640	74,792	987	75.78	2.675
Southern OR	KLAMATH FALLS	MERRILL (OR)	5L27	NORTH (MERRILL)	1,200	43,110	561	76.85	2.139
Southern OR	KLAMATH FALLS	MODOC	5L36	MODOC	109	12,220	856	14.28	0.127
Southern OR	KLAMATH FALLS	ROSS AVENUE	5L46	ELDORADO	1,495	74,935	1,387	54.03	1.078
Southern OR	KLAMATH FALLS	ROSS AVENUE	5L48	BROAD ST.	166	20,131	1,200	16.78	0.138
Southern OR	KLAMATH FALLS	RUNNING Y	4L50	ROCKY POINT FEEDER (RUNNING Y)	3,796	761,104	1,463	520.24	2.595
Southern OR	KLAMATH FALLS	SHASTA WAY	7L25	SHASTA WAY	2	158	434	0.36	0.005
Southern OR	KLAMATH FALLS	SPRAGUE RIVER	5L8	SPRAGUE RIVER	2,001	119,629	506	236.42	3.955
Southern OR	KLAMATH FALLS	TEXUM	5L112	ANDERSON	26	5,680	1,204	4.72	0.022

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Southern OR	KLAMATH FALLS	TEXUM	5L113	TOWER	17	794	288	2.76	0.059
Southern OR	KLAMATH FALLS	TEXUM	5L116	ALTAMONT	698	96,903	1,493	64.90	0.468
Southern OR	KLAMATH FALLS	TURKEY HILL	5L20	MALIN CITY	2,008	90,243	829	108.86	2.422
Southern OR	KLAMATH FALLS	TURKEY HILL	5L23	RURAL (TURKEY HILL)	819	29,177	326	89.50	2.512
Southern OR	KLAMATH FALLS	WEST SIDE	5L12	ORINDALE	26	3,574	792	4.51	0.033
Southern OR	KLAMATH FALLS	WEST SIDE	5L15	CALIFORNIA	52	5,383	1,371	3.93	0.038
Southern OR	KLAMATH FALLS	WEST SIDE	5L17	PINE ST (WEST SIDE HE PLANT)	501	63,695	504	126.38	0.994
Southern OR	KLAMATH FALLS	WEST SIDE	5L18	RIVERSIDE (WEST SIDE HE PLANT)	671	86,605	589	147.04	1.139
Southern OR	KLAMATH FALLS	WEST SIDE	5L19	LAKESHORE	961	87,338	308	283.57	3.120
Southern OR	LAKEVIEW	MILE-HI	5L104	INDUSTRIAL	131	14,701	724	20.31	0.181
Southern OR	LAKEVIEW	MILE-HI	5L105	BUSINESS	80	14,430	1,724	8.37	0.046
Southern OR	MEDFORD	ASHLAND (MTN.AVE, PUD)	5R241	CITY	12	1,037	13	79.73	0.923
Southern OR	MEDFORD	ASHLAND (MTN.AVE, PUD)	5R245	VALLEY VIEW	2,959	104,255	992	105.10	2.983
Southern OR	MEDFORD	BEALL LANE	5R359	BEEHIVE	2	14	2	6.90	1.000
Southern OR	MEDFORD	BEALL LANE	5R361	BULLDOG	2,383	241,914	1,724	140.32	1.382
Southern OR	MEDFORD	BEALL LANE	5R364	BOBCAT	2,898	191,320	2,151	88.94	1.347
Southern OR	MEDFORD	BELKNAP	5R1	KOGAP	1,127	54,729	1,017	53.81	1.108
Southern OR	MEDFORD	BELKNAP	5R2	RIVERSIDE (BELKNAP)	233	25,418	670	37.94	0.348
Southern OR	MEDFORD	BELKNAP	5R3	BARNETT	63	15,155	1,640	9.24	0.038
Southern OR	MEDFORD	BELKNAP	5R47	STEWART	2,341	68,677	2,116	32.46	1.106
Southern OR	MEDFORD	BROOKHURST	5R118	SPRINGBROOK	1,919	72,540	1,847	39.27	1.039
Southern OR	MEDFORD	BROOKHURST	5R135	ROBERTS (BROOKHURST)	320	60,814	1,646	36.95	0.194
Southern OR	MEDFORD	BROOKHURST	5R32	ROXY	73	13,643	1,799	7.58	0.041
Southern OR	MEDFORD	BROOKHURST	5R33	CRATER LAKE	358	101,550	1,743	58.26	0.205
Southern OR	MEDFORD	BROOKHURST	5R75	SUNRISE (BROOKHURST)	1,300	97,752	1,243	78.64	1.046
Southern OR	MEDFORD	CAMPBELL	5R216	VOORHIES	852	72,367	851	85.04	1.001
Southern OR	MEDFORD	CAMPBELL	5R218	PHOENIX	1,856	486,881	1,522	319.90	1.219
Southern OR	MEDFORD	CAMPBELL	5R227	FERN VALLEY	2,893	165,988	1,418	117.06	2.040
Southern OR	MEDFORD	CAMPBELL	5R312	COBRA	1,722	179,203	1,472	121.74	1.170
Southern OR	MEDFORD	DODGE BRIDGE	4R1	SALMON	3,428	740,391	1,647	449.54	2.081
Southern OR	MEDFORD	DODGE BRIDGE	4R35	MEADOWS ROAD	4,750	823,677	1,386	594.28	3.427
Southern OR	MEDFORD	FOOTHILLS	5R38	HOSPITAL	232	59,211	774	76.50	0.300
Southern OR	MEDFORD	FOOTHILLS	5R39	PIERCE ROAD	114	13,830	1,161	11.91	0.098
Southern OR	MEDFORD	FRALEY	5R87	TABLE ROCK	1,173	238,740	527	453.02	2.226
Southern OR	MEDFORD	FRALEY	5R88	DODGE BRIDGE	764	162,541	372	436.94	2.054
Southern OR	MEDFORD	GOLD HILL	5R103	GOLD HILL	3,225	183,335	2,036	90.05	1.584
Southern OR	MEDFORD	GRIFFIN CREEK	5R204	HULL RD	2,861	92,480	2,741	33.74	1.044
Southern OR	MEDFORD	GRIFFIN CREEK	5R206	GRIFFIN CREEK	2,816	172,716	1,763	97.97	1.597
Southern OR	MEDFORD	HUMBUG CREEK	5R287	HUMMINGBIRD	1,765	157,935	692	228.23	2.551
Southern OR	MEDFORD	JACKSONVILLE	5R284	STAGE RD	2,645	325,055	2,086	155.83	1.268
Southern OR	MEDFORD	JACKSONVILLE	5R285	JACKSONVILLE HWY	2,490	229,417	2,196	104.47	1.134
Southern OR	MEDFORD	MEDCO	5R280	BOISE CASCADE	1	168	1	168.05	1.000
Southern OR	MEDFORD	MEDFORD	5R21	MELROSE	44	9,611	1,596	6.02	0.028

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Southern OR	MEDFORD	MEDFORD	5R23	SPRING ST.	233	44,157	1,625	27.17	0.143
Southern OR	MEDFORD	MEDFORD	5R250	BIG Y	188	49,741	1,868	26.63	0.101
Southern OR	MEDFORD	MEDFORD	5R253	APPLE	86	21,267	1,111	19.14	0.077
Southern OR	MEDFORD	MEDFORD	5R659	MCLEAN	156	20,783	680	30.56	0.229
Southern OR	MEDFORD	OAK KNOLL	5R55	SISKIYOU	5,156	731,195	1,507	485.20	3.421
Southern OR	MEDFORD	OAK KNOLL	5R56	HIGHWAY 99	9	919	118	7.78	0.076
Southern OR	MEDFORD	PROSPECT CNTRL	5R40	NEW CASCADE	293	99,423	338	294.15	0.867
Southern OR	MEDFORD	RED BLANKET	7R5	PROSPECT	709	140,449	396	354.67	1.790
Southern OR	MEDFORD	ROXY ANN	5R350	St. Bernard	52	19,441	1,290	15.07	0.040
Southern OR	MEDFORD	ROXY ANN	5R354	RACCOON	148	33,160	1,575	21.05	0.094
Southern OR	MEDFORD	RUCH	5R68	APPLEGATE	2,638	293,453	934	314.19	2.824
Southern OR	MEDFORD	RUCH	5R69	RUCH	584	23,077	547	42.19	1.068
Southern OR	MEDFORD	SAGE ROAD (OR)	5R209	TIMBER PROD	1	7	1	6.83	1.000
Southern OR	MEDFORD	SAGE ROAD (OR)	5R211	COLUMBUS	4,182	79,123	1,951	40.56	2.144
Southern OR	MEDFORD	SAGE ROAD (OR)	5R226	BOISE	1,104	21,401	920	23.26	1.200
Southern OR	MEDFORD	SAGE ROAD (OR)	5R27	MCANDREWS	114	779	114	6.83	1.000
Southern OR	MEDFORD	SAGE ROAD (OR)	5R28	ROSS	2,127	24,971	2,014	12.40	1.056
Southern OR	MEDFORD	SAGE ROAD (OR)	5R29	EDWARDS	786	5,980	757	7.90	1.038
Southern OR	MEDFORD	SCENIC	5R174	UPTON	2,150	87,545	2,015	43.45	1.067
Southern OR	MEDFORD	SCENIC	5R180	HEAD RD	1,648	87,063	1,181	73.72	1.395
Southern OR	MEDFORD	SCENIC	5R182	TAYLOR RD	2,181	114,009	1,675	68.07	1.302
Southern OR	MEDFORD	SCENIC	5R184	CHENEY	2,008	170,593	1,471	115.97	1.365
Southern OR	MEDFORD	STEVENS ROAD	4R13	HENRY MILLER	108	10,735	2,319	4.63	0.047
Southern OR	MEDFORD	STEVENS ROAD	4R17	Stingray	2,933	384,510	2,582	148.92	1.136
Southern OR	MEDFORD	STEVENS ROAD	4R41	ANTELOPE	2,664	348,242	1,149	303.08	2.319
Southern OR	MEDFORD	TAKELMA	4R9	LOST CK. (TAKELMA)	5,817	558,514	2,678	208.56	2.172
Southern OR	MEDFORD	TALENT	5R237	TALENT	2,954	119,262	2,481	48.07	1.191
Southern OR	MEDFORD	TALENT	5R238	ANDERSON CRK	2,074	69,563	1,736	40.07	1.195
Southern OR	MEDFORD	TALENT	5R239	HARTLEY ROAD	1,634	22,870	1,568	14.59	1.042
Southern OR	MEDFORD	TALENT	5R240	NORTH HWY	1,559	79,875	1,186	67.35	1.315
Southern OR	MEDFORD	TOLO	5R90	TBL ROCK LBR	189	7,709	163	47.30	1.160
Southern OR	MEDFORD	TOLO	5R91	SAMS VALLEY	2,693	329,560	650	507.02	4.143
Southern OR	MEDFORD	TOLO	5R92	KIRTLAND RD	227	3,944	201	19.62	1.129
Southern OR	MEDFORD	VILAS ROAD	5R110	MCLAUGHLIN	76	12,803	958	13.36	0.079
Southern OR	MEDFORD	VILAS ROAD	5R146	KING CENTER	1,498	42,574	1,473	28.90	1.017
Southern OR	MEDFORD	VILAS ROAD	5R305	WEBFOOT	109	6,813	849	8.03	0.128
Southern OR	MEDFORD	WHITE CITY	5R11	EAGLE POINT	92	34,606	1,485	23.30	0.062
Southern OR	MEDFORD	WHITE CITY	5R13	FIR-PLY	-	-	23	-	-
Southern OR	MEDFORD	WHITE CITY	5R14	AGATE	142	63,321	107	591.78	1.327
Southern OR	MEDFORD	WHITE CITY	5R19	3M	21	1,964	111	17.70	0.189
Southern OR	MEDFORD	WHITE CITY	5R66	4 CORNERS	276	23,810	1,779	13.38	0.155
Southern OR	MEDFORD	WHITE CITY	5R76	AVE C	4	1,303	80	16.29	0.050
Southern OR	ROSEBURG/MYTLECREEK	CANYONVILLE	5U46	CANYONVILLE	794	83,366	396	210.52	2.005

