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COMPANY NAME: PacifiCorp

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 Statute  
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Compliance Filing - Annual Reliability Report for Calendar Year 2021

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825 NE Multnomah, Suite 2000  
Portland, Oregon 97232

May 2, 2022

***VIA ELECTRONIC FILING***

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

**Re: RE 171—Annual Reliability Report for Calendar Year 2021**

PacifiCorp d/b/a Pacific Power submits for filing its Annual Reliability Report for calendar year 2021. This filing is made in compliance with Oregon Administrative Rule 860-023-0151.

Please direct any questions on this report to Jennifer Angell, Regulatory Project Manager, at (503) 331-4414.

Sincerely,

Shelley McCoy  
Director, Regulation

Enclosure



**Pacific Power's  
Annual Report:**

**Oregon Administrative Rules  
860-023, 024 and 028**

**Calendar Year 2021 Review**  
(January 1 – December 31, 2021)

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# RELIABILITY

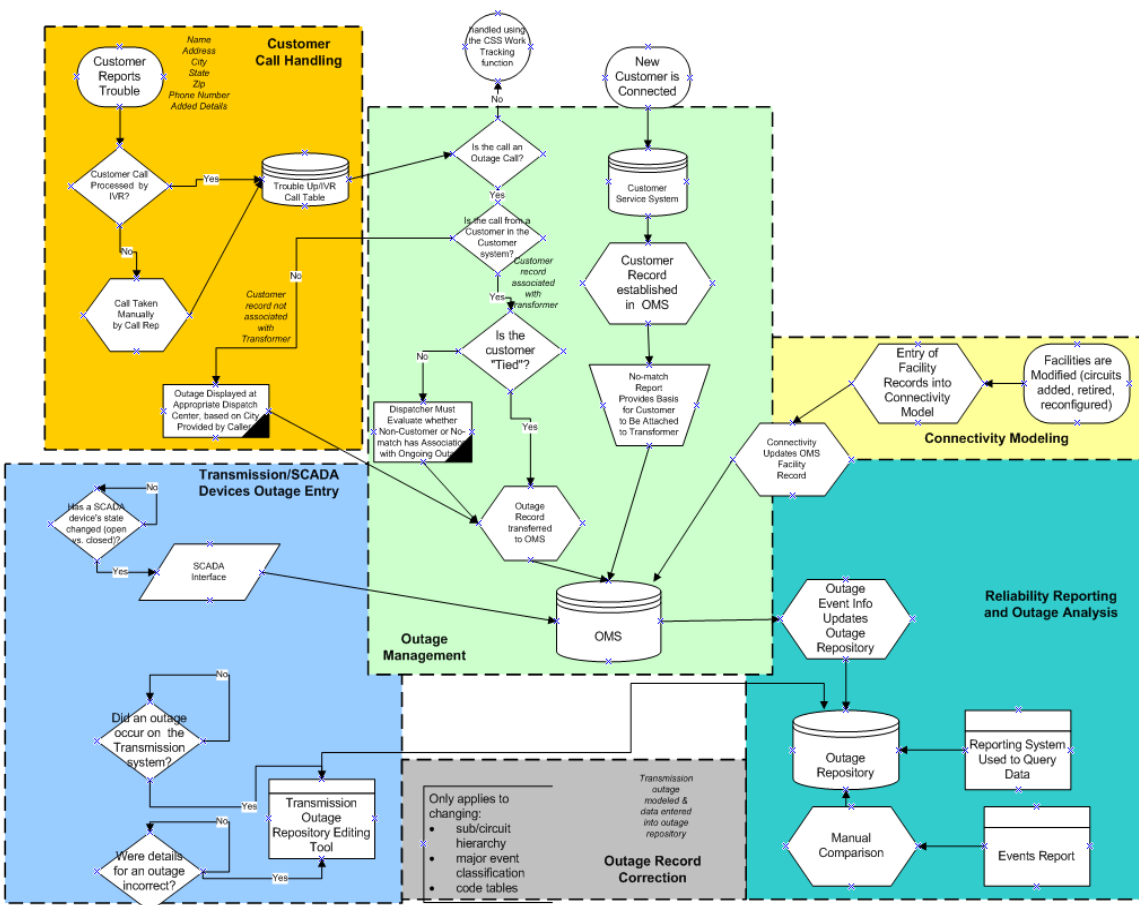
## Introduction and Reliability Discussion

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 Administrative Rules (OARs) 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 Public Utility Commission of Oregon (OPUC) Staff. The Company has completed its implementation of an advanced metering infrastructure (AMI) system, which adds one more way in which the Company becomes aware of outages; this has resulted in methods used to weed out false positives, which continue to evolve, however, 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. In addition, the Company is midway through a transmission outage reporting system, which will also target modifications in momentary outage reporting, which may require the Company to restate history of these outage metrics. As reported previously, the Company has implemented a new transmission outage reporting system, enhanced its automated processing of SCADA-based information and is building new functionality in interfacing this information into its outage reporting system, which is currently in process and the effects of which will be better quantified in next year's report.



### 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<sub>e</sub> 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 document,<sup>1</sup> 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” T<sub>Med</sub> 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

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

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 CPI<sup>99</sup>) 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.

### *Reliability Tools: Improving Indices and Metrics*

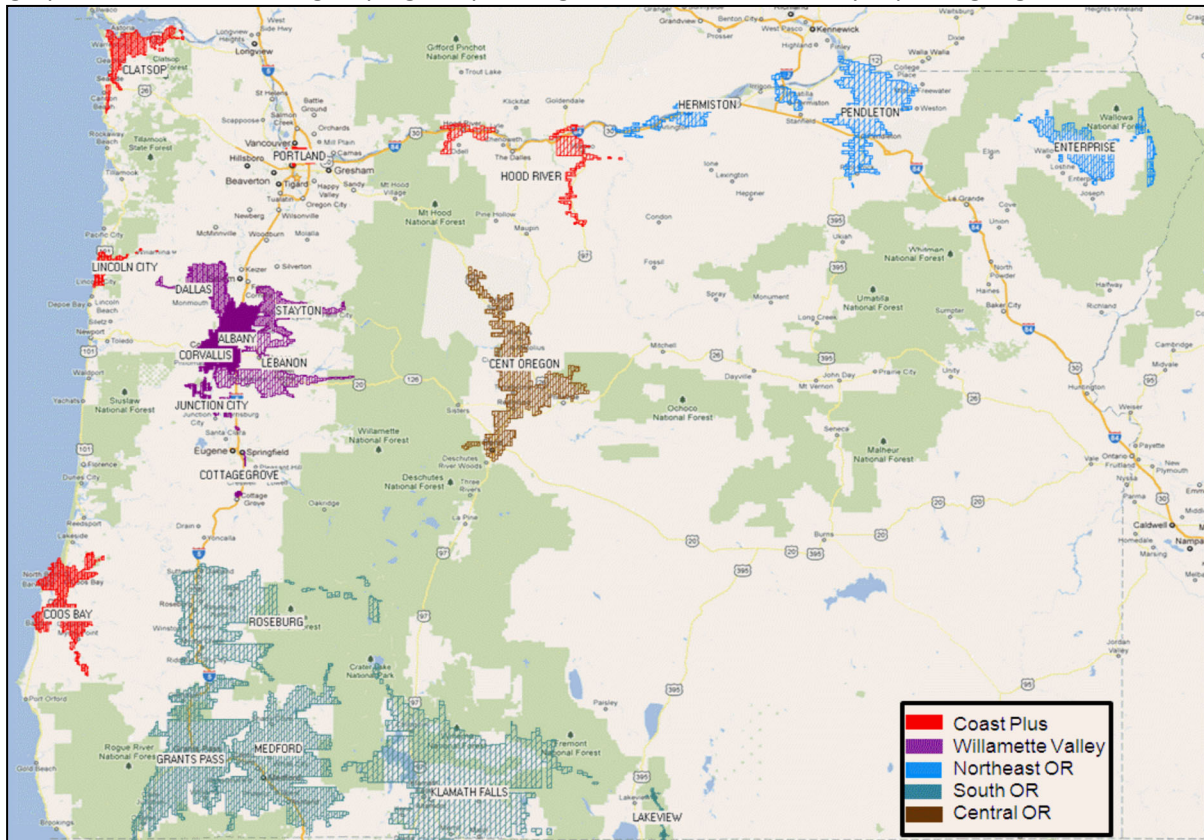
Pacific Power uses the reliability data in a variety of ways that are designed to improve reliability to its customers. It has devised methods that are contained in the recently-adopted industry guide for electric reliability, IEEE 1782-2014.<sup>2</sup> Some of these analytical methods render the outage 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.

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<sup>2</sup> 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.

## Reliability Reporting Regions Map

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



### Elevated Fire Risk

As part of the Company’s wildfire mitigation programs, the Company may use protection coordination settings, referred to as “Elevated Fire Risk” (EFR) settings, that more substantially affected distribution system performance than standard settings. In 2021, the Company developed a method to estimate the reliability impacts of the device setting changes. EFR settings are generally applied when fire weather conditions, such as high winds, low fuel moisture, high temperature, low relative humidity and volatile fuels, are greatest. When EFR settings are used, certain operational responses may also differ, which may result in more sustained outage events and longer outage duration. The underlying metrics reported are reduced by the quantities shown below.

2021 Region	Elevated Fire Risk During Non-Major Event				Elevated Fire Risk During a Major Event			
	CML	CI	State SAIDI	State SAIFI	CML	CI	Sate SAIDI	State SAIFI
Central OR	686,737	3,839	1.10	0.01	505,960	2,880	0.81	0.00
Coast Plus	253,415	3,557	0.41	0.01	-	-	-	-
Northeast OR	-	-	-	-	-	-	-	-
South OR	1,886,201	10,042	3.03	0.02	-	-	-	-
Willamette Valley	1,650	7	0.00	0.00	227,627	725	0.37	0.00
<b>Oregon</b>	<b>2,828,003</b>	<b>17,445</b>	<b>4.54</b>	<b>0.03</b>	<b>733,587</b>	<b>3,605</b>	<b>1.18</b>	<b>0.01</b>



## 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 2021 and for application during 2022. Since certain major events may be filed as a statewide event, the state threshold and history is also supplied.

2021 Major Event Threshold			
Reliability Region	$T_{Med}$ SAIDI	$T_{Med}$ CMI	Operating Areas within Region
Central OR	5.80	507,120	Bend/Redmond, Madras
Coast Plus	12.75	2,025,865	Clatsop/Astoria, Coos Bay/Coquille, Hood River, Lincoln City, Portland
Northeast OR	11.43	294,942	Enterprise, Hermiston, Milton-Freewater, Pendleton, Walla Walla
South OR	14.51	3,275,975	Grants Pass, Klamath Falls, Lakeview, Medford, Roseburg/Myrtle Creek
Willamette Valley	16.47	2,066,210	Albany, Corvallis, Cottage Grove/J. City, Dallas/Independence, Lebanon, Stayton
<b>Oregon</b>	<b>7.02</b>	<b>4,375,795</b>	

2022 Major Event Threshold			
Reliability Region	$T_{Med}$ SAIDI	$T_{Med}$ CMI	Operating Areas within Region
Central OR	6.46	572,474	Bend/Redmond, Madras
Coast Plus	13.06		Clatsop/Astoria, Coos Bay/Coquille, Hood River, Lincoln City, Portland
Northeast OR	11.62	301,824	Enterprise, Hermiston, Milton-Freewater, Pendleton, Walla Walla
South OR	14.34		Grants Pass, Klamath Falls, Lakeview, Medford, Roseburg/Myrtle Creek
Willamette Valley	16.82		Albany, Corvallis, Cottage Grove/J. City, Dallas/Independence, Lebanon, Stayton
<b>Oregon</b>	<b>7.28</b>	<b>4,579,826</b>	

The following table is a 5-year view of each region’s  $T_{Med}$  values.

Calendar Year	2022		2021		2020		2019		2018	
Region	CMI	SAIDI	CMI	SAIDI	CMI	SAIDI	CMI	SAIDI	CMI	SAIDI
Central OR	572,474	6.46	507,120	5.80	482,924	5.71	484,821	5.72	469,072	5.71
Coast Plus	2,096,769	13.06	2,025,865	12.75	1,965,286	12.50	1,860,107	11.91	1,722,410	11.20
Northeast OR	301,824	11.62	294,942	11.43	305,107	11.94	334,025	13.22	321,673	12.90
South OR	3,262,656	14.34	3,275,975	14.51	3,354,813	14.83	2,975,868	13.10	2,914,386	12.98
Willamette Valley	2,126,430	16.82	2,066,210	16.47	2,156,406	17.42	2,336,645	18.81	2,411,644	19.74
<b>Oregon</b>	<b>4,579,826</b>	<b>7.28</b>	<b>4,375,795</b>	<b>7.02</b>	<b>4,480,143</b>	<b>7.26</b>	<b>4,379,315</b>	<b>7.09</b>	<b>4,501,730</b>	<b>7.41</b>

## Major Events Excluded Report

Pacific Power filed written documentation for five Major Events in 2021 that were excluded from underlying reliability performance results. They are summarized in the table below.

Oregon 2021 Major Events - Written Filings									
Event Date	Description	CML	CI	OPUC Report Required	Region TMED	Region SAIDI	Oregon SAIDI	Oregon SAIFI	Oregon CAIDI
February 8, 2021	Northeast - Loss of supply	473,609	1,407	Yes	18.36	0.055	0.76	0.002	337
February 11-20, 2021	Oregon - Winter Storm	164,844,699	142,196	Yes	-	-	264.42	0.228	1159
March 28-29, 2021	Oregon - Wind Storm	6,828,952	14,903	Yes	-	-	10.95	0.024	458
December 25-29, 2021	Oregon - Winter Storm	11,134,281	30,152	Yes	-	-	17.86	0.048	369
<b>TOTAL Oregon Major Events Filed</b>		<b>183,281,541</b>	<b>188,658</b>				<b>294.00</b>	<b>0.303</b>	<b>972</b>

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 the OARs.

Oregon 2021 Major Events - Low CAIDI (<300) No Filings									
Event Date	Description	CML	CI	OPUC Report Required	Region TMED	Region SAIDI	Oregon SAIDI	Oregon SAIFI	Oregon CAIDI
January 12-15, 2021	Oregon - Wind Storm	14,760,626	55,085	No	-	-	23.68	0.09	268
January 26-28, 2021	Oregon - Wind Storm	6,651,680	126,705	No	-	-	10.67	0.20	52
June 27-29, 2021	Oregon - Loss of Substation	5,645,388	53,325	No	-	-	9.06	0.09	106
July 5, 2021	Central - Loss of Substation	650,051	4,930	No	7.44	0.06	1.04	0.01	132
July 25, 2021	Central - Car Hit Pole	559,835	2,549	No	6.40	0.03	0.90	0.00	220
July 29, 2021	Central - Loss of Transmission line/area Lightning	666,571	12,530	No	7.62	0.14	1.07	0.02	53
October 24, 2021	CoastPlus - Loss of Supply/Transmission and Trees	2,121,180	24,021	No	13.35	0.15	3.40	0.04	88
December 11, 2021	CoastPlus - Wind storm and Trees	2,015,630	10,300	No	12.68	0.06	3.23	0.02	196
<b>TOTAL Major Events with low CAIDI</b>		<b>33,070,962</b>	<b>289,445</b>				<b>53.05</b>	<b>0.46</b>	<b>114</b>

## Total Performance Summary

Oregon 2021 Major Events - Summary	CML	CI	OPUC Report Required	Oregon SAIDI	Oregon SAIFI	Oregon CAIDI
<b>Oregon Total Performance - <u>Includes</u> Major Event</b>	<b>285,558,197</b>	<b>1,073,394</b>		<b>458.06</b>	<b>1.72</b>	<b>266</b>
<b>Total Oregon Major Events Filed</b>	183,281,541	188,658	Yes	294.00	0.30	972
<b>Total Major Events with low CAIDI (no filling required)</b>	33,070,962	289,445	No	53.05	0.46	114
<b>TOTAL MAJOR EVENTS EXCLUDED</b>	<b>216,352,503</b>	<b>478,103</b>	-	<b>347.05</b>	<b>0.77</b>	<b>453</b>
<b>Oregon Elevated Fire Risk - Included in Major Event <sup>3</sup></b>	733,587	3,605	-	1.18	0.01	203
<b>Oregon Elevated Fire Risk - Excluded in Major Event</b>	2,828,003	17,445	-	4.54	0.03	162
<b>Oregon Underlying Events - <u>Excludes</u> Major Event</b>	<b>66,377,691</b>	<b>577,846</b>	-	<b>106.47</b>	<b>0.93</b>	<b>115</b>

<sup>3</sup> Numbers are included in the total for the Major Events Excluded, and therefor already removed from the underlying metrics, with the subtraction of major events.

## Targeted Reliability

The Company annually establishes a list of targeted reliability projects for which it calculates cost per forecast reliability improvements, expressed as mitigation costs factored by avoided customer minutes interrupted or \$/cmi. These projects often involve fuse coordination, circuit hardening (including animal, vehicle and vegetation management efforts) and reconductoring. The current roster of projects intended to be constructed during 2022 are shown below.

District	Circuit ID#	Program Type	Year Initiated	Expected Completion	Project Notes
Albany	4M268	Emergent	2021	2021	Install interest pole to reduce phase-to-phase contact
	4M16	DRIP	2021	2021	Install animal guarding, replace porcelain cutouts, fuse zones one and two, install new recloser in zone one.
	4M63	FIOLI	2022	2022	Recloser installation and fuse coordination.
	4M204	FIOLI	2022	2022	Recloser installation and fuse coordination.
	4M19	FIOLI	2022	2022	Recloser installation and fuse coordination.
Astoria	5A83	FIOLI	2021	2021	Identify and replace failing splices, install new fuses in zones one and two, fuse all taps in zone one.
	5A10	FIOLI	2021	2021	Replace porcelain cutouts in zones one and two, fuse all unfused taps, install recloser, install two sets of fault indicators.
Bend	5D184	FIOLI	2021	2021	Review fuse coordination, shrink zone one to the extent possible, remove any danger trees or limbs in zone one. Confirm installation of fault indicators outside of substation.
	5D229	FIOLI	2022	2022	Fuse zone one. Replace porcelain cutouts end aged crossarms
	5D223	FIOLI	2022	2022	Recloser installation and fuse coordination.
	5D22	FIOLI	2022	2022	Recloser installation and fuse coordination.
Coos Bay	4C41	FIOLI	2022	2022	Replace recloser
	4C42	FIOLI	2022	2022	Replace recloser
Crescent City	5R151	Circuit Hardening	2022	2022	IR scan of existing splices to identify any needing replacement.
	5R152	Circuit Hardening	2022	2022	IR scan of existing splices to identify any needing replacement.
	5R152	EFI	2022	2022	Installation of fault indicators
	5R167	EFI	2022	2022	Installation of fault indicators
	5R370	FIOLI	2022	2022	Fuse zone one. Installation of fault indicators
	5R96	FIOLI	2022	2022	Fuse zone one. Installation of fault indicators
	5R171	FIOLI	2022	2022	Fuse zone one. Installation of fault indicators
Dallas	4M22	FIOLI	2021	2021	Add two reclosers to break up zone two. Fuse all zone one taps. Install visibility strips where needed to reduce vehicle related outages.
Grants Pass	5R114	FIOLI	2021	2021	Install recloser, install gang switch to create tie point between 5R114 and 5R115, install animal guarding where needed.
	5R133	EFI	2022	2022	Installation of fault indicators
	5R106	EFI	2022	2022	Installation of fault indicators
	5R52	EFI	2022	2022	Installation of fault indicators
	5R65	EFI	2022	2022	Installation of fault indicators

District	Circuit ID#	Program Type	Year Initiated	Expected Completion	Project Notes
Hermiston	5W602	FIOLI	2021	2021	Install recloser and three fuse savers. Replace old copper conductor where needed. Update fuse coordination.
	4K46	FIOLI	2021	2021	Install fuse savers and fault indicators.
Hood River	5K44	Saving SAIDI	2022	2022	Installation of two reclosers which can be utilized as switches
Klamath Falls	5L14	FIOLI	2021	2021	Recloser replacement.
	4L16	FIOLI	2021	2021	Recloser replacement.
	5L55	FIOLI	2021	2021	Recloser replacement.
	5L105	FIOLI	2021	2021	Recloser replacement.
	5L116	FIOLI	2021	2021	Fuse all zone one taps. Replace three trip savers with fuse savers.
	5L19	FIOLI	2022	2022	Fuse zone one. Installation of fault indicators
Lincoln City	5L63	FIOLI	2022	2022	Fuse zone one. Install visibility strips where needed
	4A338	FIOLI	2022	2022	Recloser installation and fuse coordination.
Madras	4A312	FIOLI	2022	2022	Inspection of auto-splices in field and identify candidates for replacement. Fuse zone two.
	5D53	DRIP	2021	2021	Install new fuses to reduce exposure, replace all porcelain cutouts, reconductor line segments where needed.
Medford	5R55	FIOLI	2022	2022	Fuse all zones
	5R68	FIOLI	2022	2022	Fuse all zones
Pendleton	5W202	FIOLI	2022	2022	Fuse all zones
	5W201	FIOLI	2022	2022	Fuse all zones
	5W402	FIOLI	2022	2022	Fuse all zones
	5W406	PFM T1	2022	2022	Replace all porcelain cutouts. Add fusing where needed
Portland	5P209	DRIP	2021	2021	Fuse all zone one taps. Replace approximately 750 feet of #8 copper conductor.
	5P292	DRIP	2021	2021	Install reclosers. Replace relays at Cully Substation.
	5P393	FIOLI	2022	2022	Fuse zone one. Replace porcelain cutouts and aged crossarms
Roseburg	4U5	EFI	2022	2022	Fuse zone one. Installation of fault indicators
	5U32	FIOLI	2022	2022	Install new open point North of Carnes substation. Fuse all zone one taps
Walla Walla	5W106	FIOLI	2021	2021	Install recloser. Possible recloser replacement.
	4W22	FIOLI	2022	2022	Fuse all zones
Yakima	5Y441	Fault Indication	2022	2022	Installation of fault indicators
	5Y382	FIOLI	2022	2022	Reduce zone one exposure. Installation of recloser
	5Y434	FIOLI	2022	2022	Reduce zone one exposure. Installation of recloser
	5Y243	FIOLI	2022	2022	Harden zone one. Review zone two for potential fuse installations
	5Y352	FIOLI	2022	2022	Harden zone one. Review zone two for potential fuse installations
	5Y203	FIOLI	2022	2022	Harden zone one. Review zone two for potential fuse installations

District	Circuit ID#	Program Type	Year Initiated	Expected Completion	Project Notes
Yreka	5G2	DRIP	2021	2021	Fuse all zone one taps, replace all porcelain cutouts. Review zone two for potential hardening.
	5G63	FIOLI	2021	2021	Fuse all zone one taps, install recloser and fuse savers to reduce zone one.
	5G83	Circuit Hardening	2022	2022	Inspect and replace porcelain cutouts
	5G76	FIOLI	2022	2022	Fuse zone one. Replace porcelain cutouts and aged crossarms
	5G79	FIOLI	2022	2022	Fuse zone one. Replace porcelain cutouts and aged crossarms

## Under-Performing Circuits

After the completion of the development of reliability improvement plans (as discussed above), 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 targets a 20% average improvement in this metric to validate its effectiveness. The application of CPI<sup>99</sup> 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 December 31, 2021 and identified as Program Year 2023 circuits in the Network Initiatives program:

Program Year 2023 UNDER-PERFORMING CIRCUITS				
CIRCUIT ID	CIRCUIT NAME	KV	OPERATING AREA	CPI <sup>99</sup>
5R52	Free & Easy	12.47	Grants Pass	93
5L19	Lakeshore	12.47	Klamath Falls	83
4M63	Tennessee	20.8	Lebanon	156
4A338	Siuslaw	20.8	Lincoln City	207
5U920	Diamond Lake	12.47	Roseburg/Myrtle Creek	562
<b>TARGET SCORE</b>				<b>176</b>

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 12/31/21
<b>Circuit Performance Indicator (CPI99)</b>				
<b>Program Year 2022 (2021):</b>				
4M15	Ferry	Albany	118	117
5R114	Fruitdale	Grants Pass	136	161
5R287	Hummingbird	Medford	163	160
4K1	Sherman 208	Hood River	73	70
4M16	Water Street	Albany	87	63
TARGET SCORE = 92			<b>116</b>	<b>114</b>
<b>Program Year 2021 (2020):</b>				
4C37	Maple Street	Myrtle Point	43	123
4M17	Calapooia	Brownsville	158	121
4M243	Scravel Hill	Murder Creek	136	111
5P288	Cully #3-UG	Cully	74	14
5R245	Valley View	Ashland (Mtn. Ave., PUD)	78	84
TARGET SCORE = 78			<b>98</b>	<b>91</b>
<b>Program Year 2020 (2019):</b>				
5L43	Dairy	Klamath Falls	101	92
5R133	Glendale	Grants Pass	163	290
4M201	Industrial	Dallas/Independence	1,413	16
5A16	Mill (Warrenton)	Clatsop (Astoria)	129	9
5R63	Wood River	Grants Pass	143	83
TARGET SCORE = 312			<b>390</b>	<b>98</b>
<b>Program Year 19 (2018):</b>				
L804	Bandon	Coos Bay/Coquille	138	92
4M238	Dallas	Dallas/Independence	161	77
4M94	Foster	Lebanon	199	140
4M125	Mint	Albany	151	96
4L50	Rocky Point Feeder (Running Y)	Klamath Falls	249	132
<b>TARGET MET</b>			TARGET SCORE = 143	<b>180</b>
<b>Program Year 18 (2017):</b>				
4M25	Buena Vista	Dallas/Independence	163	85
4C106	Coos River	Coos Bay/Coquille	212	211
4M120	Mill City	Stayton	261	172
5A211	Olney	Clatsop/Astoria	183	124
5R55	Siskiyou	Medford	220	170
<b>TARGET MET</b>			TARGET SCORE = 166	<b>208</b>
<b>Program Year 17 (2016):</b>				
5A20	SOUTH (Warrenton)	Warrenton	124	83
4C67	INDUSTRIAL	Coos Bay/Coquille	82	23
5L57	CRATER LAKE	Klamath Falls	200	109
4A316	LAKE (DEVILS LAKE)	Lincoln City	172	142
5U52	BEALS CREEK FEEDER	Roseburg/Myrtle Creek	188	134
<b>TARGET MET</b>			TARGET SCORE = 123	<b>153</b>
<b>Program Year 16 (2015):</b>				
4C108	EMPIRE	Coos Bay/Coquille	16	47
5A93	BRADWOOD	Clatsop (Astoria)	114	102
5K43	BELMONT	Hood River	118	39
5R232	MERLIN-HUGO	Grants Pass	41	53
5R65	DEER CREEK	Grants Pass	59	83
<b>TARGET MET</b>			TARGET SCORE = 56	<b>70</b>

UNDER-PERFORMING CIRCUITS				
CIRCUIT ID	CIRCUIT NAME	OPERATING AREA	BASELINE	Performance 12/31/21
<b>Circuit Performance Indicator (CPI99)</b>				
<b>Program Year 15 (2014):</b>				
4M268	KINGS ROAD	Corvallis	115	40
4M269	29 <sup>TH</sup> STREET	Corvallis	133	60
4U5	DOUGLAS	Roseburg/Myrtle Creek	34	41
4C50	BUNKERHILL	Coos Bay/Coquille	152	48
5R63	WOOD RIVER	Grants Pass	193	83
<b>TARGET MET</b>		<b>TARGET SCORE = 100</b>	<b>125</b>	<b>54</b>
<b>Program Year 14 (2013):</b>				
4C42	TERRES HGHTS	Coos Bay/Coquille	158	87
5K70	EASTSIDE (Hood River)	Hood River	110	106
5R133	GLENDALE	Grants Pass	171	290
5R259	CHINOOK (Grants Pass)	Grants Pass	131	42
5R53	ROUGH & READY	Grants Pass	69	38
<b>TARGET MET</b>		<b>TARGET SCORE = 102</b>	<b>128</b>	<b>112</b>
<b>Program Year 13 (2012):</b>				
5D144	D.R.W.	Bend/Redmond	124	4
5D2	DESCHUTES S	Bend/Redmond	104	22
4U39	GOEDECK	Roseburg/Myrtle Creek	24	38
5U84	LITTLE RIVER	Roseburg/Myrtle Creek	70	69
5L59	WEST	Klamath Falls	45	20
<b>TARGET MET</b>		<b>TARGET SCORE = 59</b>	<b>73</b>	<b>31</b>



## Oregon Five-Year Reliability Reporting Region Metrics

Excluding Major Events																								
Year	SAIDI						SAIFI						MAIFle						CAIDI					
	Central OR	Coast Plus	Northeast OR	South OR	Willamette Valley	OREGON	Central OR	Coast Plus	Northeast OR	South OR	Willamette Valley	OREGON	Central OR	Coast Plus	Northeast OR	South OR	Willamette Valley	OREGON	Central OR	Coast Plus	Northeast OR	South OR	Willamette Valley	OREGON
2021	53	111	93	107	140	106	0.47	0.88	0.75	0.93	1.33	0.93	0.84	0.36	2.76	1.73	2.03	1.07	115	126	124	115	105	115
2020	44	105	96	129	133	111	0.29	1.19	1.02	1.03	1.15	1.00	2.20	0.77	0.37	0.83	0.79	0.99	148	88	95	125	116	111
2019	30	114	84	119	139	108	0.23	1.11	0.54	1.08	1.17	0.97	1.50	1.56	3.46	1.71	2.92	1.92	134	102	154	110	119	112
2018	39	86	129	110	124	98	0.62	1.01	1.71	1.56	1.23	1.23	2.97	3.70	2.92	3.96	3.22	3.59	63	85	76	71	101	79
2017	52	111	95	106	177	114	0.41	1.55	1.05	0.98	2.02	1.26	3.29	3.59	4.63	4.41	2.70	3.54	127	72	90	108	88	90

Including Major Events																								
Year	SAIDI						SAIFI						MAIFle						CAIDI					
	Central OR	Coast Plus	Northeast OR	South OR	Willamette Valley	OREGON	Central OR	Coast Plus	Northeast OR	South OR	Willamette Valley	OREGON	Central OR	Coast Plus	Northeast OR	South OR	Willamette Valley	OREGON	Central OR	Coast Plus	Northeast OR	South OR	Willamette Valley	OREGON
2021	143	446	138	196	1204	452	0.82	1.77	0.95	1.73	2.26	1.69	0.84	0.36	2.76	1.73	2.03	1.07	173	252	146	113	533	268
2020	229	388	261	434	270	354	0.64	1.97	1.79	1.63	1.94	1.65	2.20	0.77	0.37	0.83	0.79	0.99	360	197	146	267	139	215
2019	85	189	91	772	340	416	0.85	1.50	0.56	1.75	1.47	1.46	1.50	1.56	3.46	1.71	2.92	1.92	100	126	163	441	232	285
2018	83	158	164	166	131	146	1.09	1.28	1.80	1.83	1.26	1.47	2.97	3.70	2.92	3.96	3.22	3.59	76	124	91	91	105	99
2017	102	213	147	442	371	312	0.56	2.31	1.17	1.85	2.65	1.93	3.29	3.59	4.63	4.41	2.70	3.54	182	92	125	239	140	162

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

Region	Op Area	CY2021	CY2020	CY2019	CY2018	CY2017
Central OR	BEND/REDMOND	69,733	67,328	67,495	65,186	62,949
Central OR	MADRAS	17,692	17,235	17,312	16,897	16,623
<b>Central OR</b>		<b>87,425</b>	<b>84,563</b>	<b>84,807</b>	<b>82,083</b>	<b>79,572</b>
CoastPlus	CLATSOP (ASTORIA)	25,251	25,031	25,060	24,657	24,422
CoastPlus	COOS BAY/COQUILLE	26,382	26,390	26,606	26,409	26,194
CoastPlus	HOOD RIVER	9,595	9,546	9,668	9,409	9,235
CoastPlus	LINCOLN CITY	12,080	12,330	12,280	12,172	12,047
CoastPlus	PORTLAND	85,630	83,892	82,618	81,104	80,241
<b>CoastPlus</b>		<b>158,938</b>	<b>157,189</b>	<b>156,232</b>	<b>153,751</b>	<b>152,139</b>
Northeast OR	ENTERPRISE	5,531	5,476	5,510	5,432	5,353
Northeast OR	HERMISTON	4,906	4,829	4,802	4,696	4,639
Northeast OR	MILTON/FREEWATER	-	-	-	-	-
Northeast OR	PENDLETON	13,036	12,943	13,044	12,915	12,795
Northeast OR	WALLA WALLA OR	2,320	2,312	1,902	1,892	1,876
<b>Northeast OR</b>		<b>25,793</b>	<b>25,560</b>	<b>25,258</b>	<b>24,935</b>	<b>24,663</b>
South OR	GRANTS PASS	52,543	52,143	52,457	51,864	51,217
South OR	KLAMATH FALLS	38,015	37,763	38,097	37,704	37,472
South OR	LAKEVIEW	2,443	2,412	2,450	2,439	2,328
South OR	MEDFORD	89,893	91,033	91,202	89,904	88,569
South OR	ROSEBURG/MYRTLECREEK	42,940	42,857	42,952	42,616	42,286
<b>South OR</b>		<b>225,834</b>	<b>226,208</b>	<b>227,158</b>	<b>224,527</b>	<b>221,872</b>
Willamette Valley	ALBANY	32,925	32,228	32,471	31,783	31,250
Willamette Valley	CORVALLIS	30,457	29,956	29,875	29,657	29,445
Willamette Valley	COTTAGE GROVE/J.CITY	11,390	11,322	11,331	11,221	11,092
Willamette Valley	DALLAS/INDEPENDENCE	15,858	15,581	15,547	15,189	14,918
Willamette Valley	LEBANON	21,085	20,901	21,068	20,738	20,297
Willamette Valley	STAYTON	13,707	13,825	13,915	13,578	13,329
<b>Willamette Valley</b>		<b>125,422</b>	<b>123,813</b>	<b>124,207</b>	<b>122,166</b>	<b>120,331</b>
<b>Oregon</b>		<b>623,412</b>	<b>617,333</b>	<b>617,662</b>	<b>607,462</b>	<b>598,577</b>

## Oregon Five-Year Cause Analysis by State

OAR Cause	2017 - State												
	Oregon Customer count	Major Event Excluded						Major Event Included					
		Sustained Incident Count	Customer Minutes Lost for Incident	Customers In Incident Sustained	SAIDI	SAIFI	CAIDI	Sustained Incident Count	Customer Minutes Lost for Incident	Customers In Incident Sustained	SAIDI	SAIFI	CAIDI
A Loss of Supply - Transmission	598,577	270	13,534,770	317,164	22.61	0.530	43	407	39,608,911	499,581	66.17	0.835	79
B Loss of Supply - Substation	598,577	20	2,018,944	14,678	3.37	0.025	138	38	9,151,026	35,280	15.29	0.059	259
C Distribution - Equipment	598,577	3,432	14,030,069	88,692	23.44	0.148	158	3,685	23,094,567	112,390	38.58	0.188	205
D Distribution - Lightning	598,577	153	794,249	5,283	1.33	0.009	150	189	1,007,211	6,801	1.68	0.011	148
E Distribution - Planned	598,577	1,523	8,938,717	88,519	14.93	0.148	101	1,624	13,897,121	107,396	23.22	0.179	129
F Distribution - Public	598,577	326	10,866,265	58,584	18.15	0.098	185	334	10,888,994	58,723	18.19	0.098	185
G Distribution - Vegetation	598,577	938	12,870,920	92,260	21.50	0.154	140	1,572	49,019,419	170,446	81.89	0.285	288
H Distribution - Weather	598,577	192	2,601,716	18,421	4.35	0.031	141	930	34,360,669	80,695	57.40	0.135	426
I Distribution - Wildlife	598,577	763	1,479,958	20,593	2.47	0.034	72	772	1,488,024	20,676	2.49	0.035	72
J Distribution - Unknown	598,577	829	4,565,602	53,888	7.63	0.090	85	910	7,512,657	64,814	12.55	0.108	116
K Distribution - Other	598,577	151	2,016,839	36,069	3.37	0.060	56	193	2,496,082	38,568	4.17	0.064	65
<b>Grand Total</b>	<b>598,577</b>	<b>8,597</b>	<b>73,718,049</b>	<b>794,151</b>	<b>123.16</b>	<b>1.327</b>	<b>93</b>	<b>10,654</b>	<b>192,524,681</b>	<b>1,195,370</b>	<b>321.64</b>	<b>1.997</b>	<b>161</b>

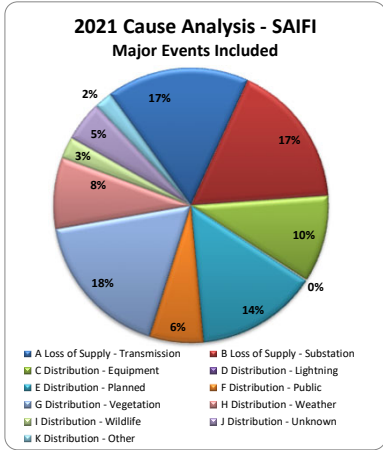
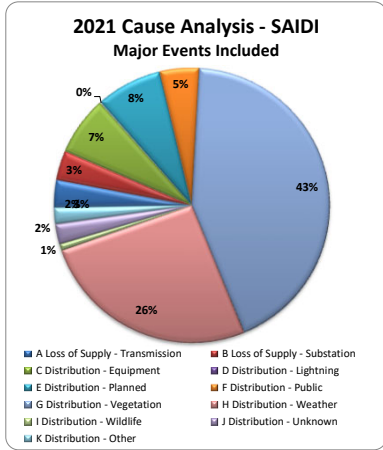
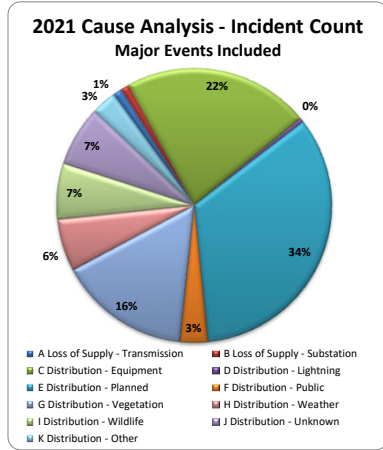
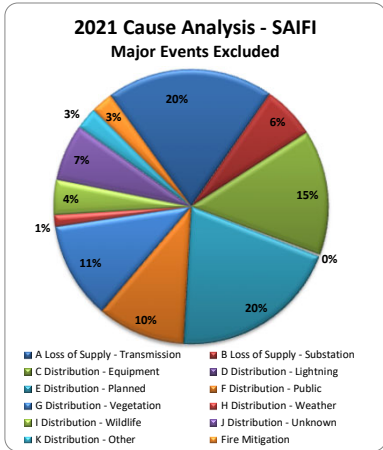
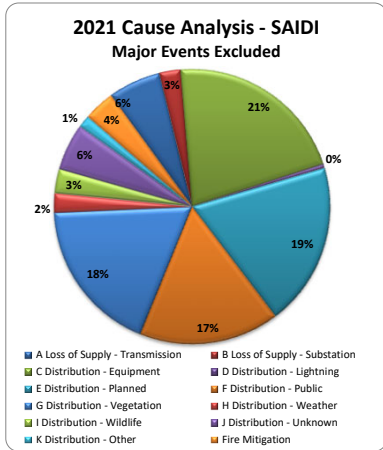
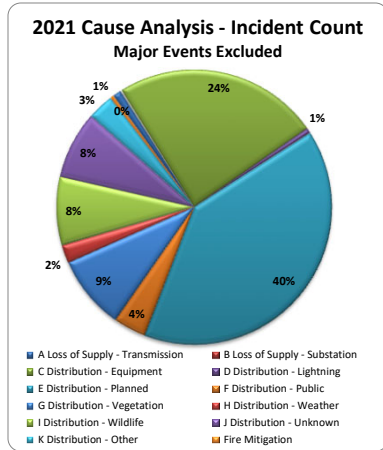
OAR Cause	2018 - State												
	Oregon Customer count	Major Event Excluded						Major Event Included					
		Sustained Incident Count	Customer Minutes Lost for Incident	Customers In Incident Sustained	SAIDI	SAIFI	CAIDI	Sustained Incident Count	Customer Minutes Lost for Incident	Customers In Incident Sustained	SAIDI	SAIFI	CAIDI
A Loss of Supply - Transmission	607,462	333	10,306,569	361,135	16.97	0.594	29	371	16,784,063	418,325	27.63	0.689	40
B Loss of Supply - Substation	607,462	7	792,353	5,882	1.30	0.010	135	17	4,585,938	20,219	7.55	0.033	227
C Distribution - Equipment	607,462	3,080	12,297,291	89,870	20.24	0.148	137	3,166	14,920,795	99,102	24.56	0.163	151
D Distribution - Lightning	607,462	224	1,726,130	9,770	2.84	0.016	177	225	1,726,284	9,771	2.84	0.016	177
E Distribution - Planned	607,462	2,251	16,142,761	114,130	26.57	0.188	141	2,283	16,557,364	117,101	27.26	0.193	141
F Distribution - Public	607,462	387	9,656,979	47,865	15.90	0.079	202	392	9,665,121	47,904	15.91	0.079	202
G Distribution - Vegetation	607,462	948	9,892,562	64,757	16.29	0.107	153	1,129	18,586,721	96,952	30.60	0.160	192
H Distribution - Weather	607,462	214	2,885,703	16,162	4.75	0.027	179	320	8,418,248	37,075	13.86	0.061	227
I Distribution - Wildlife	607,462	763	1,712,107	17,426	2.82	0.029	98	775	3,043,203	27,427	5.01	0.045	111
J Distribution - Unknown	607,462	907	4,790,709	57,412	7.89	0.095	83	925	5,030,038	58,082	8.28	0.096	87
K Distribution - Other	607,462	225	1,928,504	18,822	3.17	0.031	102	231	1,930,598	18,826	3.18	0.031	103
<b>Grand Total</b>	<b>607,462</b>	<b>9,339</b>	<b>72,131,669</b>	<b>803,231</b>	<b>118.74</b>	<b>1.322</b>	<b>90</b>	<b>9,834</b>	<b>101,248,374</b>	<b>950,784</b>	<b>166.67</b>	<b>1.565</b>	<b>106</b>

