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REPORT NAME: Annual Report on Service Quality Measures for Calendar Year 2014

COMPANY NAME: PacifiCorp

DOES REPORT CONTAIN CONFIDENTIAL INFORMATION? No Yes

If yes, please submit only the cover letter electronically. Submit confidential information as directed in OAR 860-001-0070 or the terms of an applicable protective order.

If known, please select designation: RE (Electric) RG (Gas) RW (Water) RO (Other)

Report is required by: OAR 860-023-0151

Statute

Order 98-191

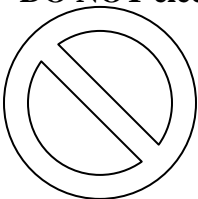
Other

Is this report associated with a specific docket/case? No Yes

If yes, enter docket number: RE 58(1) & UE 94

List applicable Key Words for this report to facilitate electronic search:  
Service Quality Measures

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- Any other Telecommunications Reporting or
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- Accident reports required by ORS 654.715

**Please file the above reports according to their individual instructions.**



825 NE Multnomah, Suite 2000  
Portland, Oregon 97232

May 1, 2015

***VIA ELECTRONIC FILING***

Public Utility Commission of Oregon  
3930 Fairview Industrial Drive SE  
Salem, Oregon 97302-1166

Attn: Filing Center

**RE: Annual Report on Service Quality Measures for Calendar Year 2014**

PacifiCorp d/b/a Pacific Power submits for filing its Annual Report on Service Quality Measures for calendar year 2014. This filing is made in compliance with OAR 860-023-0151 and Order No. 98-191 in docket UE 94.

The company respectfully requests that data requests regarding this matter be addressed to:

By E-mail (preferred): [datarequest@pacificorp.com](mailto:datarequest@pacificorp.com)

By regular mail: Data Request Response Center  
PacifiCorp  
825 NE Multnomah, Suite 2000  
Portland, OR 97232

Please direct informal questions to Erin Apperson, Manager, Regulatory Affairs, at 503-813-6642.

Sincerely,

R. Bryce Dalley  
Vice President, Regulation

Enclosure



# OREGON

## UE 94-Service Quality Measures

and

## Annual Report Pursuant to OAR 860-023 & 860-024

**Calendar Year 2014 Review**  
(January 1 – December 31, 2014)

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## **C1 – AT-FAULT CUSTOMER COMPLAINTS**

PacifiCorp continues to maintain excellent customer service, and to promote resolution of customer complaints throughout the Company by proactive management of complaints and potential complaints.

The total number of “At Fault” complaints for the year was 10; the ratio of “At Fault” complaints per 1,000 customers in CY2014 was 0.017 (based on the CY2014 frozen customer count of 604,587 Oregon customers).

Low levels of “At-Fault” complaints can be attributed to the following actions by the Company:

- Continuation of internal review of all Commission complaints through root cause and assignment of follow up action items,
- Continuation of audit process to ensure changes implemented for complaints are effective,
- Active participation in process changes at the Business Centers and T & D Operations,
- Application of Performance Standard 6 commitments to ensure customers receive timely and accurate response/resolution of complaints,
- Communication with Commission staff concerning ongoing process changes,
- Support for T & D Operations and Business Center personnel, with specialized guidance regarding current rules and regulations.

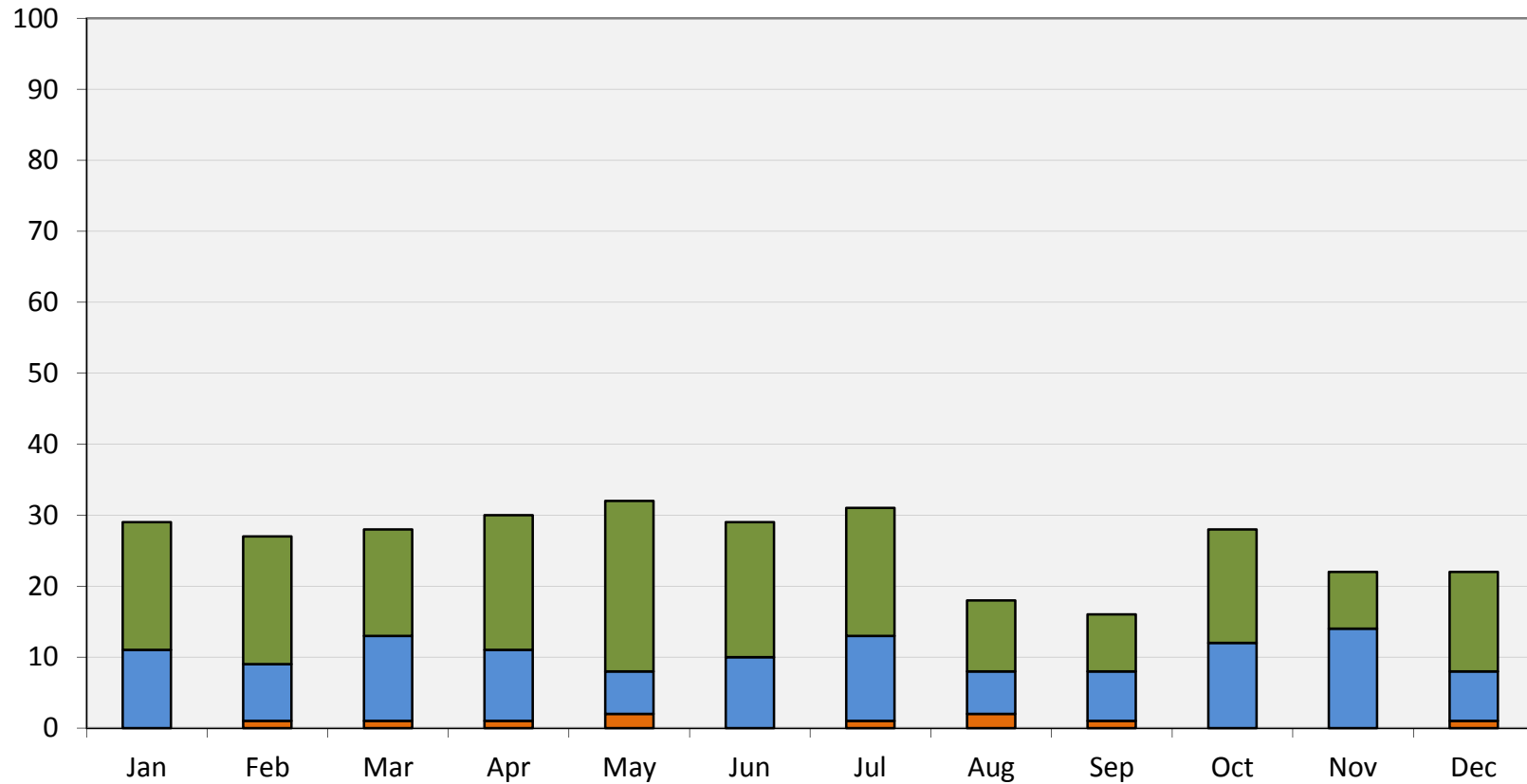
### Calendar Year 2014-Complaint Statistics

Month	800 Complaints	OPUC Complaints	At-Fault Complaints
Jan	18	11	0
Feb	18	8	1
Mar	15	12	1
Apr	19	10	1
May	24	6	2
Jun	19	10	0
Jul	18	12	1
Aug	10	6	2
Sep	8	7	1
Oct	16	12	0
Nov	8	14	0
Dec	14	7	1
<b>TOTALS</b>	<b>187</b>	<b>115</b>	<b>10</b>

\* NOTE: By Calendar Year. 800 complaints include all but commission complaints.

### CY2014 Oregon Complaints

At Fault (10)   No Fault (115)   800 (187)

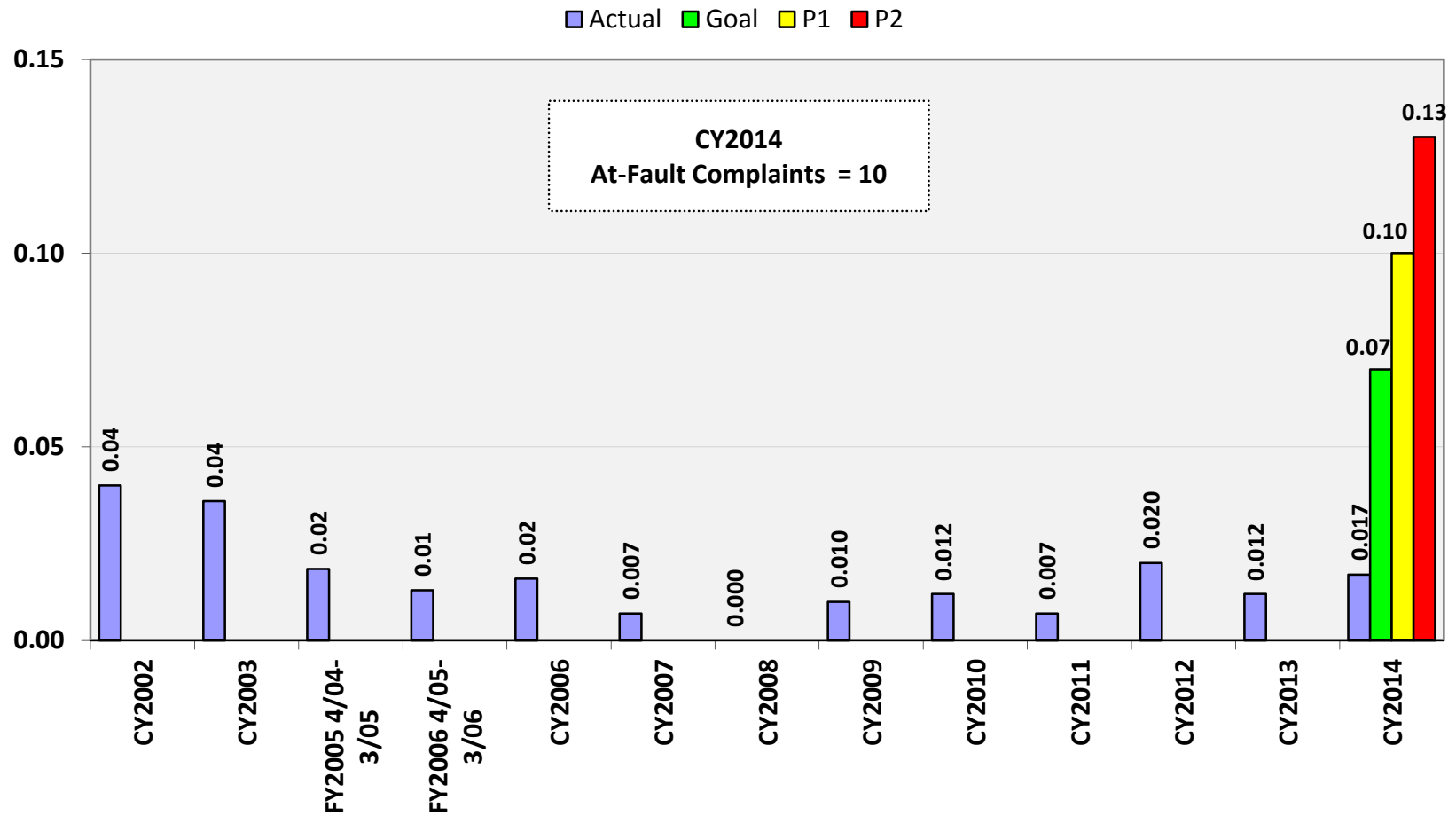


Penalty Level 1 = .10

Penalty Level 2 = .13

CY2014 Result = .017

### C1- At Fault Complaints Performance History





## **R1 thru R4 - RELIABILITY**

### ***Introduction and Discussion***

This year's reliability report includes a brief discussion of PacifiCorp's programs and initiatives to evaluate and enhance reliability. In addition, the UE 94 R1, R2, R3 and R4 Performance Measures will be discussed. Changes to this section have been made since administrative rules regarding reliability were modified during the reporting period.

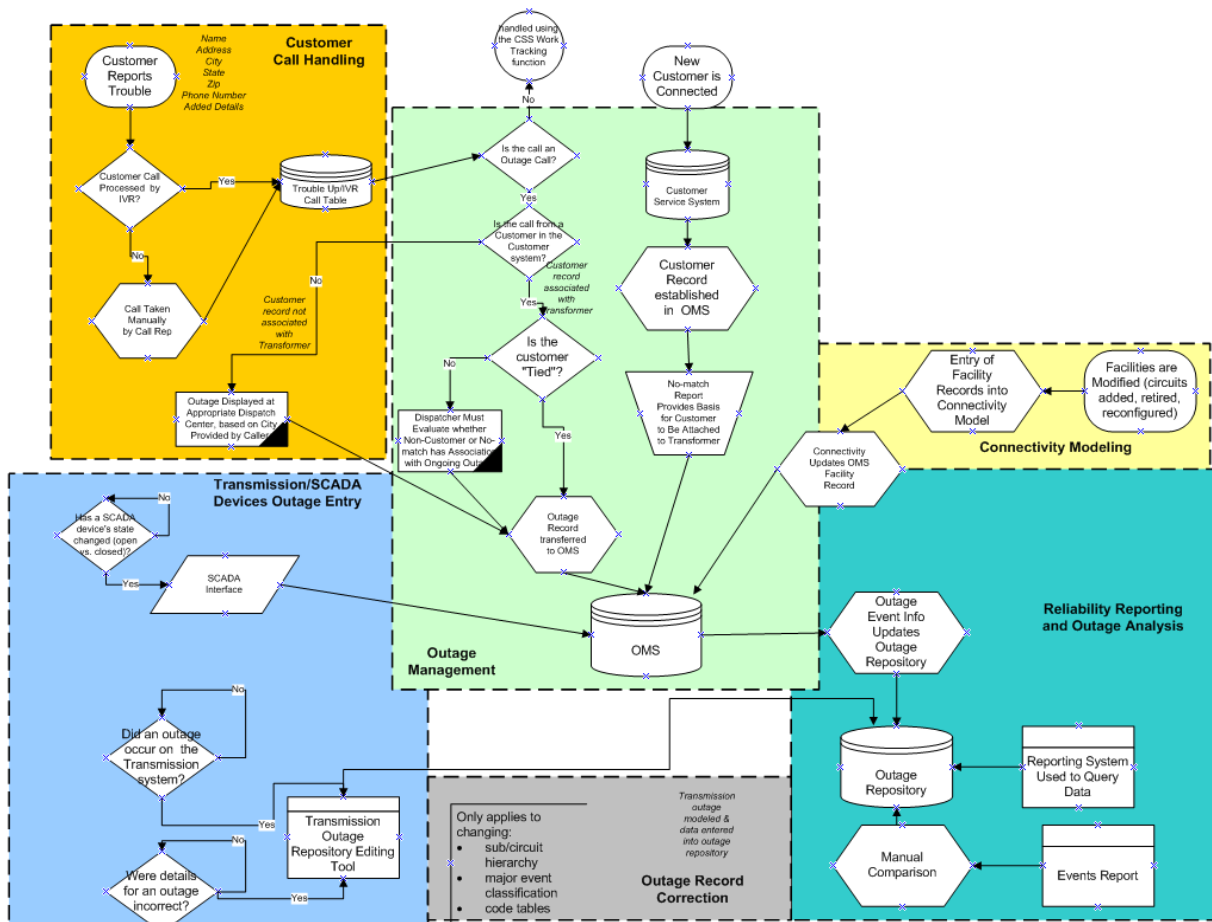
These are included in the following order:

1. Discussion of Programs and Initiatives
  - Monitoring, Recording and Reporting Reliability
    - How We Monitor Reliability
    - Reliability Measurement: Changes in Indices and Metrics
    - Report on UE 94 Statewide Reliability Service Measures
    - Major Event Thresholds and Major Events Excluded Report
    - Reliability Reporting Regions Map
  - Standards and Guidelines
  - Under-performing Circuits Program
2. UE 94 R1, R2, R3, R4 Service Quality Measures Report
3. Five-Year Weighted SAIDI, SAIFI, MAIFle and Thresholds
4. Five-Year View Reliability Reporting Region Metrics
5. Five-Year View Customer Counts by Reliability Region and Operating Area
6. Five-Year View Cause Analysis – State and Reporting Regions
7. Active Circuits List with Substation, Voltage and Circuit Customer Count
8. Circuit Metrics (Excluding Major Events, Including Major Events, and Zero Outage Circuits)

# Monitoring, Recording and Reporting Reliability

## How PacifiCorp Monitors Reliability

PacifiCorp operates automated outage management and reporting systems; a diagram of the data flow process is shown below. Customer trouble calls and SCADA events are interfaced with the Company's real-time network connectivity model, its CADOPS system (Computer Aided Distribution Operations System). By overlaying these events onto the network model, the program infers outages at the appropriate devices (such as a transformer, fuse or other interrupting device) for all customers down line of the interrupting device. The outage is then routed to appropriate field operations staff for restoration and the outage event is recorded in the Company's Prosper/US outage repository. In addition to this real-time model of the system's electrical flow, the Company relies heavily upon the SCADA system it has in place. This includes the Dispatch Log System (an SQL database application) which serves to collect all events on SCADA-operable circuits. That data is then analyzed for momentary interruptions to establish state-level and circuit-level momentary interruption indices, per agreement with the Oregon PUC Staff.



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 PacifiCorp 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.

For performance reporting as contained within this document<sup>1</sup>, PacifiCorp uses the current standard indices, applied at the state level and also to newly-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 recently-adopted IEEE P1366 “2.5 beta” TMed method applied to the new reliability reporting regions. Therefore, year-on-year comparisons need to be made carefully.

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

In order to devise circuit-level performance measures, PacifiCorp has done considerable 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, PacifiCorp 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. In 2005, the Company modified this measure to include events that occur during a major event and events that are due to upstream transmission-level outages (known as CPI<sup>05</sup>). 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. Also, in order to deliver more cost effective reliability improvement measures, the Company identified a category of outage causes considered to be cost-effectively avoidable called Controllable Distribution Causes, against which it assesses improvement activities. Mining of this data allows the company to optimize cost against reliability metric improvements.

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<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.

## Reliability Tools: Improving Indices and Metrics

PacifiCorp 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 is the norm. 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 completed annually with periodic updates); review of historic reliability performance demonstrates the process' efficacy.

## Report on UE 94 Statewide Reliability Service Measures

The UE 94 Service Quality document for reliability calls for four measures, R1, R2, R3 and R4, applied on a statewide (Oregon system) basis.

While the Company's improvements in outage reporting resulted in much higher quality sustained outage event information, it disabled the method by which momentary events were calculated. As a result, the prior calculation for R3 understated the momentary outage index. To mitigate this error, OPUC Staff and PacifiCorp developed an approach that provides accurate system level momentary indices and leverages existing SCADA facilities. This plan was filed on April 1, 2005, and subsequently evaluated and approved by OPUC Staff. The calculations from the approved plan are incorporated into the Company's reported R3 measures.

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<sup>2</sup> NEW P1782 (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 PacifiCorp to evaluate system reliability and determine areas where improvements should be deployed.

## Major Events Excluded from Performance

PacifiCorp filed written documentation for three Major Events in 2014 that were excluded from reliability performance results. They are summarized in the table below.

Oregon 2014 Major Events - Written Filings									
Event Date	Description	CML	CIS	PUC Report Required	Region TMED	Region SAIDI	Oregon SAIDI	Oregon SAIFI	Oregon CAIDI
February 7-12, 2014	WlmVly - Snow Storm	36,377,742	52,965	Yes	14.71	297.9	60.17	0.09	687
October 25-27, 2014	WlmVly - Storm	9,072,634	16,923	Yes	14.71	74.30	15.01	0.03	536
December 11-13, 2014	CoastPlus, Northeast - Windstorm	7,942,721	18,067	Yes	18.77	135.14	13.14	0.03	440
TOTAL Oregon Major Events Filed		53,393,097	87,955				88.31	0.15	607

The company excluded five events where CAIDI was less than five hours, for which no filing is required according to Oregon Administrative Rules.

Oregon 2014 Major Events - Low CAIDI (<300) No Filings									
Event Date	Description	CML	CIS	PUC Report Required	Region TMED	Region SAIDI	Oregon SAIDI	Oregon SAIFI	Oregon CAIDI
January 11, 2014	CoastPlus, Central - Windstorm	3,919,607	30,918	No	14.01	29.08	6.48	0.05	127
February 15, 2014	CoastPlus - Snow Storm	2,829,118	16,403	No	9.57	18.68	4.68	0.03	172
April 28, 2014	WlmVly - Loss of Supply	3,718,878	33,770	No	14.71	30.45	6.15	0.06	110
October 25-27, 2014	CoastPlus - Storm	3,694,599	14,841	No	9.57	24.4	6.11	0.02	249
December 11-13, 2014	Central, South, WlmVly - Windstorm	9,230,655	75,038	No	30.79	70.53	15.27	0.13	123
TOTAL Major Events with low CAIDI		23,392,857	170,970				38.69	0.29	137

## Total Performance Summary

Oregon 2014 Major Events - Summary	CML	CIS	PUC Report Required	Oregon SAIDI	Oregon SAIFI	Oregon CAIDI
Total Oregon Major Events Filed	53,393,097	87,955	Yes	88.31	0.15	607
Total Major Events with low CAIDI (no filing required) <sup>2</sup>	23,392,857	170,970	No	38.69	0.28	137
<b>TOTAL MAJOR EVENTS EXCLUDED</b>	76,785,954	258,925	-	127.01	0.43	297
Oregon Underlying Events - <u>Excludes</u> Major Event	80,075,296	720,354	-	132.45	1.19	111
Oregon Total Performance - <u>Includes</u> Major Event	156,861,250	979,279	-	259.45	1.62	160

## 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 TMed methodology for determining major events. For PacifiCorp’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 CY2014 and for application during CY2015.

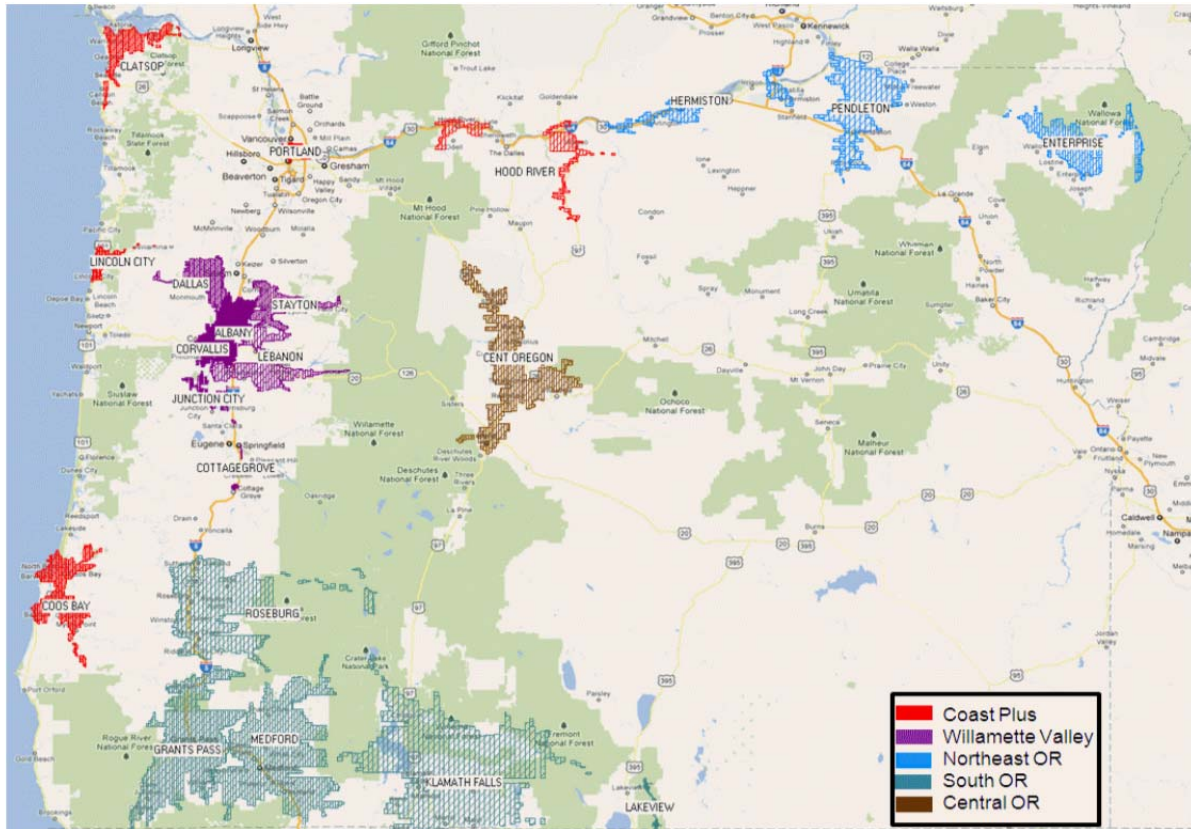
2014 Major Event Threshold			
Reliability Region	Tmed SAIDI	Tmed CMI	Operating Areas within Region
Central OR	4.44	349,946	Bend/Redmond, Madras
CoastPlus	9.57	1,449,117	Clatsop/Astoria, Coos Bay/Coquille, Hood River, Lincoln City, Portland
Northeast OR	9.20	236,978	Enterprise, Hermiston, Milton-Freewater, Pendleton, Walla Walla
Southern OR	11.64	2,635,154	Grants Pass, Klamath Falls, Lakeview, Medford, Roseburg/Myrtle Creek
WlmVly	14.71	1,796,334	Albany, Corvallis, Cottage Grove/J. City, Dallas/Independence, Lebanon, Stayton

2015 Major Event Threshold			
Reliability Region	Tmed SAIDI	Tmed CMI	Operating Areas within Region
Central OR	4.34	349,230	Bend/Redmond, Madras
CoastPlus	9.60	1,452,428	Clatsop/Astoria, Coos Bay/Coquille, Hood River, Lincoln City, Portland
Northeast OR	9.35	232,269	Enterprise, Hermiston, Milton-Freewater, Pendleton, Walla Walla
Southern OR	10.13	2,306,700	Grants Pass, Klamath Falls, Lakeview, Medford, Roseburg/Myrtle Creek
WlmVly	17.34	2,134,793	Albany, Corvallis, Cottage Grove/J. City, Dallas/Independence, Lebanon, Stayton

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

Calendar Year	2015		2014		2013		2012		2011	
	CMI	SAIDI	CMI	SAIDI	CMI	SAIDI	CMI	SAIDI	CMI	SAIDI
Central OR	349,230	4.34	349,946	4.44	347,505	4.48	394,135	5.12	460,792	6.04
CoastPlus	1,452,428	9.60	1,449,117	9.57	1,475,758	9.82	1,409,521	9.43	1,780,515	11.77
Northeast OR	232,269	9.35	236,978	9.20	249,447	9.68	129,066	5.02	296,111	5.51
South OR	2,306,700	10.13	2,635,154	11.64	2,533,923	11.26	2,541,566	11.35	3,064,200	13.74
WlmVly	2,134,793	17.34	1,796,334	14.71	1,585,648	13.09	1,431,248	11.90	1,695,687	14.18

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



## **Standards and Guidelines**

Two questions often arise when discussing reliability, “How much money should we invest in this feeder?” and “When do we reach the point of diminishing returns?” This line of questioning positions engineers, regulators and customers to establish reasonable levels of performance. While IEEE 1366-2012 established methods for evaluating reliability and ensuring consistency of the methodology, it made no effort to establish minimum levels of performance. Further, IEEE 1782 quantified performance in a variety of different methods, but also didn’t detail a threshold level for performance. Each system, customer group and locale creates a unique set of circumstances to which such minimums cannot be fairly applied.

## **Service Quality Measures**

On an annual basis, the Company and Commission Staff review performance to identify areas that need greater focus or may result in modifications to agreed-upon Service Quality Measures (SQMs). This program was the direct result of Oregon’s Alternative Form of Regulation (AFOR) whose specific reliability SQMs are shown in the table below. As a result of the ScottishPower merger, PacifiCorp moved to adopt system improvement target standards of its own. Subsequently, the Company has met improvement targets, extended the program through 12/31/2011, and migrated to performance and reporting requirements outlined in Oregon Administrative Rules in OAR 860-023. To complement these standards the Company also designates five circuits annually for extra scrutiny in monitoring performance and developing improvement plans.

<b>System Performance</b>	
System Availability	Achieve SQM R1 levels better than P-1 level
System Reliability	Achieve SQM R2 levels better than P-1 level
System Momentary Events	Achieve SQM R3 levels better than P-1 level
Supply Restoration	Achieve SQM R4 levels better than P-1 level



## Under-Performing Circuits

After the close of each year, 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 Network Initiatives program. CPI is an acronym for Circuit Performance Indicator, which uses 3-year weighted reliability metrics of the circuit to identify underperforming circuits. The Company has evaluated the effectiveness of the CPI, determining whether inclusion of major events and transmission outages produce better results. The inclusion of major event and transmission outages, reporting period comparisons yielded a limited ability to identify the benefits of improvements made on each of the circuits. The application of CPI99 proved to demonstrate more consistently how performance comparisons could be made. The variables and equation for calculating CPI are:

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

**Index:** 10.645

**SAIDI:** Weighting Factor 0.30, Normalizing Factor 0.029

**SAIFI:** Weighting Factor 0.30, Normalizing Factor 2.439

**MAIFI:** Weighting Factor 0.20, Normalizing Factor 0.70

**Lockouts:** Weighting Factor 0.20, Normalizing Factor 2.00

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

The following distribution feeders were selected as under-performing based on CPI scores ending 12/31/2014 (in addition to other criteria, discussions with area engineers) and identified as Program Year 16 (2015) circuits in the Network Initiatives program:

ID	CIRCUIT NAME	KV	OPERATING AREA	CPI <sup>99</sup>
4C108	EMPIRE	20.8	COOS BAY/COQUILLE	16
5A93	BRADWOOD	12	CLATSOP (ASTORIA)	114
5K43	BELMONT	12	HOOD RIVER	118
5R232	MERLIN-HUGO	12	GRANTS PASS	41
5R65	DEER CREEK	12	GRANTS PASS	59
<b>TARGET SCORE</b>				<b>56</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.)

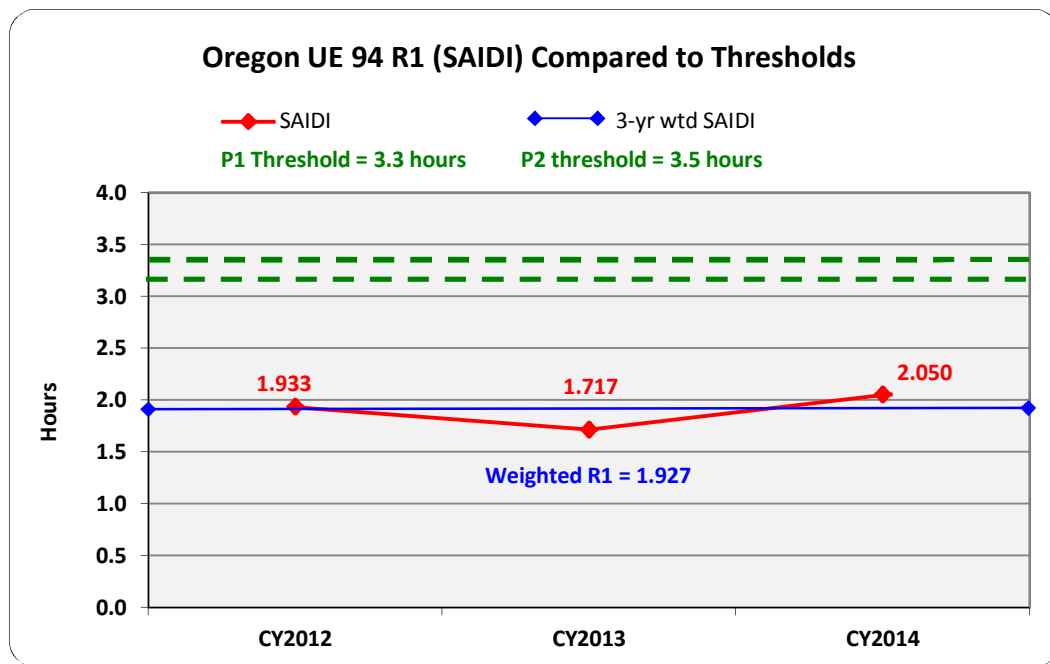
UNDER-PERFORMING CIRCUITS	BASELINE	Performance 12/31/14
<b>Circuit Performance Indicator (CPI99)</b>		
<b>Program Year 15 (2014):</b>		
KINGS ROAD	115	124
29 <sup>TH</sup> STREET	133	129
DOUGLAS	34	36
BUNKERHILL	152	142
WOOD RIVER	193	166
TARGET SCORE = <b>100</b>	<b>125</b>	<b>121</b>
<b>Program Year 14 (2013):</b>		
TERRES HGHTS	158	131
EASTSIDE	110	61
GLENDALE	171	221
CHINOOK	131	145
ROUGH & READY	69	52
TARGET SCORE = <b>102</b>	<b>128</b>	<b>105</b>
<b>Program Year 13 (2012):</b>		
D.R.W.	124	38
DEDCHUTES S	104	60
GOEDECK	24	57
LITTLE RIVER	70	173
WEST	45	34
TARGET SCORE = <b>59</b>	<b>73</b>	<b>72</b>
<b>Program Year 12 (2011):</b>		
CRYSTAL SPR	154	75
WARM SPRINGS	157	57
IDLEYLD	146	141
PLEASANT VLY- MERLIN	39	40
DIAMOND	40	75
TARGET SCORE = <b>86</b>	<b>107</b>	<b>78</b>
<b>Program Year 11 (2010):</b>		
CITY	53	6
OAKGROVE	154	59
SOUTH (Hood River)	121	39
MALIN CITY	110	55
SAFARI	109	34
TARGET SCORE = <b>88</b>	<b>110</b>	<b>39</b>

## Oregon UE94 - Service Quality Measures CY 2014

### R1 - SAIDI

Year	SAIDI	Weighting	Product
CY2012	1.933	0.2	0.387
CY2013	1.717	0.3	0.515
CY2014	2.050	0.5	1.025

**Weighted R1: 1.927**

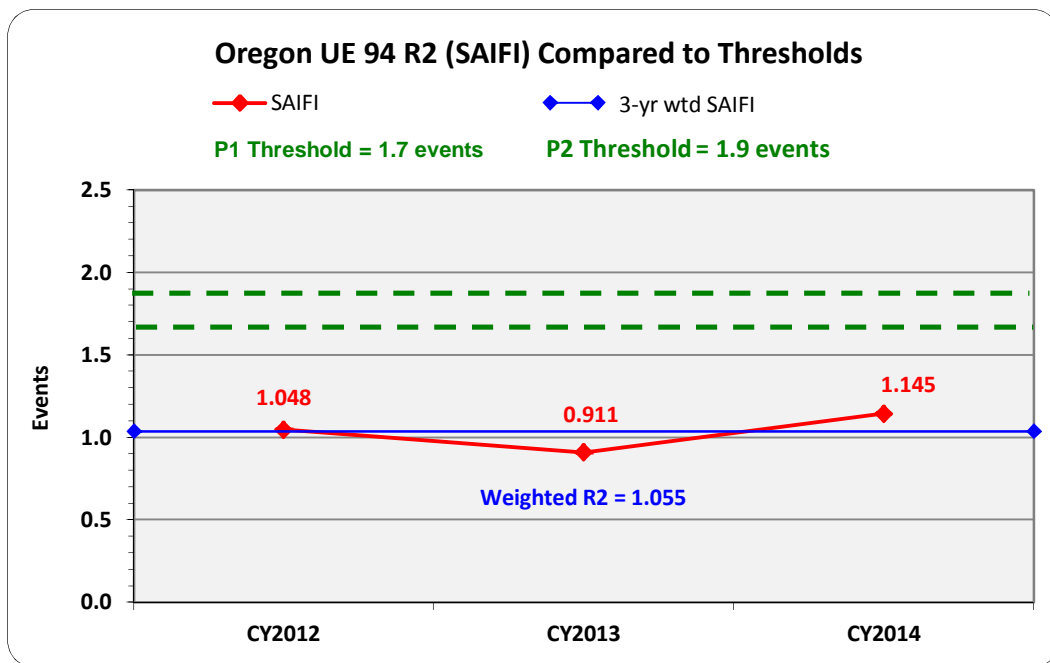


**Oregon UE94 - Service Quality Measures  
CY 2014**

**R2 - SAIFI**

Year	SAIFI	Weighting	Product
CY2012	1.048	0.2	0.210
CY2013	0.911	0.3	0.273
CY2014	1.145	0.5	0.573

**Weighted R2: 1.055**



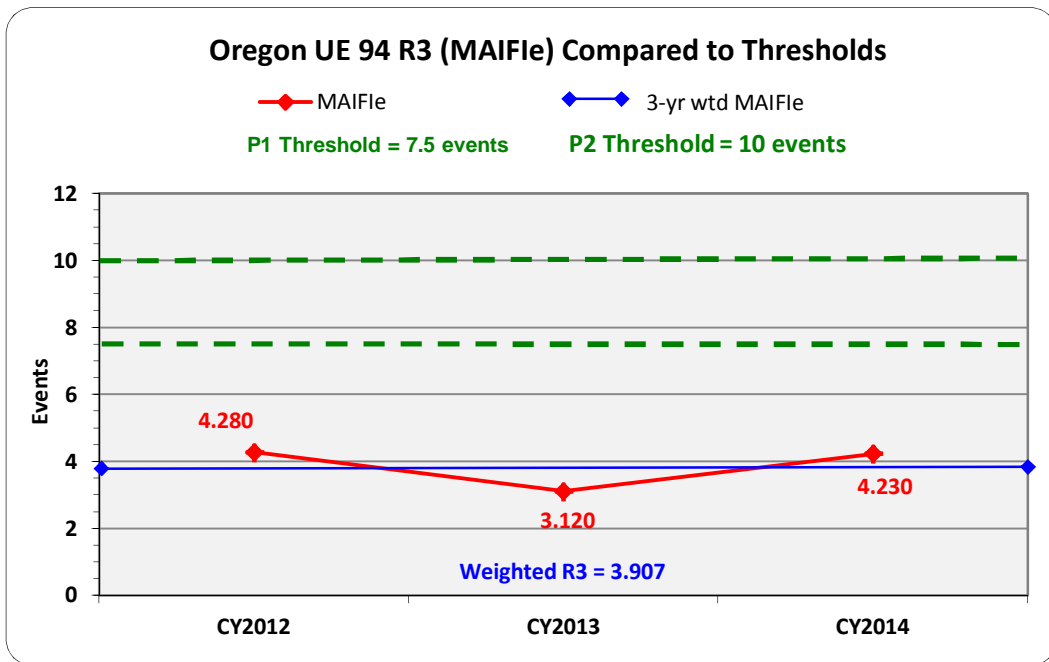
## Oregon UE94 - Service Quality Measures CY 2014

### R3 - MAIFle

Year	MAIFle	Weighting	Product
CY2012	4.280	0.2	0.856
CY2013	3.120	0.3	0.936
CY2014	4.230	0.5	2.115

**Weighted R3: 3.907**

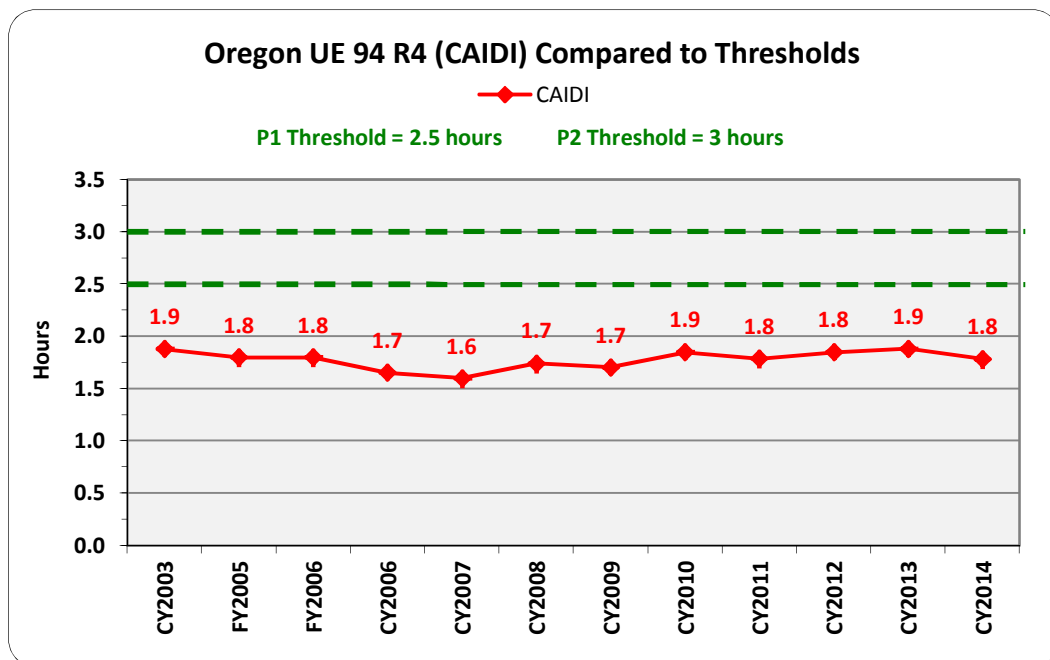
MAIFle developed based on SCADA-operated breaker data per April 1, 2005 report submitted to OPUC  
Actual MAIFle data reported includes major event molmentary outages.