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Southern OR	ROSEBURG/MYRTLECREEK	CANYONVILLE	5U52	BEALS CREEK FEEDER	2,290	460,243	896	513.66	2.556
	ROSEBURG/MYRTLECREEK	CARNES	5U44	RND PRARIE	439	31,258	419	74.60	1.048
	ROSEBURG/MYRTLECREEK	CLEARWATER #1 SUB	6U17	BRIGGS	11	5,282	2	2,640.86	5.500
	ROSEBURG/MYRTLECREEK	CLEARWATER #2 SUB	6U33	CLEARWATER	385	47,684	97	491.59	3.969
	ROSEBURG/MYRTLECREEK	CLOAKE	4U38	HARVARD	1,527	133,885	2,958	45.26	0.516
	ROSEBURG/MYRTLECREEK	CLOAKE	4U39	GOEDECK	890	97,708	1,264	77.30	0.704
	ROSEBURG/MYRTLECREEK	GARDEN VALLEY	4U80	EDENBOWER	54	5,131	813	6.31	0.066
	ROSEBURG/MYRTLECREEK	GARDEN VALLEY	4U81	VALLEY	2,756	286,395	1,376	208.14	2.003
	ROSEBURG/MYRTLECREEK	GLIDE SUBSTATION	5U83	IDLEYLD	3,379	287,875	1,002	287.30	3.372
	ROSEBURG/MYRTLECREEK	GLIDE SUBSTATION	5U84	LITTLE RIVER	2,282	135,669	1,372	98.88	1.663
	ROSEBURG/MYRTLECREEK	GREEN SUBSTATION	5U32	SAFARI	1,905	147,034	2,185	67.29	0.872
	ROSEBURG/MYRTLECREEK	GREEN SUBSTATION	5U33	SUNNYSLOPE	1,785	79,992	1,641	48.75	1.088
	ROSEBURG/MYRTLECREEK	ILLAHEE FLATS	6U13	ILLAHEE FLATS SINGLE PHASE RECLOSER	136	17,083	25	683.33	5.440
	ROSEBURG/MYRTLECREEK	LEMOLO # 1	5U920	DIAMOND LAKE	893	216,413	185	1,169.80	4.827
	ROSEBURG/MYRTLECREEK	MYRTLE CREEK	5U76	SUPER Y	738	51,933	1,550	33.51	0.476
	ROSEBURG/MYRTLECREEK	MYRTLE CREEK	5U77	BOOMER HILL	2,011	288,600	2,321	124.34	0.866
	ROSEBURG/MYRTLECREEK	OAKLAND (OR)	5U11	UMPQUA	654	105,844	1,260	84.00	0.519
	ROSEBURG/MYRTLECREEK	OAKLAND (OR)	5U12	STAGECOACH	688	69,462	559	124.26	1.231
	ROSEBURG/MYRTLECREEK	RIDDLE	5U1	TRI CITY	337	35,958	999	35.99	0.337
	ROSEBURG/MYRTLECREEK	RIDDLE	5U2	COW CREEK	1,523	151,882	1,560	97.36	0.976
	ROSEBURG/MYRTLECREEK	RIDDLE	5U3	HANNA	493	68,823	284	242.34	1.736
	ROSEBURG/MYRTLECREEK	RIDDLE-VENEER	5U50	RFP-LVL (EWP)	17	2,887	30	96.23	0.567
	ROSEBURG/MYRTLECREEK	ROSEBURG	4U10	DIAMOND	3,779	426,134	2,513	169.57	1.504
	ROSEBURG/MYRTLECREEK	ROSEBURG	4U22	DIXON	101	17,385	1,137	15.29	0.089
	ROSEBURG/MYRTLECREEK	ROSEBURG	4U5	DOUGLAS	2,345	42,049	2,074	20.27	1.131
	ROSEBURG/MYRTLECREEK	SLIDE CREEK	6U76	SLIDE CREEK CAMP	5	1,198	4	299.46	1.250
	ROSEBURG/MYRTLECREEK	SOUTHGATE	4U30	SHADY POINT	1,165	160,774	1,610	99.86	0.724
	ROSEBURG/MYRTLECREEK	SOUTHGATE	4U31	BOOTH	52	6,834	1,581	4.32	0.033
	ROSEBURG/MYRTLECREEK	STEAMBOAT	6U18	STEAMBOAT	89	17,174	22	780.63	4.045
	ROSEBURG/MYRTLECREEK	SUTHERLIN	5U35	NON-PAREIL	85	6,010	1,314	4.57	0.065
	ROSEBURG/MYRTLECREEK	SUTHERLIN	5U36	DEADY	328	22,874	1,351	16.93	0.243
	ROSEBURG/MYRTLECREEK	SUTHERLIN	5U56	Industrial	11	2,325	548	4.24	0.020
	ROSEBURG/MYRTLECREEK	TILLER	5U89	JACKSON CRK	209	37,498	309	121.35	0.676
	ROSEBURG/MYRTLECREEK	WINCHESTER	4U18	WILBUR	871	121,634	1,646	73.90	0.529
	ROSEBURG/MYRTLECREEK	WINCHESTER	5U15	NEWTON CREEK	26	4,444	1,743	2.55	0.015
	ROSEBURG/MYRTLECREEK	WINCHESTER	5U17	FISHER	1,163	76,368	771	99.05	1.508
	ROSEBURG/MYRTLECREEK	WINCHESTER	5U19	EVANS	901	93,016	769	120.96	1.172
	ROSEBURG/MYRTLECREEK	WINSTON	5U48	BROCKWAY	15	1,194	869	1.37	0.017
	ROSEBURG/MYRTLECREEK	WINSTON	5U49	DILLARD	1,621	118,974	1,475	80.66	1.099
Willamette Valley	ALBANY	HAZELWOOD	4M335	WEST HIGH	372	27,922	1,478	18.89	0.252
Willamette Valley	ALBANY	HAZELWOOD	4M336	RIVERVIEW (HAZELWOOD)	1,019	112,347	1,244	90.31	0.819
Willamette Valley	ALBANY	JEFFERSON (OR)	4M117	MARION	278	68,935	734	93.92	0.379
Willamette Valley	ALBANY	JEFFERSON (OR)	4M125	MINT	732	174,647	2,505	69.72	0.292

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Willamette Valley	ALBANY	MURDER CREEK	4M243	SCRABEL HILL	20,039	1,720,126	3,667	469.08	5.465
Willamette Valley	ALBANY	MURDER CREEK	4M245	RURAL NW	3,581	471,229	2,351	200.44	1.523
Willamette Valley	ALBANY	MURDER CREEK	4M249	DURA-PACIFIC	240	27,809	1,227	22.66	0.196
Willamette Valley	ALBANY	OREMET	4M295	OAK CREEK	1	129	102	1.26	0.010
Willamette Valley	ALBANY		4M296	ROGERSDALE	364	82,420	2,178	37.84	0.167
Willamette Valley	ALBANY		5M19	OREMET	1	183	3	60.99	0.333
Willamette Valley	ALBANY	QUEEN AVE	4M217	SANTIAM	1,961	211,400	1,905	110.97	1.029
Willamette Valley	ALBANY		4M258	HILL STREET	229	82,353	2,573	32.01	0.089
Willamette Valley	ALBANY		4M261	WAVERLY	1,660	349,051	3,586	97.34	0.463
Willamette Valley	ALBANY		4M262	GEARY STREET	5,734	392,511	2,747	142.89	2.087
Willamette Valley	ALBANY	VINE STREET	4M15	FERRY	11,360	1,398,337	1,826	765.79	6.221
Willamette Valley	ALBANY	VINE STREET	4M16	WATER STREET	402	54,950	4,339	12.66	0.093
Willamette Valley	CORVALLIS	BUCHANAN	4M130	HEWLETT PACKARD	263	32,294	2,702	11.95	0.097
Willamette Valley	CORVALLIS	BUCHANAN	4M133	PEORIA	1,867	331,461	2,464	134.52	0.758
Willamette Valley	CORVALLIS	BUCHANAN	4M134	N. NINTH ST.	316	53,621	2,614	20.51	0.121
Willamette Valley	CORVALLIS	DIXON	7M26	FOURTH ST.	238	7,447	235	31.69	1.013
Willamette Valley	CORVALLIS	DIXON	7M29	SECOND ST.	5	357	278	1.28	0.018
Willamette Valley	CORVALLIS	GRANT ST	4M265	HIGH SCHOOL	239	55,761	2,514	22.18	0.095
Willamette Valley	CORVALLIS	GRANT ST	4M266	CHINTIMINI	138	8,308	2,548	3.26	0.054
Willamette Valley	CORVALLIS	GRANT ST	4M268	KINGS ROAD	1,420	221,272	2,554	86.64	0.556
Willamette Valley	CORVALLIS	GRANT ST	4M269	29TH STREET	6,298	637,387	3,300	193.15	1.908
Willamette Valley	CORVALLIS	HILLVIEW	4M180	WEST HILLS	23	1,945	1,940	1.00	0.012
Willamette Valley	CORVALLIS	HILLVIEW	4M181	PHILOMATH	1,080	103,968	932	111.55	1.159
Willamette Valley	CORVALLIS	HILLVIEW	4M182	SUNSET	88	11,100	1,779	6.24	0.049
Willamette Valley	CORVALLIS	HILLVIEW	4M185	PLYMOUTH	2,339	114,862	2,025	56.72	1.155
Willamette Valley	CORVALLIS	MARYS RIVER	4M151	GREENBERRY	1,818	360,051	3,635	99.05	0.500
Willamette Valley	CORVALLIS	MARYS RIVER	4M152	AVERY	7	869	192	4.53	0.036
Willamette Valley	CORVALLIS	MARYS RIVER	4M153	GALLAGHER	1	66	160	0.42	0.006
Willamette Valley	COTTAGE GROVE/J.CITY	GOSHEN (OR)	4M360	GOSHEN FDR	3,228	137,706	1,636	84.17	1.973
Willamette Valley	COTTAGE GROVE/J.CITY	HARRISBURG SUB	4M400	TERRITORIAL	2,281	224,161	1,855	120.84	1.230
Willamette Valley	COTTAGE GROVE/J.CITY	JUNCTION CITY	4M102	6TH STREET	12	1,417	1,168	1.21	0.010
Willamette Valley	COTTAGE GROVE/J.CITY	JUNCTION CITY	4M99	PRAIRIE ROAD	23	3,746	1,007	3.72	0.023
Willamette Valley	COTTAGE GROVE/J.CITY	LANCASTER	4M209	MONROE	303	39,362	1,097	35.88	0.276
Willamette Valley	COTTAGE GROVE/J.CITY	VILLAGE GREEN	4M84	NORTH SIDE	611	53,078	2,381	22.29	0.257
Willamette Valley	COTTAGE GROVE/J.CITY	VILLAGE GREEN	4M86	MADISON	204	28,219	1,602	17.61	0.127
Willamette Valley	DALLAS/INDEPENDENCE	DALLAS	4M100	RURAL (DALLAS)	1,149	280,525	1,815	154.56	0.633
Willamette Valley	DALLAS/INDEPENDENCE	DALLAS	4M201	INDUSTRIAL	929	196,162	3,107	63.14	0.299
Willamette Valley	DALLAS/INDEPENDENCE	DALLAS	4M202	ELLENDALE	644	120,353	2,957	40.70	0.218
Willamette Valley	DALLAS/INDEPENDENCE	DALLAS	4M238	DALLAS	1,310	466,840	2,323	200.96	0.564
Willamette Valley	DALLAS/INDEPENDENCE	INDEPENDENCE	4M22	RICKREAL	810	148,928	3,324	44.80	0.244
Willamette Valley	DALLAS/INDEPENDENCE	INDEPENDENCE	4M25	BUENA VISTA	1,593	221,749	2,021	109.72	0.788
Willamette Valley	LEBANON	BROWNSVILLE	4M17	CALAPOOIA	6,969	1,415,284	1,721	822.36	4.049
Willamette Valley	LEBANON	CALAPOOYA	4M850	SPAULDING	3,310	243,023	1,118	217.37	2.961

Oregon 2019 Circuit Metrics (excluding major events)

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Willamette Valley	LEBANON	CALAPOOYA	4M851	BEAR	57	7,512	32	234.76	1.781
Willamette Valley	LEBANON	CROWFOOT	4M204	CROWFOOT	1,719	138,968	1,524	91.19	1.128
Willamette Valley	LEBANON	CROWFOOT	4M206	US PLYWOOD (LEBANON)	84	14,251	1,927	7.40	0.044
Willamette Valley	LEBANON	LEBANON	4M61	TANGENT	4,422	246,000	2,602	94.54	1.699
Willamette Valley	LEBANON	LEBANON	4M62	RALSTON	179	21,190	2,006	10.56	0.089
Willamette Valley	LEBANON	LEBANON	4M63	TENNESSEE	5,262	472,973	1,816	260.45	2.898
Willamette Valley	LEBANON	LEBANON	4M79	CROWN Z	734	38,579	1,168	33.03	0.628
Willamette Valley	LEBANON	SWEET HOME	4M37	HOLLEY	8,095	1,229,045	2,031	605.14	3.986
Willamette Valley	LEBANON	SWEET HOME	4M38	NARROWS	266	23,369	978	23.89	0.272
Willamette Valley	LEBANON	SWEET HOME	4M93	AMES CREEK	2,151	113,556	1,712	66.33	1.256
Willamette Valley	LEBANON	SWEET HOME	4M94	FOSTER	9,447	1,308,790	2,433	537.93	3.883
Willamette Valley	STAYTON	LYONS	4M120	MILL CITY	3,107	309,927	737	420.53	4.216
Willamette Valley	STAYTON	LYONS	4M70	MEHAMA	7,619	902,250	2,181	413.69	3.493
Willamette Valley	STAYTON	SCIO	5M126	THOMAS	6,361	738,888	1,584	466.47	4.016
Willamette Valley	STAYTON	STAYTON	4M19	AUMSVILLE	523	82,162	3,346	24.56	0.156
Willamette Valley	STAYTON	STAYTON	4M353	WEST STAYTON	6,741	742,786	3,543	209.65	1.903
Willamette Valley	STAYTON	STAYTON	4M370	CASCADE	734	149,452	1,599	93.47	0.459
Willamette Valley	STAYTON	STAYTON	4M50	3RD STREET	199	23,325	924	25.24	0.215