OAR Cause	2019 - State												
	Oregon Customer count	Major Event Excluded						Major Event Included					
		Sustained Incident Count	Customer Minutes Lost for Incident	Customers In Incident Sustained	SAIDI	SAIFI	CAIDI	Sustained Incident Count	Customer Minutes Lost for Incident	Customers In Incident Sustained	SAIDI	SAIFI	CAIDI
A Loss of Supply - Transmission	617,662	155	7,680,620	149,652	12.43	0.242	51	282	68,975,629	293,620	111.67	0.475	235
B Loss of Supply - Substation	617,662	19	2,500,151	28,222	4.05	0.046	89	29	9,068,740	45,069	14.68	0.073	201
C Distribution - Equipment	617,662	3,122	15,729,005	105,719	25.47	0.171	149	3,358	19,665,070	110,712	31.84	0.179	178
D Distribution - Lightning	617,662	202	1,155,702	5,689	1.87	0.009	203	232	2,130,831	9,258	3.45	0.015	230
E Distribution - Planned	617,662	3,192	13,298,653	106,917	21.53	0.173	124	3,299	15,216,761	121,375	24.64	0.197	125
F Distribution - Public	617,662	353	7,951,803	59,839	12.87	0.097	133	366	8,389,819	62,584	13.58	0.101	134
G Distribution - Vegetation	617,662	914	16,377,247	94,003	26.51	0.152	174	1,472	49,538,031	129,618	80.20	0.210	382
H Distribution - Weather	617,662	216	3,375,682	17,743	5.47	0.029	190	724	81,353,803	84,459	131.71	0.137	963
I Distribution - Wildlife	617,662	802	2,514,079	22,863	4.07	0.037	110	808	2,524,756	22,982	4.09	0.037	110
J Distribution - Unknown	617,662	796	6,207,698	62,453	10.05	0.101	99	842	8,157,134	74,258	13.21	0.120	110
K Distribution - Other	617,662	231	973,621	14,908	1.58	0.024	65	284	2,795,825	19,774	4.53	0.032	141
<b>Grand Total</b>	<b>617,662</b>	<b>10,002</b>	<b>77,764,262</b>	<b>668,008</b>	<b>125.90</b>	<b>1.082</b>	<b>116</b>	<b>11,696</b>	<b>267,816,401</b>	<b>973,709</b>	<b>433.60</b>	<b>1.576</b>	<b>275</b>

OAR Cause	2020 - State												
	Oregon Customer count	Major Event Excluded						Major Event Included					
		Sustained Incident Count	Customer Minutes Lost for Incident	Customers In Incident Sustained	SAIDI	SAIFI	CAIDI	Sustained Incident Count	Customer Minutes Lost for Incident	Customers In Incident Sustained	SAIDI	SAIFI	CAIDI
A Loss of Supply - Transmission	617,333	129	11,351,096	157,078	18.39	0.254	72	217	38,070,885	287,784	61.67	0.466	132
B Loss of Supply - Substation	617,333	15	1,296,634	9,177	2.10	0.015	141	19	2,788,875	13,373	4.52	0.022	209
C Distribution - Equipment	617,333	3,086	12,984,979	90,670	21.03	0.147	143	3,421	18,019,512	109,423	29.19	0.177	165
D Distribution - Lightning	617,333	65	131,200	1,206	0.21	0.002	109	164	2,088,273	6,013	3.38	0.010	347
E Distribution - Planned	617,333	4,586	13,209,282	100,049	21.40	0.162	132	4,853	138,107,823	138,859	223.72	0.225	995
F Distribution - Public	617,333	442	12,711,604	79,546	20.59	0.129	160	475	14,391,245	88,684	23.31	0.144	162
G Distribution - Vegetation	617,333	920	12,991,558	92,038	21.04	0.149	141	1,595	50,451,924	154,242	81.73	0.250	327
H Distribution - Weather	617,333	167	2,590,978	18,273	4.20	0.030	142	764	47,500,323	151,750	76.94	0.246	313
I Distribution - Wildlife	617,333	956	3,614,105	34,932	5.85	0.057	103	1,069	3,820,365	36,536	6.19	0.059	105
J Distribution - Unknown	617,333	809	4,858,982	63,074	7.87	0.102	77	909	5,554,994	67,607	9.00	0.110	82
K Distribution - Other	617,333	269	1,977,895	26,063	3.20	0.042	76	392	29,380,754	43,294	47.59	0.070	679
<b>Grand Total</b>	<b>617,333</b>	<b>11,444</b>	<b>77,718,312</b>	<b>672,106</b>	<b>125.89</b>	<b>1.089</b>	<b>116</b>	<b>13,878</b>	<b>350,174,974</b>	<b>1,097,565</b>	<b>567.24</b>	<b>1.778</b>	<b>319</b>

# Oregon Five-Year Cause Analysis by State

OAR Cause	2021 - State													
	Oregon Customer count	Major Event Excluded						Major Event Included						
		Sustained Incident Count	Customer Minutes Lost for Incident	Customers In Incident Sustained	SAIDI	SAIFI	CAIDI	Sustained Incident Count	Customer Minutes Lost for Incident	Customers In Incident Sustained	SAIDI	SAIFI	CAIDI	
A Loss of Supply - Transmission	629,028	112	4,957,564	134,134	7.88	0.213	37	157	9,569,219	192,385	15.21	0.306	50	
B Loss of Supply - Substation	629,028	27	1,991,671	42,617	3.17	0.068	47	142	10,203,423	195,219	16.22	0.310	52	
C Distribution - Equipment	629,028	2,812	17,110,003	100,358	27.20	0.160	170	3,211	20,369,734	117,020	32.38	0.186	174	
D Distribution - Lightning	629,028	68	363,538	1,758	0.58	0.003	207	70	386,087	1,829	0.61	0.003	211	
E Distribution - Planned	629,028	4,653	15,391,625	136,062	24.47	0.216	113	4,938	22,677,038	163,254	36.05	0.260	139	
F Distribution - Public	629,028	447	13,195,237	70,668	20.98	0.112	187	472	13,576,227	72,693	21.58	0.116	187	
G Distribution - Vegetation	629,028	1,010	14,560,351	77,724	23.15	0.124	187	2,263	126,130,900	198,963	200.52	0.316	634	
H Distribution - Weather	629,028	246	1,771,848	9,358	2.82	0.015	189	897	75,952,683	95,902	120.75	0.152	792	
I Distribution - Wildlife	629,028	936	2,302,202	27,927	3.66	0.044	82	963	2,420,648	29,005	3.85	0.046	83	
J Distribution - Unknown	629,028	927	4,429,144	45,550	7.04	0.072	97	1,035	6,826,446	53,988	10.85	0.086	126	
K Distribution - Other	629,028	359	1,152,255	17,655	1.83	0.028	65	429	5,554,360	24,141	8.83	0.038	230	
Fire Mitigation	629,028	46	2,915,495	17,470	4.63	0.028	167	50	3,649,082	21,075	5.80	0.034	173	
<b>Grand Total</b>	<b>629,028</b>	<b>11,444</b>	<b>77,718,312</b>	<b>672,106</b>	<b>123.55</b>	<b>1.068</b>	<b>116</b>	<b>13,878</b>	<b>350,174,974</b>	<b>1,097,565</b>	<b>556.69</b>	<b>1.745</b>	<b>319</b>	



## Central Oregon Reporting Region Five-Year Cause Analysis

OAR Cause	2017 - Central Oregon Reporting Region												
	Oregon Customer count	Major Event Excluded						Major Event Included					
		Sustained Incident Count	Customer Minutes Lost for Incident	Customers In Incident Sustained	SAIDI	SAIFI	CAIDI	Sustained Incident Count	Customer Minutes Lost for Incident	Customers In Incident Sustained	SAIDI	SAIFI	CAIDI
A Loss of Supply - Transmission	79,572	-	-	-	-	-	-	-	-	-	-	-	-
B Loss of Supply - Substation	79,572	1	125,527	1,016	1.58	0.013	124	1	125,527	1,016	1.58	0.013	124
C Distribution - Equipment	79,572	427	1,408,156	7,813	17.70	0.098	180	448	2,108,359	9,520	26.50	0.120	221
D Distribution - Lightning	79,572	13	13,312	100	0.17	0.001	133	13	13,312	100	0.17	0.001	133
E Distribution - Planned	79,572	65	222,975	1,624	2.80	0.020	137	67	256,497	1,769	3.22	0.022	145
F Distribution - Public	79,572	34	668,599	6,395	8.40	0.080	105	35	673,088	6,430	8.46	0.081	105
G Distribution - Vegetation	79,572	36	1,003,829	8,982	12.62	0.113	112	62	2,767,317	14,249	34.78	0.179	194
H Distribution - Weather	79,572	15	208,297	737	2.62	0.009	283	41	1,565,052	5,036	19.67	0.063	311
I Distribution - Wildlife	79,572	102	164,530	1,556	2.07	0.020	106	104	164,910	1,561	2.07	0.020	106
J Distribution - Unknown	79,572	66	458,041	4,127	5.76	0.052	111	73	477,442	4,152	6.00	0.052	115
K Distribution - Other	79,572	16	58,290	1,351	0.73	0.017	43	20	195,231	2,193	2.45	0.028	89
<b>Grand Total</b>	<b>79,572</b>	<b>775</b>	<b>4,331,555</b>	<b>33,701</b>	<b>54.44</b>	<b>0.424</b>	<b>129</b>	<b>864</b>	<b>8,346,734</b>	<b>46,026</b>	<b>104.90</b>	<b>0.578</b>	<b>181</b>

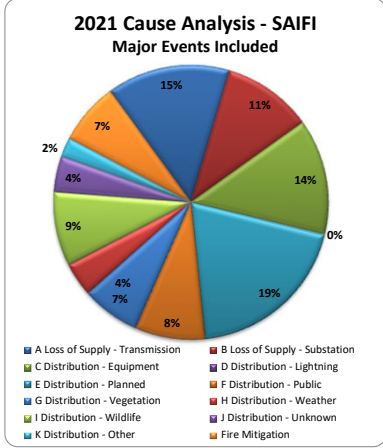
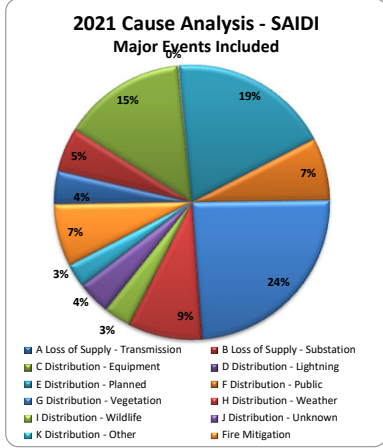
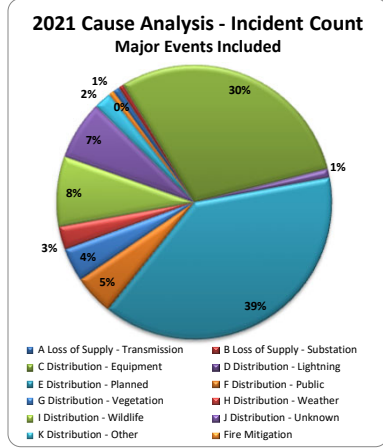
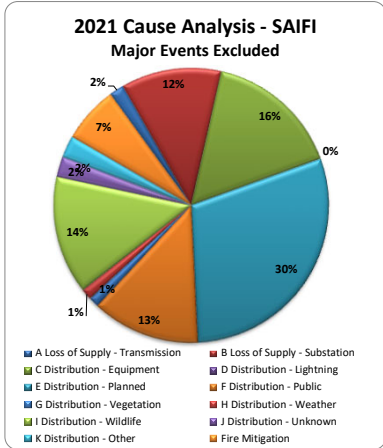
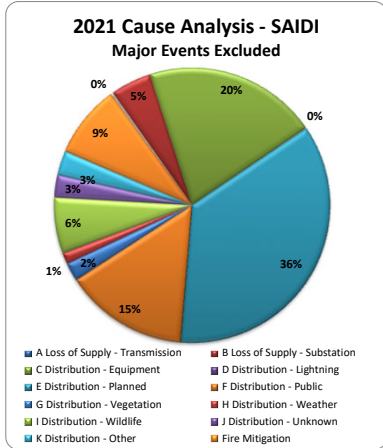
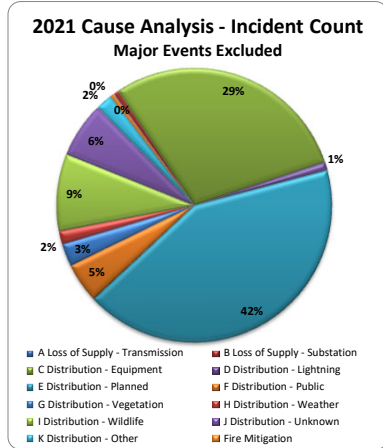
OAR Cause	2018 - Central Oregon Reporting Region												
	Oregon Customer count	Major Event Excluded						Major Event Included					
		Sustained Incident Count	Customer Minutes Lost for Incident	Customers In Incident Sustained	SAIDI	SAIFI	CAIDI	Sustained Incident Count	Customer Minutes Lost for Incident	Customers In Incident Sustained	SAIDI	SAIFI	CAIDI
A Loss of Supply - Transmission	82,083	20	443,138	28,274	5.40	0.344	16	35	2,541,998	55,179	30.97	0.672	46
B Loss of Supply - Substation	82,083	-	-	-	-	-	-	-	-	-	-	-	-
C Distribution - Equipment	82,083	318	1,565,745	8,326	19.08	0.101	188	321	1,664,421	9,458	20.28	0.115	176
D Distribution - Lightning	82,083	22	37,474	174	0.46	0.002	215	23	37,628	175	0.46	0.002	215
E Distribution - Planned	82,083	96	301,427	4,505	3.67	0.055	67	97	302,522	4,535	3.69	0.055	67
F Distribution - Public	82,083	33	241,290	4,115	2.94	0.050	59	34	242,131	4,119	2.95	0.050	59
G Distribution - Vegetation	82,083	42	70,004	624	0.85	0.008	112	45	70,597	628	0.86	0.008	112
H Distribution - Weather	82,083	11	249,596	1,565	3.04	0.019	159	15	294,304	1,884	3.59	0.023	156
I Distribution - Wildlife	82,083	87	166,096	1,350	2.02	0.016	123	97	1,496,586	11,334	18.23	0.138	132
J Distribution - Unknown	82,083	80	284,981	3,493	3.47	0.043	82	82	286,355	3,507	3.49	0.043	82
K Distribution - Other	82,083	14	39,291	79	0.48	0.001	497	16	39,291	79	0.48	0.001	497
<b>Grand Total</b>	<b>82,083</b>	<b>723</b>	<b>3,399,041</b>	<b>52,505</b>	<b>41.41</b>	<b>0.640</b>	<b>65</b>	<b>765</b>	<b>6,975,832</b>	<b>90,898</b>	<b>84.99</b>	<b>1.107</b>	<b>77</b>

OAR Cause	2019 - Central Oregon Reporting Region												
	Oregon Customer count	Major Event Excluded						Major Event Included					
		Sustained Incident Count	Customer Minutes Lost for Incident	Customers In Incident Sustained	SAIDI	SAIFI	CAIDI	Sustained Incident Count	Customer Minutes Lost for Incident	Customers In Incident Sustained	SAIDI	SAIFI	CAIDI
A Loss of Supply - Transmission	84,807	1	237	1	0.00	0.000	237	34	2,897,811	43,515	34.17	0.513	67
B Loss of Supply - Substation	84,807	-	-	-	-	-	-	-	-	-	-	-	-
C Distribution - Equipment	84,807	376	1,534,952	9,519	18.10	0.112	161	413	1,657,971	10,186	19.55	0.120	163
D Distribution - Lightning	84,807	27	253,286	1,227	2.99	0.014	206	57	1,228,415	4,796	14.48	0.057	256
E Distribution - Planned	84,807	119	1,161,191	7,670	13.69	0.090	151	124	1,164,810	7,725	13.73	0.091	151
F Distribution - Public	84,807	33	250,579	2,475	2.95	0.029	101	35	253,953	2,490	2.99	0.029	102
G Distribution - Vegetation	84,807	23	76,126	431	0.90	0.005	177	42	310,416	2,475	3.66	0.029	125
H Distribution - Weather	84,807	8	37,400	141	0.44	0.002	265	15	201,614	1,556	2.38	0.018	130
I Distribution - Wildlife	84,807	59	265,218	1,830	3.13	0.022	145	60	266,186	1,841	3.14	0.022	145
J Distribution - Unknown	84,807	47	60,139	491	0.71	0.006	122	55	302,294	2,468	3.56	0.029	122
K Distribution - Other	84,807	18	43,803	2,411	0.52	0.028	18	18	43,803	2,411	0.52	0.028	18
<b>Grand Total</b>	<b>84,807</b>	<b>711</b>	<b>3,682,930</b>	<b>26,196</b>	<b>43.43</b>	<b>0.309</b>	<b>141</b>	<b>853</b>	<b>8,327,273</b>	<b>79,463</b>	<b>98.19</b>	<b>0.937</b>	<b>105</b>

OAR Cause	2020 - Central Oregon Reporting Region												
	Oregon Customer count	Major Event Excluded						Major Event Included					
		Sustained Incident Count	Customer Minutes Lost for Incident	Customers In Incident Sustained	SAIDI	SAIFI	CAIDI	Sustained Incident Count	Customer Minutes Lost for Incident	Customers In Incident Sustained	SAIDI	SAIFI	CAIDI
A Loss of Supply - Transmission	84,563	1	317,579	982	3.76	0.012	323	4	3,988,828	6,197	47.17	0.073	644
B Loss of Supply - Substation	84,563	-	-	-	-	-	-	-	-	-	-	-	-
C Distribution - Equipment	84,563	306	1,412,552	6,739	16.70	0.080	210	343	2,232,911	10,195	26.41	0.121	219
D Distribution - Lightning	84,563	19	18,933	175	0.22	0.002	108	28	192,756	334	2.28	0.004	577
E Distribution - Planned	84,563	336	1,080,090	10,813	12.77	0.128	100	356	1,120,178	12,012	13.25	0.142	93
F Distribution - Public	84,563	46	778,277	6,716	9.20	0.079	116	53	1,856,853	10,573	21.96	0.125	176
G Distribution - Vegetation	84,563	32	67,848	414	0.80	0.005	164	72	3,313,299	7,677	39.18	0.091	432
H Distribution - Weather	84,563	12	39,065	315	0.46	0.004	124	57	6,654,735	7,895	78.70	0.093	843
I Distribution - Wildlife	84,563	89	48,332	537	0.57	0.006	90	92	49,029	544	0.58	0.006	90
J Distribution - Unknown	84,563	58	308,623	3,283	3.65	0.039	94	61	349,438	3,585	4.13	0.042	97
K Distribution - Other	84,563	34	463,740	2,066	5.48	0.024	224	39	464,812	2,078	5.50	0.025	224
<b>Grand Total</b>	<b>84,563</b>	<b>933</b>	<b>4,535,040</b>	<b>32,040</b>	<b>53.63</b>	<b>0.379</b>	<b>142</b>	<b>1,105</b>	<b>20,222,841</b>	<b>61,090</b>	<b>239.15</b>	<b>0.722</b>	<b>331</b>

# Central Oregon Reporting Region Five-Year Cause Analysis

OAR Cause	2021 - Central Oregon Reporting Region													
	Oregon Customer count	Major Event Excluded						Major Event Included						
		Sustained Incident Count	Customer Minutes Lost for Incident	Customers In Incident Sustained	SAIDI	SAIFI	CAIDI	Sustained Incident Count	Customer Minutes Lost for Incident	Customers In Incident Sustained	SAIDI	SAIFI	CAIDI	
A Loss of Supply - Transmission	87,425	1	21,846	996	0.25	0.011	22	9	644,546	13,344	7.37	0.153	48	
B Loss of Supply - Substation	87,425	6	383,828	6,786	4.39	0.078	-	7	849,567	9,723	9.72	0.111	-	
C Distribution - Equipment	87,425	305	1,637,048	9,162	18.73	0.105	179	348	2,358,135	12,519	26.97	0.143	188	
D Distribution - Lightning	87,425	10	2,730	16	0.03	0.000	171	12	25,279	87	0.29	0.001	291	
E Distribution - Planned	87,425	440	2,866,748	17,095	32.79	0.196	168	453	3,082,960	17,925	35.26	0.205	172	
F Distribution - Public	87,425	49	1,165,539	7,337	13.33	0.084	159	55	1,205,622	7,565	13.79	0.087	159	
G Distribution - Vegetation	87,425	28	174,088	670	1.99	0.008	260	46	3,922,578	6,339	44.87	0.073	619	
H Distribution - Weather	87,425	16	104,897	738	1.20	0.008	142	32	1,416,193	3,650	16.20	0.042	388	
I Distribution - Wildlife	87,425	95	524,193	8,001	6.00	0.092	66	97	524,579	8,005	6.00	0.092	66	
J Distribution - Unknown	87,425	68	212,976	1,371	2.44	0.016	155	81	633,054	3,885	7.24	0.044	163	
K Distribution - Other	87,425	21	229,256	1,494	2.62	0.017	153	24	457,091	2,077	5.23	0.024	220	
Fire Mitigation	87,425	4	686,737	3,839	7.86	0.044	179	7	1,192,697	6,719	13.64	0.077	178	
<b>Grand Total</b>	<b>87,425</b>	<b>1,043</b>	<b>8,009,884</b>	<b>57,505</b>	<b>91.62</b>	<b>0.658</b>	<b>139</b>	<b>1,171</b>	<b>16,312,602</b>	<b>91,838</b>	<b>186.59</b>	<b>1.050</b>	<b>178</b>	



## CoastPlus Reporting Region Five-Year Cause Analysis

OAR Cause	2017 - CoastPlus Reporting Region												
	Oregon Customer count	Major Event Excluded						Major Event Included					
		Sustained Incident Count	Customer Minutes Lost for Incident	Customers In Incident Sustained	SAIDI	SAIFI	CAIDI	Sustained Incident Count	Customer Minutes Lost for Incident	Customers In Incident Sustained	SAIDI	SAIFI	CAIDI
A Loss of Supply - Transmission	152,139	80	3,929,436	120,294	25.83	0.791	33	122	7,442,212	179,962	48.92	1.183	41
B Loss of Supply - Substation	152,139	5	481,420	5,274	3.16	0.035	91	11	1,006,510	11,607	6.62	0.076	87
C Distribution - Equipment	152,139	788	2,664,512	19,897	17.51	0.131	134	859	7,514,544	28,700	49.39	0.189	262
D Distribution - Lightning	152,139	4	25,564	208	0.17	0.001	123	5	25,621	209	0.17	0.001	123
E Distribution - Planned	152,139	369	2,867,590	26,495	18.85	0.174	108	401	3,414,446	32,729	22.44	0.215	104
F Distribution - Public	152,139	60	1,475,562	10,007	9.70	0.066	147	62	1,476,321	10,009	9.70	0.066	147
G Distribution - Vegetation	152,139	318	4,637,640	34,736	30.48	0.228	134	447	7,205,438	52,429	47.36	0.345	137
H Distribution - Weather	152,139	33	845,510	5,809	5.56	0.038	146	102	4,253,234	21,246	27.96	0.140	200
I Distribution - Wildlife	152,139	105	278,148	3,045	1.83	0.020	91	108	280,959	3,063	1.85	0.020	92
J Distribution - Unknown	152,139	108	732,694	7,620	4.82	0.050	96	117	852,899	9,312	5.61	0.061	92
K Distribution - Other	152,139	37	762,171	11,380	5.01	0.075	67	42	920,280	12,771	6.05	0.084	72
<b>Grand Total</b>	<b>152,139</b>	<b>1,907</b>	<b>18,700,247</b>	<b>244,765</b>	<b>122.92</b>	<b>1.609</b>	<b>76</b>	<b>2,276</b>	<b>34,392,466</b>	<b>362,037</b>	<b>226.06</b>	<b>2.380</b>	<b>95</b>

OAR Cause	2018 - CoastPlus Reporting Region												
	Oregon Customer count	Major Event Excluded						Major Event Included					
		Sustained Incident Count	Customer Minutes Lost for Incident	Customers In Incident Sustained	SAIDI	SAIFI	CAIDI	Sustained Incident Count	Customer Minutes Lost for Incident	Customers In Incident Sustained	SAIDI	SAIFI	CAIDI
A Loss of Supply - Transmission	153,751	65	2,912,493	74,715	18.94	0.486	39	69	4,870,107	84,674	31.68	0.551	58
B Loss of Supply - Substation	153,751	-	-	-	-	-	-	1	194,654	1,071	1.27	0.007	182
C Distribution - Equipment	153,751	763	2,658,320	21,336	17.29	0.139	125	792	3,586,763	23,820	23.33	0.155	151
D Distribution - Lightning	153,751	14	27,593	110	0.18	0.001	251	14	27,593	110	0.18	0.001	251
E Distribution - Planned	153,751	481	7,634,839	34,849	49.66	0.227	219	488	7,730,580	35,614	50.28	0.232	217
F Distribution - Public	153,751	63	1,331,852	6,185	8.66	0.040	215	65	1,338,166	6,216	8.70	0.040	215
G Distribution - Vegetation	153,751	338	2,740,342	19,573	17.82	0.127	140	419	8,457,684	40,927	55.01	0.266	207
H Distribution - Weather	153,751	47	799,281	4,121	5.20	0.027	194	100	2,918,617	10,513	18.98	0.068	278
I Distribution - Wildlife	153,751	99	314,522	3,154	2.05	0.021	100	99	314,522	3,154	2.05	0.021	100
J Distribution - Unknown	153,751	87	717,843	7,421	4.67	0.048	97	91	868,699	7,587	5.65	0.049	114
K Distribution - Other	153,751	53	1,067,465	8,335	6.94	0.054	128	54	1,069,309	8,336	6.95	0.054	128
<b>Grand Total</b>	<b>153,751</b>	<b>2,010</b>	<b>20,204,551</b>	<b>179,799</b>	<b>131.41</b>	<b>1.169</b>	<b>112</b>	<b>2,192</b>	<b>31,376,693</b>	<b>222,022</b>	<b>204.07</b>	<b>1.444</b>	<b>141</b>

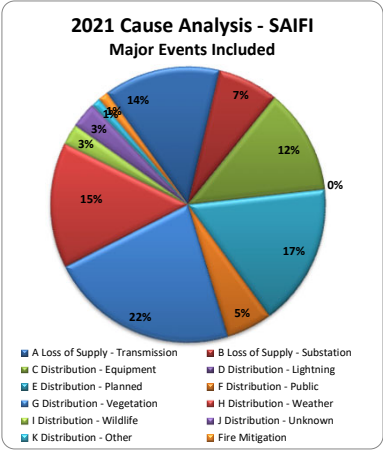
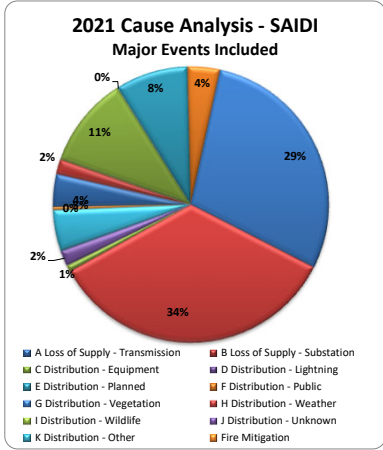
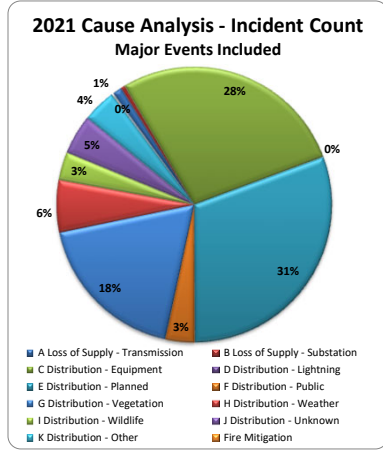
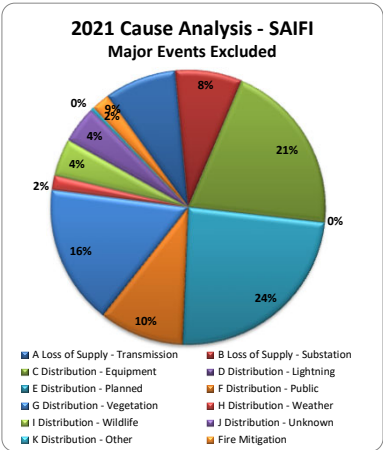
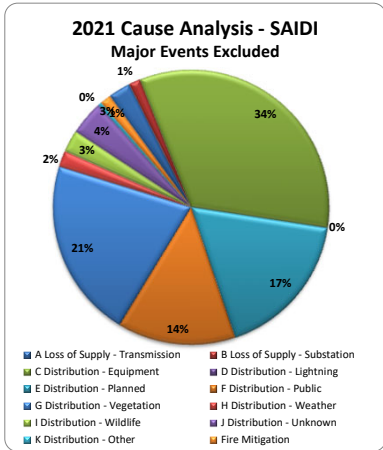
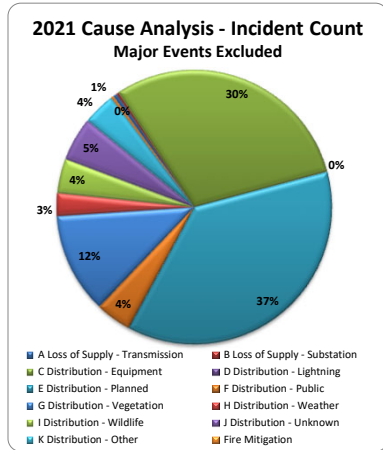
OAR Cause	2019 - CoastPlus Reporting Region												
	Oregon Customer count	Major Event Excluded						Major Event Included					
		Sustained Incident Count	Customer Minutes Lost for Incident	Customers In Incident Sustained	SAIDI	SAIFI	CAIDI	Sustained Incident Count	Customer Minutes Lost for Incident	Customers In Incident Sustained	SAIDI	SAIFI	CAIDI
A Loss of Supply - Transmission	156,232	65	2,912,493	74,715	18.64	0.478	39	65	3,144,203	80,837	20.13	0.517	39
B Loss of Supply - Substation	156,232	-	-	-	-	-	-	12	4,817,144	21,842	30.83	0.140	221
C Distribution - Equipment	156,232	763	2,658,320	21,336	17.02	0.137	125	821	5,859,739	35,834	37.51	0.229	164
D Distribution - Lightning	156,232	14	27,593	110	0.18	0.001	251	14	27,593	110	0.18	0.001	227
E Distribution - Planned	156,232	481	7,634,839	34,849	48.87	0.223	219	653	6,571,881	43,778	42.06	0.280	150
F Distribution - Public	156,232	63	1,331,852	6,185	8.52	0.040	215	67	1,892,691	12,120	12.11	0.078	156
G Distribution - Vegetation	156,232	338	2,740,342	19,573	17.54	0.125	140	372	6,972,735	28,906	44.63	0.185	241
H Distribution - Weather	156,232	47	799,281	4,121	5.12	0.026	194	98	3,522,477	14,588	22.55	0.093	241
I Distribution - Wildlife	156,232	99	314,522	3,154	2.01	0.020	100	108	789,529	4,962	5.05	0.032	159
J Distribution - Unknown	156,232	87	717,843	7,421	4.59	0.047	97	95	1,424,702	16,717	9.12	0.107	85
K Distribution - Other	156,232	53	1,067,465	8,335	6.83	0.053	128	47	1,78,479	4,355	1.14	0.028	41
<b>Grand Total</b>	<b>156,232</b>	<b>2,010</b>	<b>20,204,551</b>	<b>179,799</b>	<b>129.32</b>	<b>1.151</b>	<b>112</b>	<b>2,352</b>	<b>35,251,996</b>	<b>264,284</b>	<b>225.64</b>	<b>1.692</b>	<b>133</b>

OAR Cause	2020 - CoastPlus Reporting Region												
	Oregon Customer count	Major Event Excluded						Major Event Included					
		Sustained Incident Count	Customer Minutes Lost for Incident	Customers In Incident Sustained	SAIDI	SAIFI	CAIDI	Sustained Incident Count	Customer Minutes Lost for Incident	Customers In Incident Sustained	SAIDI	SAIFI	CAIDI
A Loss of Supply - Transmission	157,189	43	2,571,426	75,441	16.36	0.480	34	81	12,574,356	137,438	80.00	0.874	91
B Loss of Supply - Substation	157,189	-	-	-	-	-	-	2	738,370	991	4.70	0.006	745
C Distribution - Equipment	157,189	766	3,263,393	29,436	20.76	0.187	111	822	3,870,450	32,357	24.62	0.206	120
D Distribution - Lightning	157,189	8	36,634	459	0.23	0.003	80	11	53,086	465	0.34	0.003	114
E Distribution - Planned	157,189	833	3,050,080	24,282	19.40	0.154	126	877	31,847,588	34,434	202.61	0.219	925
F Distribution - Public	157,189	108	2,263,278	14,813	14.40	0.094	153	115	2,496,941	18,202	15.88	0.116	137
G Distribution - Vegetation	157,189	297	4,805,105	33,413	30.57	0.213	144	458	10,426,274	55,196	66.33	0.351	189
H Distribution - Weather	157,189	41	823,032	3,971	5.24	0.025	207	100	8,069,226	22,502	51.33	0.143	359
I Distribution - Wildlife	157,189	95	715,713	9,044	4.55	0.058	79	101	726,824	9,088	4.62	0.058	80
J Distribution - Unknown	157,189	100	728,075	7,734	4.63	0.049	94	117	781,370	8,099	4.97	0.052	96
K Distribution - Other	157,189	51	359,441	5,429	2.29	0.035	66	87	20,008,230	16,905	127.29	0.108	1,184
<b>Grand Total</b>	<b>157,189</b>	<b>2,342</b>	<b>18,616,177</b>	<b>204,022</b>	<b>118.43</b>	<b>1.298</b>	<b>91</b>	<b>2,771</b>	<b>91,592,715</b>	<b>335,677</b>	<b>582.69</b>	<b>2.135</b>	<b>273</b>



# CoastPlus Reporting Region Five-Year Cause Analysis

OAR Cause	2021 - CoastPlus Reporting Region													
	Oregon Customer count	Major Event Excluded						Major Event Included						
		Sustained Incident Count	Customer Minutes Lost for Incident	Customers In Incident Sustained	SAIDI	SAIFI	CAIDI	Sustained Incident Count	Customer Minutes Lost for Incident	Customers In Incident Sustained	SAIDI	SAIFI	CAIDI	
A Loss of Supply - Transmission	158,938	11	528,405	14,366	3.32	0.090	37	34	2,860,341	43,214	18.00	0.272	66	
B Loss of Supply - Substation	158,938	7	273,000	13,369	1.72	0.084	-	15	1,297,683	22,432	8.16	0.141	58	
C Distribution - Equipment	158,938	723	6,800,111	34,635	42.78	0.218	196	864	7,959,859	39,013	50.08	0.245	204	
D Distribution - Lightning	158,938	1	41	1	0.00	0.000	41	1	41	1	0.00	0.000	41	
E Distribution - Planned	158,938	891	3,529,703	40,432	22.21	0.254	87	951	6,319,495	52,513	39.76	0.330	120	
F Distribution - Public	158,938	101	2,817,858	16,908	17.73	0.106	167	108	2,828,425	16,944	17.80	0.107	167	
G Distribution - Vegetation	158,938	285	4,291,237	27,792	27.00	0.175	154	571	21,520,389	70,109	135.40	0.441	307	
H Distribution - Weather	158,938	65	381,409	2,852	2.40	0.018	134	191	25,554,201	46,411	160.78	0.292	551	
I Distribution - Wildlife	158,938	98	526,241	7,477	3.31	0.047	70	103	550,876	7,708	3.47	0.048	71	
J Distribution - Unknown	158,938	124	818,156	7,419	5.15	0.047	110	145	1,340,440	9,652	8.43	0.061	139	
K Distribution - Other	158,938	92	91,333	658	0.57	0.004	139	122	3,569,309	3,343	22.46	0.021	1,068	
Fire Mitigation	158,938	7	253,415	3,557	1.59	0.022	71	7	253,415	3,557	1.59	0.022	71	
<b>Grand Total</b>	<b>158,938</b>	<b>2,405</b>	<b>20,310,908</b>	<b>169,466</b>	<b>127.79</b>	<b>1.066</b>	<b>120</b>	<b>3,112</b>	<b>74,054,474</b>	<b>314,897</b>	<b>465.93</b>	<b>1.981</b>	<b>235</b>	





## Northeast Oregon Reporting Region Five-Year Cause Analysis

OAR Cause	2017 - Northeast Oregon Reporting Region												
	Oregon Customer count	Major Event Excluded						Major Event Included					
		Sustained Incident Count	Customer Minutes Lost for Incident	Customers In Incident Sustained	SAIDI	SAIFI	CAIDI	Sustained Incident Count	Customer Minutes Lost for Incident	Customers In Incident Sustained	SAIDI	SAIFI	CAIDI
A Loss of Supply - Transmission	24,663	19	478,271	12,077	19.39	0.490	40	19	478,271	12,077	19.39	0.490	40
B Loss of Supply - Substation	24,663	3	71,844	270	2.91	0.011	266	3	71,844	270	2.91	0.011	266
C Distribution - Equipment	24,663	253	782,405	4,170	31.72	0.169	188	262	937,198	4,643	38.00	0.188	202
D Distribution - Lightning	24,663	14	36,510	206	1.48	0.008	177	14	36,510	206	1.48	0.008	177
E Distribution - Planned	24,663	30	154,392	2,304	6.26	0.093	67	35	238,689	2,636	9.68	0.107	91
F Distribution - Public	24,663	15	241,253	1,199	9.78	0.049	201	15	241,253	1,199	9.78	0.049	201
G Distribution - Vegetation	24,663	30	131,097	691	5.32	0.028	190	43	297,156	1,060	12.05	0.043	280
H Distribution - Weather	24,663	26	51,215	699	2.08	0.028	73	46	908,428	2,244	36.83	0.091	405
I Distribution - Wildlife	24,663	92	141,183	906	5.72	0.037	156	92	141,183	906	5.72	0.037	156
J Distribution - Unknown	24,663	70	195,566	2,712	7.93	0.110	72	76	211,799	2,828	8.59	0.115	75
K Distribution - Other	24,663	10	84,898	1,441	3.44	0.058	59	11	94,017	1,492	3.81	0.060	63
<b>Grand Total</b>	<b>24,663</b>	<b>562</b>	<b>2,368,633</b>	<b>26,675</b>	<b>96.04</b>	<b>1.082</b>	<b>89</b>	<b>616</b>	<b>3,656,348</b>	<b>29,561</b>	<b>148.25</b>	<b>1.199</b>	<b>124</b>

