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REPORT NAME: Annual Report on Service Quality Measures for Calendar Year 2011

COMPANY NAME: PacifiCorp

DOES REPORT CONTAIN CONFIDENTIAL INFORMATION? No Yes

If yes, please submit only the cover letter electronically. Submit confidential information as directed 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 860-023-0150
 Statute
 Order 98-191
 Other

Is this report associated with a specific docket/case? No Yes
If Yes, enter docket number: UE 94

Key words: Annual Report on Service Quality Measures

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

- Corporate Analysis and Water Regulation
- Economic and Policy Analysis
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- Electric Rates and Planning
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April 30, 2012

VIA ELECTRONIC FILING

Public Utility Commission of Oregon
550 Capitol Street NE, Suite 215
Salem, OR 97301-2551

Attention: Filing Center

RE: Annual Report on Service Quality Measures for Calendar Year 2011

PacifiCorp d.b.a. Pacific Power (the "Company") hereby submits for filing its Annual Report on Service Quality Measures for calendar year 2011. This filing is made in compliance with Order No. 98-191, entered May 5, 1998 in Docket UE 94, as well as OAR 860-023-0150.

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

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

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

Please direct informal questions with respect to this filing to Bryce Dalley at 503-813-6389.

Sincerely,



William R. Griffith
Vice President, Regulation

Enclosure

cc: JR Gonzalez – OPUC Staff



Calendar Year 2011 Review
January 1, 2011 – December 31, 2011

Oregon

UE 94

Service Quality Measures

C1 – At Fault PUC Complaints

S1 – Safety Violations

R1 thru R4 – Reliability

- Introduction and Reliability Discussion
- Major Event Thresholds
- Major Event Summary
- Service Territory Map with Reliability Regions and Operating Areas
- UE 94 R1, R2, R3, R4 Service Quality Measures Report
- Five-Year Weighted SAIDI, SAIFI, MAIFle and Thresholds
- Five-Year Reliability Reporting Region Metrics
- Circuit Metrics (Excluding Major Events and Including Major Events)
- Five-Year Interruption Cause Analysis
- Five-Year Customer Count by Reliability Region and Operating Area
- Active Circuits List with Substation, Voltage and Circuit Customer Count

X1 – Vegetation Management

X2 – Inspection & Maintenance

X2 – Meters

X2 – Standards

X3 – Underground Cable Replacement

X3 – Neutral Extensions and Substation Signage

Budget

- Inspections & Maintenance Budget
- Oregon Workforce Counts
- Vegetation Management Crew Counts

C1 – AT FAULT CUSTOMER COMPLAINTS

PacifiCorp continues to maintain excellent customer service, and 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 four; the ratio of “At Fault” complaints per 1,000 customers in CY2011 was 0.007 (based on the CY2011 frozen customer count of 595,621 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 2011
Complaint Statistics
Oregon**

Month	800 Line Complaints	No-Fault PUC Complaints	At-Fault PUC Complaints
Jan	18	8	0
Feb	36	10	0
Mar	30	12	0
Apr	28	13	0
May	30	6	0
Jun	24	10	0
Jul	32	6	2
Aug	26	10	0
Sep	25	9	0
Oct	21	7	0
Nov	27	11	1
Dec	24	7	1
TOTALS	321	109	4

*NOTE: The 'at fault' complaints were removed from the 'no fault PUC complaint' totals in the affected months.

S1 - MAJOR SAFETY VIOLATIONS

Description: The S1 measure indicates the number of major safety violations cited by the Commission that were in effect during the year.

PacifiCorp experienced no Major Safety Violations in CY2011.

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.