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Central OR	BEND/REDMOND	BEND	5D10	PORTLAND AVE	115	22,312	2,418	9.23	0.048
Central OR	BEND/REDMOND	BEND	5D11	GLEN VISTA	143	40,084	1,244	32.22	0.115
Central OR	BEND/REDMOND	BEND	5D12	DIVISION ST.	5	307	217	1.42	0.023
Central OR	BEND/REDMOND	BEND	5D196	MALLARD	320	24,293	1,408	17.25	0.227
Central OR	BEND/REDMOND	BOND STREET	5D411	BACHELOR	283	75,993	1,799	42.24	0.157
Central OR	BEND/REDMOND	BOND STREET	5D413	OLD MILL.	86	15,546	394	39.46	0.218
Central OR	BEND/REDMOND	BOND STREET	5D418	BLAKELY	10	2,036	1,250	1.63	0.008
Central OR	BEND/REDMOND	CHINA HAT	5D140	LAVA (CHINA HAT)	532	120,035	2,332	51.47	0.228
Central OR	BEND/REDMOND	CHINA HAT	5D142	HIGH DESERT	174	20,236	1,737	11.65	0.100
Central OR	BEND/REDMOND	CHINA HAT	5D144	D.R.W.	1,435	177,246	2,455	72.20	0.585
Central OR	BEND/REDMOND	CLEVELAND AVE.	5D30	ARROWHEAD	34	8,675	1,211	7.16	0.028
Central OR	BEND/REDMOND	CLEVELAND AVE.	5D35	WICKIUP	25	1,293	1,055	1.23	0.024
Central OR	BEND/REDMOND	CLEVELAND AVE.	5D38	TOMAHAWK	68	10,552	1,446	7.30	0.047
Central OR	BEND/REDMOND	CLEVELAND AVE.	5D94	TEEPEE	30	5,665	3,781	1.50	0.008
Central OR	BEND/REDMOND	CLEVELAND AVE.	5D96	OBSIDIAN	208	41,396	907	45.64	0.229
Central OR	BEND/REDMOND	CLEVELAND AVE.	5D98	HUCKLEBERRY	1,215	110,955	1,187	93.48	1.024
Central OR	BEND/REDMOND	CROOKED RIVER RANCH	4D131	CANYON	5,501	433,269	1,804	240.17	3.049
Central OR	BEND/REDMOND	CROOKED RIVER RANCH	4D30	CROOKED R.R.	1,803	140,867	790	178.31	2.282
Central OR	BEND/REDMOND	DESCHUTES	5D184	PRONGHORN	1,222	29,527	1,126	26.22	1.085
Central OR	BEND/REDMOND	DESCHUTES	5D2	DESCHUTES S	1,188	48,979	1,002	48.88	1.186
Central OR	BEND/REDMOND	HUNTERS CIRCLE	5D192	Mackinaw	725	50,525	695	72.70	1.043
Central OR	BEND/REDMOND	OVERPASS	5D104	AWBREY	4,423	829,443	1	829,442.73	4,423
Central OR	BEND/REDMOND	OVERPASS	5D106	NEZ PERCE	3,834	245,852	2,644	92.98	1.450
Central OR	BEND/REDMOND	OVERPASS	5D120	CHINOOK	2,191	120,289	1,821	66.06	1.203
Central OR	BEND/REDMOND	OVERPASS	5D128	PAIUTE	2,418	107,718	2,219	48.54	1.090
Central OR	BEND/REDMOND	OVERPASS	5D155	APACHE	846	31,285	2,788	11.22	0.303
Central OR	BEND/REDMOND	PILOT BUTTE	5D261	KLONDIKE	134	17,068	1,575	10.84	0.085
Central OR	BEND/REDMOND	PILOT BUTTE	5D263	DRAKE FEEDER	273	32,795	2,529	12.97	0.108
Central OR	BEND/REDMOND	PILOT BUTTE	5D265	DOBGIN	670	182,660	1,676	108.99	0.400
Central OR	BEND/REDMOND	REDMOND	5D21	SOUTH (REDMOND)	779	10,974	761	14.42	1.024
Central OR	BEND/REDMOND	REDMOND	5D22	INDUSTRIAL	1,855	59,206	1,515	39.08	1.224
Central OR	BEND/REDMOND	REDMOND	5D223	TETHEROW	1,940	118,262	838	141.12	2.315
Central OR	BEND/REDMOND	REDMOND	5D226	CLINE FALLS	1,725	42,976	1,513	28.40	1.140
Central OR	BEND/REDMOND	REDMOND	5D227	WINDSOR	3,838	117,747	3,070	38.35	1.250
Central OR	BEND/REDMOND	REDMOND	5D228	CITY	1,314	327,491	1,303	251.34	1.008
Central OR	BEND/REDMOND	REDMOND	5D229	JUNIPER	140	9,930	409	24.28	0.342
Central OR	BEND/REDMOND	SHEVLIN PARK	5D238	WOLVERINE (SHP) (WAS 5D327)	314	97,477	2,848	34.23	0.110
Central OR	BEND/REDMOND	SHEVLIN PARK	5D241	BADGER (SHP)	61	6,822	3,064	2.23	0.020
Central OR	BEND/REDMOND	SHEVLIN PARK	5D243	Black Bear	82	30,346	1,720	17.64	0.048
Central OR	BEND/REDMOND	YEW AVENUE	5D322	BIRDIE	138	17,675	1,899	9.31	0.073
Central OR	BEND/REDMOND	YEW AVENUE	5D323	FAIRWAY	28	4,188	391	10.71	0.072
Central OR	BEND/REDMOND	YEW AVENUE	5D325	EAGLE	375	13,712	2,650	5.17	0.142
Central OR	MADRAS	CHERRY LANE	5D295	7 PEAKS	310	38,825	152	255.42	2.039
Central OR	MADRAS	CULVER	5D5	CULVER	6,482	680,264	1,852	367.31	3.500

Oregon 2019 Circuit Metrics (including major events)

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Central OR	MADRAS	MADRAS	5D52	MADRAS RURAL	2,275	308,980	1,039	297.38	2.190
	MADRAS	MADRAS	5D53	AGATE	4,000	538,092	1,290	417.13	3.101
	MADRAS	MADRAS	5D57	QUARTZ	2,977	374,171	1,399	267.46	2.128
	MADRAS	MADRAS	5D61	MADRAS CITY	2,872	368,068	1,297	283.78	2.214
	MADRAS	POWELL BUTTE	5D1	POWELL BUTTE	757	20,808	645	32.26	1.174
	MADRAS	PRINEVILLE	5D126	RIMROCK	113	26,942	873	30.86	0.129
	MADRAS	PRINEVILLE	5D167	NORTHVILLE	414	69,635	2,701	25.78	0.153
	MADRAS	PRINEVILLE	5D25	OCHOCO	2,162	330,471	1,008	327.85	2.145
	MADRAS	PRINEVILLE	5D47	MC KAY (PRINEVILLE)	1,964	89,151	1,695	52.60	1.159
	MADRAS	PRINEVILLE	5D48	LAMONTA	685	23,807	637	37.37	1.075
	MADRAS	PRINEVILLE	5D69	GRIMES FLAT	2,501	242,564	1,608	150.85	1.555
	MADRAS	WARM SPRINGS	4D68	WARM SPRINGS (OR)	2,360	289,240	1,032	280.27	2.287
	CoastPlus	CLATSOP (ASTORIA)	5A10	HAYSTACK	9,274	1,179,257	1,608	733.37	5.767
	CoastPlus	CLATSOP (ASTORIA)	5A8	ECOLA	5,689	439,664	1,220	360.38	4.663
CoastPlus	CLATSOP (ASTORIA)	FERN HILL SUB	5A51	JOHN DAY	1,555	552,361	269	2,053.39	5.781
	CLATSOP (ASTORIA)	FERN HILL SUB	5A52	SCANDINAVIAN	1,427	675,917	384	1,760.20	3.716
	CLATSOP (ASTORIA)	KNAPPA SVENSEN	5A92	SVENSEN	1,697	155,370	717	216.69	2.367
	CLATSOP (ASTORIA)	KNAPPA SVENSEN	5A93	BRADWOOD	1,219	673,373	935	720.19	1.304
	CLATSOP (ASTORIA)	SEASIDE	5A80	GROVE	7,444	789,174	2,416	326.65	3.081
	CLATSOP (ASTORIA)	SEASIDE	5A81	CENTRAL	1,693	27,448	1,639	16.75	1.033
	CLATSOP (ASTORIA)	SEASIDE	5A82	NECANICUM	3,780	482,670	1,200	402.22	3.150
	CLATSOP (ASTORIA)	SEASIDE	5A83	GEARHART	10,562	832,732	3,323	250.60	3.178
	CLATSOP (ASTORIA)	WARRENTON	5A15	CITY	294	16,830	252	66.79	1.167
	CLATSOP (ASTORIA)	WARRENTON	5A16	MILL (WARRENTON)	4,082	1,207,089	2,280	529.43	1.790
	CLATSOP (ASTORIA)	WARRENTON	5A20	SOUTH (WARRENTON)	2,240	343,403	1,710	200.82	1.310
	CLATSOP (ASTORIA)	YOUNGS BAY	5A202	PORT DOCK	3,034	337,073	1,207	279.27	2.514
	CLATSOP (ASTORIA)	YOUNGS BAY	5A204	MOO COW	1,487	192,542	1,162	165.70	1.280
	CLATSOP (ASTORIA)	YOUNGS BAY	5A205	FIFTH STREET	1,120	94,352	991	95.21	1.130
	CLATSOP (ASTORIA)	YOUNGS BAY	5A206	YOUNGS BAY #6	340	20,989	338	62.10	1.006
	CLATSOP (ASTORIA)	YOUNGS BAY	5A210	YOUNGS BAY #10	2,411	192,610	944	204.04	2.554
	CLATSOP (ASTORIA)	YOUNGS BAY	5A211	OLNEY	3,632	860,185	1,094	786.28	3.320
	CLATSOP (ASTORIA)	YOUNGS BAY	5A213	INDUSTRIAL	1,714	190,134	1,370	138.78	1.251
	COOS BAY/COQUILLE	BANDON TIE (BPA)	L804	BANDON	2,350	281,971	759	371.50	3.096
	COOS BAY/COQUILLE	COOS RIVER	4C106	COOS RIVER	6,557	1,060,611	1,371	773.60	4.783
CoastPlus	COOS BAY/COQUILLE	COQUILLE	4C41	HENRY STREET	3,942	132,252	1,696	77.98	2.324
	COOS BAY/COQUILLE	COQUILLE	4C42	TERRES HGHTS	1,853	53,789	1,563	34.41	1.186
	COOS BAY/COQUILLE	COQUILLE	4C43	INDUSTRIAL	154	873	156	5.59	0.987
	COOS BAY/COQUILLE	EMPIRE	4C108	EMPIRE	5,581	571,098	1,740	328.22	3.207
	COOS BAY/COQUILLE	EMPIRE	4C89	SCOTT	5,544	796,001	1,440	552.78	3.850
	COOS BAY/COQUILLE	EMPIRE	4C90	CHARLESTON	5,026	820,356	2,142	382.99	2.346
	COOS BAY/COQUILLE	JORDAN POINT	5C11	WEYCO#2	1	737	1	736.97	1.000
	COOS BAY/COQUILLE	JORDAN POINT	5C6	SAND DUNES (JORDAN POINT)	50	24,704	31	796.92	1.613
	COOS BAY/COQUILLE	LOCKHART	4C48	CITY CENTER	1,672	79,588	1,526	52.15	1.096
	COOS BAY/COQUILLE	LOCKHART	4C49	EASTSIDE	1,090	43,101	779	55.33	1.399

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CoastPlus	COOS BAY/COQUILLE	LOCKHART	4C5	GEORGIA-PAC	2	168	89	1.89	0.022
CoastPlus	COOS BAY/COQUILLE	LOCKHART	4C50	BUNKERHILL	738	112,331	1,850	60.72	0.399
CoastPlus	COOS BAY/COQUILLE	LOCKHART	4C97	ENGLEWOOD	1,548	72,284	1,395	51.82	1.110
CoastPlus	COOS BAY/COQUILLE	MYRTLE POINT	4C36	NORTH (MYRTLE POINT)	792	100,485	339	296.41	2.336
CoastPlus	COOS BAY/COQUILLE	MYRTLE POINT	4C37	MAPLE STREET	3,848	736,982	2,104	350.28	1.829
CoastPlus	COOS BAY/COQUILLE	SOUTH DUNES	5C9	DOUGLAS CHIP	3	2,225	3	741.63	1.000
CoastPlus	COOS BAY/COQUILLE	STATE STREET	4C112	WOODLAND	2,040	267,139	1,872	142.70	1.090
CoastPlus	COOS BAY/COQUILLE	STATE STREET	4C66	BAYSHORE	1,770	219,550	1,725	127.28	1.026
CoastPlus	COOS BAY/COQUILLE	STATE STREET	4C67	INDUSTRIAL	2,455	305,962	2,220	137.82	1.106
CoastPlus	COOS BAY/COQUILLE	STATE STREET	4C86	BANGOR	2,270	271,193	1,805	150.25	1.258
CoastPlus	HOOD RIVER	GORDON HOLLOW	4K1	SHERMAN 208	1,387	164,460	721	228.10	1.924
CoastPlus	HOOD RIVER	HOOD RIVER	5K37	RESIDENTIAL	3,399	232,227	2,161	107.46	1.573
CoastPlus	HOOD RIVER	HOOD RIVER	5K43	BELMONT	1,482	132,336	1,187	111.49	1.249
CoastPlus	HOOD RIVER	HOOD RIVER	5K44	NORTH (HOOD RIVER)	2,039	55,226	1,822	30.31	1.119
CoastPlus	HOOD RIVER	HOOD RIVER	5K70	EASTSIDE	2,021	587,360	1,096	535.91	1.844
CoastPlus	HOOD RIVER	HOOD RIVER	5K74	SOUTH (HOOD RIVER)	1,987	119,765	1,681	71.25	1.182
CoastPlus	HOOD RIVER	KENWOOD	5K50	OAKGROVE	3,864	568,659	730	778.99	5.293
CoastPlus	HOOD RIVER	WASCO	7K1	WASCO	546	69,601	268	259.70	2.037
CoastPlus	LINCOLN CITY	DEVILS LAKE	4A310	INLAND FEEDER	2,074	131,687	1,891	69.64	1.097
CoastPlus	LINCOLN CITY	DEVILS LAKE	4A312	OCEAN	7,900	390,340	3,020	129.25	2.616
CoastPlus	LINCOLN CITY	DEVILS LAKE	4A316	LAKE (DEVILS LAKE)	3,678	673,040	4,545	148.08	0.809
CoastPlus	LINCOLN CITY	DEVILS LAKE	4A338	SIUSLAW	2,090	641,090	659	972.82	3.171
CoastPlus	LINCOLN CITY	GLENEDEN	7A364	GLENEDEN	2,078	972,561	714	1,362.13	2.910
CoastPlus	LINCOLN CITY	GLENEDEN	7A366	SALISHAN	950	492,408	357	1,379.29	2.661
CoastPlus	LINCOLN CITY	NELSCOTT	7A390	NELSCOTT	469	29,003	355	81.70	1.321
CoastPlus	LINCOLN CITY	PGE GRAND RONDE	R114	BOYER	19	3,462	19	182.22	1.000
CoastPlus	LINCOLN CITY	WECOMA BEACH	7A354	WECOMA	1,125	60,847	720	84.51	1.563
CoastPlus	PORLAND	BLOSS	5P172	FURNACE	1	16	1	15.65	1.000
CoastPlus	PORLAND	COLUMBIA (OR)	5P266	COLUMBIA #2	5,390	367,514	2,604	141.13	2.070
CoastPlus	PORLAND	COLUMBIA (OR)	5P268	COLUMBIA #1	366	5,922	348	17.02	1.052
CoastPlus	PORLAND	COLUMBIA (OR)	5P474	COLUMBIA #6	1,113	87,542	548	159.75	2.031
CoastPlus	PORLAND	COLUMBIA (OR)	5P476	COLUMBIA #3	853	15,291	837	18.27	1.019
CoastPlus	PORLAND	COLUMBIA (OR)	5P478	COLUMBIA #4	933	18,988	895	21.22	1.042
CoastPlus	PORLAND	COLUMBIA (OR)	5P480	COLUMBIA #5	43	129,379	37	3,496.72	1.162
CoastPlus	PORLAND	CULLY	5P288	CULLY #3-UG	557	34,729	824	42.15	0.676
CoastPlus	PORLAND	CULLY	5P290	CULLY #2	74	13,063	2,396	5.45	0.031
CoastPlus	PORLAND	CULLY	5P292	CULLY #1	264	34,996	2,916	12.00	0.091
CoastPlus	PORLAND	HOLLADAY (OR)	5P158	HOLLADAY #6	917	219,065	899	243.68	1.020
CoastPlus	PORLAND	HOLLYWOOD	5P203	HOLLYWOOD #3	10	1,576	1,469	1.07	0.007
CoastPlus	PORLAND	HOLLYWOOD	5P204	HOLLYWOOD #2	104	17,521	908	19.30	0.115
CoastPlus	PORLAND	HOLLYWOOD	5P205	HOLLYWOOD #1	89	11,904	2,156	5.52	0.041
CoastPlus	PORLAND	HOLLYWOOD	5P208	HOLLYWOOD #5	3,805	584,845	2,967	197.12	1.282
CoastPlus	PORLAND	HOLLYWOOD	5P209	HOLLYWOOD #4	42	5,149	2,370	2.17	0.018
CoastPlus	PORLAND	KILLINGSWORTH	5P123	KILLINGSWORTH #3	352	21,432	316	67.82	1.114