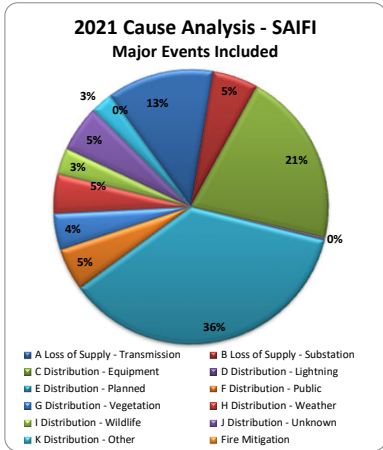
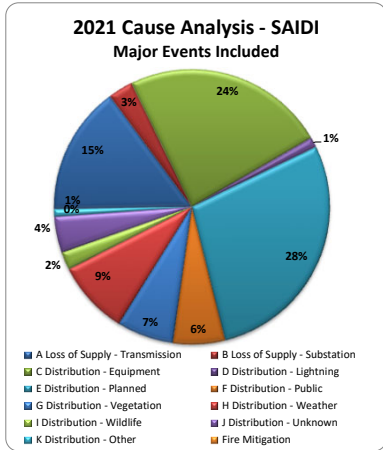
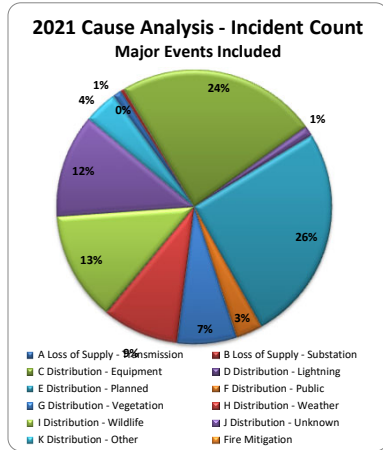
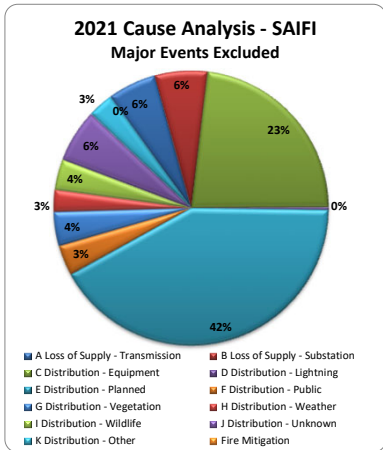
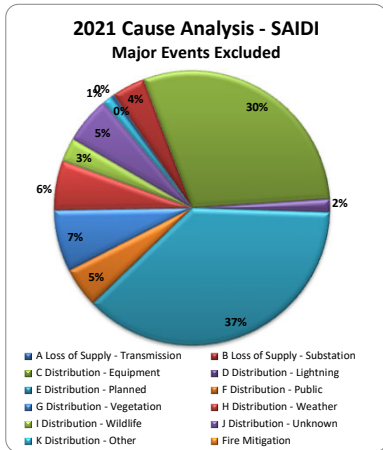
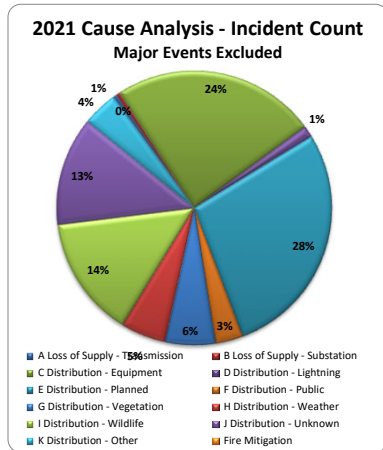
OAR Cause	2018 - Northeast Oregon Reporting Region												
	Oregon Customer count	Major Event Excluded						Major Event Included					
		Sustained Incident Count	Customer Minutes Lost for Incident	Customers In Incident Sustained	SAIDI	SAIFI	CAIDI	Sustained Incident Count	Customer Minutes Lost for Incident	Customers In Incident Sustained	SAIDI	SAIFI	CAIDI
A Loss of Supply - Transmission	24,935	33	838,895	21,685	33.64	0.870	39	34	866,092	22,061	34.73	0.885	39
B Loss of Supply - Substation	24,935	2	68,637	1,396	2.75	0.056	49	2	68,637	1,396	2.75	0.056	49
C Distribution - Equipment	24,935	192	730,473	3,740	29.30	0.150	195	202	1,515,877	5,160	60.79	0.207	294
D Distribution - Lightning	24,935	25	27,466	120	1.10	0.005	229	25	27,466	120	1.10	0.005	229
E Distribution - Planned	24,935	35	700,713	9,566	28.10	0.384	73	35	700,713	9,566	28.10	0.384	73
F Distribution - Public	24,935	31	605,619	3,225	24.29	0.129	188	31	605,619	3,225	24.29	0.129	188
G Distribution - Vegetation	24,935	44	164,592	672	6.60	0.027	245	49	174,555	697	7.00	0.028	250
H Distribution - Weather	24,935	15	38,004	216	1.52	0.009	176	18	67,868	611	2.72	0.025	111
I Distribution - Wildlife	24,935	81	59,201	605	2.37	0.024	98	81	59,201	605	2.37	0.024	98
J Distribution - Unknown	24,935	102	179,359	1,497	7.19	0.060	120	106	194,684	1,649	7.81	0.066	118
K Distribution - Other	24,935	10	301,581	1,850	12.09	0.074	163	10	301,581	1,850	12.09	0.074	163
<b>Grand Total</b>	<b>24,935</b>	<b>570</b>	<b>3,714,540</b>	<b>44,572</b>	<b>148.97</b>	<b>1.788</b>	<b>83</b>	<b>593</b>	<b>4,582,293</b>	<b>46,940</b>	<b>183.77</b>	<b>1.882</b>	<b>98</b>

OAR Cause	2019 - Northeast Oregon Reporting Region												
	Oregon Customer count	Major Event Excluded						Major Event Included					
		Sustained Incident Count	Customer Minutes Lost for Incident	Customers In Incident Sustained	SAIDI	SAIFI	CAIDI	Sustained Incident Count	Customer Minutes Lost for Incident	Customers In Incident Sustained	SAIDI	SAIFI	CAIDI
A Loss of Supply - Transmission	25,258	7	257,401	2,084	10.19	0.083	124	7	257,401	2,084	10.19	0.083	124
B Loss of Supply - Substation	25,258	-	-	-	-	-	-	-	-	-	-	-	-
C Distribution - Equipment	25,258	257	729,622	4,312	28.89	0.171	169	262	854,638	4,518	33.84	0.179	189
D Distribution - Lightning	25,258	32	68,549	486	2.71	0.019	141	32	68,549	486	2.71	0.019	141
E Distribution - Planned	25,258	54	493,300	2,900	19.53	0.115	170	54	493,300	2,900	19.53	0.115	170
F Distribution - Public	25,258	15	400,017	2,614	15.84	0.103	153	15	400,017	2,614	15.84	0.103	153
G Distribution - Vegetation	25,258	27	130,017	630	5.15	0.025	206	30	185,750	836	7.35	0.033	222
H Distribution - Weather	25,258	27	190,182	759	7.53	0.030	251	28	202,405	788	8.01	0.031	257
I Distribution - Wildlife	25,258	80	65,542	534	2.59	0.021	123	80	65,542	534	2.59	0.021	123
J Distribution - Unknown	25,258	64	169,271	1,902	6.70	0.075	89	64	169,271	1,902	6.70	0.075	89
K Distribution - Other	25,258	7	61,546	111	2.44	0.004	554	7	61,546	111	2.44	0.004	554
<b>Grand Total</b>	<b>25,258</b>	<b>570</b>	<b>2,565,447</b>	<b>16,332</b>	<b>101.57</b>	<b>0.647</b>	<b>157</b>	<b>579</b>	<b>2,758,419</b>	<b>16,773</b>	<b>109.21</b>	<b>0.664</b>	<b>164</b>

OAR Cause	2020 - Northeast Oregon Reporting Region												
	Oregon Customer count	Major Event Excluded						Major Event Included					
		Sustained Incident Count	Customer Minutes Lost for Incident	Customers In Incident Sustained	SAIDI	SAIFI	CAIDI	Sustained Incident Count	Customer Minutes Lost for Incident	Customers In Incident Sustained	SAIDI	SAIFI	CAIDI
A Loss of Supply - Transmission	25,560	5	88,111	3,188	3.45	0.125	28	15	1,016,302	10,576	39.76	0.414	96
B Loss of Supply - Substation	25,560	2	26,713	1,991	1.05	0.078	13	2	26,713	1,991	1.05	0.078	13
C Distribution - Equipment	25,560	248	932,302	5,530	36.48	0.216	169	289	1,197,281	8,049	46.84	0.315	149
D Distribution - Lightning	25,560	10	5,052	29	0.20	0.001	174	24	329,959	245	12.91	0.010	1,347
E Distribution - Planned	25,560	194	390,991	4,869	15.30	0.190	80	211	493,057	6,605	19.29	0.258	75
F Distribution - Public	25,560	18	194,736	1,854	7.62	0.073	105	24	216,942	1,927	8.49	0.075	113
G Distribution - Vegetation	25,560	40	326,541	4,244	12.78	0.166	77	88	1,421,314	7,923	55.61	0.310	179
H Distribution - Weather	25,560	42	258,488	1,051	10.11	0.041	246	84	1,766,273	5,348	69.10	0.209	330
I Distribution - Wildlife	25,560	104	80,323	786	3.14	0.031	102	120	90,120	884	3.53	0.035	102
J Distribution - Unknown	25,560	92	291,791	4,784	11.42	0.187	61	97	300,872	4,826	11.77	0.189	62
K Distribution - Other	25,560	26	93,062	1,476	3.64	0.058	63	28	119,040	1,503	4.66	0.059	79
<b>Grand Total</b>	<b>25,560</b>	<b>781</b>	<b>2,688,110</b>	<b>29,802</b>	<b>105.17</b>	<b>1.166</b>	<b>90</b>	<b>982</b>	<b>6,977,873</b>	<b>49,877</b>	<b>273.00</b>	<b>1.951</b>	<b>140</b>

# Northeast Oregon Reporting Region Five-Year Cause Analysis

OAR Cause	2021 - Northeast Oregon Reporting Region													
	Oregon Customer count	Major Event Excluded						Major Event Included						
		Sustained Incident Count	Customer Minutes Lost for Incident	Customers In Incident Sustained	SAIDI	SAIFI	CAIDI	Sustained Incident Count	Customer Minutes Lost for Incident	Customers In Incident Sustained	SAIDI	SAIFI	CAIDI	
A Loss of Supply - Transmission	25,793	3	14,738	1,798	0.57	0.070	8	8	719,318	4,620	27.89	0.179	156	
B Loss of Supply - Substation	25,793	3	137,969	1,962	5.35	0.076	70	3	137,969	1,962	5.35	0.076	70	
C Distribution - Equipment	25,793	163	1,062,350	7,243	41.19	0.281	147	182	1,131,896	7,557	43.88	0.293	150	
D Distribution - Lightning	25,793	9	55,351	102	2.15	0.004	543	9	55,351	102	2.15	0.004	543	
E Distribution - Planned	25,793	190	1,333,883	13,162	51.71	0.510	101	197	1,342,050	13,205	52.03	0.512	102	
F Distribution - Public	25,793	22	168,171	1,125	6.52	0.044	149	24	290,184	1,823	11.25	0.071	159	
G Distribution - Vegetation	25,793	40	258,742	1,257	10.03	0.049	206	54	316,130	1,562	12.26	0.061	202	
H Distribution - Weather	25,793	36	209,573	820	8.13	0.032	256	69	410,044	1,707	15.90	0.066	240	
I Distribution - Wildlife	25,793	97	99,838	1,139	3.87	0.044	88	99	99,937	1,141	3.87	0.044	88	
J Distribution - Unknown	25,793	87	198,337	1,971	7.69	0.076	101	94	202,581	1,997	7.85	0.077	101	
K Distribution - Other	25,793	28	38,566	943	1.50	0.037	41	30	39,154	947	1.52	0.037	41	
Fire Mitigation	25,793	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Grand Total</b>	<b>25,793</b>	<b>678</b>	<b>3,577,519</b>	<b>31,522</b>	<b>138.70</b>	<b>1.222</b>	<b>113</b>	<b>769</b>	<b>4,744,613</b>	<b>36,623</b>	<b>183.95</b>	<b>1.420</b>	<b>130</b>	



## Southern Oregon Reporting Region Five-Year Cause Analysis

OAR Cause	2017 - Southern Oregon Reporting Region												
	Oregon Customer count	Major Event Excluded						Major Event Included					
		Sustained Incident Count	Customer Minutes Lost for Incident	Customers In Incident Sustained	SAIDI	SAIFI	CAIDI	Sustained Incident Count	Customer Minutes Lost for Incident	Customers In Incident Sustained	SAIDI	SAIFI	CAIDI
A Loss of Supply - Transmission	221,872	99	4,331,267	77,423	19.52	0.349	56	178	21,941,278	174,711	98.89	0.787	126
B Loss of Supply - Substation	221,872	9	985,315	6,088	4.44	0.027	162	11	3,360,991	9,933	15.15	0.045	338
C Distribution - Equipment	221,872	1,316	5,395,996	33,503	24.32	0.151	161	1,422	6,127,922	37,208	27.62	0.168	165
D Distribution - Lightning	221,872	120	635,621	4,511	2.86	0.020	141	154	848,525	6,028	3.82	0.027	141
E Distribution - Planned	221,872	578	3,380,189	33,366	15.23	0.150	101	616	4,744,648	37,002	21.38	0.167	128
F Distribution - Public	221,872	107	3,778,559	21,011	17.03	0.095	180	109	3,787,721	21,033	17.07	0.095	180
G Distribution - Vegetation	221,872	295	4,194,492	27,662	18.91	0.125	152	654	31,589,480	74,290	142.38	0.335	425
H Distribution - Weather	221,872	89	935,334	8,043	4.22	0.036	116	620	24,673,689	42,471	111.21	0.191	581
I Distribution - Wildlife	221,872	311	363,256	5,496	1.64	0.025	66	312	363,366	5,497	1.64	0.025	66
J Distribution - Unknown	221,872	333	1,368,235	13,144	6.17	0.059	104	356	2,484,811	14,779	11.20	0.067	168
K Distribution - Other	221,872	47	547,085	7,052	2.47	0.032	78	50	547,350	7,055	2.47	0.032	78
<b>Grand Total</b>	<b>221,872</b>	<b>3,304</b>	<b>25,915,349</b>	<b>237,299</b>	<b>116.80</b>	<b>1.070</b>	<b>109</b>	<b>4,482</b>	<b>100,469,781</b>	<b>430,007</b>	<b>452.83</b>	<b>1.938</b>	<b>234</b>

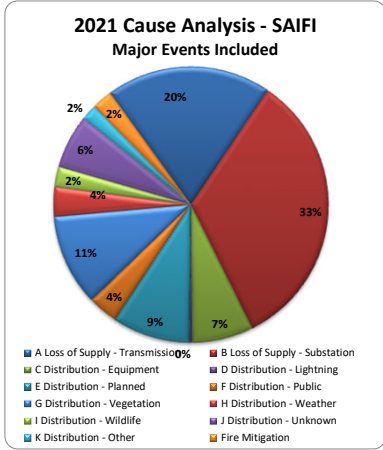
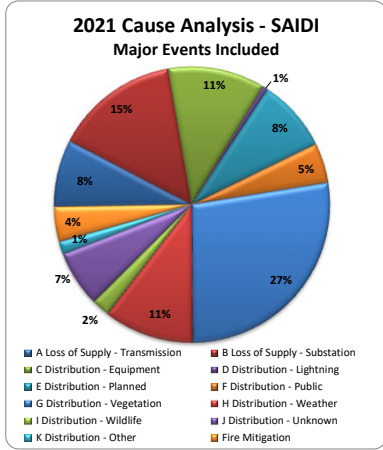
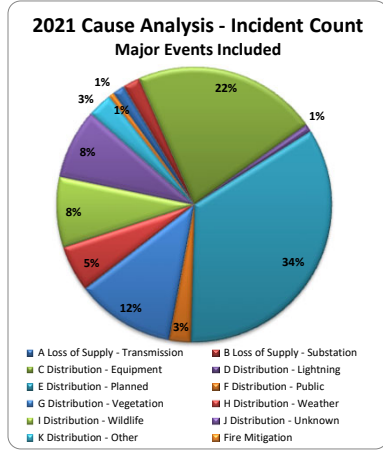
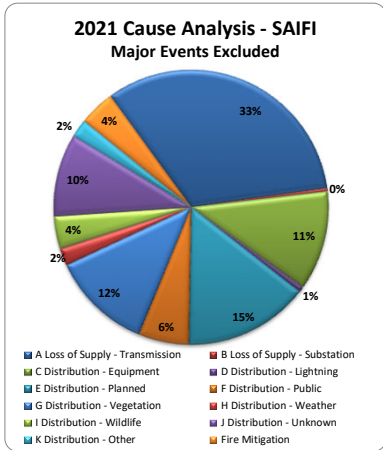
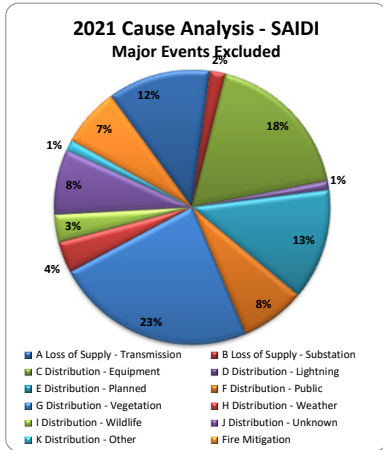
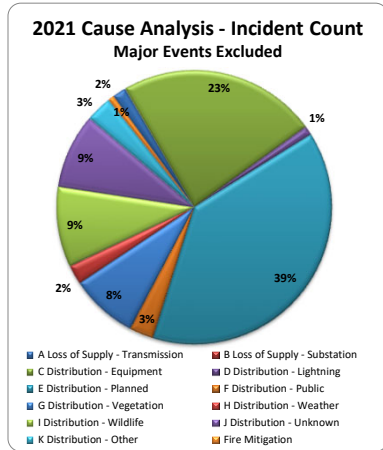
OAR Cause	2018 - Southern Oregon Reporting Region												
	Oregon Customer count	Major Event Excluded						Major Event Included					
		Sustained Incident Count	Customer Minutes Lost for Incident	Customers In Incident Sustained	SAIDI	SAIFI	CAIDI	Sustained Incident Count	Customer Minutes Lost for Incident	Customers In Incident Sustained	SAIDI	SAIFI	CAIDI
A Loss of Supply - Transmission	224,527	191	5,588,500	210,694	24.89	0.938	27	209	7,982,323	230,644	35.55	1.027	35
B Loss of Supply - Substation	224,527	5	723,716	4,486	3.22	0.020	161	14	4,322,647	17,752	19.25	0.079	244
C Distribution - Equipment	224,527	1,180	4,796,929	31,379	21.36	0.140	153	1,215	5,498,426	35,261	24.49	0.157	156
D Distribution - Lightning	224,527	145	1,549,801	9,035	6.90	0.040	172	145	1,549,801	9,035	6.90	0.040	172
E Distribution - Planned	224,527	784	2,860,746	25,150	12.74	0.112	114	801	3,163,738	27,179	14.09	0.121	116
F Distribution - Public	224,527	136	2,528,578	15,767	11.26	0.070	160	137	2,529,407	15,770	11.27	0.070	160
G Distribution - Vegetation	224,527	273	4,103,349	24,051	18.28	0.107	171	327	6,464,548	32,975	28.79	0.147	196
H Distribution - Weather	224,527	98	1,023,242	7,140	4.56	0.032	143	132	4,215,541	20,018	18.78	0.089	211
I Distribution - Wildlife	224,527	308	804,225	8,225	3.58	0.037	98	309	804,278	8,226	3.58	0.037	98
J Distribution - Unknown	224,527	325	1,773,741	19,299	7.90	0.086	92	329	1,806,284	19,448	8.04	0.087	93
K Distribution - Other	224,527	79	403,696	5,334	1.80	0.024	76	82	403,947	5,337	1.80	0.024	76
<b>Grand Total</b>	<b>224,527</b>	<b>3,524</b>	<b>26,156,522</b>	<b>360,560</b>	<b>116.50</b>	<b>1.606</b>	<b>73</b>	<b>3,700</b>	<b>38,740,940</b>	<b>421,645</b>	<b>172.54</b>	<b>1.878</b>	<b>92</b>

OAR Cause	2019 - Southern Oregon Reporting Region												
	Oregon Customer count	Major Event Excluded						Major Event Included					
		Sustained Incident Count	Customer Minutes Lost for Incident	Customers In Incident Sustained	SAIDI	SAIFI	CAIDI	Sustained Incident Count	Customer Minutes Lost for Incident	Customers In Incident Sustained	SAIDI	SAIFI	CAIDI
A Loss of Supply - Transmission	227,158	84	3,890,444	71,847	17.13	0.316	54	166	57,338,706	153,302	252.42	0.675	374
B Loss of Supply - Substation	227,158	12	1,724,962	12,672	7.59	0.056	136	15	3,998,311	18,770	17.60	0.083	213
C Distribution - Equipment	227,158	1,166	4,518,301	32,869	19.89	0.145	137	1,266	7,849,286	35,265	34.55	0.155	223
D Distribution - Lightning	227,158	92	236,664	1,564	1.04	0.007	151	92	236,664	1,564	1.04	0.007	151
E Distribution - Planned	227,158	1,256	2,955,447	32,556	13.01	0.143	91	1,293	3,531,193	39,591	15.55	0.148	105
F Distribution - Public	227,158	127	2,698,638	21,441	11.88	0.094	126	132	2,719,859	21,706	11.97	0.096	125
G Distribution - Vegetation	227,158	365	7,395,254	37,545	32.56	0.165	197	628	32,696,434	54,359	143.94	0.239	601
H Distribution - Weather	227,158	119	1,881,793	11,052	8.28	0.049	170	444	62,867,546	50,008	276.76	0.220	1,257
I Distribution - Wildlife	227,158	372	833,469	11,140	3.67	0.049	75	376	840,789	11,227	3.70	0.049	75
J Distribution - Unknown	227,158	366	2,541,749	25,325	11.19	0.111	100	385	3,268,380	26,661	14.39	0.117	123
K Distribution - Other	227,158	107	402,334	4,577	1.77	0.020	88	148	2,054,878	8,715	9.05	0.038	236
<b>Grand Total</b>	<b>227,158</b>	<b>4,066</b>	<b>29,079,055</b>	<b>262,588</b>	<b>128.01</b>	<b>1.156</b>	<b>111</b>	<b>4,945</b>	<b>177,402,047</b>	<b>415,168</b>	<b>780.96</b>	<b>1.828</b>	<b>427</b>

OAR Cause	2020 - Southern Oregon Reporting Region												
	Oregon Customer count	Major Event Excluded						Major Event Included					
		Sustained Incident Count	Customer Minutes Lost for Incident	Customers In Incident Sustained	SAIDI	SAIFI	CAIDI	Sustained Incident Count	Customer Minutes Lost for Incident	Customers In Incident Sustained	SAIDI	SAIFI	CAIDI
A Loss of Supply - Transmission	226,208	76	7,769,837	70,261	34.35	0.311	111	107	16,676,623	110,624	73.72	0.489	151
B Loss of Supply - Substation	226,208	12	584,440	4,655	2.58	0.021	126	14	1,338,311	7,860	5.92	0.035	170
C Distribution - Equipment	226,208	1,104	3,759,518	20,556	16.62	0.091	183	1,230	6,564,911	29,450	29.02	0.130	223
D Distribution - Lightning	226,208	23	67,715	506	0.30	0.002	134	36	135,064	1,141	0.60	0.005	118
E Distribution - Planned	226,208	1,933	5,094,748	34,352	22.52	0.152	148	2,045	98,610,381	52,836	435.93	0.234	1,866
F Distribution - Public	226,208	157	5,259,220	29,029	23.25	0.128	181	165	5,374,578	29,346	23.76	0.130	183
G Distribution - Vegetation	226,208	298	4,929,854	27,182	21.79	0.120	181	590	30,188,522	49,754	133.45	0.220	607
H Distribution - Weather	226,208	48	1,091,750	9,716	4.83	0.043	112	404	23,998,882	51,804	106.09	0.229	463
I Distribution - Wildlife	226,208	448	1,508,496	16,210	6.67	0.072	93	509	1,647,857	17,442	7.28	0.077	94
J Distribution - Unknown	226,208	341	2,047,871	25,253	9.05	0.112	81	389	2,600,507	28,572	11.50	0.126	91
K Distribution - Other	226,208	105	927,354	13,823	4.10	0.061	67	163	6,689,187	18,957	29.57	0.084	353
<b>Grand Total</b>	<b>226,208</b>	<b>4,545</b>	<b>33,040,804</b>	<b>251,543</b>	<b>146.06</b>	<b>1.112</b>	<b>131</b>	<b>5,652</b>	<b>193,824,821</b>	<b>397,786</b>	<b>856.84</b>	<b>1.758</b>	<b>487</b>

## Southern Oregon Reporting Region Five-Year Cause Analysis

OAR Cause	2021 - Southern Oregon Reporting Region													
	Oregon Customer count	Major Event Excluded							Major Event Included					
		Sustained Incident Count	Customer Minutes Lost for Incident	Customers In Incident Sustained	SAIDI	SAIFI	CAIDI	Sustained Incident Count	Customer Minutes Lost for Incident	Customers In Incident Sustained	SAIDI	SAIFI	CAIDI	
A Loss of Supply - Transmission	225,834	73	3,451,181	78,646	15.28	0.348	44	76	3,864,363	82,009	17.11	0.363	47	
B Loss of Supply - Substation	225,834	2	524,385	880	2.32	0.004	596	107	7,110,007	139,904	31.48	0.619	51	
C Distribution - Equipment	225,834	1,062	5,151,690	28,008	22.81	0.124	184	1,164	5,559,043	30,237	24.62	0.134	184	
D Distribution - Lightning	225,834	48	305,416	1,639	1.35	0.007	186	48	305,416	1,639	1.35	0.007	186	
E Distribution - Planned	225,834	1,761	3,731,070	35,361	16.52	0.157	106	1,841	4,158,055	38,626	18.41	0.171	108	
F Distribution - Public	225,834	129	2,179,521	14,279	9.65	0.063	153	135	2,280,165	14,831	10.10	0.066	154	
G Distribution - Vegetation	225,834	362	6,733,057	28,460	29.81	0.126	237	622	13,371,668	45,384	59.21	0.201	295	
H Distribution - Weather	225,834	103	1,054,849	4,821	4.67	0.021	219	290	5,157,012	14,664	22.84	0.065	352	
I Distribution - Wildlife	225,834	429	931,461	9,198	4.12	0.041	101	444	1,024,191	10,021	4.54	0.044	102	
J Distribution - Unknown	225,834	401	2,196,485	23,334	9.73	0.103	94	440	3,217,517	26,584	14.25	0.118	121	
K Distribution - Other	225,834	139	361,689	5,129	1.60	0.023	71	156	736,390	7,840	3.26	0.035	94	
Fire Mitigation	225,834	32	1,973,391	10,061	8.74	0.045	196	32	1,973,391	10,061	8.74	0.045	196	
<b>Grand Total</b>	<b>225,834</b>	<b>4,541</b>	<b>28,594,496</b>	<b>239,816</b>	<b>126.62</b>	<b>1.062</b>	<b>119</b>	<b>5,355</b>	<b>48,757,219</b>	<b>421,800</b>	<b>215.90</b>	<b>1.868</b>	<b>116</b>	



## Willamette Valley Reporting Region Five-Year Cause Analysis

OAR Cause	2017 - Willamette Valley Reporting Region												
	Oregon Customer count	Major Event Excluded						Major Event Included					
		Sustained Incident Count	Customer Minutes Lost for Incident	Customers In Incident Sustained	SAIDI	SAIFI	CAIDI	Sustained Incident Count	Customer Minutes Lost for Incident	Customers In Incident Sustained	SAIDI	SAIFI	CAIDI
A Loss of Supply - Transmission	120,331	72	4,795,797	107,370	39.86	0.892	45	88	9,747,151	132,831	81.00	1.104	73
B Loss of Supply - Substation	120,331	2	354,839	2,030	2.95	0.017	175	12	4,586,155	12,454	38.11	0.103	368
C Distribution - Equipment	120,331	648	3,778,999	23,309	31.41	0.194	162	694	6,406,544	32,319	53.24	0.269	198
D Distribution - Lightning	120,331	3	83,243	258	0.69	0.002	323	3	83,243	258	0.69	0.002	323
E Distribution - Planned	120,331	482	2,313,571	24,730	19.23	0.206	94	505	5,242,842	33,260	43.57	0.276	158
F Distribution - Public	120,331	111	4,702,292	19,972	39.08	0.166	235	113	4,710,610	20,052	39.15	0.167	235
G Distribution - Vegetation	120,331	259	2,903,863	20,189	24.13	0.168	144	366	7,160,027	28,418	59.50	0.236	252
H Distribution - Weather	120,331	29	561,360	3,133	4.67	0.026	179	121	2,960,267	9,698	24.60	0.081	305
I Distribution - Wildlife	120,331	154	532,841	9,590	4.43	0.080	56	156	537,607	9,649	4.47	0.080	56
J Distribution - Unknown	120,331	252	1,811,066	26,285	15.05	0.218	69	288	3,485,706	33,743	28.97	0.280	103
K Distribution - Other	120,331	43	564,518	14,847	4.69	0.123	38	70	739,202	15,057	6.14	0.125	49
<b>Grand Total</b>	<b>120,331</b>	<b>2,055</b>	<b>22,402,388</b>	<b>251,713</b>	<b>186.17</b>	<b>2.092</b>	<b>89</b>	<b>2,416</b>	<b>45,659,353</b>	<b>327,739</b>	<b>379.45</b>	<b>2.724</b>	<b>139</b>

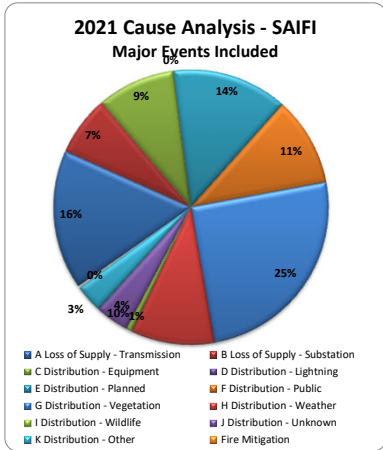
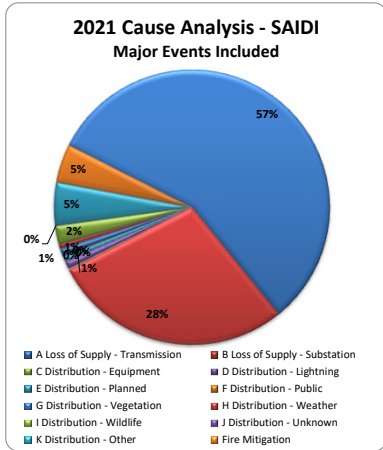
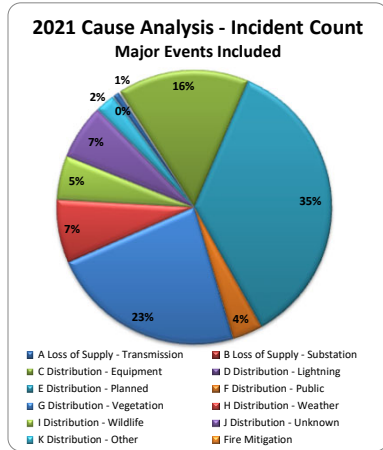
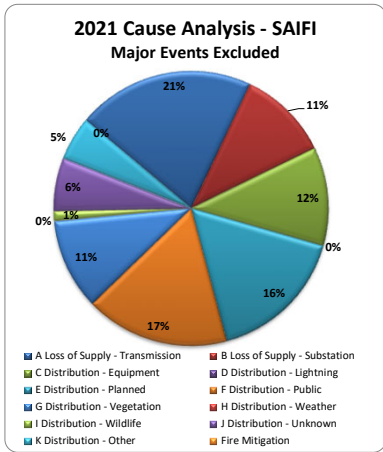
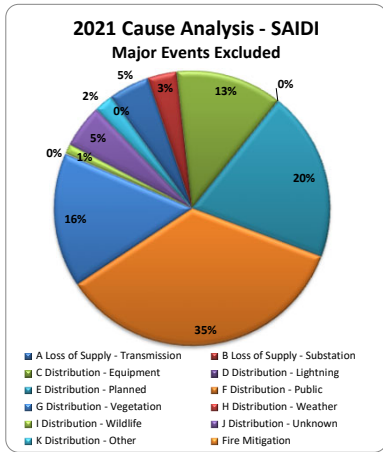
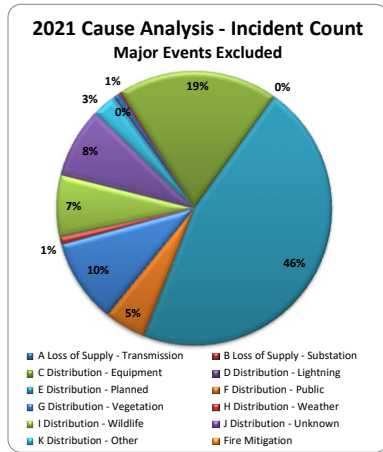
OAR Cause	2018 - Willamette Valley Reporting Region												
	Oregon Customer count	Major Event Excluded						Major Event Included					
		Sustained Incident Count	Customer Minutes Lost for Incident	Customers In Incident Sustained	SAIDI	SAIFI	CAIDI	Sustained Incident Count	Customer Minutes Lost for Incident	Customers In Incident Sustained	SAIDI	SAIFI	CAIDI
A Loss of Supply - Transmission	122,166	24	523,543	25,767	4.29	0.211	20	24	523,543	25,767	4.29	0.211	20
B Loss of Supply - Substation	122,166	-	-	-	-	-	-	-	-	-	-	-	-
C Distribution - Equipment	122,166	627	2,545,824	25,089	20.84	0.205	101	636	2,655,308	25,403	21.74	0.208	105
D Distribution - Lightning	122,166	18	83,796	331	0.69	0.003	253	18	83,796	331	0.69	0.003	253
E Distribution - Planned	122,166	855	4,645,037	40,060	38.02	0.328	116	862	4,659,811	40,207	38.14	0.329	116
F Distribution - Public	122,166	124	4,949,641	18,573	40.52	0.152	266	125	4,949,799	18,574	40.52	0.152	266
G Distribution - Vegetation	122,166	251	2,814,275	19,837	23.04	0.162	142	289	3,419,337	21,725	27.99	0.178	157
H Distribution - Weather	122,166	43	775,579	3,120	6.35	0.026	249	55	921,917	4,049	7.55	0.033	228
I Distribution - Wildlife	122,166	188	368,064	4,092	3.01	0.033	90	189	368,616	4,108	3.02	0.034	90
J Distribution - Unknown	122,166	313	1,834,784	25,702	15.02	0.210	71	317	1,874,017	25,891	15.34	0.212	72
K Distribution - Other	122,166	69	116,471	3,224	0.95	0.026	36	69	116,471	3,224	0.95	0.026	36
<b>Grand Total</b>	<b>122,166</b>	<b>2,512</b>	<b>18,657,014</b>	<b>165,795</b>	<b>152.72</b>	<b>1.357</b>	<b>113</b>	<b>2,584</b>	<b>19,572,616</b>	<b>169,279</b>	<b>160.21</b>	<b>1.386</b>	<b>116</b>

OAR Cause	2019 - Willamette Valley Reporting Region												
	Oregon Customer count	Major Event Excluded						Major Event Included					
		Sustained Incident Count	Customer Minutes Lost for Incident	Customers In Incident Sustained	SAIDI	SAIFI	CAIDI	Sustained Incident Count	Customer Minutes Lost for Incident	Customers In Incident Sustained	SAIDI	SAIFI	CAIDI
A Loss of Supply - Transmission	124,207	6	763,494	9,024	6.15	0.073	85	10	5,337,509	13,882	42.97	0.112	384
B Loss of Supply - Substation	124,207	2	253,285	4,457	2.04	0.036	57	2	253,285	4,457	2.04	0.036	57
C Distribution - Equipment	124,207	567	3,295,512	24,218	26.53	0.195	136	596	3,443,437	24,909	27.72	0.201	138
D Distribution - Lightning	124,207	37	518,787	2,067	4.18	0.017	251	37	518,787	2,067	4.18	0.017	251
E Distribution - Planned	124,207	1,128	2,395,675	26,168	19.29	0.211	92	1,175	3,455,577	33,381	27.82	0.269	104
F Distribution - Public	124,207	114	3,111,728	23,613	25.05	0.190	132	117	3,123,299	23,654	25.15	0.190	132
G Distribution - Vegetation	124,207	251	4,688,796	33,495	37.75	0.270	140	400	9,372,696	43,042	75.46	0.347	218
H Distribution - Weather	124,207	20	328,877	2,364	2.65	0.019	139	139	14,559,760	17,519	117.22	0.141	831
I Distribution - Wildlife	124,207	183	560,321	4,397	4.51	0.035	127	184	562,710	4,418	4.53	0.036	127
J Distribution - Unknown	124,207	237	2,742,386	26,113	22.08	0.210	105	243	2,992,487	26,510	24.09	0.213	113
K Distribution - Other	124,207	60	319,558	3,590	2.57	0.029	89	64	457,119	4,182	3.68	0.034	109
<b>Grand Total</b>	<b>124,207</b>	<b>2,605</b>	<b>18,978,419</b>	<b>159,506</b>	<b>152.80</b>	<b>1.284</b>	<b>119</b>	<b>2,967</b>	<b>44,076,666</b>	<b>198,021</b>	<b>354.86</b>	<b>1.594</b>	<b>223</b>

OAR Cause	2020 - Willamette Valley Reporting Region												
	Oregon Customer count	Major Event Excluded						Major Event Included					
		Sustained Incident Count	Customer Minutes Lost for Incident	Customers In Incident Sustained	SAIDI	SAIFI	CAIDI	Sustained Incident Count	Customer Minutes Lost for Incident	Customers In Incident Sustained	SAIDI	SAIFI	CAIDI
A Loss of Supply - Transmission	123,813	4	604,142	7,206	4.88	0.058	84	10	3,814,777	22,949	30.81	0.185	166
B Loss of Supply - Substation	123,813	1	685,481	2,531	5.54	0.020	271	1	685,481	2,531	5.54	0.020	271
C Distribution - Equipment	123,813	662	3,617,213	28,409	29.22	0.229	127	737	4,153,958	29,372	33.55	0.237	141
D Distribution - Lightning	123,813	5	2,865	37	0.02	0.000	77	65	1,377,409	3,828	11.12	0.031	360
E Distribution - Planned	123,813	1,290	3,593,373	25,733	29.02	0.208	140	1,364	6,036,619	32,972	48.76	0.266	183
F Distribution - Public	123,813	113	4,216,093	27,134	34.05	0.219	155	118	4,445,931	28,636	35.91	0.231	155
G Distribution - Vegetation	123,813	253	2,862,210	26,785	23.12	0.216	107	387	5,102,514	33,692	41.21	0.272	151
H Distribution - Weather	123,813	24	378,643	3,220	3.06	0.026	118	119	7,011,208	64,201	56.63	0.519	109
I Distribution - Wildlife	123,813	220	1,261,242	8,355	10.19	0.067	151	247	1,306,536	8,578	10.55	0.069	152
J Distribution - Unknown	123,813	218	1,482,621	22,020	11.97	0.178	67	245	1,522,807	22,525	12.30	0.182	68
K Distribution - Other	123,813	53	134,297	3,269	1.08	0.026	41	75	2,099,485	3,851	16.96	0.031	545
<b>Grand Total</b>	<b>123,813</b>	<b>2,843</b>	<b>18,838,181</b>	<b>154,699</b>	<b>152.15</b>	<b>1.249</b>	<b>122</b>	<b>3,368</b>	<b>37,556,725</b>	<b>253,135</b>	<b>303.33</b>	<b>2.044</b>	<b>148</b>

# Willamette Valley Reporting Region Five-Year Cause Analysis

OAR Cause	2021 - Willamette Valley Reporting Region													
	Oregon Customer count	Major Event Excluded						Major Event Included						
		Sustained Incident Count	Customer Minutes Lost for Incident	Customers In Incident Sustained	SAIDI	SAIFI	CAIDI	Sustained Incident Count	Customer Minutes Lost for Incident	Customers In Incident Sustained	SAIDI	SAIFI	CAIDI	
A Loss of Supply - Transmission	125,422	24	941,394	38,328	7.51	0.306	25	30	1,480,651	49,198	11.81	0.392	30	
B Loss of Supply - Substation	125,422	9	672,489	19,620	5.36	0.156	34	10	808,197	21,198	6.44	0.169	38	
C Distribution - Equipment	125,422	559	2,458,804	21,310	19.60	0.170	115	653	3,360,801	27,694	26.80	0.221	121	
D Distribution - Lightning	125,422	-	-	-	-	-	-	-	-	-	-	-	-	
E Distribution - Planned	125,422	1,371	3,930,222	30,012	31.34	0.239	131	1,496	7,774,477	40,985	61.99	0.327	190	
F Distribution - Public	125,422	146	6,864,149	31,019	54.73	0.247	221	150	6,971,831	31,530	55.59	0.251	221	
G Distribution - Vegetation	125,422	295	3,103,227	19,545	24.74	0.156	159	970	87,000,136	75,569	693.66	0.603	1,151	
H Distribution - Weather	125,422	26	21,121	127	0.17	0.001	166	315	43,415,233	29,470	346.15	0.235	1,473	
I Distribution - Wildlife	125,422	217	220,469	2,112	1.76	0.017	104	220	221,066	2,130	1.76	0.017	104	
J Distribution - Unknown	125,422	247	1,003,189	11,455	8.00	0.091	88	275	1,432,854	11,870	11.42	0.095	121	
K Distribution - Other	125,422	79	431,411	9,431	3.44	0.075	46	97	752,416	9,934	6.00	0.079	76	
Fire Mitigation	125,422	3	1,951	13	0.02	0.000	150	4	229,578	738	1.83	0.006	311	
<b>Grand Total</b>	<b>125,422</b>	<b>2,976</b>	<b>19,648,427</b>	<b>182,972</b>	<b>156.66</b>	<b>1.459</b>	<b>107</b>	<b>4,220</b>	<b>153,447,240</b>	<b>300,316</b>	<b>1,223.45</b>	<b>2.394</b>	<b>511</b>	