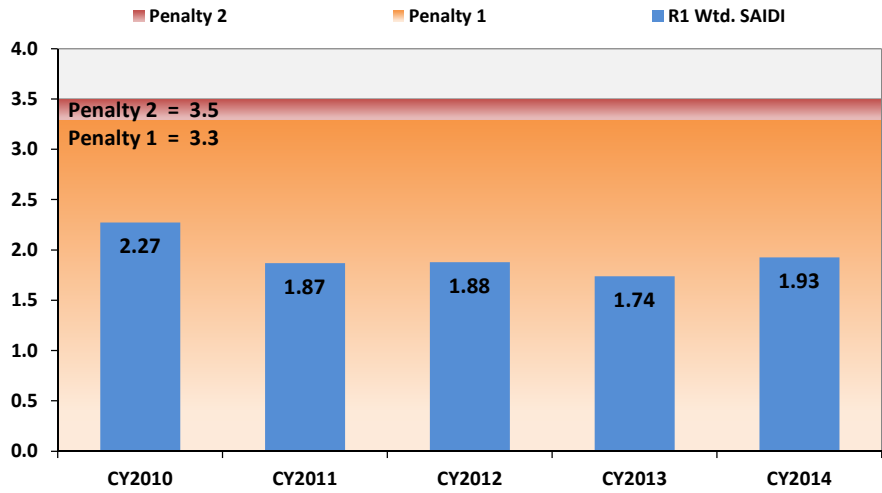
## Oregon UE94 - Service Quality Measures CY 2014

### R4 - CAIDI: Customer Average Outage Duration

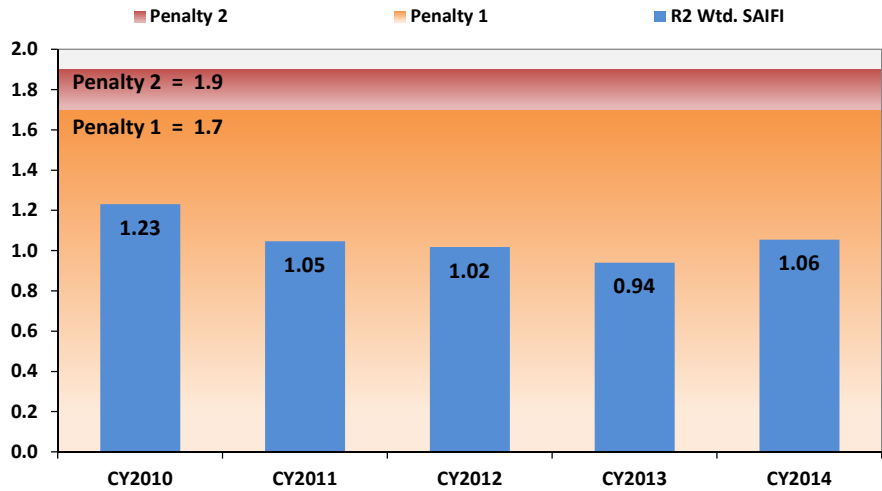
Year	CAIDI
CY2003	1.9
FY2005	1.8
FY2006	1.8
CY2006	1.7
CY2007	1.6
CY2008	1.7
CY2009	1.7
CY2010	1.9
CY2011	1.8
CY2012	1.8
CY2013	1.9
CY2014	1.8



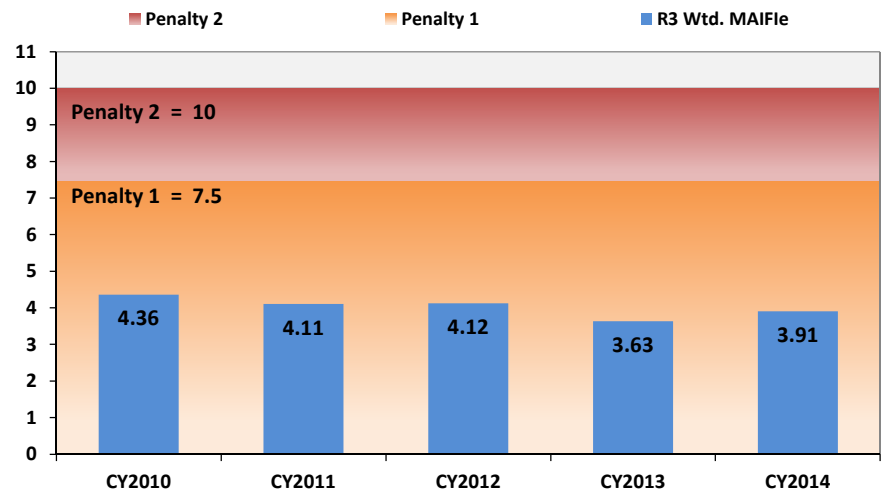
### R1 - Wtd. SAIDI (excluding Major Events) and UE 94 Thresholds



### R2 - Wtd. SAIFI (excluding Major Events) and UE 94 Thresholds



### R3 - Wtd. MAIFle (excluding Major Events) and UE 94 Thresholds



### Oregon Reliability Reporting Region Metrics - A Five-Year View

Excluding Major Events	SAIDI					SAIFI					MAIFle				
	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014
OR REGION	104	45	34	56	63	0.931	0.531	0.362	0.356	1.102	3.30	5.35	3.30	2.67	2.97
Central OR	104	45	34	56	63	0.931	0.531	0.362	0.356	1.102	3.30	5.35	3.30	2.67	2.97
CoastPlus	163	90	97	68	110	1.341	0.788	0.885	0.755	1.060	3.87	3.71	3.98	2.64	4.42
Northeast OR	122	80	75	96	108	1.465	0.876	0.519	0.780	1.184	3.23	2.64	3.98	4.10	1.37
South OR	130	98	139	120	128	0.971	0.880	1.354	0.980	1.121	4.10	3.96	4.61	3.07	3.32
WlmVly	158	109	159	148	172	1.558	1.090	1.236	1.357	1.316	4.32	3.39	4.85	3.77	6.88
<b>OREGON</b>	<b>139</b>	<b>90</b>	<b>116</b>	<b>103</b>	<b>123</b>	<b>1.188</b>	<b>0.851</b>	<b>1.048</b>	<b>0.911</b>	<b>1.145</b>	<b>3.99</b>	<b>3.94</b>	<b>4.28</b>	<b>3.12</b>	<b>4.227</b>

Including Major Events	SAIDI					SAIFI					MAIFle				
	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014
OR REGION	104	171	95	98	99	0.931	0.862	0.779	0.557	1.261	3.30	5.35	3.30	2.67	2.97
Central OR	104	171	95	98	99	0.931	0.862	0.779	0.557	1.261	3.30	5.35	3.30	2.67	2.97
CoastPlus	175	188	521	137	211	1.565	1.206	1.945	1.145	1.540	3.87	3.71	3.98	2.64	4.42
Northeast OR	171	80	149	282	205	1.972	0.876	0.976	1.603	1.386	3.23	2.64	3.98	4.10	1.37
South OR	134	405	417	134	146	0.999	1.402	1.672	1.022	1.264	4.10	3.96	4.61	3.07	3.32
WlmVly	244	273	444	189	597	1.956	1.587	2.229	1.593	2.429	4.32	3.39	4.85	3.77	6.88
<b>OREGON</b>	<b>163</b>	<b>279</b>	<b>395</b>	<b>147</b>	<b>250</b>	<b>1.356</b>	<b>1.295</b>	<b>1.708</b>	<b>1.133</b>	<b>1.574</b>	<b>3.99</b>	<b>3.94</b>	<b>4.28</b>	<b>3.12</b>	<b>4.227</b>



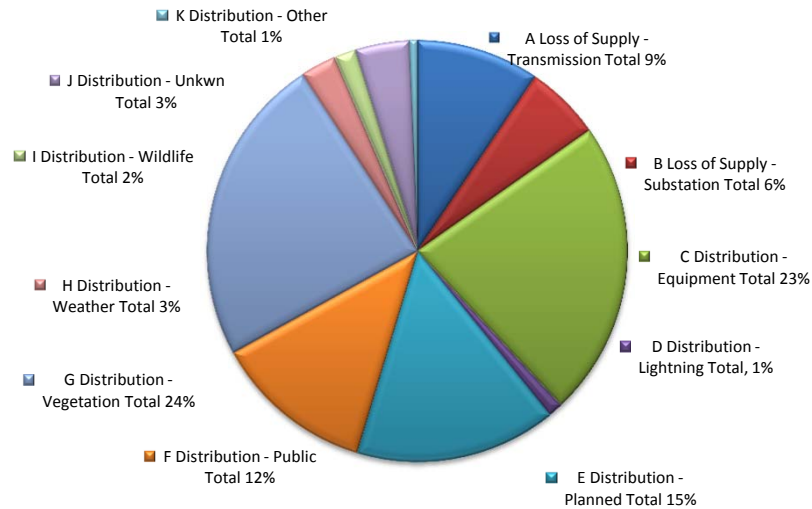
## Reliability Region and Operating Area Customer Counts

Region	Op Area	CY2014	CY2013	CY2012	CY2011	CY2010
Central OR	BEND/REDMOND	61,724	60,345	59,844	59,238	58,757
Central OR	MADRAS	17,250	17,177	17,113	17,006	16,919
<b>Central OR</b>		<b>78,974</b>	<b>77,522</b>	<b>76,957</b>	<b>76,244</b>	<b>75,676</b>
CoastPlus	CLATSOP (ASTORIA)	24,367	24,215	24,128	23,883	23,724
CoastPlus	COOS BAY/COQUILLE	27,310	27,200	27,210	27,080	26,929
CoastPlus	HOOD RIVER	9,414	9,269	9,180	9,067	8,924
CoastPlus	LINCOLN CITY	12,071	12,052	12,018	11,972	11,929
CoastPlus	PORTLAND	78,281	77,501	76,977	79,270	75,838
<b>CoastPlus</b>		<b>151,443</b>	<b>150,237</b>	<b>149,513</b>	<b>151,272</b>	<b>147,344</b>
Northeast OR	ENTERPRISE	5,366	5,483	5,457	5,412	5,383
Northeast OR	HERMISTON	4,824	4,783	4,745	4,686	4,614
Northeast OR	MILTON/FREEWATER	1,010	1,003	994	996	988
Northeast OR	PENDLETON	13,180	13,151	13,122	13,063	13,756
Northeast OR	WALLA WALLA OR	1,372	1,360	1,416	1,407	1,398
<b>Northeast OR</b>		<b>25,752</b>	<b>25,780</b>	<b>25,734</b>	<b>25,564</b>	<b>26,139</b>
South OR	GRANTS PASS	52,220	51,957	51,497	51,572	51,346
South OR	KLAMATH FALLS	39,153	39,004	38,925	38,763	38,492
South OR	LAKEVIEW	2,529	2,557	2,529	2,516	2,497
South OR	MEDFORD	89,379	88,690	87,985	87,397	86,957
South OR	ROSEBURG/MYRTLECREEK	43,022	42,926	42,807	42,694	42,553
<b>South OR</b>		<b>226,303</b>	<b>225,134</b>	<b>223,743</b>	<b>222,942</b>	<b>221,845</b>
WlmVly	ALBANY	32,670	32,310	32,119	31,907	31,710
WlmVly	CORVALLIS	29,551	29,330	28,981	28,820	28,695
WlmVly	COTTAGE GROVE/J.CITY	11,371	11,329	11,292	11,233	11,184
WlmVly	DALLAS/INDEPENDENCE	14,854	14,725	14,674	14,605	14,525
WlmVly	LEBANON	19,818	19,644	19,531	19,434	19,229
WlmVly	STAYTON	13,851	13,764	13,675	13,600	13,513
<b>WlmVly</b>		<b>122,115</b>	<b>121,102</b>	<b>120,272</b>	<b>119,599</b>	<b>118,856</b>
<b>Oregon</b>		<b>604,587</b>	<b>599,775</b>	<b>596,219</b>	<b>595,621</b>	<b>589,860</b>

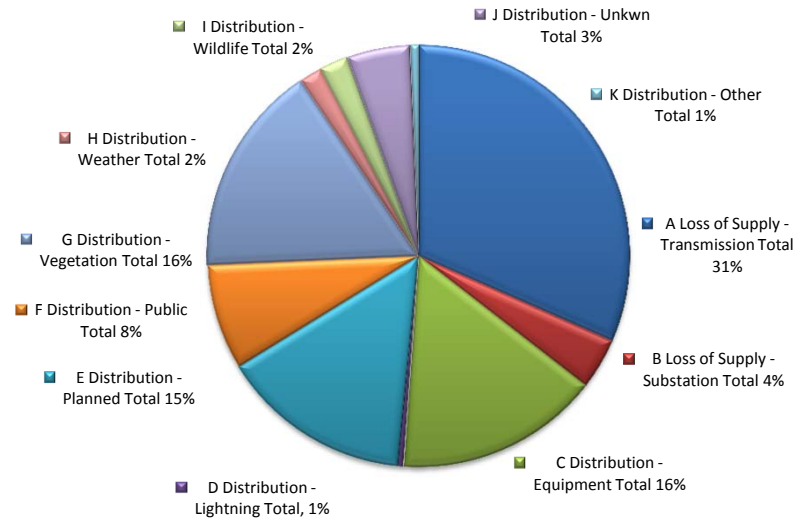
### Oregon Region 5-year Cause Analysis (excluding major events)

AFOR Cause	2010		2011		2012		2013		2014	
	SAIDI	SAIFI	SAIDI	SAIFI	SAIDI	SAIFI	SAIDI	SAIFI	SAIDI	SAIFI
<b>A Loss of Supply - Transmission Total</b>	102.29	1.692	36.54	0.888	50.68	1.004	65.93	0.988	12.58	0.376
<b>B Loss of Supply - Substation Total</b>	8.26	0.032	3.34	0.026	3.84	0.024	8.32	0.070	7.66	0.047
<b>C Distribution - Equipment Total</b>	27.52	0.186	20.80	0.146	24.17	0.153	25.58	0.161	30.12	0.186
<b>D Distribution - Lightning Total</b>	1.35	0.011	0.54	0.005	1.02	0.006	4.98	0.019	1.49	0.005
<b>E Distribution - Planned Total</b>	24.28	0.186	18.19	0.137	18.47	0.170	19.42	0.185	20.56	0.175
<b>F Distribution - Public Total</b>	11.93	0.075	11.79	0.074	11.90	0.064	11.48	0.071	16.31	0.096
<b>G Distribution - Vegetation Total</b>	25.51	0.149	16.76	0.128	32.85	0.201	14.17	0.097	31.56	0.194
<b>H Distribution - Weather Total</b>	6.62	0.039	2.46	0.017	2.65	0.010	1.22	0.007	3.65	0.021
<b>I Distribution - Wildlife Total</b>	4.43	0.050	6.18	0.057	2.92	0.037	2.37	0.031	2.16	0.026
<b>J Distribution - Unknown Total</b>	9.99	0.115	7.48	0.087	7.85	0.089	8.46	0.077	5.51	0.057
<b>K Distribution - Other Total</b>	1.66	0.031	1.00	0.018	2.38	0.023	3.03	0.020	0.86	0.008
<b>Grand Total</b>	<b>223.85</b>	<b>2.566</b>	<b>125.06</b>	<b>1.583</b>	<b>158.73</b>	<b>1.782</b>	<b>164.95</b>	<b>1.723</b>	<b>132.44</b>	<b>1.191</b>

#### 2014 Oregon Cause Analysis - SAIDI



#### 2014 Oregon Cause Analysis - SAIFI



**Oregon 5-year Cause Analysis by Reliability Region (excluding major events)**

Reliability Region	AFOR Cause	2010		2011		2012		2013		2014	
		SAIDI	SAIFI	SAIDI	SAIFI	SAIDI	SAIFI	SAIDI	SAIFI	SAIDI	SAIFI
Central OR	A Loss of Supply - Transmission Total	7.56	0.141	5.93	0.204	1.80	0.038	0.74	0.000	4.91	0.557
	B Loss of Supply - Substation Total	-	-	-	-	0.47	0.027	9.60	0.037	5.38	0.130
	C Distribution - Equipment Total	17.78	0.134	14.10	0.089	17.11	0.134	19.55	0.108	29.98	0.197
	D Distribution - Lightning Total	3.62	0.031	2.21	0.024	0.26	0.002	0.16	0.001	0.62	0.004
	E Distribution - Planned Total	42.48	0.334	6.87	0.047	5.67	0.068	30.10	0.169	13.67	0.154
	F Distribution - Public Total	2.78	0.031	8.40	0.045	5.07	0.040	10.25	0.051	9.13	0.045
	G Distribution - Vegetation Total	8.66	0.036	2.48	0.015	2.02	0.021	3.17	0.043	3.18	0.034
	H Distribution - Weather Total	2.51	0.036	2.61	0.035	0.35	0.003	0.42	0.002	0.73	0.002
	I Distribution - Wildlife Total	2.22	0.022	0.45	0.004	0.38	0.004	0.33	0.004	1.11	0.012
	J Distribution - Unknown Total	15.30	0.130	5.06	0.087	1.68	0.032	3.18	0.019	2.61	0.018
	K Distribution - Other Total	2.52	0.054	0.09	0.000	0.11	0.004	0.10	0.001	0.09	0.001
	<b>Grand Total</b>	<b>105.43</b>	<b>0.949</b>	<b>48.22</b>	<b>0.551</b>	<b>34.93</b>	<b>0.373</b>	<b>77.60</b>	<b>0.435</b>	<b>71.42</b>	<b>1.155</b>
CoastPlus	A Loss of Supply - Transmission Total	25.13	0.446	1.38	0.033	4.21	0.226	3.72	0.189	9.84	0.341
	B Loss of Supply - Substation Total	31.13	0.100	4.88	0.045	1.30	0.017	6.84	0.071	4.06	0.011
	C Distribution - Equipment Total	27.11	0.207	21.00	0.177	13.60	0.085	20.24	0.143	29.08	0.177
	D Distribution - Lightning Total	0.15	0.001	0.26	0.001	0.05	0.000	0.13	0.001	0.01	0.000
	E Distribution - Planned Total	17.14	0.158	24.30	0.176	16.24	0.121	19.66	0.165	27.52	0.208
	F Distribution - Public Total	25.54	0.073	7.30	0.039	10.94	0.073	7.04	0.052	16.40	0.122
	G Distribution - Vegetation Total	18.78	0.150	23.71	0.178	39.40	0.250	8.92	0.080	31.28	0.225
	H Distribution - Weather Total	6.50	0.034	2.59	0.016	2.99	0.008	0.05	0.001	4.51	0.027
	I Distribution - Wildlife Total	6.49	0.067	12.65	0.128	2.41	0.044	1.45	0.022	0.84	0.011
	J Distribution - Unknown Total	8.37	0.095	2.61	0.028	7.42	0.054	2.21	0.040	1.88	0.015
	K Distribution - Other Total	2.81	0.053	0.31	0.019	3.15	0.033	7.01	0.041	0.09	0.002
	<b>Grand Total</b>	<b>169.16</b>	<b>1.383</b>	<b>101.00</b>	<b>0.840</b>	<b>101.72</b>	<b>0.910</b>	<b>77.29</b>	<b>0.804</b>	<b>125.52</b>	<b>1.138</b>
Northeast OR	A Loss of Supply - Transmission Total	3.22	0.268	5.90	0.152	8.63	0.040	19.85	0.190	24.67	0.439
	B Loss of Supply - Substation Total	0.07	0.004	-	-	-	-	8.30	0.055	5.00	0.033
	C Distribution - Equipment Total	32.47	0.271	24.80	0.102	21.32	0.108	32.87	0.241	22.42	0.165
	D Distribution - Lightning Total	10.72	0.056	1.48	0.009	11.29	0.056	2.05	0.010	2.01	0.010
	E Distribution - Planned Total	12.57	0.221	12.21	0.109	8.13	0.117	18.05	0.163	16.50	0.174
	F Distribution - Public Total	5.25	0.033	5.95	0.042	4.53	0.048	5.18	0.043	9.37	0.062
	G Distribution - Vegetation Total	11.16	0.041	15.98	0.201	12.73	0.076	4.16	0.021	10.84	0.145
	H Distribution - Weather Total	23.42	0.225	3.07	0.023	2.44	0.015	0.97	0.004	6.86	0.035
	I Distribution - Wildlife Total	4.86	0.041	4.82	0.083	1.60	0.025	3.49	0.041	2.37	0.038
	J Distribution - Unknown Total	11.36	0.246	8.07	0.090	5.54	0.046	6.55	0.056	6.22	0.065
	K Distribution - Other Total	6.61	0.016	1.70	0.050	1.26	0.008	0.51	0.003	4.60	0.044
	<b>Grand Total</b>	<b>121.72</b>	<b>1.420</b>	<b>83.98</b>	<b>0.861</b>	<b>77.49</b>	<b>0.539</b>	<b>101.98</b>	<b>0.825</b>	<b>110.86</b>	<b>1.210</b>

**Oregon 5-year Cause Analysis by Reliability Region (excluding major events)**

Reliability Region	AFOR Cause	2010		2011		2012		2013		2014	
		SAIDI	SAIFI	SAIDI	SAIFI	SAIDI	SAIFI	SAIDI	SAIFI	SAIDI	SAIFI
South OR	A Loss of Supply - Transmission Total	16.85	0.238	15.61	0.300	27.67	0.566	19.60	0.233	19.35	0.444
	B Loss of Supply - Substation Total	1.27	0.018	5.61	0.038	3.33	0.024	11.00	0.101	12.66	0.035
	C Distribution - Equipment Total	26.88	0.130	19.66	0.130	29.46	0.165	22.15	0.135	26.12	0.167
	D Distribution - Lightning Total	0.79	0.010	0.21	0.002	0.57	0.003	11.95	0.034	0.51	0.003
	E Distribution - Planned Total	28.33	0.188	18.99	0.122	24.36	0.220	16.86	0.169	15.63	0.125
	F Distribution - Public Total	5.28	0.050	9.25	0.053	5.73	0.035	14.32	0.103	13.63	0.059
	G Distribution - Vegetation Total	33.60	0.163	16.29	0.100	37.19	0.192	17.01	0.090	33.52	0.177
	H Distribution - Weather Total	9.31	0.041	2.00	0.008	3.44	0.014	1.50	0.009	1.90	0.010
	I Distribution - Wildlife Total	4.41	0.049	2.22	0.027	3.81	0.042	3.01	0.046	3.34	0.037
	J Distribution - Unknown Total	9.52	0.095	10.59	0.098	10.04	0.109	9.86	0.086	8.52	0.093
	K Distribution - Other Total	0.76	0.023	2.13	0.028	3.02	0.028	1.11	0.012	0.41	0.003
	<b>Grand Total</b>		<b>137.00</b>	<b>1.005</b>	<b>102.55</b>	<b>0.907</b>	<b>148.61</b>	<b>1.399</b>	<b>128.38</b>	<b>1.018</b>	<b>135.62</b>
WImVly	A Loss of Supply - Transmission Total	49.52	0.599	7.71	0.199	8.38	0.134	22.02	0.374	5.83	0.164
	B Loss of Supply - Substation Total	-	-	-	-	10.94	0.037	4.37	0.033	4.87	0.063
	C Distribution - Equipment Total	34.35	0.277	26.09	0.181	32.59	0.235	40.86	0.248	40.54	0.231
	D Distribution - Lightning Total	0.39	0.006	0.22	0.002	1.37	0.013	1.71	0.026	5.59	0.016
	E Distribution - Planned Total	16.56	0.118	17.45	0.179	20.67	0.215	17.33	0.253	26.37	0.239
	F Distribution - Public Total	14.75	0.162	25.62	0.185	30.53	0.126	13.81	0.052	27.25	0.175
	G Distribution - Vegetation Total	32.64	0.219	18.11	0.171	40.66	0.300	24.56	0.180	51.00	0.301
	H Distribution - Weather Total	0.66	0.003	2.91	0.023	2.29	0.010	2.73	0.013	7.01	0.042
	I Distribution - Wildlife Total	3.24	0.052	9.31	0.051	3.79	0.046	3.40	0.032	2.21	0.032
	J Distribution - Unknown Total	9.20	0.136	9.28	0.142	8.76	0.138	17.37	0.146	6.15	0.066
	K Distribution - Other Total	0.29	0.005	0.18	0.003	1.90	0.016	4.08	0.021	2.35	0.022
	<b>Grand Total</b>		<b>161.62</b>	<b>1.577</b>	<b>116.88</b>	<b>1.136</b>	<b>161.88</b>	<b>1.268</b>	<b>152.26</b>	<b>1.379</b>	<b>179.18</b>

### Oregon 2014 Circuit Customer Counts

Reliability Region	Op Area Name	Substation Name	Circuit Id	Circuit Name	Kv	Customer Count
Central OR	BEND/REDMOND	BEND	5D10	PORTLAND AVE	12.50	2,335
Central OR	BEND/REDMOND	BEND	5D11	GLEN VISTA	12.50	1,018
Central OR	BEND/REDMOND	BEND	5D12	DIVISION ST.	12.50	223
Central OR	BEND/REDMOND	BEND	5D196	MALLARD	12.50	1,498
Central OR	BEND/REDMOND	BEND	CO08-1	BEND-PILOT BUTTE-69KV	69.00	1
Central OR	BEND/REDMOND	BEND	CO09-1	BEND-PILOT BUTTE-69KV	69.00	1
Central OR	BEND/REDMOND	BOND STREET	5D411	BACHELOR	12.50	1,710
Central OR	BEND/REDMOND	BOND STREET	5D413	OLD MILL.	12.50	361
Central OR	BEND/REDMOND	BOND STREET	5D418	BLAKELY	12.50	1,293
Central OR	BEND/REDMOND	CHINA HAT	5D140	LAVA (CHINA HAT)	12.50	2,313
Central OR	BEND/REDMOND	CHINA HAT	5D142	HIGH DESERT	12.50	1,616
Central OR	BEND/REDMOND	CHINA HAT	5D144	D.R.W.	12.50	2,513
Central OR	BEND/REDMOND	CLEVELAND AVE.	5D30	ARROWHEAD	12.50	890
Central OR	BEND/REDMOND	CLEVELAND AVE.	5D35	WICKIUP	12.50	969
Central OR	BEND/REDMOND	CLEVELAND AVE.	5D38	TOMAHAWK	12.50	1,405
Central OR	BEND/REDMOND	CLEVELAND AVE.	5D94	TEEPEE	12.50	3,002
Central OR	BEND/REDMOND	CLEVELAND AVE.	5D96	OBSIDIAN	12.50	799
Central OR	BEND/REDMOND	CLEVELAND AVE.	5D98	HUCKLEBERRY	12.50	1,317
Central OR	BEND/REDMOND	CLEVELAND AVE.	CO11	CLEVELAND-CHINA HAT-69KV	69.00	1
Central OR	BEND/REDMOND	COVE (OR)	CO20	COVE-ROUND BUTTE(PGE)#1-230KV	230.00	1
Central OR	BEND/REDMOND	COVE (OR)	CO21	COVE-ROUND BUTTE(PGE)#2-230KV	230.00	1
Central OR	BEND/REDMOND	CROOKED RIVER RANCH	4D131	CANYON	20.80	1,746
Central OR	BEND/REDMOND	CROOKED RIVER RANCH	4D30	CROOKED R.R.	20.80	763
Central OR	BEND/REDMOND	DESCHUTES	5D184	PRONGHORN	12.50	1,127
Central OR	BEND/REDMOND	DESCHUTES	5D2	DESCHUTES S	12.50	962
Central OR	BEND/REDMOND	HUNTERS CIRCLE	5D192	Mackinaw	12.50	657
Central OR	BEND/REDMOND	MIDPOINT	CO01-1	MIDPOINT-HEMMINGWAY-500KV	500.00	-
Central OR	BEND/REDMOND	OVERPASS	5D104	AWBREY	12.50	686
Central OR	BEND/REDMOND	OVERPASS	5D106	NEZ PERCE	12.50	2,602
Central OR	BEND/REDMOND	OVERPASS	5D120	CHINOOK	12.50	1,326
Central OR	BEND/REDMOND	OVERPASS	5D128	PAIUTE	12.50	1,838
Central OR	BEND/REDMOND	OVERPASS	5D155	APACHE	12.50	1,859
Central OR	BEND/REDMOND	PILOT BUTTE	5D261	KLONDIKE	12.50	3,069
Central OR	BEND/REDMOND	PILOT BUTTE	5D263	DRAKE FEEDER	12.50	1,972
Central OR	BEND/REDMOND	PILOT BUTTE	CO09	BEND-PILOT BUTTE-TAP TO REDMOND-69KV	69.00	3
Central OR	BEND/REDMOND	PILOT BUTTE	CO16	PILOT BUTTE-CLEVELAND-69KV	69.00	2
Central OR	BEND/REDMOND	PILOT BUTTE	CO17	PILOT BUTTE - CEC 69KV	69.00	2
Central OR	BEND/REDMOND	PILOT BUTTE	CO-1-BPA	PONDEROSA(BPA)-PILOT BUTTE-230KV	230.00	1
Central OR	BEND/REDMOND	PILOT BUTTE	CO-2-BPA	REDMOND(BPA)-PILOT BUTTE-230KV	230.00	1
Central OR	BEND/REDMOND	PILOT BUTTE	CO-3-BPA	LAPINE(BPA)-PILOT BUTTE-230KV	230.00	1
Central OR	BEND/REDMOND	REDMOND	5D21	SOUTH (REDMOND)	12.50	720
Central OR	BEND/REDMOND	REDMOND	5D22	INDUSTRIAL	12.50	1,458
Central OR	BEND/REDMOND	REDMOND	5D223	TETHEROW	12.50	834
Central OR	BEND/REDMOND	REDMOND	5D226	CLINE FALLS	12.50	1,379

### Oregon 2014 Circuit Customer Counts

Reliability Region	Op Area Name	Substation Name	Circuit Id	Circuit Name	Kv	Customer Count
Central OR	BEND/REDMOND	REDMOND	5D227	WINDSOR	12.50	2,825
Central OR	BEND/REDMOND	REDMOND	5D228	CITY	12.50	1,328
Central OR	BEND/REDMOND	REDMOND	5D229	JUNIPER	12.50	428
Central OR	BEND/REDMOND	REDMOND	CO006	REDMOND-COVE-69KV	69.00	2
Central OR	BEND/REDMOND	REDMOND	CO03-1	REDMOND(BPA)-HOUSTON LAKE-115KV	115.00	1
Central OR	BEND/REDMOND	REDMOND	CO06A	TAP TO CROOKED RIVER-69KV	69.00	1
Central OR	BEND/REDMOND	REDMOND	CO06B	TAP TO OPAL SPRINGS-69KV	69.00	8
Central OR	BEND/REDMOND	REDMOND	CO07	REMOND-REDMOND BPA-69KV	69.00	-
Central OR	BEND/REDMOND	REDMOND BPA	CO02	REDMOND BPA-REDMOND-115KV	115.00	-
Central OR	BEND/REDMOND	SHEVLIN PARK	5D238	WOLVERINE (SHP) (WAS 5D327)	12.50	2,959
Central OR	BEND/REDMOND	SHEVLIN PARK	5D241	BADGER (SHP)	12.50	2,997
Central OR	BEND/REDMOND	SHEVLIN PARK	5D243	Black Bear	12.50	593
Central OR	BEND/REDMOND	SUMMER LAKE (BPA)	CO01-1A	SUMMER LAKE (BPA)-HEMMINGWAY-500KV	500.00	1
Central OR	BEND/REDMOND	YEW AVENUE	5D322	BIRDIE	12.50	1,448
Central OR	BEND/REDMOND	YEW AVENUE	5D323	FAIRWAY	12.50	395
Central OR	BEND/REDMOND	YEW AVENUE	5D325	EAGLE	12.50	2,375
Central OR	BEND/REDMOND	YEW AVENUE	CO18	TAP TO YEW AVE-115KV	115.00	1
Central OR	MADRAS	CHERRY LANE	5D295	7 PEAKS	12.50	148
Central OR	MADRAS	COVE (OR)	CO005	COVE-WARM SPRINGS-69KV	69.00	1
Central OR	MADRAS	COVE (OR)	CO012	COVE-WARM SPRINGS-69KV	69.00	1
Central OR	MADRAS	CULVER	5D5	CULVER	12.50	1,777
Central OR	MADRAS	MADRAS	5D52	MADRAS RURAL	12.50	1,030
Central OR	MADRAS	MADRAS	5D53	AGATE	12.50	1,321
Central OR	MADRAS	MADRAS	5D57	QUARTZ	12.50	1,425
Central OR	MADRAS	MADRAS	5D61	MADRAS CITY	12.50	1,337
Central OR	MADRAS	PONDEROSA-P	CO14-1	PONDEROSA-HOUSTON LAKE#1-115KV	115.00	1
Central OR	MADRAS	PONDEROSA-P	CO19	PONDEROSA-HOUSTON LAKE#2-115KV	115.00	1
Central OR	MADRAS	POWELL BUTTE	5D1	POWELL BUTTE	12.50	614
Central OR	MADRAS	PRINEVILLE	5D126	RIMROCK	12.50	2,246
Central OR	MADRAS	PRINEVILLE	5D167	NORTHVILLE	12.50	1,273
Central OR	MADRAS	PRINEVILLE	5D25	OCHOCO	12.50	990
Central OR	MADRAS	PRINEVILLE	5D47	MC KAY (PRINEVILLE)	12.50	1,655
Central OR	MADRAS	PRINEVILLE	5D48	LAMONTA	12.50	647
Central OR	MADRAS	PRINEVILLE	5D50	PINE CONE	12.50	77
Central OR	MADRAS	PRINEVILLE	5D69	GRIMES FLAT	12.50	1,611
Central OR	MADRAS	WARM SPRINGS	4D68	WARM SPRINGS (OR)	20.80	1,094
Central OR	MADRAS	WARM SPRINGS	CO05	MADRAS-WARM SPRINGS-69KV	69.00	-
CoastPlus	CLATSOP (ASTORIA)	ASTORIA	CL01-2	ASTORIA-BPA ALLSTON 115KV	115.00	-
CoastPlus	CLATSOP (ASTORIA)	ASTORIA	CL01-3	ASTORIA-TILLAMOOK-115KV	115.00	-
CoastPlus	CLATSOP (ASTORIA)	CANNON BEACH	5A10	HAYSTACK	12.50	1,543
CoastPlus	CLATSOP (ASTORIA)	CANNON BEACH	5A8	ECOLA	12.50	1,261
CoastPlus	CLATSOP (ASTORIA)	FERN HILL SUB	5A51	JOHN DAY	12.50	263
CoastPlus	CLATSOP (ASTORIA)	FERN HILL SUB	5A52	SCANDINAVIAN	12.50	385
CoastPlus	CLATSOP (ASTORIA)	KNAPPA SVENSEN	5A92	SVENSEN	12.50	704

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Reliability Region	Op Area Name	Substation Name	Circuit Id	Circuit Name	Kv	Customer Count
CoastPlus	CLATSOP (ASTORIA)	KNAPPA SVENSEN	5A93	BRADWOOD	12.50	945
CoastPlus	CLATSOP (ASTORIA)	LEWIS & CLARK	CL03	LEWIS & CLARK-CLATSOP-BPA-115KV	115.00	-
CoastPlus	CLATSOP (ASTORIA)	SEASIDE	5A80	GROVE	12.50	2,374
CoastPlus	CLATSOP (ASTORIA)	SEASIDE	5A81	CENTRAL	12.50	1,647
CoastPlus	CLATSOP (ASTORIA)	SEASIDE	5A82	NECANICUM	12.50	1,202
CoastPlus	CLATSOP (ASTORIA)	SEASIDE	5A83	GEARHART	12.50	3,135
CoastPlus	CLATSOP (ASTORIA)	WARRENTON	5A15	CITY	12.50	1,816
CoastPlus	CLATSOP (ASTORIA)	WARRENTON	5A16	MILL (WARRENTON)	12.50	542
CoastPlus	CLATSOP (ASTORIA)	WARRENTON	5A20	SOUTH (WARRENTON)	12.50	1,553
CoastPlus	CLATSOP (ASTORIA)	YOUNGS BAY	5A202	PORT DOCK	12.50	1,231
CoastPlus	CLATSOP (ASTORIA)	YOUNGS BAY	5A204	MOO COW	12.50	1,141
CoastPlus	CLATSOP (ASTORIA)	YOUNGS BAY	5A205	FIFTH STREET	12.50	959
CoastPlus	CLATSOP (ASTORIA)	YOUNGS BAY	5A206	YOUNGS BAY #6	12.50	331
CoastPlus	CLATSOP (ASTORIA)	YOUNGS BAY	5A210	YOUNGS BAY #10	12.50	1,003
CoastPlus	CLATSOP (ASTORIA)	YOUNGS BAY	5A211	OLNEY	12.50	979
CoastPlus	CLATSOP (ASTORIA)	YOUNGS BAY	5A213	INDUSTRIAL	12.50	1,353
CoastPlus	CLATSOP (ASTORIA)	YOUNGS BAY	CL01-1	YOUNGS BAY-ASTORIA-115KV	115.00	-
CoastPlus	COOS BAY/COQUILLE	BANDON TIE (BPA)	L804	BANDON	20.80	788
CoastPlus	COOS BAY/COQUILLE	COOS RIVER	4C106	COOS RIVER	20.80	1,411
CoastPlus	COOS BAY/COQUILLE	COQUILLE	4C41	HENRY STREET	20.80	1,766
CoastPlus	COOS BAY/COQUILLE	COQUILLE	4C42	TERRES HGHTS	20.80	1,630
CoastPlus	COOS BAY/COQUILLE	COQUILLE	4C43	INDUSTRIAL	20.80	158
CoastPlus	COOS BAY/COQUILLE	COQUILLE	CB07	COQUILLE-MYRTLE POINT-115KV	115.00	-
CoastPlus	COOS BAY/COQUILLE	EMPIRE NEW	4C108	EMPIRE	20.80	1,756
CoastPlus	COOS BAY/COQUILLE	EMPIRE NEW	4C89	SCOTT	20.80	1,429
CoastPlus	COOS BAY/COQUILLE	EMPIRE NEW	4C90	CHARLESTON	20.80	2,195
CoastPlus	COOS BAY/COQUILLE	FAIRVIEW (BPA)	CB01	FAIRVIEW-ISTHMUS-230KV	230.00	-
CoastPlus	COOS BAY/COQUILLE	FAIRVIEW (BPA)	CB02	FAIRVIEW-LOCKHART-115KV	115.00	-
CoastPlus	COOS BAY/COQUILLE	FAIRVIEW (BPA)	CB02-1	FAIRVIEW-COQUILLE-115KV	115.00	1
CoastPlus	COOS BAY/COQUILLE	G P COQUILLE	L804X	BANDON	20.80	0
CoastPlus	COOS BAY/COQUILLE	ISTHMUS	CB06	ISTHMUS-LOCKHART-115KV	115.00	-
CoastPlus	COOS BAY/COQUILLE	JORDAN POINT	5C11	WEYCO#2	12.50	1
CoastPlus	COOS BAY/COQUILLE	JORDAN POINT	5C24	WEYCO #8	12.50	28
CoastPlus	COOS BAY/COQUILLE	JORDAN POINT	5C5	MENASHA	12.50	0
CoastPlus	COOS BAY/COQUILLE	JORDAN POINT	5C6	SAND DUNES (JORDAN POINT)	12.50	32
CoastPlus	COOS BAY/COQUILLE	LOCKHART STREET	4C48	CITY CENTER	20.80	1,603
CoastPlus	COOS BAY/COQUILLE	LOCKHART STREET	4C49	EASTSIDE	20.80	802
CoastPlus	COOS BAY/COQUILLE	LOCKHART STREET	4C5	GEORGIA-PAC	20.80	101
CoastPlus	COOS BAY/COQUILLE	LOCKHART STREET	4C50	BUNKERHILL	20.80	1,926
CoastPlus	COOS BAY/COQUILLE	LOCKHART STREET	4C97	ENGLEWOOD	20.80	1,425
CoastPlus	COOS BAY/COQUILLE	LOCKHART STREET	CB02-2	LOCKHART-COQUILLE-115KV	115.00	1
CoastPlus	COOS BAY/COQUILLE	LOCKHART STREET	CB03	LOCKHART-STATE STREET-115KV	115.00	-
CoastPlus	COOS BAY/COQUILLE	MYRTLE POINT	4C36	NORTH (MYRTLE POINT)	20.80	362
CoastPlus	COOS BAY/COQUILLE	MYRTLE POINT	4C37	MAPLE STREET	20.80	2,205

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Reliability Region	Op Area Name	Substation Name	Circuit Id	Circuit Name	Kv	Customer Count
CoastPlus	COOS BAY/COQUILLE	SOUTH DUNES	5C9	DOUGLAS CHIP	12.50	2
CoastPlus	COOS BAY/COQUILLE	STATE STREET	4C112	WOODLAND	20.80	1,876
CoastPlus	COOS BAY/COQUILLE	STATE STREET	4C66	BAYSHORE	20.80	1,730
CoastPlus	COOS BAY/COQUILLE	STATE STREET	4C67	INDUSTRIAL	20.80	2,290
CoastPlus	COOS BAY/COQUILLE	STATE STREET	4C86	BANGOR	20.80	1,792
CoastPlus	COOS BAY/COQUILLE	STATE STREET	CB05	STATE STREET-JORDAN POINT-115KV	115.00	-
CoastPlus	HOOD RIVER	DEE	3K15	US PLYWOOD (HOOD RIVER)	69.00	1
CoastPlus	HOOD RIVER	GORDON HOLLOW	4K1	SHERMAN 208	20.80	459
CoastPlus	HOOD RIVER	GRASS VALLEY	6K1	KENT	7.20	65
CoastPlus	HOOD RIVER	GRASS VALLEY	8K4	GRASS VALLEY CITY	2.40	100
CoastPlus	HOOD RIVER	HOOD RIVER	5K29	MOSIER FDR	12.50	0
CoastPlus	HOOD RIVER	HOOD RIVER	5K37	RESIDENTIAL	12.50	2,065
CoastPlus	HOOD RIVER	HOOD RIVER	5K43	BELMONT	12.50	1,136
CoastPlus	HOOD RIVER	HOOD RIVER	5K44	NORTH (HOOD RIVER)	12.50	1,760
CoastPlus	HOOD RIVER	HOOD RIVER	5K70	EASTSIDE	7.20	1,045
CoastPlus	HOOD RIVER	HOOD RIVER	5K74	SOUTH (HOOD RIVER)	12.50	1,650
CoastPlus	HOOD RIVER	HOOD RIVER	6K336	WEST SIDE	7.20	2
CoastPlus	HOOD RIVER	KENWOOD	5K50	OAKGROVE	12.50	728
CoastPlus	HOOD RIVER	MORO	8K6	MORO	2.40	118
CoastPlus	HOOD RIVER	POWERDALE JUNCTION SWITCHYARD 69KV	HR03-1	POWERDALE JUNCTION-BALD MOUNTAIN(BPA)-69KV	69.00	1
CoastPlus	HOOD RIVER	TUCKER	HR01	TUCKER-POWERDALE-69KV	69.00	3
CoastPlus	HOOD RIVER	TUCKER	HR04	TUCKER-POWERDALE-69KV	69.00	2
CoastPlus	HOOD RIVER	WASCO	7K1	WASCO	4.10	277
CoastPlus	LINCOLN CITY	BOYER	LC01	BOYER-DEVILS LAKE #1-115KV	115.00	-
CoastPlus	LINCOLN CITY	BOYER	LC01-A	BOYER-GRAND RONDE(PGE)-115KV	115.00	1
CoastPlus	LINCOLN CITY	BOYER	LC02	BOYER-DEVILS LAKE #2-115KV	115.00	-
CoastPlus	LINCOLN CITY	DEVILS LAKE	4A310	INLAND FEEDER	20.80	1,849
CoastPlus	LINCOLN CITY	DEVILS LAKE	4A312	OCEAN	20.80	2,921
CoastPlus	LINCOLN CITY	DEVILS LAKE	4A316	LAKE (DEVILS LAKE)	20.80	4,481
CoastPlus	LINCOLN CITY	DEVILS LAKE	4A338	SIUSLAW	20.80	663
CoastPlus	LINCOLN CITY	GLENEDEN	7A364	GLENEDEN	4.10	715
CoastPlus	LINCOLN CITY	GLENEDEN	7A366	SALISHAN	4.10	360
CoastPlus	LINCOLN CITY	NELSCOTT	7A390	NELSCOTT	4.10	358
CoastPlus	LINCOLN CITY	PGE GRAND RONDE	R114	BOYER	12.00	19
CoastPlus	LINCOLN CITY	WECOMA BEACH	7A354	WECOMA	4.10	704
CoastPlus	PORTLAND	ALBINA	5P111	ALBINA 11C01-UG	11.70	634
CoastPlus	PORTLAND	ALBINA	5P150	ALBINA 11C15	11.70	161
CoastPlus	PORTLAND	ALBINA	5P194	11C24-UG	11.70	20
CoastPlus	PORTLAND	ALBINA	5P196	11C16-UG	11.70	468
CoastPlus	PORTLAND	ALBINA	5P200	11C20-UG	11.70	475
CoastPlus	PORTLAND	ALBINA	5P66	11C25	11.70	52
CoastPlus	PORTLAND	ALBINA	5P91	11C11-UG	11.70	348
CoastPlus	PORTLAND	ALBINA	5P92	11C12-UG	11.70	67
CoastPlus	PORTLAND	ALBINA	P12	ALBINA-KNOTT-HOLLADAY-115KV	115.00	-