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CoastPlus	PORLAND	KILLINGSWORTH	SP217	KILLINGSWORTH #5	1,293	75,165	424	177.28	3.050
CoastPlus	PORLAND	KILLINGSWORTH	SP41	KILLINGSWORTH #4	2,991	76,020	2,789	27.26	1.072
CoastPlus	PORLAND	KILLINGSWORTH	SP88	KILLINGSWORTH #1-UG	1	19	1	18.65	1.000
CoastPlus	PORLAND	KILLINGSWORTH	SP89	KILLINGSWORTH #2	3,241	69,934	3,165	22.10	1.024
CoastPlus	PORLAND	KNOTT	SP231	KNOTT #1	311	33,213	3,529	9.41	0.088
CoastPlus	PORLAND	KNOTT	SP232	KNOTT #2	305	149,363	1,545	96.68	0.197
CoastPlus	PORLAND	KNOTT	SP233	KNOTT #3	38	6,936	2,290	3.03	0.017
CoastPlus	PORLAND	KNOTT	SP372	11046	4	779	707	1.10	0.006
CoastPlus	PORLAND	KNOTT	SP374	11020	135	42,592	988	43.11	0.137
CoastPlus	PORLAND	LINCOLN (OR)	SP432	11D02-UG	2	443	478	0.93	0.004
CoastPlus	PORLAND	LINCOLN (OR)	SP460	11D01-UG	1	247	1	246.85	1.000
CoastPlus	PORLAND	MALLORY	SP162	MALLORY #1	4,358	100,713	2,146	46.93	2.031
CoastPlus	PORLAND	MALLORY	SP164	MALLORY #2	8,044	193,467	3,172	60.99	2.536
CoastPlus	PORLAND	PARKROSE	SP244	PARKROSE#4	3,184	164,329	3,125	52.59	1.019
CoastPlus	PORLAND	PARKROSE	SP246	PARKROSE#3	3,507	299,517	3,077	97.34	1.140
CoastPlus	PORLAND	PARKROSE	SP250	PARKROSE#2	9	546	657	0.83	0.014
CoastPlus	PORLAND	PARKROSE	SP252	PARKROSE#1	41	17,374	1,794	9.68	0.023
CoastPlus	PORLAND	PARKROSE	SP717	PARKROSE 5	3	228	67	3.40	0.045
CoastPlus	PORLAND	RUSSELLVILLE	SP274	RUSSELLVILLE #3	3,205	243,790	3,110	78.39	1.031
CoastPlus	PORLAND	RUSSELLVILLE	SP276	RUSSELLVILLE #4	5,304	591,735	2,338	253.09	2.269
CoastPlus	PORLAND	RUSSELLVILLE	SP278	RUSSELLVILLE #1	3,465	2,386,066	3,288	725.69	1.054
CoastPlus	PORLAND	RUSSELLVILLE	SP280	RUSSELLVILLE #2	5,318	774,952	1,260	615.04	4.221
CoastPlus	PORLAND	VERNON	SP391	VERNON #1	4,844	635,891	1,844	344.84	2.627
CoastPlus	PORLAND	VERNON	SP392	VERNON NO. 2	5,302	949,606	2,575	368.78	2.059
CoastPlus	PORLAND	VERNON	SP393	VERNON #3	5,216	111,213	3,329	33.41	1.567
CoastPlus	PORLAND	VERNON	SP394	VERNON # 4	3,616	93,369	3,451	27.06	1.048
CoastPlus	PORLAND	VERNON	SP395	VERNON # 5	4,631	419,861	2,282	183.99	2.029
Northeast OR	ENTERPRISE	ENTERPRISE (OR)	4W8	CREIGHTON LN	1,027	148,038	1,482	99.89	0.693
Northeast OR	ENTERPRISE	ENTERPRISE (OR)	5W15	CITY	55	19,407	954	20.34	0.058
Northeast OR	ENTERPRISE	ENTERPRISE (OR)	5W26	RURAL (ENTERPRISE)	572	85,312	1,083	78.77	0.528
Northeast OR	ENTERPRISE	JOSEPH	5W21	PRAIRIE	375	97,562	858	113.71	0.437
Northeast OR	ENTERPRISE	MINAM	5W18	MINAM	15	5,417	13	416.67	1.154
Northeast OR	ENTERPRISE	PALLETTE	4W14	PALLETTE NORTH	476	135,770	175	775.83	2.720
Northeast OR	ENTERPRISE	PALLETTE	4W15	PALLETTE SOUTH	61	5,220	55	94.90	1.109
Northeast OR	ENTERPRISE	WALLOWA	5W28	CITY	400	59,905	890	67.31	0.449
Northeast OR	HERMISTON	ARLINGTON	5K25	ARLINGTON	628	104,032	528	197.03	1.189
Northeast OR	HERMISTON	BLALOCK	5K40	BLALOCK	20	3,673	20	183.65	1.000
Northeast OR	HERMISTON	DALREED	4K16	WILLOW COVE	81	12,515	74	169.12	1.095
Northeast OR	HERMISTON	DALREED	4K36	SIMTAG	26	17,785	19	936.04	1.368
Northeast OR	HERMISTON	DALREED	4K46	BOEING	211	53,899	181	297.78	1.166
Northeast OR	HERMISTON	HERMISTON	5W602	RURAL (HERMISTON)	1,540	173,848	1,399	124.27	1.101
Northeast OR	HERMISTON	HINKLE	5W82	MEADOWS	202	33,451	379	88.26	0.533
Northeast OR	HERMISTON	UMATILLA	5W658	UMATILLA	1,284	115,566	1,190	97.11	1.079
Northeast OR	HERMISTON	UMATILLA	5W660	MCNARY	406	96,355	953	101.11	0.426

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Northeast OR	HERMISTON	UMATILLA	5W664	PORT FEEDER	120	791	59	13.41	2.034
Northeast OR	PENDLETON	ATHENA	5W703	CITY	998	119,753	855	140.06	1.167
Northeast OR	PENDLETON	ATHENA	5W705	HELIX	491	71,700	437	164.07	1.124
Northeast OR	PENDLETON	BUCKAROO	5W201	STATE HOSP.	16	4,505	385	11.70	0.042
Northeast OR	PENDLETON	BUCKAROO	5W202	REITH	500	110,977	1,555	71.37	0.322
Northeast OR	PENDLETON	BUCKAROO	5W203	MONTEE	282	133,797	1,718	77.88	0.164
Northeast OR	PENDLETON	PENDLETON	5W401	WEST HILLS	103	10,714	1,702	6.30	0.061
Northeast OR	PENDLETON	PENDLETON	5W402	HARRIS HTS	2,450	360,753	2,085	173.02	1.175
Northeast OR	PENDLETON	PENDLETON	5W403	MISSION	80	14,540	1,063	13.68	0.075
Northeast OR	PENDLETON	PENDLETON	7W452	NORTHWEST	7	1,078	526	2.05	0.013
Northeast OR	PENDLETON	PENDLETON	7W454	EAST END	3	345	256	1.35	0.012
Northeast OR	PENDLETON	PILOT ROCK	5W406	PILOT ROCK CITY	877	125,513	1,398	89.78	0.627
Northeast OR	PENDLETON	WESTON NEW (OR)	5W7	SCOTTS FEEDER	92	22,081	457	48.32	0.201
Northeast OR	WALLA WALLA	UMAPINE	5W105	UMAPINE FEEDER	142	20,202	979	20.64	0.145
Northeast OR	WALLA WALLA	UMAPINE	5W106	FERNDALE	538	124,595	1,372	90.81	0.392
Southern OR	GRANTS PASS	AGNESS AVE	5R172	SPALDING MILL	919	16,841	889	18.94	1.034
Southern OR	GRANTS PASS	AGNESS AVE	5R173	JONES CREEK	1,970	277,245	899	308.39	2.191
Southern OR	GRANTS PASS	AGNESS AVE	5R322	ANTEATER	1,092	21,732	989	21.97	1.104
Southern OR	GRANTS PASS	APPLEGATE	5R267	MURPHY	1,233	461,870	1,058	436.55	1.165
Southern OR	GRANTS PASS	APPLEGATE	5R278	HIGHWAY	1,142	302,909	1,639	184.81	0.697
Southern OR	GRANTS PASS	BEACON	5R104	SAVAGE ST	1,489	210,185	1,271	165.37	1.172
Southern OR	GRANTS PASS	BEACON	5R105	BEACON ST	32	3,419	847	4.04	0.038
Southern OR	GRANTS PASS	CAVE JUNCTION	5R52	FREE& EASY	7,461	675,798	2,407	280.76	3.100
Southern OR	GRANTS PASS	CAVE JUNCTION	5R53	ROUGH &READY	2,054	141,966	1,544	91.95	1.330
Southern OR	GRANTS PASS	CAVEMAN	5R295	QUAIL	439	176,353	1,126	156.62	0.390
Southern OR	GRANTS PASS	CAVEMAN	5R82	WASHINGTON	132	20,183	1,207	16.72	0.109
Southern OR	GRANTS PASS	CAVEMAN	5R98	MANZANITA	17	14,306	598	23.92	0.028
Southern OR	GRANTS PASS	CAVEMAN	5R99	CAVEMAN	1,335	113,105	1,214	93.17	1.100
Southern OR	GRANTS PASS	DOWELL	5R331	DOVE	97	9,042	1,447	6.25	0.067
Southern OR	GRANTS PASS	DOWELL	5R334	DUCK	876	67,908	2,575	26.37	0.340
Southern OR	GRANTS PASS	EASY VALLEY	5R123	G STREET	2,912	771,463	2,166	356.17	1.344
Southern OR	GRANTS PASS	EASY VALLEY	5R125	ROGUE	209	19,397	1,778	10.91	0.118
Southern OR	GRANTS PASS	EASY VALLEY	5R259	CHINOOK	2,157	924,731	1,324	698.44	1.629
Southern OR	GRANTS PASS	FIELDER CREEK	4R33	ELK FDR.	3,120	538,523	1,857	290.00	1.680
Southern OR	GRANTS PASS	FIELDER CREEK	4R34	BEAR FDR	1,028	135,931	872	155.88	1.179
Southern OR	GRANTS PASS	GLENDALE SUBSTATION	5R133	GLENDALE	15,081	3,046,330	1,926	1,581.69	7.830
Southern OR	GRANTS PASS	GLENDALE SUBSTATION	5R143	INDUSTRIAL	1,332	57,583	662	86.98	2.012
Southern OR	GRANTS PASS	JEROME PRAIRIE	5R62	WILD PRAIRIE	2,560	543,560	1,636	332.25	1.565
Southern OR	GRANTS PASS	JEROME PRAIRIE	5R63	WOOD RIVER	3,881	631,719	1,610	392.37	2.411
Southern OR	GRANTS PASS	MERLIN	5R232	MERLIN-HUGO	4,741	1,281,902	2,104	609.27	2.253
Southern OR	GRANTS PASS	MERLIN	5R234	PARADISE	6,767	1,524,380	1,215	1,254.63	5.570
Southern OR	GRANTS PASS	MERLIN	5R248	PLEASANT VALLEY-MERLIN FEEDER	9,352	2,479,297	1,818	1,363.75	5.144
Southern OR	GRANTS PASS	MERLIN	5R251	BADGER	1,114	731,588	929	787.50	1.199
Southern OR	GRANTS PASS	MERLIN	5R288	MONARCH	59	15,574	0	#DIV/0	#DIV/0