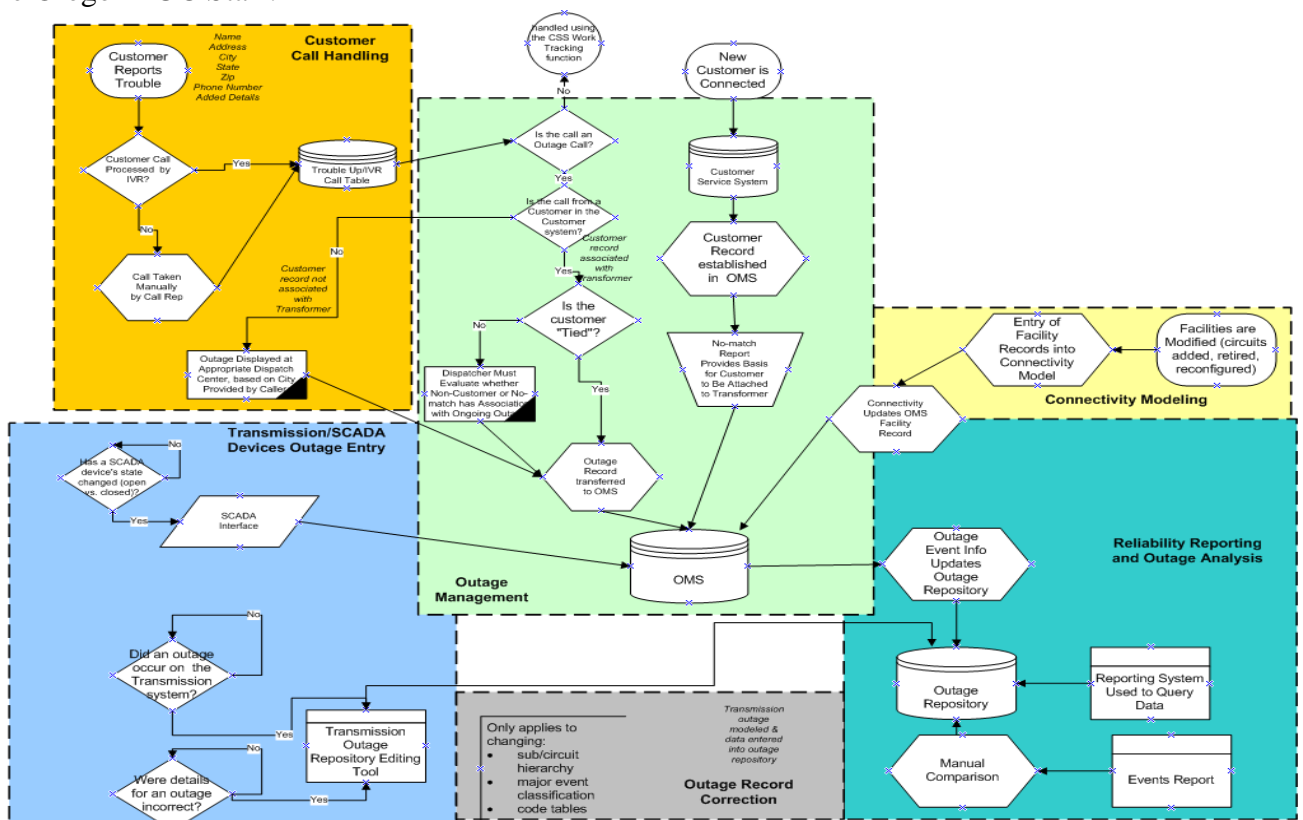
These are included in the following order:

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 View SAIDI, SAIFI, MAIFI_e Compared to Goals
4. Five-Year View Reliability Reporting Region Metrics
5. Circuit Metrics (Excluding and Including Major Events)
6. Five-Year View Cause Analysis - State Summary
7. Five-Year View Cause Analysis - Reliability Reporting Regions Detail
8. Five-Year View Reliability Region and Operating Area Customer Counts
9. List of Active Circuits by Reliability Reporting Region

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 Access 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 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, IEEE Guide for Electric Power Distribution Reliability Indices.

For performance reporting as contained within this document¹, PacifiCorp uses the current standard indices, applied at the state level and also to newly-defined reliability reporting regions; however, the major events excluded from performance during the period were determined using the historic “10% of operating area customers” method, not the newly adopted IEEE P1366 “2.5 beta” TMed method applied to the new reliability reporting regions, which is effective calendar year 2012 for determining major events. Therefore, in subsequent reports, all five-year comparative views that are based on performance excluding major events, will reflect some years that used different major event definitions, which may or may not have yielded different results, though if different probably nominally.

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 CPI⁹⁹) 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 CPI⁰⁵). Circuit performance is reviewed at least annually to determine the selection of circuits to be addressed within the Company’s Worst-Performing Feeders Program. In order to optimize 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

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

improvement activities. Mining of this data allows the company to optimize cost against reliability metric improvements.

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.