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CoastPlus	PORTLAND	ALBINA	P12-1	ALBINA-RIVERGATE-115KV	115.00	2
CoastPlus	PORTLAND	ALDERWOOD 115/12.5	5P22	ALDERWOOD #2	12.50	208
CoastPlus	PORTLAND	ALDERWOOD 115/12.5	5P23	ALDERWOOD #1-UG	12.50	0
CoastPlus	PORTLAND	ALDERWOOD 115/12.5	5P33	ALDERWOOD #4	12.50	186
CoastPlus	PORTLAND	ALDERWOOD 115/12.5	5P604	ALDERWOOD #3	12.50	187
CoastPlus	PORTLAND	BLOSS	5P170	OFFICE	12.50	0
CoastPlus	PORTLAND	BLOSS	5P172	FURNACE	12.50	1
CoastPlus	PORTLAND	BPA ST JOHNS	P10-2	BPA ST JOHNS-ST JOHNS-115KV	115.00	-
CoastPlus	PORTLAND	BPA ST JOHNS	P11	ST JOHNS-KNOTT-115KV	115.00	-
CoastPlus	PORTLAND	COLUMBIA (OR)	5P266	#2	12.50	2,677
CoastPlus	PORTLAND	COLUMBIA (OR)	5P268	COLUMBIA #1	12.50	340
CoastPlus	PORTLAND	COLUMBIA (OR)	5P474	COLUMBIA #6	12.50	571
CoastPlus	PORTLAND	COLUMBIA (OR)	5P476	COLUMBIA #3	12.50	859
CoastPlus	PORTLAND	COLUMBIA (OR)	5P478	COLUMBIA #4	12.50	844
CoastPlus	PORTLAND	COLUMBIA (OR)	5P480	COLUMBIA #5	12.50	21
CoastPlus	PORTLAND	COLUMBIA (OR)	P23	COLUMBIA-KNOTT-57KV (OR)	57.00	-
CoastPlus	PORTLAND	COLUMBIA (OR)	P25	COLUMBIA-PARK ROSE-57KV	57.00	-
CoastPlus	PORTLAND	CULLY	5P288	CULLY #3-UG	12.50	808
CoastPlus	PORTLAND	CULLY	5P290	CULLY #2	12.50	2,362
CoastPlus	PORTLAND	CULLY	5P292	CULLY #1	12.50	2,939
CoastPlus	PORTLAND	HARRISON	P17	HARRISON-PGE EASTPORT-115KV	115.00	1
CoastPlus	PORTLAND	HARRISON	P18	HARRISON-LINCOLN-115KV	115.00	-
CoastPlus	PORTLAND	HOLLADAY (OR)	5P145	HOLLADAY #1-UG	11.70	6
CoastPlus	PORTLAND	HOLLADAY (OR)	5P146	HOLLADAY #2-UG	11.70	1
CoastPlus	PORTLAND	HOLLADAY (OR)	5P147	HOLLADAY #3-UG	11.70	27
CoastPlus	PORTLAND	HOLLADAY (OR)	5P156	HOLLADAY #4-UG	11.70	209
CoastPlus	PORTLAND	HOLLADAY (OR)	5P157	HOLLADAY #5-UG	11.70	324
CoastPlus	PORTLAND	HOLLADAY (OR)	5P158	HOLLADAY #6	11.70	808
CoastPlus	PORTLAND	HOLLADAY (OR)	P13	HOLLADAY-HARRISON-115KV	115.00	-
CoastPlus	PORTLAND	HOLLYWOOD	5P203	HOLLYWOOD #3	12.50	1,369
CoastPlus	PORTLAND	HOLLYWOOD	5P204	HOLLYWOOD #2	12.50	1,681
CoastPlus	PORTLAND	HOLLYWOOD	5P205	HOLLYWOOD #1	12.50	2,127
CoastPlus	PORTLAND	HOLLYWOOD	5P208	HOLLYWOOD #5	12.50	1,761
CoastPlus	PORTLAND	HOLLYWOOD	5P209	HOLLYWOOD #4	12.50	2,359
CoastPlus	PORTLAND	KILLINGSWORTH	5P123	KILLINGSWORTH #3	12.50	374
CoastPlus	PORTLAND	KILLINGSWORTH	5P217	KILLINGSWORTH #5	12.50	449
CoastPlus	PORTLAND	KILLINGSWORTH	5P41	KILLINGSWORTH #4	12.50	2,763
CoastPlus	PORTLAND	KILLINGSWORTH	5P88	KILLINGSWORTH #1-UG	12.50	16
CoastPlus	PORTLAND	KILLINGSWORTH	5P89	KILLINGSWORTH #2	12.50	3,123
CoastPlus	PORTLAND	KNOTT	5P231	KNOTT #1	12.50	2,696
CoastPlus	PORTLAND	KNOTT	5P232	KNOTT #2	12.50	1,281
CoastPlus	PORTLAND	KNOTT	5P233	KNOTT #3	12.50	2,310
CoastPlus	PORTLAND	KNOTT	5P366	11010	11.70	7
CoastPlus	PORTLAND	KNOTT	5P372	11046	11.70	439

### Oregon 2014 Circuit Customer Counts

Reliability Region	Op Area Name	Substation Name	Circuit Id	Circuit Name	Kv	Customer Count
CoastPlus	PORTLAND	KNOTT	5P374	11020	11.70	1,012
CoastPlus	PORTLAND	KNOTT	P26	KNOTT-PARKROSE-57KV	57.00	7
CoastPlus	PORTLAND	LINCOLN (OR)	5P418	11D17	11.70	56
CoastPlus	PORTLAND	LINCOLN (OR)	5P420	11D14	11.70	20
CoastPlus	PORTLAND	LINCOLN (OR)	5P422	11D06-UG	11.70	553
CoastPlus	PORTLAND	LINCOLN (OR)	5P424	11D03-UG	11.70	1
CoastPlus	PORTLAND	LINCOLN (OR)	5P426	11D04-UG	11.70	335
CoastPlus	PORTLAND	LINCOLN (OR)	5P430	11D05-UG	11.70	367
CoastPlus	PORTLAND	LINCOLN (OR)	5P432	11D02-UG	11.70	467
CoastPlus	PORTLAND	LINCOLN (OR)	5P434	11D12-UG	11.70	17
CoastPlus	PORTLAND	LINCOLN (OR)	5P436	11G18-UG	11.70	108
CoastPlus	PORTLAND	LINCOLN (OR)	5P438	11D08-UG	11.70	17
CoastPlus	PORTLAND	LINCOLN (OR)	5P456	11D09-UG	11.70	186
CoastPlus	PORTLAND	LINCOLN (OR)	5P458	11D07-UG	11.70	216
CoastPlus	PORTLAND	LINCOLN (OR)	5P460	11D01-UG	11.70	0
CoastPlus	PORTLAND	LINCOLN (OR)	5P462	11G13-UG	11.70	34
CoastPlus	PORTLAND	LINCOLN (OR)	5P464	11G16-UG	11.60	59
CoastPlus	PORTLAND	LINCOLN (OR)	P16	LINCOLN-URBAN-115KV	115.00	-
CoastPlus	PORTLAND	MALLORY	5P162	MALLORY #1	12.80	1,898
CoastPlus	PORTLAND	MALLORY	5P164	MALLORY #2	12.80	3,104
CoastPlus	PORTLAND	MERWIN	P08	MERWIN-BPA CARDWELL-115KV	115.00	-
CoastPlus	PORTLAND	MERWIN	P09	MERWIN-YALE-115KV	115.00	-
CoastPlus	PORTLAND	MERWIN	P10-1	MERWIN-ST JOHNS-115KV	115.00	-
CoastPlus	PORTLAND	MERWIN	P-GEN1	MERWIN #1-MERWIN-115KV	115.00	-
CoastPlus	PORTLAND	MERWIN	P-GEN2	MERWIN #2-MERWIN-115KV	115.00	-
CoastPlus	PORTLAND	MERWIN	P-GEN3	MERWIN #3-MERWIN-115KV	115.00	-
CoastPlus	PORTLAND	PARKROSE	5P244	PARKROSE#4	12.50	3,134
CoastPlus	PORTLAND	PARKROSE	5P246	PARKROSE#3	12.50	3,089
CoastPlus	PORTLAND	PARKROSE	5P250	PARKROSE#2	12.50	676
CoastPlus	PORTLAND	PARKROSE	5P252	PARKROSE#1	12.50	1,842
CoastPlus	PORTLAND	RUSSELLVILLE	5P274	RUSSELLVILLE #3	12.50	3,052
CoastPlus	PORTLAND	RUSSELLVILLE	5P276	RUSSELLVILLE #4	12.50	2,198
CoastPlus	PORTLAND	RUSSELLVILLE	5P278	RUSSELLVILLE #1	12.50	3,249
CoastPlus	PORTLAND	RUSSELLVILLE	5P280	RUSSELLVILLE #2	12.50	1,299
CoastPlus	PORTLAND	SWIFT	P-GEN4	SWIFT UNIT #1-SWIFT-230KV	230.00	-
CoastPlus	PORTLAND	SWIFT	P-GEN5	SWIFT UNIT #2-SWIFT-230KV	230.00	-
CoastPlus	PORTLAND	SWIFT	P-GEN6	SWIFT UNIT #3-SWIFT-230KV	230.00	-
CoastPlus	PORTLAND	TROUTDALE	P14	TROUTDALE-KNOTT-115KV	115.00	-
CoastPlus	PORTLAND	TROUTDALE	P19	TROUTDALE-ALBINA-69KV	69.00	-
CoastPlus	PORTLAND	TROUTDALE	P22-1	TROUTDALE-LADY-SUB #8-69KV	69.00	-
CoastPlus	PORTLAND	TROUTDALE	P22-2	TROUTDALE-JAMES RIV WEST-69KV	69.00	1
CoastPlus	PORTLAND	TROUTDALE	P22-3	TROUTDALE-JAMES RIV EAST-69KV	69.00	-
CoastPlus	PORTLAND	TROUTDALE	P34	TROUTDALE-CPU RUNYAN-115KV	115.00	-
CoastPlus	PORTLAND	TROUTDALE TIE (BPA)	P03	BPA TROUTDALE-PGE GRESHAM-230KV	230.00	-

### Oregon 2014 Circuit Customer Counts

Reliability Region	Op Area Name	Substation Name	Circuit Id	Circuit Name	Kv	Customer Count
CoastPlus	PORTLAND	TROUTDALE TIE (BPA)	P04	BPA TROUTDALE-PGE LINNEMAN-230KV	230.00	-
CoastPlus	PORTLAND	VERNON	5P391	VERNON #1	12.50	1,848
CoastPlus	PORTLAND	VERNON	5P392	VERNON NO. 2	12.50	2,528
CoastPlus	PORTLAND	VERNON	5P393	VERNON #3	12.50	3,126
CoastPlus	PORTLAND	VERNON	5P394	VERNON # 4	12.50	3,229
CoastPlus	PORTLAND	VERNON	5P395	VERNON # 5	12.50	2,186
CoastPlus	PORTLAND	YALE	5P53	YALE VILLAGE	12.50	0
Northeast OR	ENTERPRISE	ENTERPRISE (OR)	4W8	CREIGHTON LN	20.80	1,429
Northeast OR	ENTERPRISE	ENTERPRISE (OR)	5W15	CITY	12.50	945
Northeast OR	ENTERPRISE	ENTERPRISE (OR)	5W26	RURAL (ENTERPRISE)	12.50	1,047
Northeast OR	ENTERPRISE	ENTERPRISE (OR)	WW07	ENTERPRISE-ELGIN-69KV	69.00	-
Northeast OR	ENTERPRISE	ENTERPRISE (OR)	WW07A	TAP TO MINAM-69KV	69.00	1
Northeast OR	ENTERPRISE	HURRICANE (OR)	WW08	HURRICANE-ENTERPRISE-69KV	69.00	-
Northeast OR	ENTERPRISE	JOSEPH	5W21	PRAIRIE	12.50	851
Northeast OR	ENTERPRISE	MINAM	5W18	MINAM	12.50	13
Northeast OR	ENTERPRISE	PALLETTE	4W14	PALLETTE NORTH	19.90	171
Northeast OR	ENTERPRISE	PALLETTE	4W15	PALLETTE SOUTH	19.90	55
Northeast OR	ENTERPRISE	WALLOWA	5W28	CITY	12.50	854
Northeast OR	HERMISTON	ARLINGTON	5K25	ARLINGTON	12.50	567
Northeast OR	HERMISTON	BLALOCK	5K40	BLALOCK	12.50	26
Northeast OR	HERMISTON	COLD SPRINGS	WW16	COLD SPRINGS-HERMISTON-69KV	69.00	1
Northeast OR	HERMISTON	CREEK	4K30	WILLOW CREEK	34.50	-
Northeast OR	HERMISTON	CREEK	WW13	WILLOW CREEK-BPA DEMOSS-69KV	69.00	-
Northeast OR	HERMISTON	DALREED	4K40	SIM/TAG	34.50	92
Northeast OR	HERMISTON	DALREED	4K46	BOEING	34.50	176
Northeast OR	HERMISTON	HERMISTON	5W602	RURAL (HERMISTON)	12.50	1,406
Northeast OR	HERMISTON	HERMISTON	WW14-1	HERMISTON-HINKLE-69KV	69.00	1
Northeast OR	HERMISTON	HINKLE	5W82	MEADOWS	12.50	385
Northeast OR	HERMISTON	MCNARY (BPA)	WW15	BPA MCNARY-HERMISTON-69KV	69.00	6
Northeast OR	HERMISTON	UMATILLA	5W658	UMATILLA	12.50	1,191
Northeast OR	HERMISTON	UMATILLA	5W660	MCNARY	12.50	917
Northeast OR	HERMISTON	UMATILLA	5W664	PORT FEEDER	12.50	53
Northeast OR	MILTON/FREEWATER	UMAPINE	5W105	UMAPINE FEEDER	12.50	1,010
Northeast OR	PENDLETON	ATHENA	5W703	CITY	12.50	869
Northeast OR	PENDLETON	ATHENA	5W705	HELIX	12.50	441
Northeast OR	PENDLETON	BUCKAROO	5W201	STATE HOSP.	12.50	411
Northeast OR	PENDLETON	BUCKAROO	5W202	REITH	12.50	1,544
Northeast OR	PENDLETON	BUCKAROO	5W203	MONTEE	12.50	1,658
Northeast OR	PENDLETON	HERMISTON	WW14	HERMISTON-PENDLETON-69KV	69.00	-
Northeast OR	PENDLETON	PENDLETON	5W401	WEST HILLS	12.50	1,720
Northeast OR	PENDLETON	PENDLETON	5W402	HARRIS HTS	12.50	2,141
Northeast OR	PENDLETON	PENDLETON	5W403	MISSION	12.50	1,075
Northeast OR	PENDLETON	PENDLETON	7W451	BUSINESS	4.10	261
Northeast OR	PENDLETON	PENDLETON	7W452	NORTHWEST	4.10	526

### Oregon 2014 Circuit Customer Counts

Reliability Region	Op Area Name	Substation Name	Circuit Id	Circuit Name	Kv	Customer Count
Northeast OR	PENDLETON	PENDLETON	7W453	SOUTHWEST (PENDELTON)	4.10	358
Northeast OR	PENDLETON	PENDLETON	7W454	EAST END	4.10	275
Northeast OR	PENDLETON	PENDLETON	WW10	PENDLETON-BPA ROUNDUP-69KV	69.00	-
Northeast OR	PENDLETON	PENDLETON	WW12	PENDLETON-BPA ROUNDUP-69KV	69.00	-
Northeast OR	PENDLETON	PILOT ROCK	5W404	MILL (PILOT ROCK)	12.50	2
Northeast OR	PENDLETON	PILOT ROCK	5W406	PILOT ROCK CITY	12.50	1,418
Northeast OR	PENDLETON	ROUNDUP (BPA)	WW11	BPA ROUNDUP-PILOT ROCK-69KV	69.00	-
Northeast OR	PENDLETON	WESTON NEW (OR)	5W40	WESTON CANNERY	12.50	14
Northeast OR	PENDLETON	WESTON NEW (OR)	5W7	SCOTTS FEEDER	12.50	465
Northeast OR	WALLA WALLA	UMAPINE	5W106	FERNDALE	12.50	1,372
South OR	GRANTS PASS	AGNESS AVE	5R172	SPALDING MILL	12.50	902
South OR	GRANTS PASS	AGNESS AVE	5R173	JONES CREEK	12.50	875
South OR	GRANTS PASS	AGNESS AVE	5R322	ANTEATER	12.50	975
South OR	GRANTS PASS	APPLEGATE	5R267	MURPHY	12.50	1,032
South OR	GRANTS PASS	APPLEGATE	5R278	HIGHWAY	12.50	1,629
South OR	GRANTS PASS	APPLEGATE	R23-2	APPLEGATE-HUMBUG CREEK-69KV	69.00	1
South OR	GRANTS PASS	APPLEGATE	R23-21	APPLEGATE-PROVOLT-69KV	69.00	1
South OR	GRANTS PASS	APPLEGATE	R23-22	PROVOLT-HUMBUG CREEK-69KV	69.00	1
South OR	GRANTS PASS	APPLEGATE	R23-A	TAP TO PROVOLT-69KV	69.00	-
South OR	GRANTS PASS	BEACON	5R104	SAVAGE ST	12.50	1,252
South OR	GRANTS PASS	BEACON	5R105	BEACON ST	12.50	835
South OR	GRANTS PASS	CAVE JUNCTION	5R52	FREE& EASY	12.50	2,442
South OR	GRANTS PASS	CAVE JUNCTION	5R53	ROUGH &READY	12.50	1,588
South OR	GRANTS PASS	CAVE JUNCTION	R02-2	CAVE JCTN-DEL NORTE-115KV	115.00	-
South OR	GRANTS PASS	CAVE JUNCTION	R04	CAVE JCTN-DEL NORTE-115KV	115.00	-
South OR	GRANTS PASS	CAVE JUNCTION	S15	CAVE JCTN-HAPPY CAMP-69KV	69.00	-
South OR	GRANTS PASS	CAVEMAN	5R295	QUAIL	12.50	1,147
South OR	GRANTS PASS	CAVEMAN	5R82	WASHINGTON	12.50	1,204
South OR	GRANTS PASS	CAVEMAN	5R98	MANZANITA	12.50	596
South OR	GRANTS PASS	CAVEMAN	5R99	CAVEMAN	12.50	1,184
South OR	GRANTS PASS	DOWELL	5R331	DOVE	12.50	1,492
South OR	GRANTS PASS	DOWELL	5R334	DUCK	12.50	2,392
South OR	GRANTS PASS	EASY VALLEY	5R123	G STREET	12.50	2,040
South OR	GRANTS PASS	EASY VALLEY	5R125	ROGUE	12.50	1,722
South OR	GRANTS PASS	EASY VALLEY	5R259	CHINOOK	12.50	1,316
South OR	GRANTS PASS	FIELDER CREEK	4R33	ELK FDR.	20.80	1,627
South OR	GRANTS PASS	FIELDER CREEK	4R34	BEAR FDR	20.80	880
South OR	GRANTS PASS	GLENDALE SUBSTATION	5R133	GLENDALE	12.50	1,983
South OR	GRANTS PASS	GLENDALE SUBSTATION	5R143	INDUSTRIAL	12.50	699
South OR	GRANTS PASS	GRANTS PASS	R01-B	GRANTS PASS-WHITE CITY-115KV	115.00	-
South OR	GRANTS PASS	GRANTS PASS	R02-1	GRANTS PASS-APPLEGATE-115KV	115.00	-
South OR	GRANTS PASS	GRANTS PASS	R03	GRANTS PASS-CAVE JCTN-115KV	115.00	-
South OR	GRANTS PASS	GRANTS PASS	R05	GRANTS PASS-MERLIN-115KV	115.00	-
South OR	GRANTS PASS	GRANTS PASS	R07	GRANTS PASS-EASY VALLEY-115KV	115.00	-

### Oregon 2014 Circuit Customer Counts

Reliability Region	Op Area Name	Substation Name	Circuit Id	Circuit Name	Kv	Customer Count
South OR	GRANTS PASS	GRANTS PASS	R13-1	GRANTS PASS-ROGUE RIVER-69KV	69.00	-
South OR	GRANTS PASS	GRANTS PASS	R13-3	ROGUE RIVER-GOLD HILL-69KV	69.00	1
South OR	GRANTS PASS	GRANTS PASS	R24	GRANTS PASS-BEACON-69KV	69.00	-
South OR	GRANTS PASS	JEROME PRAIRIE	5R62	WILD PRAIRIE	12.50	1,647
South OR	GRANTS PASS	JEROME PRAIRIE	5R63	WOOD RIVER	12.50	1,610
South OR	GRANTS PASS	MERLIN	5R232	MERLIN-HUGO	12.50	2,081
South OR	GRANTS PASS	MERLIN	5R234	PARADISE	12.50	1,195
South OR	GRANTS PASS	MERLIN	5R248	PLEASANT VALLEY-MERLIN FEEDER	12.50	1,848
South OR	GRANTS PASS	MERLIN	5R251	BADGER	12.50	921
South OR	GRANTS PASS	NEW O'BRIEN	5R106	O'BRIEN	12.50	466
South OR	GRANTS PASS	PARK STREET (OR)	5R114	FRUITDALE	12.50	2,125
South OR	GRANTS PASS	PARK STREET (OR)	5R115	ALLEN CREEK	12.50	1,009
South OR	GRANTS PASS	PARK STREET (OR)	5R121	NEW HOPE	12.50	1,880
South OR	GRANTS PASS	PARK STREET (OR)	5R164	EXPRESS	12.50	322
South OR	GRANTS PASS	PARK STREET (OR)	5R169	PORTOLA	12.50	1,539
South OR	GRANTS PASS	PROVOLT	5R67	NORTH-SOUTH	12.50	1,408
South OR	GRANTS PASS	ROGUE RIVER	4R7	EVANS VALLEY	20.80	233
South OR	GRANTS PASS	ROGUE RIVER	5R77	SAVAGE/WIMMER	12.50	1,801
South OR	GRANTS PASS	ROGUE RIVER	5R78	ROCKY POINT (ROGUE RIVER)	12.50	1,074
South OR	GRANTS PASS	SCENIC	R13-2	SCENIC-GOLD HILL-69KV	69.00	-
South OR	GRANTS PASS	SELMA	5R65	DEER CREEK	12.50	1,241
South OR	KLAMATH FALLS	BEATTY	5L1	BEATTY	12.50	428
South OR	KLAMATH FALLS	BLY	5L14	TOWN (BLY)	12.50	463
South OR	KLAMATH FALLS	BOISE CASCADE	7L9	BOISE CASCAD	4.10	1
South OR	KLAMATH FALLS	BONANZA (OR)	5L7	POE VALLEY	12.50	454
South OR	KLAMATH FALLS	BRYANT	5L2	GARY STREET	12.50	2,196
South OR	KLAMATH FALLS	BRYANT	5L3	WASHBURN	12.50	1,883
South OR	KLAMATH FALLS	BRYANT	5L4	SUMMERS LANE	12.50	2,066
South OR	KLAMATH FALLS	BRYANT	5L5	MOYINA HTS.	12.50	2,495
South OR	KLAMATH FALLS	CASEBEER SUB	4L16	LANGELL VLY	20.80	1,215
South OR	KLAMATH FALLS	CHILOQUIN	5L57	CRATER LAKE	12.00	1,116
South OR	KLAMATH FALLS	CHILOQUIN	BB04-1	KLAMATH FALLS-CHILOQUIN-230KV	230.00	-
South OR	KLAMATH FALLS	CHILOQUIN	BB04-2	CHILOQUIN-LA PINE-230KV	230.00	-
South OR	KLAMATH FALLS	CHILOQUIN	K02	CHILOQUIN-MILE HI-115KV	115.00	-
South OR	KLAMATH FALLS	CHILOQUIN	K11	CHILOQUIN-CHILOQUIN MARKET-69KV	69.00	-
South OR	KLAMATH FALLS	CHILOQUIN MARKET	5L37	WILLIAMSON	12.50	492
South OR	KLAMATH FALLS	DAIRY	5L42	SWAN LAKE	12.50	319
South OR	KLAMATH FALLS	DAIRY	5L43	DAIRY	12.50	495
South OR	KLAMATH FALLS	DORRIS	K10	DORRIS-TUNNEL-69KV	69.00	-
South OR	KLAMATH FALLS	FISHHOLE	K05-2	FISHHOLE-SPRAGUE RIVER-69KV	69.00	-
South OR	KLAMATH FALLS	HAMAKER	5L55	KENO	12.50	1,768
South OR	KLAMATH FALLS	HAMAKER	5L56	MOUNTAIN	12.50	168
South OR	KLAMATH FALLS	HENLEY	5L58	HENLEY	12.50	237
South OR	KLAMATH FALLS	HENLEY	5L59	WEST	12.50	556

### Oregon 2014 Circuit Customer Counts

Reliability Region	Op Area Name	Substation Name	Circuit Id	Circuit Name	Kv	Customer Count
South OR	KLAMATH FALLS	HORNET	5L44	HOMEDALE	12.50	2,743
South OR	KLAMATH FALLS	HORNET	5L45	CRYSTAL SPR	12.50	1,511
South OR	KLAMATH FALLS	JOHN C. BOYLE SUB	BB06-4	BOYLE-COPCO 2-230KV	230.00	1
South OR	KLAMATH FALLS	KLAMATH	BB06-1	BOYLE-KLAMATH FALLS-230KV	230.00	-
South OR	KLAMATH FALLS	KLAMATH	K05-1	KLAMATH FALLS-BONANZA-69KV	69.00	-
South OR	KLAMATH FALLS	KLAMATH	K07-1	KLAMATH FALLS-WESTSIDE-69KV	69.00	1
South OR	KLAMATH FALLS	KLAMATH	K08	KLAMATH FALLS-WEYERHAUSER-69KV	69.00	-
South OR	KLAMATH FALLS	KLAMATH	K12	COPCO 2-KLAMATH FALLS-69KV	69.00	1
South OR	KLAMATH FALLS	KLAMATH	K12-1	KLAMATH FALLS-WEYERHAUSER-69KV	69.00	-
South OR	KLAMATH FALLS	KLAMATH	K12F	COPCO 2-KLAMATH FALLS-TAP TO RUNNING Y-69KV	69.00	1
South OR	KLAMATH FALLS	KLAMATH	K13-1	KLAMATH FALLS-WESTSIDE-69KV	69.00	1
South OR	KLAMATH FALLS	KLAMATH COGEN 500KV SWITCH	BB02-1	KLAMATH CO-GEN - CAPT JACK	500.00	-
South OR	KLAMATH FALLS	KLAMATH COGEN 500KV SWITCH	BB02-2	KLAMATH COGEN-MERIDAN 500KV LINE	500.00	-
South OR	KLAMATH FALLS	LAKEPORT	5L49	WOCUS	12.50	220
South OR	KLAMATH FALLS	LAKEPORT	5L54	SOUTH (LAKEPORT)	12.50	2,474
South OR	KLAMATH FALLS	LAKEPORT	5L61	JELDWEN	12.50	8
South OR	KLAMATH FALLS	MALIN	BB01	MALIN-ROUND MOUNTAIN #2-525KV	500.00	-
South OR	KLAMATH FALLS	MALIN	BB05	KLAMATH FALLS-MALIN-230KV	230.00	-
South OR	KLAMATH FALLS	MALIN	BB14	CAPTAIN JACK-MALIN-500KV	500.00	-
South OR	KLAMATH FALLS	MALIN	BB17	MALIN-BPA WARNER-230KV	230.00	-
South OR	KLAMATH FALLS	MALIN	K09	MALIN-NEWELL-69KV	69.00	-
South OR	KLAMATH FALLS	MERRILL (OR)	5L26	LAKE (MERRILL)	12.50	1,039
South OR	KLAMATH FALLS	MERRILL (OR)	5L27	NORTH (MERRILL)	12.50	568
South OR	KLAMATH FALLS	MERRILL (OR)	K04-3	MERRILL-HORNET-69KV	69.00	1
South OR	KLAMATH FALLS	MERRILL (OR)	K04B	MERRILL JCT-TUNNEL TAP-69KV	69.00	1
South OR	KLAMATH FALLS	MILE-HI	K15	MILE HI-LAKEVIEW-69KV	69.00	-
South OR	KLAMATH FALLS	MODOC	5L36	MODOC	12.50	1,006
South OR	KLAMATH FALLS	ROSS AVENUE	5L46	ELDORADO	12.50	1,394
South OR	KLAMATH FALLS	ROSS AVENUE	5L47	FORT ROAD	12.50	0
South OR	KLAMATH FALLS	ROSS AVENUE	5L48	BROAD ST.	12.50	1,249
South OR	KLAMATH FALLS	RUNNING Y	4L50	ROCKY POINT FEEDER (RUNNING Y)	20.80	1,503
South OR	KLAMATH FALLS	SHASTA WAY	7L25	SHASTA WAY	4.10	447
South OR	KLAMATH FALLS	SPRAGUE RIVER	5L8	SPRAGUE RIVER	12.50	517
South OR	KLAMATH FALLS	SPRAGUE RIVER	K05-3	SPRAGUE RIVER-DAIRY-69KV	69.00	1
South OR	KLAMATH FALLS	SUMMER LAKE (BPA)	CO01-2	MALIN-SUMMER LAKE-500KV	500.00	-
South OR	KLAMATH FALLS	TEXUM	5L112	ANDERSON	12.50	1,246
South OR	KLAMATH FALLS	TEXUM	5L113	TOWER	12.50	336
South OR	KLAMATH FALLS	TEXUM	5L116	ALTAMONT	12.50	1,556
South OR	KLAMATH FALLS	TURKEY HILL	5L20	MALIN CITY	12.50	855
South OR	KLAMATH FALLS	TURKEY HILL	5L23	RURAL (TURKEY HILL)	12.50	333
South OR	KLAMATH FALLS	WEST SIDE HE PLANT	5L12	ORINDALE	12.50	821
South OR	KLAMATH FALLS	WEST SIDE HE PLANT	5L15	CALIFORNIA	12.50	1,407
South OR	KLAMATH FALLS	WEST SIDE HE PLANT	5L16	MAIN ST (WEST SIDE HE PLANT)	12.50	119
South OR	KLAMATH FALLS	WEST SIDE HE PLANT	5L17	PINE ST (WEST SIDE HE PLANT)	12.50	525

### Oregon 2014 Circuit Customer Counts

Reliability Region	Op Area Name	Substation Name	Circuit Id	Circuit Name	Kv	Customer Count
South OR	KLAMATH FALLS	WEST SIDE HE PLANT	5L18	RIVERSIDE (WEST SIDE HE PLANT)	12.50	610
South OR	KLAMATH FALLS	WEST SIDE HE PLANT	5L19	LAKESHORE	12.50	302
South OR	KLAMATH FALLS	WEST SIDE HE PLANT	8L10	CITY WTR PMP	2.40	1
South OR	KLAMATH FALLS	WEYERHAEUSER	WT1	WEYERHAEUSER	69.00	1
South OR	LAKEVIEW	MILE-HI	5L104	INDUSTRIAL	12.50	754
South OR	LAKEVIEW	MILE-HI	5L105	BUSINESS	12.50	1,757
South OR	LAKEVIEW	MILE-HI	K03	MILE HI-ALTURAS-115KV	115.00	16
South OR	MEDFORD	ASHLAND (MTN.AVE, PUD)	5R241	CITY	12.50	30
South OR	MEDFORD	ASHLAND (MTN.AVE, PUD)	5R245	VALLEY VIEW	12.50	1,005
South OR	MEDFORD	BEALL LANE	5R359	BEEHIVE	12.50	2
South OR	MEDFORD	BEALL LANE	5R361	BULLDOG	12.50	1,676
South OR	MEDFORD	BEALL LANE	5R364	BOBCAT	12.50	2,204
South OR	MEDFORD	BELKNAP	5R1	KOGAP	12.50	1,019
South OR	MEDFORD	BELKNAP	5R2	RIVERSIDE (BELKNAP)	12.50	682
South OR	MEDFORD	BELKNAP	5R3	BARNETT	12.50	1,568
South OR	MEDFORD	BELKNAP	5R47	STEWART	12.50	2,126
South OR	MEDFORD	BROOKHURST	5R118	SPRINGBROOK	12.50	1,686
South OR	MEDFORD	BROOKHURST	5R135	ROBERTS (BROOKHURST)	12.50	1,495
South OR	MEDFORD	BROOKHURST	5R32	ROXY	12.50	1,696
South OR	MEDFORD	BROOKHURST	5R33	CRATER LAKE	12.50	1,642
South OR	MEDFORD	BROOKHURST	5R75	SUNRISE (BROOKHURST)	12.50	1,217
South OR	MEDFORD	CAMPBELL	5R216	VOORHIES	12.50	726
South OR	MEDFORD	CAMPBELL	5R218	PHOENIX	12.50	1,552
South OR	MEDFORD	CAMPBELL	5R227	FERN VALLEY	12.50	1,321
South OR	MEDFORD	CAMPBELL	5R312	COBRA	12.50	1,538
South OR	MEDFORD	DODGE BRIDGE	4R1	SALMON	20.80	1,659
South OR	MEDFORD	DODGE BRIDGE	4R35	MEADOWS ROAD	20.80	1,387
South OR	MEDFORD	FOOTHILLS	5R252	HILLCREST ROAD	12.50	0
South OR	MEDFORD	FOOTHILLS	5R38	HOSPITAL	12.50	771
South OR	MEDFORD	FOOTHILLS	5R39	PIERCE ROAD	12.50	1,159
South OR	MEDFORD	FRALEY	5R87	TABLE ROCK	12.50	523
South OR	MEDFORD	FRALEY	5R88	DODGE BRIDGE	12.50	391
South OR	MEDFORD	GOLD HILL	5R103	GOLD HILL	12.50	2,051
South OR	MEDFORD	GRIFFIN CREEK	5R200	ARNOLD LANE	12.50	0
South OR	MEDFORD	GRIFFIN CREEK	5R204	HULL RD	12.50	2,623
South OR	MEDFORD	GRIFFIN CREEK	5R206	GRIFFIN CREEK	12.50	1,728
South OR	MEDFORD	HUMBUG CREEK	5R287	HUMMINGBIRD	12.50	684
South OR	MEDFORD	LONE PINE	R01-A	LONE PINE-SCENIC-115KV	115.00	-
South OR	MEDFORD	LONE PINE	R10	LONE PINE-SAGE ROAD-115KV	115.00	-
South OR	MEDFORD	LONE PINE	R11-1	LONE PINE-PROSPECT CENTRAL-115KV	115.00	-
South OR	MEDFORD	LONE PINE	R12	LONE PINE-PROSPECT CNTRL-69KV	69.00	-
South OR	MEDFORD	LONE PINE	R19	LONE PINE-TALENT-69KV	69.00	-
South OR	MEDFORD	LONE PINE	R25	LONE PINE-MEDFORD-69KV	69.00	-
South OR	MEDFORD	LONE PINE	R26	LONE PINE-SAGE ROAD-115KV	115.00	-



### Oregon 2014 Circuit Customer Counts

Reliability Region	Op Area Name	Substation Name	Circuit Id	Circuit Name	Kv	Customer Count
South OR	MEDFORD	LONE PINE	R27-1	LONE PINE-BALDY SW STA-115KV	115.00	1
South OR	MEDFORD	MEDCO	5R280	BOISE CASCADE	12.50	1
South OR	MEDFORD	MEDFORD	5R21	MELROSE	12.50	1,625
South OR	MEDFORD	MEDFORD	5R23	SPRING ST.	12.50	1,624
South OR	MEDFORD	MEDFORD	5R250	BIG Y	12.50	1,886
South OR	MEDFORD	MEDFORD	5R253	APPLE	12.50	1,128
South OR	MEDFORD	MEDFORD	5R257	PEAR	12.50	604
South OR	MEDFORD	MEDFORD	5R659	MCLEAN	12.50	691
South OR	MEDFORD	MEDFORD	R23	MEDFORD-APPEGATE-69KV	69.00	-
South OR	MEDFORD	MEDFORD	R23-1	MEDFORD-HUMBUG CREEK-69KV	69.00	1
South OR	MEDFORD	MEDFORD	R23-11	MEDFORD-JACKSONVILLE-69KV	69.00	1
South OR	MEDFORD	MEDFORD	R23-12	JACKSONVILLE-HUMBUG CREEK-69KV	69.00	1
South OR	MEDFORD	MERIDIAN	BB07	LONE PINE #1-MERIDIAN-230KV	230.00	-
South OR	MEDFORD	MERIDIAN	BB13	MERIDIAN-GRANTS PASS-230KV	230.00	-
South OR	MEDFORD	MERIDIAN	BB16	LONE PINE #2-MERIDIAN-230KV	230.00	-
South OR	MEDFORD	NEW JACKSONVILLE SUB-DIST	5R284	STAGE RD	12.50	2,108
South OR	MEDFORD	NEW JACKSONVILLE SUB-DIST	5R285	JACKSONVILLE HWY	12.50	2,135
South OR	MEDFORD	OAK KNOLL	5R55	SISKIYOU	12.50	1,621
South OR	MEDFORD	OAK KNOLL	R08	TAP TO OAK KNOLL-115KV	115.00	1
South OR	MEDFORD	OAK KNOLL	R11-2A	BLADY SW STA-OAK KNOLL TAP-115KV	115.00	1
South OR	MEDFORD	OAK KNOLL	R11-2B	OAK KNOLL TAP-COPCO 2-115KV	115.00	1
South OR	MEDFORD	PROSPECT 3 HE PLANT	5R290	P-3 FOREBAY	12.50	1
South OR	MEDFORD	PROSPECT CENTRAL	5R40	NEW CASCADE	12.50	351
South OR	MEDFORD	PROSPECT CENTRAL	8R5	COTTAGES	2.40	5
South OR	MEDFORD	PROSPECT CENTRAL	8R8	DAM & FOREBAY	2.40	2
South OR	MEDFORD	PROSPECT CENTRAL	R14	PROSPECT CNTRL-PROSPECT #3-69KV	69.00	-
South OR	MEDFORD	PROSPECT CENTRAL	R15	PROSPECT-PROSPECT CNTRL #1-69KV	69.00	-
South OR	MEDFORD	PROSPECT CENTRAL	R16	PROSPECT-PROSPECT CNTRL #2-69KV	69.00	-
South OR	MEDFORD	PROSPECT CENTRAL	R17	PROSPECT-PROSPECT CNTRL #2-69KV	69.00	-
South OR	MEDFORD	RED BLANKET	7R5	PROSPECT	4.10	402
South OR	MEDFORD	ROXY ANN	5R350	St. Bernard	12.50	1,102
South OR	MEDFORD	ROXY ANN	5R354	RACCOON	12.50	1,375
South OR	MEDFORD	RUCH	5R68	APPEGATE	12.50	920
South OR	MEDFORD	RUCH	5R69	RUCH	12.50	558
South OR	MEDFORD	SAGE ROAD (OR)	5R209	TIMBER PROD	12.50	1
South OR	MEDFORD	SAGE ROAD (OR)	5R211	COLUMBUS	12.50	1,998
South OR	MEDFORD	SAGE ROAD (OR)	5R226	BOISE	12.50	890
South OR	MEDFORD	SAGE ROAD (OR)	5R27	MCANDREWS	12.50	120
South OR	MEDFORD	SAGE ROAD (OR)	5R28	ROSS	12.50	1,758
South OR	MEDFORD	SAGE ROAD (OR)	5R29	EDWARDS	12.50	768
South OR	MEDFORD	SAGE ROAD (OR)	R01-C	SAGE ROAD-SCENIC-115KV	115.00	-
South OR	MEDFORD	SAGE ROAD (OR)	R27-3	BALDY SW STA-SAGE ROAD-115KV	115.00	1
South OR	MEDFORD	SCENIC	5R174	UPTON	12.50	2,047
South OR	MEDFORD	SCENIC	5R180	HEAD RD	12.50	1,201