## Oregon 2021 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	5D10	PORTLAND AVE	12.5	2,462
Central OR	BEND/REDMOND	BEND	5D11	GLEN VISTA	12.5	1,309
Central OR	BEND/REDMOND	BEND	5D12	DIVISION ST.	12.5	215
Central OR	BEND/REDMOND	BEND	5D196	MALLARD	12.5	1,412
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	5D411	BACHELOR	12.5	2,249
Central OR	BEND/REDMOND	BOND STREET	5D413	OLD MILL	12.5	390
Central OR	BEND/REDMOND	BOND STREET	5D418	BLAKELY	12.5	1,356
Central OR	BEND/REDMOND	CHINA HAT	5D140	LAVA (CHINA HAT)	12.5	2,340
Central OR	BEND/REDMOND	CHINA HAT	5D142	HIGH DESERT	12.5	1,721
Central OR	BEND/REDMOND	CHINA HAT	5D144	D.R.W.	12.5	2,548
Central OR	BEND/REDMOND	CLEVELAND AVE.	5D30	ARROWHEAD	12.5	1,283
Central OR	BEND/REDMOND	CLEVELAND AVE.	5D35	WICKIUP	12.5	1,066
Central OR	BEND/REDMOND	CLEVELAND AVE.	5D38	TOMAHAWK	12.5	1,455
Central OR	BEND/REDMOND	CLEVELAND AVE.	5D94	TEEPEE	12.5	3,926
Central OR	BEND/REDMOND	CLEVELAND AVE.	5D96	OBSIDIAN	12.5	912
Central OR	BEND/REDMOND	CLEVELAND AVE.	5D98	HUCKLEBERRY	12.5	1,181
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	1,816
Central OR	BEND/REDMOND	CROOKED RIVER RANCH	4D30	CROOKED R.R.	20.8	800
Central OR	BEND/REDMOND	DESCHUTES	5D184	PRONGHORN	12.5	1,135
Central OR	BEND/REDMOND	DESCHUTES	5D2	DESCHUTES S	12.5	1,036
Central OR	BEND/REDMOND	HUNTERS CIRCLE	5D192	Mackinaw	12.5	736
Central OR	BEND/REDMOND	MIDPOINT	CO01-1	MIDPOINT-HEMMINGWAY-500KV	500	0
Central OR	BEND/REDMOND	OVERPASS	5D104	AWBREY	12.5	1,961
Central OR	BEND/REDMOND	OVERPASS	5D106	NEZ PERCE	12.5	2,716
Central OR	BEND/REDMOND	OVERPASS	5D120	CHINOOK	12.5	1,825
Central OR	BEND/REDMOND	OVERPASS	5D128	PAIUTE	12.5	2,232
Central OR	BEND/REDMOND	OVERPASS	5D155	APACHE	12.5	828
Central OR	BEND/REDMOND	PILOT BUTTE	5D261	KLONDIKE	12.5	1,524
Central OR	BEND/REDMOND	PILOT BUTTE	5D263	DRAKE FEEDER	12.5	2,533
Central OR	BEND/REDMOND	PILOT BUTTE	5D265	DOBBIN	12.5	1,718
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	5D21	SOUTH (REDMOND)	12.5	838
Central OR	BEND/REDMOND	REDMOND	5D22	INDUSTRIAL	12.5	1,549
Central OR	BEND/REDMOND	REDMOND	5D223	TETHEROW	12.5	894
Central OR	BEND/REDMOND	REDMOND	5D226	CLINE FALLS	12.5	1,536
Central OR	BEND/REDMOND	REDMOND	5D227	WINDSOR	12.5	3,313
Central OR	BEND/REDMOND	REDMOND	5D228	CITY	12.5	1,307
Central OR	BEND/REDMOND	REDMOND	5D229	JUNIPER	12.5	429
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	CO02	REDMOND BPA-REDMOND-115KV	115	0

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Oregon Region	Op Area Name	Substation Name	Circuit Id	Circuit Name	kV	Circuit Customer Count
Central OR	BEND/REDMOND	SHEVLIN PARK	5D238	WOLVERINE (SHP) (WAS 5D327)	12.5	2,810
Central OR	BEND/REDMOND	SHEVLIN PARK	5D241	BADGER (SHP)	12.5	2,839
Central OR	BEND/REDMOND	SHEVLIN PARK	5D243	Black Bear	12.5	1,878
Central OR	BEND/REDMOND	SUMMER LAKE (BPA)	CO01-1A	SUMMER LAKE (BPA)-HEMMINGWAY-500KV	500	0
Central OR	BEND/REDMOND	YEW AVENUE	5D322	BIRDIE	12.5	2,348
Central OR	BEND/REDMOND	YEW AVENUE	5D323	FAIRWAY	12.5	395
Central OR	BEND/REDMOND	YEW AVENUE	5D325	EAGLE	12.5	2,908
Central OR	BEND/REDMOND	YEW AVENUE	CO18	TAP TO YEW AVE-115KV	115	0
Central OR	MADRAS	CHERRY LANE	5D295	7 PEAKS	12.5	149
Central OR	MADRAS	CHERRY LANE	CO05-2	CHERRY LANE-WARM SPRINGS-69KV	69	0
Central OR	MADRAS	CORRAL	CO34	CORRAL-FRIEND-230KV	230	0
Central OR	MADRAS	CORRAL	CO34-1	CORRAL-OCHOCO-230KV	230	0
Central OR	MADRAS	CORRAL	CO35	CORRAL-PONDEROSA(BPA)#1-230KV	230	0
Central OR	MADRAS	CORRAL	CO35-1	CORRAL-PONDEROSA(BPA)#2-230KV	230	0
Central OR	MADRAS	CORRAL	CO36	CORRAL-PONDEROSA-230KV	230	0
Central OR	MADRAS	COVE (OR)	CO005	COVE-WARM SPRINGS-69KV	69	1
Central OR	MADRAS	COVE (OR)	CO012	COVE-WARM SPRINGS-69KV	69	1
Central OR	MADRAS	COVE (OR)	CO05-1	CHERRY LANE-COVE-69KV	69	0
Central OR	MADRAS	CULVER	5D5	CULVER	12.5	1,857
Central OR	MADRAS	MADRAS	5D52	MADRAS RURAL	12.5	1,074
Central OR	MADRAS	MADRAS	5D53	AGATE	12.5	1,345
Central OR	MADRAS	MADRAS	5D57	QUARTZ	12.5	1,443
Central OR	MADRAS	MADRAS	5D61	MADRAS CITY	12.5	1,288
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	5D1	POWELL BUTTE	12.5	665
Central OR	MADRAS	PRINEVILLE	5D126	RIMROCK	12.5	889
Central OR	MADRAS	PRINEVILLE	5D167	NORTHVILLE	12.5	2,756
Central OR	MADRAS	PRINEVILLE	5D25	OCHOCO	12.5	1,006
Central OR	MADRAS	PRINEVILLE	5D47	MC KAY (PRINEVILLE)	12.5	1,885
Central OR	MADRAS	PRINEVILLE	5D48	LAMONTA	12.5	633
Central OR	MADRAS	PRINEVILLE	5D50	PINE CONE	12.5	78
Central OR	MADRAS	PRINEVILLE	5D69	GRIMES FLAT	12.5	1,636
Central OR	MADRAS	WARM SPRINGS	4D68	WARM SPRINGS (OR)	20.8	986
Central OR	MADRAS	WARM SPRINGS	CO05	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 BEACHTAP-NECANICUM(TPUD)-115KV	115	0
CoastPlus	CLATSOP (ASTORIA)	CANNON BEACH	5A10	HAYSTACK	12.5	1,624
CoastPlus	CLATSOP (ASTORIA)	CANNON BEACH	5A8	ECOLA	12.5	1,215
CoastPlus	CLATSOP (ASTORIA)	FERN HILL SUB	5A51	JOHN DAY	12.5	270
CoastPlus	CLATSOP (ASTORIA)	FERN HILL SUB	5A52	SCANDINAVIAN	12.5	389
CoastPlus	CLATSOP (ASTORIA)	KNAPPA SVENSEN	5A92	SVENSEN	12.5	733



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Oregon Region	Op Area Name	Substation Name	Circuit Id	Circuit Name	kV	Circuit Customer Count
CoastPlus	CLATSOP (ASTORIA)	KNAPPA SVENSEN	5A93	BRADWOOD	12.5	934
CoastPlus	CLATSOP (ASTORIA)	LEWIS & CLARK	CL03	LEWIS & CLARK-CLATSOP-BPA-115KV	115	0
CoastPlus	CLATSOP (ASTORIA)	SEASIDE	5A80	GROVE	12.5	2,410
CoastPlus	CLATSOP (ASTORIA)	SEASIDE	5A81	CENTRAL	12.5	1,625
CoastPlus	CLATSOP (ASTORIA)	SEASIDE	5A82	NECANICUM	12.5	1,217
CoastPlus	CLATSOP (ASTORIA)	SEASIDE	5A83	GEARHART	12.5	3,420
CoastPlus	CLATSOP (ASTORIA)	SEASIDE	CL01-SSD	SEASIDE SUB	115	0
CoastPlus	CLATSOP (ASTORIA)	WARRENTON	5A15	CITY	12.5	280
CoastPlus	CLATSOP (ASTORIA)	WARRENTON	5A16	MILL (WARRENTON)	12.5	2,287
CoastPlus	CLATSOP (ASTORIA)	WARRENTON	5A20	SOUTH (WARRENTON)	12.5	1,742
CoastPlus	CLATSOP (ASTORIA)	YOUNGS BAY	5A202	PORT DOCK	12.5	1,184
CoastPlus	CLATSOP (ASTORIA)	YOUNGS BAY	5A204	MOO COW	12.5	1,185
CoastPlus	CLATSOP (ASTORIA)	YOUNGS BAY	5A205	FIFTH STREET	12.5	983
CoastPlus	CLATSOP (ASTORIA)	YOUNGS BAY	5A206	YOUNGS BAY #6	12.5	329
CoastPlus	CLATSOP (ASTORIA)	YOUNGS BAY	5A210	YOUNGS BAY #10	12.5	942
CoastPlus	CLATSOP (ASTORIA)	YOUNGS BAY	5A211	OLNEY	12.5	1,101
CoastPlus	CLATSOP (ASTORIA)	YOUNGS BAY	5A213	INDUSTRIAL	12.5	1,380
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	1,356
CoastPlus	COOS BAY/COQUILLE	COOS RIVER	CB02-COO	COOS RIVER SUB	115	0
CoastPlus	COOS BAY/COQUILLE	COQUILLE	4C41	HENRY STREET	20.8	1,684
CoastPlus	COOS BAY/COQUILLE	COQUILLE	4C42	TERRES HGHTS	20.8	1,551
CoastPlus	COOS BAY/COQUILLE	COQUILLE	4C43	INDUSTRIAL	20.8	151
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-COQ	COQUILLE SUB	115	0
CoastPlus	COOS BAY/COQUILLE	EMPIRE	4C108	EMPIRE	20.8	1,747
CoastPlus	COOS BAY/COQUILLE	EMPIRE	4C89	SCOTT	20.8	1,443
CoastPlus	COOS BAY/COQUILLE	EMPIRE	4C90	CHARLESTON	20.8	2,097
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	29
CoastPlus	COOS BAY/COQUILLE	LOCKHART	4C48	CITY CENTER	20.8	1,503
CoastPlus	COOS BAY/COQUILLE	LOCKHART	4C49	EASTSIDE	20.8	785
CoastPlus	COOS BAY/COQUILLE	LOCKHART	4C5	GEORGIA-PAC	20.8	89
CoastPlus	COOS BAY/COQUILLE	LOCKHART	4C50	BUNKERHILL	20.8	1,838
CoastPlus	COOS BAY/COQUILLE	LOCKHART	4C97	ENGLEWOOD	20.8	1,381
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	336

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CoastPlus	COOS BAY/COQUILLE	MYRTLE POINT	4C37	MAPLE STREET	20.8	2,079
CoastPlus	COOS BAY/COQUILLE	SOUTH DUNES	5C9	DOUGLAS CHIP	12.5	3
CoastPlus	COOS BAY/COQUILLE	STATE STREET	4C112	WOODLAND	20.8	1,810
CoastPlus	COOS BAY/COQUILLE	STATE STREET	4C66	BAYSHORE	20.8	1,718
CoastPlus	COOS BAY/COQUILLE	STATE STREET	4C67	INDUSTRIAL	20.8	2,220
CoastPlus	COOS BAY/COQUILLE	STATE STREET	4C86	BANGOR	20.8	1,802
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	711
CoastPlus	HOOD RIVER	GORDON HOLLOW	VVW13-1	DEMOSS(BPA)-GORDON HOLLOW-69KV	69	0
CoastPlus	HOOD RIVER	HOOD RIVER	5K37	RESIDENTIAL	12.5	2,111
CoastPlus	HOOD RIVER	HOOD RIVER	5K43	BELMONT	12.5	1,214
CoastPlus	HOOD RIVER	HOOD RIVER	5K44	NORTH (HOOD RIVER)	12.5	1,809
CoastPlus	HOOD RIVER	HOOD RIVER	5K70	EASTSIDE	7.2	1,065
CoastPlus	HOOD RIVER	HOOD RIVER	5K74	SOUTH (HOOD RIVER)	12.5	1,599
CoastPlus	HOOD RIVER	KENWOOD	5K50	OAKGROVE	12.5	806
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	278
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	1,917
CoastPlus	LINCOLN CITY	DEVILS LAKE	4A312	OCEAN	20.8	3,015
CoastPlus	LINCOLN CITY	DEVILS LAKE	4A316	LAKE (DEVILS LAKE)	20.8	4,316
CoastPlus	LINCOLN CITY	DEVILS LAKE	4A338	SIUSLAW	20.8	664
CoastPlus	LINCOLN CITY	DEVILS LAKE	LC01-DVK	DEVILS LAKE SUB	115	0
CoastPlus	LINCOLN CITY	GLENEDEN	7A364	GLENEDEN	4.1	712
CoastPlus	LINCOLN CITY	GLENEDEN	7A366	SALISHAN	4.1	360
CoastPlus	LINCOLN CITY	NELSCOTT	7A390	NELSCOTT	4.1	354
CoastPlus	LINCOLN CITY	PGE GRAND RONDE	R114	BOYER	12	19
CoastPlus	LINCOLN CITY	WECOMA BEACH	7A354	WECOMA	4.1	723
CoastPlus	PORTLAND	ALBINA	5P111	ALBINA 11C01-UG	11.7	607
CoastPlus	PORTLAND	ALBINA	5P150	ALBINA 11C15	11.7	135
CoastPlus	PORTLAND	ALBINA	5P194	11C24-UG	11.7	237
CoastPlus	PORTLAND	ALBINA	5P196	11C16-UG	11.7	544
CoastPlus	PORTLAND	ALBINA	5P200	11C20-UG	11.7	465
CoastPlus	PORTLAND	ALBINA	5P66	11C25	11.7	0
CoastPlus	PORTLAND	ALBINA	5P91	11C11-UG	11.7	316
CoastPlus	PORTLAND	ALBINA	5P92	11C12-UG	11.7	160
CoastPlus	PORTLAND	ALBINA	P12-2	ALBINA-KNOTT-115KV	115	0
CoastPlus	PORTLAND	ALDERWOOD 115/12.5	5P22	ALDERWOOD #2	12.5	201
CoastPlus	PORTLAND	ALDERWOOD 115/12.5	5P23	ALDERWOOD #1-UG	12.5	0
CoastPlus	PORTLAND	ALDERWOOD 115/12.5	5P33	ALDERWOOD #4	12.5	181
CoastPlus	PORTLAND	ALDERWOOD 115/12.5	5P604	ALDERWOOD #3	12.5	197
CoastPlus	PORTLAND	ALDERWOOD 115/12.5	P19-1	ALDERWOOD-KILLINGSWORTH-69KV	69	0
CoastPlus	PORTLAND	ALDERWOOD 115/12.5	P19-2	ALDERWOOD-TROUTDALE-69KV	69	0
CoastPlus	PORTLAND	BLOSS	5P170	OFFICE	12.5	0
CoastPlus	PORTLAND	BLOSS	5P172	FURNACE	12.5	1
CoastPlus	PORTLAND	BPA ST JOHNS	P10-2	BPA ST JOHNS-ST JOHNS-115KV	115	0
CoastPlus	PORTLAND	BPA ST JOHNS	P11	ST JOHNS-KNOTT-115KV	115	0

## Oregon 2021 Active Circuits with Substation, Voltage and Customer Counts

Oregon Region	Op Area Name	Substation Name	Circuit Id	Circuit Name	kV	Circuit Customer Count
CoastPlus	PORTLAND	COLUMBIA (OR)	5P266	COLUMBIA #2	12.5	2,629
CoastPlus	PORTLAND	COLUMBIA (OR)	5P268	COLUMBIA #1	12.5	357
CoastPlus	PORTLAND	COLUMBIA (OR)	5P474	COLUMBIA #6	12.5	546
CoastPlus	PORTLAND	COLUMBIA (OR)	5P476	COLUMBIA #3	12.5	865
CoastPlus	PORTLAND	COLUMBIA (OR)	5P478	COLUMBIA #4	12.5	1,140
CoastPlus	PORTLAND	COLUMBIA (OR)	5P480	COLUMBIA #5	12.5	22
CoastPlus	PORTLAND	COLUMBIA (OR)	P23	COLUMBIA-KNOTT-57KV (OR)	57	0
CoastPlus	PORTLAND	COLUMBIA (OR)	P25	COLUMBIA-KILLINGSWORTH-69KV	57	0
CoastPlus	PORTLAND	CULLY	5P288	CULLY #3-UG	12.5	817
CoastPlus	PORTLAND	CULLY	5P290	CULLY #2	12.5	2,424
CoastPlus	PORTLAND	CULLY	5P292	CULLY #1	12.5	2,941
CoastPlus	PORTLAND	CULLY	P14-1	CULLY-PARKROSE TAP-115KV	115	0
CoastPlus	PORTLAND	CULLY	P14-2	PARKROSE TAP-HEMLOCK-TROUTDALE-115KV	115	0
CoastPlus	PORTLAND	CULLY	P14-3	CULLY-HOLLYWOOD-115KV	115	0
CoastPlus	PORTLAND	HARRISON	P17	HARRISON-PGE EASTPORT-115KV	115	0
CoastPlus	PORTLAND	HARRISON	P18	HARRISON-LINCOLN-115KV	115	0
CoastPlus	PORTLAND	HOLLADAY (OR)	5P145	HOLLADAY #1-UG	11.7	206
CoastPlus	PORTLAND	HOLLADAY (OR)	5P146	HOLLADAY #2-UG	11.7	343
CoastPlus	PORTLAND	HOLLADAY (OR)	5P147	HOLLADAY #3-UG	11.7	166
CoastPlus	PORTLAND	HOLLADAY (OR)	5P156	HOLLADAY #4-UG	11.7	792
CoastPlus	PORTLAND	HOLLADAY (OR)	5P157	HOLLADAY #5-UG	11.7	129
CoastPlus	PORTLAND	HOLLADAY (OR)	5P158	HOLLADAY #6	11.7	914
CoastPlus	PORTLAND	HOLLADAY (OR)	P13	HOLLADAY-HARRISON-115KV	115	0
CoastPlus	PORTLAND	HOLLADAY (OR)	P13-1	HOLLADAY-KNOTT-115KV	115	0
CoastPlus	PORTLAND	HOLLYWOOD	5P203	HOLLYWOOD #3	12.5	1,475
CoastPlus	PORTLAND	HOLLYWOOD	5P204	HOLLYWOOD #2	12.5	672
CoastPlus	PORTLAND	HOLLYWOOD	5P205	HOLLYWOOD #1	12.5	2,226
CoastPlus	PORTLAND	HOLLYWOOD	5P208	HOLLYWOOD #5	12.5	3,451
CoastPlus	PORTLAND	HOLLYWOOD	5P209	HOLLYWOOD #4	12.5	2,362
CoastPlus	PORTLAND	KENNEDY	5P12	CB 5P12	12.5	0
CoastPlus	PORTLAND	KENNEDY	5P14	CB 5P14	12.5	0
CoastPlus	PORTLAND	KENNEDY	5P15	CB 5P15	12.5	0
CoastPlus	PORTLAND	KILLINGSWORTH	5P123	KILLINGSWORTH #3	12.5	320
CoastPlus	PORTLAND	KILLINGSWORTH	5P217	KILLINGSWORTH #5	12.5	434
CoastPlus	PORTLAND	KILLINGSWORTH	5P41	KILLINGSWORTH #4	12.5	2,871
CoastPlus	PORTLAND	KILLINGSWORTH	5P88	KILLINGSWORTH #1-UG	12.5	0
CoastPlus	PORTLAND	KILLINGSWORTH	5P89	KILLINGSWORTH #2	12.5	3,196
CoastPlus	PORTLAND	KNOTT	5P231	KNOTT #1	12.5	524
CoastPlus	PORTLAND	KNOTT	5P232	KNOTT #2	12.5	2,762
CoastPlus	PORTLAND	KNOTT	5P233	KNOTT #3	12.5	2,270
CoastPlus	PORTLAND	KNOTT	5P366	11010	11.7	57
CoastPlus	PORTLAND	KNOTT	5P368	11022	11.7	17
CoastPlus	PORTLAND	KNOTT	5P372	11046	11.7	792
CoastPlus	PORTLAND	KNOTT	5P374	11020	11.7	993
CoastPlus	PORTLAND	KNOTT	P14-4	HOLLYWOOD-KNOTT-115KV	115	0
CoastPlus	PORTLAND	KNOTT	P26	KNOTT-PARKROSE-57KV	57	1
CoastPlus	PORTLAND	KNOTT	P26-1	KNOTT-SW3P278-57KV	57	0
CoastPlus	PORTLAND	KNOTT	P26-2	SW3P214-SW3P208-57KV	57	1
CoastPlus	PORTLAND	KNOTT	P26-3	SW3P278-SW3P214-57KV	57	0
CoastPlus	PORTLAND	LINCOLN (OR)	5P418	11D17	11.7	133
CoastPlus	PORTLAND	LINCOLN (OR)	5P420	11D14	11.7	23
CoastPlus	PORTLAND	LINCOLN (OR)	5P422	11D06-UG	11.7	938
CoastPlus	PORTLAND	LINCOLN (OR)	5P424	11D03-UG	11.7	28
CoastPlus	PORTLAND	LINCOLN (OR)	5P426	11D04-UG	11.7	320
CoastPlus	PORTLAND	LINCOLN (OR)	5P430	11D05-UG	11.7	368

## Oregon 2021 Active Circuits with Substation, Voltage and Customer Counts

Oregon Region	Op Area Name	Substation Name	Circuit Id	Circuit Name	kV	Circuit Customer Count
CoastPlus	PORTLAND	LINCOLN (OR)	5P432	11D02-UG	11.7	681
CoastPlus	PORTLAND	LINCOLN (OR)	5P434	11D12-UG	11.7	15
CoastPlus	PORTLAND	LINCOLN (OR)	5P436	11G18-UG	11.7	95
CoastPlus	PORTLAND	LINCOLN (OR)	5P438	11D08-UG	11.7	16
CoastPlus	PORTLAND	LINCOLN (OR)	5P456	11D09-UG	11.7	182
CoastPlus	PORTLAND	LINCOLN (OR)	5P458	11D07-UG	11.7	217
CoastPlus	PORTLAND	LINCOLN (OR)	5P460	11D01-UG	11.7	1
CoastPlus	PORTLAND	LINCOLN (OR)	5P462	11G13-UG	11.7	35
CoastPlus	PORTLAND	LINCOLN (OR)	5P464	11G16-UG	11.6	169
CoastPlus	PORTLAND	LINCOLN (OR)	P16	LINCOLN-URBAN-115KV	115	1
CoastPlus	PORTLAND	MALLORY	5P162	MALLORY #1	12.8	2,322
CoastPlus	PORTLAND	MALLORY	5P164	MALLORY #2	12.8	4,033
CoastPlus	PORTLAND	MERWIN	P08	MERWIN-BPA CARDWELL-115KV	115	1
CoastPlus	PORTLAND	MERWIN	P09	MERWIN-YALE-115KV	115	1
CoastPlus	PORTLAND	MERWIN	P10-1	MERWIN-ST JOHNS-115KV	115	0
CoastPlus	PORTLAND	MERWIN	P-GEN1	MERWIN #1-MERWIN-115KV	115	0
CoastPlus	PORTLAND	MERWIN	P-GEN2	MERWIN #2-MERWIN-115KV	115	0
CoastPlus	PORTLAND	MERWIN	P-GEN3	MERWIN #3-MERWIN-115KV	115	0
CoastPlus	PORTLAND	PARKROSE	5P244	PARKROSE#4	12.5	3,115
CoastPlus	PORTLAND	PARKROSE	5P246	PARKROSE#3	12.5	3,093
CoastPlus	PORTLAND	PARKROSE	5P250	PARKROSE#2	12.5	648
CoastPlus	PORTLAND	PARKROSE	5P252	PARKROSE#1	12.5	1,795
CoastPlus	PORTLAND	PARKROSE	5P717	PARKROSE 5	12.5	65
CoastPlus	PORTLAND	PARKROSE	5P728	PARKROSE 6	12.5	0
CoastPlus	PORTLAND	RUSSELLVILLE	5P274	RUSSELLVILLE #3	12.5	3,117
CoastPlus	PORTLAND	RUSSELLVILLE	5P276	RUSSELLVILLE #4	12.5	2,476
CoastPlus	PORTLAND	RUSSELLVILLE	5P278	RUSSELLVILLE #1	12.5	3,325
CoastPlus	PORTLAND	RUSSELLVILLE	5P280	RUSSELLVILLE #2	12.5	1,261
CoastPlus	PORTLAND	SWIFT	P-GEN4	SWIFT UNIT #1-SWIFT-230KV	230	0
CoastPlus	PORTLAND	SWIFT	P-GEN5	SWIFT UNIT #2-SWIFT-230KV	230	0
CoastPlus	PORTLAND	TROUTDALE	P14	TROUTDALE-KNOTT-115KV	115	0
CoastPlus	PORTLAND	TROUTDALE	P22-1	TROUTDALE-LADY-SUB #8-69KV	69	0
CoastPlus	PORTLAND	TROUTDALE	P22-2	TROUTDALE-JAMES RIV WEST-69KV	69	1
CoastPlus	PORTLAND	TROUTDALE	P22-3	TROUTDALE-JAMES RIV EAST-69KV	69	0
CoastPlus	PORTLAND	TROUTDALE	P34	TROUTDALE-CPU RUNYAN-115KV	115	0
CoastPlus	PORTLAND	TROUTDALE TIE (BPA)	P03	BPA TROUTDALE-PGE GRESHAM-230KV	230	0
CoastPlus	PORTLAND	TROUTDALE TIE (BPA)	P04	BPA TROUTDALE-PGE LINNEMAN-230KV	230	0
CoastPlus	PORTLAND	VERNON	5P391	VERNON #1	12.5	1,796
CoastPlus	PORTLAND	VERNON	5P392	VERNON NO. 2	12.5	2,612
CoastPlus	PORTLAND	VERNON	5P393	VERNON #3	12.5	5,202
CoastPlus	PORTLAND	VERNON	5P394	VERNON # 4	12.5	3,508
CoastPlus	PORTLAND	VERNON	5P395	VERNON # 5	12.5	2,278
CoastPlus	PORTLAND	YALE	5P53	YALE VILLAGE	12.5	0
Northeast	ENTERPRISE	ENTERPRISE (OR)	4W8	CREIGHTON LN	20.8	1,494
Northeast	ENTERPRISE	ENTERPRISE (OR)	5W15	CITY	12.5	952
Northeast	ENTERPRISE	ENTERPRISE (OR)	5W26	RURAL (ENTERPRISE)	12.5	1,097
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	856
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	57
Northeast	ENTERPRISE	WALLOWA	5W28	CITY	12.5	887

## Oregon 2021 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	ARLINGTON	5K25	ARLINGTON	12.5	516
Northeast	HERMISTON	BLALOCK	5K40	BLALOCK	12.5	21
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	70
Northeast	HERMISTON	DALREED	4K36	SIMTAG	34.5	21
Northeast	HERMISTON	DALREED	4K46	BOEING	34.5	178
Northeast	HERMISTON	HERMISTON	5W602	RURAL (HERMISTON)	12.5	1,407
Northeast	HERMISTON	HERMISTON	WW14-1	HERMISTON-HINKLE-69KV	69	0
Northeast	HERMISTON	HINKLE	5W82	MEADOWS	12.5	380
Northeast	HERMISTON	MCNARY (BPA)	WW15	BPA MCNARY-HERMISTON-69KV	69	0
Northeast	HERMISTON	UMATILLA	5W658	UMATILLA	12.5	1,308
Northeast	HERMISTON	UMATILLA	5W660	MCNARY	12.5	945
Northeast	HERMISTON	UMATILLA	5W664	PORT FEEDER	12.5	60
Northeast	PENDLETON	ATHENA	5W703	CITY	12.5	850
Northeast	PENDLETON	ATHENA	5W705	HELIX	12.5	425
Northeast	PENDLETON	BUCKAROO	5W201	STATE HOSP.	12.5	389
Northeast	PENDLETON	BUCKAROO	5W202	REITH	12.5	1,558
Northeast	PENDLETON	BUCKAROO	5W203	MONTEE	12.5	1,771
Northeast	PENDLETON	HERMISTON	WW14	HERMISTON-PENDLETON-69KV	69	0
Northeast	PENDLETON	MCKAY (OR)	5W856	MCKAY	12.47	0
Northeast	PENDLETON	MCKAY (OR)	5W857	WILDHORSE	12.47	0
Northeast	PENDLETON	PENDLETON	5W401	WEST HILLS	12.5	1,671
Northeast	PENDLETON	PENDLETON	5W402	HARRIS HTS	12.5	2,074
Northeast	PENDLETON	PENDLETON	5W403	MISSION	12.5	1,048
Northeast	PENDLETON	PENDLETON	7W451	BUSINESS	4.1	273
Northeast	PENDLETON	PENDLETON	7W452	NORTHWEST	4.1	531
Northeast	PENDLETON	PENDLETON	7W453	SOUTHWEST (PENDELTON)	4.1	333
Northeast	PENDLETON	PENDLETON	7W454	EAST END	4.1	242
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	1,402
Northeast	PENDLETON	ROUNDUP (BPA)	WW11	BPA ROUNDUP-PILOT ROCK-69KV	69	0
Northeast	PENDLETON	WESTON NEW (OR)	5W40	WESTON CANNERY	12.5	15
Northeast	PENDLETON	WESTON NEW (OR)	5W7	SCOTTS FEEDER	12.5	453
Northeast	WALLA WALLA	UMAPINE	5W105	UMAPINE FEEDER	12.5	968
Northeast	WALLA WALLA	UMAPINE	5W106	FERNDALE	12.5	1,352
Southern OR	GRANTS PASS	AGNESS AVE	5R172	SPALDING MILL	12.5	889
Southern OR	GRANTS PASS	AGNESS AVE	5R173	JONES CREEK	12.5	884
Southern OR	GRANTS PASS	AGNESS AVE	5R322	ANTEATER	12.5	1,004
Southern OR	GRANTS PASS	APPLEGATE	5R267	MURPHY	12.5	1,060
Southern OR	GRANTS PASS	APPLEGATE	5R278	HIGHWAY	12.5	1,331
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	5R104	SAVAGE ST	12.5	1,277
Southern OR	GRANTS PASS	BEACON	5R105	BEACON ST	12.5	848
Southern OR	GRANTS PASS	CAVE JUNCTION	5R52	FREE& EASY	12.5	2,454
Southern OR	GRANTS PASS	CAVE JUNCTION	5R53	ROUGH &READY	12.5	1,545
Southern OR	GRANTS PASS	CAVE JUNCTION	R02	CAVE JUNCTION-GRANTS PASS-115KV	115	0

## Oregon 2021 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	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	5R295	QUAIL	12.5	1,122
Southern OR	GRANTS PASS	CAVEMAN	5R82	WASHINGTON	12.5	1,207
Southern OR	GRANTS PASS	CAVEMAN	5R98	MANZANITA	12.5	575
Southern OR	GRANTS PASS	CAVEMAN	5R99	CAVEMAN	12.5	1,213
Southern OR	GRANTS PASS	DOWELL	5R330	DOWELL CB 5R330	12.5	0
Southern OR	GRANTS PASS	DOWELL	5R331	DOVE	12.5	1,499
Southern OR	GRANTS PASS	DOWELL	5R334	DUCK	12.5	2,552
Southern OR	GRANTS PASS	EASY VALLEY	5R123	G STREET	12.5	2,212
Southern OR	GRANTS PASS	EASY VALLEY	5R125	ROGUE	12.5	1,809
Southern OR	GRANTS PASS	EASY VALLEY	5R259	CHINOOK	12.5	1,343
Southern OR	GRANTS PASS	FIELDER CREEK	4R33	ELK FDR.	20.8	1,849
Southern OR	GRANTS PASS	FIELDER CREEK	4R34	BEAR FDR	20.8	865
Southern OR	GRANTS PASS	GLENDALE SUBSTATION	5R133	GLENDALE	12.5	1,884
Southern OR	GRANTS PASS	GLENDALE SUBSTATION	5R143	INDUSTRIAL	12.5	657
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	5R62	WILD PRAIRIE	12.5	1,643
Southern OR	GRANTS PASS	JEROME PRAIRIE	5R63	WOOD RIVER	12.5	1,610
Southern OR	GRANTS PASS	MERLIN	5R232	MERLIN-HUGO	12.5	1,024
Southern OR	GRANTS PASS	MERLIN	5R234	PARADISE	12.5	1,208
Southern OR	GRANTS PASS	MERLIN	5R248	PLEASANT VALLEY-MERLIN FEEDER	12.5	1,139
Southern OR	GRANTS PASS	MERLIN	5R251	BADGER	12.5	931
Southern OR	GRANTS PASS	MERLIN	5R288	MONARCH	12.5	1,758
Southern OR	GRANTS PASS	OBRIEN	5R106	O'BRIEN	12.5	430
Southern OR	GRANTS PASS	PARK STREET (OR)	5R114	FRUITDALE	12.5	2,203



## Oregon 2021 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	PARK STREET (OR)	5R115	ALLEN CREEK	12.5	1,004
Southern OR	GRANTS PASS	PARK STREET (OR)	5R121	NEW HOPE	12.5	2,181
Southern OR	GRANTS PASS	PARK STREET (OR)	5R164	EXPRESS	12.5	322
Southern OR	GRANTS PASS	PARK STREET (OR)	5R169	PORTOLA	12.5	1,401
Southern OR	GRANTS PASS	PROVOLT	5R67	NORTH-SOUTH	12.5	1,456
Southern OR	GRANTS PASS	ROGUE RIVER	5R77	SAVAGE/WIMMER	12.5	1,885
Southern OR	GRANTS PASS	ROGUE RIVER	5R78	ROCKY POINT (ROGUE RIVER)	12.5	1,065
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	1,204
Southern OR	KLAMATH FALLS	BEATTY	5L1	BEATTY	12.5	384
Southern OR	KLAMATH FALLS	BLY	5L14	TOWN (BLY)	12.5	422
Southern OR	KLAMATH FALLS	BOISE CASCADE	7L9	BOISE CASCAD	4.1	1
Southern OR	KLAMATH FALLS	BONANZA (OR)	5L7	POE VALLEY	12.5	475
Southern OR	KLAMATH FALLS	BRYANT	5L2	GARY STREET	12.5	2,148
Southern OR	KLAMATH FALLS	BRYANT	5L3	WASHBURN	12.5	1,823
Southern OR	KLAMATH FALLS	BRYANT	5L4	SUMMERS LANE	12.5	1,960
Southern OR	KLAMATH FALLS	BRYANT	5L5	MOYINA HTS.	12.5	2,474
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	1,168
Southern OR	KLAMATH FALLS	CHILOQUIN	5L57	CRATER LAKE	12	1,032
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	5L37	WILLIAMSON	12.5	571
Southern OR	KLAMATH FALLS	DAIRY	5L42	SWAN LAKE	12.5	260
Southern OR	KLAMATH FALLS	DAIRY	5L43	DAIRY	12.5	494
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	5L55	KENO	12.5	1,702
Southern OR	KLAMATH FALLS	HAMAKER	5L56	MOUNTAIN	12.5	158
Southern OR	KLAMATH FALLS	HENLEY	5L58	HENLEY	12.5	232
Southern OR	KLAMATH FALLS	HENLEY	5L59	WEST	12.5	538
Southern OR	KLAMATH FALLS	HORNET	5L44	HOMEDALE	12.5	2,829
Southern OR	KLAMATH FALLS	HORNET	5L45	CRYSTAL SPR	12.5	1,479
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-WEYERHAUSER-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

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Oregon Region	Op Area Name	Substation Name	Circuit Id	Circuit Name	kV	Circuit Customer Count
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
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	5L49	WOCUS	12.5	232
Southern OR	KLAMATH FALLS	LAKEPORT	5L54	SOUTH (LAKEPORT)	12.5	2,443
Southern OR	KLAMATH FALLS	LAKEPORT	5L61	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)	5L26	LAKE (MERRILL)	12.5	985
Southern OR	KLAMATH FALLS	MERRILL (OR)	5L27	NORTH (MERRILL)	12.5	559
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	5L36	MODOC	12.5	851
Southern OR	KLAMATH FALLS	ROSS AVENUE	5L46	ELDORADO	12.5	1,388
Southern OR	KLAMATH FALLS	ROSS AVENUE	5L47	FORT ROAD	12.5	0
Southern OR	KLAMATH FALLS	ROSS AVENUE	5L48	BROAD ST.	12.5	1,204
Southern OR	KLAMATH FALLS	RUNNING Y	4L50	ROCKY POINT FEEDER (RUNNING Y)	20.8	1,472
Southern OR	KLAMATH FALLS	SHASTA WAY	7L25	SHASTA WAY	4.1	432
Southern OR	KLAMATH FALLS	SNOW GOOSE	5L490	SNOW GOOSE CB 5L490	12.5	0
Southern OR	KLAMATH FALLS	SNOW GOOSE	5L491	SNOW GOOSE CB 5L491	12.5	0
Southern OR	KLAMATH FALLS	SPRAGUE RIVER	5L8	SPRAGUE RIVER	12.5	507
Southern OR	KLAMATH FALLS	SUMMER LAKE (BPA)	CO01-2	MALIN-SUMMER LAKE-500KV	500	0
Southern OR	KLAMATH FALLS	TEXUM	5L112	ANDERSON	12.5	1,203
Southern OR	KLAMATH FALLS	TEXUM	5L113	TOWER	12.5	284
Southern OR	KLAMATH FALLS	TEXUM	5L116	ALTAMONT	12.5	1,484
Southern OR	KLAMATH FALLS	TURKEY HILL	5L20	MALIN CITY	12.5	826