Major Events Excluded from Performance

PacifiCorp incurred five Major Events in 2011 that were excluded from reliability performance results. They are detailed in the table below. (Next year, this table will reflect major event impacts by reliability regions in addition to the state level impacts pursuant OAR 860-023-0160 modifications to reporting requirements effective January 1, 2012. A table of the reliability regions and major event thresholds to be applied in CY2012 is shown under *Major Event Thresholds* section below.)

No.	Event Date	Description	CML	Customers Sustained	State SAIDI	State SAIFI	CAIDI
1	February 15-17, 2011	Snowstorms - Bend, Madras, Klamath Falls, Grants Pass	14,254,297	49,033	23.93	0.082	291
2	March 13-14, 2011	Windstorms - Albany, Coos Bay, Cottage Grove, Dallas, Grants Pass, Lebanon, Medford, Roseburg, Stayton	85,371,535	159,598	143.33	0.268	535
3	August 28, 2011	Substation Vandalism - Cottage Grove, Lebanon	2,779,851	8,045	4.67	0.014	346
4	November 12, 2011	Loss of Supply (Wind/Tree) - Clatsop/Astoria	1,219,953	14,886	2.05	0.025	82
5	November 21-23, 2011	Windstorms - Lincoln City, Coos Bay, Clatsop/Astoria	8,881,207	32,877	14.91	0.055	270
MAJOR EVENT TOTAL			112,506,843	264,439	188.89	0.444	425
UNDERLYING TOTAL			53,772,664	506,873	90.280	0.851	106
UNDERLYING INCLUDING MAJOR EVENTS TOTAL			166,279,507	771,312	279.17	1.295	216

Major Event Thresholds

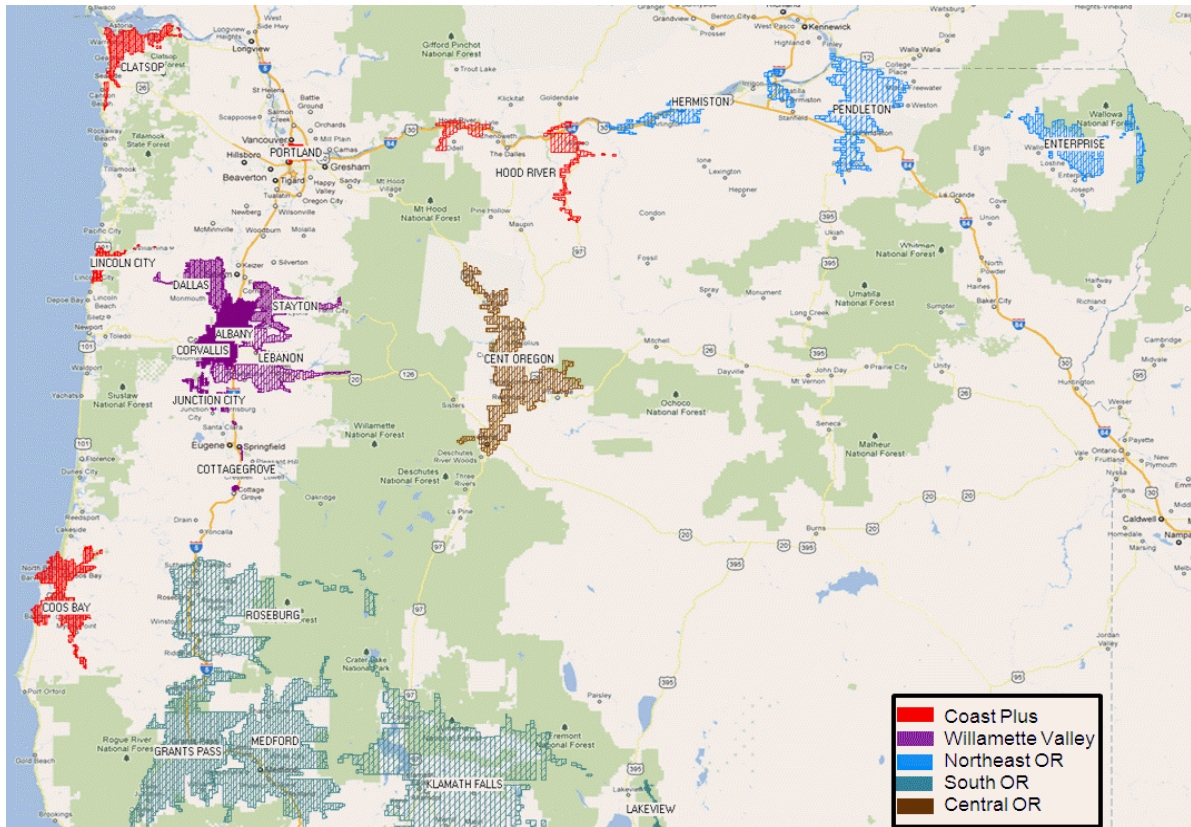
During CY2011, the company determined major events using the “10% of operating area customers” methodology as then-outlined in OAR 860-023-0160. Effective CY2012,