### Oregon 2014 Circuit Customer Counts

Reliability Region	Op Area Name	Substation Name	Circuit Id	Circuit Name	Kv	Customer Count
South OR	MEDFORD	SCENIC	5R182	TAYLOR RD	12.50	1,508
South OR	MEDFORD	SCENIC	5R184	CHENEY	12.50	1,449
South OR	MEDFORD	STEVENS ROAD	4R13	HENRY MILLER	20.80	2,153
South OR	MEDFORD	STEVENS ROAD	4R17	Stingray	20.80	2,494
South OR	MEDFORD	STEVENS ROAD	4R41	ANTELOPE	20.80	1,164
South OR	MEDFORD	TAKELMA	4R9	LOST CK. (TAKELMA)	20.80	2,659
South OR	MEDFORD	TALENT	5R237	TALENT	12.50	2,550
South OR	MEDFORD	TALENT	5R238	ANDERSON CRK	12.50	1,678
South OR	MEDFORD	TALENT	5R239	HARTLEY ROAD	12.50	1,550
South OR	MEDFORD	TALENT	5R240	NORTH HWY	12.50	1,082
South OR	MEDFORD	TOLO	5R90	TBL ROCK LBR	12.50	166
South OR	MEDFORD	TOLO	5R91	SAMS VALLEY	12.50	656
South OR	MEDFORD	TOLO	5R92	KIRTLAND RD	12.50	211
South OR	MEDFORD	VILAS ROAD	5R110	MCLAUGHLIN	12.50	972
South OR	MEDFORD	VILAS ROAD	5R146	KING CENTER	12.50	1,416
South OR	MEDFORD	VILAS ROAD	5R305	WEBFOOT	12.50	1,025
South OR	MEDFORD	WHITE CITY	5R11	EAGLE POINT	12.50	1,458
South OR	MEDFORD	WHITE CITY	5R12	INDUSTRIAL	12.50	32
South OR	MEDFORD	WHITE CITY	5R13	FIR-PLY	12.50	26
South OR	MEDFORD	WHITE CITY	5R14	AGATE	12.50	107
South OR	MEDFORD	WHITE CITY	5R19	3M	12.50	95
South OR	MEDFORD	WHITE CITY	5R66	4 CORNERS	12.50	1,741
South OR	MEDFORD	WHITE CITY	5R76	AVE C	12.50	92
South OR	ROSEBURG/MYRTLECREEK	ALVEY (BPA)	BB03	ALVEY-DIXONVILLE-500KV	500.00	-
South OR	ROSEBURG/MYRTLECREEK	ALVEY (BPA)	WI03	ALVEY-DIXONVILLE-230KV	230.00	-
South OR	ROSEBURG/MYRTLECREEK	CARNES	5U44	RND PRARIE	12.50	419
South OR	ROSEBURG/MYRTLECREEK	CARNES	5U45	GREEN	12.50	0
South OR	ROSEBURG/MYRTLECREEK	CLEARWATER	U07	CLEARWATER-LEMOLO #1-115KV	115.00	-
South OR	ROSEBURG/MYRTLECREEK	CLEARWATER	U08	CLEARWATER-LEMOLO #2-115KV	115.00	-
South OR	ROSEBURG/MYRTLECREEK	CLEARWATER	U09	CLEARWATER-CLEARWATER #1-115KV	115.00	-
South OR	ROSEBURG/MYRTLECREEK	CLEARWATER #1 SUB	6U17	BRIGGS	7.20	3
South OR	ROSEBURG/MYRTLECREEK	CLEARWATER #2 SUB	6U33	CLEARWATER	7.20	102
South OR	ROSEBURG/MYRTLECREEK	CLOAKE	4U37	RUSA	20.80	1
South OR	ROSEBURG/MYRTLECREEK	CLOAKE	4U38	HARVARD	20.80	3,141
South OR	ROSEBURG/MYRTLECREEK	CLOAKE	4U39	GOEDECK	20.80	1,255
South OR	ROSEBURG/MYRTLECREEK	DAYS CREEK	U01	DAYS CREEK-PROSPECT CNTRL-115KV	115.00	-
South OR	ROSEBURG/MYRTLECREEK	DAYS CREEK	U13-1	DAYS CREEK-GAZLEY-69KV	69.00	1
South OR	ROSEBURG/MYRTLECREEK	DAYS CREEK	U14	DAYS CREEK-MYRTLE CREEK-69KV	69.00	-
South OR	ROSEBURG/MYRTLECREEK	DIXONVILLE	BB08	DIXONVILLE-GRANTS PASS-230KV	230.00	-
South OR	ROSEBURG/MYRTLECREEK	DIXONVILLE	BB08-1			
South OR	ROSEBURG/MYRTLECREEK	DIXONVILLE	BB09	DIXONVILLE-RESTON-230KV	230.00	-
South OR	ROSEBURG/MYRTLECREEK	DIXONVILLE	BB10	DIXONVILLE-MERIDIAN-500KV	500.00	-
South OR	ROSEBURG/MYRTLECREEK	DIXONVILLE	BB12	DIXONVILLE 500KV-DIXONVILLE-230KV	230.00	1
South OR	ROSEBURG/MYRTLECREEK	DIXONVILLE	U02	DIXONVILLE-DAYS CREEK-115KV	115.00	-

### Oregon 2014 Circuit Customer Counts

Reliability Region	Op Area Name	Substation Name	Circuit Id	Circuit Name	Kv	Customer Count
South OR	ROSEBURG/MYRTLECREEK	DIXONVILLE	U03	DIXONVILLE-TOKETEE SW STA-115KV	115.00	-
South OR	ROSEBURG/MYRTLECREEK	DIXONVILLE	U05	DIXONVILLE-SODA SPRINGS-115KV	115.00	-
South OR	ROSEBURG/MYRTLECREEK	DIXONVILLE	U10-1	DIXONVILLE-LOOKING GLASS-69KV	69.00	-
South OR	ROSEBURG/MYRTLECREEK	DIXONVILLE	U11	DIXONVILLE-ROBERTS CREEK-115KV	115.00	-
South OR	ROSEBURG/MYRTLECREEK	DIXONVILLE	U12-1	DIXONVILLE-WINCHESTER-115KV	115.00	1
South OR	ROSEBURG/MYRTLECREEK	DIXONVILLE	U12-2	DIXONVILLE-OAKLAND-115KV	115.00	-
South OR	ROSEBURG/MYRTLECREEK	DIXONVILLE	U15	DIXONVILLE-DOUGLAS VENEER-69KV	69.00	-
South OR	ROSEBURG/MYRTLECREEK	GARDEN VALLEY	4U80	EDENBOWER	20.80	806
South OR	ROSEBURG/MYRTLECREEK	GARDEN VALLEY	4U81	VALLEY	20.80	1,325
South OR	ROSEBURG/MYRTLECREEK	GAZLEY	5U46	CANYONVILLE	12.50	437
South OR	ROSEBURG/MYRTLECREEK	GAZLEY	5U52	BEALS CREEK FEEDER	12.50	913
South OR	ROSEBURG/MYRTLECREEK	GLIDE SUBSTATION	5U83	IDLEYLD	12.50	1,004
South OR	ROSEBURG/MYRTLECREEK	GLIDE SUBSTATION	5U84	LITTLE RIVER	12.50	1,360
South OR	ROSEBURG/MYRTLECREEK	GREEN SUBSTATION	5U32	SAFARI	12.50	2,083
South OR	ROSEBURG/MYRTLECREEK	GREEN SUBSTATION	5U33	SUNNYSLOPE	12.50	1,650
South OR	ROSEBURG/MYRTLECREEK	ILLAHEE FLATS	6U13	ILLAHEE FLATS SINGLE PHASE RECLOSER	7.20	26
South OR	ROSEBURG/MYRTLECREEK	LEMOLO # 1	5U920	DIAMOND LAKE	12.50	179
South OR	ROSEBURG/MYRTLECREEK	MYRTLE CREEK	5U76	SUPER Y	12.50	1,568
South OR	ROSEBURG/MYRTLECREEK	MYRTLE CREEK	5U77	BOOMER HILL	12.50	2,338
South OR	ROSEBURG/MYRTLECREEK	NICKEL MOUNTAIN	BB11	NICKEL MOUNTAIN-HANNA TAP SW STATION-115KV	115.00	1
South OR	ROSEBURG/MYRTLECREEK	OAKLAND (OR)	5U11	UMPQUA	12.50	1,371
South OR	ROSEBURG/MYRTLECREEK	OAKLAND (OR)	5U12	STAGECOACH	12.50	551
South OR	ROSEBURG/MYRTLECREEK	RIDDLE	5U1	TRI CITY	12.50	1,023
South OR	ROSEBURG/MYRTLECREEK	RIDDLE	5U2	COW CREEK	12.50	1,611
South OR	ROSEBURG/MYRTLECREEK	RIDDLE	5U3	HANNA	12.50	260
South OR	ROSEBURG/MYRTLECREEK	RIDDLE	U13-2	RIDDLE-MYRTLE CREEK-GAZLEY-69KV	69.00	1
South OR	ROSEBURG/MYRTLECREEK	RIDDLE-VENEER	5U23	FORD MILL	12.50	1
South OR	ROSEBURG/MYRTLECREEK	RIDDLE-VENEER	5U50	RFP-LVL (EWP)	12.00	50
South OR	ROSEBURG/MYRTLECREEK	ROBERTS CREEK	U10-3	ROBERTS CREEK-GREEN-69KV	69.00	-
South OR	ROSEBURG/MYRTLECREEK	ROBERTS CREEK	U13	ROBERTS CREEK-MYRTLE CREEK-69KV	69.00	-
South OR	ROSEBURG/MYRTLECREEK	ROSEBURG	4U10	DIAMOND	20.80	2,508
South OR	ROSEBURG/MYRTLECREEK	ROSEBURG	4U22	DIXON	20.80	1,107
South OR	ROSEBURG/MYRTLECREEK	ROSEBURG	4U5	DOUGLAS	20.80	2,107
South OR	ROSEBURG/MYRTLECREEK	ROSEBURG	5U10	DIXON	12.50	0
South OR	ROSEBURG/MYRTLECREEK	ROSEBURG LUMBER CO	5U95	ROSEBURG LBR	12.50	1
South OR	ROSEBURG/MYRTLECREEK	SLIDE CREEK	6U76	SLIDE CREEK CAMP	7.20	7
South OR	ROSEBURG/MYRTLECREEK	SODA SPRINGS HE PLT	6U1	DRY CREEK	7.20	1
South OR	ROSEBURG/MYRTLECREEK	SODA SPRINGS HE PLT	U04	SODA SPRINGS-TOKETEE-115KV	115.00	-
South OR	ROSEBURG/MYRTLECREEK	SOUTHGATE	4U30	SHADY POINT	20.80	1,602
South OR	ROSEBURG/MYRTLECREEK	SOUTHGATE	4U31	BOOTH	20.80	1,371
South OR	ROSEBURG/MYRTLECREEK	STEAMBOAT	6U18	STEAMBOAT	7.20	22
South OR	ROSEBURG/MYRTLECREEK	SUTHERLIN	5U35	NON-PAREIL	12.50	1,330
South OR	ROSEBURG/MYRTLECREEK	SUTHERLIN	5U36	DEADY	12.50	1,330
South OR	ROSEBURG/MYRTLECREEK	SUTHERLIN	5U56	Industrial	12.50	486

### Oregon 2014 Circuit Customer Counts

Reliability Region	Op Area Name	Substation Name	Circuit Id	Circuit Name	Kv	Customer Count
South OR	ROSEBURG/MYRTLECREEK	TILLER	5U89	JACKSON CRK	12.50	324
South OR	ROSEBURG/MYRTLECREEK	TOKETEE	6U21	BACK UP FOR CLEARWATER 6U33	6.90	-
South OR	ROSEBURG/MYRTLECREEK	TOKETEE	8U12	TOKETEE CITY	2.40	19
South OR	ROSEBURG/MYRTLECREEK	TOKETEE	U06	TOKETEE-CLEARWATER-115KV	115.00	-
South OR	ROSEBURG/MYRTLECREEK	WINCHESTER	4U18	WILBUR	20.80	1,677
South OR	ROSEBURG/MYRTLECREEK	WINCHESTER	5U15	NEWTON CREEK	12.50	1,764
South OR	ROSEBURG/MYRTLECREEK	WINCHESTER	5U17	FISHER	12.50	754
South OR	ROSEBURG/MYRTLECREEK	WINCHESTER	5U19	EVANS	12.50	757
South OR	ROSEBURG/MYRTLECREEK	WINCHESTER	U10-2	WINCHESTER-GARDEN VALLEY-69KV	69.00	-
South OR	ROSEBURG/MYRTLECREEK	WINSTON	5U48	BROCKWAY	12.50	879
South OR	ROSEBURG/MYRTLECREEK	WINSTON	5U49	DILLARD	12.50	1,478
WImVly	ALBANY	BPA ALBANY	WI09	BPA ALBANY-HAZELWOOD-115KV	115.00	-
WImVly	ALBANY	HAZELWOOD	4M335	WEST HIGH	20.80	1,493
WImVly	ALBANY	HAZELWOOD	4M336	RIVERVIEW (HAZELWOOD)	20.80	1,255
WImVly	ALBANY	HAZELWOOD	WI07	HAZELWOOD-FRY-115KV	115.00	-
WImVly	ALBANY	HAZELWOOD	WI10	HAZELWOOD-MARYS RIVER-115KV	115.00	-
WImVly	ALBANY	HAZELWOOD	WI10-1	HAZELWOOD-GRANT-115KV	115.00	1
WImVly	ALBANY	HAZELWOOD	WI13-1	HAZELWOOD-VINE ST-69KV	69.00	-
WImVly	ALBANY	HAZELWOOD	WI14-1	HAZELWOOD-QUEEN AVE-69KV	69.00	1
WImVly	ALBANY	JEFFERSON (OR)	4M117	MARION	20.80	744
WImVly	ALBANY	JEFFERSON (OR)	4M125	MINT	20.80	2,584
WImVly	ALBANY	MURDER CREEK	4M243	SCRAVEL HILL	20.80	3,795
WImVly	ALBANY	MURDER CREEK	4M245	RURAL NW	20.80	1,918
WImVly	ALBANY	MURDER CREEK	4M249	DURA-PACIFIC	20.80	5
WImVly	ALBANY	MURDER CREEK	4M250	INDUSTRIAL	20.80	1,248
WImVly	ALBANY	MURDER CREEK	5M131	WAH CHANG SOUTH	12.50	1
WImVly	ALBANY	MURDER CREEK	5M132	WAH CHANG WEST	12.50	0
WImVly	ALBANY	OREMET	4M295	OAK CREEK	20.80	111
WImVly	ALBANY	OREMET	4M296	ROGERSDALE	20.80	3,149
WImVly	ALBANY	OREMET	5M19	OREMET	12.50	3
WImVly	ALBANY	OREMET	5M20	OREMET-BPA	12.50	0
WImVly	ALBANY	PARRISH GAP	WI15-1	PARRISH GAP-STAYTON-69KV	69.00	1
WImVly	ALBANY	PARRISH GAP	WI15-3	PARRISH GAP-JEFFERSON-69KV	69.00	1
WImVly	ALBANY	PARRISH GAP	WI15-4	JEFFERSON-JEFFERSON TAP-69KV	69.00	1
WImVly	ALBANY	QUEEN AVE	4M217	SANTIAM	20.80	1,995
WImVly	ALBANY	QUEEN AVE	4M258	HILL STREET	20.80	2,136
WImVly	ALBANY	QUEEN AVE	4M261	WAVERLY	20.80	3,397
WImVly	ALBANY	QUEEN AVE	4M262	GEARY STREET	20.80	2,621
WImVly	ALBANY	QUEEN AVE	WI14-2	QUEEN-SCIO-69KV	69.00	3
WImVly	ALBANY	QUEEN AVE	WI17	JEFFERSON JCT-JEFFERSON TAP-69KV	69.00	1
WImVly	ALBANY	VINE STREET	4M15	FERRY	20.80	2,230
WImVly	ALBANY	VINE STREET	4M16	WATER STREET	20.80	3,946
WImVly	ALBANY	VINE STREET	WI13-3	VINE ST-INDEPENDENCE-69KV	69.00	1
WImVly	ALBANY	VINE STREET	WI16	VINE STREET-JEFFERSON TAP-69KV	69.00	1

### Oregon 2014 Circuit Customer Counts

Reliability Region	Op Area Name	Substation Name	Circuit Id	Circuit Name	Kv	Customer Count
WImVly	ALBANY	WESTERN KRAFT	5M24	WEST MAIN	12.50	1
WImVly	ALBANY	WESTERN KRAFT	5M25	EAST MAIN	12.50	1
WImVly	CORVALLIS	BUCHANAN	4M130	HEWLETT PACKARD	20.80	2,682
WImVly	CORVALLIS	BUCHANAN	4M133	PEORIA	20.80	2,502
WImVly	CORVALLIS	BUCHANAN	4M134	N. NINTH ST.	20.80	2,635
WImVly	CORVALLIS	BUCHANAN	WI06-3	BUCHANAN-DIXON-115KV	115.00	1
WImVly	CORVALLIS	CIRCLE BLVD	4M394	H. P. #1	20.80	1
WImVly	CORVALLIS	CIRCLE BLVD	4M396	H. P. #2	20.80	0
WImVly	CORVALLIS	CIRCLE BLVD	4M427	H. P. #3	20.80	1
WImVly	CORVALLIS	CIRCLE BLVD	4M428	H. P. #4	20.80	0
WImVly	CORVALLIS	CIRCLE BLVD	4M429	H. P. #5	20.80	1
WImVly	CORVALLIS	CIRCLE BLVD	4M430	H. P. #6	20.80	0
WImVly	CORVALLIS	CIRCLE BLVD	WI06-2	CIRCLE BLVD-BUCHANAN-115KV	115.00	1
WImVly	CORVALLIS	DIXON	7M26	FOURTH ST.	4.10	252
WImVly	CORVALLIS	DIXON	7M29	SECOND ST.	4.10	255
WImVly	CORVALLIS	GRANT	4M265	HIGH SCHOOL	20.80	2,534
WImVly	CORVALLIS	GRANT	4M266	CHINTIMINI	20.80	2,630
WImVly	CORVALLIS	GRANT	4M268	KINGS ROAD	20.80	2,570
WImVly	CORVALLIS	GRANT	4M269	29TH STREET	20.80	3,319
WImVly	CORVALLIS	GRANT	WI10-2	GRANT-HILLVIEW-115KV	115.00	1
WImVly	CORVALLIS	HILLVIEW	4M180	WEST HILLS	20.80	2,350
WImVly	CORVALLIS	HILLVIEW	4M181	PHILOMATH	20.80	657
WImVly	CORVALLIS	HILLVIEW	4M182	SUNSET	20.80	910
WImVly	CORVALLIS	HILLVIEW	4M185	PLYMOUTH	20.80	2,252
WImVly	CORVALLIS	MARYS RIVER	4M151	GREENBERRY	20.80	3,640
WImVly	CORVALLIS	MARYS RIVER	4M152	AVERY	20.80	193
WImVly	CORVALLIS	MARYS RIVER	4M153	GALLAGHER	20.80	161
WImVly	CORVALLIS	MARYS RIVER	WI06-4	MARY'S RIVER-DIXON-115KV	115.00	1
WImVly	CORVALLIS	MARYS RIVER	WI10-3	MARY'S RIVER-HILLVIEW-115KV	115.00	1
WImVly	COTTAGE GROVE/J.CITY	ALVEY (BPA)	WI12	BPA ALVEY-VILLAGE GREEN-115KV	115.00	-
WImVly	COTTAGE GROVE/J.CITY	CALAPOOYA	WI23	CALAPOOYA-HALSEY-69KV	69.00	-
WImVly	COTTAGE GROVE/J.CITY	COBURG	4M220	DETERING	20.80	534
WImVly	COTTAGE GROVE/J.CITY	DIAMOND HILL	WI02-2	DIAMOND HILL-BPA ALVEY-230KV	230.00	-
WImVly	COTTAGE GROVE/J.CITY	DIAMOND HILL	WI19	DIAMOND HILL-BROWNSVILLE-69KV	69.00	-
WImVly	COTTAGE GROVE/J.CITY	DIAMOND HILL	WI20	DIAMOND HILL-EWEB MCKENZIE-69KV	69.00	-
WImVly	COTTAGE GROVE/J.CITY	DIAMOND HILL	WI21	DIAMOND HILL-JUNCTION CITY-69KV	69.00	-
WImVly	COTTAGE GROVE/J.CITY	GOSHEN (OR)	4M360	GOSHEN FDR	20.80	1,665
WImVly	COTTAGE GROVE/J.CITY	HARRISBURG SUB	4M400	TERRITORIAL	20.80	1,910
WImVly	COTTAGE GROVE/J.CITY	JUNCTION CITY	4M102	6TH STREET	20.80	1,175
WImVly	COTTAGE GROVE/J.CITY	JUNCTION CITY	4M99	PRAIRIE ROAD	20.80	936
WImVly	COTTAGE GROVE/J.CITY	LANCASTER	4M209	MONROE	20.80	1,133
WImVly	COTTAGE GROVE/J.CITY	MARTIN CREEK (BPA)	WI12B	BPA MARTIN CREEK-VLG GREEN-115KV	115.00	-
WImVly	COTTAGE GROVE/J.CITY	VILLAGE GREEN	4M84	NORTH SIDE	20.80	2,411
WImVly	COTTAGE GROVE/J.CITY	VILLAGE GREEN	4M86	MADISON	20.80	1,605

### Oregon 2014 Circuit Customer Counts

Reliability Region	Op Area Name	Substation Name	Circuit Id	Circuit Name	Kv	Customer Count
WImVly	DALLAS/INDEPENDENCE	DALLAS	4M100	RURAL (DALLAS)	20.80	4,471
WImVly	DALLAS/INDEPENDENCE	DALLAS	4M201	INDUSTRIAL	20.80	35
WImVly	DALLAS/INDEPENDENCE	DALLAS	4M202	ELLEDALE	20.80	2,903
WImVly	DALLAS/INDEPENDENCE	DALLAS	4M238	DALLAS	20.80	2,332
WImVly	DALLAS/INDEPENDENCE	INDEPENDENCE	4M22	RICKREAL	20.80	2,006
WImVly	DALLAS/INDEPENDENCE	INDEPENDENCE	4M25	BUENA VISTA	20.80	3,104
WImVly	DALLAS/INDEPENDENCE	MONPAC	WI05	MONPAC-BPA SALEM-115KV	115.00	-
WImVly	DALLAS/INDEPENDENCE	MONPAC	WI13-4	MONPAC-INDEPENDENCE-69KV	69.00	1
WImVly	LEBANON	BROWNSVILLE	4M17	CALAPOOIA	12.50	1,925
WImVly	LEBANON	CROWFOOT	4M204	CROWFOOT	20.80	1,544
WImVly	LEBANON	CROWFOOT	4M206	US PLYWOOD (LEBANON)	20.80	1,842
WImVly	LEBANON	FRY	WI01-A	FRY-PARRISH GAP-230KV	230.00	1
WImVly	LEBANON	FRY	WI02-1	FRY-DIAMOND HILL	230.00	-
WImVly	LEBANON	FRY	WI06	FRY-MARYS RIVER-115KV	115.00	-
WImVly	LEBANON	FRY	WI06-1	FRY-CIRCLE BLVD-115KV	115.00	1
WImVly	LEBANON	FRY	WI08	FRY-WESTERN KRAFT-115KV	115.00	-
WImVly	LEBANON	FRY	WI11	FRY-FOSTER-115KV	115.00	-
WImVly	LEBANON	FRY	WI11-1	FOSTER-BPA LEBANON-115KV	115.00	1
WImVly	LEBANON	LEBANON	4M61	TANGENT	20.80	2,473
WImVly	LEBANON	LEBANON	4M62	RALSTON	20.80	2,031
WImVly	LEBANON	LEBANON	4M63	TENNESSEE	20.80	1,865
WImVly	LEBANON	LEBANON	4M79	CROWN Z	20.80	1,013
WImVly	LEBANON	SWEET HOME	4M37	HOLLEY	20.80	2,060
WImVly	LEBANON	SWEET HOME	4M38	NARROWS	20.80	999
WImVly	LEBANON	SWEET HOME	4M93	AMES CREEK	20.80	1,716
WImVly	LEBANON	SWEET HOME	4M94	FOSTER	20.80	2,345
WImVly	STAYTON	BPA SANTIAM	ZB001	BPA SANTIAM-BPA ALBANY#1-230KV	230.00	1
WImVly	STAYTON	LYONS	WI14-3A	TAP TO EVERGREEN BIO POWER-69KV	69.00	1
WImVly	STAYTON	LYONS	WI14-4	LYONS-SANTIAM SWITCH STATION-69KV	69.00	1
WImVly	STAYTON	NEW LYONS	4M120	MILL CITY	20.80	1,978
WImVly	STAYTON	NEW LYONS	4M70	MEHAMA	20.80	1,002
WImVly	STAYTON	NEW STAYTON	4M19	AUMSVILLE	20.80	3,182
WImVly	STAYTON	NEW STAYTON	4M353	WEST STAYTON	20.80	3,480
WImVly	STAYTON	NEW STAYTON	4M370	CASCADE	20.80	1,666
WImVly	STAYTON	NEW STAYTON	4M50	3RD STREET	20.80	932
WImVly	STAYTON	PARRISH GAP	WI01-B	PARRISH GAP-PGE BETHEL-230KV	230.00	1
WImVly	STAYTON	SCIO	5M126	THOMAS	12.50	1,602
WImVly	STAYTON	SCIO	WI14-3	SCIO-LYONS-69KV	69.00	1
WImVly	STAYTON	STAYTON CITY	WI15-2	STAYTON-SANTIAM SWITCH STATION-69KV	69.00	1
WImVly	STAYTON	STAYTON CITY	WI15A	SANTIAM SW STA-SANTIAM(BPA)-69KV	69.00	1

### Oregon 2014 Circuit Metrics (excluding major events)

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Central OR	BEND/REDMOND	BEND	5D10	PORTLAND AVE	7,225	196,520	2,335	84.16	3.094
Central OR	BEND/REDMOND	BEND	5D11	GLEN VISTA	3,260	105,654	1,018	103.79	3.202
Central OR	BEND/REDMOND	BEND	5D12	DIVISION ST.	830	28,665	223	128.54	3.722
Central OR	BEND/REDMOND	BEND	5D196	MALLARD	4,507	202,792	1,498	135.38	3.009
Central OR	BEND/REDMOND	BOND STREET	5D411	BACHELOR	1,815	70,591	1,710	41.28	1.061
Central OR	BEND/REDMOND	BOND STREET	5D413	OLD MILL	368	3,122	361	8.65	1.019
Central OR	BEND/REDMOND	BOND STREET	5D418	BLAKELY	3,375	493,057	1,293	381.33	2.610
Central OR	BEND/REDMOND	CHINA HAT	5D140	LAVA (CHINA HAT)	3,740	216,099	2,313	93.43	1.617
Central OR	BEND/REDMOND	CHINA HAT	5D142	HIGH DESERT	1,864	85,132	1,616	52.68	1.153
Central OR	BEND/REDMOND	CHINA HAT	5D144	D.R.W.	2,666	48,180	2,513	19.17	1.061
Central OR	BEND/REDMOND	CLEVELAND AVE.	5D30	ARROWHEAD	932	15,606	890	17.53	1.047
Central OR	BEND/REDMOND	CLEVELAND AVE.	5D35	WICKIUP	1,014	19,638	969	20.27	1.046
Central OR	BEND/REDMOND	CLEVELAND AVE.	5D38	TOMAHAWK	2,844	104,471	1,405	74.36	2.024
Central OR	BEND/REDMOND	CLEVELAND AVE.	5D94	TEEPEE	7,174	278,376	3,002	92.73	2.390
Central OR	BEND/REDMOND	CLEVELAND AVE.	5D96	OBSIDIAN	2,008	154,868	799	193.83	2.513
Central OR	BEND/REDMOND	CLEVELAND AVE.	5D98	HUCKLEBERRY	1,359	18,450	1,317	14.01	1.032
Central OR	BEND/REDMOND	CROOKED RIVER RANCH	4D131	CANYON	340	73,828	1,746	42.28	0.195
Central OR	BEND/REDMOND	CROOKED RIVER RANCH	4D30	CROOKED R.R.	250	28,877	763	37.85	0.328
Central OR	BEND/REDMOND	DESCHUTES	5D184	PRONGHORN	1,577	267,965	1,127	237.77	1.399
Central OR	BEND/REDMOND	DESCHUTES	5D2	DESCHUTES S	1,108	181,536	962	188.71	1.152
Central OR	BEND/REDMOND	HUNTERS CIRCLE	5D192	Mackinaw	30	6,156	657	9.37	0.046
Central OR	BEND/REDMOND	OVERPASS	5D104	AWBREY	814	7,017	686	10.23	1.187
Central OR	BEND/REDMOND	OVERPASS	5D106	NEZ PERCE	3,042	89,990	2,602	34.59	1.169
Central OR	BEND/REDMOND	OVERPASS	5D120	CHINOOK	1,509	38,352	1,326	28.92	1.138
Central OR	BEND/REDMOND	OVERPASS	5D128	PAIUTE	2,002	22,226	1,838	12.09	1.089
Central OR	BEND/REDMOND	OVERPASS	5D155	APACHE	3,923	100,370	1,859	53.99	2.110
Central OR	BEND/REDMOND	PILOT BUTTE	5D261	KLONDIKE	4,116	332,814	3,069	108.44	1.341
Central OR	BEND/REDMOND	PILOT BUTTE	5D263	DRAKE FEEDER	5,560	185,207	1,972	93.92	2.819
Central OR	BEND/REDMOND	REDMOND	5D21	SOUTH (REDMOND)	15	2,351	720	3.26	0.021
Central OR	BEND/REDMOND	REDMOND	5D22	INDUSTRIAL	148	18,701	1,458	12.83	0.102
Central OR	BEND/REDMOND	REDMOND	5D223	TETHEROW	293	36,817	834	44.15	0.351
Central OR	BEND/REDMOND	REDMOND	5D226	CLINE FALLS	350	70,656	1,379	51.24	0.254
Central OR	BEND/REDMOND	REDMOND	5D227	WINDSOR	29	9,997	2,825	3.54	0.010
Central OR	BEND/REDMOND	REDMOND	5D228	CITY	33	5,937	1,328	4.47	0.025
Central OR	BEND/REDMOND	REDMOND	5D229	JUNIPER	22	2,614	428	6.11	0.051
Central OR	BEND/REDMOND	SHEVLIN PARK	5D238	WOLVERINE (SHP) (WAS 5D327)	3,691	173,171	2,959	58.52	1.247
Central OR	BEND/REDMOND	SHEVLIN PARK	5D241	BADGER (SHP)	3,170	46,794	2,997	15.61	1.058
Central OR	BEND/REDMOND	SHEVLIN PARK	5D243	Black Bear	764	53,415	593	90.08	1.288
Central OR	BEND/REDMOND	YEW AVENUE	5D322	BIRDIE	287	49,837	1,448	34.42	0.198
Central OR	BEND/REDMOND	YEW AVENUE	5D323	FAIRWAY	1	37	395	0.09	0.003
Central OR	BEND/REDMOND	YEW AVENUE	5D325	EAGLE	27	3,383	2,375	1.42	0.011
Central OR	MADRAS	CHERRY LANE	5D295	7 PEAKS	151	42,992	148	290.48	1.020
Central OR	MADRAS	CULVER	5D5	CULVER	2,621	193,907	1,777	109.12	1.475
Central OR	MADRAS	MADRAS	5D52	MADRAS RURAL	1,057	106,205	1,030	103.11	1.026
Central OR	MADRAS	MADRAS	5D53	AGATE	20	2,407	1,321	1.82	0.015
Central OR	MADRAS	MADRAS	5D57	QUARTZ	102	13,486	1,425	9.46	0.072
Central OR	MADRAS	MADRAS	5D61	MADRAS CITY	540	57,912	1,337	43.32	0.404
Central OR	MADRAS	POWELL BUTTE	5D1	POWELL BUTTE	90	15,395	614	25.07	0.147

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Central OR	MADRAS	PRINEVILLE	5D126	RIMROCK	120	26,711	2,246	11.89	0.053
Central OR	MADRAS	PRINEVILLE	5D167	NORTHVILLE	716	140,451	1,273	110.33	0.562
Central OR	MADRAS	PRINEVILLE	5D25	OCHOCO	105	18,467	990	18.65	0.106
Central OR	MADRAS	PRINEVILLE	5D47	MC KAY (PRINEVILLE)	150	24,444	1,655	14.77	0.091
Central OR	MADRAS	PRINEVILLE	5D48	LAMONTA	938	169,908	647	262.61	1.450
Central OR	MADRAS	PRINEVILLE	5D50	PINE CONE	1	189	77	2.46	0.013
Central OR	MADRAS	PRINEVILLE	5D69	GRIMES FLAT	557	115,091	1,611	71.44	0.346
Central OR	MADRAS	WARM SPRINGS	4D68	WARM SPRINGS (OR)	1,731	185,673	1,094	169.72	1.582
CoastPlus	CLATSOP (ASTORIA)	CANNON BEACH	5A10	HAYSTACK	2,658	194,005	1,543	125.73	1.723
CoastPlus	CLATSOP (ASTORIA)	CANNON BEACH	5A8	ECOLA	877	107,475	1,261	85.23	0.695
CoastPlus	CLATSOP (ASTORIA)	FERN HILL SUB	5A51	JOHN DAY	313	31,986	263	121.62	1.190
CoastPlus	CLATSOP (ASTORIA)	FERN HILL SUB	5A52	SCANDINAVIAN	389	59,847	385	155.45	1.010
CoastPlus	CLATSOP (ASTORIA)	KNAPPA SVENSEN	5A92	SVENSEN	701	131,714	704	187.09	0.996
CoastPlus	CLATSOP (ASTORIA)	KNAPPA SVENSEN	5A93	BRADWOOD	2,333	248,335	945	262.79	2.469
CoastPlus	CLATSOP (ASTORIA)	SEASIDE	5A80	GROVE	4,529	503,917	2,374	212.26	1.908
CoastPlus	CLATSOP (ASTORIA)	SEASIDE	5A81	CENTRAL	91	7,198	1,647	4.37	0.055
CoastPlus	CLATSOP (ASTORIA)	SEASIDE	5A82	NECANICUM	1,117	357,830	1,202	297.70	0.929
CoastPlus	CLATSOP (ASTORIA)	SEASIDE	5A83	GEARHART	4,431	297,428	3,135	94.87	1.413
CoastPlus	CLATSOP (ASTORIA)	WARRENTON	5A15	CITY	307	48,268	1,816	26.58	0.169
CoastPlus	CLATSOP (ASTORIA)	WARRENTON	5A16	MILL (WARRENTON)	686	26,284	542	48.50	1.266
CoastPlus	CLATSOP (ASTORIA)	WARRENTON	5A20	SOUTH (WARRENTON)	2,686	811,485	1,553	522.53	1.730
CoastPlus	CLATSOP (ASTORIA)	YOUNGS BAY	5A202	PORT DOCK	112	14,701	1,231	11.94	0.091
CoastPlus	CLATSOP (ASTORIA)	YOUNGS BAY	5A204	MOO COW	753	53,501	1,141	46.89	0.660
CoastPlus	CLATSOP (ASTORIA)	YOUNGS BAY	5A205	FIFTH STREET	55	4,121	959	4.30	0.057
CoastPlus	CLATSOP (ASTORIA)	YOUNGS BAY	5A206	YOUNGS BAY #6	7	205	331	0.62	0.021
CoastPlus	CLATSOP (ASTORIA)	YOUNGS BAY	5A210	YOUNGS BAY #10	48	2,540	1,003	2.53	0.048
CoastPlus	CLATSOP (ASTORIA)	YOUNGS BAY	5A211	OLNEY	3,202	511,231	979	522.20	3.271
CoastPlus	CLATSOP (ASTORIA)	YOUNGS BAY	5A213	INDUSTRIAL	10	1,488	1,353	1.10	0.007
CoastPlus	COOS BAY/COQUILLE	BANDON TIE (BPA)	L804	BANDON	1,241	232,012	788	294.43	1.575
CoastPlus	COOS BAY/COQUILLE	COOS RIVER	4C106	COOS RIVER	4,954	915,455	1,411	648.80	3.511
CoastPlus	COOS BAY/COQUILLE	COQUILLE	4C41	HENRY STREET	1,575	165,904	1,766	93.94	0.892
CoastPlus	COOS BAY/COQUILLE	COQUILLE	4C42	TERRES HGHTS	1,503	176,680	1,630	108.39	0.922
CoastPlus	COOS BAY/COQUILLE	COQUILLE	4C43	INDUSTRIAL	165	15,880	158	100.51	1.044
CoastPlus	COOS BAY/COQUILLE	EMPIRE NEW	4C108	EMPIRE	567	97,188	1,756	55.35	0.323
CoastPlus	COOS BAY/COQUILLE	EMPIRE NEW	4C89	SCOTT	110	17,289	1,429	12.10	0.077
CoastPlus	COOS BAY/COQUILLE	EMPIRE NEW	4C90	CHARLESTON	758	47,233	2,195	21.52	0.345
CoastPlus	COOS BAY/COQUILLE	JORDAN POINT	5C6	SAND DUNES (JORDAN POINT)	1	142	32	4.44	0.031
CoastPlus	COOS BAY/COQUILLE	LOCKHART STREET	4C48	CITY CENTER	69	7,929	1,603	4.95	0.043
CoastPlus	COOS BAY/COQUILLE	LOCKHART STREET	4C49	EASTSIDE	134	6,993	802	8.72	0.167
CoastPlus	COOS BAY/COQUILLE	LOCKHART STREET	4C50	BUNKERHILL	3,395	536,737	1,926	278.68	1.763
CoastPlus	COOS BAY/COQUILLE	LOCKHART STREET	4C97	ENGLEWOOD	264	6,108	1,425	4.29	0.185
CoastPlus	COOS BAY/COQUILLE	MYRTLE POINT	4C36	NORTH (MYRTLE POINT)	394	54,466	362	150.46	1.088
CoastPlus	COOS BAY/COQUILLE	MYRTLE POINT	4C37	MAPLE STREET	410	53,716	2,205	24.36	0.186
CoastPlus	COOS BAY/COQUILLE	STATE STREET	4C112	WOODLAND	72	7,777	1,876	4.15	0.038
CoastPlus	COOS BAY/COQUILLE	STATE STREET	4C66	BAYSHORE	435	40,103	1,730	23.18	0.251
CoastPlus	COOS BAY/COQUILLE	STATE STREET	4C67	INDUSTRIAL	607	37,597	2,290	16.42	0.265
CoastPlus	COOS BAY/COQUILLE	STATE STREET	4C86	BANGOR	315	44,507	1,792	24.84	0.176
CoastPlus	HOOD RIVER	GORDON HOLLOW	4K1	SHERMAN 208	1,373	316,307	459	689.12	2.991



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CoastPlus	HOOD RIVER	GRASS VALLEY	6K1	KENT	528	226,190	65	3,479.85	8.123
CoastPlus	HOOD RIVER	GRASS VALLEY	8K4	GRASS VALLEY CITY	413	207,413	100	2,074.13	4.130
CoastPlus	HOOD RIVER	HOOD RIVER	5K37	RESIDENTIAL	356	19,569	2,065	9.48	0.172
CoastPlus	HOOD RIVER	HOOD RIVER	5K43	BELMONT	110	24,132	1,136	21.24	0.097
CoastPlus	HOOD RIVER	HOOD RIVER	5K44	NORTH (HOOD RIVER)	243	41,048	1,760	23.32	0.138
CoastPlus	HOOD RIVER	HOOD RIVER	5K70	EASTSIDE	243	64,856	1,045	62.06	0.233
CoastPlus	HOOD RIVER	HOOD RIVER	5K74	SOUTH (HOOD RIVER)	290	81,730	1,650	49.53	0.176
CoastPlus	HOOD RIVER	KENWOOD	5K50	OAKGROVE	350	97,131	728	133.42	0.481
CoastPlus	HOOD RIVER	MORO	8K6	MORO	468	71,696	118	607.60	3.966
CoastPlus	HOOD RIVER	WASCO	7K1	WASCO	561	148,041	277	534.44	2.025
CoastPlus	LINCOLN CITY	DEVILS LAKE	4A310	INLAND FEEDER	4,353	372,667	1,849	201.55	2.354
CoastPlus	LINCOLN CITY	DEVILS LAKE	4A312	OCEAN	883	140,361	2,921	48.05	0.302
CoastPlus	LINCOLN CITY	DEVILS LAKE	4A316	LAKE (DEVILS LAKE)	17,344	1,070,030	4,481	238.79	3.871
CoastPlus	LINCOLN CITY	DEVILS LAKE	4A338	SIUSLAW	982	240,965	663	363.45	1.481
CoastPlus	LINCOLN CITY	GLENEDEN	7A364	GLENEDEN	935	311,498	715	435.66	1.308
CoastPlus	LINCOLN CITY	GLENEDEN	7A366	SALISHAN	1,122	370,411	360	1,028.92	3.117
CoastPlus	LINCOLN CITY	NELSCOTT	7A390	NELSCOTT	793	84,010	358	234.66	2.215
CoastPlus	LINCOLN CITY	PGE GRAND RONDE	R114	BOYER	37	4,912	19	258.54	1.947
CoastPlus	LINCOLN CITY	WECOMA BEACH	7A354	WECOMA	948	507,862	704	721.39	1.347
CoastPlus	PORTLAND	ALBINA	5P200	11C20-UG	1	109	475	0.23	0.002
CoastPlus	PORTLAND	ALBINA	5P66	11C25	2	330	52	6.35	0.038
CoastPlus	PORTLAND	ALBINA	5P92	11C12-UG	1	448	67	6.68	0.015
CoastPlus	PORTLAND	ALDERWOOD 115/12.5	5P22	ALDERWOOD #2	1,144	80,213	208	385.64	5.500
CoastPlus	PORTLAND	ALDERWOOD 115/12.5	5P33	ALDERWOOD #4	553	50,690	186	272.53	2.973
CoastPlus	PORTLAND	ALDERWOOD 115/12.5	5P604	ALDERWOOD #3	545	80,336	187	429.60	2.914
CoastPlus	PORTLAND	COLUMBIA (OR)	5P266	#2	328	59,787	2,677	22.33	0.123
CoastPlus	PORTLAND	COLUMBIA (OR)	5P268	COLUMBIA #1	352	118,494	340	348.51	1.035
CoastPlus	PORTLAND	COLUMBIA (OR)	5P474	COLUMBIA #6	50	9,064	571	15.87	0.088
CoastPlus	PORTLAND	COLUMBIA (OR)	5P476	COLUMBIA #3	1,659	377,136	859	439.04	1.931
CoastPlus	PORTLAND	COLUMBIA (OR)	5P478	COLUMBIA #4	214	17,290	844	20.49	0.254
CoastPlus	PORTLAND	CULLY	5P288	CULLY #3-UG	2	596	808	0.74	0.002
CoastPlus	PORTLAND	CULLY	5P290	CULLY #2	160	24,271	2,362	10.28	0.068
CoastPlus	PORTLAND	CULLY	5P292	CULLY #1	3,295	364,465	2,939	124.01	1.121
CoastPlus	PORTLAND	HOLLADAY (OR)	5P156	HOLLADAY #4-UG	2	560	209	2.68	0.010
CoastPlus	PORTLAND	HOLLADAY (OR)	5P157	HOLLADAY #5-UG	0	0	324	-	-
CoastPlus	PORTLAND	HOLLADAY (OR)	5P158	HOLLADAY #6	3	290	808	0.36	0.004
CoastPlus	PORTLAND	HOLLYWOOD	5P203	HOLLYWOOD #3	197	10,150	1,369	7.41	0.144
CoastPlus	PORTLAND	HOLLYWOOD	5P204	HOLLYWOOD #2	62	4,639	1,681	2.76	0.037
CoastPlus	PORTLAND	HOLLYWOOD	5P205	HOLLYWOOD #1	48	6,288	2,127	2.96	0.023
CoastPlus	PORTLAND	HOLLYWOOD	5P208	HOLLYWOOD #5	3,433	331,949	1,761	188.50	1.949
CoastPlus	PORTLAND	HOLLYWOOD	5P209	HOLLYWOOD #4	60	8,473	2,359	3.59	0.025
CoastPlus	PORTLAND	KILLINGSWORTH	5P123	KILLINGSWORTH #3	2,462	109,602	374	293.05	6.583
CoastPlus	PORTLAND	KILLINGSWORTH	5P217	KILLINGSWORTH #5	1,318	37,825	449	84.24	2.935
CoastPlus	PORTLAND	KILLINGSWORTH	5P41	KILLINGSWORTH #4	11,647	1,160,347	2,763	419.96	4.215
CoastPlus	PORTLAND	KILLINGSWORTH	5P88	KILLINGSWORTH #1-UG	64	6,523	16	407.70	4.000
CoastPlus	PORTLAND	KILLINGSWORTH	5P89	KILLINGSWORTH #2	9,395	235,354	3,123	75.36	3.008
CoastPlus	PORTLAND	KNOTT	5P231	KNOTT #1	76	12,787	2,696	4.74	0.028
CoastPlus	PORTLAND	KNOTT	5P232	KNOTT #2	115	8,185	1,281	6.39	0.090