## Oregon 2021 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	TURKEY HILL	5L23	RURAL (TURKEY HILL)	12.5	322
Southern OR	KLAMATH FALLS	WEST SIDE	5L12	ORINDALE	12.5	803
Southern OR	KLAMATH FALLS	WEST SIDE	5L15	CALIFORNIA	12.5	1,356
Southern OR	KLAMATH FALLS	WEST SIDE	5L16	MAIN ST (WEST SIDE HE PLANT)	12.5	110
Southern OR	KLAMATH FALLS	WEST SIDE	5L17	PINE ST (WEST SIDE HE PLANT)	12.5	504
Southern OR	KLAMATH FALLS	WEST SIDE	5L18	RIVERSIDE (WEST SIDE HE PLANT)	12.5	588
Southern OR	KLAMATH FALLS	WEST SIDE	5L19	LAKESHORE	12.5	303
Southern OR	KLAMATH FALLS	WEST SIDE	8L10	CITY WTR PMP	2.4	1
Southern OR	LAKEVIEW	MILE-HI	5L104	INDUSTRIAL	12.5	704
Southern OR	LAKEVIEW	MILE-HI	5L105	BUSINESS	12.5	1,737
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)	5R241	CITY	12.5	12
Southern OR	MEDFORD	ASHLAND (MTN.AVE, PUD)	5R245	VALLEY VIEW	12.5	880
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-VOORHEES CROSSING-115KV	115	0
Southern OR	MEDFORD	ASHLAND (MTN.AVE, PUD)	R18-4	GRIFFIN CREEK-VOORHEES CROSSING-115KV	115	0
Southern OR	MEDFORD	ASHLAND (MTN.AVE, PUD)	R18-5	BELKNAP-VOORHEES CROSSING-115KV	115	0
Southern OR	MEDFORD	ASHLAND (MTN.AVE, PUD)	R18-6	CAMPBELL-VOORHEES 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	5R359	BEEHIVE	12.5	2
Southern OR	MEDFORD	BEALL LANE	5R361	BULLDOG	12.5	1,731
Southern OR	MEDFORD	BEALL LANE	5R364	BOBCAT	12.5	2,161
Southern OR	MEDFORD	BELKNAP	5R1	KOGAP	12.5	1,015
Southern OR	MEDFORD	BELKNAP	5R2	RIVERSIDE (BELKNAP)	12.5	663
Southern OR	MEDFORD	BELKNAP	5R3	BARNETT	12.5	1,631
Southern OR	MEDFORD	BELKNAP	5R47	STEWART	12.5	2,306
Southern OR	MEDFORD	BROOKHURST	5R118	SPRINGBROOK	12.5	1,936
Southern OR	MEDFORD	BROOKHURST	5R135	ROBERTS (BROOKHURST)	12.5	1,710
Southern OR	MEDFORD	BROOKHURST	5R32	ROXY	12.5	1,822
Southern OR	MEDFORD	BROOKHURST	5R33	CRATER LAKE	12.5	1,736
Southern OR	MEDFORD	BROOKHURST	5R75	SUNRISE (BROOKHURST)	12.5	1,226
Southern OR	MEDFORD	CAMPBELL	5R216	VOORHIES	12.5	852
Southern OR	MEDFORD	CAMPBELL	5R218	PHOENIX	12.5	702
Southern OR	MEDFORD	CAMPBELL	5R227	FERN VALLEY	12.5	1,225
Southern OR	MEDFORD	CAMPBELL	5R312	COBRA	12.5	1,511
Southern OR	MEDFORD	DODGE BRIDGE	4R1	SALMON	20.8	1,633
Southern OR	MEDFORD	DODGE BRIDGE	4R35	MEADOWS ROAD	20.8	1,383
Southern OR	MEDFORD	FOOTHILLS	5R252	HILLCREST ROAD	12.5	0
Southern OR	MEDFORD	FOOTHILLS	5R38	HOSPITAL	12.5	773
Southern OR	MEDFORD	FOOTHILLS	5R39	PIERCE ROAD	12.5	1,165
Southern OR	MEDFORD	FRALEY	5R87	TABLE ROCK	12.5	527
Southern OR	MEDFORD	FRALEY	5R88	DODGE BRIDGE	12.5	369
Southern OR	MEDFORD	GOLD HILL	5R103	GOLD HILL	12.5	2036
Southern OR	MEDFORD	GOLD HILL	R13-4	GOLD HILL-TOLO-69KV	69	0
Southern OR	MEDFORD	GRIFFIN CREEK	5R200	ARNOLD LANE	12.5	0
Southern OR	MEDFORD	GRIFFIN CREEK	5R204	HULL RD	12.5	2731
Southern OR	MEDFORD	GRIFFIN CREEK	5R206	GRIFFIN CREEK	12.5	1759
Southern OR	MEDFORD	HUMBUG CREEK	5R287	HUMMINGBIRD	12.5	690

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Oregon Region	Op Area Name	Substation Name	Circuit Id	Circuit Name	kV	Circuit Customer Count
Southern OR	MEDFORD	JACKSONVILLE	5R284	STAGE RD	12.5	2058
Southern OR	MEDFORD	JACKSONVILLE	5R285	JACKSONVILLE HWY	12.5	2244
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
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	5R280	BOISE CASCADE	12.5	1
Southern OR	MEDFORD	MEDFORD	5R21	MELROSE	12.5	1580
Southern OR	MEDFORD	MEDFORD	5R23	SPRING ST.	12.5	1629
Southern OR	MEDFORD	MEDFORD	5R250	BIG Y	12.5	1862
Southern OR	MEDFORD	MEDFORD	5R253	APPLE	12.5	1107
Southern OR	MEDFORD	MEDFORD	5R257	PEAR	12.5	805
Southern OR	MEDFORD	MEDFORD	5R659	MCLEAN	12.5	679
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	5R55	SISKIYOU	12.5	1518
Southern OR	MEDFORD	OAK KNOLL	5R56	HIGHWAY 99	12.5	120
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	5R290	P-3 FOREBAY	12.5	1
Southern OR	MEDFORD	PROSPECT CNTRL	5R40	NEW CASCADE	12.5	336
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

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Oregon Region	Op Area Name	Substation Name	Circuit Id	Circuit Name	kV	Circuit Customer Count
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	5R350	St. Bernard	12.5	1331
Southern OR	MEDFORD	ROXY ANN	5R352	ROXYANN2	12.5	0
Southern OR	MEDFORD	ROXY ANN	5R354	RACCOON	12.5	1577
Southern OR	MEDFORD	ROXY ANN	5R356	ROXY ANN CB5R356	12.5	0
Southern OR	MEDFORD	RUCH	5R68	APPLEGATE	12.5	936
Southern OR	MEDFORD	RUCH	5R69	RUCH	12.5	542
Southern OR	MEDFORD	SAGE ROAD (OR)	5R209	TIMBER PROD	12.5	1
Southern OR	MEDFORD	SAGE ROAD (OR)	5R211	COLUMBUS	12.5	1792
Southern OR	MEDFORD	SAGE ROAD (OR)	5R226	BOISE	12.5	927
Southern OR	MEDFORD	SAGE ROAD (OR)	5R27	MCANDREWS	12.5	111
Southern OR	MEDFORD	SAGE ROAD (OR)	5R28	ROSS	12.5	2111
Southern OR	MEDFORD	SAGE ROAD (OR)	5R29	EDWARDS	12.5	733
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	5R174	UPTON	12.5	2010
Southern OR	MEDFORD	SCENIC	5R180	HEAD RD	12.5	1181
Southern OR	MEDFORD	SCENIC	5R182	TAYLOR RD	12.5	1852
Southern OR	MEDFORD	SCENIC	5R184	CHENEY	12.5	1515
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	2401
Southern OR	MEDFORD	STEVENS ROAD	4R17	Stingray	20.8	2609
Southern OR	MEDFORD	STEVENS ROAD	4R41	ANTELOPE	20.8	1160
Southern OR	MEDFORD	TAKELMA	4R9	LOST CK. (TAKELMA)	20.8	2659
Southern OR	MEDFORD	TALENT	5R237	TALENT	12.5	1784
Southern OR	MEDFORD	TALENT	5R238	ANDERSON CRK	12.5	1649
Southern OR	MEDFORD	TALENT	5R239	HARTLEY ROAD	12.5	1566
Southern OR	MEDFORD	TALENT	5R240	NORTH HWY	12.5	804
Southern OR	MEDFORD	TOLO	5R90	TBL ROCK LBR	12.5	164
Southern OR	MEDFORD	TOLO	5R91	SAMS VALLEY	12.5	658
Southern OR	MEDFORD	TOLO	5R92	KIRTLAND RD	12.5	211
Southern OR	MEDFORD	VILAS ROAD	5R110	MCLAUGHLIN	12.5	968
Southern OR	MEDFORD	VILAS ROAD	5R146	KING CENTER	12.5	1,454
Southern OR	MEDFORD	VILAS ROAD	5R305	WEBFOOT	12.5	920
Southern OR	MEDFORD	WHETSTONE	R10-2C	SCENIC-WHETSTONE-115KV	115	0
Southern OR	MEDFORD	WHETSTONE	R1-2	FIELDER CREEK-WHETSTONE115KV	115	0
Southern OR	MEDFORD	WHITE CITY	5R11	EAGLE POINT	12.5	1,489
Southern OR	MEDFORD	WHITE CITY	5R12	INDUSTRIAL	12.5	36
Southern OR	MEDFORD	WHITE CITY	5R13	FIR-PLY	12.5	24
Southern OR	MEDFORD	WHITE CITY	5R14	AGATE	12.5	114
Southern OR	MEDFORD	WHITE CITY	5R19	3M	12.5	124
Southern OR	MEDFORD	WHITE CITY	5R66	4 CORNERS	12.5	1,875
Southern OR	MEDFORD	WHITE CITY	5R76	AVE C	12.5	79
Southern OR	ROSEBURG/MYRTLECREEK	ALVEY (BPA)	BB03	ALVEY-DIXONVILLE-500KV	500	0
Southern OR	ROSEBURG/MYRTLECREEK	ALVEY (BPA)	WI03	ALVEY-DIXONVILLE-230KV	230	0

## Oregon 2021 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	CANYONVILLE	5U46	CANYONVILLE	12.5	392
Southern OR	ROSEBURG/MYRTLECREEK	CANYONVILLE	5U52	BEALS CREEK FEEDER	12.5	889
Southern OR	ROSEBURG/MYRTLECREEK	CARNES	5U44	RND PRARIE	12.5	420
Southern OR	ROSEBURG/MYRTLECREEK	CARNES	5U45	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	3
Southern OR	ROSEBURG/MYRTLECREEK	CLEARWATER #2 SUB	6U33	CLEARWATER	7.2	96
Southern OR	ROSEBURG/MYRTLECREEK	CLOAKE	4U37	RUSA	20.8	1
Southern OR	ROSEBURG/MYRTLECREEK	CLOAKE	4U38	HARVARD	20.8	2,976
Southern OR	ROSEBURG/MYRTLECREEK	CLOAKE	4U39	GOECK	20.8	1,278
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	806
Southern OR	ROSEBURG/MYRTLECREEK	GARDEN VALLEY	4U81	VALLEY	20.8	1,391

## Oregon 2021 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	GLIDE SUBSTATION	5U83	IDLEYLD	12.5	896
Southern OR	ROSEBURG/MYRTLECREEK	GLIDE SUBSTATION	5U84	LITTLE RIVER	12.5	1,364
Southern OR	ROSEBURG/MYRTLECREEK	GREEN SUBSTATION	5U32	SAFARI	12.5	2,221
Southern OR	ROSEBURG/MYRTLECREEK	GREEN SUBSTATION	5U33	SUNNYSLOPE	12.5	1,643
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	176
Southern OR	ROSEBURG/MYRTLECREEK	MYRTLE CREEK	5U76	SUPER Y	12.5	1,548
Southern OR	ROSEBURG/MYRTLECREEK	MYRTLE CREEK	5U77	BOOMER HILL	12.5	1,208
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	1,291
Southern OR	ROSEBURG/MYRTLECREEK	OAKLAND (OR)	5U12	STAGECOACH	12.5	558
Southern OR	ROSEBURG/MYRTLECREEK	RIDDLE	5U1	TRI CITY	12.5	2,116
Southern OR	ROSEBURG/MYRTLECREEK	RIDDLE	5U2	COW CREEK	12.5	1,568
Southern OR	ROSEBURG/MYRTLECREEK	RIDDLE	5U3	HANNA	12.5	285
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	5U50	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	2,524
Southern OR	ROSEBURG/MYRTLECREEK	ROSEBURG	4U22	DIXON	20.8	1,130
Southern OR	ROSEBURG/MYRTLECREEK	ROSEBURG	4U5	DOUGLAS	20.8	2,087
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	0
Southern OR	ROSEBURG/MYRTLECREEK	SODA SPRINGS HE PLT	6U10	CB6U10	12.5	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	1,620
Southern OR	ROSEBURG/MYRTLECREEK	SOUTHGATE	4U31	BOOTH	20.8	1,563
Southern OR	ROSEBURG/MYRTLECREEK	STEAMBOAT	6U18	STEAMBOAT	7.2	21
Southern OR	ROSEBURG/MYRTLECREEK	SUTHERLIN	5U35	NON-PAREIL	12.5	1,313
Southern OR	ROSEBURG/MYRTLECREEK	SUTHERLIN	5U36	DEADY	12.5	1,358
Southern OR	ROSEBURG/MYRTLECREEK	SUTHERLIN	5U56	Industrial	12.5	546
Southern OR	ROSEBURG/MYRTLECREEK	TILLER	5U89	JACKSON CRK	12.5	302
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	1,648
Southern OR	ROSEBURG/MYRTLECREEK	WINCHESTER	5U15	NEWTON CREEK	12.5	1,793
Southern OR	ROSEBURG/MYRTLECREEK	WINCHESTER	5U17	FISHER	12.5	775
Southern OR	ROSEBURG/MYRTLECREEK	WINCHESTER	5U19	EVANS	12.5	735
Southern OR	ROSEBURG/MYRTLECREEK	WINCHESTER	U10-9	CLOAKE-WINCHESTER-69KV	69	0

## Oregon 2021 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	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	863
Southern OR	ROSEBURG/MYRTLECREEK	WINSTON	5U49	DILLARD	12.5	1,456
Willamette Valley	ALBANY	BPA ALBANY	WI09	BPA ALBANY-HAZELWOOD-115KV	115	0
Willamette Valley	ALBANY	HAZELWOOD	4M335	WEST HIGH	20.8	843
Willamette Valley	ALBANY	HAZELWOOD	4M336	RIVERVIEW (HAZELWOOD)	20.8	1,238
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
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	718
Willamette Valley	ALBANY	JEFFERSON (OR)	4M125	MINT	20.8	2,532
Willamette Valley	ALBANY	MURDER CREEK	4M243	SCRAVEL HILL	20.8	4,183
Willamette Valley	ALBANY	MURDER CREEK	4M245	RURAL NW	20.8	2,381
Willamette Valley	ALBANY	MURDER CREEK	4M249	DURA-PACIFIC	20.8	183
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	100
Willamette Valley	ALBANY	OREMET	4M296	ROGERSDALE	20.8	2,167
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	1,888
Willamette Valley	ALBANY	QUEEN AVE	4M258	HILL STREET	20.8	2,870
Willamette Valley	ALBANY	QUEEN AVE	4M261	WAVERLY	20.8	3,652
Willamette Valley	ALBANY	QUEEN AVE	4M262	GEARY STREET	20.8	2,639
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	3,238
Willamette Valley	ALBANY	VINE STREET	4M16	WATER STREET	20.8	4,284
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	2,701
Willamette Valley	CORVALLIS	BUCHANAN	4M133	PEORIA	20.8	2,433
Willamette Valley	CORVALLIS	BUCHANAN	4M134	N. NINTH ST.	20.8	2,595
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	233



## Oregon 2021 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	DIXON	7M29	SECOND ST.	4.1	271
Willamette Valley	CORVALLIS	GRANT ST	4M265	HIGH SCHOOL	20.8	2,494
Willamette Valley	CORVALLIS	GRANT ST	4M266	CHINTIMINI	20.8	2,536
Willamette Valley	CORVALLIS	GRANT ST	4M268	KINGS ROAD	20.8	2,565
Willamette Valley	CORVALLIS	GRANT ST	4M269	29TH STREET	20.8	3,627
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
Willamette Valley	CORVALLIS	HILLVIEW	4M180	WEST HILLS	20.8	1,916
Willamette Valley	CORVALLIS	HILLVIEW	4M181	PHILOMATH	20.8	1,317
Willamette Valley	CORVALLIS	HILLVIEW	4M182	SUNSET	20.8	1,765
Willamette Valley	CORVALLIS	HILLVIEW	4M185	PLYMOUTH	20.8	2,037
Willamette Valley	CORVALLIS	MARYS RIVER	4M151	GREENBERRY	20.8	3,619
Willamette Valley	CORVALLIS	MARYS RIVER	4M152	AVERY	20.8	186
Willamette Valley	CORVALLIS	MARYS RIVER	4M153	GALLAGHER	20.8	159
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)	WI12	BPA ALVEY-VILLAGE GREEN-115KV	115	1
Willamette Valley	COTTAGE GROVE/J.CITY	COBURG	4M220	DETERING	20.8	586
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	1,623
Willamette Valley	COTTAGE GROVE/J.CITY	HARRISBURG SUB	4M400	TERRITORIAL	20.8	1,850
Willamette Valley	COTTAGE GROVE/J.CITY	JUNCTION CITY	4M102	6TH STREET	20.8	1,156
Willamette Valley	COTTAGE GROVE/J.CITY	JUNCTION CITY	4M99	PRAIRIE ROAD	20.8	1,002
Willamette Valley	COTTAGE GROVE/J.CITY	JUNCTION CITY	WI21-1	WILKINS CORNER-VAUGHN TAP-69KV	69	0
Willamette Valley	COTTAGE GROVE/J.CITY	JUNCTION CITY	WI21-2	JUNCTION CITY-VAUGHN TAP-69KV	69	0
Willamette Valley	COTTAGE GROVE/J.CITY	LANCASTER	4M209	MONROE	20.8	1,130
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	2,416
Willamette Valley	COTTAGE GROVE/J.CITY	VILLAGE GREEN	4M86	MADISON	20.8	1,625
Willamette Valley	DALLAS/INDEPENDENCE	DALLAS	4M100	RURAL (DALLAS)	20.8	2,073
Willamette Valley	DALLAS/INDEPENDENCE	DALLAS	4M201	INDUSTRIAL	20.8	3,138
Willamette Valley	DALLAS/INDEPENDENCE	DALLAS	4M202	ELLENDALE	20.8	3,017
Willamette Valley	DALLAS/INDEPENDENCE	DALLAS	4M238	DALLAS	20.8	2,325
Willamette Valley	DALLAS/INDEPENDENCE	INDEPENDENCE	4M22	RICKREAL	20.8	3,179
Willamette Valley	DALLAS/INDEPENDENCE	INDEPENDENCE	4M25	BUENA VISTA	20.8	2,126
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	CALAPOOYA	12.5	1,713
Willamette Valley	LEBANON	BROWNSVILLE	WI18-2	HALSEY-BROWNSVILLE-69KV	69	0
Willamette Valley	LEBANON	CALAPOOYA	4M850	SPAULDING	20.8	1,126
Willamette Valley	LEBANON	CALAPOOYA	4M851	BEAR	20.8	32

## Oregon 2021 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	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	1,940
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
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	2,636
Willamette Valley	LEBANON	LEBANON	4M62	RALSTON	20.8	2,014
Willamette Valley	LEBANON	LEBANON	4M63	TENNESSEE	20.8	1,801
Willamette Valley	LEBANON	LEBANON	4M79	CROWN Z	20.8	1,170
Willamette Valley	LEBANON	SWEET HOME	4M37	HOLLEY	20.8	2,035
Willamette Valley	LEBANON	SWEET HOME	4M38	NARROWS	20.8	983
Willamette Valley	LEBANON	SWEET HOME	4M93	AMES CREEK	20.8	1,683
Willamette Valley	LEBANON	SWEET HOME	4M94	FOSTER	20.8	2,428
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	691
Willamette Valley	STAYTON	LYONS	4M70	MEHAMA	20.8	1,939
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	1,574
Willamette Valley	STAYTON	SCIO	WI14-3	SCIO-LYONS-69KV	69	0
Willamette Valley	STAYTON	STAYTON	4M19	AUMSVILLE	20.8	3,471
Willamette Valley	STAYTON	STAYTON	4M353	WEST STAYTON	20.8	3,526
Willamette Valley	STAYTON	STAYTON	4M370	CASCADE	20.8	1,585
Willamette Valley	STAYTON	STAYTON	4M50	3RD STREET	20.8	920
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 2021 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	101	16,145	2,462	6.56	0.041
Central OR	BEND/REDMOND	BEND	5D11	GLEN VISTA	53	8,045	1,309	6.15	0.040
Central OR	BEND/REDMOND	BEND	5D12	DIVISION ST.	67	12,527	215	58.26	0.312
Central OR	BEND/REDMOND	BEND	5D196	MALLARD	1,470	277,049	1,412	196.21	1.041
Central OR	BEND/REDMOND	BOND STREET	5D411	BACHELOR	363	86,459	2,249	38.44	0.161
Central OR	BEND/REDMOND	BOND STREET	5D413	OLD MILL.	165	26,309	390	67.46	0.423
Central OR	BEND/REDMOND	BOND STREET	5D418	BLAKELY	164	8,595	1,356	6.34	0.121
Central OR	BEND/REDMOND	CHINA HAT	5D140	LAVA (CHINA HAT)	682	111,649	2,340	47.71	0.291
Central OR	BEND/REDMOND	CHINA HAT	5D142	HIGH DESERT	1,840	222,809	1,721	129.46	1.069
Central OR	BEND/REDMOND	CHINA HAT	5D144	D.R.W.	105	25,616	2,548	10.05	0.041
Central OR	BEND/REDMOND	CLEVELAND AVE.	5D30	ARROWHEAD	447	47,878	1,283	37.32	0.348
Central OR	BEND/REDMOND	CLEVELAND AVE.	5D35	WICKIUP	95	17,660	1,066	16.57	0.089
Central OR	BEND/REDMOND	CLEVELAND AVE.	5D38	TOMAHAWK	290	75,129	1,455	51.63	0.199
Central OR	BEND/REDMOND	CLEVELAND AVE.	5D94	TEEPÉE	282	49,261	3,926	12.55	0.072
Central OR	BEND/REDMOND	CLEVELAND AVE.	5D96	OBSIDIAN	45	3,333	912	3.65	0.049
Central OR	BEND/REDMOND	CLEVELAND AVE.	5D98	HUCKLEBERRY	27	4,410	1,181	3.73	0.023
Central OR	BEND/REDMOND	CROOKED RIVER RANCH	4D131	CANYON	54	11,689	1,816	6.44	0.030
Central OR	BEND/REDMOND	CROOKED RIVER RANCH	4D30	CROOKED R.R.	75	27,200	800	34.00	0.094
Central OR	BEND/REDMOND	DESCHUTES	5D184	PRONGHORN	1,176	67,819	1,135	59.75	1.036
Central OR	BEND/REDMOND	DESCHUTES	5D2	DESCHUTES S	370	84,420	1,036	81.49	0.357
Central OR	BEND/REDMOND	HUNTERS CIRCLE	5D192	Mackinaw	34	2,854	736	3.88	0.046
Central OR	BEND/REDMOND	OVERPASS	5D104	AWBREY	195	17,077	1,961	8.71	0.099
Central OR	BEND/REDMOND	OVERPASS	5D106	NEZ PERCE	523	84,892	2,716	31.26	0.193
Central OR	BEND/REDMOND	OVERPASS	5D120	CHINOOK	227	123,089	1,825	67.45	0.124
Central OR	BEND/REDMOND	OVERPASS	5D128	PAIUTE	31	5,116	2,232	2.29	0.014
Central OR	BEND/REDMOND	OVERPASS	5D155	APACHE	1	39	828	0.05	0.001
Central OR	BEND/REDMOND	PILOT BUTTE	5D261	KLONDIKE	215	26,820	1,524	17.60	0.141
Central OR	BEND/REDMOND	PILOT BUTTE	5D263	DRAKE FEEDER	423	35,339	2,533	13.95	0.167
Central OR	BEND/REDMOND	PILOT BUTTE	5D265	DOBBIN	2,179	139,649	1,718	81.29	1.268
Central OR	BEND/REDMOND	REDMOND	5D21	SOUTH (REDMOND)	28	5,410	838	6.46	0.033
Central OR	BEND/REDMOND	REDMOND	5D22	INDUSTRIAL	355	76,740	1,549	49.54	0.229
Central OR	BEND/REDMOND	REDMOND	5D223	TETHEROW	6	1,049	894	1.17	0.007
Central OR	BEND/REDMOND	REDMOND	5D226	CLINE FALLS	419	59,764	1,536	38.91	0.273
Central OR	BEND/REDMOND	REDMOND	5D227	WINDSOR	286	42,527	3,313	12.84	0.086
Central OR	BEND/REDMOND	REDMOND	5D228	CITY	20	2,769	1,307	2.12	0.015
Central OR	BEND/REDMOND	REDMOND	5D229	JUNIPER	245	50,691	429	118.16	0.571
Central OR	BEND/REDMOND	SHEVLIN PARK	5D238	WOLVERINE (SHP) (WAS 5D327)	404	110,321	2,810	39.26	0.144
Central OR	BEND/REDMOND	SHEVLIN PARK	5D241	BADGER (SHP)	625	79,550	2,839	28.02	0.220
Central OR	BEND/REDMOND	SHEVLIN PARK	5D243	Black Bear	90	40,895	1,878	21.78	0.048
Central OR	BEND/REDMOND	YEW AVENUE	5D322	BIRDIE	75	9,117	2,348	3.88	0.032
Central OR	BEND/REDMOND	YEW AVENUE	5D323	FAIRWAY	1	235	395	0.60	0.003
Central OR	BEND/REDMOND	YEW AVENUE	5D325	EAGLE	21	795	2,908	0.27	0.007

## Oregon 2021 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	CHERRY LANE	5D295	7 PEAKS	15	1,767	149	11.86	0.101
Central OR	MADRAS	CULVER	5D5	CULVER	1,004	150,794	1,857	81.20	0.541
Central OR	MADRAS	MADRAS	5D52	MADRAS RURAL	197	36,242	1,074	33.75	0.183
Central OR	MADRAS	MADRAS	5D53	AGATE	271	27,698	1,345	20.59	0.201
Central OR	MADRAS	MADRAS	5D57	QUARTZ	1,657	259,050	1,443	179.52	1.148
Central OR	MADRAS	MADRAS	5D61	MADRAS CITY	4	243	1,288	0.19	0.003
Central OR	MADRAS	POWELL BUTTE	5D1	POWELL BUTTE	189	45,895	665	69.02	0.284
Central OR	MADRAS	PRINEVILLE	5D126	RIMROCK	908	18,747	889	21.09	1.021
Central OR	MADRAS	PRINEVILLE	5D167	NORTHVILLE	11,170	443,124	2,756	160.79	4.053
Central OR	MADRAS	PRINEVILLE	5D25	OCHOCO	1,112	54,542	1,006	54.22	1.105
Central OR	MADRAS	PRINEVILLE	5D47	MC KAY (PRINEVILLE)	1,229	113,817	1,885	60.38	0.652
Central OR	MADRAS	PRINEVILLE	5D48	LAMONTA	1,929	508,090	633	802.67	3.047
Central OR	MADRAS	PRINEVILLE	5D50	PINE CONE	1,594	172,351	78	2,209.63	20.436
Central OR	MADRAS	PRINEVILLE	5D69	GRIMES FLAT	450	71,639	1,636	43.79	0.275
Central OR	MADRAS	WARM SPRINGS	4D68	WARM SPRINGS (OR)	4,698	673,940	986	683.51	4.765
CoastPlus	CLATSOP (ASTORIA)	CANNON BEACH	5A10	HAYSTACK	6,836	434,698	1,624	267.67	4.209
CoastPlus	CLATSOP (ASTORIA)	CANNON BEACH	5A8	ECOLA	3,806	331,055	1,215	272.47	3.133
CoastPlus	CLATSOP (ASTORIA)	FERN HILL SUB	5A51	JOHN DAY	1,230	209,735	270	776.80	4.556
CoastPlus	CLATSOP (ASTORIA)	FERN HILL SUB	5A52	SCANDINAVIAN	395	96,519	389	248.12	1.015
CoastPlus	CLATSOP (ASTORIA)	KNAPPA SVENSEN	5A92	SVENSEN	1,723	224,073	733	305.69	2.351
CoastPlus	CLATSOP (ASTORIA)	KNAPPA SVENSEN	5A93	BRADWOOD	2,922	428,222	934	458.48	3.128
CoastPlus	CLATSOP (ASTORIA)	SEASIDE	5A80	GROVE	5,198	110,982	2,410	46.05	2.157
CoastPlus	CLATSOP (ASTORIA)	SEASIDE	5A81	CENTRAL	4,910	353,429	1,625	217.50	3.022
CoastPlus	CLATSOP (ASTORIA)	SEASIDE	5A82	NECANICUM	3,237	119,260	1,217	98.00	2.660
CoastPlus	CLATSOP (ASTORIA)	SEASIDE	5A83	GEARHART	11,970	1,681,079	3,420	491.54	3.500
CoastPlus	CLATSOP (ASTORIA)	WARRENTON	5A15	CITY	5	186	280	0.66	0.018
CoastPlus	CLATSOP (ASTORIA)	WARRENTON	5A16	MILL (WARRENTON)	292	54,429	2,287	23.80	0.128
CoastPlus	CLATSOP (ASTORIA)	WARRENTON	5A20	SOUTH (WARRENTON)	1,744	183,215	1,742	105.17	1.001
CoastPlus	CLATSOP (ASTORIA)	YOUNGS BAY	5A202	PORT DOCK	91	31,503	1,184	26.61	0.077
CoastPlus	CLATSOP (ASTORIA)	YOUNGS BAY	5A204	MOO COW	1,998	246,071	1,185	207.65	1.686
CoastPlus	CLATSOP (ASTORIA)	YOUNGS BAY	5A205	FIFTH STREET	1,156	480,696	983	489.01	1.176
CoastPlus	CLATSOP (ASTORIA)	YOUNGS BAY	5A210	YOUNGS BAY #10	38	5,677	942	6.03	0.040
CoastPlus	CLATSOP (ASTORIA)	YOUNGS BAY	5A211	OLNEY	1,449	510,429	1,101	463.60	1.316
CoastPlus	CLATSOP (ASTORIA)	YOUNGS BAY	5A213	INDUSTRIAL	1,472	201,647	1,380	146.12	1.067
CoastPlus	COOS BAY/COQUILLE	BANDON TIE (BPA)	1804	BANDON	1,608	208,425	759	274.60	2.119
CoastPlus	COOS BAY/COQUILLE	COOS RIVER	4C106	COOS RIVER	4,120	315,561	1,356	232.71	3.038
CoastPlus	COOS BAY/COQUILLE	COQUILLE	4C41	HENRY STREET	3,674	299,860	1,684	178.06	2.182
CoastPlus	COOS BAY/COQUILLE	COQUILLE	4C42	TERRES HGHTS	2,392	606,709	1,551	391.17	1.542
CoastPlus	COOS BAY/COQUILLE	COQUILLE	4C43	INDUSTRIAL	6	717	151	4.75	0.040
CoastPlus	COOS BAY/COQUILLE	EMPIRE	4C108	EMPIRE	143	38,210	1,747	21.87	0.082
CoastPlus	COOS BAY/COQUILLE	EMPIRE	4C89	SCOTT	277	26,744	1,443	18.53	0.192
CoastPlus	COOS BAY/COQUILLE	EMPIRE	4C90	CHARLESTON	911	101,394	2,097	48.35	0.434
CoastPlus	COOS BAY/COQUILLE	JORDAN POINT	5C6	SAND DUNES (JORDAN POINT)	2	113	29	3.88	0.069

## Oregon 2021 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
CoastPlus	COOS BAY/COQUILLE	LOCKHART	4C48	CITY CENTER	836	75,550	1,503	50.27	0.556
CoastPlus	COOS BAY/COQUILLE	LOCKHART	4C49	EASTSIDE	251	26,049	785	33.18	0.320
CoastPlus	COOS BAY/COQUILLE	LOCKHART	4C5	GEORGIA-PAC	3	101	89	1.14	0.034
CoastPlus	COOS BAY/COQUILLE	LOCKHART	4C50	BUNKERHILL	438	75,012	1,838	40.81	0.238
CoastPlus	COOS BAY/COQUILLE	LOCKHART	4C97	ENGLEWOOD	1,948	159,535	1,381	115.52	1.411
CoastPlus	COOS BAY/COQUILLE	MYRTLE POINT	4C36	NORTH (MYRTLE POINT)	1,191	183,594	336	546.41	3.545
CoastPlus	COOS BAY/COQUILLE	MYRTLE POINT	4C37	MAPLE STREET	841	144,173	2,079	69.35	0.405
CoastPlus	COOS BAY/COQUILLE	STATE STREET	4C112	WOODLAND	235	34,213	1,810	18.90	0.130
CoastPlus	COOS BAY/COQUILLE	STATE STREET	4C66	BAYSHORE	1,413	215,090	1,718	125.20	0.822
CoastPlus	COOS BAY/COQUILLE	STATE STREET	4C67	INDUSTRIAL	200	14,184	2,220	6.39	0.090
CoastPlus	COOS BAY/COQUILLE	STATE STREET	4C86	BANGOR	977	157,499	1,802	87.40	0.542
CoastPlus	HOOD RIVER	GORDON HOLLOW	4K1	SHERMAN 208	569	79,033	711	111.16	0.800
CoastPlus	HOOD RIVER	HOOD RIVER	5K37	RESIDENTIAL	332	26,501	2,111	12.55	0.157
CoastPlus	HOOD RIVER	HOOD RIVER	5K43	BELMONT	119	52,686	1,214	43.40	0.098
CoastPlus	HOOD RIVER	HOOD RIVER	5K44	NORTH (HOOD RIVER)	2,078	455,777	1,809	251.95	1.149
CoastPlus	HOOD RIVER	HOOD RIVER	5K70	EASTSIDE	457	119,744	1,065	112.44	0.429
CoastPlus	HOOD RIVER	HOOD RIVER	5K74	SOUTH (HOOD RIVER)	104	14,652	1,599	9.16	0.065
CoastPlus	HOOD RIVER	KENWOOD	5K50	OAKGROVE	1,580	206,742	806	256.50	1.960
CoastPlus	HOOD RIVER	WASCO	7K1	WASCO	10	1,683	278	6.05	0.036
CoastPlus	LINCOLN CITY	DEVILS LAKE	4A310	INLAND FEEDER	2,006	337,813	1,917	176.22	1.046
CoastPlus	LINCOLN CITY	DEVILS LAKE	4A312	OCEAN	6,323	293,652	3,015	97.40	2.097
CoastPlus	LINCOLN CITY	DEVILS LAKE	4A316	LAKE (DEVILS LAKE)	19,040	1,717,101	4,316	397.85	4.411
CoastPlus	LINCOLN CITY	DEVILS LAKE	4A338	SIUSLAW	2,889	315,924	664	475.79	4.351
CoastPlus	LINCOLN CITY	GLENEDEN	7A364	GLENEDEN	1,193	204,007	712	286.53	1.676
CoastPlus	LINCOLN CITY	GLENEDEN	7A366	SALISHAN	966	207,879	360	577.44	2.683
CoastPlus	LINCOLN CITY	NELSCOTT	7A390	NELSCOTT	570	66,261	354	187.18	1.610
CoastPlus	LINCOLN CITY	PGE GRAND RONDE	R114	BOYER	1	63	19	3.32	0.053
CoastPlus	LINCOLN CITY	WECOMA BEACH	7A354	WECOMA	757	15,921	723	22.02	1.047
CoastPlus	PORTLAND	ALBINA	5P150	ALBINA 11C15	1	174	135	1.29	0.007
CoastPlus	PORTLAND	ALDERWOOD 115/12.5	5P22	ALDERWOOD #2	1	69	201	0.34	0.005
CoastPlus	PORTLAND	ALDERWOOD 115/12.5	5P33	ALDERWOOD #4	22	6,138	181	33.91	0.122
CoastPlus	PORTLAND	ALDERWOOD 115/12.5	5P604	ALDERWOOD #3	3	2,527	197	12.83	0.015
CoastPlus	PORTLAND	COLUMBIA (OR)	5P266	COLUMBIA #2	2,736	272,701	2,629	103.73	1.041
CoastPlus	PORTLAND	COLUMBIA (OR)	5P268	COLUMBIA #1	403	61,231	357	171.52	1.129
CoastPlus	PORTLAND	COLUMBIA (OR)	5P474	COLUMBIA #6	8	3,778	546	6.92	0.015
CoastPlus	PORTLAND	COLUMBIA (OR)	5P476	COLUMBIA #3	102	34,575	865	39.97	0.118
CoastPlus	PORTLAND	COLUMBIA (OR)	5P478	COLUMBIA #4	27	3,031	1,140	2.66	0.024
CoastPlus	PORTLAND	CULLY	5P288	CULLY #3-UG	50	8,799	817	10.77	0.061
CoastPlus	PORTLAND	CULLY	5P290	CULLY #2	13	2,214	2,424	0.91	0.005
CoastPlus	PORTLAND	CULLY	5P292	CULLY #1	188	30,677	2,941	10.43	0.064
CoastPlus	PORTLAND	HOLLADAY (OR)	5P145	HOLLADAY #1-UG	204	210,152	206	1,020.16	0.990
CoastPlus	PORTLAND	HOLLADAY (OR)	5P147	HOLLADAY #3-UG	511	523,154	166	3,151.53	3.078
CoastPlus	PORTLAND	HOLLADAY (OR)	5P158	HOLLADAY #6	922	74,958	914	82.01	1.009

## Oregon 2021 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
CoastPlus	PORTLAND	HOLLYWOOD	5P203	HOLLYWOOD #3	21	3,899	1,475	2.64	0.014
CoastPlus	PORTLAND	HOLLYWOOD	5P204	HOLLYWOOD #2	4	325	672	0.48	0.006
CoastPlus	PORTLAND	HOLLYWOOD	5P205	HOLLYWOOD #1	114	17,094	2,226	7.68	0.051
CoastPlus	PORTLAND	HOLLYWOOD	5P208	HOLLYWOOD #5	143	27,241	3,451	7.89	0.041
CoastPlus	PORTLAND	HOLLYWOOD	5P209	HOLLYWOOD #4	179	33,048	2,362	13.99	0.076
CoastPlus	PORTLAND	KENNEDY	5P12	CB 5P12	198	23,022	0	#DIV/0	#DIV/0
CoastPlus	PORTLAND	KENNEDY	5P14	CB 5P14	106	17,375	0	#DIV/0	#DIV/0
CoastPlus	PORTLAND	KENNEDY	5P15	CB 5P15	173	30,014	0	#DIV/0	#DIV/0
CoastPlus	PORTLAND	KILLINGSWORTH	5P217	KILLINGSWORTH #5	332	52,479	434	120.92	0.765
CoastPlus	PORTLAND	KILLINGSWORTH	5P41	KILLINGSWORTH #4	111	10,821	2,871	3.77	0.039
CoastPlus	PORTLAND	KILLINGSWORTH	5P89	KILLINGSWORTH #2	102	21,051	3,196	6.59	0.032
CoastPlus	PORTLAND	KNOTT	5P231	KNOTT #1	25	2,991	524	5.71	0.048
CoastPlus	PORTLAND	KNOTT	5P232	KNOTT #2	3,071	401,201	2,762	145.26	1.112
CoastPlus	PORTLAND	KNOTT	5P233	KNOTT #3	4,441	947,387	2,270	417.35	1.956
CoastPlus	PORTLAND	KNOTT	5P366	11010	4	1,012	57	17.75	0.070
CoastPlus	PORTLAND	KNOTT	5P368	11022	2	72	17	4.23	0.118
CoastPlus	PORTLAND	KNOTT	5P372	11046	12	1,890	792	2.39	0.015
CoastPlus	PORTLAND	KNOTT	5P374	11020	66	17,086	993	17.21	0.066
CoastPlus	PORTLAND	LINCOLN (OR)	5P430	11D05-UG	366	311,081	368	845.33	0.995
CoastPlus	PORTLAND	MALLORY	5P162	MALLORY #1	17	1,926	2,322	0.83	0.007
CoastPlus	PORTLAND	MALLORY	5P164	MALLORY #2	624	72,669	4,033	18.02	0.155
CoastPlus	PORTLAND	PARKROSE	5P244	PARKROSE#4	319	43,349	3,115	13.92	0.102
CoastPlus	PORTLAND	PARKROSE	5P246	PARKROSE#3	301	87,274	3,093	28.22	0.097
CoastPlus	PORTLAND	PARKROSE	5P250	PARKROSE#2	71	7,007	648	10.81	0.110
CoastPlus	PORTLAND	PARKROSE	5P252	PARKROSE#1	472	35,231	1,795	19.63	0.263
CoastPlus	PORTLAND	RUSSELLVILLE	5P274	RUSSELLVILLE #3	3,224	516,031	3,117	165.55	1.034
CoastPlus	PORTLAND	RUSSELLVILLE	5P276	RUSSELLVILLE #4	121	14,557	2,476	5.88	0.049
CoastPlus	PORTLAND	RUSSELLVILLE	5P278	RUSSELLVILLE #1	3,400	300,152	3,325	90.27	1.023
CoastPlus	PORTLAND	RUSSELLVILLE	5P280	RUSSELLVILLE #2	1,735	471,366	1,261	373.80	1.376
CoastPlus	PORTLAND	VERNON	5P391	VERNON #1	102	13,051	1,796	7.27	0.057
CoastPlus	PORTLAND	VERNON	5P392	VERNON NO. 2	228	65,852	2,612	25.21	0.087
CoastPlus	PORTLAND	VERNON	5P393	VERNON #3	3,656	301,606	5,202	57.98	0.703
CoastPlus	PORTLAND	VERNON	5P394	VERNON # 4	149	26,450	3,508	7.54	0.042
CoastPlus	PORTLAND	VERNON	5P395	VERNON # 5	65	10,854	2,278	4.76	0.029
Northeast OR	ENTERPRISE	ENTERPRISE (OR)	4W8	CREIGHTON LN	364	103,199	1,494	69.08	0.244
Northeast OR	ENTERPRISE	ENTERPRISE (OR)	5W15	CITY	11	738	952	0.78	0.012
Northeast OR	ENTERPRISE	ENTERPRISE (OR)	5W26	RURAL (ENTERPRISE)	377	101,382	1,097	92.42	0.344
Northeast OR	ENTERPRISE	JOSEPH	5W21	PRAIRIE	304	58,085	856	67.86	0.355
Northeast OR	ENTERPRISE	MINAM	5W18	MINAM	15	824	13	63.39	1.154
Northeast OR	ENTERPRISE	PALLETTE	4W14	PALLETTE NORTH	449	109,441	175	625.38	2.566
Northeast OR	ENTERPRISE	PALLETTE	4W15	PALLETTE SOUTH	127	55,740	57	977.89	2.228
Northeast OR	ENTERPRISE	WALLOWA	5W28	CITY	1,202	82,693	887	93.23	1.355