that administrative rule is 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 P1366. The table below depicts the composition of each region and its threshold for CY2012.

Reporting Region	CY2012 SAIDI Threshold	CY2012 CML Threshold	Operating Areas in Region
Central OR	5.12	394,135	Bend/Redmond, Madras
CoastPlus	9.43	1,409,521	Clatsop/Astoria, Coos Bay/Coquille, Hood River, Lincoln City, Portland
Northeast OR	5.02	129,066	Enterprise, Hermiston, Milton/Freewater, Pendleton, Walla Walla
South OR	11.35	2,541,566	Grants Pass, Klamath Falls, Lakeview, Medford, Roseburg/Myrtle creek
WlmVly	11.90	1,431,248	Albany, Corvallis, Cottage Grove/J.City, Dallas/Independence, Lebanon, Stayton

The following table is a 5-year view of each region’s TMed values. Next, the area map illustrates the grouping of operating areas into five reliability reporting regions.

Calendar Year	2012		2011		2010		2009		2008	
	CML	SAIDI	CML	SAIDI	CML	SAIDI	CML	SAIDI	CML	SAIDI
Central OR	394,135	5.12	460,792	6.04	527,167	6.97	556,414	7.44	722,868	9.85
CoastPlus	1,409,521	9.43	1,780,515	11.77	1,772,069	12.03	1,751,453	12.05	1,718,432	11.97
Northeast OR	129,066	5.02	296,111	5.51	272,651	5.03	632,826	11.77	4,364,094	81.84
South OR	2,541,566	11.35	3,064,200	13.74	3,286,421	14.81	3,716,997	16.86	7,108,541	32.73
WlmVly	1,431,248	11.90	1,695,687	14.18	1,675,770	14.10	1,721,451	14.63	1,695,449	14.57



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 both IEEE 1366-1998 and -2003 established methods for evaluating reliability and ensuring consistency of the methodology, it made no effort to establish minimum levels of 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, which was the direct result of Oregon’s Alternative Form of Regulation (AFOR) coincided with the Company launching its Service Standards Program. 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 and continued to extend the program in reviewing “Worst Performing Circuits”, wherein five circuits are designated annually for extra scrutiny in monitoring performance and developing improvement plans. In other states the Company serves, this program may also address basic reliability metric goals, however in

Oregon these are addressed through Oregon’s AFOR SQMs, which are outlined below:

System Performance	
System Availability	Achieve SQM R1 levels better than P-1 level
System Reliability	Achieve SQM R2 levels better than P-1 level
Worst Performing Circuits	Each year achieve a substantial (20%) improvement in the 5 worst performing circuits in each state
Supply Restoration	Achieve SQM R4 levels better than P-1 level

Under-Performing Circuits

After the close of each fiscal 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 variables and equation for calculating CPI are:

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

Index: 10.645

SAIDI: Weighting Factor 0.30, Normalizing Factor 0.029

SAIFI: Weighting Factor 0.30, Normalizing Factor 2.439

MAIFI: Weighting Factor 0.20, Normalizing Factor 0.70

Lockouts: Weighting Factor 0.20, Normalizing Factor 2.00

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

The following distribution feeders were selected as under-performing based on CPI scores ending 12/31/2011 (in addition to other criteria, discussions with area engineers) and identified as Program Year 13 (2012) circuits in the Network Initiatives program:

ID	CIRCUIT NAME	KV	OPERATING AREA	CPI⁰⁵
5D144	D.R.W.	12.5	Bend/Redmond	180
5D2	DESCHUTES S	12.5	Bend/Redmond	200
4U39	GOEDECK	20.8	Roseburg/Myrtle creek	181
5U84	LITTLE RIVER	12.5	Roseburg/Myrtle creek	322
5L59	WEST	12.5	Klamath Falls	230

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.)