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Southern OR	GRANTS PASS	OBRIEN	5R106	O'BRIEN	1,096	306,288	435	704.11	2.520
Southern OR	GRANTS PASS	PARK STREET (OR)	5R114	FRUITDALE	4,708	758,561	2,201	344.64	2.139
Southern OR	GRANTS PASS	PARK STREET (OR)	5R115	ALLEN CREEK	272	116,170	1,017	114.23	0.267
Southern OR	GRANTS PASS	PARK STREET (OR)	5R121	NEW HOPE	140	67,475	1,867	36.14	0.075
Southern OR	GRANTS PASS	PARK STREET (OR)	5R164	EXPRESS	3	4,020	321	12.52	0.009
Southern OR	GRANTS PASS	PARK STREET (OR)	5R169	PORTOLA	1,494	315,219	1,396	225.80	1.070
Southern OR	GRANTS PASS	PROVOLT	5R67	NORTH-SOUTH	4,638	1,293,420	1,450	892.01	3.199
Southern OR	GRANTS PASS	ROGUE RIVER	5R77	SAVAGE/WIMER	326	82,166	1,881	43.68	0.173
Southern OR	GRANTS PASS	ROGUE RIVER	5R78	ROCKY POINT (ROGUE RIVER)	1,638	486,539	1,064	457.27	1.539
Southern OR	GRANTS PASS	SELMA	5R65	DEER CREEK	3,266	977,862	1,218	802.84	2.681
Southern OR	KLAMATH FALLS	BEATTY	5L1	BEATTY	1,492	73,039	406	179.90	3.675
Southern OR	KLAMATH FALLS	BLY	5L14	TOWN (BLY)	1,831	150,018	433	346.46	4.229
Southern OR	KLAMATH FALLS	BONANZA (OR)	5L7	POE VALLEY	319	66,949	470	142.44	0.679
Southern OR	KLAMATH FALLS	BRYANT	5L2	GARY STREET	163	31,463	2,144	14.67	0.076
Southern OR	KLAMATH FALLS	BRYANT	5L3	WASHBURN	1,876	239,342	1,835	130.43	1.022
Southern OR	KLAMATH FALLS	BRYANT	5L4	SUMMERS LANE	2,741	188,478	1,968	95.77	1.393
Southern OR	KLAMATH FALLS	BRYANT	5L5	MOYINA HTS.	156	16,125	2,455	6.57	0.064
Southern OR	KLAMATH FALLS	CASEBEER SUB	4L16	LANGELL VLY	2,436	359,326	1,175	305.81	2.073
Southern OR	KLAMATH FALLS	CHILOQUIN	5L57	CRATER LAKE	700	133,965	1,071	125.08	0.654
Southern OR	KLAMATH FALLS	CHILOQUIN MRKT	5L37	WILLIAMSON	71	13,468	559	24.09	0.127
Southern OR	KLAMATH FALLS	DAIRY	5L42	SWAN LAKE	169	20,432	258	79.19	0.655
Southern OR	KLAMATH FALLS	DAIRY	5L43	DAIRY	176	22,124	509	43.47	0.346
Southern OR	KLAMATH FALLS	HAMAKER	5L55	KENO	2,867	832,166	1,720	483.82	1.667
Southern OR	KLAMATH FALLS	HAMAKER	5L56	MOUNTAIN	330	106,000	161	658.39	2.050
Southern OR	KLAMATH FALLS	HENLEY	5L58	HENLEY	722	67,865	235	288.79	3.072
Southern OR	KLAMATH FALLS	HENLEY	5L59	WEST	1,819	165,607	541	306.11	3.362
Southern OR	KLAMATH FALLS	HORNET	5L44	HOMEDALE	3,001	151,444	2,813	53.84	1.067
Southern OR	KLAMATH FALLS	HORNET	5L45	CRYSTAL SPR	2,438	201,548	1,486	135.63	1.641
Southern OR	KLAMATH FALLS	LAKEPORT	5L49	WOCUS	2	98	204	0.48	0.010
Southern OR	KLAMATH FALLS	LAKEPORT	5L54	SOUTH (LAKEPORT)	1,344	159,724	2,435	65.59	0.552
Southern OR	KLAMATH FALLS	LAKEPORT	5L61	JELDWEN	-	-	7	-	-
Southern OR	KLAMATH FALLS	MERRILL (OR)	5L26	LAKE (MERRILL)	3,628	118,577	987	120.14	3.676
Southern OR	KLAMATH FALLS	MERRILL (OR)	5L27	NORTH (MERRILL)	1,764	105,081	561	187.31	3.144
Southern OR	KLAMATH FALLS	MODOC	5L36	MODOC	216	27,727	856	32.39	0.252
Southern OR	KLAMATH FALLS	ROSS AVENUE	5L46	ELDORADO	1,495	74,935	1,387	54.03	1.078
Southern OR	KLAMATH FALLS	ROSS AVENUE	5L48	BROAD ST.	166	20,131	1,200	16.78	0.138
Southern OR	KLAMATH FALLS	RUNNING Y	4L50	ROCKY POINT FEEDER (RUNNING Y)	4,165	944,371	1,463	645.50	2.847
Southern OR	KLAMATH FALLS	SHASTA WAY	7L25	SHASTA WAY	2	158	434	0.36	0.005
Southern OR	KLAMATH FALLS	SPRAGUE RIVER	5L8	SPRAGUE RIVER	2,051	126,838	506	250.67	4.053
Southern OR	KLAMATH FALLS	TEXUM	5L112	ANDERSON	35	6,368	1,204	5.29	0.029
Southern OR	KLAMATH FALLS	TEXUM	5L113	TOWER	17	794	288	2.76	0.059
Southern OR	KLAMATH FALLS	TEXUM	5L116	ALTAMONT	698	96,903	1,493	64.90	0.468
Southern OR	KLAMATH FALLS	TURKEY HILL	5L20	MALIN CITY	2,039	98,177	829	118.43	2.460
Southern OR	KLAMATH FALLS	TURKEY HILL	5L23	RURAL (TURKEY HILL)	859	35,947	326	110.27	2.635

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Southern OR	KLAMATH FALLS	WEST SIDE	5L12	ORINDALE	28	3,821	792	4.82	0.035
Southern OR	KLAMATH FALLS	WEST SIDE	5L15	CALIFORNIA	52	5,383	1,371	3.93	0.038
Southern OR	KLAMATH FALLS	WEST SIDE	5L17	PINE ST (WEST SIDE HE PLANT)	501	63,695	504	126.38	0.994
Southern OR	KLAMATH FALLS	WEST SIDE	5L18	RIVERSIDE (WEST SIDE HE PLANT)	671	86,605	589	147.04	1.139
Southern OR	KLAMATH FALLS	WEST SIDE	5L19	LAKESHORE	961	87,338	308	283.57	3.120
Southern OR	LAKEVIEW	MILE-HI	5L104	INDUSTRIAL	284	102,398	724	141.43	0.392
Southern OR	LAKEVIEW	MILE-HI	5L105	BUSINESS	110	17,350	1,724	10.06	0.064
Southern OR	MEDFORD	ASHLAND (MTN.AVE, PUD)	5R241	CITY	12	1,037	13	79.73	0.923
Southern OR	MEDFORD	ASHLAND (MTN.AVE, PUD)	5R245	VALLEY VIEW	3,111	135,175	992	136.27	3.136
Southern OR	MEDFORD	BEALL LANE	5R359	BEEHIVE	2	14	2	6.90	1.000
Southern OR	MEDFORD	BEALL LANE	5R361	BULLDOG	2,383	241,914	1,724	140.32	1.382
Southern OR	MEDFORD	BEALL LANE	5R364	BOBCAT	2,898	191,320	2,151	88.94	1.347
Southern OR	MEDFORD	BELKNAP	5R1	KOGAP	1,127	54,729	1,017	53.81	1.108
Southern OR	MEDFORD	BELKNAP	5R2	RIVERSIDE (BELKNAP)	233	25,418	670	37.94	0.348
Southern OR	MEDFORD	BELKNAP	5R3	BARNETT	63	15,155	1,640	9.24	0.038
Southern OR	MEDFORD	BELKNAP	5R47	STEWART	6,572	190,243	2,116	89.91	3.106
Southern OR	MEDFORD	BROOKHURST	5R118	SPRINGBROOK	1,919	72,540	1,847	39.27	1.039
Southern OR	MEDFORD	BROOKHURST	5R135	ROBERTS (BROOKHURST)	352	65,944	1,646	40.06	0.214
Southern OR	MEDFORD	BROOKHURST	5R32	ROXY	73	13,643	1,799	7.58	0.041
Southern OR	MEDFORD	BROOKHURST	5R33	CRATER LAKE	359	101,623	1,743	58.30	0.206
Southern OR	MEDFORD	BROOKHURST	5R75	SUNRISE (BROOKHURST)	1,324	110,615	1,243	88.99	1.065
Southern OR	MEDFORD	CAMPBELL	5R216	VOORHIES	852	72,367	851	85.04	1.001
Southern OR	MEDFORD	CAMPBELL	5R218	PHOENIX	1,856	486,881	1,522	319.90	1.219
Southern OR	MEDFORD	CAMPBELL	5R227	FERN VALLEY	2,894	166,507	1,418	117.42	2.041
Southern OR	MEDFORD	CAMPBELL	5R312	COBRA	1,722	179,203	1,472	121.74	1.170
Southern OR	MEDFORD	DODGE BRIDGE	4R1	SALMON	5,596	1,280,192	1,647	777.29	3.398
Southern OR	MEDFORD	DODGE BRIDGE	4R35	MEADOWS ROAD	6,147	999,480	1,386	721.13	4.435
Southern OR	MEDFORD	FOOTHILLS	5R38	HOSPITAL	232	59,211	774	76.50	0.300
Southern OR	MEDFORD	FOOTHILLS	5R39	PIERCE ROAD	114	13,830	1,161	11.91	0.098
Southern OR	MEDFORD	FRALEY	5R87	TABLE ROCK	1,703	298,030	527	565.52	3.231
Southern OR	MEDFORD	FRALEY	5R88	DODGE BRIDGE	1,140	228,899	372	615.32	3.065
Southern OR	MEDFORD	GOLD HILL	5R103	GOLD HILL	3,447	462,999	2,036	227.41	1.693
Southern OR	MEDFORD	GRIFFIN CREEK	5R204	HULL RD	2,872	94,470	2,741	34.47	1.048
Southern OR	MEDFORD	GRIFFIN CREEK	5R206	GRIFFIN CREEK	3,110	312,044	1,763	177.00	1.764
Southern OR	MEDFORD	HUMBUG CREEK	5R287	HUMMINGBIRD	2,030	464,758	692	671.62	2.934
Southern OR	MEDFORD	JACKSONVILLE	5R284	STAGE RD	2,645	325,055	2,086	155.83	1.268
Southern OR	MEDFORD	JACKSONVILLE	5R285	JACKSONVILLE HWY	2,491	229,477	2,196	104.50	1.134
Southern OR	MEDFORD	MEDCO	5R280	BOISE CASCADE	1	168	1	168.05	1.000
Southern OR	MEDFORD	MEDFORD	5R21	MELROSE	44	9,611	1,596	6.02	0.028
Southern OR	MEDFORD	MEDFORD	5R23	SPRING ST.	233	44,157	1,625	27.17	0.143
Southern OR	MEDFORD	MEDFORD	5R250	BIG Y	188	49,741	1,868	26.63	0.101
Southern OR	MEDFORD	MEDFORD	5R253	APPLE	86	21,267	1,111	19.14	0.077
Southern OR	MEDFORD	MEDFORD	5R659	MCLEAN	156	20,783	680	30.56	0.229
Southern OR	MEDFORD	OAK KNOLL	5R55	SISKIYOU	5,204	807,607	1,507	535.90	3.453

Oregon 2019 Circuit Metrics (including major events)

Oregon Regions	Op Area Name	Substation Name	Circuit Id	Circuit Name	Customers in Incident Sustained	Customer Minutes Lost	Circuit Customer Count	SAIDI	SAIFI
Southern OR	MEDFORD	OAK KNOLL	5R56	HIGHWAY 99	9	919	118	7.78	0.076
Southern OR	MEDFORD	PROSPECT CNTRL	5R40	NEW CASCADE	1,307	520,236	338	1,539.16	3.867
Southern OR	MEDFORD	RED BLANKET	7R5	PROSPECT	1,155	563,714	396	1,423.52	2.917
Southern OR	MEDFORD	ROXY ANN	5R350	St. Bernard	52	19,441	1,290	15.07	0.040
Southern OR	MEDFORD	ROXY ANN	5R354	RACCOON	148	33,160	1,575	21.05	0.094
Southern OR	MEDFORD	RUCH	5R68	APPLEGATE	3,566	557,662	934	597.07	3.818
Southern OR	MEDFORD	RUCH	5R69	RUCH	638	84,172	547	153.88	1.166
Southern OR	MEDFORD	SAGE ROAD (OR)	5R209	TIMBER PROD	1	7	1	6.83	1.000
Southern OR	MEDFORD	SAGE ROAD (OR)	5R211	COLUMBUS	4,182	79,123	1,951	40.56	2.144
Southern OR	MEDFORD	SAGE ROAD (OR)	5R226	BOISE	1,104	21,401	920	23.26	1.200
Southern OR	MEDFORD	SAGE ROAD (OR)	5R27	MCANDREWS	114	779	114	6.83	1.000
Southern OR	MEDFORD	SAGE ROAD (OR)	5R28	ROSS	2,128	25,038	2,014	12.43	1.057
Southern OR	MEDFORD	SAGE ROAD (OR)	5R29	EDWARDS	786	5,980	757	7.90	1.038
Southern OR	MEDFORD	SCENIC	5R174	UPTON	2,150	87,545	2,015	43.45	1.067
Southern OR	MEDFORD	SCENIC	5R180	HEAD RD	1,648	87,063	1,181	73.72	1.395
Southern OR	MEDFORD	SCENIC	5R182	TAYLOR RD	2,197	115,823	1,675	69.15	1.312
Southern OR	MEDFORD	SCENIC	5R184	CHENEY	2,008	170,593	1,471	115.97	1.365
Southern OR	MEDFORD	STEVENS ROAD	4R13	HENRY MILLER	108	10,735	2,319	4.63	0.047
Southern OR	MEDFORD	STEVENS ROAD	4R17	Stingray	2,934	384,581	2,582	148.95	1.136
Southern OR	MEDFORD	STEVENS ROAD	4R41	ANTELOPE	3,139	438,013	1,149	381.21	2.732
Southern OR	MEDFORD	TAKELMA	4R9	LOST CK. (TAKELMA)	5,960	637,876	2,678	238.19	2.226
Southern OR	MEDFORD	TALENT	5R237	TALENT	2,955	119,646	2,481	48.22	1.191
Southern OR	MEDFORD	TALENT	5R238	ANDERSON CRK	2,198	172,668	1,736	99.46	1.266
Southern OR	MEDFORD	TALENT	5R239	HARTLEY ROAD	1,640	23,520	1,568	15.00	1.046
Southern OR	MEDFORD	TALENT	5R240	NORTH HWY	1,559	79,875	1,186	67.35	1.315
Southern OR	MEDFORD	TOLO	5R90	TBL ROCK LBR	201	25,912	163	158.97	1.233
Southern OR	MEDFORD	TOLO	5R91	SAMS VALLEY	2,983	437,584	650	673.21	4.589
Southern OR	MEDFORD	TOLO	5R92	KIRTLAND RD	231	4,775	201	23.76	1.149
Southern OR	MEDFORD	VILAS ROAD	5R110	MCLAUGHLIN	82	13,449	958	14.04	0.086
Southern OR	MEDFORD	VILAS ROAD	5R146	KING CENTER	3,014	59,732	1,473	40.55	2.046
Southern OR	MEDFORD	VILAS ROAD	5R305	WEBFOOT	109	6,813	849	8.03	0.128
Southern OR	MEDFORD	WHITE CITY	5R11	EAGLE POINT	318	104,353	1,485	70.27	0.214
Southern OR	MEDFORD	WHITE CITY	5R13	FIR-PLY	-	-	23	-	-
Southern OR	MEDFORD	WHITE CITY	5R14	AGATE	142	63,321	107	591.78	1.327
Southern OR	MEDFORD	WHITE CITY	5R19	3M	21	1,964	111	17.70	0.189
Southern OR	MEDFORD	WHITE CITY	5R66	4 CORNERS	443	73,342	1,779	41.23	0.249
Southern OR	MEDFORD	WHITE CITY	5R76	AVE C	4	1,303	80	16.29	0.050
Southern OR	ROSEBURG/MYRTLECREEK	CANYONVILLE	5U46	CANYONVILLE	1,160	1,735,673	396	4,383.01	2.929
Southern OR	ROSEBURG/MYRTLECREEK	CANYONVILLE	5U52	BEALS CREEK FEEDER	2,961	3,384,528	896	3,777.38	3.305
Southern OR	ROSEBURG/MYRTLECREEK	CARNES	5U44	RND PRARIE	1,608	2,425,562	419	5,788.93	3.838
Southern OR	ROSEBURG/MYRTLECREEK	CLEARWATER #1 SUB	6U17	BRIGGS	11	5,282	2	2,640.86	5.500
Southern OR	ROSEBURG/MYRTLECREEK	CLEARWATER #2 SUB	6U33	CLEARWATER	579	111,293	97	1,147.35	5.969
Southern OR	ROSEBURG/MYRTLECREEK	CLOAKE	4U37	RUSA	2	1,552	1	1,551.62	2.000
Southern OR	ROSEBURG/MYRTLECREEK	CLOAKE	4U38	HARVARD	8,447	9,186,540	2,958	3,105.66	2.856