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Northeast OR	HERMISTON	ARLINGTON	5K25	ARLINGTON	30	3,311	516	6.42	0.058
Northeast OR	HERMISTON	BLALOCK	5K40	BLALOCK	1	150	21	7.17	0.048
Northeast OR	HERMISTON	DALREED	4K16	WILLOW COVE	77	17,746	70	253.52	1.100
Northeast OR	HERMISTON	DALREED	4K36	SIMTAG	23	987	21	46.98	1.095
Northeast OR	HERMISTON	DALREED	4K46	BOEING	340	104,885	178	589.24	1.910
Northeast OR	HERMISTON	HERMISTON	5W602	RURAL (HERMISTON)	3,460	144,155	1,407	102.46	2.459
Northeast OR	HERMISTON	HINKLE	5W82	MEADOWS	2,056	399,045	380	1,050.12	5.411
Northeast OR	HERMISTON	UMATILLA	5W658	UMATILLA	36	6,655	1,308	5.09	0.028
Northeast OR	HERMISTON	UMATILLA	5W660	MCNARY	604	125,527	945	132.83	0.639
Northeast OR	PENDLETON	ATHENA	5W703	CITY	308	31,011	850	36.48	0.362
Northeast OR	PENDLETON	ATHENA	5W705	HELIX	209	31,783	425	74.78	0.492
Northeast OR	PENDLETON	BUCKAROO	5W201	STATE HOSP.	61	8,923	389	22.94	0.157
Northeast OR	PENDLETON	BUCKAROO	5W202	REITH	814	122,447	1,558	78.59	0.522
Northeast OR	PENDLETON	BUCKAROO	5W203	MONTEE	2,680	292,192	1,771	164.99	1.513
Northeast OR	PENDLETON	MCKAY (OR)	5W856	MCKAY	227	24,983	0	#DIV/0	#DIV/0
Northeast OR	PENDLETON	PENDLETON	5W401	WEST HILLS	1,343	123,268	1,671	73.77	0.804
Northeast OR	PENDLETON	PENDLETON	5W402	HARRIS HTS	301	26,225	2,074	12.64	0.145
Northeast OR	PENDLETON	PENDLETON	5W403	MISSION	2,263	150,318	1,048	143.43	2.159
Northeast OR	PENDLETON	PENDLETON	7W451	BUSINESS	1	52	273	0.19	0.004
Northeast OR	PENDLETON	PENDLETON	7W452	NORTHWEST	555	43,441	531	81.81	1.045
Northeast OR	PENDLETON	PENDLETON	7W453	SOUTHWEST (PENDELTON)	1	265	333	0.80	0.003
Northeast OR	PENDLETON	PILOT ROCK	5W406	PILOT ROCK CITY	351	73,283	1,402	52.27	0.250
Northeast OR	PENDLETON	WESTON NEW (OR)	5W7	SCOTTS FEEDER	207	37,334	453	82.41	0.457
Northeast OR	WALLA WALLA	UMAPINE	5W105	UMAPINE FEEDER	59	13,649	968	14.10	0.061
Northeast OR	WALLA WALLA	UMAPINE	5W106	FERNDALE	522	108,001	1,352	79.88	0.386
Southern OR	GRANTS PASS	AGNESS AVE	5R172	SPALDING MILL	1,822	140,050	889	157.54	2.049
Southern OR	GRANTS PASS	AGNESS AVE	5R173	JONES CREEK	908	6,919	884	7.83	1.027
Southern OR	GRANTS PASS	AGNESS AVE	5R322	ANTEATER	2,280	45,743	1,004	45.56	2.271
Southern OR	GRANTS PASS	APPLEGATE	5R267	MURPHY	4,953	526,771	1,060	496.95	4.673
Southern OR	GRANTS PASS	APPLEGATE	5R278	HIGHWAY	3,742	303,517	1,331	228.04	2.811
Southern OR	GRANTS PASS	BEACON	5R104	SAVAGE ST	1,366	20,247	1,277	15.86	1.070
Southern OR	GRANTS PASS	BEACON	5R105	BEACON ST	974	40,946	848	48.29	1.149
Southern OR	GRANTS PASS	CAVE JUNCTION	5R52	FREE& EASY	3,713	351,561	2,454	143.26	1.513
Southern OR	GRANTS PASS	CAVE JUNCTION	5R53	ROUGH & READY	2,679	182,808	1,545	118.32	1.734
Southern OR	GRANTS PASS	CAVEMAN	5R295	QUAIL	161	31,370	1,122	27.96	0.143
Southern OR	GRANTS PASS	CAVEMAN	5R82	WASHINGTON	284	62,162	1,207	51.50	0.235
Southern OR	GRANTS PASS	CAVEMAN	5R98	MANZANITA	603	78,611	575	136.71	1.049
Southern OR	GRANTS PASS	CAVEMAN	5R99	CAVEMAN	1,587	85,880	1,213	70.80	1.308
Southern OR	GRANTS PASS	DOWELL	5R331	DOVE	476	36,870	1,499	24.60	0.318
Southern OR	GRANTS PASS	DOWELL	5R334	DUCK	648	175,730	2,552	68.86	0.254
Southern OR	GRANTS PASS	EASY VALLEY	5R123	G STREET	533	36,970	2,212	16.71	0.241
Southern OR	GRANTS PASS	EASY VALLEY	5R125	ROGUE	119	16,309	1,809	9.02	0.066
Southern OR	GRANTS PASS	EASY VALLEY	5R259	CHINOOK	1,963	138,303	1,343	102.98	1.462



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Southern OR	GRANTS PASS	FIELDER CREEK	4R33	ELK FDR.	5,624	532,507	1,849	288.00	3.042
Southern OR	GRANTS PASS	FIELDER CREEK	4R34	BEAR FDR	2,859	388,134	865	448.71	3.305
Southern OR	GRANTS PASS	GLENDALE SUBSTATION	5R133	GLENDALE	6,566	1,713,587	1,884	909.55	3.485
Southern OR	GRANTS PASS	GLENDALE SUBSTATION	5R143	INDUSTRIAL	775	59,506	657	90.57	1.180
Southern OR	GRANTS PASS	JEROME PRAIRIE	5R62	WILD PRAIRIE	4,787	275,724	1,643	167.82	2.914
Southern OR	GRANTS PASS	JEROME PRAIRIE	5R63	WOOD RIVER	1,814	58,263	1,610	36.19	1.127
Southern OR	GRANTS PASS	MERLIN	5R232	MERLIN-HUGO	258	45,588	1,024	44.52	0.252
Southern OR	GRANTS PASS	MERLIN	5R234	PARADISE	94	23,080	1,208	19.11	0.078
Southern OR	GRANTS PASS	MERLIN	5R248	PLEASANT VALLEY-MERLIN FEEDER	1,035	180,536	1,139	158.50	0.909
Southern OR	GRANTS PASS	MERLIN	5R251	BADGER	379	67,944	931	72.98	0.407
Southern OR	GRANTS PASS	MERLIN	5R288	MONARCH	3,897	420,123	1,758	238.98	2.217
Southern OR	GRANTS PASS	OBRIEN	5R106	O'BRIEN	1,248	111,536	430	259.39	2.902
Southern OR	GRANTS PASS	PARK STREET (OR)	5R114	FRUITDALE	6,903	440,629	2,203	200.01	3.133
Southern OR	GRANTS PASS	PARK STREET (OR)	5R115	ALLEN CREEK	1,051	11,822	1,004	11.77	1.047
Southern OR	GRANTS PASS	PARK STREET (OR)	5R121	NEW HOPE	2,593	184,082	2,181	84.40	1.189
Southern OR	GRANTS PASS	PARK STREET (OR)	5R164	EXPRESS	647	162,746	322	505.42	2.009
Southern OR	GRANTS PASS	PARK STREET (OR)	5R169	PORTOLA	4,320	650,774	1,401	464.51	3.084
Southern OR	GRANTS PASS	PROVOLT	5R67	NORTH-SOUTH	3,275	305,879	1,456	210.08	2.249
Southern OR	GRANTS PASS	ROGUE RIVER	5R77	SAVAGE/WIMMER	3,961	150,297	1,885	79.73	2.101
Southern OR	GRANTS PASS	ROGUE RIVER	5R78	ROCKY POINT (ROGUE RIVER)	1,385	89,430	1,065	83.97	1.300
Southern OR	GRANTS PASS	SELMA	5R65	DEER CREEK	2,888	326,934	1,204	271.54	2.399
Southern OR	KLAMATH FALLS	BEATTY	5L1	BEATTY	519	46,845	384	121.99	1.352
Southern OR	KLAMATH FALLS	BLY	5L14	TOWN (BLY)	511	42,397	422	100.47	1.211
Southern OR	KLAMATH FALLS	BONANZA (OR)	5L7	POE VALLEY	623	197,764	475	416.35	1.312
Southern OR	KLAMATH FALLS	BRYANT	5L2	GARY STREET	88	14,500	2,148	6.75	0.041
Southern OR	KLAMATH FALLS	BRYANT	5L3	WASHBURN	84	15,788	1,823	8.66	0.046
Southern OR	KLAMATH FALLS	BRYANT	5L4	SUMMERS LANE	41	4,242	1,960	2.16	0.021
Southern OR	KLAMATH FALLS	BRYANT	5L5	MOYINA HTS.	770	127,972	2,474	51.73	0.311
Southern OR	KLAMATH FALLS	CASEBEER SUB	4L16	LANGELL VLY	2,207	567,226	1,168	485.64	1.890
Southern OR	KLAMATH FALLS	CHILOQUIN	5L57	CRATER LAKE	1,524	284,508	1,032	275.69	1.477
Southern OR	KLAMATH FALLS	CHILOQUIN MRKT	5L37	WILLIAMSON	134	42,161	571	73.84	0.235
Southern OR	KLAMATH FALLS	DAIRY	5L42	SWAN LAKE	430	91,474	260	351.82	1.654
Southern OR	KLAMATH FALLS	DAIRY	5L43	DAIRY	1,374	138,969	494	281.31	2.781
Southern OR	KLAMATH FALLS	HAMAKER	5L55	KENO	1,464	291,833	1,702	171.46	0.860
Southern OR	KLAMATH FALLS	HENLEY	5L58	HENLEY	702	33,409	232	144.00	3.026
Southern OR	KLAMATH FALLS	HENLEY	5L59	WEST	1,086	61,130	538	113.62	2.019
Southern OR	KLAMATH FALLS	HORNET	5L44	HOMEDALE	5,804	1,316,190	2,829	465.25	2.052
Southern OR	KLAMATH FALLS	HORNET	5L45	CRYSTAL SPR	1,625	135,504	1,479	91.62	1.099
Southern OR	KLAMATH FALLS	LAKEPORT	5L49	WOCUS	9	1,177	232	5.07	0.039
Southern OR	KLAMATH FALLS	LAKEPORT	5L54	SOUTH (LAKEPORT)	2,323	177,931	2,443	72.83	0.951
Southern OR	KLAMATH FALLS	MERRILL (OR)	5L26	LAKE (MERRILL)	2,008	48,679	985	49.42	2.039
Southern OR	KLAMATH FALLS	MERRILL (OR)	5L27	NORTH (MERRILL)	1,255	41,331	559	73.94	2.245
Southern OR	KLAMATH FALLS	MODOC	5L36	MODOC	91	15,079	851	17.72	0.107

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Southern OR	KLAMATH FALLS	ROSS AVENUE	5L46	ELDORADO	1,613	230,641	1,388	166.17	1.162
Southern OR	KLAMATH FALLS	ROSS AVENUE	5L48	BROAD ST.	1,331	41,117	1,204	34.15	1.105
Southern OR	KLAMATH FALLS	RUNNING Y	4L50	ROCKY POINT FEEDER (RUNNING Y)	3,172	656,049	1,472	445.69	2.155
Southern OR	KLAMATH FALLS	SHASTA WAY	7L25	SHASTA WAY	3	626	432	1.45	0.007
Southern OR	KLAMATH FALLS	SPRAGUE RIVER	5L8	SPRAGUE RIVER	614	58,626	507	115.63	1.211
Southern OR	KLAMATH FALLS	TEXUM	5L112	ANDERSON	811	81,319	1,203	67.60	0.674
Southern OR	KLAMATH FALLS	TEXUM	5L113	TOWER	18	940	284	3.31	0.063
Southern OR	KLAMATH FALLS	TEXUM	5L116	ALTAMONT	366	27,908	1,484	18.81	0.247
Southern OR	KLAMATH FALLS	TURKEY HILL	5L20	MALIN CITY	2,759	124,565	826	150.80	3.340
Southern OR	KLAMATH FALLS	TURKEY HILL	5L23	RURAL (TURKEY HILL)	707	24,334	322	75.57	2.196
Southern OR	KLAMATH FALLS	WEST SIDE	5L12	ORINDALE	28	2,611	803	3.25	0.035
Southern OR	KLAMATH FALLS	WEST SIDE	5L15	CALIFORNIA	196	15,521	1,356	11.45	0.145
Southern OR	KLAMATH FALLS	WEST SIDE	5L16	MAIN ST (WEST SIDE HE PLANT)	101	22,846	110	207.69	0.918
Southern OR	KLAMATH FALLS	WEST SIDE	5L17	PINE ST (WEST SIDE HE PLANT)	54	4,194	504	8.32	0.107
Southern OR	KLAMATH FALLS	WEST SIDE	5L18	RIVERSIDE (WEST SIDE HE PLANT)	4	379	588	0.64	0.007
Southern OR	KLAMATH FALLS	WEST SIDE	5L19	LAKESHORE	443	67,271	303	222.02	1.462
Southern OR	LAKEVIEW	MILE-HI	5L104	INDUSTRIAL	757	109,814	704	155.99	1.075
Southern OR	LAKEVIEW	MILE-HI	5L105	BUSINESS	1,749	263,080	1,737	151.46	1.007
Southern OR	MEDFORD	ASHLAND (MTN.AVE, PUD)	5R241	CITY	24	986	12	82.15	2.000
Southern OR	MEDFORD	ASHLAND (MTN.AVE, PUD)	5R245	VALLEY VIEW	946	65,260	880	74.16	1.075
Southern OR	MEDFORD	BEALL LANE	5R361	BULLDOG	79	17,857	1,731	10.32	0.046
Southern OR	MEDFORD	BEALL LANE	5R364	BOBCAT	42	9,172	2,161	4.24	0.019
Southern OR	MEDFORD	BELKNAP	5R1	KOGAP	70	10,217	1,015	10.07	0.069
Southern OR	MEDFORD	BELKNAP	5R2	RIVERSIDE (BELKNAP)	13	3,128	663	4.72	0.020
Southern OR	MEDFORD	BELKNAP	5R3	BARNETT	1,798	102,938	1,631	63.11	1.102
Southern OR	MEDFORD	BELKNAP	5R47	STEWART	427	59,210	2,306	25.68	0.185
Southern OR	MEDFORD	BROOKHURST	5R118	SPRINGBROOK	154	36,965	1,936	19.09	0.080
Southern OR	MEDFORD	BROOKHURST	5R135	ROBERTS (BROOKHURST)	180	44,051	1,710	25.76	0.105
Southern OR	MEDFORD	BROOKHURST	5R32	ROXY	80	24,501	1,822	13.45	0.044
Southern OR	MEDFORD	BROOKHURST	5R33	CRATER LAKE	65	14,119	1,736	8.13	0.037
Southern OR	MEDFORD	BROOKHURST	5R75	SUNRISE (BROOKHURST)	218	53,554	1,226	43.68	0.178
Southern OR	MEDFORD	CAMPBELL	5R218	PHOENIX	735	29,688	702	42.29	1.047
Southern OR	MEDFORD	CAMPBELL	5R227	FERN VALLEY	62	18,594	1,225	15.18	0.051
Southern OR	MEDFORD	CAMPBELL	5R312	COBRA	459	81,083	1,511	53.66	0.304
Southern OR	MEDFORD	DODGE BRIDGE	4R1	SALMON	2,522	516,479	1,633	316.28	1.544
Southern OR	MEDFORD	DODGE BRIDGE	4R35	MEADOWS ROAD	3,160	506,489	1,383	366.23	2.285
Southern OR	MEDFORD	FOOTHILLS	5R38	HOSPITAL	395	107,257	773	138.75	0.511
Southern OR	MEDFORD	FOOTHILLS	5R39	PIERCE ROAD	63	6,738	1,165	5.78	0.054
Southern OR	MEDFORD	FRALEY	5R87	TABLE ROCK	1,144	370,587	527	703.20	2.171
Southern OR	MEDFORD	FRALEY	5R88	DODGE BRIDGE	852	275,452	369	746.48	2.309
Southern OR	MEDFORD	GOLD HILL	5R103	GOLD HILL	163	22,999	2,036	11.30	0.080
Southern OR	MEDFORD	GRIFFIN CREEK	5R204	HULL RD	174	16,849	2,731	6.17	0.064
Southern OR	MEDFORD	GRIFFIN CREEK	5R206	GRIFFIN CREEK	174	14,912	1,759	8.48	0.099



## Oregon 2021 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
Southern OR	MEDFORD	HUMBUG CREEK	5R287	HUMMINGBIRD	193	115,456	690	167.33	0.280
Southern OR	MEDFORD	JACKSONVILLE	5R284	STAGE RD	970	154,082	2,058	74.87	0.471
Southern OR	MEDFORD	JACKSONVILLE	5R285	JACKSONVILLE HWY	1,255	263,604	2,244	117.47	0.559
Southern OR	MEDFORD	MEDFORD	5R21	MELROSE	17	3,809	1,580	2.41	0.011
Southern OR	MEDFORD	MEDFORD	5R23	SPRING ST.	35	7,309	1,629	4.49	0.021
Southern OR	MEDFORD	MEDFORD	5R250	BIG Y	484	68,847	1,862	36.97	0.260
Southern OR	MEDFORD	MEDFORD	5R253	APPLE	38	5,319	1,107	4.80	0.034
Southern OR	MEDFORD	MEDFORD	5R257	PEAR	829	128,526	805	159.66	1.030
Southern OR	MEDFORD	OAK KNOLL	5R55	SISKIYOU	1,007	270,877	1,518	178.44	0.663
Southern OR	MEDFORD	OAK KNOLL	5R56	HIGHWAY 99	140	43,514	120	362.61	1.167
Southern OR	MEDFORD	PROSPECT CNTRL	5R40	CASCADE GORGE COTTAGES	355	62,706	336	186.62	1.057
Southern OR	MEDFORD	RED BLANKET	7R5	PROSPECT	267	68,063	396	171.88	0.674
Southern OR	MEDFORD	ROXY ANN	5R350	St. Bernard	269	73,737	1,331	55.40	0.202
Southern OR	MEDFORD	ROXY ANN	5R354	RACCOON	270	68,832	1,577	43.65	0.171
Southern OR	MEDFORD	RUCH	5R68	APPLEGATE	735	199,861	936	213.53	0.785
Southern OR	MEDFORD	RUCH	5R69	RUCH	562	41,854	542	77.22	1.037
Southern OR	MEDFORD	SAGE ROAD (OR)	5R211	COLUMBUS	255	42,805	1,792	23.89	0.142
Southern OR	MEDFORD	SAGE ROAD (OR)	5R226	BOISE	40	4,789	927	5.17	0.043
Southern OR	MEDFORD	SAGE ROAD (OR)	5R28	ROSS	7	910	2,111	0.43	0.003
Southern OR	MEDFORD	SAGE ROAD (OR)	5R29	EDWARDS	10	522	733	0.71	0.014
Southern OR	MEDFORD	SCENIC	5R174	UPTON	39	9,634	2,010	4.79	0.019
Southern OR	MEDFORD	SCENIC	5R180	HEAD RD	210	56,636	1,181	47.96	0.178
Southern OR	MEDFORD	SCENIC	5R182	TAYLOR RD	2,796	399,027	1,852	215.46	1.510
Southern OR	MEDFORD	SCENIC	5R184	CHENEY	284	22,092	1,515	14.58	0.187
Southern OR	MEDFORD	STEVENS ROAD	4R13	HENRY MILLER	2,475	27,958	2,401	11.64	1.031
Southern OR	MEDFORD	STEVENS ROAD	4R17	Stingray	101	26,188	2,609	10.04	0.039
Southern OR	MEDFORD	STEVENS ROAD	4R41	ANTELOPE	149	22,901	1,160	19.74	0.128
Southern OR	MEDFORD	TAKELMA	4R9	LOST CK. (TAKELMA)	714	153,688	2,659	57.80	0.269
Southern OR	MEDFORD	TALENT	5R237	TALENT	168	35,244	1,784	19.76	0.094
Southern OR	MEDFORD	TALENT	5R238	ANDERSON CRK	346	72,289	1,649	43.84	0.210
Southern OR	MEDFORD	TALENT	5R239	HARTLEY ROAD	1,475	56,881	1,566	36.32	0.942
Southern OR	MEDFORD	TALENT	5R240	NORTH HWY	129	15,157	804	18.85	0.160
Southern OR	MEDFORD	TOLO	5R90	TBL ROCK LBR	6	864	164	5.27	0.037
Southern OR	MEDFORD	TOLO	5R91	SAMS VALLEY	1,304	183,741	658	279.24	1.982
Southern OR	MEDFORD	TOLO	5R92	KIRTLAND RD	523	44,855	211	212.58	2.479
Southern OR	MEDFORD	VILAS ROAD	5R110	MCLAUGHLIN	1,058	13,391	968	13.83	1.093
Southern OR	MEDFORD	VILAS ROAD	5R146	KING CENTER	3,825	99,050	1,454	68.12	2.631
Southern OR	MEDFORD	VILAS ROAD	5R305	WEBFOOT	431	29,394	920	31.95	0.468
Southern OR	MEDFORD	WHITE CITY	5R11	EAGLE POINT	1,781	399,193	1,489	268.09	1.196
Southern OR	MEDFORD	WHITE CITY	5R12	INDUSTRIAL	-	-	36	-	-
Southern OR	MEDFORD	WHITE CITY	5R14	AGATE	3	275	114	2.42	0.026
Southern OR	MEDFORD	WHITE CITY	5R19	3M	130	98,796	124	796.74	1.048
Southern OR	MEDFORD	WHITE CITY	5R66	4 CORNERS	22	3,406	1,875	1.82	0.012

## Oregon 2021 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
Southern OR	MEDFORD	WHITE CITY	5R76	AVE C	80	62,415	79	790.07	1.013
Southern OR	ROSEBURG/MYRTLECREEK	CANYONVILLE	5U46	CANYONVILLE	4	467	392	1.19	0.010
Southern OR	ROSEBURG/MYRTLECREEK	CANYONVILLE	5U52	BEALS CREEK FEEDER	1,001	201,147	889	226.26	1.126
Southern OR	ROSEBURG/MYRTLECREEK	CARNES	5U44	RND PRARIE	904	119,252	420	283.93	2.152
Southern OR	ROSEBURG/MYRTLECREEK	CLEARWATER #1 SUB	6U17	BRIGGS	3	1,311	3	437.02	1.000
Southern OR	ROSEBURG/MYRTLECREEK	CLEARWATER #2 SUB	6U33	CLEARWATER	97	13,333	96	138.88	1.010
Southern OR	ROSEBURG/MYRTLECREEK	CLOAKE	4U38	HARVARD	60	12,173	2,976	4.09	0.020
Southern OR	ROSEBURG/MYRTLECREEK	CLOAKE	4U39	GOEDECK	833	97,219	1,278	76.07	0.652
Southern OR	ROSEBURG/MYRTLECREEK	GARDEN VALLEY	4U80	EDENBOWER	3,011	40,428	806	50.16	3.736
Southern OR	ROSEBURG/MYRTLECREEK	GARDEN VALLEY	4U81	VALLEY	5,017	723,463	1,391	520.10	3.607
Southern OR	ROSEBURG/MYRTLECREEK	GLIDE SUBSTATION	5U83	IDLEYLD	402	79,655	896	88.90	0.449
Southern OR	ROSEBURG/MYRTLECREEK	GLIDE SUBSTATION	5U84	LITTLE RIVER	2,175	326,775	1,364	239.57	1.595
Southern OR	ROSEBURG/MYRTLECREEK	GREEN SUBSTATION	5U32	SAFARI	507	45,152	2,221	20.33	0.228
Southern OR	ROSEBURG/MYRTLECREEK	GREEN SUBSTATION	5U33	SUNNYSLOPE	15	4,987	1,643	3.04	0.009
Southern OR	ROSEBURG/MYRTLECREEK	LEMOLO # 1	5U920	DIAMOND LAKE	700	251,877	176	1,431.12	3.977
Southern OR	ROSEBURG/MYRTLECREEK	MYRTLE CREEK	5U76	SUPER Y	735	137,600	1,548	88.89	0.475
Southern OR	ROSEBURG/MYRTLECREEK	MYRTLE CREEK	5U77	BOOMER HILL	879	164,870	1,208	136.48	0.728
Southern OR	ROSEBURG/MYRTLECREEK	OAKLAND (OR)	5U11	UMPQUA	172	23,795	1,291	18.43	0.133
Southern OR	ROSEBURG/MYRTLECREEK	OAKLAND (OR)	5U12	STAGECOACH	12	581	558	1.04	0.022
Southern OR	ROSEBURG/MYRTLECREEK	RIDDLE	5U1	TRI CITY	328	26,460	2,116	12.50	0.155
Southern OR	ROSEBURG/MYRTLECREEK	RIDDLE	5U2	COW CREEK	1,681	161,895	1,568	103.25	1.072
Southern OR	ROSEBURG/MYRTLECREEK	RIDDLE	5U3	HANNA	66	7,851	285	27.55	0.232
Southern OR	ROSEBURG/MYRTLECREEK	RIDDLE-VENEER	5U50	RFP-LVL (EWP)	22	2,845	30	94.84	0.733
Southern OR	ROSEBURG/MYRTLECREEK	ROSEBURG	4U10	DIAMOND	2,627	36,015	2,524	14.27	1.041
Southern OR	ROSEBURG/MYRTLECREEK	ROSEBURG	4U22	DIXON	2,082	141,622	1,130	125.33	1.842
Southern OR	ROSEBURG/MYRTLECREEK	ROSEBURG	4U5	DOUGLAS	5,461	286,971	2,087	137.50	2.617
Southern OR	ROSEBURG/MYRTLECREEK	SLIDE CREEK	6U76	SLIDE CREEK CAMP	1	277	4	69.17	0.250
Southern OR	ROSEBURG/MYRTLECREEK	SOUTHGATE	4U30	SHADY POINT	2,279	404,718	1,620	249.83	1.407
Southern OR	ROSEBURG/MYRTLECREEK	SOUTHGATE	4U31	BOOTH	256	17,314	1,563	11.08	0.164
Southern OR	ROSEBURG/MYRTLECREEK	STEAMBOAT	6U18	STEAMBOAT	21	3,880	21	184.78	1.000
Southern OR	ROSEBURG/MYRTLECREEK	SUTHERLIN	5U35	NON-PAREIL	109	23,074	1,313	17.57	0.083
Southern OR	ROSEBURG/MYRTLECREEK	SUTHERLIN	5U36	DEADY	21	1,962	1,358	1.45	0.015
Southern OR	ROSEBURG/MYRTLECREEK	SUTHERLIN	5U56	Industrial	1	91	546	0.17	0.002
Southern OR	ROSEBURG/MYRTLECREEK	TILLER	5U89	JACKSON CRK	445	242,901	302	804.31	1.474
Southern OR	ROSEBURG/MYRTLECREEK	WINCHESTER	4U18	WILBUR	3,648	110,958	1,648	67.33	2.214
Southern OR	ROSEBURG/MYRTLECREEK	WINCHESTER	5U15	NEWTON CREEK	5,168	63,597	1,793	35.47	2.882
Southern OR	ROSEBURG/MYRTLECREEK	WINCHESTER	5U17	FISHER	878	25,644	775	33.09	1.133
Southern OR	ROSEBURG/MYRTLECREEK	WINCHESTER	5U19	EVANS	936	46,843	735	63.73	1.273
Southern OR	ROSEBURG/MYRTLECREEK	WINSTON	5U48	BROCKWAY	35	3,372	863	3.91	0.041
Southern OR	ROSEBURG/MYRTLECREEK	WINSTON	5U49	DILLARD	3,499	468,131	1,456	321.52	2.403
Willamette Valley	ALBANY	HAZELWOOD	4M335	WEST HIGH	60	6,936	843	8.23	0.071
Willamette Valley	ALBANY	HAZELWOOD	4M336	RIVERVIEW (HAZELWOOD)	1,233	236,296	1,238	190.87	0.996

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Willamette Valley	ALBANY	JEFFERSON (OR)	4M117	MARION	1,613	185,176	718	257.91	2.247
Willamette Valley	ALBANY	JEFFERSON (OR)	4M125	MINT	3,769	441,429	2,532	174.34	1.489
Willamette Valley	ALBANY	MURDER CREEK	4M243	SCRAVEL HILL	1,294	174,007	4,183	41.60	0.309
Willamette Valley	ALBANY	MURDER CREEK	4M245	RURAL NW	8,188	1,269,157	2,381	533.04	3.439
Willamette Valley	ALBANY	MURDER CREEK	4M249	DURA-PACIFIC	245	27,467	183	150.10	1.339
Willamette Valley	ALBANY	OREMET	4M295	OAK CREEK	109	5,773	100	57.73	1.090
Willamette Valley	ALBANY	OREMET	4M296	ROGERSDALE	2,586	163,400	2,167	75.40	1.193
Willamette Valley	ALBANY	OREMET	5M19	OREMET	3	118	3	39.27	1.000
Willamette Valley	ALBANY	QUEEN AVE	4M217	SANTIAM	1,974	89,418	1,888	47.36	1.046
Willamette Valley	ALBANY	QUEEN AVE	4M258	HILL STREET	6,570	404,729	2,870	141.02	2.289
Willamette Valley	ALBANY	QUEEN AVE	4M261	WAVERLY	3,886	200,345	3,652	54.86	1.064
Willamette Valley	ALBANY	QUEEN AVE	4M262	GEARY STREET	5,696	826,561	2,639	313.21	2.158
Willamette Valley	ALBANY	VINE STREET	4M15	FERRY	6,170	321,614	3,238	99.32	1.905
Willamette Valley	ALBANY	VINE STREET	4M16	WATER STREET	5,036	248,020	4,284	57.89	1.176
Willamette Valley	CORVALLIS	BUCHANAN	4M130	HEWLETT PACKARD	3,038	564,513	2,701	209.00	1.125
Willamette Valley	CORVALLIS	BUCHANAN	4M133	PEORIA	5,159	425,533	2,433	174.90	2.120
Willamette Valley	CORVALLIS	BUCHANAN	4M134	N. NINTH ST.	6,508	416,462	2,595	160.49	2.508
Willamette Valley	CORVALLIS	DIXON	7M26	FOURTH ST.	230	1,211	233	5.20	0.987
Willamette Valley	CORVALLIS	DIXON	7M29	SECOND ST.	271	1,427	271	5.27	1.000
Willamette Valley	CORVALLIS	GRANT ST	4M265	HIGH SCHOOL	738	124,907	2,494	50.08	0.296
Willamette Valley	CORVALLIS	GRANT ST	4M266	CHINTIMINI	5,293	265,134	2,536	104.55	2.087
Willamette Valley	CORVALLIS	GRANT ST	4M268	KINGS ROAD	2,307	269,939	2,565	105.24	0.899
Willamette Valley	CORVALLIS	GRANT ST	4M269	29TH STREET	1,531	228,657	3,627	63.04	0.422
Willamette Valley	CORVALLIS	HILLVIEW	4M180	WEST HILLS	351	100,961	1,916	52.69	0.183
Willamette Valley	CORVALLIS	HILLVIEW	4M181	PHILOMATH	2	309	1,317	0.23	0.002
Willamette Valley	CORVALLIS	HILLVIEW	4M182	SUNSET	53	3,727	1,765	2.11	0.030
Willamette Valley	CORVALLIS	HILLVIEW	4M185	PLYMOUTH	395	41,721	2,037	20.48	0.194
Willamette Valley	CORVALLIS	MARYS RIVER	4M151	GREENBERRY	557	33,617	3,619	9.29	0.154
Willamette Valley	CORVALLIS	MARYS RIVER	4M152	AVERY	45	11,066	186	59.49	0.242
Willamette Valley	CORVALLIS	MARYS RIVER	4M153	GALLAGHER	3,623	20,116	159	126.52	22.786
Willamette Valley	COTTAGE GROVE/J.CITY	COBURG	4M220	DETERING	13	713	586	1.22	0.022
Willamette Valley	COTTAGE GROVE/J.CITY	GOSHEN (OR)	4M360	GOSHEN FDR	4,978	149,962	1,623	92.40	3.067
Willamette Valley	COTTAGE GROVE/J.CITY	HARRISBURG SUB	4M400	TERRITORIAL	2,589	294,780	1,850	159.34	1.399
Willamette Valley	COTTAGE GROVE/J.CITY	JUNCTION CITY	4M102	6TH STREET	559	83,143	1,156	71.92	0.484
Willamette Valley	COTTAGE GROVE/J.CITY	JUNCTION CITY	4M99	PRAIRIE ROAD	16	2,184	1,002	2.18	0.016
Willamette Valley	COTTAGE GROVE/J.CITY	LANCASTER	4M209	MONROE	1,513	342,444	1,130	303.05	1.339
Willamette Valley	COTTAGE GROVE/J.CITY	VILLAGE GREEN	4M84	NORTH SIDE	2,520	45,570	2,416	18.86	1.043
Willamette Valley	COTTAGE GROVE/J.CITY	VILLAGE GREEN	4M86	MADISON	1,898	71,022	1,625	43.71	1.168
Willamette Valley	DALLAS/INDEPENDENCE	DALLAS	4M100	RURAL (DALLAS)	2,554	78,997	2,073	38.11	1.232
Willamette Valley	DALLAS/INDEPENDENCE	DALLAS	4M201	INDUSTRIAL	3,904	131,140	3,138	41.79	1.244
Willamette Valley	DALLAS/INDEPENDENCE	DALLAS	4M202	ELLENDALE	7,204	168,824	3,017	55.96	2.388
Willamette Valley	DALLAS/INDEPENDENCE	DALLAS	4M238	DALLAS	5,111	343,629	2,325	147.80	2.198

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Willamette Valley	DALLAS/INDEPENDENCE	INDEPENDENCE	4M22	RICKREAL	3,859	173,609	3,179	54.61	1.214
Willamette Valley	DALLAS/INDEPENDENCE	INDEPENDENCE	4M25	BUENA VISTA	4,470	479,778	2,126	225.67	2.103
Willamette Valley	LEBANON	BROWNSVILLE	4M17	CALAPOOIA	262	75,566	1,713	44.11	0.153
Willamette Valley	LEBANON	CALAPOOYA	4M850	SPAULDING	2,923	405,388	1,126	360.02	2.596
Willamette Valley	LEBANON	CALAPOOYA	4M851	BEAR	8	456	32	14.24	0.250
Willamette Valley	LEBANON	CROWFOOT	4M204	CROWFOOT	4,502	2,069,577	1,524	1,357.99	2.954
Willamette Valley	LEBANON	CROWFOOT	4M206	US PLYWOOD (LEBANON)	43	8,163	1,940	4.21	0.022
Willamette Valley	LEBANON	LEBANON	4M61	TANGENT	269	25,846	2,636	9.80	0.102
Willamette Valley	LEBANON	LEBANON	4M62	RALSTON	1,308	138,402	2,014	68.72	0.649
Willamette Valley	LEBANON	LEBANON	4M63	TENNESSEE	5,348	415,742	1,801	230.84	2.969
Willamette Valley	LEBANON	LEBANON	4M79	CROWN Z	2	160	1,170	0.14	0.002
Willamette Valley	LEBANON	SWEET HOME	4M37	HOLLEY	4,484	716,194	2,035	351.94	2.203
Willamette Valley	LEBANON	SWEET HOME	4M38	NARROWS	1,032	40,067	983	40.76	1.050
Willamette Valley	LEBANON	SWEET HOME	4M93	AMES CREEK	3,205	224,983	1,683	133.68	1.904
Willamette Valley	LEBANON	SWEET HOME	4M94	FOSTER	2,595	339,073	2,428	139.65	1.069
Willamette Valley	STAYTON	LYONS	4M120	MILL CITY	2,270	333,737	691	482.98	3.285
Willamette Valley	STAYTON	LYONS	4M70	MEHAMA	10,166	2,277,132	1,939	1,174.38	5.243
Willamette Valley	STAYTON	SCIO	5M126	THOMAS	4,344	395,745	1,574	251.43	2.760
Willamette Valley	STAYTON	STAYTON	4M19	AUMSVILLE	418	59,246	3,471	17.07	0.120
Willamette Valley	STAYTON	STAYTON	4M353	WEST STAYTON	910	180,773	3,526	51.27	0.258
Willamette Valley	STAYTON	STAYTON	4M370	CASCADE	2,420	337,642	1,585	213.02	1.527
Willamette Valley	STAYTON	STAYTON	4M50	3RD STREET	1,010	61,565	920	66.92	1.098

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Central OR	BEND/REDMOND	BEND	5D10	PORTLAND AVE	328	79,699	2,462	32.37	0.133
Central OR	BEND/REDMOND	BEND	5D11	GLEN VISTA	395	105,658	1,309	80.72	0.302
Central OR	BEND/REDMOND	BEND	5D12	DIVISION ST.	67	12,527	215	58.26	0.312
Central OR	BEND/REDMOND	BEND	5D196	MALLARD	1,472	277,276	1,412	196.37	1.042
Central OR	BEND/REDMOND	BOND STREET	5D411	BACHELOR	3,495	630,487	2,249	280.34	1.554
Central OR	BEND/REDMOND	BOND STREET	5D413	OLD MILL	165	26,309	390	67.46	0.423
Central OR	BEND/REDMOND	BOND STREET	5D418	BLAKELY	2,570	1,183,618	1,356	872.87	1.895
Central OR	BEND/REDMOND	CHINA HAT	5D140	LAVA (CHINA HAT)	3,015	1,230,911	2,340	526.03	1.288
Central OR	BEND/REDMOND	CHINA HAT	5D142	HIGH DESERT	3,652	1,674,036	1,721	972.71	2.122
Central OR	BEND/REDMOND	CHINA HAT	5D144	D.R.W.	1,826	1,191,364	2,548	467.57	0.717
Central OR	BEND/REDMOND	CLEVELAND AVE.	5D30	ARROWHEAD	448	48,600	1,283	37.88	0.349
Central OR	BEND/REDMOND	CLEVELAND AVE.	5D35	WICKIUP	103	25,862	1,066	24.26	0.097
Central OR	BEND/REDMOND	CLEVELAND AVE.	5D38	TOMAHAWK	357	129,108	1,455	88.73	0.245
Central OR	BEND/REDMOND	CLEVELAND AVE.	5D94	TEEPEE	542	119,012	3,926	30.31	0.138
Central OR	BEND/REDMOND	CLEVELAND AVE.	5D96	OBSIDIAN	45	3,333	912	3.65	0.049
Central OR	BEND/REDMOND	CLEVELAND AVE.	5D98	HUCKLEBERRY	27	4,410	1,181	3.73	0.023
Central OR	BEND/REDMOND	CROOKED RIVER RANCH	4D131	CANYON	54	11,689	1,816	6.44	0.030
Central OR	BEND/REDMOND	CROOKED RIVER RANCH	4D30	CROOKED R.R.	169	56,583	800	70.73	0.211
Central OR	BEND/REDMOND	DESCHUTES	5D184	PRONGHORN	2,321	120,991	1,135	106.60	2.045
Central OR	BEND/REDMOND	DESCHUTES	5D2	DESCHUTES S	1,450	137,778	1,036	132.99	1.400
Central OR	BEND/REDMOND	HUNTERS CIRCLE	5D192	Mackinaw	1,543	293,337	736	398.56	2.096
Central OR	BEND/REDMOND	OVERPASS	5D104	AWBREY	2,152	69,361	1,961	35.37	1.097
Central OR	BEND/REDMOND	OVERPASS	5D106	NEZ PERCE	3,938	406,514	2,716	149.67	1.450
Central OR	BEND/REDMOND	OVERPASS	5D120	CHINOOK	1,981	174,806	1,825	95.78	1.085
Central OR	BEND/REDMOND	OVERPASS	5D128	PAIUTE	2,909	240,186	2,232	107.61	1.303
Central OR	BEND/REDMOND	OVERPASS	5D155	APACHE	936	25,061	828	30.27	1.130
Central OR	BEND/REDMOND	PILOT BUTTE	5D261	KLONDIKE	318	45,575	1,524	29.90	0.209
Central OR	BEND/REDMOND	PILOT BUTTE	5D263	DRAKE FEEDER	425	35,699	2,533	14.09	0.168
Central OR	BEND/REDMOND	PILOT BUTTE	5D265	DOBBIN	3,027	342,152	1,718	199.16	1.762
Central OR	BEND/REDMOND	REDMOND	5D21	SOUTH (REDMOND)	28	5,410	838	6.46	0.033
Central OR	BEND/REDMOND	REDMOND	5D22	INDUSTRIAL	427	89,118	1,549	57.53	0.276
Central OR	BEND/REDMOND	REDMOND	5D223	TETHEROW	6	1,049	894	1.17	0.007
Central OR	BEND/REDMOND	REDMOND	5D226	CLINE FALLS	425	61,571	1,536	40.08	0.277
Central OR	BEND/REDMOND	REDMOND	5D227	WINDSOR	286	42,527	3,313	12.84	0.086
Central OR	BEND/REDMOND	REDMOND	5D228	CITY	213	15,816	1,307	12.10	0.163
Central OR	BEND/REDMOND	REDMOND	5D229	JUNIPER	245	50,691	429	118.16	0.571
Central OR	BEND/REDMOND	SHEVLIN PARK	5D238	WOLVERINE (SHP) (WAS 5D327)	404	110,321	2,810	39.26	0.144
Central OR	BEND/REDMOND	SHEVLIN PARK	5D241	BADGER (SHP)	626	80,243	2,839	28.26	0.221
Central OR	BEND/REDMOND	SHEVLIN PARK	5D243	Black Bear	588	115,081	1,878	61.28	0.313
Central OR	BEND/REDMOND	YEW AVENUE	5D322	BIRDIE	1,047	118,919	2,348	50.65	0.446
Central OR	BEND/REDMOND	YEW AVENUE	5D323	FAIRWAY	1	235	395	0.60	0.003
Central OR	BEND/REDMOND	YEW AVENUE	5D325	EAGLE	23	1,031	2,908	0.35	0.008