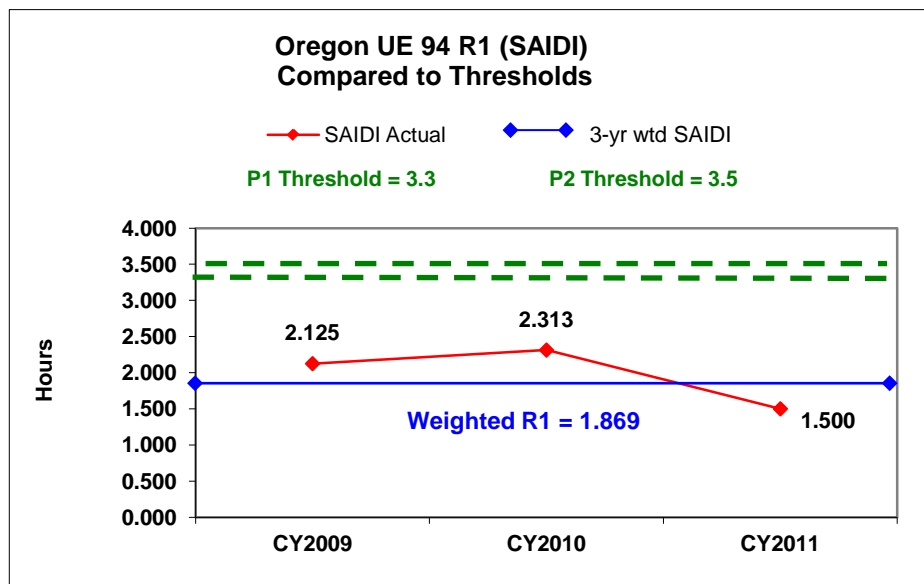
UNDER-PERFORMING CIRCUITS	BASELINE	Performance 12/31/11
Circuit Performance Indicator 2005 (CPI05)		
Program Year 12 (2011):		
Crystal Spr	175	203
Warm Springs	222	171
Idleyld	278	350
Pleasant Vly-Merlin	127	120
Diamond	71	276
TARGET = 140	175	224
Program Year 11 (2010):		
City	105	31
Oakgrove	230	146
South (Hood River)	120	82
Malin City	241	360
Safari	158	114
TARGET = 137	171	147

Oregon UE94 - Service Quality Measures CY 2011

R1 - SAIDI

Year	SAIDI	Weighting	Product
CY2009	2.125	0.2	0.425
CY2010	2.313	0.3	0.694
CY2011	1.500	0.5	0.750

Weighted R1: **1.869**

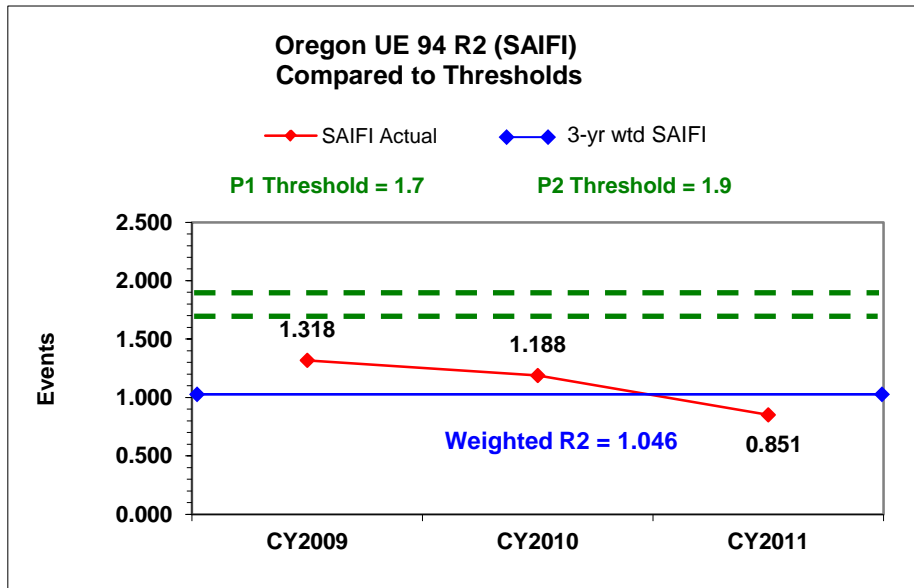


Oregon UE94 - Service Quality Measures CY 2011

R2 - SAIFI

Year	SAIFI	Weighting	Product
CY2009	1.318	0.2	0.264
CY2010	1.188	0.3	0.356
CY2011	0.851	0.5	0.426