Oregon 2019 Circuit Metrics (including major events)

Oregon Regions	Op Area Name	Substation Name	Circuit Id	Circuit Name	Customers in Incident Sustained	Customer Minutes Lost	Circuit Customer Count	SAIDI	SAIFI
Southern OR	ROSEBURG/MYRTLECREEK	CLOAKE	4U39	GOEDECK	3,995	5,500,750	1,264	4,351.86	3.161
Southern OR	ROSEBURG/MYRTLECREEK	GARDEN VALLEY	4U80	EDENBOWER	1,857	1,784,293	813	2,194.70	2.284
Southern OR	ROSEBURG/MYRTLECREEK	GARDEN VALLEY	4U81	VALLEY	6,613	7,099,412	1,376	5,159.46	4.806
Southern OR	ROSEBURG/MYRTLECREEK	GLIDE SUBSTATION	5U83	IDLEYLD	7,345	3,965,029	1,002	3,957.11	7.330
Southern OR	ROSEBURG/MYRTLECREEK	GLIDE SUBSTATION	5U84	LITTLE RIVER	8,564	6,887,470	1,372	5,020.02	6.242
Southern OR	ROSEBURG/MYRTLECREEK	GREEN SUBSTATION	5U32	SAFARI	4,466	1,093,311	2,185	500.37	2.044
Southern OR	ROSEBURG/MYRTLECREEK	GREEN SUBSTATION	5U33	SUNNYSLOPE	3,493	445,349	1,641	271.39	2.129
Southern OR	ROSEBURG/MYRTLECREEK	ILLAHEE FLATS	6U13	ILLAHEE FLATS SINGLE PHASE RECLOSE	216	230,031	25	9,201.24	8.640
Southern OR	ROSEBURG/MYRTLECREEK	LEMOLO # 1	5U920	DIAMOND LAKE	1,247	244,098	185	1,319.45	6.741
Southern OR	ROSEBURG/MYRTLECREEK	MYRTLE CREEK	5U76	SUPER Y	2,494	3,443,677	1,550	2,221.73	1.609
Southern OR	ROSEBURG/MYRTLECREEK	MYRTLE CREEK	5U77	BOOMER HILL	6,233	9,270,997	2,321	3,994.40	2.685
Southern OR	ROSEBURG/MYRTLECREEK	OAKLAND (OR)	5U11	UMPQUA	4,604	6,794,703	1,260	5,392.62	3.654
Southern OR	ROSEBURG/MYRTLECREEK	OAKLAND (OR)	5U12	STAGECOACH	2,470	2,315,743	559	4,142.65	4.419
Southern OR	ROSEBURG/MYRTLECREEK	RIDDLE	5U1	TRI CITY	2,277	3,385,380	999	3,388.77	2.279
Southern OR	ROSEBURG/MYRTLECREEK	RIDDLE	5U2	COW CREEK	4,617	7,160,526	1,560	4,590.08	2.960
Southern OR	ROSEBURG/MYRTLECREEK	RIDDLE	5U3	HANNA	1,067	244,266	284	860.09	3.757
Southern OR	ROSEBURG/MYRTLECREEK	RIDDLE-VENEER	5U23	FORD MILL	32	66,863	1	66,862.83	32.000
Southern OR	ROSEBURG/MYRTLECREEK	RIDDLE-VENEER	5U50	RFP-LVL (EWP)	47	5,183	30	172.78	1.567
Southern OR	ROSEBURG/MYRTLECREEK	ROSEBURG	4U10	DIAMOND	9,507	2,573,894	2,513	1,024.23	3.783
Southern OR	ROSEBURG/MYRTLECREEK	ROSEBURG	4U22	DIXON	3,639	4,502,273	1,137	3,959.78	3.201
Southern OR	ROSEBURG/MYRTLECREEK	ROSEBURG	4U5	DOUGLAS	7,707	6,086,450	2,074	2,934.64	3.716
Southern OR	ROSEBURG/MYRTLECREEK	SLIDE CREEK	6U76	SLIDE CREEK CAMP	5	1,198	4	299.46	1.250
Southern OR	ROSEBURG/MYRTLECREEK	SOUTHGATE	4U30	SHADY POINT	5,995	3,494,072	1,610	2,170.23	3.724
Southern OR	ROSEBURG/MYRTLECREEK	SOUTHGATE	4U31	BOOTH	6,291	3,316,849	1,581	2,097.94	3.979
Southern OR	ROSEBURG/MYRTLECREEK	STEAMBOAT	6U18	STEAMBOAT	177	221,026	22	10,046.62	8.045
Southern OR	ROSEBURG/MYRTLECREEK	SUTHERLIN	5U35	NON-PAREIL	4,194	5,807,950	1,314	4,420.05	3.192
Southern OR	ROSEBURG/MYRTLECREEK	SUTHERLIN	5U36	DEADY	6,394	6,506,883	1,351	4,816.35	4.733
Southern OR	ROSEBURG/MYRTLECREEK	SUTHERLIN	5U56	Industrial	1,671	2,067,957	548	3,773.64	3.049
Southern OR	ROSEBURG/MYRTLECREEK	TILLER	5U89	JACKSON CRK	1,152	1,509,512	309	4,885.15	3.728
Southern OR	ROSEBURG/MYRTLECREEK	TOKETEE	8U12	TOKETEE CITY	31	75,507	19	3,974.06	1.632
Southern OR	ROSEBURG/MYRTLECREEK	WINCHESTER	4U18	WILBUR	5,514	6,187,674	1,646	3,759.22	3.350
Southern OR	ROSEBURG/MYRTLECREEK	WINCHESTER	5U15	NEWTON CREEK	3,589	3,701,842	1,743	2,123.83	2.059
Southern OR	ROSEBURG/MYRTLECREEK	WINCHESTER	5U17	FISHER	2,998	4,370,928	771	5,669.17	3.888
Southern OR	ROSEBURG/MYRTLECREEK	WINCHESTER	5U19	EVANS	3,066	4,493,736	769	5,843.61	3.987
Southern OR	ROSEBURG/MYRTLECREEK	WINSTON	5U48	BROCKWAY	906	187,619	869	215.90	1.043
Southern OR	ROSEBURG/MYRTLECREEK	WINSTON	5U49	DILLARD	4,955	5,833,784	1,475	3,955.11	3.359
Willamette Valley	ALBANY	HAZELWOOD	4M335	WEST HIGH	373	28,309	1,478	19.15	0.252
Willamette Valley	ALBANY	HAZELWOOD	4M336	RIVERVIEW (HAZELWOOD)	1,056	120,522	1,244	96.88	0.849
Willamette Valley	ALBANY	JEFFERSON (OR)	4M117	MARION	472	98,201	734	133.79	0.643
Willamette Valley	ALBANY	JEFFERSON (OR)	4M125	MINT	999	211,133	2,505	84.28	0.399
Willamette Valley	ALBANY	MURDER CREEK	4M243	SCRABBLE HILL	20,039	1,720,126	3,667	469.08	5.465
Willamette Valley	ALBANY	MURDER CREEK	4M245	RURAL NW	3,680	484,981	2,351	206.29	1.565
Willamette Valley	ALBANY	MURDER CREEK	4M249	DURA-PACIFIC	290	49,911	1,227	40.68	0.236
Willamette Valley	ALBANY	OREMET	4M295	OAK CREEK	1	129	102	1.26	0.010

Oregon 2019 Circuit Metrics (including major events)

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Willamette Valley	ALBANY	OREMET	4M296	ROGERSDALE	364	82,420	2,178	37.84	0.167
Willamette Valley	ALBANY	OREMET	5M19	OREMET	1	183	3	60.99	0.333
Willamette Valley	ALBANY	QUEEN AVE	4M217	SANTIAM	1,961	211,400	1,905	110.97	1.029
Willamette Valley	ALBANY	QUEEN AVE	4M258	HILL STREET	616	126,323	2,573	49.10	0.239
Willamette Valley	ALBANY	QUEEN AVE	4M261	WAVERLY	1,660	349,051	3,586	97.34	0.463
Willamette Valley	ALBANY	QUEEN AVE	4M262	GEARY STREET	5,738	394,863	2,747	143.74	2.089
Willamette Valley	ALBANY	VINE STREET	4M15	FERRY	11,377	1,399,350	1,826	766.35	6.231
Willamette Valley	ALBANY	VINE STREET	4M16	WATER STREET	1,648	510,782	4,339	117.72	0.380
Willamette Valley	CORVALLIS	BUCHANAN	4M130	HEWLETT PACKARD	278	33,620	2,702	12.44	0.103
Willamette Valley	CORVALLIS	BUCHANAN	4M133	PEORIA	1,867	331,461	2,464	134.52	0.758
Willamette Valley	CORVALLIS	BUCHANAN	4M134	N. NINTH ST.	386	60,645	2,614	23.20	0.148
Willamette Valley	CORVALLIS	DIXON	7M26	FOURTH ST.	238	7,447	235	31.69	1.013
Willamette Valley	CORVALLIS	DIXON	7M29	SECOND ST.	5	357	278	1.28	0.018
Willamette Valley	CORVALLIS	GRANT ST	4M265	HIGH SCHOOL	239	55,761	2,514	22.18	0.095
Willamette Valley	CORVALLIS	GRANT ST	4M266	CHINTIMINI	139	8,380	2,548	3.29	0.055
Willamette Valley	CORVALLIS	GRANT ST	4M268	KINGS ROAD	1,421	221,511	2,554	86.73	0.556
Willamette Valley	CORVALLIS	GRANT ST	4M269	29TH STREET	6,298	637,387	3,300	193.15	1.908
Willamette Valley	CORVALLIS	HILLVIEW	4M180	WEST HILLS	23	1,945	1,940	1.00	0.012
Willamette Valley	CORVALLIS	HILLVIEW	4M181	PHILOMATH	1,080	103,968	932	111.55	1.159
Willamette Valley	CORVALLIS	HILLVIEW	4M182	SUNSET	89	11,571	1,779	6.50	0.050
Willamette Valley	CORVALLIS	HILLVIEW	4M185	PLYMOUTH	2,339	114,862	2,025	56.72	1.155
Willamette Valley	CORVALLIS	MARYS RIVER	4M151	GREENBERRY	1,972	442,594	3,635	121.76	0.543
Willamette Valley	CORVALLIS	MARYS RIVER	4M152	AVERY	7	869	192	4.53	0.036
Willamette Valley	CORVALLIS	MARYS RIVER	4M153	GALLAGHER	1	66	160	0.42	0.006
Willamette Valley	COTTAGE GROVE/J.CITY	COBURG	4M220	DETERING	67	106,248	583	182.24	0.115
Willamette Valley	COTTAGE GROVE/J.CITY	GOSHEN (OR)	4M360	GOSHEN FDR	11,439	4,028,406	1,636	2,462.35	6.992
Willamette Valley	COTTAGE GROVE/J.CITY	HARRISBURG SUB	4M400	TERRITORIAL	2,425	454,841	1,855	245.20	1.307
Willamette Valley	COTTAGE GROVE/J.CITY	JUNCTION CITY	4M102	6TH STREET	191	133,587	1,168	114.37	0.164
Willamette Valley	COTTAGE GROVE/J.CITY	JUNCTION CITY	4M99	PRAIRIE ROAD	23	3,746	1,007	3.72	0.023
Willamette Valley	COTTAGE GROVE/J.CITY	LANCASTER	4M209	MONROE	1,688	737,157	1,097	671.98	1.539
Willamette Valley	COTTAGE GROVE/J.CITY	VILLAGE GREEN	4M84	NORTH SIDE	4,530	6,463,365	2,381	2,714.56	1.903
Willamette Valley	COTTAGE GROVE/J.CITY	VILLAGE GREEN	4M86	MADISON	2,522	4,355,822	1,602	2,718.99	1.574
Willamette Valley	DALLAS/INDEPENDENCE	DALLAS	4M100	RURAL (DALLAS)	1,149	280,525	1,815	154.56	0.633
Willamette Valley	DALLAS/INDEPENDENCE	DALLAS	4M201	INDUSTRIAL	932	196,665	3,107	63.30	0.300
Willamette Valley	DALLAS/INDEPENDENCE	DALLAS	4M202	ELLENDALE	646	120,975	2,957	40.91	0.218
Willamette Valley	DALLAS/INDEPENDENCE	DALLAS	4M238	DALLAS	1,355	478,911	2,323	206.16	0.583
Willamette Valley	DALLAS/INDEPENDENCE	INDEPENDENCE	4M22	RICKREAL	816	151,478	3,324	45.57	0.245
Willamette Valley	DALLAS/INDEPENDENCE	INDEPENDENCE	4M25	BUENA VISTA	1,593	221,749	2,021	109.72	0.788
Willamette Valley	LEBANON	BROWNSVILLE	4M17	CALAPOOIA	7,401	1,558,462	1,721	905.56	4.300
Willamette Valley	LEBANON	CALAPOOYA	4M850	SPAULDING	4,580	522,165	1,118	467.05	4.097
Willamette Valley	LEBANON	CALAPOOYA	4M851	BEAR	57	7,512	32	234.76	1.781
Willamette Valley	LEBANON	CROWFOOT	4M204	CROWFOOT	2,197	324,136	1,524	212.69	1.442
Willamette Valley	LEBANON	CROWFOOT	4M206	US PLYWOOD (LEBANON)	84	14,251	1,927	7.40	0.044
Willamette Valley	LEBANON	LEBANON	4M61	TANGENT	4,425	246,670	2,602	94.80	1.701

Oregon 2019 Circuit Metrics (including major events)