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CoastPlus	PORTLAND	KNOTT	5P233	KNOTT #3	2,332	396,939	2,310	171.83	1.010
CoastPlus	PORTLAND	KNOTT	5P368	11022	10	2,005	-	#DIV/0!	#DIV/0!
CoastPlus	PORTLAND	KNOTT	5P372	11046	579	36,632	439	83.44	1.319
CoastPlus	PORTLAND	KNOTT	5P374	11020	35	3,571	1,012	3.53	0.035
CoastPlus	PORTLAND	LINCOLN (OR)	5P426	11D04-UG	2	473	335	1.41	0.006
CoastPlus	PORTLAND	LINCOLN (OR)	5P430	11D05-UG	370	233,262	367	635.59	1.008
CoastPlus	PORTLAND	LINCOLN (OR)	5P456	11D09-UG	1	32	186	0.17	0.005
CoastPlus	PORTLAND	LINCOLN (OR)	5P462	11G13-UG	32	1,548	34	45.54	0.941
CoastPlus	PORTLAND	MALLORY	5P162	MALLORY #1	4,759	931,079	1,898	490.56	2.507
CoastPlus	PORTLAND	MALLORY	5P164	MALLORY #2	93	13,356	3,104	4.30	0.030
CoastPlus	PORTLAND	PARKROSE	5P244	PARKROSE#4	3,822	271,264	3,134	86.56	1.220
CoastPlus	PORTLAND	PARKROSE	5P246	PARKROSE#3	848	182,830	3,089	59.19	0.275
CoastPlus	PORTLAND	PARKROSE	5P250	PARKROSE#2	291	58,759	676	86.92	0.430
CoastPlus	PORTLAND	PARKROSE	5P252	PARKROSE#1	106	21,298	1,842	11.56	0.058
CoastPlus	PORTLAND	RUSSELLVILLE	5P274	RUSSELLVILLE #3	3,424	149,402	3,052	48.95	1.122
CoastPlus	PORTLAND	RUSSELLVILLE	5P276	RUSSELLVILLE #4	2,317	36,454	2,198	16.58	1.054
CoastPlus	PORTLAND	RUSSELLVILLE	5P278	RUSSELLVILLE #1	3,443	45,827	3,249	14.11	1.060
CoastPlus	PORTLAND	RUSSELLVILLE	5P280	RUSSELLVILLE #2	1,666	201,143	1,299	154.84	1.283
CoastPlus	PORTLAND	VERNON	5P391	VERNON #1	3,753	70,774	1,848	38.30	2.031
CoastPlus	PORTLAND	VERNON	5P392	VERNON NO. 2	5,124	116,157	2,528	45.95	2.027
CoastPlus	PORTLAND	VERNON	5P393	VERNON #3	3,254	51,370	3,126	16.43	1.041
CoastPlus	PORTLAND	VERNON	5P394	VERNON # 4	5,933	136,330	3,229	42.22	1.837
CoastPlus	PORTLAND	VERNON	5P395	VERNON # 5	6,575	279,474	2,186	127.85	3.008
Northeast OR	ENTERPRISE	ENTERPRISE (OR)	4W8	CREIGHTON LN	6,295	331,760	1,429	232.16	4.405
Northeast OR	ENTERPRISE	ENTERPRISE (OR)	5W15	CITY	967	7,432	945	7.86	1.023
Northeast OR	ENTERPRISE	ENTERPRISE (OR)	5W26	RURAL (ENTERPRISE)	2,661	175,188	1,047	167.32	2.542
Northeast OR	ENTERPRISE	JOSEPH	5W21	PRAIRIE	3,145	147,502	851	173.33	3.696
Northeast OR	ENTERPRISE	MINAM	5W18	MINAM	26	2,307	13	177.46	2.000
Northeast OR	ENTERPRISE	PALLETTE	4W14	PALLETTE NORTH	458	370,154	171	2,164.64	2.678
Northeast OR	ENTERPRISE	PALLETTE	4W15	PALLETTE SOUTH	180	99,812	55	1,814.77	3.273
Northeast OR	ENTERPRISE	WALLOWA	5W28	CITY	2,338	98,231	854	115.03	2.738
Northeast OR	HERMISTON	ARLINGTON	5K25	ARLINGTON	576	9,316	567	16.43	1.016
Northeast OR	HERMISTON	BLALOCK	5K40	BLALOCK	1	183	26	7.05	0.038
Northeast OR	HERMISTON	DALREED	4K40	SIM/TAG	283	41,308	92	449.00	3.076
Northeast OR	HERMISTON	DALREED	4K46	BOEING	189	46,293	176	263.03	1.074
Northeast OR	HERMISTON	HERMISTON	5W602	RURAL (HERMISTON)	140	20,075	1,406	14.28	0.100
Northeast OR	HERMISTON	HINKLE	5W82	MEADOWS	1,193	187,292	385	486.47	3.099
Northeast OR	HERMISTON	UMATILLA	5W658	UMATILLA	57	8,131	1,191	6.83	0.048
Northeast OR	HERMISTON	UMATILLA	5W660	M McNARY	275	73,418	917	80.06	0.300
Northeast OR	HERMISTON	UMATILLA	5W664	PORT FEEDER	58	6,666	53	125.78	1.094
Northeast OR	MILTON/FREEWATER	UMAPINE	5W105	UMAPINE FEEDER	1,793	98,101	1,010	97.13	1.775
Northeast OR	PENDLETON	ATHENA	5W703	CITY	2,049	202,355	869	232.86	2.358
Northeast OR	PENDLETON	ATHENA	5W705	HELIX	1,128	136,941	441	310.52	2.558
Northeast OR	PENDLETON	BUCKAROO	5W201	STATE HOSP.	208	38,927	411	94.71	0.506
Northeast OR	PENDLETON	BUCKAROO	5W202	REITH	259	39,090	1,544	25.32	0.168
Northeast OR	PENDLETON	BUCKAROO	5W203	MONTEE	133	14,266	1,658	8.60	0.080
Northeast OR	PENDLETON	PENDLETON	5W401	WEST HILLS	718	114,312	1,720	66.46	0.417
Northeast OR	PENDLETON	PENDLETON	5W402	HARRIS HTS	2,059	194,057	2,141	90.64	0.962

### Oregon 2014 Circuit Metrics (excluding major events)

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Northeast OR	PENDLETON	PENDLETON	5W403	MISSION	262	57,636	1,075	53.62	0.244
Northeast OR	PENDLETON	PENDLETON	7W451	BUSINESS	289	30,953	261	118.59	1.107
Northeast OR	PENDLETON	PENDLETON	7W452	NORTHWEST	22	1,692	526	3.22	0.042
Northeast OR	PENDLETON	PENDLETON	7W453	SOUTHWEST (PENDELTON)	12	828	358	2.31	0.034
Northeast OR	PENDLETON	PENDLETON	7W454	EAST END	0	0	275	-	-
Northeast OR	PENDLETON	PILOT ROCK	5W406	PILOT ROCK CITY	260	29,884	1,418	21.07	0.183
Northeast OR	PENDLETON	WESTON NEW (OR)	5W40	WESTON CANNERY	14	2,269	14	162.07	1.000
Northeast OR	PENDLETON	WESTON NEW (OR)	5W7	SCOTTS FEEDER	551	102,472	465	220.37	1.185
Northeast OR	WALLA WALLA	UMAPINE	5W106	FERNDALE	1,882	86,734	1,372	63.22	1.372
South OR	GRANTS PASS	AGNESS AVE	5R172	SPALDING MILL	438	60,959	902	67.58	0.486
South OR	GRANTS PASS	AGNESS AVE	5R173	JONES CREEK	398	137,725	875	157.40	0.455
South OR	GRANTS PASS	AGNESS AVE	5R322	ANTEATER	34	3,253	975	3.34	0.035
South OR	GRANTS PASS	APPLEGATE	5R267	MURPHY	1,756	212,386	1,032	205.80	1.702
South OR	GRANTS PASS	APPLEGATE	5R278	HIGHWAY	1,966	124,321	1,629	76.32	1.207
South OR	GRANTS PASS	BEACON	5R104	SAVAGE ST	299	32,463	1,252	25.93	0.239
South OR	GRANTS PASS	BEACON	5R105	BEACON ST	114	14,244	835	17.06	0.137
South OR	GRANTS PASS	CAVE JUNCTION	5R52	FREE& EASY	1,326	392,710	2,442	160.82	0.543
South OR	GRANTS PASS	CAVE JUNCTION	5R53	ROUGH & READY	2,404	182,002	1,588	114.61	1.514
South OR	GRANTS PASS	CAVEMAN	5R295	QUAIL	123	22,155	1,147	19.32	0.107
South OR	GRANTS PASS	CAVEMAN	5R82	WASHINGTON	59	6,384	1,204	5.30	0.049
South OR	GRANTS PASS	CAVEMAN	5R98	MANZANITA	21	5,966	596	10.01	0.035
South OR	GRANTS PASS	CAVEMAN	5R99	CAVEMAN	1,473	366,179	1,184	309.27	1.244
South OR	GRANTS PASS	DOWELL	5R331	DOVE	144	28,813	1,492	19.31	0.097
South OR	GRANTS PASS	DOWELL	5R334	DUCK	400	56,806	2,392	23.75	0.167
South OR	GRANTS PASS	EASY VALLEY	5R123	G STREET	2,915	219,055	2,040	107.38	1.429
South OR	GRANTS PASS	EASY VALLEY	5R125	ROGUE	4,692	381,775	1,722	221.70	2.725
South OR	GRANTS PASS	EASY VALLEY	5R259	CHINOOK	3,062	564,588	1,316	429.02	2.327
South OR	GRANTS PASS	FIELDER CREEK	4R33	ELK FDR.	2,922	267,310	1,627	164.30	1.796
South OR	GRANTS PASS	FIELDER CREEK	4R34	BEAR FDR	1,449	725,947	880	824.94	1.647
South OR	GRANTS PASS	GLENDALE SUBSTATION	5R133	GLENDALE	7,129	676,303	1,983	341.05	3.595
South OR	GRANTS PASS	GLENDALE SUBSTATION	5R143	INDUSTRIAL	159	12,536	699	17.93	0.227
South OR	GRANTS PASS	JEROME PRAIRIE	5R62	WILD PRAIRIE	5,164	942,688	1,647	572.37	3.135
South OR	GRANTS PASS	JEROME PRAIRIE	5R63	WOOD RIVER	5,937	693,108	1,610	430.50	3.688
South OR	GRANTS PASS	MERLIN	5R232	MERLIN-HUGO	4,989	987,131	2,081	474.35	2.397
South OR	GRANTS PASS	MERLIN	5R234	PARADISE	5,071	690,012	1,195	577.42	4.244
South OR	GRANTS PASS	MERLIN	5R248	PLEASANT VALLEY-MERLIN FEEDER	4,022	195,510	1,848	105.80	2.176
South OR	GRANTS PASS	MERLIN	5R251	BADGER	2,057	356,586	921	387.17	2.233
South OR	GRANTS PASS	NEW O'BRIEN	5R106	O'BRIEN	735	117,205	466	251.51	1.577
South OR	GRANTS PASS	PARK STREET (OR)	5R114	FRUITDALE	83	16,180	2,125	7.61	0.039
South OR	GRANTS PASS	PARK STREET (OR)	5R115	ALLEN CREEK	23	3,743	1,009	3.71	0.023
South OR	GRANTS PASS	PARK STREET (OR)	5R121	NEW HOPE	533	31,418	1,880	16.71	0.284
South OR	GRANTS PASS	PARK STREET (OR)	5R164	EXPRESS	1	150	322	0.47	0.003
South OR	GRANTS PASS	PARK STREET (OR)	5R169	PORTOLA	1,605	360,839	1,539	234.46	1.043
South OR	GRANTS PASS	PROVOLT	5R67	NORTH-SOUTH	3,358	260,033	1,408	184.68	2.385
South OR	GRANTS PASS	ROGUE RIVER	4R7	EVANS VALLEY	246	23,561	233	101.12	1.056
South OR	GRANTS PASS	ROGUE RIVER	5R77	SAVAGE/WIMMER	2,184	248,581	1,801	138.02	1.213
South OR	GRANTS PASS	ROGUE RIVER	5R78	ROCKY POINT (ROGUE RIVER)	1,364	563,697	1,074	524.86	1.270
South OR	GRANTS PASS	SELMA	5R65	DEER CREEK	2,866	182,616	1,241	147.15	2.309

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South OR	KLAMATH FALLS	BEATTY	5L1	BEATTY	551	474,805	428	1,109.36	1.287
South OR	KLAMATH FALLS	BLY	5L14	TOWN (BLY)	549	216,960	463	468.60	1.186
South OR	KLAMATH FALLS	BONANZA (OR)	5L7	POE VALLEY	141	25,203	454	55.51	0.311
South OR	KLAMATH FALLS	BRYANT	5L2	GARY STREET	238	131,883	2,196	60.06	0.108
South OR	KLAMATH FALLS	BRYANT	5L3	WASHBURN	22	2,711	1,883	1.44	0.012
South OR	KLAMATH FALLS	BRYANT	5L4	SUMMERS LANE	132	8,876	2,066	4.30	0.064
South OR	KLAMATH FALLS	BRYANT	5L5	MOYINA HTS.	21	2,771	2,495	1.11	0.008
South OR	KLAMATH FALLS	CASEBEER SUB	4L16	LANGELL VLY	3,265	227,297	1,215	187.08	2.687
South OR	KLAMATH FALLS	CHILOQUIN	5L57	CRATER LAKE	4,458	1,053,594	1,116	944.08	3.995
South OR	KLAMATH FALLS	CHILOQUIN MARKET	5L37	WILLIAMSON	54	12,851	492	26.12	0.110
South OR	KLAMATH FALLS	DAIRY	5L42	SWAN LAKE	307	32,863	319	103.02	0.962
South OR	KLAMATH FALLS	DAIRY	5L43	DAIRY	281	16,393	495	33.12	0.568
South OR	KLAMATH FALLS	HAMAKER	5L55	KENO	4,031	1,292,025	1,768	730.78	2.280
South OR	KLAMATH FALLS	HAMAKER	5L56	MOUNTAIN	342	112,290	168	668.39	2.036
South OR	KLAMATH FALLS	HENLEY	5L58	HENLEY	18	3,069	237	12.95	0.076
South OR	KLAMATH FALLS	HENLEY	5L59	WEST	109	31,063	556	55.87	0.196
South OR	KLAMATH FALLS	HORNET	5L44	HOMEDALE	531	74,082	2,743	27.01	0.194
South OR	KLAMATH FALLS	HORNET	5L45	CRYSTAL SPR	1,092	202,064	1,511	133.73	0.723
South OR	KLAMATH FALLS	LAKEPORT	5L49	WOCUS	446	5,852	220	26.60	2.027
South OR	KLAMATH FALLS	LAKEPORT	5L54	SOUTH (LAKEPORT)	5,965	196,328	2,474	79.36	2.411
South OR	KLAMATH FALLS	LAKEPORT	5L61	JELDWEN	16	202	8	25.23	2.000
South OR	KLAMATH FALLS	MERRILL (OR)	5L26	LAKE (MERRILL)	326	23,472	1,039	22.59	0.314
South OR	KLAMATH FALLS	MERRILL (OR)	5L27	NORTH (MERRILL)	196	40,831	568	71.89	0.345
South OR	KLAMATH FALLS	MODOC	5L36	MODOC	716	145,536	1,006	144.67	0.712
South OR	KLAMATH FALLS	ROSS AVENUE	5L46	ELDORADO	33	3,808	1,394	2.73	0.024
South OR	KLAMATH FALLS	ROSS AVENUE	5L48	BROAD ST.	174	14,861	1,249	11.90	0.139
South OR	KLAMATH FALLS	RUNNING Y	4L50	ROCKY POINT FEEDER (RUNNING Y)	5,466	576,851	1,503	383.80	3.637
South OR	KLAMATH FALLS	SHASTA WAY	7L25	SHASTA WAY	20	3,053	447	6.83	0.045
South OR	KLAMATH FALLS	SPRAGUE RIVER	5L8	SPRAGUE RIVER	218	64,668	517	125.08	0.422
South OR	KLAMATH FALLS	TEXUM	5L112	ANDERSON	488	28,706	1,246	23.04	0.392
South OR	KLAMATH FALLS	TEXUM	5L113	TOWER	14	1,598	336	4.76	0.042
South OR	KLAMATH FALLS	TEXUM	5L116	ALTAMONT	974	84,187	1,556	54.10	0.626
South OR	KLAMATH FALLS	TURKEY HILL	5L20	MALIN CITY	1,465	399,687	855	467.47	1.713
South OR	KLAMATH FALLS	TURKEY HILL	5L23	RURAL (TURKEY HILL)	340	131,099	333	393.69	1.021
South OR	KLAMATH FALLS	WEST SIDE HE PLANT	5L12	ORINDALE	2,491	45,373	821	55.27	3.034
South OR	KLAMATH FALLS	WEST SIDE HE PLANT	5L15	CALIFORNIA	4,244	90,581	1,407	64.38	3.016
South OR	KLAMATH FALLS	WEST SIDE HE PLANT	5L16	MAIN ST (WEST SIDE HE PLANT)	357	6,248	119	52.50	3.000
South OR	KLAMATH FALLS	WEST SIDE HE PLANT	5L17	PINE ST (WEST SIDE HE PLANT)	1,607	28,752	525	54.77	3.061
South OR	KLAMATH FALLS	WEST SIDE HE PLANT	5L18	RIVERSIDE (WEST SIDE HE PLANT)	1,863	40,191	610	65.89	3.054
South OR	KLAMATH FALLS	WEST SIDE HE PLANT	5L19	LAKESHORE	1,211	35,349	302	117.05	4.010
South OR	KLAMATH FALLS	WEST SIDE HE PLANT	8L10	CITY WTR PMP	1	6	1	6.23	1.000
South OR	LAKEVIEW	MILE-HI	5L104	INDUSTRIAL	764	138,546	754	183.75	1.013
South OR	LAKEVIEW	MILE-HI	5L105	BUSINESS	82	6,278	1,757	3.57	0.047
South OR	MEDFORD	ASHLAND (MTN.AVE, PUD)	5R245	VALLEY VIEW	615	100,508	1,005	100.01	0.612
South OR	MEDFORD	BEALL LANE	5R359	BEEHIVE	0	0	2	-	-
South OR	MEDFORD	BEALL LANE	5R361	BULLDOG	1,817	37,433	1,676	22.34	1.084
South OR	MEDFORD	BEALL LANE	5R364	BOBCAT	2,625	68,428	2,204	31.05	1.191
South OR	MEDFORD	BELKNAP	5R1	KOGAP	1,300	447,390	1,019	439.05	1.276

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South OR	MEDFORD	BELKNAP	5R2	RIVERSIDE (BELKNAP)	4	671	682	0.98	0.006
South OR	MEDFORD	BELKNAP	5R3	BARNETT	4,925	359,093	1,568	229.01	3.141
South OR	MEDFORD	BELKNAP	5R47	STEWART	102	19,151	2,126	9.01	0.048
South OR	MEDFORD	BROOKHURST	5R118	SPRINGBROOK	1,905	772,533	1,686	458.20	1.130
South OR	MEDFORD	BROOKHURST	5R135	ROBERTS (BROOKHURST)	140	48,245	1,495	32.27	0.094
South OR	MEDFORD	BROOKHURST	5R32	ROXY	43	14,715	1,696	8.68	0.025
South OR	MEDFORD	BROOKHURST	5R33	CRATER LAKE	121	29,666	1,642	18.07	0.074
South OR	MEDFORD	BROOKHURST	5R75	SUNRISE (BROOKHURST)	86	12,671	1,217	10.41	0.071
South OR	MEDFORD	CAMPBELL	5R216	VOORHIES	1	197	726	0.27	0.001
South OR	MEDFORD	CAMPBELL	5R218	PHOENIX	2,183	145,972	1,552	94.05	1.407
South OR	MEDFORD	CAMPBELL	5R227	FERN VALLEY	201	38,904	1,321	29.45	0.152
South OR	MEDFORD	CAMPBELL	5R312	COBRA	87	15,289	1,538	9.94	0.057
South OR	MEDFORD	DODGE BRIDGE	4R1	SALMON	7,192	591,329	1,659	356.44	4.335
South OR	MEDFORD	DODGE BRIDGE	4R35	MEADOWS ROAD	1,928	242,800	1,387	175.05	1.390
South OR	MEDFORD	FOOTHILLS	5R38	HOSPITAL	95	21,746	771	28.20	0.123
South OR	MEDFORD	FOOTHILLS	5R39	PIERCE ROAD	123	14,206	1,159	12.26	0.106
South OR	MEDFORD	FRALEY	5R87	TABLE ROCK	1,595	315,333	523	602.93	3.050
South OR	MEDFORD	FRALEY	5R88	DODGE BRIDGE	451	117,564	391	300.68	1.153
South OR	MEDFORD	GOLD HILL	5R103	GOLD HILL	2,413	179,466	2,051	87.50	1.176
South OR	MEDFORD	GRIFFIN CREEK	5R204	HULL RD	2,868	65,016	2,623	24.79	1.093
South OR	MEDFORD	GRIFFIN CREEK	5R206	GRIFFIN CREEK	1,978	45,568	1,728	26.37	1.145
South OR	MEDFORD	HUMBUG CREEK	5R287	HUMMINGBIRD	2,109	274,804	684	401.76	3.083
South OR	MEDFORD	MEDCO	5R280	BOISE CASCADE	1	7	1	7.40	1.000
South OR	MEDFORD	MEDFORD	5R21	MELROSE	1,740	46,396	1,625	28.55	1.071
South OR	MEDFORD	MEDFORD	5R23	SPRING ST.	208	30,343	1,624	18.68	0.128
South OR	MEDFORD	MEDFORD	5R250	BIG Y	156	42,598	1,886	22.59	0.083
South OR	MEDFORD	MEDFORD	5R253	APPLE	1,157	93,242	1,128	82.66	1.026
South OR	MEDFORD	MEDFORD	5R257	PEAR	32	10,683	604	17.69	0.053
South OR	MEDFORD	MEDFORD	5R659	MCLEAN	3	187	691	0.27	0.004
South OR	MEDFORD	NEW JACKSONVILLE SUB-DIST	5R284	STAGE RD	2,697	186,080	2,108	88.27	1.279
South OR	MEDFORD	NEW JACKSONVILLE SUB-DIST	5R285	JACKSONVILLE HWY	2,728	180,276	2,135	84.44	1.278
South OR	MEDFORD	OAK KNOLL	5R55	SISKIYOU	3,439	696,386	1,621	429.60	2.122
South OR	MEDFORD	PROSPECT CENTRAL	5R40	NEW CASCADE	717	32,645	351	93.01	2.043
South OR	MEDFORD	RED BLANKET	7R5	PROSPECT	1,080	145,523	402	362.00	2.687
South OR	MEDFORD	ROXY ANN	5R350	St. Bernard	146	31,660	1,102	28.73	0.132
South OR	MEDFORD	ROXY ANN	5R354	RACCOON	150	53,574	1,375	38.96	0.109
South OR	MEDFORD	RUCH	5R68	APPLEGATE	2,359	168,786	920	183.46	2.564
South OR	MEDFORD	RUCH	5R69	RUCH	1,224	90,114	558	161.50	2.194
South OR	MEDFORD	SAGE ROAD (OR)	5R209	TIMBER PROD	1	8	1	8.42	1.000
South OR	MEDFORD	SAGE ROAD (OR)	5R211	COLUMBUS	2,224	34,071	1,998	17.05	1.113
South OR	MEDFORD	SAGE ROAD (OR)	5R226	BOISE	908	9,513	890	10.69	1.020
South OR	MEDFORD	SAGE ROAD (OR)	5R27	MCANDREWS	120	1,010	120	8.42	1.000
South OR	MEDFORD	SAGE ROAD (OR)	5R28	ROSS	1,804	22,341	1,758	12.71	1.026
South OR	MEDFORD	SAGE ROAD (OR)	5R29	EDWARDS	823	15,363	768	20.00	1.072
South OR	MEDFORD	SCENIC	5R174	UPTON	4,196	197,657	2,047	96.56	2.050
South OR	MEDFORD	SCENIC	5R180	HEAD RD	21	1,525	1,201	1.27	0.017
South OR	MEDFORD	SCENIC	5R182	TAYLOR RD	883	126,650	1,508	83.99	0.586
South OR	MEDFORD	SCENIC	5R184	CHENEY	181	24,933	1,449	17.21	0.125

### Oregon 2014 Circuit Metrics (excluding major events)

Reliability Region	Op Area Name	Substation Name	Circuit Id	Circuit Name	Customers In Incident Sustained	Customer Minutes Lost for Incident	Customer Count	SAIDI	SAIFI
South OR	MEDFORD	STEVENS ROAD	4R13	HENRY MILLER	3,105	102,601	2,153	47.65	1.442
South OR	MEDFORD	STEVENS ROAD	4R17	Stingray	3,193	134,867	2,494	54.08	1.280
South OR	MEDFORD	STEVENS ROAD	4R41	ANTELOPE	2,914	228,453	1,164	196.27	2.503
South OR	MEDFORD	TAKELMA	4R9	LOST CK. (TAKELMA)	5,783	211,289	2,659	79.46	2.175
South OR	MEDFORD	TALENT	5R237	TALENT	411	59,941	2,550	23.51	0.161
South OR	MEDFORD	TALENT	5R238	ANDERSON CRK	1,130	211,571	1,678	126.09	0.673
South OR	MEDFORD	TALENT	5R239	HARTLEY ROAD	347	76,653	1,550	49.45	0.224
South OR	MEDFORD	TALENT	5R240	NORTH HWY	26	2,693	1,082	2.49	0.024
South OR	MEDFORD	TOLO	5R90	TBL ROCK LBR	15	1,701	166	10.25	0.090
South OR	MEDFORD	TOLO	5R91	SAMS VALLEY	602	87,943	656	134.06	0.918
South OR	MEDFORD	TOLO	5R92	KIRTLAND RD	425	39,306	211	186.29	2.014
South OR	MEDFORD	VILAS ROAD	5R110	MCLAUGHLIN	1,152	73,825	972	75.95	1.185
South OR	MEDFORD	VILAS ROAD	5R146	KING CENTER	61	15,494	1,416	10.94	0.043
South OR	MEDFORD	VILAS ROAD	5R305	WEBFOOT	24	1,470	1,025	1.43	0.023
South OR	MEDFORD	WHITE CITY	5R11	EAGLE POINT	1,689	316,408	1,458	217.01	1.158
South OR	MEDFORD	WHITE CITY	5R12	INDUSTRIAL	1	107	32	3.35	0.031
South OR	MEDFORD	WHITE CITY	5R13	FIR-PLY	0	0	26	-	-
South OR	MEDFORD	WHITE CITY	5R14	AGATE	8	725	107	6.77	0.075
South OR	MEDFORD	WHITE CITY	5R19	3M	2	184	95	1.93	0.021
South OR	MEDFORD	WHITE CITY	5R66	4 CORNERS	1,834	61,814	1,741	35.51	1.053
South OR	MEDFORD	WHITE CITY	5R76	AVE C	0	0	92	-	-
South OR	ROSEBURG/MYRTLECREEK	CANYONVILLE	5U46	CANYONVILLE	218	52,426	437	119.97	0.499
South OR	ROSEBURG/MYRTLECREEK	CANYONVILLE	5U52	BEALS CREEK FEEDER	1,916	233,694	913	255.96	2.099
South OR	ROSEBURG/MYRTLECREEK	CARNES	5U44	RND PRARIE	83	9,768	419	23.31	0.198
South OR	ROSEBURG/MYRTLECREEK	CLEARWATER #1 SUB	6U17	BRIGGS	10	4,577	3	1,525.60	3.333
South OR	ROSEBURG/MYRTLECREEK	CLEARWATER #2 SUB	6U33	CLEARWATER	205	37,163	102	364.34	2.010
South OR	ROSEBURG/MYRTLECREEK	CLOAKE	4U37	RUSA	1	6	1	6.10	1.000
South OR	ROSEBURG/MYRTLECREEK	CLOAKE	4U38	HARVARD	3,299	28,641	3,141	9.12	1.050
South OR	ROSEBURG/MYRTLECREEK	CLOAKE	4U39	GOEDECK	2,286	82,637	1,255	65.85	1.822
South OR	ROSEBURG/MYRTLECREEK	GARDEN VALLEY	4U80	EDENBOWER	12	3,208	806	3.98	0.015
South OR	ROSEBURG/MYRTLECREEK	GARDEN VALLEY	4U81	VALLEY	1,343	146,387	1,325	110.48	1.014
South OR	ROSEBURG/MYRTLECREEK	GLIDE SUBSTATION	5U83	IDLEYLD	1,793	419,210	1,004	417.54	1.786
South OR	ROSEBURG/MYRTLECREEK	GLIDE SUBSTATION	5U84	LITTLE RIVER	4,879	677,926	1,360	498.47	3.588
South OR	ROSEBURG/MYRTLECREEK	GREEN SUBSTATION	5U32	SAFARI	52	5,981	2,083	2.87	0.025
South OR	ROSEBURG/MYRTLECREEK	GREEN SUBSTATION	5U33	SUNNYSLOPE	51	4,251	1,650	2.58	0.031
South OR	ROSEBURG/MYRTLECREEK	ILLAHEE FLATS	6U13	ILLAHEE FLATS SINGLE PHASE RECLOSER	79	21,234	26	816.70	3.038
South OR	ROSEBURG/MYRTLECREEK	LEMOLO # 1	5U920	DIAMOND LAKE	738	118,610	179	662.63	4.123
South OR	ROSEBURG/MYRTLECREEK	MYRTLE CREEK	5U76	SUPER Y	2,224	345,213	1,568	220.16	1.418
South OR	ROSEBURG/MYRTLECREEK	MYRTLE CREEK	5U77	BOOMER HILL	3,351	313,361	2,338	134.03	1.433
South OR	ROSEBURG/MYRTLECREEK	OAKLAND (OR)	5U11	UMPQUA	1,622	291,056	1,371	212.29	1.183
South OR	ROSEBURG/MYRTLECREEK	OAKLAND (OR)	5U12	STAGECOACH	48	6,868	551	12.46	0.087
South OR	ROSEBURG/MYRTLECREEK	RIDDLE	5U1	TRI CITY	119	26,838	1,023	26.23	0.116
South OR	ROSEBURG/MYRTLECREEK	RIDDLE	5U2	COW CREEK	1,983	160,222	1,611	99.45	1.231
South OR	ROSEBURG/MYRTLECREEK	RIDDLE	5U3	HANNA	542	55,776	260	214.52	2.085
South OR	ROSEBURG/MYRTLECREEK	RIDDLE-VENEER	5U50	RFP-LVL (EWP)	1	70	50	1.39	0.020
South OR	ROSEBURG/MYRTLECREEK	ROSEBURG	4U10	DIAMOND	3,861	232,737	2,508	92.80	1.539
South OR	ROSEBURG/MYRTLECREEK	ROSEBURG	4U22	DIXON	847	123,840	1,107	111.87	0.765
South OR	ROSEBURG/MYRTLECREEK	ROSEBURG	4U5	DOUGLAS	32	3,474	2,107	1.65	0.015

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South OR	ROSEBURG/MYRTLECREEK	SLIDE CREEK	6U76	SLIDE CREEK CAMP	18	1,409	7	201.34	2.571
South OR	ROSEBURG/MYRTLECREEK	SOUTHGATE	4U30	SHADY POINT	6,895	697,432	1,602	435.35	4.304
South OR	ROSEBURG/MYRTLECREEK	SOUTHGATE	4U31	BOOTH	2,859	75,116	1,371	54.79	2.085
South OR	ROSEBURG/MYRTLECREEK	STEAMBOAT	6U18	STEAMBOAT	44	10,633	22	483.30	2.000
South OR	ROSEBURG/MYRTLECREEK	SUTHERLIN	5U35	NON-PAREIL	24	7,594	1,330	5.71	0.018
South OR	ROSEBURG/MYRTLECREEK	SUTHERLIN	5U36	DEADY	527	49,951	1,330	37.56	0.396
South OR	ROSEBURG/MYRTLECREEK	SUTHERLIN	5U56	Industrial	38	344	486	0.71	0.078
South OR	ROSEBURG/MYRTLECREEK	TILLER	5U89	JACKSON CRK	994	223,419	324	689.56	3.068
South OR	ROSEBURG/MYRTLECREEK	TOKETEE	6U21	BACK UP FOR CLEARWATER 6U33	102	12,957	-	-	-
South OR	ROSEBURG/MYRTLECREEK	TOKETEE	8U12	TOKETEE CITY	57	4,459	19	234.70	3.000
South OR	ROSEBURG/MYRTLECREEK	WINCHESTER	4U18	WILBUR	1,971	200,875	1,677	119.78	1.175
South OR	ROSEBURG/MYRTLECREEK	WINCHESTER	5U15	NEWTON CREEK	72	5,310	1,764	3.01	0.041
South OR	ROSEBURG/MYRTLECREEK	WINCHESTER	5U17	FISHER	232	29,450	754	39.06	0.308
South OR	ROSEBURG/MYRTLECREEK	WINCHESTER	5U19	EVANS	131	13,636	757	18.01	0.173
South OR	ROSEBURG/MYRTLECREEK	WINSTON	5U48	BROCKWAY	55	14,012	879	15.94	0.063
South OR	ROSEBURG/MYRTLECREEK	WINSTON	5U49	DILLARD	307	62,519	1,478	42.30	0.208
WlmVly	ALBANY	HAZELWOOD	4M335	WEST HIGH	27	6,639	1,493	4.45	0.018
WlmVly	ALBANY	HAZELWOOD	4M336	RIVERVIEW (HAZELWOOD)	2,355	322,977	1,255	257.35	1.876
WlmVly	ALBANY	JEFFERSON (OR)	4M117	MARION	337	89,205	744	119.90	0.453
WlmVly	ALBANY	JEFFERSON (OR)	4M125	MINT	5,263	1,143,310	2,584	442.46	2.037
WlmVly	ALBANY	MURDER CREEK	4M243	SCRAVEL HILL	6,897	785,469	3,795	206.97	1.817
WlmVly	ALBANY	MURDER CREEK	4M245	RURAL NW	2,387	370,400	1,918	193.12	1.245
WlmVly	ALBANY	MURDER CREEK	4M249	DURA-PACIFIC	0	0	5	-	-
WlmVly	ALBANY	MURDER CREEK	4M250	INDUSTRIAL	566	121,163	1,248	97.09	0.454
WlmVly	ALBANY	OREMET	4M295	OAK CREEK	4	546	111	4.92	0.036
WlmVly	ALBANY	OREMET	4M296	ROGERSDALE	805	150,713	3,149	47.86	0.256
WlmVly	ALBANY	QUEEN AVE	4M217	SANTIAM	2,084	79,964	1,995	40.08	1.045
WlmVly	ALBANY	QUEEN AVE	4M258	HILL STREET	2,411	118,353	2,136	55.41	1.129
WlmVly	ALBANY	QUEEN AVE	4M261	WAVERLY	4,098	253,088	3,397	74.50	1.206
WlmVly	ALBANY	QUEEN AVE	4M262	GEARY STREET	3,926	293,828	2,621	112.11	1.498
WlmVly	ALBANY	VINE STREET	4M15	FERRY	175	14,952	2,230	6.70	0.078
WlmVly	ALBANY	VINE STREET	4M16	WATER STREET	7,669	1,311,587	3,946	332.38	1.943
WlmVly	CORVALLIS	BUCHANAN	4M130	HEWLETT PACKARD	698	107,886	2,682	40.23	0.260
WlmVly	CORVALLIS	BUCHANAN	4M133	PEORIA	2,496	324,636	2,502	129.75	0.998
WlmVly	CORVALLIS	BUCHANAN	4M134	N. NINTH ST.	3,754	539,001	2,635	204.55	1.425
WlmVly	CORVALLIS	GRANT	4M265	HIGH SCHOOL	1,626	377,473	2,534	148.96	0.642
WlmVly	CORVALLIS	GRANT	4M266	CHINTIMINI	304	24,059	2,630	9.15	0.116
WlmVly	CORVALLIS	GRANT	4M268	KINGS ROAD	1,033	134,740	2,570	52.43	0.402
WlmVly	CORVALLIS	GRANT	4M269	29TH STREET	8,845	507,242	3,319	152.83	2.665
WlmVly	CORVALLIS	HILLVIEW	4M180	WEST HILLS	483	64,495	2,350	27.44	0.206
WlmVly	CORVALLIS	HILLVIEW	4M181	PHILOMATH	19	3,326	657	5.06	0.029
WlmVly	CORVALLIS	HILLVIEW	4M182	SUNSET	177	18,399	910	20.22	0.195
WlmVly	CORVALLIS	HILLVIEW	4M185	PLYMOUTH	312	35,257	2,252	15.66	0.139
WlmVly	CORVALLIS	MARYS RIVER	4M151	GREENBERRY	1,894	177,624	3,640	48.80	0.520
WlmVly	CORVALLIS	MARYS RIVER	4M152	AVERY	76	8,552	193	44.31	0.394
WlmVly	CORVALLIS	MARYS RIVER	4M153	GALLAGHER	10	361	161	2.24	0.062
WlmVly	COTTAGE GROVE/J.CITY	COBURG	4M220	DETERING	270	56,138	534	105.13	0.506
WlmVly	COTTAGE GROVE/J.CITY	GOSHEN (OR)	4M360	GOSHEN FDR	3,473	760,440	1,665	456.72	2.086

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WlmVly	COTTAGE GROVE/J.CITY	HARRISBURG SUB	4M400	TERRITORIAL	4,219	190,403	1,910	99.69	2.209
WlmVly	COTTAGE GROVE/J.CITY	JUNCTION CITY	4M102	6TH STREET	1,728	226,431	1,175	192.71	1.471
WlmVly	COTTAGE GROVE/J.CITY	JUNCTION CITY	4M99	PRAIRIE ROAD	74	17,214	936	18.39	0.079
WlmVly	COTTAGE GROVE/J.CITY	LANCASTER	4M209	MONROE	1,690	203,210	1,133	179.36	1.492
WlmVly	COTTAGE GROVE/J.CITY	VILLAGE GREEN	4M84	NORTH SIDE	2,693	437,872	2,411	181.61	1.117
WlmVly	COTTAGE GROVE/J.CITY	VILLAGE GREEN	4M86	MADISON	77	21,615	1,605	13.47	0.048
WlmVly	DALLAS/INDEPENDENCE	DALLAS	4M100	RURAL (DALLAS)	5,886	315,642	4,471	70.60	1.316
WlmVly	DALLAS/INDEPENDENCE	DALLAS	4M201	INDUSTRIAL	38	2,046	35	58.45	1.086
WlmVly	DALLAS/INDEPENDENCE	DALLAS	4M202	ELLENDALE	5,047	412,462	2,903	142.08	1.739
WlmVly	DALLAS/INDEPENDENCE	DALLAS	4M238	DALLAS	5,868	328,511	2,332	140.87	2.516
WlmVly	DALLAS/INDEPENDENCE	INDEPENDENCE	4M22	RICKREAL	861	138,419	2,006	69.00	0.429
WlmVly	DALLAS/INDEPENDENCE	INDEPENDENCE	4M25	BUENA VISTA	2,699	512,104	3,104	164.98	0.870
WlmVly	LEBANON	BROWNSVILLE	4M17	CALAPOOIA	10,651	1,163,304	1,925	604.31	5.533
WlmVly	LEBANON	CROWFOOT	4M204	CROWFOOT	1,292	262,973	1,544	170.32	0.837
WlmVly	LEBANON	CROWFOOT	4M206	US PLYWOOD (LEBANON)	205	45,148	1,842	24.51	0.111
WlmVly	LEBANON	LEBANON	4M61	TANGENT	5,166	394,194	2,473	159.40	2.089
WlmVly	LEBANON	LEBANON	4M62	RALSTON	90	18,350	2,031	9.03	0.044
WlmVly	LEBANON	LEBANON	4M63	TENNESSEE	4,541	1,016,566	1,865	545.08	2.435
WlmVly	LEBANON	LEBANON	4M79	CROWN Z	159	51,968	1,013	51.30	0.157
WlmVly	LEBANON	SWEET HOME	4M37	HOLLEY	3,078	755,264	2,060	366.63	1.494
WlmVly	LEBANON	SWEET HOME	4M38	NARROWS	905	260,983	999	261.24	0.906
WlmVly	LEBANON	SWEET HOME	4M93	AMES CREEK	558	58,689	1,716	34.20	0.325
WlmVly	LEBANON	SWEET HOME	4M94	FOSTER	6,097	2,009,523	2,345	856.94	2.600
WlmVly	STAYTON	NEW LYONS	4M120	MILL CITY	10,112	1,515,363	1,978	766.11	5.112
WlmVly	STAYTON	NEW LYONS	4M70	MEHAMA	2,590	519,227	1,002	518.19	2.585
WlmVly	STAYTON	NEW STAYTON	4M19	AUMSVILLE	4,274	645,552	3,182	202.88	1.343
WlmVly	STAYTON	NEW STAYTON	4M353	WEST STAYTON	3,503	330,206	3,480	94.89	1.007
WlmVly	STAYTON	NEW STAYTON	4M370	CASCADE	9,583	379,727	1,666	227.93	5.752
WlmVly	STAYTON	NEW STAYTON	4M50	3RD STREET	1,060	58,667	932	62.95	1.137
WlmVly	STAYTON	SCIO	5M126	THOMAS	1,458	315,197	1,602	196.75	0.910