## Oregon 2021 Circuit Metrics (including major events)

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Central OR	MADRAS	CHERRY LANE	5D295	7 PEAKS	15	1,767	149	11.86	0.101
Central OR	MADRAS	CULVER	5D5	CULVER	1,009	151,114	1,857	81.38	0.543
Central OR	MADRAS	MADRAS	5D52	MADRAS RURAL	1,305	401,261	1,074	373.61	1.215
Central OR	MADRAS	MADRAS	5D53	AGATE	271	27,698	1,345	20.59	0.201
Central OR	MADRAS	MADRAS	5D57	QUARTZ	1,657	259,050	1,443	179.52	1.148
Central OR	MADRAS	MADRAS	5D61	MADRAS CITY	5	289	1,288	0.22	0.004
Central OR	MADRAS	POWELL BUTTE	5D1	POWELL BUTTE	357	75,706	665	113.84	0.537
Central OR	MADRAS	PRINEVILLE	5D126	RIMROCK	908	18,747	889	21.09	1.021
Central OR	MADRAS	PRINEVILLE	5D167	NORTHVILLE	11,170	443,124	2,756	160.79	4.053
Central OR	MADRAS	PRINEVILLE	5D25	OCHOCO	1,115	54,904	1,006	54.58	1.108
Central OR	MADRAS	PRINEVILLE	5D47	MC KAY (PRINEVILLE)	1,239	115,051	1,885	61.04	0.657
Central OR	MADRAS	PRINEVILLE	5D48	LAMONTA	1,929	508,090	633	802.67	3.047
Central OR	MADRAS	PRINEVILLE	5D50	PINE CONE	1,594	172,351	78	2,209.63	20.436
Central OR	MADRAS	PRINEVILLE	5D69	GRIMES FLAT	456	72,645	1,636	44.40	0.279
Central OR	MADRAS	WARM SPRINGS	4D68	WARM SPRINGS (OR)	11,762	1,966,658	986	1,994.58	11.929
CoastPlus	CLATSOP (ASTORIA)	CANNON BEACH	5A10	HAYSTACK	10,292	640,147	1,624	394.14	6.337
CoastPlus	CLATSOP (ASTORIA)	CANNON BEACH	5A8	ECOLA	6,249	434,017	1,215	357.22	5.143
CoastPlus	CLATSOP (ASTORIA)	FERN HILL SUB	5A51	JOHN DAY	2,008	637,485	270	2,361.05	7.437
CoastPlus	CLATSOP (ASTORIA)	FERN HILL SUB	5A52	SCANDINAVIAN	1,784	1,026,587	389	2,639.04	4.586
CoastPlus	CLATSOP (ASTORIA)	KNAPPA SVENSEN	5A92	SVENSEN	3,533	1,041,135	733	1,420.37	4.820
CoastPlus	CLATSOP (ASTORIA)	KNAPPA SVENSEN	5A93	BRADWOOD	4,689	2,052,134	934	2,197.15	5.020
CoastPlus	CLATSOP (ASTORIA)	SEASIDE	5A80	GROVE	10,018	216,710	2,410	89.92	4.157
CoastPlus	CLATSOP (ASTORIA)	SEASIDE	5A81	CENTRAL	9,786	625,497	1,625	384.92	6.022
CoastPlus	CLATSOP (ASTORIA)	SEASIDE	5A82	NECANICUM	5,736	175,796	1,217	144.45	4.713
CoastPlus	CLATSOP (ASTORIA)	SEASIDE	5A83	GEARHART	19,218	1,948,034	3,420	569.60	5.619
CoastPlus	CLATSOP (ASTORIA)	WARRENTON	5A15	CITY	278	65,433	280	233.69	0.993
CoastPlus	CLATSOP (ASTORIA)	WARRENTON	5A16	MILL (WARRENTON)	3,194	1,110,106	2,287	485.40	1.397
CoastPlus	CLATSOP (ASTORIA)	WARRENTON	5A20	SOUTH (WARRENTON)	3,809	735,800	1,742	422.39	2.187
CoastPlus	CLATSOP (ASTORIA)	YOUNGS BAY	5A202	PORT DOCK	159	129,297	1,184	109.20	0.134
CoastPlus	CLATSOP (ASTORIA)	YOUNGS BAY	5A204	MOO COW	2,217	358,917	1,185	302.88	1.871
CoastPlus	CLATSOP (ASTORIA)	YOUNGS BAY	5A205	FIFTH STREET	2,206	934,822	983	950.99	2.244
CoastPlus	CLATSOP (ASTORIA)	YOUNGS BAY	5A206	YOUNGS BAY #6	1	216	329	0.66	0.003
CoastPlus	CLATSOP (ASTORIA)	YOUNGS BAY	5A210	YOUNGS BAY #10	104	45,084	942	47.86	0.110
CoastPlus	CLATSOP (ASTORIA)	YOUNGS BAY	5A211	OLNEY	1,832	915,389	1,101	831.42	1.664
CoastPlus	CLATSOP (ASTORIA)	YOUNGS BAY	5A213	INDUSTRIAL	2,387	1,122,052	1,380	813.08	1.730
CoastPlus	COOS BAY/COQUILLE	BANDON TIE (BPA)	L804	BANDON	2,028	254,762	759	335.65	2.672
CoastPlus	COOS BAY/COQUILLE	COOS RIVER	4C106	COOS RIVER	4,779	514,363	1,356	379.32	3.524
CoastPlus	COOS BAY/COQUILLE	COQUILLE	4C41	HENRY STREET	7,067	951,230	1,684	564.86	4.197
CoastPlus	COOS BAY/COQUILLE	COQUILLE	4C42	TERRES HGHTS	5,362	1,441,698	1,551	929.53	3.457
CoastPlus	COOS BAY/COQUILLE	COQUILLE	4C43	INDUSTRIAL	308	55,426	151	367.06	2.040
CoastPlus	COOS BAY/COQUILLE	EMPIRE	4C108	EMPIRE	175	59,542	1,747	34.08	0.100
CoastPlus	COOS BAY/COQUILLE	EMPIRE	4C89	SCOTT	279	27,716	1,443	19.21	0.193
CoastPlus	COOS BAY/COQUILLE	EMPIRE	4C90	CHARLESTON	1,021	144,747	2,097	69.03	0.487
CoastPlus	COOS BAY/COQUILLE	JORDAN POINT	5C6	SAND DUNES (JORDAN POINT)	2	113	29	3.88	0.069
CoastPlus	COOS BAY/COQUILLE	LOCKHART	4C48	CITY CENTER	941	88,718	1,503	59.03	0.626
CoastPlus	COOS BAY/COQUILLE	LOCKHART	4C49	EASTSIDE	251	26,049	785	33.18	0.320
CoastPlus	COOS BAY/COQUILLE	LOCKHART	4C5	GEORGIA-PAC	3	101	89	1.14	0.034
CoastPlus	COOS BAY/COQUILLE	LOCKHART	4C50	BUNKERHILL	812	184,926	1,838	100.61	0.442
CoastPlus	COOS BAY/COQUILLE	LOCKHART	4C97	ENGLEWOOD	2,011	200,573	1,381	145.24	1.456



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CoastPlus	COOS BAY/COQUILLE	MYRTLE POINT	4C36	NORTH (MYRTLE POINT)	1,250	202,130	336	601.58	3.720
CoastPlus	COOS BAY/COQUILLE	MYRTLE POINT	4C37	MAPLE STREET	2,686	468,885	2,079	225.53	1.292
CoastPlus	COOS BAY/COQUILLE	STATE STREET	4C112	WOODLAND	2,785	888,766	1,810	491.03	1.539
CoastPlus	COOS BAY/COQUILLE	STATE STREET	4C66	BAYSHORE	1,413	215,090	1,718	125.20	0.822
CoastPlus	COOS BAY/COQUILLE	STATE STREET	4C67	INDUSTRIAL	332	37,005	2,220	16.67	0.150
CoastPlus	COOS BAY/COQUILLE	STATE STREET	4C86	BANGOR	994	158,495	1,802	87.96	0.552
CoastPlus	HOOD RIVER	GORDON HOLLOW	4K1	SHERMAN 208	570	79,198	711	111.39	0.802
CoastPlus	HOOD RIVER	HOOD RIVER	5K37	RESIDENTIAL	359	30,598	2,111	14.49	0.170
CoastPlus	HOOD RIVER	HOOD RIVER	5K43	BELMONT	119	52,686	1,214	43.40	0.098
CoastPlus	HOOD RIVER	HOOD RIVER	5K44	NORTH (HOOD RIVER)	2,078	455,777	1,809	251.95	1.149
CoastPlus	HOOD RIVER	HOOD RIVER	5K70	EASTSIDE	1,453	212,707	1,065	199.72	1.364
CoastPlus	HOOD RIVER	HOOD RIVER	5K74	SOUTH (HOOD RIVER)	813	24,360	1,599	15.23	0.508
CoastPlus	HOOD RIVER	KENWOOD	5K50	OAKGROVE	3,611	413,396	806	512.90	4.480
CoastPlus	HOOD RIVER	WASCO	7K1	WASCO	10	1,683	278	6.05	0.036
CoastPlus	LINCOLN CITY	DEVILS LAKE	4A310	INLAND FEEDER	2,038	345,357	1,917	180.16	1.063
CoastPlus	LINCOLN CITY	DEVILS LAKE	4A312	OCEAN	6,377	305,794	3,015	101.42	2.115
CoastPlus	LINCOLN CITY	DEVILS LAKE	4A316	LAKE (DEVILS LAKE)	23,471	2,882,954	4,316	667.97	5.438
CoastPlus	LINCOLN CITY	DEVILS LAKE	4A338	SIUSLAW	3,698	432,330	664	651.10	5.569
CoastPlus	LINCOLN CITY	GLENEDEN	7A364	GLENEDEN	1,954	269,821	712	378.96	2.744
CoastPlus	LINCOLN CITY	GLENEDEN	7A366	SALISHAN	1,332	231,598	360	643.33	3.700
CoastPlus	LINCOLN CITY	NELSCOTT	7A390	NELSCOTT	580	67,179	354	189.77	1.638
CoastPlus	LINCOLN CITY	PGE GRAND RONDE	R114	BOYER	20	43,603	19	2,294.87	1.053
CoastPlus	LINCOLN CITY	WECOMA BEACH	7A354	WECOMA	760	16,112	723	22.28	1.051
CoastPlus	PORTLAND	ALBINA	5P150	ALBINA 11C15	4	3,659	135	27.11	0.030
CoastPlus	PORTLAND	ALDERWOOD 115/12.5	5P22	ALDERWOOD #2	1	69	201	0.34	0.005
CoastPlus	PORTLAND	ALDERWOOD 115/12.5	5P33	ALDERWOOD #4	23	6,405	181	35.39	0.127
CoastPlus	PORTLAND	ALDERWOOD 115/12.5	5P604	ALDERWOOD #3	3	2,527	197	12.83	0.015
CoastPlus	PORTLAND	COLUMBIA (OR)	5P266	COLUMBIA #2	5,440	440,303	2,629	167.48	2.069
CoastPlus	PORTLAND	COLUMBIA (OR)	5P268	COLUMBIA #1	403	61,231	357	171.52	1.129
CoastPlus	PORTLAND	COLUMBIA (OR)	5P474	COLUMBIA #6	14	8,030	546	14.71	0.026
CoastPlus	PORTLAND	COLUMBIA (OR)	5P476	COLUMBIA #3	762	205,621	865	237.71	0.881
CoastPlus	PORTLAND	COLUMBIA (OR)	5P478	COLUMBIA #4	2,237	2,198,940	1,140	1,928.89	1.962
CoastPlus	PORTLAND	CULLY	5P288	CULLY #3-UG	805	305,406	817	373.81	0.985
CoastPlus	PORTLAND	CULLY	5P290	CULLY #2	5,095	2,157,632	2,424	890.11	2.102
CoastPlus	PORTLAND	CULLY	5P292	CULLY #1	3,147	4,929,193	2,941	1,676.03	1.070
CoastPlus	PORTLAND	HOLLADAY (OR)	5P145	HOLLADAY #1-UG	204	210,152	206	1,020.16	0.990
CoastPlus	PORTLAND	HOLLADAY (OR)	5P147	HOLLADAY #3-UG	511	523,154	166	3,151.53	3.078
CoastPlus	PORTLAND	HOLLADAY (OR)	5P158	HOLLADAY #6	2,044	661,302	914	723.53	2.236



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CoastPlus	PORTLAND	HOLLYWOOD	5P203	HOLLYWOOD #3	2,430	785,983	1,475	532.87	1.647
CoastPlus	PORTLAND	HOLLYWOOD	5P204	HOLLYWOOD #2	1,266	446,154	672	663.92	1.884
CoastPlus	PORTLAND	HOLLYWOOD	5P205	HOLLYWOOD #1	3,123	2,063,401	2,226	926.95	1.403
CoastPlus	PORTLAND	HOLLYWOOD	5P208	HOLLYWOOD #5	17,749	4,783,736	3,451	1,386.19	5.143
CoastPlus	PORTLAND	HOLLYWOOD	5P209	HOLLYWOOD #4	2,551	3,316,052	2,362	1,403.92	1.080
CoastPlus	PORTLAND	KENNEDY	5P12	CB 5P12	206	32,157	0	#DIV/0	#DIV/0
CoastPlus	PORTLAND	KENNEDY	5P14	CB 5P14	106	17,375	0	#DIV/0	#DIV/0
CoastPlus	PORTLAND	KENNEDY	5P15	CB 5P15	174	30,240	0	#DIV/0	#DIV/0
CoastPlus	PORTLAND	KILLINGSWORTH	5P123	KILLINGSWORTH #3	1,746	84,303	320	263.45	5.456
CoastPlus	PORTLAND	KILLINGSWORTH	5P217	KILLINGSWORTH #5	642	68,419	434	157.65	1.479
CoastPlus	PORTLAND	KILLINGSWORTH	5P41	KILLINGSWORTH #4	7,152	1,186,810	2,871	413.38	2.491
CoastPlus	PORTLAND	KILLINGSWORTH	5P89	KILLINGSWORTH #2	3,781	430,307	3,196	134.64	1.183
CoastPlus	PORTLAND	KNOTT	5P231	KNOTT #1	3,394	1,260,413	524	2,405.37	6.477
CoastPlus	PORTLAND	KNOTT	5P232	KNOTT #2	3,123	529,569	2,762	191.73	1.131
CoastPlus	PORTLAND	KNOTT	5P233	KNOTT #3	9,186	4,737,205	2,270	2,086.87	4.047
CoastPlus	PORTLAND	KNOTT	5P366	11010	4	1,012	57	17.75	0.070
CoastPlus	PORTLAND	KNOTT	5P368	11022	3	220	17	12.92	0.176
CoastPlus	PORTLAND	KNOTT	5P372	11046	21	20,864	792	26.34	0.027
CoastPlus	PORTLAND	KNOTT	5P374	11020	1,132	239,919	993	241.61	1.140
CoastPlus	PORTLAND	LINCOLN (OR)	5P430	11D05-UG	366	311,081	368	845.33	0.995
CoastPlus	PORTLAND	MALLORY	5P162	MALLORY #1	187	153,749	2,322	66.21	0.081
CoastPlus	PORTLAND	MALLORY	5P164	MALLORY #2	836	472,515	4,033	117.16	0.207
CoastPlus	PORTLAND	PARKROSE	5P244	PARKROSE#4	3,504	1,821,463	3,115	584.74	1.125
CoastPlus	PORTLAND	PARKROSE	5P246	PARKROSE#3	1,532	1,291,221	3,093	417.47	0.495
CoastPlus	PORTLAND	PARKROSE	5P250	PARKROSE#2	111	15,075	648	23.26	0.171
CoastPlus	PORTLAND	PARKROSE	5P252	PARKROSE#1	738	136,640	1,795	76.12	0.411
CoastPlus	PORTLAND	RUSSELLVILLE	5P274	RUSSELLVILLE #3	3,391	869,920	3,117	279.09	1.088
CoastPlus	PORTLAND	RUSSELLVILLE	5P276	RUSSELLVILLE #4	777	614,823	2,476	248.31	0.314
CoastPlus	PORTLAND	RUSSELLVILLE	5P278	RUSSELLVILLE #1	4,279	481,250	3,325	144.74	1.287
CoastPlus	PORTLAND	RUSSELLVILLE	5P280	RUSSELLVILLE #2	3,076	1,599,193	1,261	1,268.19	2.439
CoastPlus	PORTLAND	VERNON	5P391	VERNON #1	572	822,618	1,796	458.03	0.318
CoastPlus	PORTLAND	VERNON	5P392	VERNON NO. 2	831	666,868	2,612	255.31	0.318
CoastPlus	PORTLAND	VERNON	5P393	VERNON #3	10,428	1,591,270	5,202	305.90	2.005
CoastPlus	PORTLAND	VERNON	5P394	VERNON # 4	1,838	2,386,217	3,508	680.22	0.524
CoastPlus	PORTLAND	VERNON	5P395	VERNON # 5	112	79,855	2,278	35.05	0.049
Northeast OR	ENTERPRISE	ENTERPRISE (OR)	4W8	CREIGHTON LN	388	106,933	1,494	71.57	0.260
Northeast OR	ENTERPRISE	ENTERPRISE (OR)	5W15	CITY	11	738	952	0.78	0.012
Northeast OR	ENTERPRISE	ENTERPRISE (OR)	5W26	RURAL (ENTERPRISE)	380	102,068	1,097	93.04	0.346
Northeast OR	ENTERPRISE	JOSEPH	5W21	PRAIRIE	345	72,996	856	85.28	0.403
Northeast OR	ENTERPRISE	MINAM	5W18	MINAM	15	824	13	63.39	1.154
Northeast OR	ENTERPRISE	PALLETTE	4W14	PALLETTE NORTH	449	109,441	175	625.38	2.566
Northeast OR	ENTERPRISE	PALLETTE	4W15	PALLETTE SOUTH	127	55,740	57	977.89	2.228
Northeast OR	ENTERPRISE	WALLOWA	5W28	CITY	1,250	99,075	887	111.70	1.409

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Northeast OR	HERMISTON	ARLINGTON	5K25	ARLINGTON	32	3,984	516	7.72	0.062
Northeast OR	HERMISTON	BLALOCK	5K40	BLALOCK	1	150	21	7.17	0.048
Northeast OR	HERMISTON	DALREED	4K16	WILLOW COVE	143	46,915	70	670.21	2.043
Northeast OR	HERMISTON	DALREED	4K36	SIMTAG	44	1,574	21	74.93	2.095
Northeast OR	HERMISTON	DALREED	4K46	BOEING	348	106,360	178	597.53	1.955
Northeast OR	HERMISTON	HERMISTON	5W602	RURAL (HERMISTON)	3,470	145,530	1,407	103.43	2.466
Northeast OR	HERMISTON	HINKLE	5W82	MEADOWS	2,056	399,045	380	1,050.12	5.411
Northeast OR	HERMISTON	UMATILLA	5W658	UMATILLA	36	6,655	1,308	5.09	0.028
Northeast OR	HERMISTON	UMATILLA	5W660	MCNARY	604	125,527	945	132.83	0.639
Northeast OR	PENDLETON	ATHENA	5W703	CITY	312	31,453	850	37.00	0.367
Northeast OR	PENDLETON	ATHENA	5W705	HELIX	253	44,391	425	104.45	0.595
Northeast OR	PENDLETON	BUCKAROO	5W201	STATE HOSP.	451	42,711	389	109.80	1.159
Northeast OR	PENDLETON	BUCKAROO	5W202	REITH	815	123,033	1,558	78.97	0.523
Northeast OR	PENDLETON	BUCKAROO	5W203	MONTEE	2,882	329,091	1,771	185.82	1.627
Northeast OR	PENDLETON	MCKAY (OR)	5W856	MCKAY	227	24,983	0	#DIV/0	#DIV/0
Northeast OR	PENDLETON	5W401	WEST HILLS	1,354	124,416	1,671	74.46	0.810	
Northeast OR	PENDLETON	5W402	HARRIS HTS	540	51,423	2,074	24.79	0.260	
Northeast OR	PENDLETON	5W403	MISSION	2,294	157,983	1,048	150.75	2.189	
Northeast OR	PENDLETON	7W451	BUSINESS	1	52	273	0.19	0.004	
Northeast OR	PENDLETON	7W452	NORTHWEST	555	43,441	531	81.81	1.045	
Northeast OR	PENDLETON	7W453	SOUTHWEST (PENDELTON)	1	265	333	0.80	0.003	
Northeast OR	PENDLETON	7W454	EAST END	242	18,541	242	76.62	1.000	
Northeast OR	PENDLETON	PILOT ROCK	5W404	MILL (PILOT ROCK)	2	401	1	401.28	2.000
Northeast OR	PENDLETON	PILOT ROCK	5W406	PILOT ROCK CITY	3,451	894,195	1,402	637.80	2.461
Northeast OR	PENDLETON	WESTON NEW (OR)	5W7	SCOTTS FEEDER	663	140,806	453	310.83	1.464
Northeast OR	WALLA WALLA	UMAPINE	5W105	UMAPINE FEEDER	149	30,875	968	31.90	0.154
Northeast OR	WALLA WALLA	UMAPINE	5W106	FERNDAL	547	119,088	1,352	88.08	0.405
Southern OR	GRANTS PASS	AGNESS AVE	5R172	SPALDING MILL	3,600	197,835	889	222.54	4.049
Southern OR	GRANTS PASS	AGNESS AVE	5R173	JONES CREEK	2,764	88,013	884	99.56	3.127
Southern OR	GRANTS PASS	AGNESS AVE	5R322	ANTEATER	4,388	125,859	1,004	125.36	4.371
Southern OR	GRANTS PASS	APPLEGATE	5R267	MURPHY	8,215	762,424	1,060	719.27	7.750
Southern OR	GRANTS PASS	APPLEGATE	5R278	HIGHWAY	6,404	375,391	1,331	282.04	4.811
Southern OR	GRANTS PASS	BEACON	5R104	SAVAGE ST	3,921	277,282	1,277	217.14	3.070
Southern OR	GRANTS PASS	BEACON	5R105	BEACON ST	2,671	211,686	848	249.63	3.150
Southern OR	GRANTS PASS	CAVE JUNCTION	5R52	FREE& EASY	12,210	2,224,557	2,454	906.50	4.976
Southern OR	GRANTS PASS	CAVE JUNCTION	5R53	ROUGH & READY	6,311	504,003	1,545	326.22	4.085
Southern OR	GRANTS PASS	CAVEMAN	5R295	QUAIL	2,453	117,614	1,122	104.82	2.186
Southern OR	GRANTS PASS	CAVEMAN	5R82	WASHINGTON	2,698	144,238	1,207	119.50	2.235
Southern OR	GRANTS PASS	CAVEMAN	5R98	MANZANITA	1,753	117,711	575	204.71	3.049
Southern OR	GRANTS PASS	CAVEMAN	5R99	CAVEMAN	4,013	168,364	1,213	138.80	3.308
Southern OR	GRANTS PASS	DOWELL	5R331	DOVE	3,474	134,305	1,499	89.60	2.318
Southern OR	GRANTS PASS	DOWELL	5R334	DUCK	5,764	343,035	2,552	134.42	2.259
Southern OR	GRANTS PASS	EASY VALLEY	5R123	G STREET	4,958	187,599	2,212	84.81	2.241
Southern OR	GRANTS PASS	EASY VALLEY	5R125	ROGUE	3,737	139,321	1,809	77.02	2.066
Southern OR	GRANTS PASS	EASY VALLEY	5R259	CHINOOK	6,049	576,443	1,343	429.22	4.504

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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	GRANTS PASS	FIELDER CREEK	4R33	ELK FDR.	9,413	806,828	1,849	436.36	5.091
Southern OR	GRANTS PASS	FIELDER CREEK	4R34	BEAR FDR	3,861	457,243	865	528.60	4.464
Southern OR	GRANTS PASS	GLENDALE SUBSTATION	5R133	GLENDALE	15,668	3,015,308	1,884	1,600.48	8.316
Southern OR	GRANTS PASS	GLENDALE SUBSTATION	5R143	INDUSTRIAL	2,210	145,720	657	221.80	3.364
Southern OR	GRANTS PASS	JEROME PRAIRIE	5R62	WILD PRAIRIE	9,320	694,458	1,643	422.68	5.673
Southern OR	GRANTS PASS	JEROME PRAIRIE	5R63	WOOD RIVER	7,031	268,137	1,610	166.54	4.367
Southern OR	GRANTS PASS	MERLIN	5R232	MERLIN-HUGO	2,475	174,655	1,024	170.56	2.417
Southern OR	GRANTS PASS	MERLIN	5R234	PARADISE	2,514	105,951	1,208	87.71	2.081
Southern OR	GRANTS PASS	MERLIN	5R248	PLEASANT VALLEY-MERLIN FEEDER	3,366	277,176	1,139	243.35	2.955
Southern OR	GRANTS PASS	MERLIN	5R251	BADGER	2,241	131,252	931	140.98	2.407
Southern OR	GRANTS PASS	MERLIN	5R288	MONARCH	7,486	554,758	1,758	315.56	4.258
Southern OR	GRANTS PASS	OBRIEN	5R106	O'BRIEN	2,995	551,346	430	1,282.20	6.965
Southern OR	GRANTS PASS	PARK STREET (OR)	5R114	FRUITDALE	11,309	583,824	2,203	265.01	5.133
Southern OR	GRANTS PASS	PARK STREET (OR)	5R115	ALLEN CREEK	3,059	77,082	1,004	76.77	3.047
Southern OR	GRANTS PASS	PARK STREET (OR)	5R121	NEW HOPE	6,963	329,816	2,181	151.22	3.193
Southern OR	GRANTS PASS	PARK STREET (OR)	5R164	EXPRESS	1,291	183,676	322	570.42	4.009
Southern OR	GRANTS PASS	PARK STREET (OR)	5R169	PORTOLA	7,123	741,930	1,401	529.57	5.084
Southern OR	GRANTS PASS	PROVOLT	5R67	NORTH-SOUTH	7,503	553,744	1,456	380.32	5.153
Southern OR	GRANTS PASS	ROGUE RIVER	5R77	SAVAGE/WIMMER	5,846	184,227	1,885	97.73	3.101
Southern OR	GRANTS PASS	ROGUE RIVER	5R78	ROCKY POINT (ROGUE RIVER)	2,468	113,242	1,065	106.33	2.317
Southern OR	GRANTS PASS	SELMA	5R65	DEER CREEK	5,726	757,433	1,204	629.10	4.756
Southern OR	KLAMATH FALLS	BEATTY	5L1	BEATTY	519	46,845	384	121.99	1.352
Southern OR	KLAMATH FALLS	BLY	5L14	TOWN (BLY)	511	42,397	422	100.47	1.211
Southern OR	KLAMATH FALLS	BONANZA (OR)	5L7	POE VALLEY	898	243,059	475	511.70	1.891
Southern OR	KLAMATH FALLS	BRYANT	5L2	GARY STREET	94	15,249	2,148	7.10	0.044
Southern OR	KLAMATH FALLS	BRYANT	5L3	WASHBURN	84	15,788	1,823	8.66	0.046
Southern OR	KLAMATH FALLS	BRYANT	5L4	SUMMERS LANE	41	4,242	1,960	2.16	0.021
Southern OR	KLAMATH FALLS	BRYANT	5L5	MOYINA HTS.	770	127,972	2,474	51.73	0.311
Southern OR	KLAMATH FALLS	CASEBEER SUB	4L16	LANGELL VLY	2,209	567,483	1,168	485.86	1.891
Southern OR	KLAMATH FALLS	CHILOQUIN	5L57	CRATER LAKE	3,083	593,871	1,032	575.46	2.987
Southern OR	KLAMATH FALLS	CHILOQUIN MRKT	5L37	WILLIAMSON	134	42,161	571	73.84	0.235
Southern OR	KLAMATH FALLS	DAIRY	5L42	SWAN LAKE	430	91,474	260	351.82	1.654
Southern OR	KLAMATH FALLS	DAIRY	5L43	DAIRY	2,066	207,091	494	419.21	4.182
Southern OR	KLAMATH FALLS	HAMAKER	5L55	KENO	3,404	669,802	1,702	393.54	2.000
Southern OR	KLAMATH FALLS	HAMAKER	5L56	MOUNTAIN	493	92,734	158	586.93	3.120
Southern OR	KLAMATH FALLS	HENLEY	5L58	HENLEY	706	33,839	232	145.86	3.043
Southern OR	KLAMATH FALLS	HENLEY	5L59	WEST	1,086	61,130	538	113.62	2.019
Southern OR	KLAMATH FALLS	HORNET	5L44	HOMEDALE	5,804	1,316,190	2,829	465.25	2.052
Southern OR	KLAMATH FALLS	HORNET	5L45	CRYSTAL SPR	1,631	135,993	1,479	91.95	1.103
Southern OR	KLAMATH FALLS	LAKEPORT	5L49	WOCUS	9	1,177	232	5.07	0.039
Southern OR	KLAMATH FALLS	LAKEPORT	5L54	SOUTH (LAKEPORT)	2,330	178,887	2,443	73.22	0.954
Southern OR	KLAMATH FALLS	MERRILL (OR)	5L26	LAKE (MERRILL)	2,009	48,811	985	49.55	2.040
Southern OR	KLAMATH FALLS	MERRILL (OR)	5L27	NORTH (MERRILL)	1,255	41,331	559	73.94	2.245
Southern OR	KLAMATH FALLS	MODOC	5L36	MODOC	152	20,236	851	23.78	0.179
Southern OR	KLAMATH FALLS	ROSS AVENUE	5L46	ELDORADO	1,613	230,641	1,388	166.17	1.162
Southern OR	KLAMATH FALLS	ROSS AVENUE	5L48	BROAD ST.	1,331	41,117	1,204	34.15	1.105
Southern OR	KLAMATH FALLS	RUNNING Y	4L50	ROCKY POINT FEEDER (RUNNING Y)	6,347	1,080,887	1,472	734.30	4.312
Southern OR	KLAMATH FALLS	SHASTA WAY	7L25	SHASTA WAY	4	668	432	1.55	0.009
Southern OR	KLAMATH FALLS	SPRAGUE RIVER	5L8	SPRAGUE RIVER	779	76,962	507	151.80	1.536

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Southern OR	KLAMATH FALLS	TEXUM	5L112	ANDERSON	811	81,319	1,203	67.60	0.674
Southern OR	KLAMATH FALLS	TEXUM	5L113	TOWER	18	940	284	3.31	0.063
Southern OR	KLAMATH FALLS	TEXUM	5L116	ALTAMONT	369	28,396	1,484	19.13	0.249
Southern OR	KLAMATH FALLS	TURKEY HILL	5L20	MALIN CITY	2,937	151,510	826	183.43	3.556
Southern OR	KLAMATH FALLS	TURKEY HILL	5L23	RURAL (TURKEY HILL)	707	24,334	322	75.57	2.196
Southern OR	KLAMATH FALLS	WEST SIDE	5L12	ORINDALE	28	2,611	803	3.25	0.035
Southern OR	KLAMATH FALLS	WEST SIDE	5L15	CALIFORNIA	197	15,765	1,356	11.63	0.145
Southern OR	KLAMATH FALLS	WEST SIDE	5L16	MAIN ST (WEST SIDE HE PLANT)	101	22,846	110	207.69	0.918
Southern OR	KLAMATH FALLS	WEST SIDE	5L17	PINE ST (WEST SIDE HE PLANT)	54	4,194	504	8.32	0.107
Southern OR	KLAMATH FALLS	WEST SIDE	5L18	RIVERSIDE (WEST SIDE HE PLANT)	5	602	588	1.02	0.009
Southern OR	KLAMATH FALLS	WEST SIDE	5L19	LAKESHORE	443	67,271	303	222.02	1.462
Southern OR	LAKEVIEW	MILE-HI	5L104	INDUSTRIAL	757	109,814	704	155.99	1.075
Southern OR	LAKEVIEW	MILE-HI	5L105	BUSINESS	1,749	263,080	1,737	151.46	1.007
Southern OR	MEDFORD	ASHLAND (MTN.AVE, PUD)	5R241	CITY	24	986	12	82.15	2.000
Southern OR	MEDFORD	ASHLAND (MTN.AVE, PUD)	5R245	VALLEY VIEW	1,843	90,147	880	102.44	2.094
Southern OR	MEDFORD	BEALL LANE	5R361	BULLDOG	79	17,857	1,731	10.32	0.046
Southern OR	MEDFORD	BEALL LANE	5R364	BOBCAT	44	9,351	2,161	4.33	0.020
Southern OR	MEDFORD	BELKNAP	5R1	KOGAP	1,099	87,626	1,015	86.33	1.083
Southern OR	MEDFORD	BELKNAP	5R2	RIVERSIDE (BELKNAP)	674	49,332	663	74.41	1.017
Southern OR	MEDFORD	BELKNAP	5R3	BARNETT	3,430	216,066	1,631	132.47	2.103
Southern OR	MEDFORD	BELKNAP	5R47	STEWART	2,720	219,032	2,306	94.98	1.180
Southern OR	MEDFORD	BROOKHURST	5R118	SPRINGBROOK	155	37,478	1,936	19.36	0.080
Southern OR	MEDFORD	BROOKHURST	5R135	ROBERTS (BROOKHURST)	180	44,051	1,710	25.76	0.105
Southern OR	MEDFORD	BROOKHURST	5R32	ROXY	80	24,501	1,822	13.45	0.044
Southern OR	MEDFORD	BROOKHURST	5R33	CRATER LAKE	65	14,119	1,736	8.13	0.037
Southern OR	MEDFORD	BROOKHURST	5R75	SUNRISE (BROOKHURST)	219	54,777	1,226	44.68	0.179
Southern OR	MEDFORD	CAMPBELL	5R216	VOORHIES	853	39,323	852	46.15	1.001
Southern OR	MEDFORD	CAMPBELL	5R218	PHOENIX	1,353	58,373	702	83.15	1.927
Southern OR	MEDFORD	CAMPBELL	5R227	FERN VALLEY	1,285	75,015	1,225	61.24	1.049
Southern OR	MEDFORD	CAMPBELL	5R312	COBRA	1,973	151,837	1,511	100.49	1.306
Southern OR	MEDFORD	DODGE BRIDGE	4R1	SALMON	5,142	851,392	1,633	521.37	3.149
Southern OR	MEDFORD	DODGE BRIDGE	4R35	MEADOWS ROAD	5,993	903,405	1,383	653.22	4.333
Southern OR	MEDFORD	FOOTHILLS	5R38	HOSPITAL	1,242	186,780	773	241.63	1.607
Southern OR	MEDFORD	FOOTHILLS	5R39	PIERCE ROAD	1,231	132,882	1,165	114.06	1.057
Southern OR	MEDFORD	FRALEY	5R87	TABLE ROCK	1,699	436,799	527	828.84	3.224
Southern OR	MEDFORD	FRALEY	5R88	DODGE BRIDGE	1,224	313,768	369	850.32	3.317
Southern OR	MEDFORD	GOLD HILL	5R103	GOLD HILL	395	156,665	2,036	76.95	0.194
Southern OR	MEDFORD	GRIFFIN CREEK	5R204	HULL RD	178	18,429	2,731	6.75	0.065
Southern OR	MEDFORD	GRIFFIN CREEK	5R206	GRIFFIN CREEK	524	242,122	1,759	137.65	0.298
Southern OR	MEDFORD	HUMBURG CREEK	5R287	HUMMINGBIRD	470	297,386	690	430.99	0.681
Southern OR	MEDFORD	JACKSONVILLE	5R284	STAGE RD	1,746	852,518	2,058	414.25	0.848
Southern OR	MEDFORD	JACKSONVILLE	5R285	JACKSONVILLE HWY	1,320	298,293	2,244	132.93	0.588