Oregon Regions	Op Area Name	Substation Name	Circuit Id	Circuit Name	Customers in Incident Sustained	Customer Minutes Lost	Circuit Customer Count	SAIDI	SAIFI
Willamette Valley	LEBANON	LEBANON	4M62	RALSTON	183	28,409	2,006	14.16	0.091
Willamette Valley	LEBANON	LEBANON	4M63	TENNESSEE	6,644	886,905	1,816	488.38	3.659
Willamette Valley	LEBANON	LEBANON	4M79	CROWN Z	734	38,579	1,168	33.03	0.628
Willamette Valley	LEBANON	SWEET HOME	4M37	HOLLEY	11,735	4,076,817	2,031	2,007.30	5.778
Willamette Valley	LEBANON	SWEET HOME	4M38	NARROWS	2,026	877,264	978	897.00	2.072
Willamette Valley	LEBANON	SWEET HOME	4M93	AMES CREEK	3,820	1,486,162	1,712	868.09	2.231
Willamette Valley	LEBANON	SWEET HOME	4M94	FOSTER	10,487	2,824,600	2,433	1,160.95	4.310
Willamette Valley	STAYTON	LYONS	4M120	MILL CITY	3,250	367,414	737	498.53	4.410
Willamette Valley	STAYTON	LYONS	4M70	MEHAMA	9,067	1,285,885	2,181	589.59	4.157
Willamette Valley	STAYTON	SCIO	5M126	THOMAS	6,377	741,786	1,584	468.30	4.026
Willamette Valley	STAYTON	STAYTON	4M19	AUMSVILLE	636	163,386	3,346	48.83	0.190
Willamette Valley	STAYTON	STAYTON	4M353	WEST STAYTON	11,229	1,061,608	3,543	299.64	3.169
Willamette Valley	STAYTON	STAYTON	4M370	CASCADE	792	168,339	1,599	105.28	0.495
Willamette Valley	STAYTON	STAYTON	4M50	3RD STREET	203	23,496	924	25.43	0.220

Oregon 2019 Circuit Metrics (Zero Outage Circuits)

Oregon Region	Op Area Name	Substation Name	Circuit Id	Circuit Name	kV	Circuit Customer Count	SAIDI	SAIFI
CoastPlus	PORLAND	ALBINA	5P91	11C11-UG	11.7	320	0	0
	PORLAND	ALDERWOOD 115/12.5	5P22	ALDERWOOD #2	12.5	201	0	0
	PORLAND	HOLLADAY (OR)	5P145	HOLLADAY #1-UG	11.7	206	0	0
	PORLAND	HOLLADAY (OR)	5P146	HOLLADAY #2-UG	11.7	343	0	0
	PORLAND	HOLLADAY (OR)	5P147	HOLLADAY #3-UG	11.7	163	0	0
	PORLAND	HOLLADAY (OR)	5P157	HOLLADAY #5-UG	11.7	139	0	0
	PORLAND	KNOTT	5P366	11010	11.7	51	0	0
	PORLAND	LINCOLN (OR)	5P418	11D17	11.7	134	0	0
	PORLAND	LINCOLN (OR)	5P420	11D14	11.7	24	0	0
	PORLAND	LINCOLN (OR)	5P422	11D06-UG	11.7	543	0	0
	PORLAND	LINCOLN (OR)	5P424	11D03-UG	11.7	1	0	0
	PORLAND	LINCOLN (OR)	5P426	11D04-UG	11.7	320	0	0
	PORLAND	LINCOLN (OR)	5P430	11D05-UG	11.7	370	0	0
	PORLAND	LINCOLN (OR)	5P434	11D12-UG	11.7	15	0	0
	PORLAND	LINCOLN (OR)	5P436	11G18-UG	11.7	100	0	0
	PORLAND	LINCOLN (OR)	5P438	11D08-UG	11.7	16	0	0
	PORLAND	LINCOLN (OR)	5P456	11D09-UG	11.7	182	0	0
	PORLAND	LINCOLN (OR)	5P458	11D07-UG	11.7	217	0	0
	PORLAND	LINCOLN (OR)	5P462	11G13-UG	11.7	35	0	0
	PORLAND	LINCOLN (OR)	5P464	11G16-UG	11.6	170	0	0
Northeast	PENDLETON	PILOT ROCK	5W404	MILL (PILOT ROCK)	12.5	1	0	0
Northeast	PENDLETON	WESTON NEW (OR)	5W40	WESTON CANNERY	12.5	16	0	0
Southern OR	KLAMATH FALLS	BOISE CASCADE	7L9	BOISE CASCAD	4.1	1	0	0
		WEST SIDE	5L16	MAIN ST (WEST SIDE HE PLANT)	12.5	111	0	0
	KLAMATH FALLS	WEST SIDE	8L10	CITY WTR PMP	2.4	1	0	0
	MEDFORD	PROSPECT 3	5R290	P-3 FOREBAY	12.5	1	0	0
		WHITE CITY	5R12	INDUSTRIAL	12.5	33	0	0
	ROSEBURG/MYRTLECREEK	SODA SPRINGS HE PLT	6U1	DRY CREEK	7.2	1	0	0
Willamette Valley	ALBANY	MURDER CREEK	4M250	INDUSTRIAL	20.8	4	0	0
	ALBANY	MURDER CREEK	5M131	WAH CHANG SOUTH	12.5	1	0	0
	CORVALLIS	CIRCLE BLVD	4M394	H. P. #1	20.8	1	0	0
			4M427	H. P. #3	20.8	1	0	0
			4M429	H. P. #5	20.8	1	0	0

Vegetation Management

OREGON

Tree Program Reporting

Report as of December 31, 2019

Distribution Four Year Cycle 1/1/2016-12/31/2019

	Total		Current Year Reporting				Total Cycle Reporting			
	Total Line Miles	Miles Planned	1/1/2019-12/31/2019	1/1/2019-12/31/2019	1/1/2019-12/31/2019	1/1/2019-12/31/2019	1/1/2016 through end of cycle			
			Ahead/ Behind	% Ahead/ Behind	Ahead/ Behind	% Ahead/ Behind	Miles Planned	Actual Miles	Ahead/ Behind	% Ahead/ Behind
	column a	column b	column c	column d	column e	column f	column g	column h	column i	
Oregon	14,012	3,410	3,416	6	100.2%	13,982	13,869	-115	99.2%	
ALBANY	536	0	0	0		538	531	-7	98.7%	
CORVALLIS	303	218	218	0	100.0%	303	298	-5	98.3%	
COTTAGE GROVE	52	0	0	0	0.0%	52	52	0	100.0%	
DALLAS	411	233	233	0	100.0%	411	409	-2	99.5%	
JUNCTION CITY	155	0	0	0	0.0%	155	155	0	100.0%	
LEBANON	700	214	214	0	100.0%	696	699	3	100.4%	
LINCOLN CITY	165	47	47	0	100.0%	165	164	-1	99.4%	
STAYTON	444	0	0	0	0.0%	445	438	-7	98.4%	
COOS BAY	649	168	168	0	100.0%	645	692	47	107.3%	
GRANTS PASS	1,637	361	364	3	100.8%	1,634	1,544	-90	94.5%	
ROSEBURG	1,201	305	305	0	100.0%	1,193	1,132	-61	94.9%	
KLAMATH FALLS	1,851	442	442	0	100.0%	1,845	1,856	11	100.6%	
LAKEVIEW	75	22	22	0	100.0%	75	61	-14	81.3%	
MEDFORD	1,897	506	506	0	100.0%	1,889	1,906	17	100.9%	
CENTRAL OREGON	1,347	219	220	1	100.5%	1,347	1,328	-19	98.6%	
CLATSOP	375	77	77	0	100.0%	375	443	68	118.1%	
ENTERPRISE	434	112	112	0	100.0%	434	434	0	100.0%	
HERMISTON	257	32	32	0	100.0%	257	277	20	107.8%	
HOOD RIVER	308	66	67	1	101.5%	308	270	-38	87.7%	
PENDLETON	630	137	138	1	100.7%	630	631	1	100.2%	
PORTLAND	450	251	251	0	100.0%	450	425	-25	94.4%	
WALLA WALLA	135	0	0	0	0.0%	135	124	-11	90.0%	

Portland has 450 miles this year and 436 last year. Portland is on a two year cycle which causes us to do two cycles in a four year period.

Distribution cycle \$/tree: * \$106.48
 Distribution cycle \$/mile: \$4,339
 Distribution cycle removal %*: 22%

Transmission

Total Line Miles	Line Miles Scheduled	Line Miles Worked	Miles Ahead(behind) Schedule	% of miles on/behind Schedule
2,951	88	33	(55)	38%

Notes:

Column a: Total overhead pole miles by district
 Column b: Total overhead pole miles planned for the period January 1, 2019 through December 31, 2019
 Column c: Actual overhead pole miles worked during the period January 1, 2019 through December 31, 2019
 Column d: Miles ahead or behind for the period January 1, 2019 through December 31, 2019 (column c-column b)
 Column e: Percent of actual compared to planned for the period January 1, 2019 through December 31, 2019 ((column c÷b)×100)
 Column f: Total overhead pole miles planned for the period January 1, 2016 through end of cycle
 Column g: Actual overhead pole miles worked during the period January 1, 2016 through end of cycle
 Column h: Miles ahead or behind for the period January 1, 2016 through end of cycle (column g-column f)
 Column i: Percent of actual compared to planned for the period January 1, 2016 through end of cycle ((column g÷f)×100).
 * Conversion calculation for sq ft of brush to a tree was changed for in 2014 from 10 sq ft of brush = 1 tree to 100 sq ft of brush = 1 tree.

OREGON
Tree Program Reporting (C)

	2019 est.	2020 est.	2021 est.	2022 est.	2023 est.	2024 est.
Distribution Tree Budget	20,261,689	20,261,689	20,261,689	20,261,689	20,261,689	20,261,689
Transmission Tree Budget	<u>2,067,724</u>	<u>2,067,724</u>	<u>2,067,724</u>	<u>2,067,724</u>	<u>2,067,724</u>	<u>2,067,724</u>
Total Tree Budget	\$ 22,329,413	\$ 22,329,413	\$ 22,329,413	\$ 22,329,413	\$ 22,329,413	\$ 22,329,413
	2013	2014	2015	2016	2017	2018
Distribution Tree Actuals	18,251,251	23,191,320	21,923,393	17,489,336	18,646,639	18,502,712
Transmission Tree Actuals	<u>4,363,149</u>	<u>2,370,822</u>	<u>2,355,070</u>	<u>3,745,786</u>	<u>2,660,821</u>	<u>2,528,003</u>
Total Tree Actuals	\$ 22,614,400	\$ 25,562,142	\$ 24,278,463	\$ 21,235,122	\$ 21,307,460	\$ 21,030,715
	Distribution			Transmission		
	Actuals	Budget	Variance	Actuals	Budget	Variance
Calendar year 2018						
Jan	\$ 926,777	1,419,856	\$ (493,079)	\$ 101,511	\$ 187,016	\$ (85,505)
Feb	\$ 1,720,623	1,562,465	\$ 158,158	\$ 208,798	\$ 212,719	\$ (3,921)
Mar	\$ 1,906,168	1,705,074	\$ 201,094	\$ 141,595	\$ 238,423	\$ (96,828)
Apr	\$ 1,955,699	1,562,465	\$ 393,234	\$ 187,459	\$ 212,719	\$ (25,260)
May	\$ 1,827,919	1,562,465	\$ 265,454	\$ 240,911	\$ 212,719	\$ 28,192
Jun	\$ 1,549,025	1,633,770	\$ (84,745)	\$ 374,731	\$ 225,571	\$ 149,160
Jul	\$ 1,420,073	1,419,856	\$ 217	\$ 347,319	\$ 187,016	\$ 160,303
Aug	\$ 1,531,360	1,705,074	\$ (173,714)	\$ 151,336	\$ 238,423	\$ (87,087)
Sep	\$ 1,269,986	1,562,465	\$ (292,479)	\$ 192,372	\$ 212,719	\$ (20,347)
Oct	\$ 1,516,478	1,562,465	\$ (45,987)	\$ 280,558	\$ 212,719	\$ 67,839
Nov	\$ 1,501,477	1,419,856	\$ 81,621	\$ 232,535	\$ 187,016	\$ 45,519
Dec	\$ 1,377,126	\$ 1,562,456	\$ (185,330)	\$ 68,879	\$ 212,760	\$ (143,881)
Total	\$ 18,502,712	\$ 18,678,267	\$ (175,555)	\$ 2,528,003	\$ 2,539,820	\$ (11,817)

Average # Tree Crews on Property (YTD)

63

INSPECTION AND MAINTENANCE PROGRAMS

Inspection and Repairs

In Calendar Year 2019 (January 01 through December 31, 2019), among distribution and transmission facilities (both overhead and underground), 2,586 'A' Priority conditions were recorded and 2,238 were corrected.

For 'B' priority conditions, 17,555 were identified and 15,027 were corrected in CY2019.

For 'C' priority conditions, 62 were corrected in CY2018. Reporting of 'C' priority conditions was terminated early 2014, however some are still occasionally entered into the inspection system inadvertently. 12 were identified in 2019 and these will be reviewed and reprioritized as required.

Pole and Overhead Facilities

- PacifiCorp is currently on a 10-year cycle for the Detail inspection and treatment of overhead Distribution and Transmission facilities. In CY2019, 41,031 Distribution, 4,089 Local Transmission and 6,165 Main Grid Transmission Detail inspections were performed. Detail inspections were performed on 11.68% of the total 445,733 overhead facilities.
- 34,709 Distribution poles, 4,089 Local Transmission poles and 0 Main Grid Transmission poles were Tested and Treated. Test and Treatment was performed on 8.70% of the total 445,733 overhead facilities.
- PacifiCorp replaced or reinforced 612 poles that were rejected through the Test and Treat inspection program. The CY2019 rejection rate was 1.58%.

A. Visual Inspections

The visual inspection of the Distribution and Transmission system is on a 2-year cycle. In CY2019, 205,172 Distribution, 20,979 Local Transmission and 11,404 Main Grid inspections were performed for a total of 237,555 inspections which equates to 53.3% of the total overhead facilities. Random re-inspections were performed by operations managers to ensure uniform results and adherence.

B. Underground Facilities

The inspection of underground facilities is on a 10-year cycle. It includes a detail inspection of primary underground facilities and an infrared inspection of accessible terminals and splices. During CY2019, 12,795 inspections were performed; 10.81% of 118,362 underground facilities.

C. Marina Inspection Program

The inspection of marinas is annual. In CY2019, 100% of marinas were inspected.

D. Line Equipment Maintenance

Line Equipment – Overhead Reclosers, Sectionalizers, Regulators, Switches

Line equipment is inspected during the 2-year cycle Visual Survey; therefore, inspection requirements have been met for Reclosers, Sectionalizers and Regulators and Switches.

SUBSTATION MAINTENANCE PROGRAMS

A. Performance Measure X3 Substation Maintenance Programs

1. Description - Substations are critical utility network facilities requiring more frequent inspections and testing of all its equipment. The Company will provide, at the annual meetings, information of its Substation maintenance programs.
2. Program Interval - The program interval will be dictated by the substation equipment operational requirements.
3. Program Expenditures - PacifiCorp is to submit an annual actual versus budgeted expenditures for all substations equipment maintenance programs.