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Central OR	BEND/REDMOND	BEND	5D10	PORTLAND AVE	7,471	274,599	2,335	117.60	3.200
Central OR	BEND/REDMOND	BEND	5D11	GLEN VISTA	3,260	105,654	1,018	103.79	3.202
Central OR	BEND/REDMOND	BEND	5D12	DIVISION ST.	830	28,665	223	128.54	3.722
Central OR	BEND/REDMOND	BEND	5D196	MALLARD	4,507	202,792	1,498	135.38	3.009
Central OR	BEND/REDMOND	BOND STREET	5D411	BACHELOR	1,815	70,591	1,710	41.28	1.061
Central OR	BEND/REDMOND	BOND STREET	5D413	OLD MILL.	368	3,122	361	8.65	1.019
Central OR	BEND/REDMOND	BOND STREET	5D418	BLAKELY	4,668	696,138	1,293	538.39	3.610
Central OR	BEND/REDMOND	CHINA HAT	5D140	LAVA (CHINA HAT)	4,297	381,701	2,313	165.02	1.858
Central OR	BEND/REDMOND	CHINA HAT	5D142	HIGH DESERT	1,864	85,132	1,616	52.68	1.153
Central OR	BEND/REDMOND	CHINA HAT	5D144	D.R.W.	2,668	49,121	2,513	19.55	1.062
Central OR	BEND/REDMOND	CLEVELAND AVE.	5D30	ARROWHEAD	932	15,606	890	17.53	1.047
Central OR	BEND/REDMOND	CLEVELAND AVE.	5D35	WICKIUP	1,014	19,638	969	20.27	1.046
Central OR	BEND/REDMOND	CLEVELAND AVE.	5D38	TOMAHAWK	2,844	104,471	1,405	74.36	2.024
Central OR	BEND/REDMOND	CLEVELAND AVE.	5D94	TEEPÉE	7,175	278,509	3,002	92.77	2.390
Central OR	BEND/REDMOND	CLEVELAND AVE.	5D96	OBSDIAN	2,008	154,868	799	193.83	2.513
Central OR	BEND/REDMOND	CLEVELAND AVE.	5D98	HUCKLEBERRY	1,359	18,450	1,317	14.01	1.032
Central OR	BEND/REDMOND	CROOKED RIVER RANCH	4D131	CANYON	340	73,828	1,746	42.28	0.195
Central OR	BEND/REDMOND	CROOKED RIVER RANCH	4D30	CROOKED R.R.	250	28,877	763	37.85	0.328
Central OR	BEND/REDMOND	DESCHUTES	5D184	PRONGHORN	1,577	267,965	1,127	237.77	1.399
Central OR	BEND/REDMOND	DESCHUTES	5D2	DESCHUTES S	1,108	181,536	962	188.71	1.152
Central OR	BEND/REDMOND	HUNTERS CIRCLE	5D192	Mackinaw	30	6,156	657	9.37	0.046
Central OR	<b>BEND/REDMOND</b>	OVERPASS	5D104	AWBREY	816	7,224	686	10.53	1.190
Central OR	BEND/REDMOND	OVERPASS	5D106	NEZ PERCE	3,042	89,990	2,602	34.59	1.169
Central OR	BEND/REDMOND	OVERPASS	5D120	CHINOOK	1,714	104,738	1,326	78.99	1.293
Central OR	BEND/REDMOND	OVERPASS	5D128	PAIUTE	2,002	22,226	1,838	12.09	1.089
Central OR	BEND/REDMOND	OVERPASS	5D155	APACHE	3,923	100,370	1,859	53.99	2.110
Central OR	BEND/REDMOND	PILOT BUTTE	5D261	KLONDIKE	4,117	333,031	3,069	108.51	1.341
Central OR	BEND/REDMOND	PILOT BUTTE	5D263	DRAKE FEEDER	5,563	185,900	1,972	94.27	2.821
Central OR	BEND/REDMOND	REDMOND	5D21	SOUTH (REDMOND)	735	243,419	720	338.08	1.021
Central OR	BEND/REDMOND	REDMOND	5D22	INDUSTRIAL	1,664	327,419	1,458	224.57	1.141
Central OR	BEND/REDMOND	REDMOND	5D223	TETHEROW	1,133	208,849	834	250.42	1.359
Central OR	BEND/REDMOND	REDMOND	5D226	CLINE FALLS	1,842	325,146	1,379	235.78	1.336
Central OR	BEND/REDMOND	REDMOND	5D227	WINDSOR	2,947	732,395	2,825	259.25	1.043
Central OR	BEND/REDMOND	REDMOND	5D228	CITY	1,367	254,796	1,328	191.86	1.029
Central OR	BEND/REDMOND	REDMOND	5D229	JUNIPER	456	102,919	428	240.47	1.065
Central OR	BEND/REDMOND	SHEVLIN PARK	5D238	WOLVERINE (SHP) (WAS 5D327)	3,691	173,171	2,959	58.52	1.247
Central OR	BEND/REDMOND	SHEVLIN PARK	5D241	BADGER (SHP)	3,175	47,038	2,997	15.70	1.059
Central OR	BEND/REDMOND	SHEVLIN PARK	5D243	Black Bear	764	53,415	593	90.08	1.288
Central OR	BEND/REDMOND	YEW AVENUE	5D322	BIRDIE	289	50,322	1,448	34.75	0.200
Central OR	BEND/REDMOND	YEW AVENUE	5D323	FAIRWAY	1	37	395	0.09	0.003
Central OR	BEND/REDMOND	YEW AVENUE	5D325	EAGLE	28	3,461	2,375	1.46	0.012
Central OR	MADRAS	CHERRY LANE	5D295	7 PEAKS	151	42,992	148	290.48	1.020
Central OR	MADRAS	CULVER	5D5	CULVER	2,658	200,150	1,777	112.63	1.496
Central OR	MADRAS	MADRAS	5D52	MADRAS RURAL	1,057	106,205	1,030	103.11	1.026
Central OR	MADRAS	MADRAS	5D53	AGATE	20	2,407	1,321	1.82	0.015
Central OR	MADRAS	MADRAS	5D57	QUARTZ	102	13,486	1,425	9.46	0.072
Central OR	MADRAS	MADRAS	5D61	MADRAS CITY	541	57,993	1,337	43.38	0.405
Central OR	MADRAS	POWELL BUTTE	5D1	POWELL BUTTE	716	134,387	614	218.87	1.166



### Oregon 2014 Circuit Metrics (including major events)

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Central OR	MADRAS	PRINEVILLE	5D126	RIMROCK	128	28,269	2,246	12.59	0.057
Central OR	MADRAS	PRINEVILLE	5D167	NORTHVILLE	1,030	269,414	1,273	211.64	0.809
Central OR	MADRAS	PRINEVILLE	5D25	OCHOCO	109	19,616	990	19.81	0.110
Central OR	MADRAS	PRINEVILLE	5D47	MC KAY (PRINEVILLE)	151	24,520	1,655	14.82	0.091
Central OR	MADRAS	PRINEVILLE	5D48	LAMONTA	938	169,908	647	262.61	1.450
Central OR	MADRAS	PRINEVILLE	5D50	PINE CONE	1	189	77	2.46	0.013
Central OR	MADRAS	PRINEVILLE	5D69	GRIMES FLAT	561	116,670	1,611	72.42	0.348
Central OR	MADRAS	WARM SPRINGS	4D68	WARM SPRINGS (OR)	1,731	185,673	1,094	169.72	1.582
CoastPlus	CLATSOP (ASTORIA)	CANNON BEACH	5A10	HAYSTACK	4,216	628,557	1,543	407.36	2.732
CoastPlus	CLATSOP (ASTORIA)	CANNON BEACH	5A8	ECOLA	2,263	462,018	1,261	366.39	1.795
CoastPlus	CLATSOP (ASTORIA)	FERN HILL SUB	5A51	JOHN DAY	468	50,426	263	191.73	1.779
CoastPlus	CLATSOP (ASTORIA)	FERN HILL SUB	5A52	SCANDINAVIAN	389	59,847	385	155.45	1.010
CoastPlus	CLATSOP (ASTORIA)	KNAPPA SVENSEN	5A92	SVENSEN	726	138,780	704	197.13	1.031
CoastPlus	CLATSOP (ASTORIA)	KNAPPA SVENSEN	5A93	BRADWOOD	2,506	295,827	945	313.04	2.652
CoastPlus	CLATSOP (ASTORIA)	SEASIDE	5A80	GROVE	6,979	628,867	2,374	264.90	2.940
CoastPlus	CLATSOP (ASTORIA)	SEASIDE	5A81	CENTRAL	1,742	77,403	1,647	47.00	1.058
CoastPlus	CLATSOP (ASTORIA)	SEASIDE	5A82	NECANICUM	2,410	427,052	1,202	355.28	2.005
CoastPlus	CLATSOP (ASTORIA)	SEASIDE	5A83	GEARHART	7,709	457,373	3,135	145.89	2.459
CoastPlus	CLATSOP (ASTORIA)	WARRENTON	5A15	CITY	2,123	124,933	1,816	68.80	1.169
CoastPlus	CLATSOP (ASTORIA)	WARRENTON	5A16	MILL (WARRENTON)	1,239	51,000	542	94.10	2.286
CoastPlus	CLATSOP (ASTORIA)	WARRENTON	5A20	SOUTH (WARRENTON)	4,373	927,841	1,553	597.45	2.816
CoastPlus	CLATSOP (ASTORIA)	YOUNGS BAY	5A202	PORT DOCK	113	14,731	1,231	11.97	0.092
CoastPlus	CLATSOP (ASTORIA)	YOUNGS BAY	5A204	MOO COW	817	64,721	1,141	56.72	0.716
CoastPlus	CLATSOP (ASTORIA)	YOUNGS BAY	5A205	FIFTH STREET	55	4,121	959	4.30	0.057
CoastPlus	CLATSOP (ASTORIA)	YOUNGS BAY	5A206	YOUNGS BAY #6	8	480	331	1.45	0.024
CoastPlus	CLATSOP (ASTORIA)	YOUNGS BAY	5A210	YOUNGS BAY #10	48	2,540	1,003	2.53	0.048
CoastPlus	CLATSOP (ASTORIA)	YOUNGS BAY	5A211	OLNEY	3,578	548,033	979	559.79	3.655
CoastPlus	CLATSOP (ASTORIA)	YOUNGS BAY	5A213	INDUSTRIAL	250	61,078	1,353	45.14	0.185
CoastPlus	COOS BAY/COQUILLE	BANDON TIE (BPA)	L804	BANDON	2,930	1,014,895	788	1,287.94	3.718
CoastPlus	COOS BAY/COQUILLE	COOS RIVER	4C106	COOS RIVER	6,154	1,611,978	1,411	1,142.44	4.361
CoastPlus	COOS BAY/COQUILLE	COQUILLE	4C41	HENRY STREET	3,448	446,990	1,766	253.11	1.952
CoastPlus	COOS BAY/COQUILLE	COQUILLE	4C42	TERRES HGHTS	3,586	637,331	1,630	391.00	2.200
CoastPlus	COOS BAY/COQUILLE	COQUILLE	4C43	INDUSTRIAL	323	44,697	158	282.89	2.044
CoastPlus	COOS BAY/COQUILLE	EMPIRE NEW	4C108	EMPIRE	2,643	278,457	1,756	158.57	1.505
CoastPlus	COOS BAY/COQUILLE	EMPIRE NEW	4C89	SCOTT	1,558	111,095	1,429	77.74	1.090
CoastPlus	COOS BAY/COQUILLE	EMPIRE NEW	4C90	CHARLESTON	3,295	375,415	2,195	171.03	1.501
CoastPlus	COOS BAY/COQUILLE	JORDAN POINT	5C6	SAND DUNES (JORDAN POINT)	1	142	32	4.44	0.031
CoastPlus	COOS BAY/COQUILLE	LOCKHART STREET	4C48	CITY CENTER	69	7,929	1,603	4.95	0.043
CoastPlus	COOS BAY/COQUILLE	LOCKHART STREET	4C49	EASTSIDE	134	6,993	802	8.72	0.167
CoastPlus	COOS BAY/COQUILLE	LOCKHART STREET	4C50	BUNKERHILL	3,622	658,773	1,926	342.04	1.881
CoastPlus	COOS BAY/COQUILLE	LOCKHART STREET	4C97	ENGLEWOOD	285	15,234	1,425	10.69	0.200
CoastPlus	COOS BAY/COQUILLE	MYRTLE POINT	4C36	NORTH (MYRTLE POINT)	1,124	263,231	362	727.16	3.105
CoastPlus	COOS BAY/COQUILLE	MYRTLE POINT	4C37	MAPLE STREET	3,353	972,700	2,205	441.13	1.521
CoastPlus	COOS BAY/COQUILLE	STATE STREET	4C112	WOODLAND	82	8,848	1,876	4.72	0.044
CoastPlus	COOS BAY/COQUILLE	STATE STREET	4C66	BAYSHORE	441	48,559	1,730	28.07	0.255
CoastPlus	COOS BAY/COQUILLE	STATE STREET	4C67	INDUSTRIAL	5,531	533,982	2,290	233.18	2.415
CoastPlus	COOS BAY/COQUILLE	STATE STREET	4C86	BANGOR	316	44,717	1,792	24.95	0.176
CoastPlus	HOOD RIVER	GORDON HOLLOW	4K1	SHERMAN 208	1,373	316,307	459	689.12	2.991

### Oregon 2014 Circuit Metrics (including major events)

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CoastPlus	HOOD RIVER	GRASS VALLEY	6K1	KENT	528	226,190	65	3,479.85	8.123
CoastPlus	HOOD RIVER	GRASS VALLEY	8K4	GRASS VALLEY CITY	413	207,413	100	2,074.13	4.130
CoastPlus	HOOD RIVER	HOOD RIVER	5K37	RESIDENTIAL	1,024	209,929	2,065	101.66	0.496
CoastPlus	HOOD RIVER	HOOD RIVER	5K43	BELMONT	2,382	248,123	1,136	218.42	2.097
CoastPlus	HOOD RIVER	HOOD RIVER	5K44	NORTH (HOOD RIVER)	254	42,699	1,760	24.26	0.144
CoastPlus	HOOD RIVER	HOOD RIVER	5K70	EASTSIDE	1,005	281,529	1,045	269.41	0.962
CoastPlus	HOOD RIVER	HOOD RIVER	5K74	SOUTH (HOOD RIVER)	361	98,937	1,650	59.96	0.219
CoastPlus	HOOD RIVER	KENWOOD	5K50	OAKGROVE	350	97,131	728	133.42	0.481
CoastPlus	HOOD RIVER	MORO	8K6	MORO	481	79,016	118	669.63	4.076
CoastPlus	HOOD RIVER	WASCO	7K1	WASCO	561	148,041	277	534.44	2.025
CoastPlus	LINCOLN CITY	DEVILS LAKE	4A310	INLAND FEEDER	4,359	374,741	1,849	202.67	2.357
CoastPlus	LINCOLN CITY	DEVILS LAKE	4A312	OCEAN	999	162,065	2,921	55.48	0.342
CoastPlus	LINCOLN CITY	DEVILS LAKE	4A316	LAKE (DEVILS LAKE)	21,995	1,851,382	4,481	413.16	4.909
CoastPlus	LINCOLN CITY	DEVILS LAKE	4A338	SIUSLAW	1,754	321,728	663	485.26	2.646
CoastPlus	LINCOLN CITY	GLENEDEN	7A364	GLENEDEN	1,665	382,821	715	535.41	2.329
CoastPlus	LINCOLN CITY	GLENEDEN	7A366	SALISHAN	1,482	404,136	360	1,122.60	4.117
CoastPlus	LINCOLN CITY	NELSCOTT	7A390	NELSCOTT	800	85,795	358	239.65	2.235
CoastPlus	LINCOLN CITY	PGE GRAND RONDE	R114	BOYER	37	4,912	19	258.54	1.947
CoastPlus	LINCOLN CITY	WECOMA BEACH	7A354	WECOMA	949	507,955	704	721.53	1.348
CoastPlus	PORTLAND	ALBINA	5P196	11C16-UG	1	388	468	0.83	0.002
CoastPlus	PORTLAND	ALBINA	5P200	11C20-UG	1	109	475	0.23	0.002
CoastPlus	PORTLAND	ALBINA	5P66	11C25	2	330	52	6.35	0.038
CoastPlus	PORTLAND	ALBINA	5P92	11C12-UG	1	448	67	6.68	0.015
CoastPlus	PORTLAND	ALDERWOOD 115/12.5	5P22	ALDERWOOD #2	1,144	80,213	208	385.64	5.500
CoastPlus	PORTLAND	ALDERWOOD 115/12.5	5P33	ALDERWOOD #4	553	50,690	186	272.53	2.973
CoastPlus	PORTLAND	ALDERWOOD 115/12.5	5P604	ALDERWOOD #3	546	81,263	187	434.56	2.920
CoastPlus	PORTLAND	COLUMBIA (OR)	5P266	#2	2,914	979,657	2,677	365.95	1.089
CoastPlus	PORTLAND	COLUMBIA (OR)	5P268	COLUMBIA #1	1,002	241,086	340	709.08	2.947
CoastPlus	PORTLAND	COLUMBIA (OR)	5P474	COLUMBIA #6	686	108,050	571	189.23	1.201
CoastPlus	PORTLAND	COLUMBIA (OR)	5P476	COLUMBIA #3	3,193	871,129	859	1,014.12	3.717
CoastPlus	PORTLAND	COLUMBIA (OR)	5P478	COLUMBIA #4	2,723	965,627	844	1,144.11	3.226
CoastPlus	PORTLAND	CULLY	5P288	CULLY #3-UG	2	596	808	0.74	0.002
CoastPlus	PORTLAND	CULLY	5P290	CULLY #2	628	400,647	2,362	169.62	0.266
CoastPlus	PORTLAND	CULLY	5P292	CULLY #1	3,352	408,856	2,939	139.11	1.141
CoastPlus	PORTLAND	HOLLADAY (OR)	5P156	HOLLADAY #4-UG	203	30,791	209	147.32	0.971
CoastPlus	PORTLAND	HOLLADAY (OR)	5P157	HOLLADAY #5-UG	-	-	324	-	-
CoastPlus	PORTLAND	HOLLADAY (OR)	5P158	HOLLADAY #6	3	290	808	0.36	0.004
CoastPlus	PORTLAND	HOLLYWOOD	5P203	HOLLYWOOD #3	197	10,150	1,369	7.41	0.144
CoastPlus	PORTLAND	HOLLYWOOD	5P204	HOLLYWOOD #2	87	39,572	1,681	23.54	0.052
CoastPlus	PORTLAND	HOLLYWOOD	5P205	HOLLYWOOD #1	50	7,680	2,127	3.61	0.024
CoastPlus	PORTLAND	HOLLYWOOD	5P208	HOLLYWOOD #5	3,435	333,417	1,761	189.33	1.951
CoastPlus	PORTLAND	HOLLYWOOD	5P209	HOLLYWOOD #4	2,725	603,255	2,359	255.72	1.155
CoastPlus	PORTLAND	KILLINGSWORTH	5P123	KILLINGSWORTH #3	2,462	109,602	374	293.05	6.583
CoastPlus	PORTLAND	KILLINGSWORTH	5P217	KILLINGSWORTH #5	1,325	44,052	449	98.11	2.951
CoastPlus	PORTLAND	KILLINGSWORTH	5P41	KILLINGSWORTH #4	11,706	1,197,263	2,763	433.32	4.237
CoastPlus	PORTLAND	KILLINGSWORTH	5P88	KILLINGSWORTH #1-UG	65	7,110	16	444.40	4.063
CoastPlus	PORTLAND	KILLINGSWORTH	5P89	KILLINGSWORTH #2	9,423	259,786	3,123	83.18	3.017
CoastPlus	PORTLAND	KNOTT	5P231	KNOTT #1	82	15,402	2,696	5.71	0.030

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CoastPlus	PORTLAND	KNOTT	5P232	KNOTT #2	116	8,651	1,281	6.75	0.091
CoastPlus	PORTLAND	KNOTT	5P233	KNOTT #3	2,378	454,567	2,310	196.78	1.029
CoastPlus	PORTLAND	KNOTT	5P368	11022	10	2,005	#N/A	#N/A	#N/A
CoastPlus	PORTLAND	KNOTT	5P372	11046	579	36,632	439	83.44	1.319
CoastPlus	PORTLAND	KNOTT	5P374	11020	1,036	802,795	1,012	793.28	1.024
CoastPlus	PORTLAND	LINCOLN (OR)	5P426	11D04-UG	2	473	335	1.41	0.006
CoastPlus	PORTLAND	LINCOLN (OR)	5P430	11D05-UG	370	233,262	367	635.59	1.008
CoastPlus	PORTLAND	LINCOLN (OR)	5P432	11D02-UG	1	67	467	0.14	0.002
CoastPlus	PORTLAND	LINCOLN (OR)	5P456	11D09-UG	1	32	186	0.17	0.005
CoastPlus	PORTLAND	LINCOLN (OR)	5P462	11G13-UG	32	1,548	34	45.54	0.941
CoastPlus	PORTLAND	MALLORY	5P162	MALLORY #1	6,740	1,771,250	1,898	933.22	3.551
CoastPlus	PORTLAND	MALLORY	5P164	MALLORY #2	3,228	221,832	3,104	71.47	1.040
CoastPlus	PORTLAND	PARKROSE	5P244	PARKROSE#4	3,823	271,740	3,134	86.71	1.220
CoastPlus	PORTLAND	PARKROSE	5P246	PARKROSE#3	1,060	302,978	3,089	98.08	0.343
CoastPlus	PORTLAND	PARKROSE	5P250	PARKROSE#2	367	92,778	676	137.25	0.543
CoastPlus	PORTLAND	PARKROSE	5P252	PARKROSE#1	130	29,517	1,842	16.02	0.071
CoastPlus	PORTLAND	RUSSELLVILLE	5P274	RUSSELLVILLE #3	3,434	149,955	3,052	49.13	1.125
CoastPlus	PORTLAND	RUSSELLVILLE	5P276	RUSSELLVILLE #4	4,540	392,431	2,198	178.54	2.066
CoastPlus	PORTLAND	RUSSELLVILLE	5P278	RUSSELLVILLE #1	3,485	53,737	3,249	16.54	1.073
CoastPlus	PORTLAND	RUSSELLVILLE	5P280	RUSSELLVILLE #2	1,707	210,457	1,299	162.01	1.314
CoastPlus	PORTLAND	VERNON	5P391	VERNON #1	3,814	75,169	1,848	40.68	2.064
CoastPlus	PORTLAND	VERNON	5P392	VERNON NO. 2	5,135	129,428	2,528	51.20	2.031
CoastPlus	PORTLAND	VERNON	5P393	VERNON #3	3,256	51,588	3,126	16.50	1.042
CoastPlus	PORTLAND	VERNON	5P394	VERNON # 4	9,177	1,397,580	3,229	432.82	2.842
CoastPlus	PORTLAND	VERNON	5P395	VERNON # 5	6,591	289,485	2,186	132.43	3.015
Northeast OR	ENTERPRISE	ENTERPRISE (OR)	4W8	CREIGHTON LN	7,514	575,685	1,429	402.86	5.258
Northeast OR	ENTERPRISE	ENTERPRISE (OR)	5W15	CITY	967	7,432	945	7.86	1.023
Northeast OR	ENTERPRISE	ENTERPRISE (OR)	5W26	RURAL (ENTERPRISE)	2,748	218,094	1,047	208.30	2.625
Northeast OR	ENTERPRISE	JOSEPH	5W21	PRAIRIE	3,387	189,358	851	222.51	3.980
Northeast OR	ENTERPRISE	MINAM	5W18	MINAM	28	2,894	13	222.60	2.154
Northeast OR	ENTERPRISE	PALLETTE	4W14	PALLETTE NORTH	458	370,154	171	2,164.64	2.678
Northeast OR	ENTERPRISE	PALLETTE	4W15	PALLETTE SOUTH	180	99,812	55	1,814.77	3.273
Northeast OR	ENTERPRISE	WALLOWA	5W28	CITY	2,338	98,231	854	115.03	2.738
Northeast OR	HERMISTON	ARLINGTON	5K25	ARLINGTON	576	9,316	567	16.43	1.016
Northeast OR	HERMISTON	BLALOCK	5K40	BLALOCK	1	183	26	7.05	0.038
Northeast OR	HERMISTON	DALREED	4K40	SIM/TAG	283	41,308	92	449.00	3.076
Northeast OR	HERMISTON	DALREED	4K46	BOEING	189	46,293	176	263.03	1.074
Northeast OR	HERMISTON	HERMISTON	5W602	RURAL (HERMISTON)	141	20,167	1,406	14.34	0.100
Northeast OR	HERMISTON	HINKLE	5W82	MEADOWS	1,193	187,292	385	486.47	3.099
Northeast OR	HERMISTON	UMATILLA	5W658	UMATILLA	57	8,131	1,191	6.83	0.048
Northeast OR	HERMISTON	UMATILLA	5W660	MCNARY	275	73,418	917	80.06	0.300
Northeast OR	HERMISTON	UMATILLA	5W664	PORT FEEDER	58	6,666	53	125.78	1.094
Northeast OR	MILTON/FREEWATER	UMAPINE	5W105	UMAPINE FEEDER	2,831	922,411	1,010	913.28	2.803
Northeast OR	PENDLETON	ATHENA	5W703	CITY	2,050	202,593	869	233.13	2.359
Northeast OR	PENDLETON	ATHENA	5W705	HELIX	1,128	136,941	441	310.52	2.558
Northeast OR	PENDLETON	BUCKAROO	5W201	STATE HOSP.	209	39,014	411	94.92	0.509
Northeast OR	PENDLETON	BUCKAROO	5W202	REITH	415	73,681	1,544	47.72	0.269
Northeast OR	PENDLETON	BUCKAROO	5W203	MONTEE	133	14,266	1,658	8.60	0.080

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Northeast OR	PENDLETON	PENDLETON	5W401	WEST HILLS	720	114,521	1,720	66.58	0.419
Northeast OR	PENDLETON	PENDLETON	5W402	HARRIS HTS	2,062	194,588	2,141	90.89	0.963
Northeast OR	PENDLETON	PENDLETON	5W403	MISSION	264	57,913	1,075	53.87	0.246
Northeast OR	PENDLETON	PENDLETON	7W451	BUSINESS	289	30,953	261	118.59	1.107
Northeast OR	PENDLETON	PENDLETON	7W452	NORTHWEST	22	1,692	526	3.22	0.042
Northeast OR	PENDLETON	PENDLETON	7W453	SOUTHWEST (PENDELTON)	12	828	358	2.31	0.034
Northeast OR	PENDLETON	PENDLETON	7W454	EAST END	-	-	275	-	-
Northeast OR	PENDLETON	PILOT ROCK	5W406	PILOT ROCK CITY	753	132,657	1,418	93.55	0.531
Northeast OR	PENDLETON	WESTON NEW (OR)	5W40	WESTON CANNERY	28	2,355	14	168.18	2.000
Northeast OR	PENDLETON	WESTON NEW (OR)	5W7	SCOTTS FEEDER	1,018	105,600	465	227.10	2.189
Northeast OR	WALLA WALLA	UMAPINE	5W106	FERNDALE	3,364	1,295,338	1,372	944.12	2.452
South OR	GRANTS PASS	AGNESS AVE	5R172	SPALDING MILL	438	60,959	902	67.58	0.486
South OR	GRANTS PASS	AGNESS AVE	5R173	JONES CREEK	429	141,594	875	161.82	0.490
South OR	GRANTS PASS	AGNESS AVE	5R322	ANTEATER	37	3,960	975	4.06	0.038
South OR	GRANTS PASS	APPLEGATE	5R267	MURPHY	1,756	212,386	1,032	205.80	1.702
South OR	GRANTS PASS	APPLEGATE	5R278	HIGHWAY	1,966	124,321	1,629	76.32	1.207
South OR	GRANTS PASS	BEACON	5R104	SAVAGE ST	299	32,463	1,252	25.93	0.239
South OR	GRANTS PASS	BEACON	5R105	BEACON ST	114	14,244	835	17.06	0.137
South OR	GRANTS PASS	CAVE JUNCTION	5R52	FREE& EASY	4,873	1,166,849	2,442	477.83	1.995
South OR	GRANTS PASS	CAVE JUNCTION	5R53	ROUGH & READY	2,442	192,951	1,588	121.51	1.538
South OR	GRANTS PASS	CAVEMAN	5R295	QUAIL	123	22,155	1,147	19.32	0.107
South OR	GRANTS PASS	CAVEMAN	5R82	WASHINGTON	59	6,384	1,204	5.30	0.049
South OR	GRANTS PASS	CAVEMAN	5R98	MANZANITA	21	5,966	596	10.01	0.035
South OR	GRANTS PASS	CAVEMAN	5R99	CAVEMAN	1,473	366,179	1,184	309.27	1.244
South OR	GRANTS PASS	DOWELL	5R331	DOVE	144	28,813	1,492	19.31	0.097
South OR	GRANTS PASS	DOWELL	5R334	DUCK	400	56,806	2,392	23.75	0.167
South OR	GRANTS PASS	EASY VALLEY	5R123	G STREET	2,915	219,055	2,040	107.38	1.429
South OR	GRANTS PASS	EASY VALLEY	5R125	ROGUE	4,692	381,775	1,722	221.70	2.725
South OR	GRANTS PASS	EASY VALLEY	5R259	CHINOOK	3,062	564,588	1,316	429.02	2.327
South OR	GRANTS PASS	FIELDER CREEK	4R33	ELK FDR.	2,931	270,068	1,627	165.99	1.801
South OR	GRANTS PASS	FIELDER CREEK	4R34	BEAR FDR	1,449	725,947	880	824.94	1.647
South OR	GRANTS PASS	GLENDALE SUBSTATION	5R133	GLENDALE	7,579	768,440	1,983	387.51	3.822
South OR	GRANTS PASS	GLENDALE SUBSTATION	5R143	INDUSTRIAL	159	12,536	699	17.93	0.227
South OR	GRANTS PASS	JEROME PRAIRIE	5R62	WILD PRAIRIE	5,168	942,960	1,647	572.53	3.138
South OR	GRANTS PASS	JEROME PRAIRIE	5R63	WOOD RIVER	5,937	693,108	1,610	430.50	3.688
South OR	GRANTS PASS	MERLIN	5R232	MERLIN-HUGO	4,989	987,131	2,081	474.35	2.397
South OR	GRANTS PASS	MERLIN	5R234	PARADISE	5,071	690,012	1,195	577.42	4.244
South OR	GRANTS PASS	MERLIN	5R248	PLEASANT VALLEY-MERLIN FEEDER	4,022	195,510	1,848	105.80	2.176
South OR	GRANTS PASS	MERLIN	5R251	BADGER	2,057	356,586	921	387.17	2.233
South OR	GRANTS PASS	NEW O'BRIEN	5R106	O'BRIEN	735	117,205	466	251.51	1.577
South OR	GRANTS PASS	PARK STREET (OR)	5R114	FRUITDALE	83	16,180	2,125	7.61	0.039
South OR	GRANTS PASS	PARK STREET (OR)	5R115	ALLEN CREEK	23	3,743	1,009	3.71	0.023
South OR	GRANTS PASS	PARK STREET (OR)	5R121	NEW HOPE	533	31,418	1,880	16.71	0.284
South OR	GRANTS PASS	PARK STREET (OR)	5R164	EXPRESS	1	150	322	0.47	0.003
South OR	GRANTS PASS	PARK STREET (OR)	5R169	PORTOLA	1,605	360,839	1,539	234.46	1.043
South OR	GRANTS PASS	PROVOLT	5R67	NORTH-SOUTH	3,358	260,033	1,408	184.68	2.385
South OR	GRANTS PASS	ROGUE RIVER	4R7	EVANS VALLEY	246	23,561	233	101.12	1.056
South OR	GRANTS PASS	ROGUE RIVER	5R77	SAVAGE/WIMMER	2,184	248,581	1,801	138.02	1.213

### Oregon 2014 Circuit Metrics (including major events)

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South OR	GRANTS PASS	ROGUE RIVER	5R78	ROCKY POINT (ROGUE RIVER)	1,364	563,697	1,074	524.86	1.270
South OR	GRANTS PASS	SELMA	5R65	DEER CREEK	2,866	182,616	1,241	147.15	2.309
South OR	KLAMATH FALLS	BEATTY	5L1	BEATTY	551	474,805	428	1,109.36	1.287
South OR	KLAMATH FALLS	BLY	5L14	TOWN (BLY)	549	216,960	463	468.60	1.186
South OR	KLAMATH FALLS	BONANZA (OR)	5L7	POE VALLEY	229	42,763	454	94.19	0.504
South OR	KLAMATH FALLS	BRYANT	5L2	GARY STREET	238	131,883	2,196	60.06	0.108
South OR	KLAMATH FALLS	BRYANT	5L3	WASHBURN	22	2,711	1,883	1.44	0.012
South OR	KLAMATH FALLS	BRYANT	5L4	SUMMERS LANE	132	8,876	2,066	4.30	0.064
South OR	KLAMATH FALLS	BRYANT	5L5	MOYINA HTS.	21	2,771	2,495	1.11	0.008
South OR	KLAMATH FALLS	CASEBEER SUB	4L16	LANGELL VLY	3,267	227,724	1,215	187.43	2.689
South OR	KLAMATH FALLS	CHILOQUIN	5L57	CRATER LAKE	4,469	1,055,733	1,116	946.00	4.004
South OR	KLAMATH FALLS	CHILOQUIN MARKET	5L37	WILLIAMSON	54	12,851	492	26.12	0.110
South OR	KLAMATH FALLS	DAIRY	5L42	SWAN LAKE	307	32,863	319	103.02	0.962
South OR	KLAMATH FALLS	DAIRY	5L43	DAIRY	281	16,393	495	33.12	0.568
South OR	KLAMATH FALLS	HAMAKER	5L55	KENO	4,031	1,292,025	1,768	730.78	2.280
South OR	KLAMATH FALLS	HAMAKER	5L56	MOUNTAIN	349	114,470	168	681.37	2.077
South OR	KLAMATH FALLS	HENLEY	5L58	HENLEY	18	3,069	237	12.95	0.076
South OR	KLAMATH FALLS	HENLEY	5L59	WEST	109	31,063	556	55.87	0.196
South OR	KLAMATH FALLS	HORNET	5L44	HOMEDALE	531	74,082	2,743	27.01	0.194
South OR	KLAMATH FALLS	HORNET	5L45	CRYSTAL SPR	1,093	202,222	1,511	133.83	0.723
South OR	KLAMATH FALLS	LAKEPORT	5L49	WOCUS	446	5,852	220	26.60	2.027
South OR	KLAMATH FALLS	LAKEPORT	5L54	SOUTH (LAKEPORT)	5,965	196,328	2,474	79.36	2.411
South OR	KLAMATH FALLS	LAKEPORT	5L61	JELDWEN	16	202	8	25.23	2.000
South OR	KLAMATH FALLS	MERRILL (OR)	5L26	LAKE (MERRILL)	405	47,853	1,039	46.06	0.390
South OR	KLAMATH FALLS	MERRILL (OR)	5L27	NORTH (MERRILL)	196	40,831	568	71.89	0.345
South OR	KLAMATH FALLS	MODOC	5L36	MODOC	717	145,766	1,006	144.90	0.713
South OR	KLAMATH FALLS	ROSS AVENUE	5L46	ELDORADO	33	3,808	1,394	2.73	0.024
South OR	KLAMATH FALLS	ROSS AVENUE	5L48	BROAD ST.	174	14,861	1,249	11.90	0.139
South OR	KLAMATH FALLS	RUNNING Y	4L50	ROCKY POINT FEEDER (RUNNING Y)	5,466	576,851	1,503	383.80	3.637
South OR	KLAMATH FALLS	SHASTA WAY	7L25	SHASTA WAY	20	3,053	447	6.83	0.045
South OR	KLAMATH FALLS	SPRAGUE RIVER	5L8	SPRAGUE RIVER	219	64,780	517	125.30	0.424
South OR	KLAMATH FALLS	TEXUM	5L112	ANDERSON	488	28,706	1,246	23.04	0.392
South OR	KLAMATH FALLS	TEXUM	5L113	TOWER	14	1,598	336	4.76	0.042
South OR	KLAMATH FALLS	TEXUM	5L116	ALTAMONT	974	84,187	1,556	54.10	0.626
South OR	KLAMATH FALLS	TURKEY HILL	5L20	MALIN CITY	1,465	399,687	855	467.47	1.713
South OR	KLAMATH FALLS	TURKEY HILL	5L23	RURAL (TURKEY HILL)	340	131,099	333	393.69	1.021
South OR	KLAMATH FALLS	WEST SIDE HE PLANT	5L12	ORINDALE	2,491	45,373	821	55.27	3.034
South OR	KLAMATH FALLS	WEST SIDE HE PLANT	5L15	CALIFORNIA	4,244	90,581	1,407	64.38	3.016
South OR	KLAMATH FALLS	WEST SIDE HE PLANT	5L16	MAIN ST (WEST SIDE HE PLANT)	357	6,248	119	52.50	3.000
South OR	KLAMATH FALLS	WEST SIDE HE PLANT	5L17	PINE ST (WEST SIDE HE PLANT)	1,607	28,752	525	54.77	3.061
South OR	KLAMATH FALLS	WEST SIDE HE PLANT	5L18	RIVERSIDE (WEST SIDE HE PLANT)	1,863	40,191	610	65.89	3.054
South OR	KLAMATH FALLS	WEST SIDE HE PLANT	5L19	LAKESHORE	1,211	35,349	302	117.05	4.010
South OR	KLAMATH FALLS	WEST SIDE HE PLANT	8L10	CITY WTR PMP	1	6	1	6.23	1.000
South OR	LAKEVIEW	MILE-HI	5L104	INDUSTRIAL	764	138,546	754	183.75	1.013
South OR	LAKEVIEW	MILE-HI	5L105	BUSINESS	82	6,278	1,757	3.57	0.047
South OR	MEDFORD	ASHLAND (MTN.AVE, PUD)	5R245	VALLEY VIEW	3,715	393,009	1,005	391.05	3.697
South OR	MEDFORD	BEALL LANE	5R359	BEEHIVE	-	-	2	-	-
South OR	MEDFORD	BEALL LANE	5R361	BULLDOG	1,817	37,433	1,676	22.34	1.084

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South OR	MEDFORD	BEALL LANE	5R364	BOBCAT	2,626	69,033	2,204	31.32	1.191
South OR	MEDFORD	BELKNAP	5R1	KOGAP	1,302	449,028	1,019	440.66	1.278
South OR	MEDFORD	BELKNAP	5R2	RIVERSIDE (BELKNAP)	4	671	682	0.98	0.006
South OR	MEDFORD	BELKNAP	5R3	BARNETT	4,926	359,551	1,568	229.31	3.142
South OR	MEDFORD	BELKNAP	5R47	STEWART	102	19,151	2,126	9.01	0.048
South OR	MEDFORD	BROOKHURST	5R118	SPRINGBROOK	1,905	772,533	1,686	458.20	1.130
South OR	MEDFORD	BROOKHURST	5R135	ROBERTS (BROOKHURST)	146	58,310	1,495	39.00	0.098
South OR	MEDFORD	BROOKHURST	5R32	ROXY	51	20,753	1,696	12.24	0.030
South OR	MEDFORD	BROOKHURST	5R33	CRATER LAKE	121	29,666	1,642	18.07	0.074
South OR	MEDFORD	BROOKHURST	5R75	SUNRISE (BROOKHURST)	86	12,671	1,217	10.41	0.071
South OR	MEDFORD	CAMPBELL	5R216	VOORHIES	1	197	726	0.27	0.001
South OR	MEDFORD	CAMPBELL	5R218	PHOENIX	2,183	145,972	1,552	94.05	1.407
South OR	MEDFORD	CAMPBELL	5R227	FERN VALLEY	253	68,610	1,321	51.94	0.192
South OR	MEDFORD	CAMPBELL	5R312	COBRA	87	15,289	1,538	9.94	0.057
South OR	MEDFORD	DODGE BRIDGE	4R1	SALMON	7,759	644,026	1,659	388.20	4.677
South OR	MEDFORD	DODGE BRIDGE	4R35	MEADOWS ROAD	1,962	253,348	1,387	182.66	1.415
South OR	MEDFORD	FOOTHILLS	5R38	HOSPITAL	162	40,630	771	52.70	0.210
South OR	MEDFORD	FOOTHILLS	5R39	PIERCE ROAD	1,286	133,550	1,159	115.23	1.110
South OR	MEDFORD	FRALEY	5R87	TABLE ROCK	1,595	315,333	523	602.93	3.050
South OR	MEDFORD	FRALEY	5R88	DODGE BRIDGE	455	120,497	391	308.18	1.164
South OR	MEDFORD	GOLD HILL	5R103	GOLD HILL	2,413	179,466	2,051	87.50	1.176
South OR	MEDFORD	GRIFFIN CREEK	5R204	HULL RD	2,868	65,016	2,623	24.79	1.093
South OR	MEDFORD	GRIFFIN CREEK	5R206	GRIFFIN CREEK	1,978	45,568	1,728	26.37	1.145
South OR	MEDFORD	HUMBUG CREEK	5R287	HUMMINGBIRD	2,109	274,804	684	401.76	3.083
South OR	MEDFORD	MEDCO	5R280	BOISE CASCADE	1	7	1	7.40	1.000
South OR	MEDFORD	MEDFORD	5R21	MELROSE	1,888	94,045	1,625	57.87	1.162
South OR	MEDFORD	MEDFORD	5R23	SPRING ST.	208	30,343	1,624	18.68	0.128
South OR	MEDFORD	MEDFORD	5R250	BIG Y	156	42,598	1,886	22.59	0.083
South OR	MEDFORD	MEDFORD	5R253	APPLE	1,157	93,242	1,128	82.66	1.026
South OR	MEDFORD	MEDFORD	5R257	PEAR	32	10,683	604	17.69	0.053
South OR	MEDFORD	MEDFORD	5R659	MCLEAN	3	187	691	0.27	0.004
South OR	MEDFORD	NEW JACKSONVILLE SUB-DIST	5R284	STAGE RD	2,698	187,635	2,108	89.01	1.280
South OR	MEDFORD	NEW JACKSONVILLE SUB-DIST	5R285	JACKSONVILLE HWY	2,731	180,598	2,135	84.59	1.279
South OR	MEDFORD	OAK KNOLL	5R55	SISKIYOU	4,087	1,068,898	1,621	659.41	2.521
South OR	MEDFORD	PROSPECT CENTRAL	5R40	NEW CASCADE	746	68,708	351	195.75	2.125
South OR	MEDFORD	RED BLANKET	7R5	PROSPECT	1,080	145,523	402	362.00	2.687
South OR	MEDFORD	ROXY ANN	5R350	St. Bernard	151	36,696	1,102	33.30	0.137
South OR	MEDFORD	ROXY ANN	5R354	RACCOON	151	54,606	1,375	39.71	0.110
South OR	MEDFORD	RUCH	5R68	APPLEGATE	2,359	168,786	920	183.46	2.564
South OR	MEDFORD	RUCH	5R69	RUCH	1,224	90,114	558	161.50	2.194
South OR	MEDFORD	SAGE ROAD (OR)	5R209	TIMBER PROD	1	8	1	8.42	1.000
South OR	MEDFORD	SAGE ROAD (OR)	5R211	COLUMBUS	2,224	34,071	1,998	17.05	1.113
South OR	MEDFORD	SAGE ROAD (OR)	5R226	BOISE	908	9,513	890	10.69	1.020
South OR	MEDFORD	SAGE ROAD (OR)	5R27	MCANDREWS	120	1,010	120	8.42	1.000
South OR	MEDFORD	SAGE ROAD (OR)	5R28	ROSS	1,804	22,341	1,758	12.71	1.026
South OR	MEDFORD	SAGE ROAD (OR)	5R29	EDWARDS	823	15,363	768	20.00	1.072
South OR	MEDFORD	SCENIC	5R174	UPTON	6,261	311,748	2,047	152.30	3.059
South OR	MEDFORD	SCENIC	5R180	HEAD RD	21	1,525	1,201	1.27	0.017