Weighted R2: **1.046**



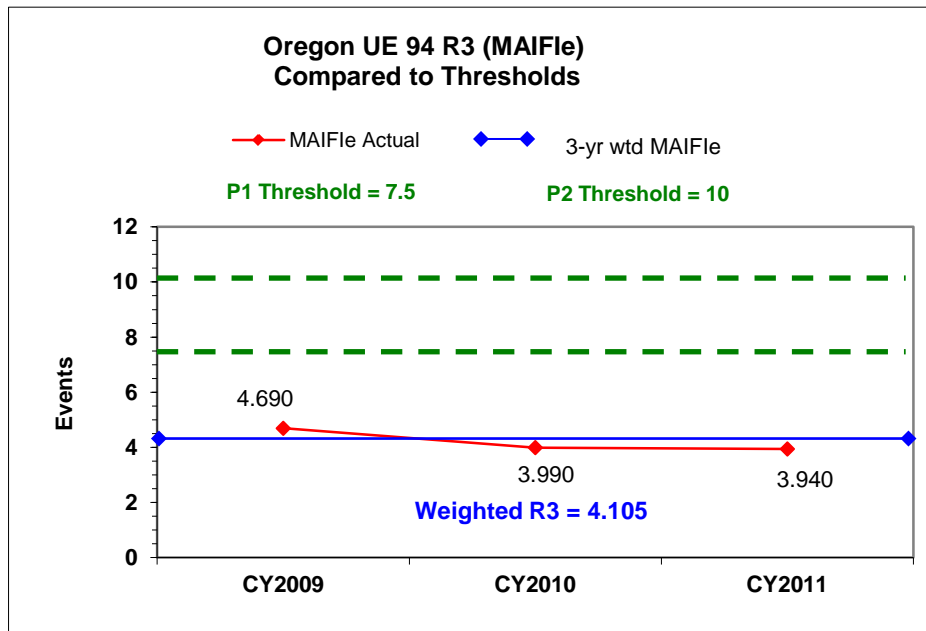
Oregon UE94 - Service Quality Measures CY 2011

R3 - MAIFle

Year	MAIFle	Weighting	Product
CY2009	4.690	0.2	0.938
CY2010	3.990	0.3	1.197
CY2011	3.940	0.5	1.970

Weighted R3: **4.105**

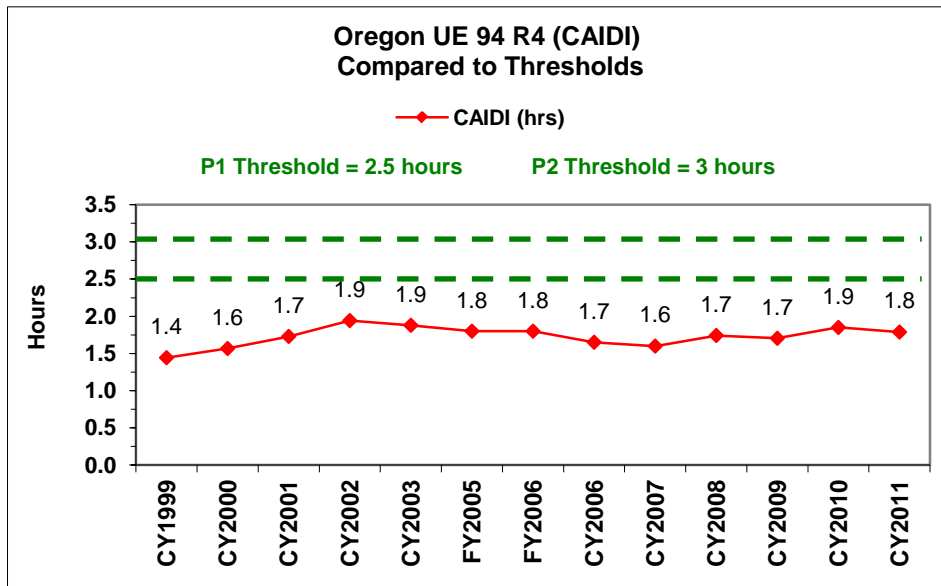
MAIFle developed based on SCADA-operated breaker data per April 1, 2005 report submitted to OPUC