B. Substation Security Inspections

Substation security inspections are performed on cycles based on policy. This includes a detailed inspection of the fence, gates, warning signs, grounding systems, etc. The inspector is trained to look for security violations and public hazards. Copies of the inspection results are filed at the substation and field office. Field personnel are instructed to immediately correct all perimeter security violations.

Reference PacifiCorp Maintenance Policy 034 - Substation Inspection Policy and form 3274F-Substation Inspection.

PacifiCorp operates 279 substation and communication facilities in Oregon. PacifiCorp performed 98.19% of the planned substation security inspections, within the required 45 day interval in CY2019.

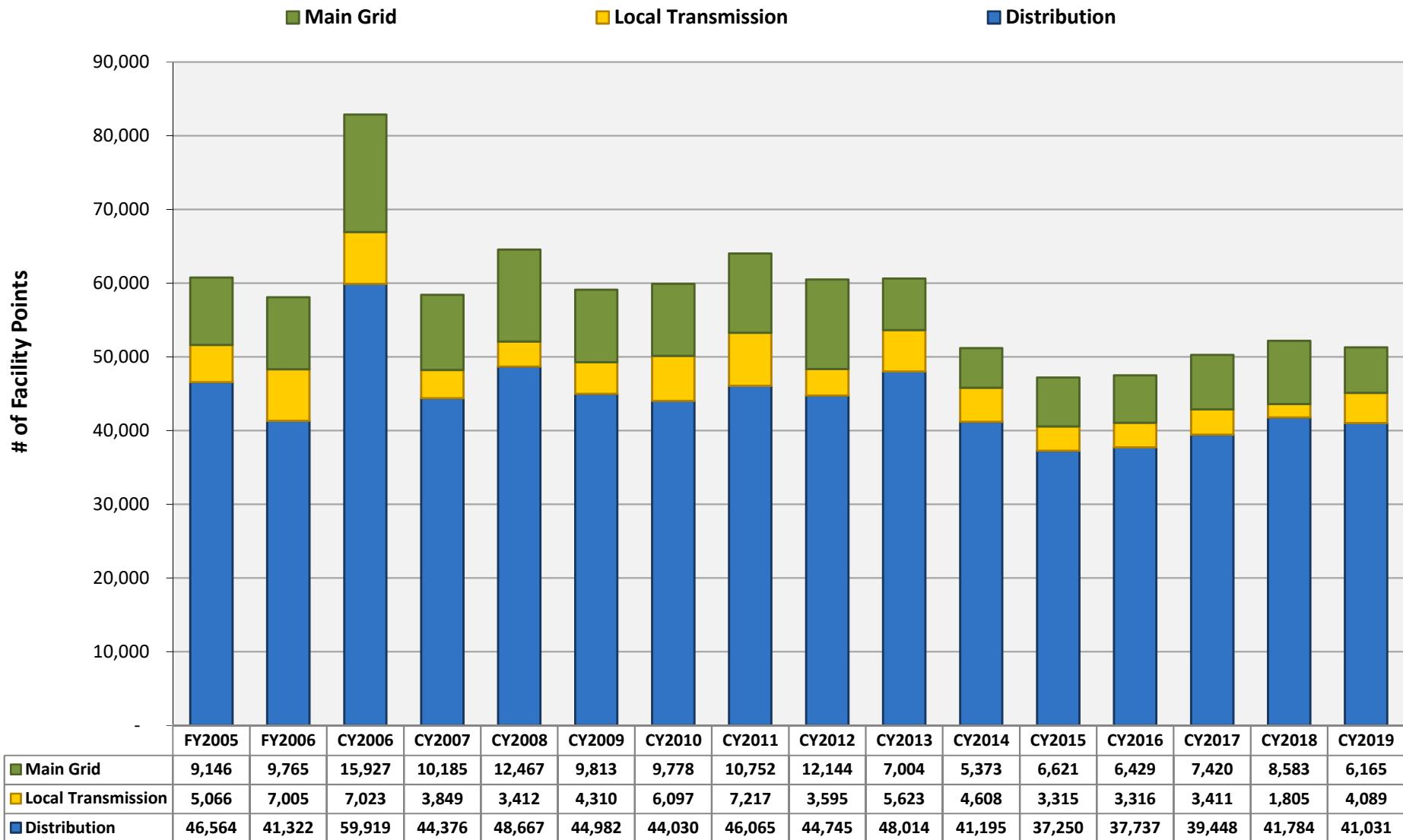
C. Substation Equipment Inspections

Batteries, Capacitor Banks, Circuit Breakers, Switches, LTC's, Regulators, Transformers, and protective relays are inspected on cycles based on policy. Inspections check pressure, temperature, voltage, LTC and regulator operation, cooling equipment, insulators, relay targets, etc.

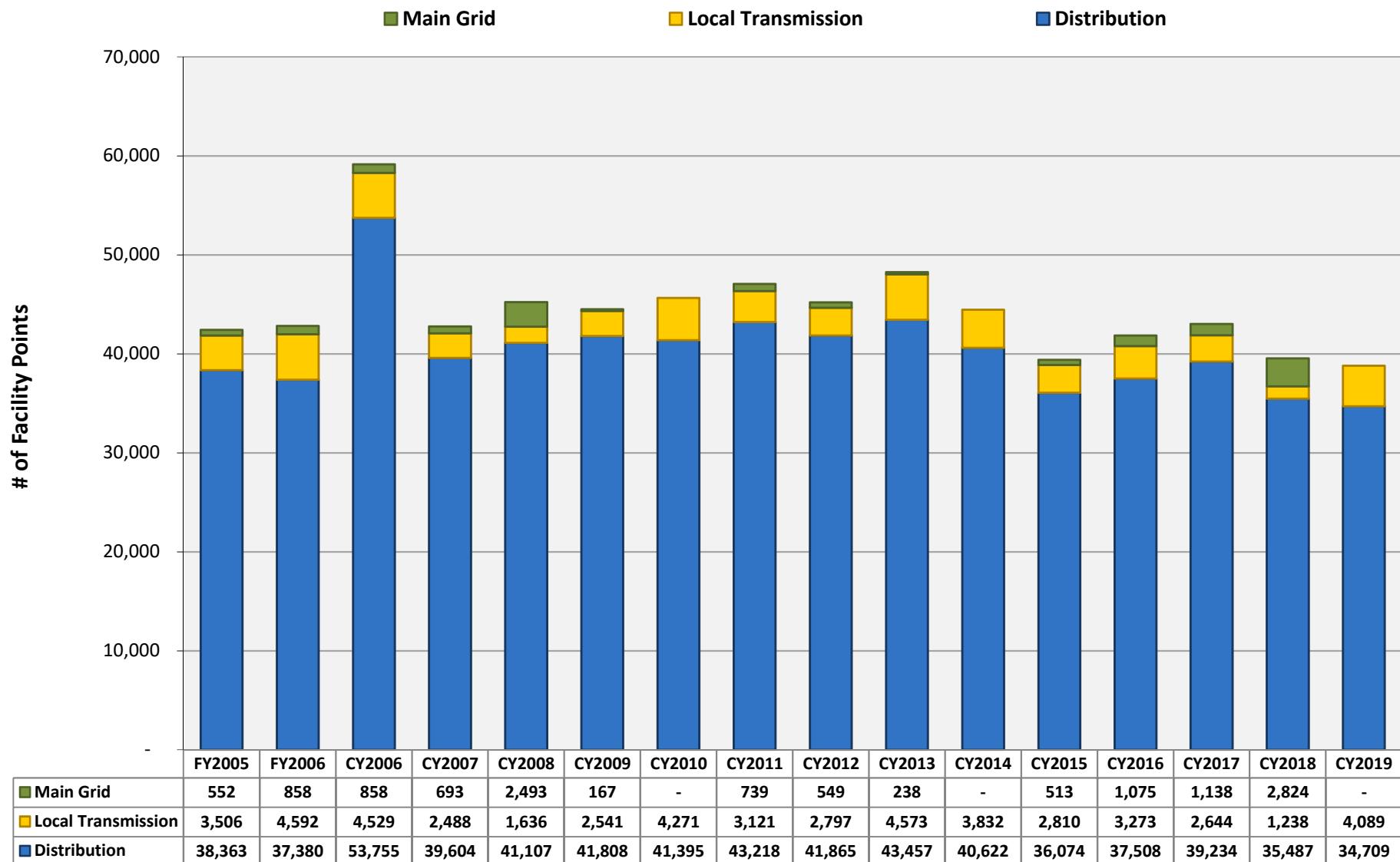
Reference PacifiCorp Maintenance Policy 034 - Substation Inspection Policy and form 3274F-Substation Inspection.

PacifiCorp performed 98.19% of the planned substation equipment inspections, within the required 45 day interval in Oregon in CY2019.

CY2019 Overhead Detail Inspection History

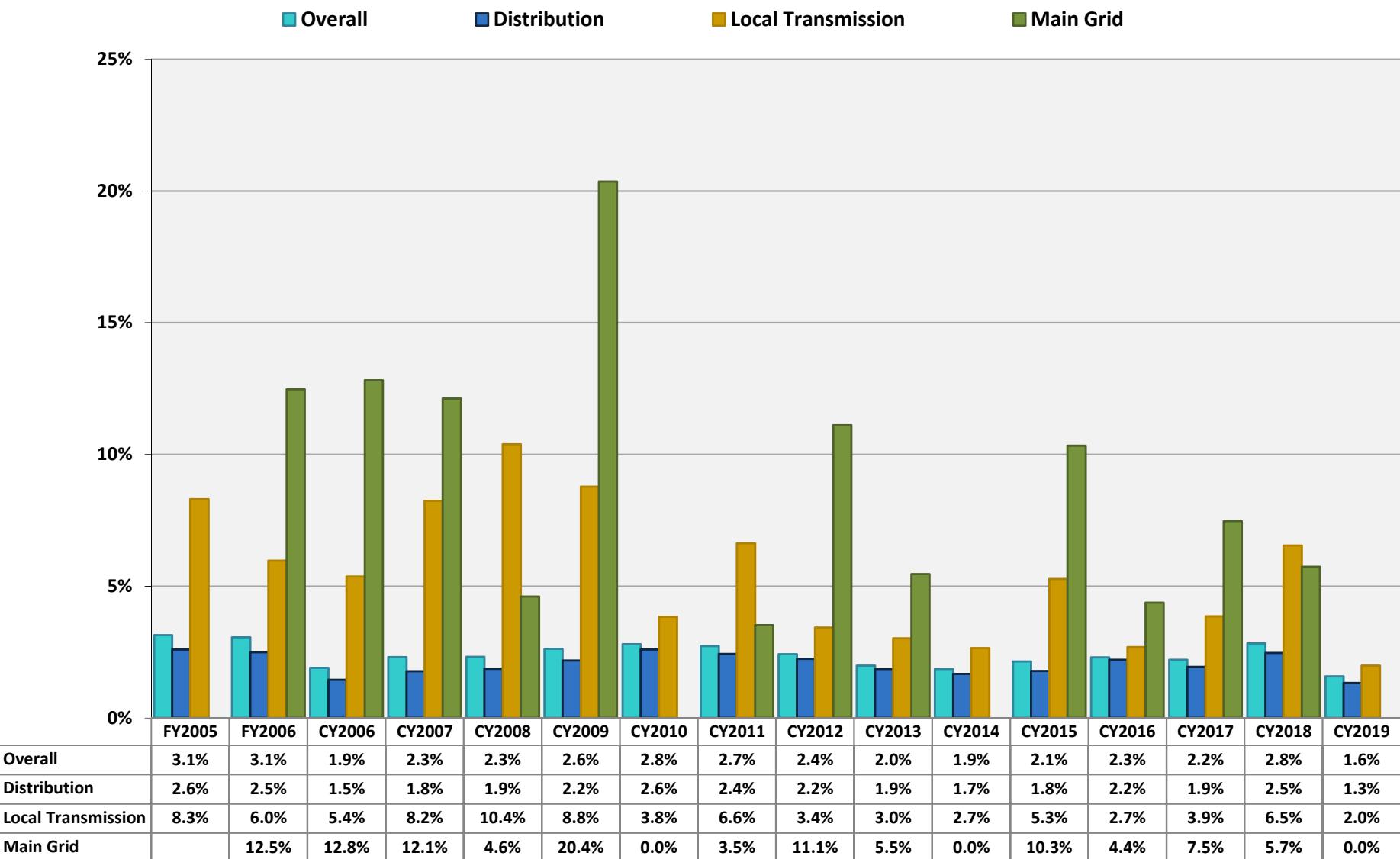


CY2019 Pole Test and Treat History



Includes intrusive and physical testing

CY2019 Pole Reject Rate History



(In FY2005, Distribution and blended Transmission breakout became available; effective FY2006, full breakout views were available.
Main Grid rates combine intrusive inspection rejects with detail inspection BOPOLE.)

BUDGET

Pole Inspect & Treat			ACTUALS	BUDGET
Distribution	T&T	515	\$ 2,224,131	\$ 2,331,688
	Detail	520	\$ 1,692	\$ -
Transmission	T&T	843, 883	\$ 462,980	\$ 459,116
	Detail	840, 880	\$195,481	\$273,561
			Total	\$2,884,284
				\$3,064,365

Pole Replacements			ACTUALS	BUDGET
Distribution			\$ 5,608,554	\$ 4,762,884
Transmission			\$ 6,493,949	\$ 5,049,110
			Total	\$12,102,503
				\$9,811,995

Repair and Replace Facilities			ACTUALS	BUDGET
Distribution	500, 501, 502, 503, 504, 505, 509, 518, 526, 527, 595, 624, 625, 626, 905		\$11,608,146	\$11,825,947
Transmission	845, 847, 846, 865, 884, 886, 848, 889		\$546,609	\$622,307
			Total	\$12,154,755
				\$12,448,254

Visual Inspections (Includes Equipment Inspections)			ACTUALS	BUDGET
Distribution	521		\$ 568,983	\$ 331,465
Transmission	841, 881		\$345,221	\$216,316
			Total	\$914,204
				\$547,781

Underground Inspections			ACTUALS	BUDGET
Distribution	508		\$446,466	\$352,563
			Total	\$446,466
				\$352,563

Substation Maintenance			ACTUALS	BUDGET
Distribution Preventative Maintenance			\$ 1,760,480	\$ 1,761,137
Distribution Corrective Maintenance			\$ 1,135,339	\$ 1,337,035
Transmission Preventative Maintenance			\$ 1,764,953	\$ 1,693,922
Transmission Corrective Maintenance			\$ 1,278,549	\$ 973,011
			Total	\$5,939,321
				\$5,765,104