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South OR	MEDFORD	SCENIC	5R182	TAYLOR RD	935	133,438	1,508	88.49	0.620
South OR	MEDFORD	SCENIC	5R184	CHENEY	181	24,933	1,449	17.21	0.125
South OR	MEDFORD	STEVENS ROAD	4R13	HENRY MILLER	5,289	152,383	2,153	70.78	2.457
South OR	MEDFORD	STEVENS ROAD	4R17	Stingray	5,818	244,647	2,494	98.09	2.333
South OR	MEDFORD	STEVENS ROAD	4R41	ANTELOPE	4,891	584,516	1,164	502.16	4.202
South OR	MEDFORD	TAKELMA	4R9	LOST CK. (TAKELMA)	8,459	243,552	2,659	91.60	3.181
South OR	MEDFORD	TALENT	5R237	TALENT	421	73,816	2,550	28.95	0.165
South OR	MEDFORD	TALENT	5R238	ANDERSON CRK	1,228	267,682	1,678	159.52	0.732
South OR	MEDFORD	TALENT	5R239	HARTLEY ROAD	347	76,653	1,550	49.45	0.224
South OR	MEDFORD	TALENT	5R240	NORTH HWY	27	2,858	1,082	2.64	0.025
South OR	MEDFORD	TOLO	5R90	TBL ROCK LBR	15	1,701	166	10.25	0.090
South OR	MEDFORD	TOLO	5R91	SAMS VALLEY	602	87,943	656	134.06	0.918
South OR	MEDFORD	TOLO	5R92	KIRTLAND RD	425	39,306	211	186.29	2.014
South OR	MEDFORD	VILAS ROAD	5R110	MCLAUGHLIN	2,126	118,411	972	121.82	2.187
South OR	MEDFORD	VILAS ROAD	5R146	KING CENTER	1,504	79,347	1,416	56.04	1.062
South OR	MEDFORD	VILAS ROAD	5R305	WEBFOOT	842	38,264	1,025	37.33	0.821
South OR	MEDFORD	WHITE CITY	5R11	EAGLE POINT	3,159	358,945	1,458	246.19	2.167
South OR	MEDFORD	WHITE CITY	5R12	INDUSTRIAL	39	1,181	32	36.90	1.219
South OR	MEDFORD	WHITE CITY	5R13	FIR-PLY	26	8,607	26	331.05	1.000
South OR	MEDFORD	WHITE CITY	5R14	AGATE	119	3,861	107	36.08	1.112
South OR	MEDFORD	WHITE CITY	5R19	3M	98	2,896	95	30.48	1.032
South OR	MEDFORD	WHITE CITY	5R66	4 CORNERS	3,633	137,876	1,741	79.19	2.087
South OR	MEDFORD	WHITE CITY	5R76	AVE C	94	2,712	92	29.48	1.022
South OR	ROSEBURG/MYRTLECREEK	CANYONVILLE	5U46	CANYONVILLE	218	52,426	437	119.97	0.499
South OR	ROSEBURG/MYRTLECREEK	CANYONVILLE	5U52	BEALS CREEK FEEDER	1,988	256,091	913	280.49	2.177
South OR	ROSEBURG/MYRTLECREEK	CARNES	5U44	RND PRARIE	83	9,768	419	23.31	0.198
South OR	ROSEBURG/MYRTLECREEK	CLEARWATER #1 SUB	6U17	BRIGGS	10	4,577	3	1,525.60	3.333
South OR	ROSEBURG/MYRTLECREEK	CLEARWATER #2 SUB	6U33	CLEARWATER	205	37,163	102	364.34	2.010
South OR	ROSEBURG/MYRTLECREEK	CLOAKE	4U37	RUSA	1	6	1	6.10	1.000
South OR	ROSEBURG/MYRTLECREEK	CLOAKE	4U38	HARVARD	3,299	28,641	3,141	9.12	1.050
South OR	ROSEBURG/MYRTLECREEK	CLOAKE	4U39	GOEDECK	2,286	82,637	1,255	65.85	1.822
South OR	ROSEBURG/MYRTLECREEK	GARDEN VALLEY	4U80	EDENBOWER	13	3,353	806	4.16	0.016
South OR	ROSEBURG/MYRTLECREEK	GARDEN VALLEY	4U81	VALLEY	1,343	146,387	1,325	110.48	1.014
South OR	ROSEBURG/MYRTLECREEK	GLIDE SUBSTATION	5U83	IDLEYLD	1,931	475,713	1,004	473.82	1.923
South OR	ROSEBURG/MYRTLECREEK	GLIDE SUBSTATION	5U84	LITTLE RIVER	5,730	1,119,537	1,360	823.19	4.213
South OR	ROSEBURG/MYRTLECREEK	GREEN SUBSTATION	5U32	SAFARI	52	5,981	2,083	2.87	0.025
South OR	ROSEBURG/MYRTLECREEK	GREEN SUBSTATION	5U33	SUNNYSLOPE	51	4,251	1,650	2.58	0.031
South OR	ROSEBURG/MYRTLECREEK	ILLAHEE FLATS	6U13	ILLAHEE FLATS SINGLE PHASE RECLOSER	105	24,896	26	957.55	4.038
South OR	ROSEBURG/MYRTLECREEK	LEMOLO # 1	5U920	DIAMOND LAKE	739	118,786	179	663.61	4.128
South OR	ROSEBURG/MYRTLECREEK	MYRTLE CREEK	5U76	SUPER Y	2,224	345,213	1,568	220.16	1.418
South OR	ROSEBURG/MYRTLECREEK	MYRTLE CREEK	5U77	BOOMER HILL	3,371	320,258	2,338	136.98	1.442
South OR	ROSEBURG/MYRTLECREEK	OAKLAND (OR)	5U11	UMPQUA	1,622	291,056	1,371	212.29	1.183
South OR	ROSEBURG/MYRTLECREEK	OAKLAND (OR)	5U12	STAGECOACH	48	6,868	551	12.46	0.087
South OR	ROSEBURG/MYRTLECREEK	RIDDLE	5U1	TRI CITY	119	26,838	1,023	26.23	0.116
South OR	ROSEBURG/MYRTLECREEK	RIDDLE	5U2	COW CREEK	3,595	424,962	1,611	263.79	2.232
South OR	ROSEBURG/MYRTLECREEK	RIDDLE	5U3	HANNA	816	100,949	260	388.27	3.138
South OR	ROSEBURG/MYRTLECREEK	RIDDLE-VENEER	5U50	RFP-LVL (EWP)	5	6,853	50	137.05	0.100
South OR	ROSEBURG/MYRTLECREEK	ROSEBURG	4U10	DIAMOND	3,861	232,737	2,508	92.80	1.539

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South OR	ROSEBURG/MYRTLECREEK	ROSEBURG	4U22	DIXON	1,343	361,415	1,107	326.48	1.213
South OR	ROSEBURG/MYRTLECREEK	ROSEBURG	4U5	DOUGLAS	223	40,098	2,107	19.03	0.106
South OR	ROSEBURG/MYRTLECREEK	SLIDE CREEK	6U76	SLIDE CREEK CAMP	18	1,409	7	201.34	2.571
South OR	ROSEBURG/MYRTLECREEK	SOUTHGATE	4U30	SHADY POINT	6,895	697,432	1,602	435.35	4.304
South OR	ROSEBURG/MYRTLECREEK	SOUTHGATE	4U31	BOOTH	2,859	75,116	1,371	54.79	2.085
South OR	ROSEBURG/MYRTLECREEK	STEAMBOAT	6U18	STEAMBOAT	44	10,633	22	483.30	2.000
South OR	ROSEBURG/MYRTLECREEK	SUTHERLIN	5U35	NON-PAREIL	24	7,594	1,330	5.71	0.018
South OR	ROSEBURG/MYRTLECREEK	SUTHERLIN	5U36	DEADY	537	54,509	1,330	40.98	0.404
South OR	ROSEBURG/MYRTLECREEK	SUTHERLIN	5U56	Industrial	38	344	486	0.71	0.078
South OR	ROSEBURG/MYRTLECREEK	TILLER	5U89	JACKSON CRK	1,004	233,600	324	720.99	3.099
South OR	ROSEBURG/MYRTLECREEK	TOKETEE	6U21	BACK UP FOR CLEARWATER 6U33	102	12,957	-	-	-
South OR	ROSEBURG/MYRTLECREEK	TOKETEE	8U12	TOKETEE CITY	57	4,459	19	234.70	3.000
South OR	ROSEBURG/MYRTLECREEK	WINCHESTER	4U18	WILBUR	1,971	200,875	1,677	119.78	1.175
South OR	ROSEBURG/MYRTLECREEK	WINCHESTER	5U15	NEWTON CREEK	72	5,310	1,764	3.01	0.041
South OR	ROSEBURG/MYRTLECREEK	WINCHESTER	5U17	FISHER	232	29,450	754	39.06	0.308
South OR	ROSEBURG/MYRTLECREEK	WINCHESTER	5U19	EVANS	176	35,235	757	46.55	0.232
South OR	ROSEBURG/MYRTLECREEK	WINSTON	5U48	BROCKWAY	55	14,012	879	15.94	0.063
South OR	ROSEBURG/MYRTLECREEK	WINSTON	5U49	DILLARD	310	63,454	1,478	42.93	0.210
WlmVly	ALBANY	HAZELWOOD	4M335	WEST HIGH	64	48,516	1,493	32.50	0.043
WlmVly	ALBANY	HAZELWOOD	4M336	RIVERVIEW (HAZELWOOD)	3,226	1,052,268	1,255	838.46	2.571
WlmVly	ALBANY	JEFFERSON (OR)	4M117	MARION	1,218	483,311	744	649.61	1.637
WlmVly	ALBANY	JEFFERSON (OR)	4M125	MINT	11,987	3,284,582	2,584	1,271.12	4.639
WlmVly	ALBANY	MURDER CREEK	4M243	SCRAVEL HILL	7,336	1,366,152	3,795	359.99	1.933
WlmVly	ALBANY	MURDER CREEK	4M245	RURAL NW	3,266	1,256,355	1,918	655.03	1.703
WlmVly	ALBANY	MURDER CREEK	4M249	DURA-PACIFIC	-	-	5	-	-
WlmVly	ALBANY	MURDER CREEK	4M250	INDUSTRIAL	702	184,723	1,248	148.02	0.563
WlmVly	ALBANY	OREMET	4M295	OAK CREEK	4	546	111	4.92	0.036
WlmVly	ALBANY	OREMET	4M296	ROGERSDALE	810	163,142	3,149	51.81	0.257
WlmVly	ALBANY	OREMET	5M19	OREMET	3	2,173	3	724.23	1.000
WlmVly	ALBANY	QUEEN AVE	4M217	SANTIAM	4,093	380,683	1,995	190.82	2.052
WlmVly	ALBANY	QUEEN AVE	4M258	HILL STREET	4,578	457,622	2,136	214.24	2.143
WlmVly	ALBANY	QUEEN AVE	4M261	WAVERLY	7,500	762,228	3,397	224.38	2.208
WlmVly	ALBANY	QUEEN AVE	4M262	GEARY STREET	6,651	733,741	2,621	279.95	2.538
WlmVly	ALBANY	VINE STREET	4M15	FERRY	4,683	340,135	2,230	152.53	2.100
WlmVly	ALBANY	VINE STREET	4M16	WATER STREET	11,989	1,805,154	3,946	457.46	3.038
WlmVly	CORVALLIS	BUCHANAN	4M130	HEWLETT PACKARD	3,407	183,630	2,682	68.47	1.270
WlmVly	CORVALLIS	BUCHANAN	4M133	PEORIA	6,474	3,780,933	2,502	1,511.16	2.588
WlmVly	CORVALLIS	BUCHANAN	4M134	N. NINTH ST.	6,399	600,605	2,635	227.93	2.428
WlmVly	CORVALLIS	CIRCLE BLVD	4M394	H. P. #1	1	13	1	12.92	1.000
WlmVly	CORVALLIS	CIRCLE BLVD	4M427	H. P. #3	1	13	1	12.92	1.000
WlmVly	CORVALLIS	CIRCLE BLVD	4M429	H. P. #5	1	13	1	12.92	1.000
WlmVly	CORVALLIS	DIXON	7M26	FOURTH ST.	250	3,888	252	15.43	0.992
WlmVly	CORVALLIS	DIXON	7M29	SECOND ST.	288	4,728	255	18.54	1.129
WlmVly	CORVALLIS	GRANT	4M265	HIGH SCHOOL	4,215	715,099	2,534	282.20	1.663
WlmVly	CORVALLIS	GRANT	4M266	CHINTIMINI	2,985	364,304	2,630	138.52	1.135
WlmVly	CORVALLIS	GRANT	4M268	KINGS ROAD	8,834	3,045,891	2,570	1,185.17	3.437
WlmVly	CORVALLIS	GRANT	4M269	29TH STREET	16,371	2,422,258	3,319	729.82	4.933
WlmVly	CORVALLIS	HILLVIEW	4M180	WEST HILLS	4,552	1,692,788	2,350	720.34	1.937



### Oregon 2014 Circuit Metrics (including major events)

Reliability Region	Op Area Name	Substation Name	Circuit Id	Circuit Name	Customers In Incident Sustained	Customer Minutes Lost for Incident	Customer Count	SAIDI	SAIFI
WlmVly	CORVALLIS	HILLVIEW	4M181	PHILOMATH	677	80,564	657	122.62	1.030
WlmVly	CORVALLIS	HILLVIEW	4M182	SUNSET	1,726	201,166	910	221.06	1.897
WlmVly	CORVALLIS	HILLVIEW	4M185	PLYMOUTH	2,707	721,387	2,252	320.33	1.202
WlmVly	CORVALLIS	MARYS RIVER	4M151	GREENBERRY	7,256	1,623,547	3,640	446.03	1.993
WlmVly	CORVALLIS	MARYS RIVER	4M152	AVERY	275	14,718	193	76.26	1.425
WlmVly	CORVALLIS	MARYS RIVER	4M153	GALLAGHER	171	2,057	161	12.78	1.062
WlmVly	COTTAGE GROVE/J.CITY	COBURG	4M220	DETERING	821	584,209	534	1,094.02	1.537
WlmVly	COTTAGE GROVE/J.CITY	GOSHEN (OR)	4M360	GOSHEN FDR	3,585	839,112	1,665	503.97	2.153
WlmVly	COTTAGE GROVE/J.CITY	HARRISBURG SUB	4M400	TERRITORIAL	4,752	739,077	1,910	386.95	2.488
WlmVly	COTTAGE GROVE/J.CITY	JUNCTION CITY	4M102	6TH STREET	2,001	387,184	1,175	329.52	1.703
WlmVly	COTTAGE GROVE/J.CITY	JUNCTION CITY	4M99	PRAIRIE ROAD	1,260	282,367	936	301.67	1.346
WlmVly	COTTAGE GROVE/J.CITY	LANCASTER	4M209	MONROE	3,340	1,121,403	1,133	989.76	2.948
WlmVly	COTTAGE GROVE/J.CITY	VILLAGE GREEN	4M84	NORTH SIDE	8,554	1,705,368	2,411	707.33	3.548
WlmVly	COTTAGE GROVE/J.CITY	VILLAGE GREEN	4M86	MADISON	3,618	1,393,028	1,605	867.93	2.254
WlmVly	DALLAS/INDEPENDENCE	DALLAS	4M100	RURAL (DALLAS)	6,033	372,630	4,471	83.34	1.349
WlmVly	DALLAS/INDEPENDENCE	DALLAS	4M201	INDUSTRIAL	38	2,046	35	58.45	1.086
WlmVly	DALLAS/INDEPENDENCE	DALLAS	4M202	ELLENDALE	8,030	589,905	2,903	203.21	2.766
WlmVly	DALLAS/INDEPENDENCE	DALLAS	4M238	DALLAS	6,223	403,370	2,332	172.97	2.669
WlmVly	DALLAS/INDEPENDENCE	INDEPENDENCE	4M22	RICKREAL	954	177,461	2,006	88.47	0.476
WlmVly	DALLAS/INDEPENDENCE	INDEPENDENCE	4M25	BUENA VISTA	3,405	723,693	3,104	233.15	1.097
WlmVly	LEBANON	BROWNSVILLE	4M17	CALAPOOIA	14,291	2,867,567	1,925	1,489.65	7.424
WlmVly	LEBANON	CROWFOOT	4M204	CROWFOOT	1,654	1,174,873	1,544	760.93	1.071
WlmVly	LEBANON	CROWFOOT	4M206	US PLYWOOD (LEBANON)	208	56,446	1,842	30.64	0.113
WlmVly	LEBANON	LEBANON	4M61	TANGENT	5,309	591,941	2,473	239.36	2.147
WlmVly	LEBANON	LEBANON	4M62	RALSTON	381	426,472	2,031	209.98	0.188
WlmVly	LEBANON	LEBANON	4M63	TENNESSEE	6,843	4,596,156	1,865	2,464.43	3.669
WlmVly	LEBANON	LEBANON	4M79	CROWN Z	160	52,920	1,013	52.24	0.158
WlmVly	LEBANON	SWEET HOME	4M37	HOLLEY	8,376	5,421,667	2,060	2,631.88	4.066
WlmVly	LEBANON	SWEET HOME	4M38	NARROWS	3,311	2,773,852	999	2,776.63	3.314
WlmVly	LEBANON	SWEET HOME	4M93	AMES CREEK	3,898	2,101,005	1,716	1,224.36	2.272
WlmVly	LEBANON	SWEET HOME	4M94	FOSTER	15,579	6,498,397	2,345	2,771.17	6.643
WlmVly	STAYTON	NEW LYONS	4M120	MILL CITY	14,580	2,711,038	1,978	1,370.60	7.371
WlmVly	STAYTON	NEW LYONS	4M70	MEHAMA	4,979	779,000	1,002	777.45	4.969
WlmVly	STAYTON	NEW STAYTON	4M19	AUMSVILLE	4,307	691,478	3,182	217.31	1.354
WlmVly	STAYTON	NEW STAYTON	4M353	WEST STAYTON	4,546	1,023,824	3,480	294.20	1.306
WlmVly	STAYTON	NEW STAYTON	4M370	CASCADE	10,122	922,217	1,666	553.55	6.076
WlmVly	STAYTON	NEW STAYTON	4M50	3RD STREET	2,036	887,663	932	952.43	2.185
WlmVly	STAYTON	SCIO	5M126	THOMAS	8,733	2,083,100	1,602	1,300.31	5.451

### Oregon 2014 Circuit Metrics - Zero Outage Circuits

Reliability Region	Op Area Name	Substation Name	Circuit Id	Circuit Name	Kv	Customer Count	SAIDI	SAIFI
CoastPlus	COOS BAY/COQUILLE	G P COQUILLE	L804X	BANDON	20.8	0	0	0
CoastPlus	COOS BAY/COQUILLE	JORDAN POINT	5C11	WEYCO#2	12.5	1	0	0
CoastPlus	COOS BAY/COQUILLE	JORDAN POINT	5C24	WEYCO #8	12.5	28	0	0
CoastPlus	COOS BAY/COQUILLE	JORDAN POINT	5C5	MENASHA	12.5	0	0	0
CoastPlus	COOS BAY/COQUILLE	LOCKHART STREET	4C5	GEORGIA-PAC	20.8	101	0	0
CoastPlus	COOS BAY/COQUILLE	SOUTH DUNES	5C9	DOUGLAS CHIP	12.5	2	0	0
CoastPlus	HOOD RIVER	HOOD RIVER	5K29	MOSIER FDR	12.5	0	0	0
CoastPlus	HOOD RIVER	HOOD RIVER	6K336	WEST SIDE	7.2	2	0	0
CoastPlus	PORTLAND	ALBINA	5P111	ALBINA 11C01-UG	11.7	634	0	0
CoastPlus	PORTLAND	ALBINA	5P150	ALBINA 11C15	11.7	161	0	0
CoastPlus	PORTLAND	ALBINA	5P194	11C24-UG	11.7	20	0	0
CoastPlus	PORTLAND	ALBINA	5P91	11C11-UG	11.7	348	0	0
CoastPlus	PORTLAND	ALDERWOOD 115/12.5	5P23	ALDERWOOD #1-UG	12.5	0	0	0
CoastPlus	PORTLAND	BLOSS	5P170	OFFICE	12.5	0	0	0
CoastPlus	PORTLAND	BLOSS	5P172	FURNACE	12.5	1	0	0
CoastPlus	PORTLAND	COLUMBIA (OR)	5P480	COLUMBIA #5	12.5	21	0	0
CoastPlus	PORTLAND	HOLLADAY (OR)	5P145	HOLLADAY #1-UG	11.7	6	0	0
CoastPlus	PORTLAND	HOLLADAY (OR)	5P146	HOLLADAY #2-UG	11.7	1	0	0
CoastPlus	PORTLAND	HOLLADAY (OR)	5P147	HOLLADAY #3-UG	11.7	27	0	0
CoastPlus	PORTLAND	KNOTT	5P366	11010	11.7	7	0	0
CoastPlus	PORTLAND	LINCOLN (OR)	5P418	11D17	11.7	56	0	0
CoastPlus	PORTLAND	LINCOLN (OR)	5P420	11D14	11.7	20	0	0
CoastPlus	PORTLAND	LINCOLN (OR)	5P422	11D06-UG	11.7	553	0	0
CoastPlus	PORTLAND	LINCOLN (OR)	5P424	11D03-UG	11.7	1	0	0
CoastPlus	PORTLAND	LINCOLN (OR)	5P434	11D12-UG	11.7	17	0	0
CoastPlus	PORTLAND	LINCOLN (OR)	5P436	11G18-UG	11.7	108	0	0
CoastPlus	PORTLAND	LINCOLN (OR)	5P438	11D08-UG	11.7	17	0	0
CoastPlus	PORTLAND	LINCOLN (OR)	5P458	11D07-UG	11.7	216	0	0
CoastPlus	PORTLAND	LINCOLN (OR)	5P460	11D01-UG	11.7	0	0	0
CoastPlus	PORTLAND	LINCOLN (OR)	5P464	11G16-UG	11.6	59	0	0
CoastPlus	PORTLAND	YALE	5P53	YALE VILLAGE	12.5	0	0	0
Northeast OR	PENDLETON	PILOT ROCK	5W404	MILL (PILOT ROCK)	12.5	2	0	0

### Oregon 2014 Circuit Metrics - Zero Outage Circuits

Reliability Region	Op Area Name	Substation Name	Circuit Id	Circuit Name	Kv	Customer Count	SAIDI	SAIFI
South OR	KLAMATH FALLS	BOISE CASCADE	7L9	BOISE CASCAD	4.1	1	0	0
South OR	KLAMATH FALLS	ROSS AVENUE	5L47	FORT ROAD	12.5	0	0	0
South OR	MEDFORD	ASHLAND (MTN.AVE, PUD)	5R241	CITY	12.5	30	0	0
South OR	MEDFORD	FOOTHILLS	5R252	HILLCREST ROAD	12.5	0	0	0
South OR	MEDFORD	GRIFFIN CREEK	5R200	ARNOLD LANE	12.5	0	0	0
South OR	MEDFORD	PROSPECT 3 HE PLANT	5R290	P-3 FOREBAY	12.5	1	0	0
South OR	MEDFORD	PROSPECT CENTRAL	8R5	COTTAGES	2.4	5	0	0
South OR	MEDFORD	PROSPECT CENTRAL	8R8	DAM & FOREBAY	2.4	2	0	0
South OR	ROSEBURG/MYRTLECREEK	CARNES	5U45	GREEN	12.5	0	0	0
South OR	ROSEBURG/MYRTLECREEK	DIXONVILLE	BB08-1				0	0
South OR	ROSEBURG/MYRTLECREEK	RIDDLE-VENEER	5U23	FORD MILL	12.5	1	0	0
South OR	ROSEBURG/MYRTLECREEK	ROSEBURG	5U10	DIXON	12.5	0	0	0
South OR	ROSEBURG/MYRTLECREEK	ROSEBURG LUMBER CO	5U95	ROSEBURG LBR	12.5	1	0	0
South OR	ROSEBURG/MYRTLECREEK	SODA SPRINGS HE PLT	6U1	DRY CREEK	7.2	1	0	0
WlmVly	ALBANY	MURDER CREEK	5M131	WAH CHANG SOUTH	12.5	1	0	0
WlmVly	ALBANY	MURDER CREEK	5M132	WAH CHANG WEST	12.5	0	0	0
WlmVly	ALBANY	OREMET	5M20	OREMET-BPA	12.5	0	0	0
WlmVly	ALBANY	WESTERN KRAFT	5M24	WEST MAIN	12.5	1	0	0
WlmVly	ALBANY	WESTERN KRAFT	5M25	EAST MAIN	12.5	1	0	0
WlmVly	CORVALLIS	CIRCLE BLVD	4M396	H. P. #2	20.8	0	0	0
WlmVly	CORVALLIS	CIRCLE BLVD	4M428	H. P. #4	20.8	0	0	0
WlmVly	CORVALLIS	CIRCLE BLVD	4M430	H. P. #6	20.8	0	0	0

## **X1 – VEGETATION MANAGEMENT**

### ***Program Overview***

The Company *Specification Manual* includes program descriptions, specifications and protocols for all vegetation management work, including customer relations. The manual's objective is to provide direction for all vegetation management staff, from foresters, contract general foremen and supervisors, forest techs and utility tree workers on PacifiCorp's system. Furthermore, it provides important program information to all PacifiCorp employees about key facets of the Company's vegetation management practices.

### ***Qualifications***

PacifiCorp employs a staff of professional foresters to manage its vegetation program and communicate effectively the community service it provides. Moreover, contractor front line managers, supervisors, and forest techs, are International Society of Arboriculture (ISA) Certified Arborists and ISA Certified Utility Specialists. PacifiCorp's Director of Vegetation Management is an ISA Board Certified Master Arborist.

PacifiCorp's vegetation management program is founded on best management practices from the ISA. These practices include systematic maintenance, scientifically-based pruning, tree removal, tree replacement, herbicide and tree growth regulator applications, as well as specialized tools and equipment. PacifiCorp takes a progressive approach in vegetation management by trying innovative methods, products and equipment in order to improve safety and productivity.

### ***Tree Line USA***

PacifiCorp has been a Tree Line USA recipient since 2001. Tree Line USA is an award from the National Arbor Day Foundation, which recognizes utilities for utilizing practices that protect America's urban forests. To qualify, utilities must apply scientifically-based tree care, conduct annual worker training, plant trees, and conduct public education, including participating in Arbor Day celebrations. Contract employees should participate in annual worker training to cooperate with and help PacifiCorp continue to merit this outstanding award.

### ***Importance of Effective Vegetation Management***

Trees growing into or near power lines can create safety and service reliability risks, so they are a constant concern for utilities such as PacifiCorp. Close growing branches can provide access for the public to contact high-voltage lines, with potential for serious injury or death. Branches touching power lines can spark and start fires and cause interruptions in electric supply. Furthermore, trees whipped by winds or weighed down by rain or snow often interrupt power, disrupting business and home life, as well as compromising important community infrastructure, such as hospitals and emergency services. Three major electric grid failures, including the catastrophic blackout on August 14, 2003, were initiated by tree-caused outages on transmission lines. For these reasons and others, the National Electric Safety Code Section 218-A-1, states:

*"Trees which may damage ungrounded supply conductors should be trimmed or removed. Note: Normal tree growth, the combined movement of trees and conductors under adverse weather conditions, voltage and sagging of conductors at elevated temperatures are among the factors to be considered in determining the extent of trimming required."*

Accordingly, electric utilities, such as PacifiCorp, manage their systems to reduce electric supply and service reliability risks by clearing trees from power lines. Often, the best solution is to remove tall-growing trees and replace them with low-growing species that will never interfere with the high-voltage lines, especially for transmission line. However, it is not always possible to remove conflicting trees. Trees that may not be removed are pruned to clear the utility space using the modern arboriculturally-sound pruning practices.

### ***X-1 Reports Provided***

These reports are included in the following order:

- *Section A&B Operating Area Summary Distribution & Transmission Status Report*  
Sections A&B report distribution cycle line miles completed against schedule, and provides distribution cost per tree and mile along with removal rates. It further summarizes transmission schedule adherence, and progress against cycle goals.
- *Section C 10-Year Vegetation Management Plan*  
Section C displays historical performance and future plans for vegetation management in Oregon.
- *Section D Tree-Related Safety Issues*  
Section D provides information on four categories of tree-safety issues, including electrical contacts, powerline-cause fires, and climbable trees reported and corrected.
- *Section E Service Reliability Metrics: Outages*  
Section E identifies outages reported as non-preventable and preventable tree causes during the year.
- *Section F Scheduled versus Non-Scheduled Work Measures*  
Section F provides an overview of the amount of programmed scheduled versus nonscheduled (response to customer requests) performed during the year.

**OREGON**  
**Tree Program Reporting**  
**Report as of December 31, 2014**  
**Distribution Four Year Cycle 1/1/2012-12/31/2015**

	Total	Current Year Reporting				Total Cycle Reporting			
	Total Line Miles <i>column a</i>	1/1/2014- 12/31/2014 <i>column b</i>	1/1/2014- 12/31/2014 <i>column c</i>	1/1/2014- 12/31/2014 <i>column d</i>	1/1/2014- 12/31/2014 <i>column e</i>	1/1/2012 through end of cycle <i>column f</i>	1/1/2012 through end of cycle <i>column g</i>	1/1/2012 through end of cycle <i>column h</i>	1/1/2012 through end of cycle <i>column i</i>
		Miles Planned	Actual Miles	Ahead/Behind	% Ahead/Behind	Miles Planned	Miles Actual	Ahead/Behind	% Ahead/Behind
<b>Oregon</b>	<b>13,819</b>	<b>3,559</b>	<b>4,781</b>	<b>1,222</b>	<b>134.3%</b>	<b>10,264</b>	<b>9,563</b>	<b>-701</b>	<b>93.2%</b>
ALBANY	613	153	99	-54	64.7%	460	533	73	115.9%
CORVALLIS	293	73	0	-73	0.0%	220	117	-103	53.2%
COTTAGE GROVE	52	13	51	38	392.3%	39	51	12	130.8%
DALLAS	405	101	270	169	267.3%	304	270	-34	88.8%
JUNCTION CITY	154	38	0	-38	0.0%	116	68	-48	58.6%
LEBANON	606	151	248	97	164.2%	455	248	-207	54.5%
LINCOLN CITY	162	41	79	38	192.7%	122	138	16	113.1%
STAYTON	433	108	6	-102	5.6%	325	285	-40	87.7%
COOS BAY	642	160	256	96	160.0%	482	355	-127	73.7%
GRANTS PASS	1,596	399	402	3	100.8%	1,197	694	-503	58.0%
ROSEBURG	1,186	297	299	2	100.7%	890	659	-231	74.0%
KLAMATH FALLS	1,845	461	665	204	144.3%	1,384	1,549	165	111.9%
LAKEVIEW	59	15	0	-15	0.0%	44	49	5	111.4%
MEDFORD	1,897	474	855	381	180.4%	1,423	1,533	110	107.7%
CENTRAL OREGON	1,327	332	686	354	206.6%	995	1,140	145	114.6%
CLATSOP	370	92	75	-17	81.5%	278	197	-81	70.9%
ENTERPRISE	431	108	117	9	108.3%	323	321	-2	99.4%
HERMISTON	254	64	164	100	256.3%	191	230	39	120.4%
HOOD RIVER	304	76	35	-41	46.1%	228	277	49	121.5%
PENDLETON	627	157	277	120	176.4%	470	561	91	119.4%
PORTLAND	419	210	146	-64	69.5%	210	146	-64	69.5%
WALLA WALLA	144	36	51	15	141.7%	108	142	34	131.5%
Distribution cycle \$/tree:	*	\$56.98							
Distribution cycle \$/mile:		\$4,318							
Distribution cycle removal %	*	30.44%							
<b>Transmission</b>									
Total	Line	Line	Miles	Miles	% of miles				
Line	Miles	Miles	Ahead(behind)	on	on/behind				
Miles	Scheduled	Worked	Schedule	Schedule	Schedule				
2,975	42	156	114	3,089	104%				
Transmission \$/mile:				\$0					

Notes:

Column a: Total overhead pole miles by district

Column b: Total overhead pole miles planned for the period January 1, 2014 through December 31, 2014

Column c: Actual overhead pole miles worked during the period January 1, 2014 through December 31, 2014

Column d: Miles ahead or behind for the period January 1, 2014 through December 31, 2014 (column c-column b)

Column e: Percent of actual compared to planned for the period January 1, 2014 through December 31, 2014 ((column c÷b)×100)

Column f: Total overhead pole miles planned for the period January 1, 2012 through end of cycle

Column g: Actual overhead pole miles worked during the period January 1 2012 through end of cycle

Column h: Miles ahead or behind for the period January 1, 2012 through end of cycle (column g-column f)

Column i: Percent of actual compared to planned for the period January 1, 2012 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)**

	2014 est. <sup>1,2</sup>	2015 est. <sup>1,2</sup>	2016 est. <sup>1,2</sup>	2017 est. <sup>1,2</sup>	2018 est. <sup>1,2</sup>	2019 est. <sup>1,2</sup>
<b>Distribution Tree Budget</b>	20,066,135	20,366,135	17,766,135	18,366,135	18,766,135	19,166,135
<b>Transmission Tree Budget</b>	<u>3,133,067</u>	<u>3,133,067</u>	<u>3,133,067</u>	<u>3,133,067</u>	<u>3,133,067</u>	<u>3,133,067</u>
<b>Total Tree Budget</b>	\$ 23,199,202	\$ 23,499,202	\$ 20,899,202	\$ 21,499,202	\$ 21,899,202	\$ 22,299,202

	CY2008	CY2009	CY2010	2011	2012	2013
<b>Distribution Tree Actuals</b>	\$ 15,350,304	13,846,144	14,064,912	13,853,185	16,995,719	18,251,251
<b>Transmission Tree Actuals</b>	<u>\$ 2,820,632</u>	<u>3,033,066</u>	<u>3,125,438</u>	<u>3,762,895</u>	<u>3,734,977</u>	<u>4,363,149</u>
<b>Total Tree Actuals</b>	\$ 18,170,935	\$ 16,879,210	\$ 17,190,350	\$ 17,616,080	\$ 20,730,696	\$ 22,614,400

Calendar year 2014	Distribution			Transmission		
	Actuals	Budget	Variance	Actuals	Budget	Variance
<b>Jan</b>	\$ 1,962,122	1,672,178	\$ 289,944	\$ 102,794	\$ 261,089	\$ (158,295)
<b>Feb</b>	\$ 1,464,142	1,592,550	\$ (128,408)	\$ 147,029	\$ 248,656	\$ (101,627)
<b>Mar</b>	\$ 1,696,950	1,672,178	\$ 24,772	\$ 134,887	\$ 261,089	\$ (126,202)
<b>Apr</b>	\$ 1,854,156	1,751,805	\$ 102,351	\$ 185,642	\$ 273,521	\$ (87,879)
<b>May</b>	\$ 1,759,947	1,672,178	\$ 87,769	\$ 150,720	\$ 261,089	\$ (110,369)
<b>Jun</b>	\$ 1,737,343	1,672,178	\$ 65,165	\$ 227,194	\$ 261,089	\$ (33,895)
<b>Jul</b>	\$ 1,827,545	1,751,805	\$ 75,740	\$ 241,179	\$ 273,521	\$ (32,342)
<b>Aug</b>	\$ 1,740,231	1,672,178	\$ 68,053	\$ 168,018	\$ 261,089	\$ (93,071)
<b>Sep</b>	\$ 1,812,739	1,672,178	\$ 140,561	\$ 206,058	\$ 261,089	\$ (55,031)
<b>Oct</b>	\$ 2,635,498	1,831,433	\$ 804,065	\$ 355,815	\$ 285,954	\$ 69,861
<b>Nov</b>	\$ 2,003,379	2,020,210	\$ (16,831)	\$ 214,258	\$ 211,357	\$ 2,901
<b>Dec</b>	<u>\$ 2,697,270</u>	<u>\$ 2,604,947</u>	<u>\$ 92,323</u>	<u>\$ 237,227</u>	<u>\$ 273,521</u>	<u>\$ (36,294)</u>
<b>Total</b>	\$ 23,191,320	\$ 21,585,818	\$ 1,605,502	\$ 2,370,822	\$ 3,133,064	\$ (762,242)

**Average # Tree Crews on Property (YTD)** 85

<sup>1</sup> Amounts acquired from Vegetation Management ten year plan. 2013-2015 include \$3M additional funding .

<sup>2</sup> Tree removals reduce costs in future years, while herbicide costs are assumed to increase in same time period.

**OREGON**  
**Tree Program Reporting (D, E, F, G)**

D. Tree Related Safety Issues

# Public electrical contacts involving trees	0
# Powerline caused fires	5
# Readily climbable trees reported	6
# Readily climbable trees corrected	6

E. Service Reliability

# Non-preventable tree related outages	1,580
# Preventable tree related outages	39
# Total tree related outages	1,619

F. Scheduled Work vs. Non-scheduled work

Distribution non-scheduled work compared to total annual costs:	2% non-scheduled	98% scheduled
Transmission non-scheduled work compared to total annual costs:	2% non-scheduled	98% scheduled



## INCIDENT REPORT

### TREE-RELATED FIRE

**1** Incident Date: 6/12/2014  
Date Reported: 6/12/2014  
Location: 5305 Highway 66  
Address: 5305 Highway 66  
City: Ashland

Description of incident: Gale winds (30-55 mph) caused live alder tree to uproot and fall into distribution lines. Wooden fence with metal mesh wire became energized and burned posts. Burn on fence, no ground fire.

**2** Incident Date: 8/12/2014  
Date Reported: 8/12/2014  
Location: dead end of Copper Dam rd pole 0210/120102  
Address: at river crossing- no address.  
City: Hood River, OR

Description of incident: Tuesday (8/12/14) afternoon there was a storm in Hood River. The winds knocked over a tree that had its roots undermined by the river. The tree tore down the wires and broke 2 poles. There was a fire that burned some understory vegetation.

**3** Incident Date: 7/15/2014  
Date Reported: 7/17/2014  
Location: 1498 South Peach Street  
Address: Same  
City: Medford, Oregon

Description of incident: Service drop rubbing on main stem of a Birch tree rubbed through outer coating on 120V phase and contacted the neutral which caused it to spark. Sparks fell into tall, dry grass of vacant home. Medford Fire Department responded and extinguished fire that burned grass in yard, no structures affected. Feeder last worked in 2012 on compliance hot spot.

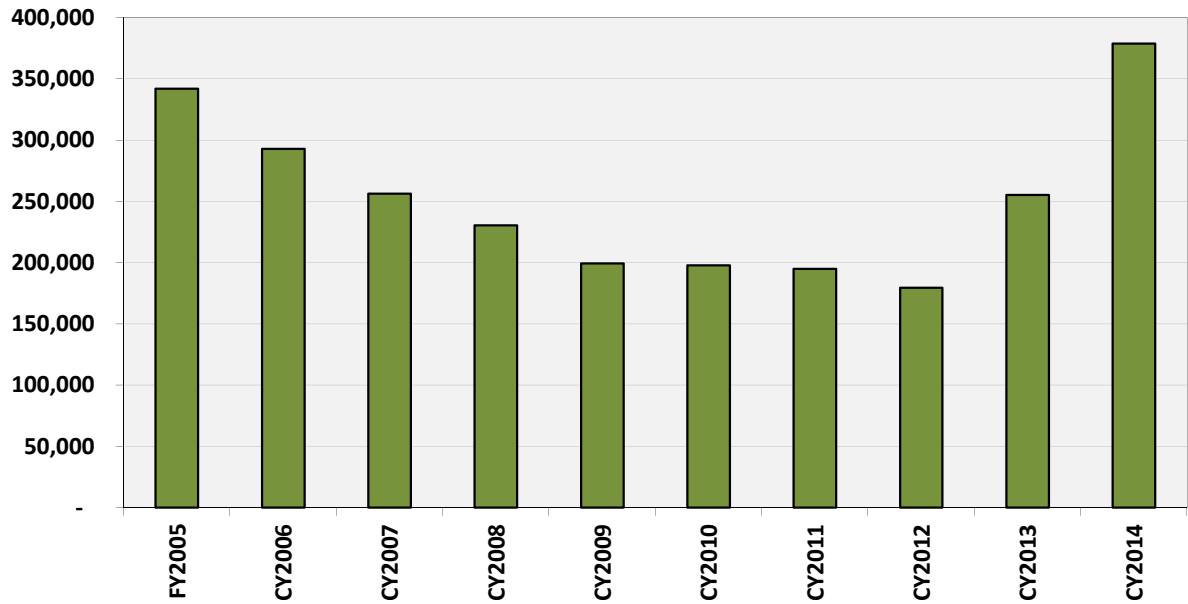
**4** Incident Date: 8/29/2014  
Date Reported: 8/29/2014  
Location: 30 Sardine Creek Road  
Address: Same  
City: Gold Hill

Description of incident: A large leg of a co-dominant oak failed at the point of attachment and fell through a service drop, separating the service line at a point near the transformer. Leg that fell through the drop was 15 inches in diameter, 55' feet long and 45-55' above service. Oregon Department of Forestry responded to fire that burned approximately one acre. Feeder was currently being worked and this location had already been completed and service was not worked as there was no deflection or heavy abrasion on wire.