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Southern OR	MEDFORD	MEDFORD	5R21	MELROSE	1,596	217,815	1,580	137.86	1.010
Southern OR	MEDFORD	MEDFORD	5R23	SPRING ST.	1,659	227,997	1,629	139.96	1.018
Southern OR	MEDFORD	MEDFORD	5R250	BIG Y	484	68,847	1,862	36.97	0.260
Southern OR	MEDFORD	MEDFORD	5R253	APPLE	38	5,319	1,107	4.80	0.034
Southern OR	MEDFORD	MEDFORD	5R257	PEAR	829	128,526	805	159.66	1.030
Southern OR	MEDFORD	MEDFORD	5R659	MCLEAN	92	25,967	679	38.24	0.135
Southern OR	MEDFORD	OAK KNOLL	5R55	SISKIYOU	4,413	1,014,603	1,518	668.38	2.907
Southern OR	MEDFORD	OAK KNOLL	5R56	HIGHWAY 99	253	46,482	120	387.35	2.108
Southern OR	MEDFORD	PROSPECT CNTRL	5R40	CASCADE GORGE COTTAGES	687	87,422	336	260.18	2.045
Southern OR	MEDFORD	RED BLANKET	7R5	PROSPECT	976	390,208	396	985.37	2.465
Southern OR	MEDFORD	ROXY ANN	5R350	St. Bernard	1,607	219,548	1,331	164.95	1.207
Southern OR	MEDFORD	ROXY ANN	5R354	RACCOON	1,843	240,289	1,577	152.37	1.169
Southern OR	MEDFORD	RUCH	5R68	APPLEGATE	1,258	245,050	936	261.81	1.344
Southern OR	MEDFORD	RUCH	5R69	RUCH	612	65,401	542	120.67	1.129
Southern OR	MEDFORD	SAGE ROAD (OR)	5R211	COLUMBUS	272	44,216	1,792	24.67	0.152
Southern OR	MEDFORD	SAGE ROAD (OR)	5R226	BOISE	40	4,789	927	5.17	0.043
Southern OR	MEDFORD	SAGE ROAD (OR)	5R28	ROSS	8	1,209	2,111	0.57	0.004
Southern OR	MEDFORD	SAGE ROAD (OR)	5R29	EDWARDS	10	522	733	0.71	0.014
Southern OR	MEDFORD	SCENIC	5R174	UPTON	434	81,714	2,010	40.65	0.216
Southern OR	MEDFORD	SCENIC	5R180	HEAD RD	210	56,636	1,181	47.96	0.178
Southern OR	MEDFORD	SCENIC	5R182	TAYLOR RD	2,800	399,530	1,852	215.73	1.512
Southern OR	MEDFORD	SCENIC	5R184	CHENEY	284	22,092	1,515	14.58	0.187
Southern OR	MEDFORD	STEVENS ROAD	4R13	HENRY MILLER	6,397	361,654	2,401	150.63	2.664
Southern OR	MEDFORD	STEVENS ROAD	4R17	Stingray	2,707	233,833	2,609	89.63	1.038
Southern OR	MEDFORD	STEVENS ROAD	4R41	ANTELOPE	1,807	221,771	1,160	191.18	1.558
Southern OR	MEDFORD	TAKELMA	4R9	LOST CK. (TAKELMA)	3,501	469,727	2,659	176.66	1.317
Southern OR	MEDFORD	TALENT	5R237	TALENT	2,007	232,899	1,784	130.55	1.125
Southern OR	MEDFORD	TALENT	5R238	ANDERSON CRK	4,134	713,313	1,649	432.57	2.507
Southern OR	MEDFORD	TALENT	5R239	HARTLEY ROAD	3,624	371,235	1,566	237.06	2.314
Southern OR	MEDFORD	TALENT	5R240	NORTH HWY	961	102,523	804	127.52	1.195
Southern OR	MEDFORD	TOLO	5R90	TBL ROCK LBR	6	864	164	5.27	0.037
Southern OR	MEDFORD	TOLO	5R91	SAMS VALLEY	2,148	460,527	658	699.89	3.264
Southern OR	MEDFORD	TOLO	5R92	KIRTLAND RD	523	44,855	211	212.58	2.479
Southern OR	MEDFORD	VILAS ROAD	5R110	MCLAUGHLIN	1,105	20,542	968	21.22	1.142
Southern OR	MEDFORD	VILAS ROAD	5R146	KING CENTER	3,825	99,050	1,454	68.12	2.631
Southern OR	MEDFORD	VILAS ROAD	5R305	WEBFOOT	431	29,394	920	31.95	0.468
Southern OR	MEDFORD	WHITE CITY	5R11	EAGLE POINT	1,782	399,337	1,489	268.19	1.197
Southern OR	MEDFORD	WHITE CITY	5R12	INDUSTRIAL	-	-	36	-	-
Southern OR	MEDFORD	WHITE CITY	5R14	AGATE	3	275	114	2.42	0.026
Southern OR	MEDFORD	WHITE CITY	5R19	3M	130	98,796	124	796.74	1.048
Southern OR	MEDFORD	WHITE CITY	5R66	4 CORNERS	22	3,406	1,875	1.82	0.012
Southern OR	MEDFORD	WHITE CITY	5R76	AVE C	80	62,415	79	790.07	1.013
Southern OR	ROSEBURG/MYRTLECREEK	CANYONVILLE	5U46	CANYONVILLE	46	70,605	392	180.11	0.117
Southern OR	ROSEBURG/MYRTLECREEK	CANYONVILLE	5U52	BEALS CREEK FEEDER	1,415	695,122	889	781.92	1.592
Southern OR	ROSEBURG/MYRTLECREEK	CARNES	5U44	RND PRARIE	988	210,841	420	502.00	2.352
Southern OR	ROSEBURG/MYRTLECREEK	CLEARWATER #1 SUB	6U17	BRIGGS	3	1,311	3	437.02	1.000
Southern OR	ROSEBURG/MYRTLECREEK	CLEARWATER #2 SUB	6U33	CLEARWATER	478	99,822	96	1,039.81	4.979

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Southern OR	ROSEBURG/MYRTLECREEK	CLOAKE	4U38	HARVARD	739	103,219	2,976	34.68	0.248
Southern OR	ROSEBURG/MYRTLECREEK	CLOAKE	4U39	GOEDECK	915	130,799	1,278	102.35	0.716
Southern OR	ROSEBURG/MYRTLECREEK	GARDEN VALLEY	4U80	EDENBOWER	3,011	40,428	806	50.16	3.736
Southern OR	ROSEBURG/MYRTLECREEK	GARDEN VALLEY	4U81	VALLEY	5,163	764,528	1,391	549.62	3.712
Southern OR	ROSEBURG/MYRTLECREEK	GLIDE SUBSTATION	5U83	IDLEYLD	647	178,822	896	199.58	0.722
Southern OR	ROSEBURG/MYRTLECREEK	GLIDE SUBSTATION	5U84	LITTLE RIVER	2,735	438,697	1,364	321.63	2.005
Southern OR	ROSEBURG/MYRTLECREEK	GREEN SUBSTATION	5U32	SAFARI	507	45,152	2,221	20.33	0.228
Southern OR	ROSEBURG/MYRTLECREEK	GREEN SUBSTATION	5U33	SUNNYSLOPE	15	4,987	1,643	3.04	0.009
Southern OR	ROSEBURG/MYRTLECREEK	ILLAHEE FLATS	6U13	ILLAHEE FLATS SINGLE PHASE RECLOSER	27	78,572	25	3,142.89	1.080
Southern OR	ROSEBURG/MYRTLECREEK	LEMOLO # 1	5U920	DIAMOND LAKE	700	251,877	176	1,431.12	3.977
Southern OR	ROSEBURG/MYRTLECREEK	MYRTLE CREEK	5U76	SUPER Y	1,413	589,207	1,548	380.62	0.913
Southern OR	ROSEBURG/MYRTLECREEK	MYRTLE CREEK	5U77	BOOMER HILL	1,663	836,217	1,208	692.23	1.377
Southern OR	ROSEBURG/MYRTLECREEK	OAKLAND (OR)	5U11	UMPQUA	1,510	234,757	1,291	181.84	1.170
Southern OR	ROSEBURG/MYRTLECREEK	OAKLAND (OR)	5U12	STAGECOACH	13	775	558	1.39	0.023
Southern OR	ROSEBURG/MYRTLECREEK	RIDDLE	5U1	TRI CITY	434	56,607	2,116	26.75	0.205
Southern OR	ROSEBURG/MYRTLECREEK	RIDDLE	5U2	COW CREEK	1,804	322,908	1,568	205.94	1.151
Southern OR	ROSEBURG/MYRTLECREEK	RIDDLE	5U3	HANNA	141	25,198	285	88.41	0.495
Southern OR	ROSEBURG/MYRTLECREEK	RIDDLE-VENEER	5U23	FORD MILL	-	-	1	-	-
Southern OR	ROSEBURG/MYRTLECREEK	RIDDLE-VENEER	5U50	RFP-LVL (EWP)	22	2,845	30	94.84	0.733
Southern OR	ROSEBURG/MYRTLECREEK	ROSEBURG	4U10	DIAMOND	2,627	36,015	2,524	14.27	1.041
Southern OR	ROSEBURG/MYRTLECREEK	ROSEBURG	4U22	DIXON	2,112	157,026	1,130	138.96	1.869
Southern OR	ROSEBURG/MYRTLECREEK	ROSEBURG	4U5	DOUGLAS	5,467	287,693	2,087	137.85	2.620
Southern OR	ROSEBURG/MYRTLECREEK	SLIDE CREEK	6U76	SLIDE CREEK CAMP	1	277	4	69.17	0.250
Southern OR	ROSEBURG/MYRTLECREEK	SOUTHGATE	4U30	SHADY POINT	3,947	498,335	1,620	307.61	2.436
Southern OR	ROSEBURG/MYRTLECREEK	SOUTHGATE	4U31	BOOTH	260	17,385	1,563	11.12	0.166
Southern OR	ROSEBURG/MYRTLECREEK	STEAMBOAT	6U18	STEAMBOAT	42	68,105	21	3,243.10	2.000
Southern OR	ROSEBURG/MYRTLECREEK	SUTHERLIN	5U35	NON-PAREIL	334	157,858	1,313	120.23	0.254
Southern OR	ROSEBURG/MYRTLECREEK	SUTHERLIN	5U36	DEADY	25	10,731	1,358	7.90	0.018
Southern OR	ROSEBURG/MYRTLECREEK	SUTHERLIN	5U56	Industrial	1	91	546	0.17	0.002
Southern OR	ROSEBURG/MYRTLECREEK	TILLER	5U89	JACKSON CRK	838	858,581	302	2,842.98	2.775
Southern OR	ROSEBURG/MYRTLECREEK	TOKETEE	6U21	BACK UP FOR CLEARWATER 6U33	19	18,373	0	#DIV/0	#DIV/0
Southern OR	ROSEBURG/MYRTLECREEK	WINCHESTER	4U18	WILBUR	3,648	110,958	1,648	67.33	2.214
Southern OR	ROSEBURG/MYRTLECREEK	WINCHESTER	5U15	NEWTON CREEK	5,169	63,906	1,793	35.64	2.883
Southern OR	ROSEBURG/MYRTLECREEK	WINCHESTER	5U17	FISHER	1,691	176,391	775	227.60	2.182
Southern OR	ROSEBURG/MYRTLECREEK	WINCHESTER	5U19	EVANS	1,000	84,798	735	115.37	1.361
Southern OR	ROSEBURG/MYRTLECREEK	WINSTON	5U48	BROCKWAY	35	3,372	863	3.91	0.041
Southern OR	ROSEBURG/MYRTLECREEK	WINSTON	5U49	DILLARD	4,183	698,607	1,456	479.81	2.873
Willamette Valley	ALBANY	HAZELWOOD	4M335	WEST HIGH	115	93,790	843	111.26	0.136
Willamette Valley	ALBANY	HAZELWOOD	4M336	RIVERVIEW (HAZELWOOD)	2,810	2,173,609	1,238	1,755.74	2.270
Willamette Valley	ALBANY	JEFFERSON (OR)	4M117	MARION	4,228	5,016,841	718	6,987.24	5.889
Willamette Valley	ALBANY	JEFFERSON (OR)	4M125	MINT	10,042	6,073,026	2,532	2,398.51	3.966
Willamette Valley	ALBANY	MURDER CREEK	4M243	SCRAVEL HILL	14,753	4,895,165	4,183	1,170.25	3.527
Willamette Valley	ALBANY	MURDER CREEK	4M245	RURAL NW	18,823	6,275,812	2,381	2,635.79	7.906
Willamette Valley	ALBANY	MURDER CREEK	4M249	DURA-PACIFIC	1,521	293,845	183	1,605.71	8.311
Willamette Valley	ALBANY	MURDER CREEK	4M250	INDUSTRIAL	4	224	4	56.12	1.000
Willamette Valley	ALBANY	MURDER CREEK	5M132	WAH CHANG WEST	-	-	0	#DIV/0	#DIV/0



## Oregon 2021 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	ALBANY	OREMET	4M295	OAK CREEK	109	5,773	100	57.73	1.090
Willamette Valley	ALBANY	OREMET	4M296	ROGERSDALE	2,602	237,724	2,167	109.70	1.201
Willamette Valley	ALBANY	OREMET	5M19	OREMET	3	118	3	39.27	1.000
Willamette Valley	ALBANY	QUEEN AVE	4M217	SANTIAM	1,981	116,015	1,888	61.45	1.049
Willamette Valley	ALBANY	QUEEN AVE	4M258	HILL STREET	6,945	869,136	2,870	302.83	2.420
Willamette Valley	ALBANY	QUEEN AVE	4M261	WAVELY	4,576	399,187	3,652	109.31	1.253
Willamette Valley	ALBANY	QUEEN AVE	4M262	GEARY STREET	5,704	871,322	2,639	330.17	2.161
Willamette Valley	ALBANY	VINE STREET	4M15	FERRY	6,269	687,648	3,238	212.37	1.936
Willamette Valley	ALBANY	VINE STREET	4M16	WATER STREET	10,818	8,387,782	4,284	1,957.93	2.525
Willamette Valley	CORVALLIS	BUCHANAN	4M130	HEWLETT PACKARD	3,087	594,802	2,701	220.22	1.143
Willamette Valley	CORVALLIS	BUCHANAN	4M133	PEORIA	7,980	1,922,492	2,433	790.17	3.280
Willamette Valley	CORVALLIS	BUCHANAN	4M134	N. NINTH ST.	7,900	817,098	2,595	314.87	3.044
Willamette Valley	CORVALLIS	DIXON	7M26	FOURTH ST.	230	1,211	233	5.20	0.987
Willamette Valley	CORVALLIS	DIXON	7M29	SECOND ST.	271	1,427	271	5.27	1.000
Willamette Valley	CORVALLIS	GRANT ST	4M265	HIGH SCHOOL	3,241	256,668	2,494	102.91	1.300
Willamette Valley	CORVALLIS	GRANT ST	4M266	CHINTIMINI	5,475	356,159	2,536	140.44	2.159
Willamette Valley	CORVALLIS	GRANT ST	4M268	KINGS ROAD	2,791	479,767	2,565	187.04	1.088
Willamette Valley	CORVALLIS	GRANT ST	4M269	29TH STREET	1,858	359,702	3,627	99.17	0.512
Willamette Valley	CORVALLIS	HILLVIEW	4M180	WEST HILLS	352	103,129	1,916	53.83	0.184
Willamette Valley	CORVALLIS	HILLVIEW	4M181	PHILOMATH	3	571	1,317	0.43	0.002
Willamette Valley	CORVALLIS	HILLVIEW	4M182	SUNSET	1,817	545,700	1,765	309.18	1.029
Willamette Valley	CORVALLIS	HILLVIEW	4M185	PLYMOUTH	2,540	169,274	2,037	83.10	1.247
Willamette Valley	CORVALLIS	MARYS RIVER	4M151	GREENBERRY	684	183,298	3,619	50.65	0.189
Willamette Valley	CORVALLIS	MARYS RIVER	4M152	AVERY	47	18,966	186	101.97	0.253
Willamette Valley	CORVALLIS	MARYS RIVER	4M153	GALLAGHER	3,623	20,116	159	126.52	22.786
Willamette Valley	COTTAGE GROVE/J.CITY	COBURG	4M220	DETERING	19	3,269	586	5.58	0.032
Willamette Valley	COTTAGE GROVE/J.CITY	GOSHEN (OR)	4M360	GOSHEN FDR	4,981	150,393	1,623	92.66	3.069
Willamette Valley	COTTAGE GROVE/J.CITY	HARRISBURG SUB	4M400	TERRITORIAL	2,604	295,942	1,850	159.97	1.408
Willamette Valley	COTTAGE GROVE/J.CITY	JUNCTION CITY	4M102	6TH STREET	560	83,396	1,156	72.14	0.484
Willamette Valley	COTTAGE GROVE/J.CITY	JUNCTION CITY	4M99	PRAIRIE ROAD	16	2,184	1,002	2.18	0.016
Willamette Valley	COTTAGE GROVE/J.CITY	LANCASTER	4M209	MONROE	1,603	402,006	1,130	355.76	1.419
Willamette Valley	COTTAGE GROVE/J.CITY	VILLAGE GREEN	4M84	NORTH SIDE	2,881	66,039	2,416	27.33	1.192
Willamette Valley	COTTAGE GROVE/J.CITY	VILLAGE GREEN	4M86	MADISON	1,898	71,022	1,625	43.71	1.168
Willamette Valley	DALLAS/INDEPENDENCE	DALLAS	4M100	RURAL (DALLAS)	3,771	2,534,401	2,073	1,222.58	1.819
Willamette Valley	DALLAS/INDEPENDENCE	DALLAS	4M201	INDUSTRIAL	8,048	5,196,687	3,138	1,656.05	2.565
Willamette Valley	DALLAS/INDEPENDENCE	DALLAS	4M202	ELLENDALE	10,538	9,392,328	3,017	3,113.13	3.493
Willamette Valley	DALLAS/INDEPENDENCE	DALLAS	4M238	DALLAS	8,570	9,222,847	2,325	3,966.82	3.686
Willamette Valley	DALLAS/INDEPENDENCE	INDEPENDENCE	4M22	RICKREAL	10,221	8,200,345	3,179	2,579.54	3.215
Willamette Valley	DALLAS/INDEPENDENCE	INDEPENDENCE	4M25	BUENA VISTA	9,765	7,980,216	2,126	3,753.63	4.593
Willamette Valley	LEBANON	BROWNSVILLE	4M17	CALAPOOIA	1,021	1,092,715	1,713	637.90	0.596
Willamette Valley	LEBANON	CALAPOOYA	4M850	SPAULDING	3,014	439,118	1,126	389.98	2.677
Willamette Valley	LEBANON	CALAPOOYA	4M851	BEAR	8	456	32	14.24	0.250
Willamette Valley	LEBANON	CROWFOOT	4M204	CROWFOOT	6,084	2,280,122	1,524	1,496.14	3.992
Willamette Valley	LEBANON	CROWFOOT	4M206	US PLYWOOD (LEBANON)	68	18,977	1,940	9.78	0.035
Willamette Valley	LEBANON	LEBANON	4M61	TANGENT	647	212,490	2,636	80.61	0.245
Willamette Valley	LEBANON	LEBANON	4M62	RALSTON	1,646	249,410	2,014	123.84	0.817
Willamette Valley	LEBANON	LEBANON	4M63	TENNESSEE	8,441	2,049,445	1,801	1,137.95	4.687
Willamette Valley	LEBANON	LEBANON	4M79	CROWN Z	4	3,962	1,170	3.39	0.003



## Oregon 2021 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	SWEET HOME	4M37	HOLLEY	5,260	1,053,683	2,035	517.78	2.585
Willamette Valley	LEBANON	SWEET HOME	4M38	NARROWS	1,159	124,230	983	126.38	1.179
Willamette Valley	LEBANON	SWEET HOME	4M93	AMES CREEK	3,211	231,179	1,683	137.36	1.908
Willamette Valley	LEBANON	SWEET HOME	4M94	FOSTER	5,233	973,715	2,428	401.04	2.155
Willamette Valley	STAYTON	LYONS	4M120	MILL CITY	3,260	617,978	691	894.32	4.718
Willamette Valley	STAYTON	LYONS	4M70	MEHAMA	16,279	6,695,739	1,939	3,453.19	8.396
Willamette Valley	STAYTON	SCIO	5M126	THOMAS	8,590	4,926,414	1,574	3,129.87	5.457
Willamette Valley	STAYTON	STAYTON	4M19	AUMSVILLE	5,374	16,736,906	3,471	4,821.93	1.548
Willamette Valley	STAYTON	STAYTON	4M353	WEST STAYTON	8,027	14,954,227	3,526	4,241.13	2.277
Willamette Valley	STAYTON	STAYTON	4M370	CASCADE	5,751	10,485,846	1,585	6,615.68	3.628
Willamette Valley	STAYTON	STAYTON	4M50	3RD STREET	2,206	2,260,267	920	2,456.81	2.398

**OREGON**  
**Tree Program Reporting**  
**Report as of Dec 31, 2021**

**Distribution Four Year Cycle Jan 1,2020 - Dec 31,2023**

Total	Current Year Reporting					Total Cycle Reporting				
	1/1/2021-12/31/2021 Rollover DST	1/1/2021 - 12/31/2021 Miles Planned	1/1/2021 - 12/31/2021 Miles Actual	1/1/2021 - 12/31/2021 Ahead/Behind	1/1/2021 - 12/31/2021 % Ahead/Behind	1/1/2020 through end of cycle Miles Planned	1/1/2020 through end of cycle Miles Actual	1/1/2020 through end of cycle Ahead/Behind	1/1/2020 through end of cycle % Ahead/Behind	
Total Line Miles	column a	column aa	column b	column c	column d	column e	column f	column g	column h	column i
<b>Oregon</b>	<b>13,089</b>	<b>1,030</b>	<b>3,443</b>	<b>2,885</b>	<b>-559</b>	<b>83.8%</b>	<b>7,329</b>	<b>6,723</b>	<b>-607</b>	<b>91.7%</b>
ALBANY	537	0	0	0	0	0.0%	324	324	0	0.0%
CENTRAL OREGON	1,347	104	241	235	-6	97.4%	716	699	-17	97.6%
CLATSOP	375	25	82	66	-16	80.5%	162	146	-16	90.2%
COOS BAY	645	0	121	120	-1	99.5%	306	305	-1	99.8%
CORVALLIS	305	0	86	53	-33	61.7%	86	53	-33	61.7%
COTTAGE GROVE	52	0	0	0	0	0.0%	0	0	0	0.0%
DALLAS	409	0	177	100	-77	56.3%	177	100	-77	56.3%
ENTERPRISE	429	11	129	129	0	100.0%	205	205	0	100.1%
GRANTS PASS	1,635	172	446	408	-38	91.5%	847	873	26	103.1%
HERMISTON	254	0	37	37	0	100.0%	95	95	0	100.0%
HOOD RIVER	306	23	31	32	0	100.3%	115	116	0	100.1%
JUNCTION CITY	155	0	0	0	0	0.0%	0	0	0	0.0%
KLAMATH FALLS	1,848	92	484	331	-153	68.4%	997	762	-235	76.4%
LAKEVIEW	75	0	39	39	0	0.0%	39	39	0	100.0%
LEBANON	696	0	354	257	-97	72.7%	354	257	-97	72.7%
LINCOLN CITY	164	0	37	37	0	100.0%	37	37	0	100.0%
MEDFORD	1,009	0	217	160	-56	73.9%	441	352	-88	79.9%
MILTON FREEWATER/WALLA WALLA(OR)	155	0	7	7	0	101.5%	90	90	0	100.1%
NO MEDFORD	893	24	297	293	-4	98.6%	537	541	4	100.8%
PENDLETON	611	162	109	109	0	100.0%	288	288	0	100.0%
PORTLAND*	447	36	258	182	-76	70.5%	454	377	-77	83.0%
ROSEBURG	298	142	291	290	-1	99.5%	670	674	4	100.6%
STAYTON	444	239	0	0	0	0.0%	389	389	-1	99.9%

*Portland is on a two year cycle which causes us to do two cycles in a four year period.*

Distribution cycle \$/tree: *	\$128.16
Distribution cycle \$/mile:	\$8,125
Distribution cycle removal % *	24.6%

Transmission				
Total Line Miles	Line Miles Scheduled	Line Miles Worked	Miles Ahead(behind) Schedule	% of miles on/behind Schedule
3,120	1,908	1,695	(213)	89%

- Notes:
- Column a: Total overhead pole miles by district
  - column aa: Carry over miles from prior cycle not completed.
  - Column b: Total overhead pole miles planned for the year reported for performance from Jan 1 2021 through Dec 31 2021
  - Column c: Actual overhead pole miles worked for the year during the performance period Jan 1 2021 through Dec 31 2021
  - Column d: Miles ahead or behind for the period Jan 1 2021 through Dec 31 2021 (column c-column b)
  - Column e: Percent of actual compared to planned for the period Jan 1 2021 through Dec 31 2021 ((column c÷b)×100)
  - Column f: Total overhead pole miles planned for the period Jan 1 2020 through end of cycle
  - Column g: Actual overhead pole miles worked during the period Jan 1 2020 through end of cycle
  - Column h: Miles ahead or behind for the period Jan 1 2020 through end of cycle (column g-column f)
  - Column i: Percent of actual compared to planned for the period Jan 1 2020 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)

	2021 est	2022 est	2023 est	2024 est	2025 est	2026 est
<b>Distribution</b>						
Tree Budget	28,739,356	28,739,356	28,739,356	28,739,356	28,739,356	28,739,356
<b>Transmission</b>						
Tree Budget	1,260,645	1,260,645	1,260,645	1,260,645	1,260,645	1,260,645
<b>Total Tree Budget</b>	<b>\$ 30,000,001</b>	<b>\$ 30,000,001</b>	<b>\$ 30,000,001</b>	<b>\$ 30,000,001</b>	<b>\$ 30,000,001</b>	<b>\$ 30,000,001</b>

	2015	2016	2017	2018	2019	2020
<b>Distribution</b>						
Tree Actuals	21,923,393	17,489,336	18,646,639	18,502,712	22,848,077	34,190,176
<b>Transmission</b>						
Tree Actuals	2,355,070	3,745,786	2,660,821	2,528,003	2,524,520	2,267,173
<b>Total Tree Actuals</b>	<b>\$ 24,278,463</b>	<b>\$ 21,235,122</b>	<b>\$ 21,307,460</b>	<b>\$ 21,030,715</b>	<b>\$ 25,372,597</b>	<b>\$ 36,457,349</b>

Calendar Year 2021	Distribution		
	Actuals	Budget	Variance
Jan	\$ 4,215,570	\$ 3,825,887	\$ 389,683
Feb	\$ 5,398,015	\$ 4,167,410	\$ 1,230,605
Mar	\$ 5,172,127	\$ 4,088,621	\$ 1,083,506
Apr	\$ 3,269,557	\$ 4,105,281	\$ (835,724)
May	\$ 3,404,316	\$ 4,601,123	\$ (1,196,807)
Jun	\$ 3,048,143	\$ 3,706,786	\$ (658,643)
Jul	\$ 3,322,420	\$ 3,838,889	\$ (516,469)
Aug	\$ 2,639,455	\$ 3,130,337	\$ (490,881)
Sep	\$ 2,848,079	\$ 3,202,893	\$ (354,813)
Oct	\$ 2,901,139	\$ 3,188,215	\$ (287,076)
Nov	\$ 2,853,652	\$ 2,454,882	\$ 398,770
Dec	\$ 3,263,864	\$ 1,595,812	\$ 1,668,052
<b>Total</b>	<b>\$ 42,336,338</b>	<b>\$ 41,906,136</b>	<b>\$ 430,203</b>

Transmission		
Actuals	Budget	Variance
\$ 162,259	\$ 223,328	\$ (61,069)
\$ 121,098	\$ 223,328	\$ (102,230)
\$ 174,193	\$ 223,328	\$ (49,135)
\$ 114,055	\$ 223,328	\$ (109,272)
\$ 258,378	\$ 223,328	\$ 35,051
\$ 223,838	\$ 223,328	\$ 510
\$ 320,810	\$ 223,328	\$ 97,483
\$ 205,524	\$ 223,328	\$ (17,804)
\$ 213,229	\$ 223,328	\$ (10,099)
\$ 267,251	\$ 223,328	\$ 43,923
\$ 114,861	\$ 223,328	\$ (108,467)
\$ 217,209	\$ 223,328	\$ (6,119)
<b>\$ 2,392,704</b>	<b>\$ 2,679,931</b>	<b>\$ (287,228)</b>

<b>Average # Tree Crews on Property (YTD)</b>	<b>130</b>
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## INSPECTION AND MAINTENANCE PROGRAMS

### Inspection and Repairs

In Calendar Year 2021 (January 01 through December 31, 2021), among distribution and transmission facilities (both overhead and underground), 2,796 'A' Priority conditions were recorded and 2,159 were corrected.

For 'B' priority conditions, 25,823 were identified and 16,639 were corrected in CY2021.

Reporting of 'C' priority conditions was terminated early 2014, however some are still occasionally entered into the inspection system inadvertently. Five were identified in 2021 and these will be reviewed and reprioritized as required. Forty-seven of 'C' priority conditions were corrected.

### 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 CY2021, 56,604 Distribution, 5,765 Local Transmission and 6,749 Main Grid Transmission Detail inspections were performed. Detail inspections were performed on 15.45% of the total 447,416 overhead facilities.
- 38,810 Distribution poles, 4,809 Local Transmission poles and 646 Main Grid Transmission poles were Tested and Treated. Test and Treatment was performed on 9.89% of the total 447,416 overhead facilities.
- PacifiCorp replaced or reinforced 1,138 poles that were rejected through the Test and Treat inspection program. The CY2021 rejection rate was 2.11%.

#### A. Visual Inspections

The visual inspection of the Distribution and Transmission system is on a 2-year cycle. In CY2021, 216,412 Distribution, 26,027 Local Transmission and 11,629 Main Grid inspections were performed for a total of 254,068 inspections which equates to 56.79% 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 CY2021, 12,109 inspections were performed; 9.94% of 121,766 underground facilities.

#### C. Marina Inspection Program

The inspection of marinas is annual. In CY2021, 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 281 substation and communication facilities in Oregon. PacifiCorp performed 99.11% of the planned substation security inspections in CY2021.

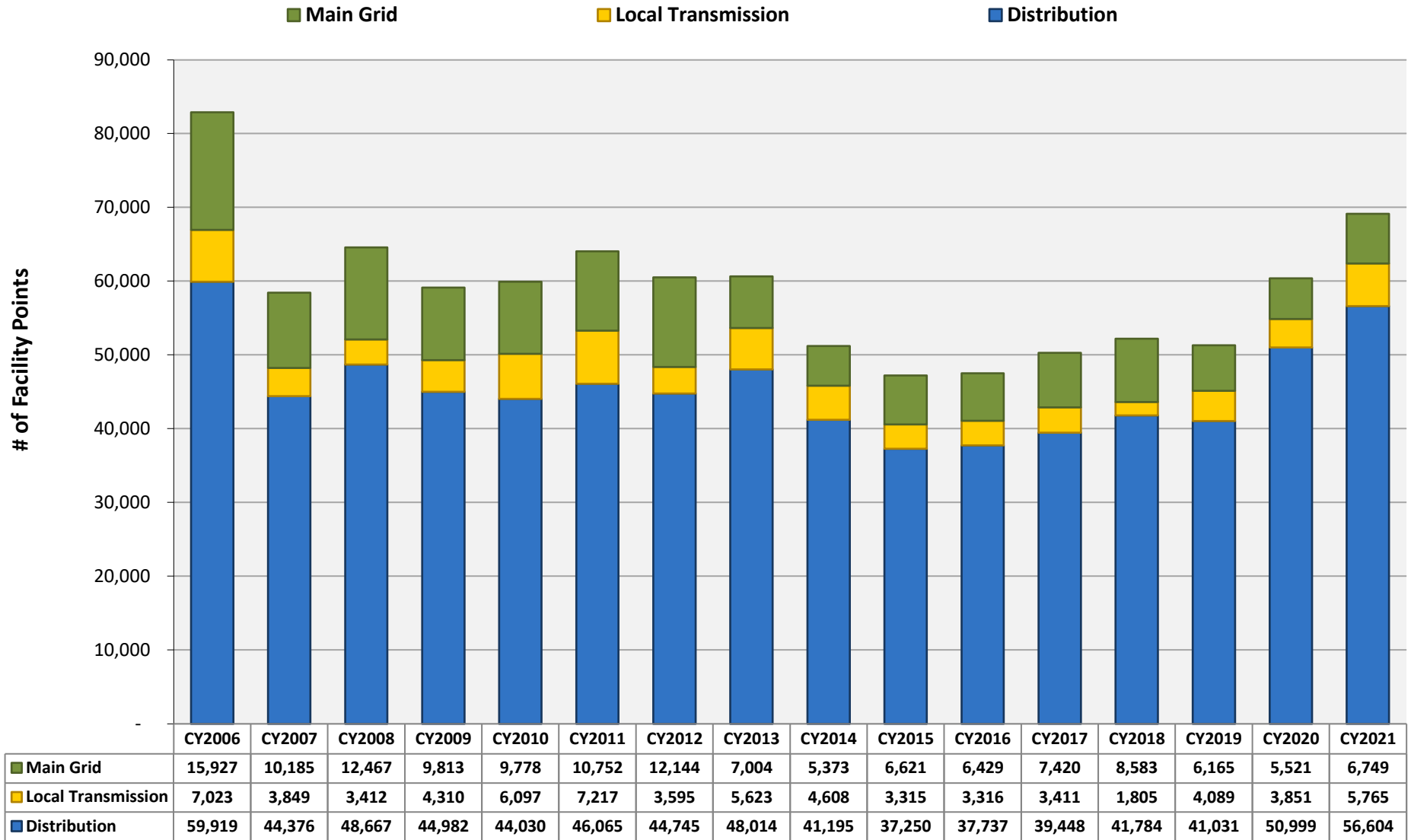
### *C. Substation Equipment Inspections*

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.

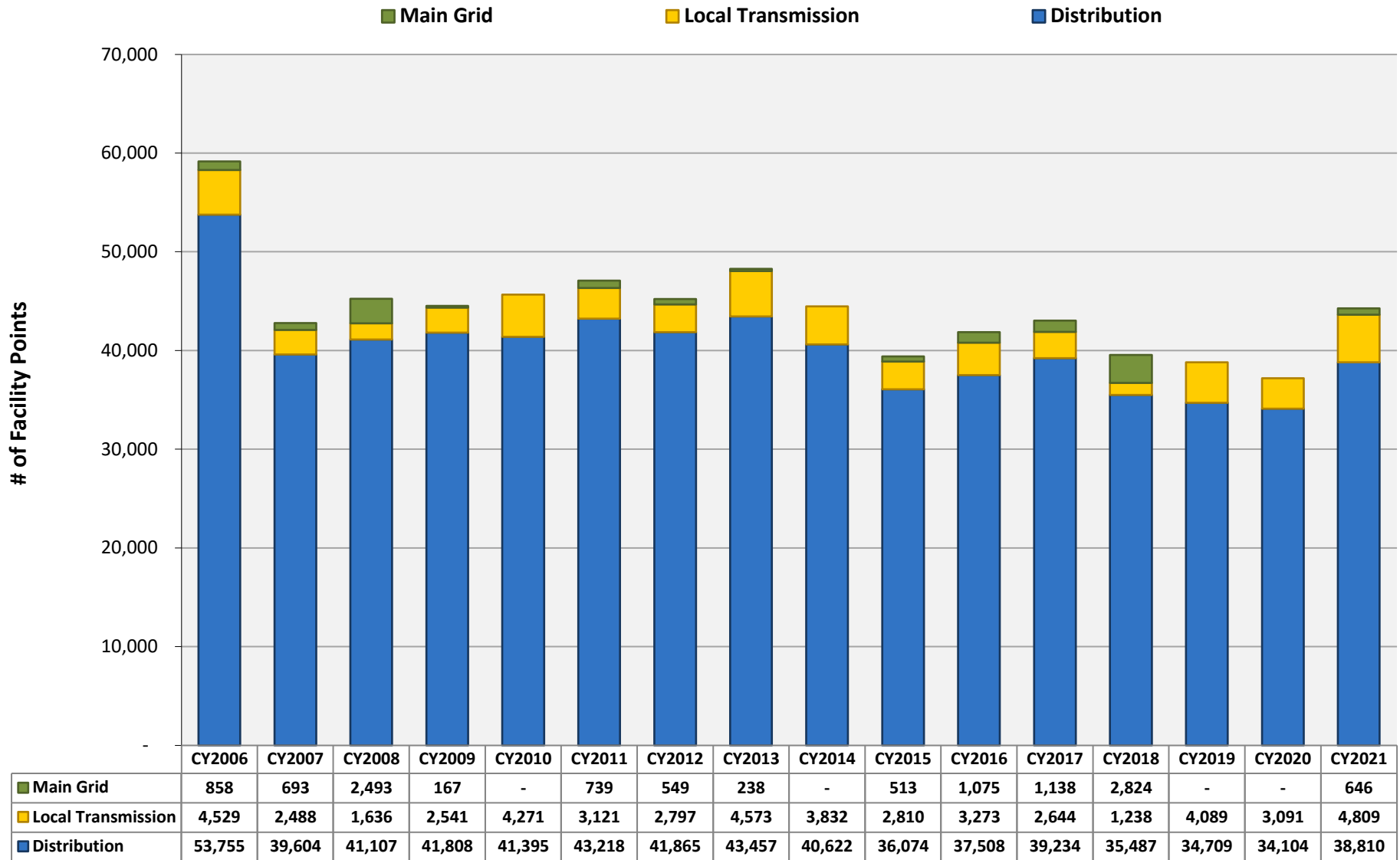
PacifiCorp performed 98.66% of the planned substation equipment inspections in Oregon in CY2021.

## CY2021 Overhead Detail Inspection History



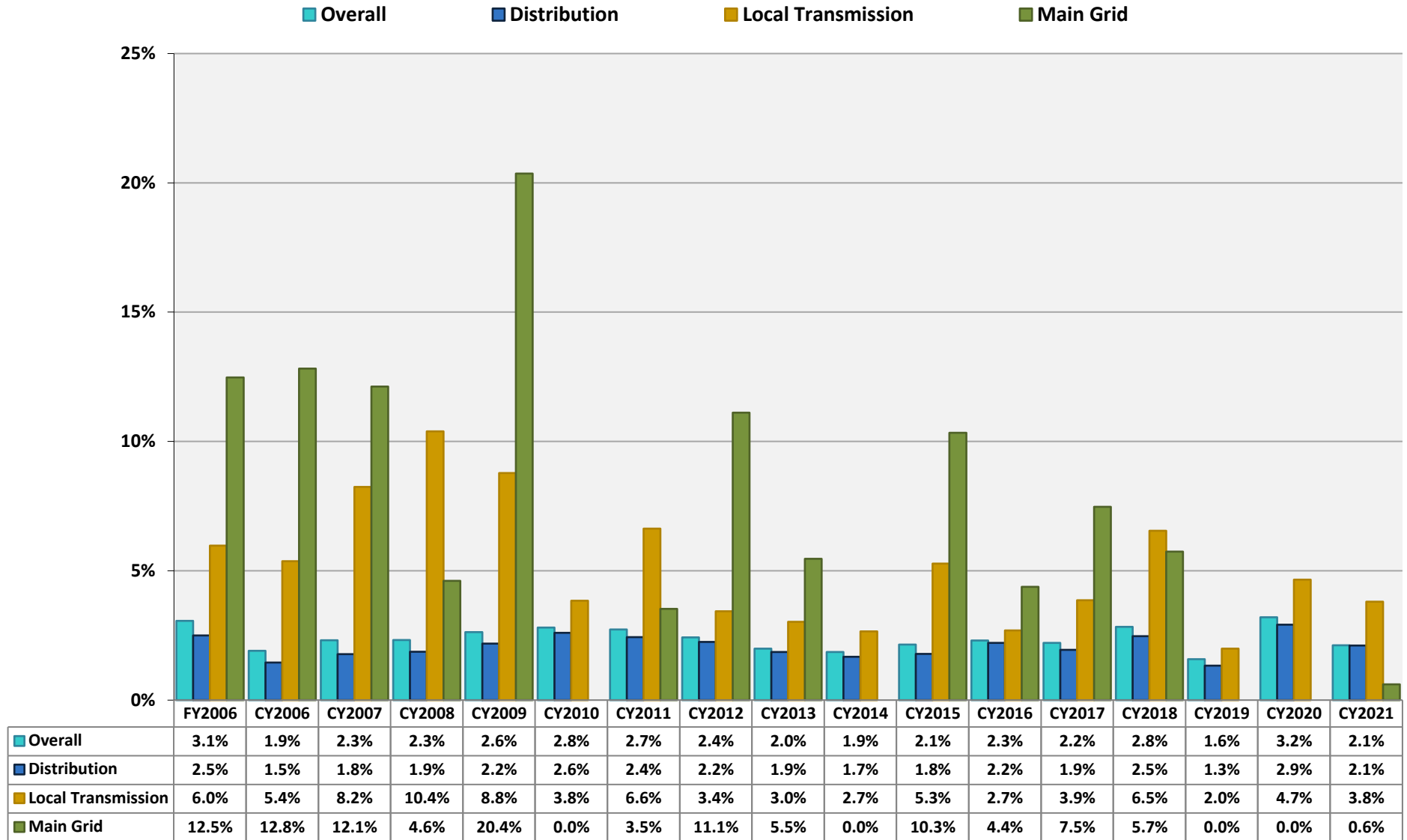


## CY2021 Pole Test and Treat History



Includes intrusive and physical testing

## CY2021 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		\$2,492,139	\$2,359,415
	Detail	520		\$298,509	\$317,977
Transmission	T&T	843,883		\$448,826	\$650,966
	Detail	840,880		\$264,802	\$354,908
<b>Total</b>				<b>\$3,504,276</b>	<b>\$3,683,265</b>

Pole Replacements				ACTUALS	BUDGET
Distribution				\$11,597,394	\$10,808,421
Transmission				\$6,517,728	\$8,550,004
<b>Total</b>				<b>\$18,115,122</b>	<b>\$19,358,425</b>

Repair and Replace Facilities				ACTUALS	BUDGET
Distribution	500, 501, 502, 503, 504, 505, 509, 518, 526, 527, 595, 624, 625, 626, 905			\$12,904,287	\$12,923,752
Transmission	845, 847, 846, 865, 884, 886, 848, 889			\$563,556	\$842,962
<b>Total</b>				<b>\$13,467,843</b>	<b>\$13,766,714</b>

Visual Inspections (Includes Equipment Inspections)				ACTUALS	BUDGET
Distribution		521		\$661,540	\$623,667
Transmission		841,881		\$389,411	\$482,224
<b>Total</b>				<b>\$1,050,951</b>	<b>\$1,105,891</b>

Underground Inspections				ACTUALS	BUDGET
Distribution		508		\$334,525	\$367,879
<b>Total</b>				<b>\$334,525</b>	<b>\$367,879</b>

Substation Maintenance				ACTUALS	BUDGET
Distribution Preventative Maintenance				\$1,967,413	\$2,125,209
Distribution Corrective Maintenance				\$827,516	\$1,432,212
Transmission Preventative Maintenance				\$1,779,982	\$2,143,936
Transmission Corrective Maintenance				\$1,223,186	\$1,023,936
<b>Total</b>				<b>\$5,798,098</b>	<b>\$6,725,293</b>