**5** Incident Date: 8/12/2014  
Date Reported: 8/12/2014 at 2:50 pm.  
Location: Murphy, Oregon  
Address: 8877 Williams Hwy. Murphy, Oregon  
City: Murphy

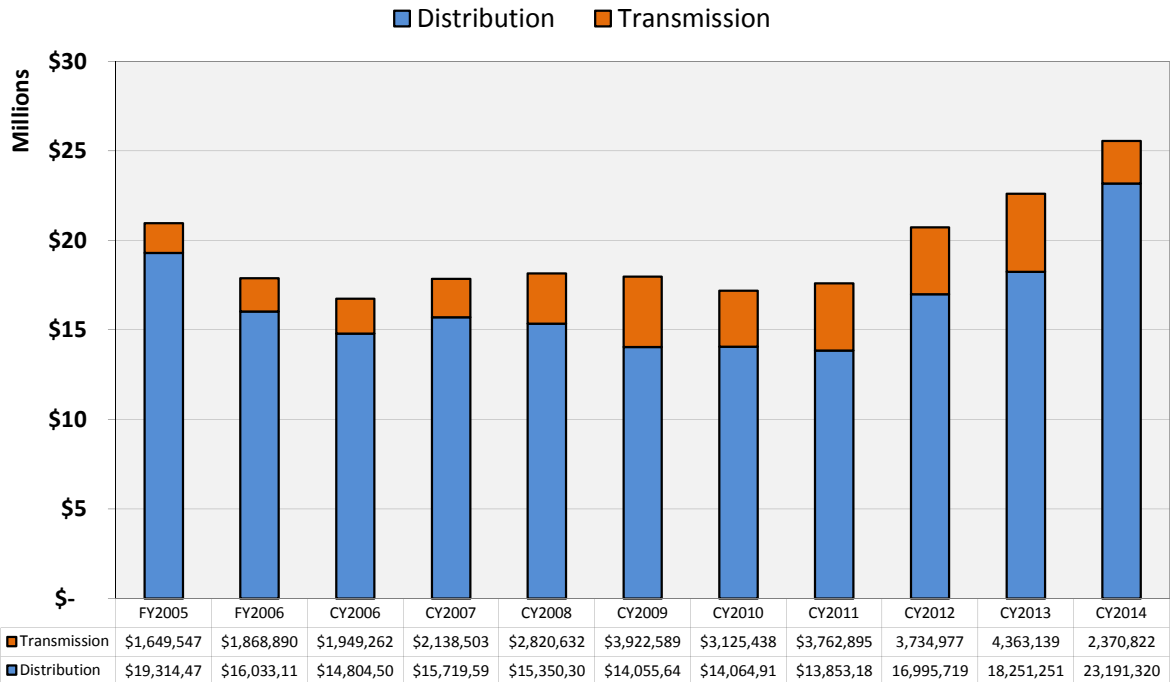
Description of incident: A large pine around 90 feet tall and 25 DBH broke off about 12 to 15 feet in the air and fell over the three phase line causing the wire and communication lines to fall to the ground. The tree was growing around 15 feet out of the right of way. This caused a 3 to 5 acre fire, which burnt grass, brush, a small shed with yard equipment and an older ford pick-up. We had 20 to 25 MPH winds at the time of incident.

### Distribution Trees Worked



\*In 2014 the company updated its conversion square feet of sapling trees from 10ft<sup>2</sup> to 100ft<sup>2</sup> saplings for each tree. The conversion has been reflected for all years shown in the above table.

### Vegetation Expenditure History



## **X2 – INSPECTION AND MAINTENANCE PROGRAMS**

### ***Inspection and Repairs***

In Calendar Year 2014 (January 01 through December 31, 2014), among distribution and transmission facilities (both overhead and underground), 1,800 'A' Priority conditions were recorded and 1,734 were corrected.

For 'B' priority conditions, 30,722 were identified and 22,742 were corrected in CY2014.

For 'C' priority conditions, 93 were identified and 11,404 were corrected in CY2014.

### ***Pole and Overhead Facilities***

- Overhead Detail Inspection History: In CY2014, 41,195 Distribution poles, 4,608 Local Transmission poles and 5,373 Main Grid Transmission poles were Detail inspected. Detail inspections were performed on 11.2% of the total 457,881 overhead facilities.
- Pole Test and Treat History: 40,622 Distribution poles, 3,832 Local Transmission poles and 0 Main Grid Transmission poles were inspected. Physical and intrusive tests, such as test and treatment, were performed on 9.7% of the total 457,881 overhead facilities.
- Pole Reject Rate History: PacifiCorp replaced or reinforced 935 poles that were reject through the Test and Treat or other inspection programs. The CY2014 rejection rate was 1.67% for Distribution, 2.64% for Local Transmission and 0% for Main Grid Transmission. The overall reject rate for CY2014 was 1.86%.

### ***Visual Inspections***

In CY2014, 205,939 Distribution poles, 15,556 Local Transmission poles and 16,759 Main Grid poles were inspected for a total of 237,958 poles which equates to 52.0% of the total overhead facilities.

### ***Underground Facilities***

During CY2014, 10,619 facilities were inspected; 9.2% of 116,053 underground facilities.

### ***Marina Inspection Program***

In CY2014, 100% of marinas were inspected.

## **X3 – SUBSTATION MAINTENANCE PROGRAMS**

### ***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

### ***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 275 substation and communication facilities in Oregon.

### ***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.

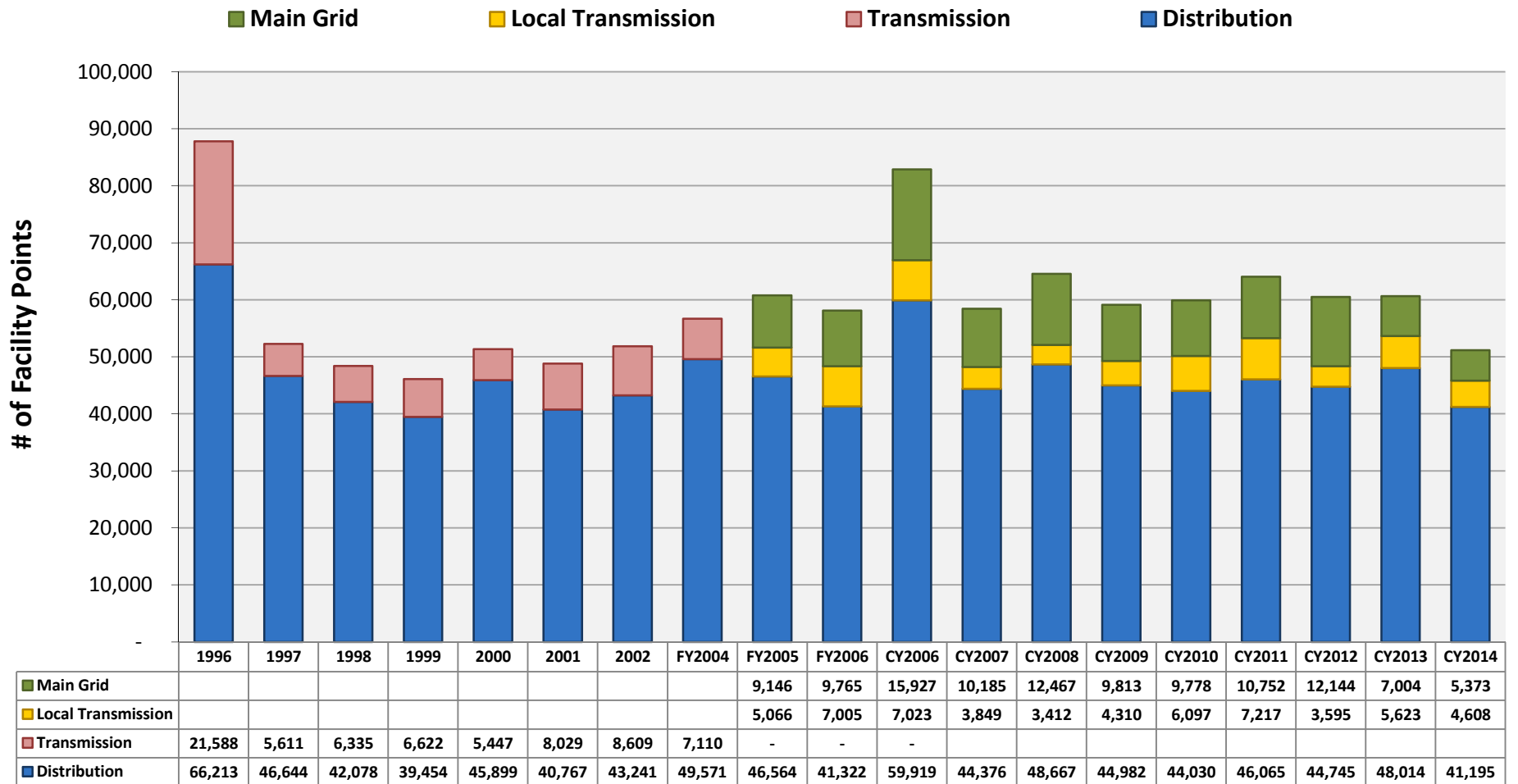
### ***Substation Inspection Rate***

The Company schedules monthly substation inspections, queuing this work to be completed within the required timeframes by the substation operations team. Recent modifications to the tracking process have taken place to ensure that the maximum inspection timeframe is not exceeded, however this process is relatively recent in its application. A monthly inspection could extend beyond the 45 day maximum in the event that the station was inspected early in one month, then late in the subsequent month.

The table below displays the performance by Operating Area.

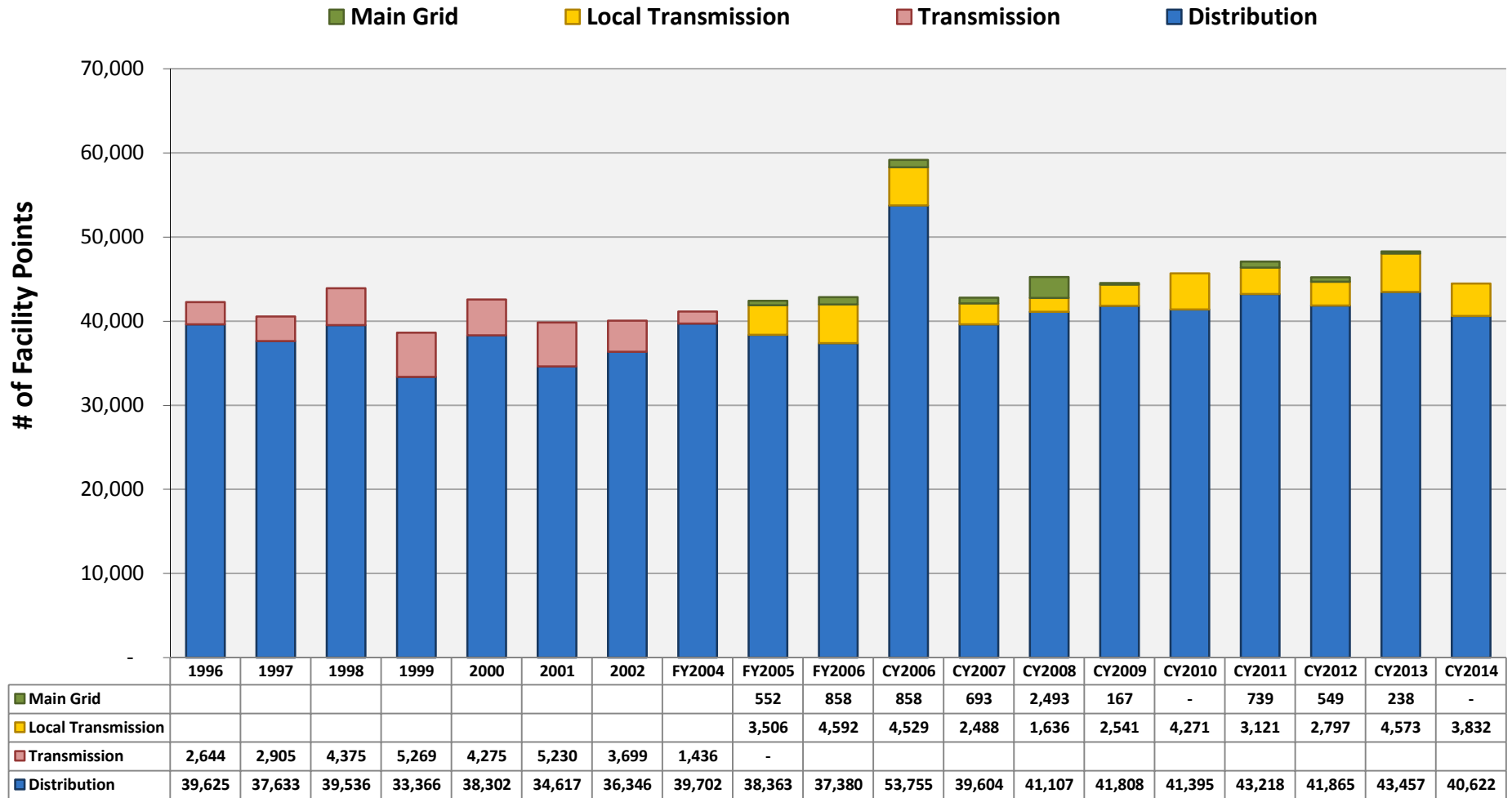
<b>Operating Area</b>	<b>&lt; 45 Days</b>	<b>&gt; 45 Days</b>	<b>Average # Days</b>
Albany	94%	6%	30.3
Bend	94%	6%	29.9
Klamath Falls	98%	2%	29.6
Medford	90%	10%	29.4
Portland	92%	8%	30.0
Roseburg	97%	3%	29.7
Walla Walla	96%	4%	30.4

# CY2014 Overhead Detail Inspection History



(Transmission breakout not available for years prior FY2005)

# CY2014 Pole Test and Treat History

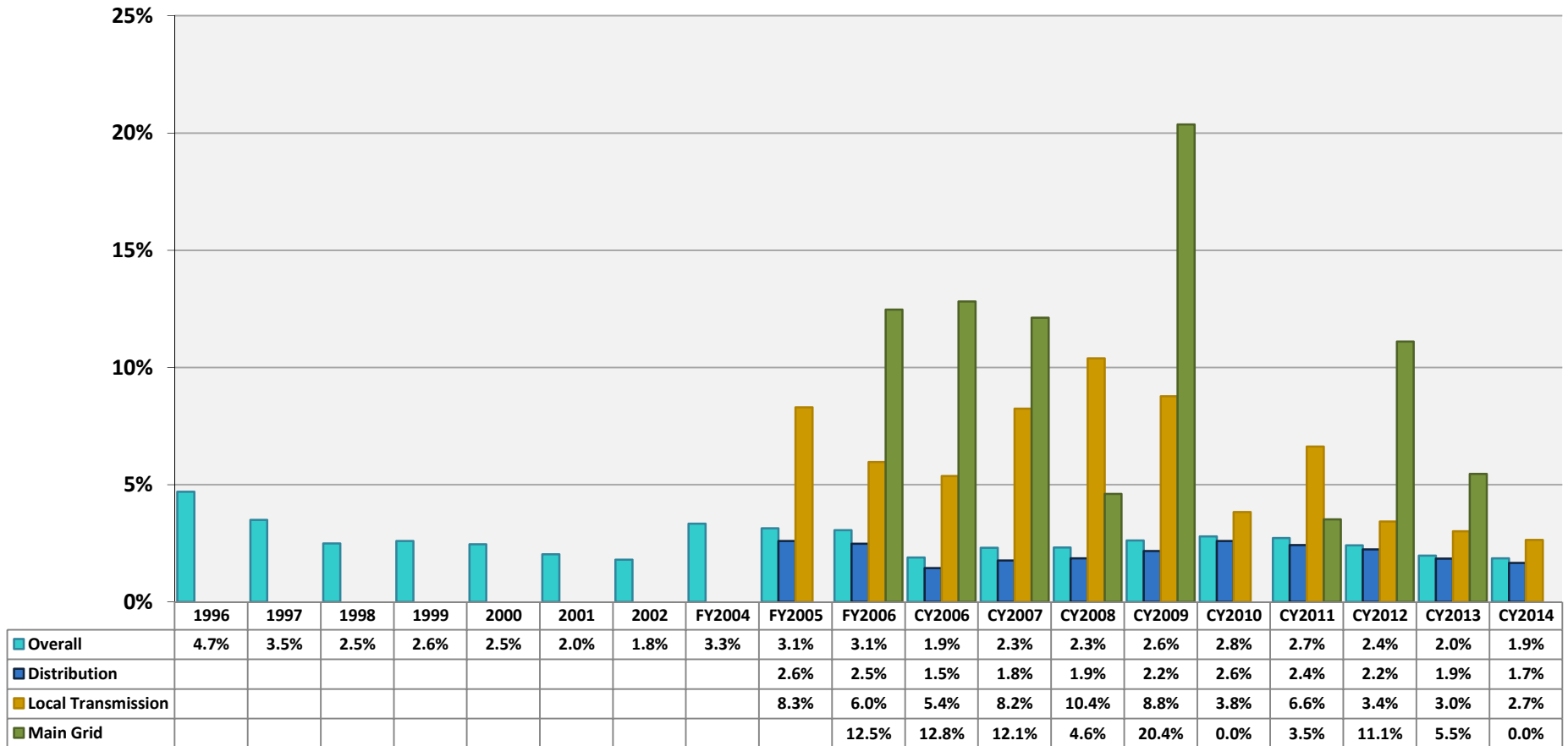


(Transmission breakout not available for years prior FY2005)  
Includes intrusive and physical testing



# CY2014 Pole Reject Rate History

■ Overall     
 ■ Distribution     
 ■ Local Transmission     
 ■ Main Grid



(Breakout not available for years prior FY2005; in FY2005, Distribution and blended Transmission breakout available; effective FY2006, full breakout views available. Main Grid rates combine intrusive inspection rejects with detail inspection BOPOLE.)

**X2 & X3 - CY 2014 Actuals and Budget**

<b>X2 : Pole Inspect &amp; Treat</b>			<b>ACTUALS</b>	<b>BUDGET</b>
Distribution	T&T	515	\$1,979,513	\$2,010,499
	Detail	520	\$0	\$0
Transmission	T&T	843, 883	\$306,261	\$313,739
	Detail	840, 880	\$146,301	\$161,443
<b>Total</b>			<b>\$2,432,075</b>	<b>\$2,485,681</b>

<b>X2 : Pole Replacements</b>			<b>ACTUALS</b>	<b>BUDGET</b>
Distribution			\$4,682,355	\$4,482,791
Transmission			\$2,625,806	\$2,422,571
<b>Total</b>			<b>\$7,308,161</b>	<b>\$6,905,362</b>

<b>X2 : Repair and Replace Facilities</b>			<b>ACTUALS</b>	<b>BUDGET</b>
Distribution	500, 501, 502, 503, 504, 505, 509, 518, 526, 527, 595, 625, 626		\$14,908,929	\$15,917,807
Transmission	845, 847, 846, 865, 884, 886, 848, 889		\$907,356	\$902,086
<b>Total</b>			<b>\$15,816,285</b>	<b>\$16,819,893</b>

<b>X2 : Visual Inspections (Includes Equipment Inspections)</b>			<b>ACTUALS</b>	<b>BUDGET</b>
Distribution	521		\$378,816	\$397,310
Transmission	841, 881		\$142,731	\$134,444
<b>Total</b>			<b>\$521,547</b>	<b>\$531,754</b>

<b>X2 : Underground Inspections</b>			<b>ACTUALS</b>	<b>BUDGET</b>
	508		\$443,467	\$318,399
<b>Total</b>			<b>\$443,467</b>	<b>\$318,399</b>

<b>X3 : Substation Maintenance</b>			<b>ACTUALS</b>	<b>BUDGET</b>
Distribution Preventative Maintenance			\$1,746,509	\$1,999,484
Distribution Corrective Maintenance			\$1,441,589	\$905,071
Transmission Preventative Maintenance			\$992,883	\$1,248,661
Transmission Corrective Maintenance			\$1,093,681	\$739,571
<b>Total</b>			<b>\$5,274,662</b>	<b>\$4,892,787</b>

## Oregon Workforce CY2014

Field Operations & Maintenance	Number of Workers	
	Budget	Actual
Intern	2	2
Sevicemen	25	25
Lineman	105	96
Line / General Foreman	51	46
Underground Equipment/Cable Splicer	3	3
Clerks	25	23
Estimators	32	32
Field Inspectors	5	2
Field Engineers	9	9
Support Staff		
Managers/Supervision	28	21
<b>Field Operations &amp; Maintenance Total</b>	<b>285</b>	<b>259</b>
Metering	Budget	Actual
Collectors	27	30
Meter Readers	101	92
Connect/Disconnet/Collectors	4	4
Meterman	30	26
Engineers	1	1
Clerks	7	7
Contractor		
Intern		
Support Staff	13	13
Managers/Supervision	10	8
<b>Metering Total</b>	<b>193</b>	<b>181</b>
Plant and Dispatch	Budget	Actual
Contractors	7	5
Substation Foreman	8	9
Substation Journeyman	18	17
Communication Technicians	16	14
Meter Relay Technicians	17	19
Wireman Foreman	4	4
Wireman	2	1
Incident Coordinators	5	6
Engineers	6	6
Dispatchers	53	49
Clerks	10	7
Support Staff	12	12
Managers/Supervision	32	28
<b>Plant &amp; Dispatch Total</b>	<b>190</b>	<b>177</b>
Transportation and Logistics	Budget	Actual
Contractors	1	0
Clerks		
Logistics Workers	32	32
Mechanics	14	15
Support Staff	3	3
Managers/Supervisors	3	3
<b>Transportation &amp; Logistics Total</b>	<b>53</b>	<b>53</b>

## Oregon Workforce CY2014

Procurement	Number of Workers	
	Budget	Actual
Contractors		
Intern	1	
Clerks		
Buyers	14	12
Support Staff	3	3
Managers/Supervision	8	6
<b>Procurement Total</b>	<b>26</b>	<b>21</b>
Customer Service @ Portland Business Center	Budget	Actual
Contractors	15	21
Customer Service Employees	171	154
Support staff	4	4
Managers/Supervisors	14	15
<b>Portland Business Center Total</b>	<b>204</b>	<b>194</b>
Customer Service @ Wasatch Business Center	Budget	Actual
<i>(Note: Calls can be routed to both Business Centers.)</i>		
Clerks	1	1
Contractors	5	
Customer Service Employees	104	106
Support staff	2	2
Managers/Supervisors	10	10
<b>Wasatch Business Center Total</b>	<b>122</b>	<b>119</b>
OREGON LABOR	Budget	Actual
<b>TOTAL NON-SUPPORT, NON-MANAGEMENT STAFF</b>	<b>931</b>	<b>876</b>
<b>TOTAL SUPPORT STAFF</b>	<b>37</b>	<b>37</b>
<b>TOTAL MANAGEMENT STAFF</b>	<b>105</b>	<b>91</b>
<b>Oregon Workforce Total</b>	<b>1073</b>	<b>1004</b>

NOTE: Number of Workers reflects the counts of Actual number of workers on record as of 12/31/2014.

# PacifiCorp Vegetation Management

## Monthly Crew Report: Oregon

Date: 12/31/2014

District	Distribution & Local Trans													Main Grid Trans						Total Crews	
	2 Man Lift	3 Man Lift	3 Man Climb	4 Man Climb	3 Man Skidder	2 Man Mow	2 Man Slash	2 Man Pole Clear	1 Man Chem	2 Man Flagger	For. Tech.	Billed Super	Crew Sub-Total	3 Man Climb	3 Man Skidder	2 Man Slash	2 Man Pole Clear	1 Man Chem	Forest Techs		Sub Total
<b>Phillips</b>									Page & [Page]												
KLAMATH FALLS	3	1								0.25	0.75	0.75	4.25							0	
LAKEVIEW													0							0	
MEDFORD	7	2	1					1		2	2	2	13							0	
<b>Total</b>	<b>10</b>	<b>3</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>2.25</b>	<b>2.75</b>	<b>2.75</b>	<b>17.25</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	
<b>Hooley</b>													0							0	
ALBANY													0							0	
CORVALLIS													0							0	
COTTAGE GROVE													0							0	
DALLAS JUNCTION	4	3								2	1	1	9							0	
CITY													0							0	
LEBANON	6	2						1		1.5	1	1	10.5							0	
LINCOLN CITY													0							0	
STAYTON													0							0	
<b>Total</b>	<b>10</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>3.5</b>	<b>2</b>	<b>2</b>	<b>19.5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	
<b>Partridge</b>																					
COOS BAY	2	2						1	0	0.5	1	0.75	5.5	0	0					0	
GRANTS PASS	12	5				3	1		1	3	2.5	2.75	25	0						0	
ROSEBURG	6	1	2			1	1		1	1	2	1	13							0	
<b>Total</b>	<b>20</b>	<b>8</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>2</b>	<b>1</b>	<b>2</b>	<b>4.5</b>	<b>5.5</b>	<b>4.5</b>	<b>43.5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	

# PacifiCorp Vegetation Management

## Monthly Crew Report: Oregon

Date: 12/31/2014

District	Distribution & Local Trans													Main Grid Trans						Total Crews	
	2 Man Lift	3 Man Lift	3 Man Climb	4 Man Climb	3 Man Skidder	2 Man Mow	2 Man Slash	2 Man Pole Clear	1 Man Chem	2 Man Flagger	For. Tech.	Billed Super	Crew Sub-Total	3 Man Climb	3 Man Skidder	2 Man Slash	2 Man Pole Clear	1 Man Chem	Forest Techs		Sub Total
<b>Armstrong</b>																					
BEND												0								0	0
CLATSOP	2	1								0.5	1.5	0.5	3.5							0	3.5
ENTERPRISE												0								0	0
HERMISTON												0								0	0
HOOD RIVER												0								0	0
MADRAS	1										1	0.25	1							0	1
MILTON-FREEWATER												0								0	0
PENDLETON	1									0.25	0.5	1.25								0	1.25
PORTLAND	2	1								0.2	0.5	3.2								0	3.2
PRINEVILLE												0								0	0
REDMOND												0								0	0
<b>Total</b>	<b>6</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.95</b>	<b>3.5</b>	<b>1.25</b>	<b>8.95</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>8.95</b>
<b>Total Crews</b>	<b>46</b>	<b>18</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>2</b>	<b>3</b>	<b>2</b>	<b>11.2</b>	<b>13.75</b>	<b>10.5</b>	<b>89.2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>89.2</b>

## **METERS**

### ***New Meter Quality Assurance Program***

The meter manufacturers test all new single-phase and polyphase meters before being shipped to the company and provide certified test data for these meters.

The company analyzes all new meter certified test data to assure that company expectations, requirements and specifications are met. Any meters that do not meet the analysis criteria are rejected and returned to the manufacturer.

The company has a sample quality assurance (QA) evaluation and testing program for new residential type meters. As part of this program, the company conducts inspections of manufacturer's facilities, and district meter shops are asked to randomly select, inspect, and test a pallet of new residential meters. In addition, the main Meter Test Facility may retest meters selected from one of several district shops. QA testing is conducted in order to validate:

- That meter shipping and handling is not causing accuracy or other problems.
- The laboratory accuracy standardization process between the company and the manufacturers.
- That the quality of the new meters delivered meets company expectations and specifications.

The company has a 100% QA evaluation and testing program for new instrument-rated meters. District meter shops, before or within 90 days of installation, test all new single- and polyphase instrument-rated meters.

### ***In-Service Sample Test Program***

The company conducts an annual in-service sample test program. Random samples with billing multipliers less than 40 are selected from each homogeneous meter group. Manufacturer, electrical-phase, model and serial number are used to group the meter populations selected for sample testing and analysis. Over 6,000 meters company-wide were sample tested this past year.

For three consecutive years, 2010, 2011, and 2012, the Westinghouse model D5 did not meet ANSI Z1.9 criteria and failed the annual in-service sample test program. This meter model is listed on the company's meter retirement list with instructions to retire whenever a site is visited and to retire any in stock. PacifiCorp's retirement program helps ensure removal of these meters from service on a timely basis.

For two consecutive years, 2011 and 2012, the GE model EV did not meet ANSI Z1.9 criteria and failed the annual in-service sample test program. This meter model is listed on the company's meter retirement list with instructions to retire whenever a site is visited and to retire any in stock. PacifiCorp's retirement program helps ensure removal of these meters from service on a timely basis.

### ***In-Service Periodic Test Program***

The company has an annual periodic testing and site inspection program in place divided into 2-year, 8-year and 16-year intervals based on the billing multiplier of the meter. This program is to assure proper and accurate metering equipment operation for accounts with billing multipliers of 40 or greater. The number of periodic tests company-wide was over 5,300 this past year.

The company's metermen conduct inspections looking for evidence of meter tampering, energy theft and unsafe conditions. Tests are performed to verify wiring, instrument transformer ratio and burden performance, phase-angles and power factor, and meter accuracy. The company's Customer Service System (CSS) is also reviewed to verify the correctness of the rate schedule, billing multiplier and other metering information needed for accurate billing.

### ***Uniquely Defective Meter Analysis***

When visiting the sample and periodic test sites, the metermen assign each meter with an "as-found condition code". These codes are analyzed for trends as part of the Uniquely Defective Meter analysis.

The company's metering department evaluates the uniquely defective meter lists developed from the sample and periodic testing programs. The evaluation process is intended to recognize meter groups with design or manufacturing deficiencies in addition to those developing a history of poor performance.

The evaluation includes the analysis of design or manufacturing deficiencies that could eventually lead to accuracy or other meter problems. Meter groups with problems are identified and, if appropriate, a retirement program is established.

The analysis includes examination of logical sub-groups within homogeneous groups, geographic areas, serial number ranges, meter age and consultations with manufacturers.

### ***Meter Retirement Programs***

The company's metering assets and technology group evaluates the Sample Test Program as well as the Uniquely Defective Meter Reports, for both Sample and Periodic Test Programs, to determine if a retirement program should be established for any identifiable meter groups, models or subgroups.

The state of Oregon has additional meter retirement programs that list the categories High Maintenance, Special Problem and Failed Sample meter models and groups.

### ***Watt-hour Standards Certification***

The company maintains a certification program for watt-hour standards that are used to test meters. The metermen's field working standards are certified annually to an accuracy of +/- 0.05%.



The company uses the Radian RD-22 as a portable standard between the Radian RD-23 Lab Standard and the metermen's field working standards. The transfer standards are certified quarterly.

The company maintains a basic watt-hour reference standard, the Radian RD-23 Lab Standard, that is certified annually with results traceable to the National Institute of Standards and Technology.

## **STANDARDS**

PacifiCorp's Standards mission is to produce construction standards, policies and practices that are in agreement with safety rules and enhance consistently high construction quality with highly durable materials at a most economical cost. Additionally, it is incumbent upon the Company to ensure that aged facilities are also properly inspected and maintain to ensure safe and reliable operations throughout its life. In delivering this mission, many of the responsibilities to ensure this high quality and low cost delivery are integrated throughout the Company. The products and services that achieve this mission are listed below:

### ***Policies and Practices***

The Company develops, evaluates and publishes construction, maintenance and inspection Policies and Practices. These cover the wide gamut of older facilities and construction to newly evolving technologies and materials for the electrical system.

### ***Electrical Service Requirements Manual***

In FY2011, the Company updated the company-wide Electric Service Requirements manual. The manual incorporates all six states' ESR and was reviewed by each state's regulatory staff. This manual provides customers with information to follow to effectively receive electric service. Guidance is given regarding safety clearance requirements and typical installation practices so that the Company can work with the customer to deliver safe electric service.

### ***Automated Construction Design Tool***

The Company uses an automated Construction Design Tool, which provides cost estimating, material ordering, proper engineering design and financial accounting data. Company estimators and planners use the system to specify properly engineered designs and materials. Construction forces use this system to order the materials needed to provide a safe, highly reliable and highly durable electrical system at the lowest customer cost. It is also used to by Purchasing to purchase the type and quantities of materials needed by the Company. This allows optimum negotiation, yielding the lowest possible costs for high quality materials. Company accountants are supported in the proper accounting of material costs, labor charges and overhead costs, due to its automatic integration into the Company financial systems.

### ***Code Support***

Code expertise is provided to answer questions of compliance with applicable NESC (National Electrical Safety Code), NEC (National Electrical Code), state regulations, as well as other codes, rules and regulations.

### ***Standards Support***

Respond to day to day questions about proper construction and engineering practices. The department answers questions and provides engineering expertise and design resources (in the

form of engineering data or computer programs) to help field designers provide our customers with the highest possible levels of quality and service.

### ***Document Support***

The Company maintains detailed construction drawings, construction procedures, training material and engineering data, which is published in hardcopy form and also within the company web site.

### ***Standards Advisory Committee***

In order to prioritize activities that deliver the highest value in meeting the goals of low cost, high quality delivery of electricity, the Company established the Standards Advisory Committee, which is comprised of field construction managers who advise of needed policies and priorities for such development.

### ***Engineering and Quality Evaluations***

The Company ensures the quality of a variety of services and goods provided, including that of materials and material suppliers, construction and inspection services.

### ***Quality Assurance Programs***

The Company conducts random audits across a variety of goods and services rendered to ensure that appropriate quality levels are being delivered by its vendors. Substantial effort is made to increase the delivered quality of services provided. The Company performs quality assurance to ensure compliance with codes and standards on corrected conditions.

## NEUTRAL EXTENSION AND DELTA GROUNDING SUMMARY

At year-end 2010 the Company and Commission Staff agreed upon a ten year plan to extend neutral throughout its ungrounded grounding system, unless the Company is able to demonstrate the ungrounded system was compliant with the grounding requirements of the National Electric Safety Code. In general, that means that effectively all of these facilities will have grounding conductor extended over that ten year period. In the sections below the Company will report on its inventory at year-end, the amount expended and planned to be expended for the year and finally, its plans for neutral extension during the upcoming year. Below are the mileages calculated year-end 2014.

### Neutral Extension Inventory for Year-End 2014

In its Neutral Extension Program, the Company identified that it would use data contained in its Geographic Information System (GIS) as a source of inventory data for records regarding ungrounded grounding systems. As a result, the inventory the Company reports will be modified during the ten year project both by verifying field facilities and correcting records in addition to physical extension of grounding conductors and records modifications after those facilities are extended. The Company records showed at year-end 2014 referenced to the 2010 table that it now contains 927 miles of ungrounded grounding systems in Oregon. This inventory is distributed across Oregon operating areas as shown below.

<b>2014 Year-End Mileage of Uniground Facilities</b> (based on original inventory)	
Operating Area	Miles
Albany	6.63
Bend/Redmond	0.92
Clatsop (Astoria)	2.81
Coos Bay/Coquille	7.48
Corvallis	1.93
Cottage Grove/J. City	1.79
Dallas/Independence	3.31
Grants Pass	20.25
Hermiston	1.96
Hood River	20.45
Klamath Falls	488.19
Lakeview	36.05
Lebanon	1.76
Lincoln City	2.57
Madras	0.83
Medford	0.00
Pendleton	0.88
Portland	43.26
Roseburg/Myrtle creek	258.09
Stayton	27.89
<b>Oregon Total</b>	<b>927.05</b>

## 2014 Neutral Extension Summary of Planned Versus Actual Expenditures

At year-end 2014, the Company completed spending of \$3.48m, slightly over its authorized spending of \$3.4m for neutral extensions and delta grounding.

District	Project	Estimate	2014 YTD Spend	Footage
Albany	DAL: 4M25 WIGRICH RD NEUTRAL EXTENSION	\$30,511	\$23,445	1380
Grants Pass	CVJ:5R52: NEUT EXT:CAVES HWY: RCSLR to END	\$442,347	\$354,633	56620
Grants Pass	CVJ-5R52-NEUT EXTHolland LOOP-Cave Junc	\$204,756	\$144,609	24297
Grants Pass	CVJ-5R52-NEUT EXT DICK GEORGE-CJ-PH2	\$230,489	\$180,552	33477
Hood River	PWD:5K70 NEUT. EXT HWY 30 MOSIER	\$0	\$8,507	0
Hood River	GVY:8K4 INSTALL NEUTRAL WIRE ON 8K1	\$118,683	\$90,742	5280
Klamath Falls	CBR:4L16:NEUT EXT E. LANGELL VLY RD BONAN	\$35,306	\$9,285	5843
Klamath Falls	ODOT EXTEN to MAINT. STA - EXTEN NEUT	\$0	\$0	220
Klamath Falls	ATF INST NEUTRAL E. LANGELL SAFETY ISSUE	\$4,111	\$5,168	1,750
Klamath Falls	5L7 Neutral Ext 143911-196200 , 2.5mi	\$123,138	\$140,035	13000
Klamath Falls	5L7 Neutral Ext 1440011 / 019902 - 3.6 mi	\$69,942	\$46,962	20150
Klamath Falls	5L7 NEUT. EXT. 1439011.0/202503 HARPOLD	\$80,303	\$66,968	15,100
Klamath Falls	5L7 BON:REPL XFMRs: F 6187 BURGDORF RD	\$13,340	\$13,313	750
Klamath Falls	5L7 N. EXT S. POE PT #1 (5.85 mi.)	\$64,763	\$65,034	30900
Klamath Falls	5L7 N. EXT S. POE Valley PT#2 028902 (5.37 mi.)	\$64,987	\$52,157	28345
Klamath Falls	TUR 5L20 NEUT MALIN DEPOT RD MALIN	\$10,765	\$5,460	1900
Klamath Falls	MRL 5L26 NEUT EXT MALONE RD, MERRILL 2.25mi	\$42,069	\$25,562	11890
Klamath Falls	MRL 5L26:NEUT EXT:STATELINE RD/S MERRILL	\$12,573	\$10,746	5485
Klamath Falls	MRL 5L27 NEUT EXT FOR SOLAR GENERATION	\$21,612	\$5,319	12145
Klamath Falls	MRL 5L27 NEUT. EXT. DODDS HOLLOW DR. 4MI 32700	\$61,857	\$73,535	21500
Klamath Falls	MRL 5L27 N. EXT DODDS HALLOW, PATRICIA LN PT 2	\$71,006	\$66,085	13000
Klamath Falls	5L27 N. EXT CHIN RD. PT 1 (2.45 mi.)	\$45,267	\$37,677	13285
Klamath Falls	5L27 N. EXT. HWY 39 TAPS 299860 CHIN RD (3.54) mi.)	\$31,229	\$62,951	18700
Klamath Falls	5L36 NEUT. EXT SOLAR SITE MODOC PT	\$10,405	\$6,081	6700
Klamath Falls	5L36 NEUT. EXT SOLAR SITE UPGRADE	\$5,948	\$4,599	1600
Klamath Falls	5L36 NEUT. EXT. AGENCY LAKE FARMS 310500	\$4,748	\$2,564	2174
Klamath Falls	5L43 DAIRY N. EXT. BLISS RD FP 014560	\$89,849	\$68,641	40300
Klamath Falls	5L56 RPL POLE & EXTEND NEUT 1,560 ft	\$0	\$0	1562
Klamath Falls	4L3 HAGERTY:IRR PUMP: NEUTRAL EXTENED ON N4	\$0	\$0	1150
Klamath Falls	CARELTON FARMS:POTATO CELLAR : Extened NEUT	\$0	\$0	3200
Medford	5R11 NEUTRAL EXTENSION EAGLE POINT, OR	\$78,087	\$37,303	11765
Medford	2014 OKN-5R55 NEUTRAL EXTENSION, ASH,OR	\$18,299	\$8,492	2564
Medford	2014 FRL - 5R88 NEUTRAL EXTENSION	\$4,564	\$3,266	885
Roseburg	GLD 5U83 Phase 4 Install 31,770 ft of neutral	\$165,588	\$72,831	31,770
Roseburg	DM4 5U2 RID PHS 1 INSTALL 13,690 ft NEUT-2014	\$89,522	\$59,292	13690
Roseburg	DM4 5U2 RID PHS 2 INSTALL 31,590ft NEUT-2014	\$232,534	\$101,447	31590
Roseburg	DM4 CNS 5U44 XXXX NEUT MAND LD GROWTH	\$14,943	\$7,524	4196
Roseburg	RID 5U3 PHASE 1 INSTALL 45,718 ft. NEUT. For 2014	\$200,453	\$121,450	45718
Roseburg	RID 5U3 PHASE 2 INSTALL 25,933 ft. NEUT. For 2014	\$160,328	\$105,591	25933
Roseburg	GVA 4U81 INSTALL 1,380' CN (5 spans)	\$4,203	\$3,480	1380
		<b>\$2,858,525</b>	<b>\$2,091,306</b>	<b>561194</b>
			Miles:	<b>106.3</b>

<b>2014 Delta Grounding</b>				
District	Project	Estimate	2014 YTD Spend	Footage
Albany	SCIO:5M126 Grounding Bank		\$221,533	0
Albany	SCIO:5M126/NEUT EXT/ PHASE 1 (17.15 Miles Neut)	\$264,337	\$200,257	90557
Albany	SCIO:5M126/NEUT EXT/ PHASE 2 (20.95 miles)	\$275,928	\$218,953	110616
Albany	SCIO:5M126/NEUT EXT/ PHASE 3 (12.7 Miles)	\$149,881	\$104,468	67356
Albany	SCIO:5M126/NEUT EXT/PHASE 4 (9.82 mi.)	\$129,207	\$142,889	51860
Albany	SCIO:5M126/NEUT EXT/PHASE 5 (15.12 miles)	\$266,674	\$231,621	79382
		\$1,086,027	\$1,119,721	399,771
			Miles:	<b>75.7</b>

### 2014 Neutral Extension Projects Planned

During capital planning for 2014 the neutral extension work will be taking place primarily in the Grants Pass, Klamath Falls, and Roseburg areas. This process begins with records verification, typically conducted by field engineering staff, followed by estimation for facilities which must be constructed. Finally, based upon those work packets, the grounding conductor is extended. Where necessary, poles may be replaced, joint use attachments modified and avian protection installed.

District	Project	Estimate	2015 Authorized spend	Footage
Grants Pass	CVJ - 5R52	\$777,156	\$777,156	106908
Klamath Falls	5L7, 5L26, 5L27, 5L36, 5L59	\$779,687	\$779,687	476323
Roseburg	5U2 & 5U11	\$1,621,032	\$1,280,677	419217
Hood River	GSV:8K4	\$110,057	\$80,057	5500
		\$3,287,932	\$2,917,577	1,007,948
			Miles:	190.9
<b>2014 Delta Grounding</b>				
Albany	SCIO PROJECT TOTALS		\$600,000	158400
			Miles:	30

### **X3 – SUBSTATION SIGNAGE**

As of December 31, 2014 the company had updated substation signage at all its substations, except for certain substations in Medford, Grants Pass and Roseburg. Replacement of these signs continues into 2015, with a target completion date of July 31, 2015. On February 3, 2015 the company agreed that upon completion of the substation resigning, the company would notify Safety Staff that the work had been completed.