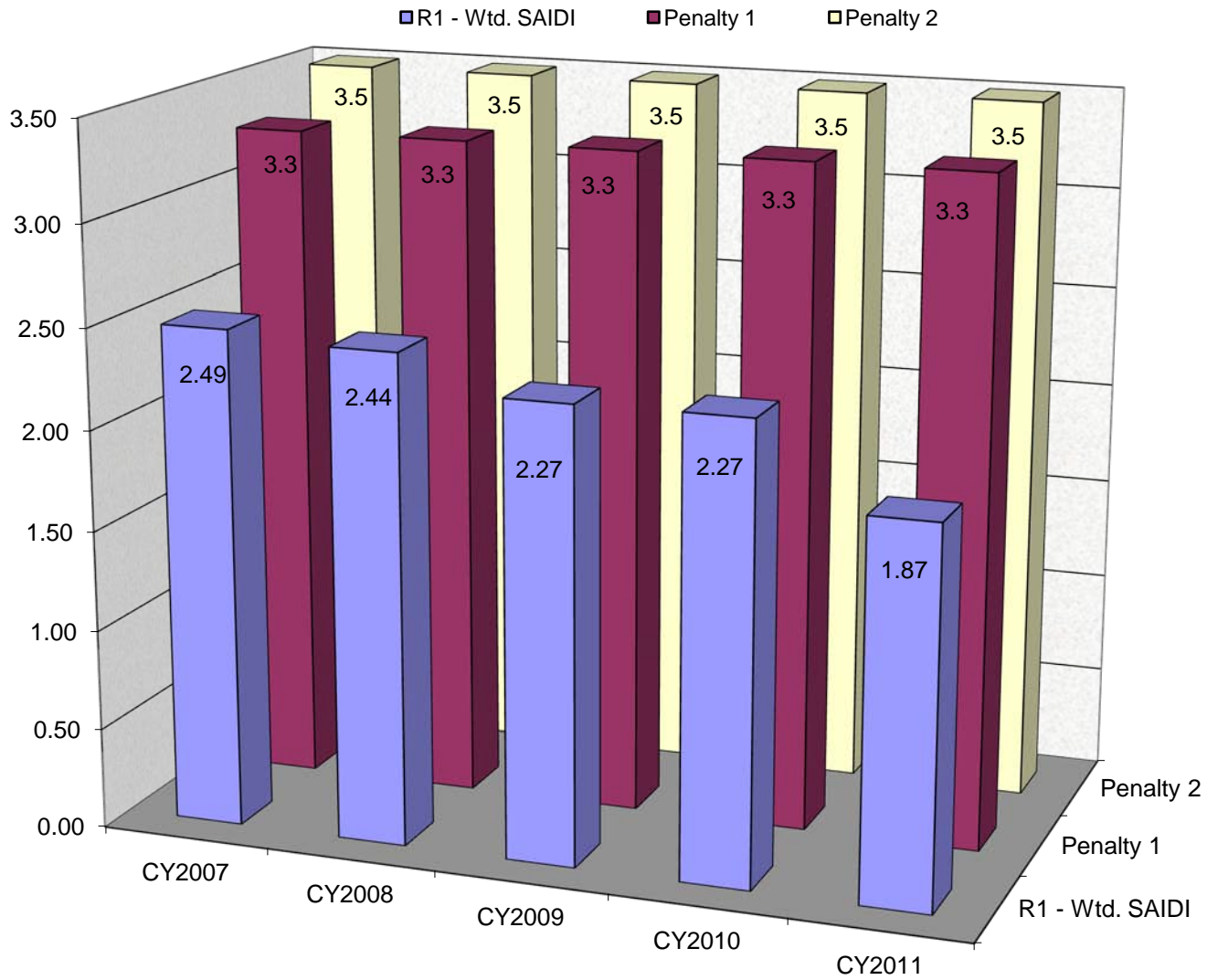
Oregon UE94 - Service Quality Measures CY 2011

R4 - CAIDI: Customer Average Outage Duration

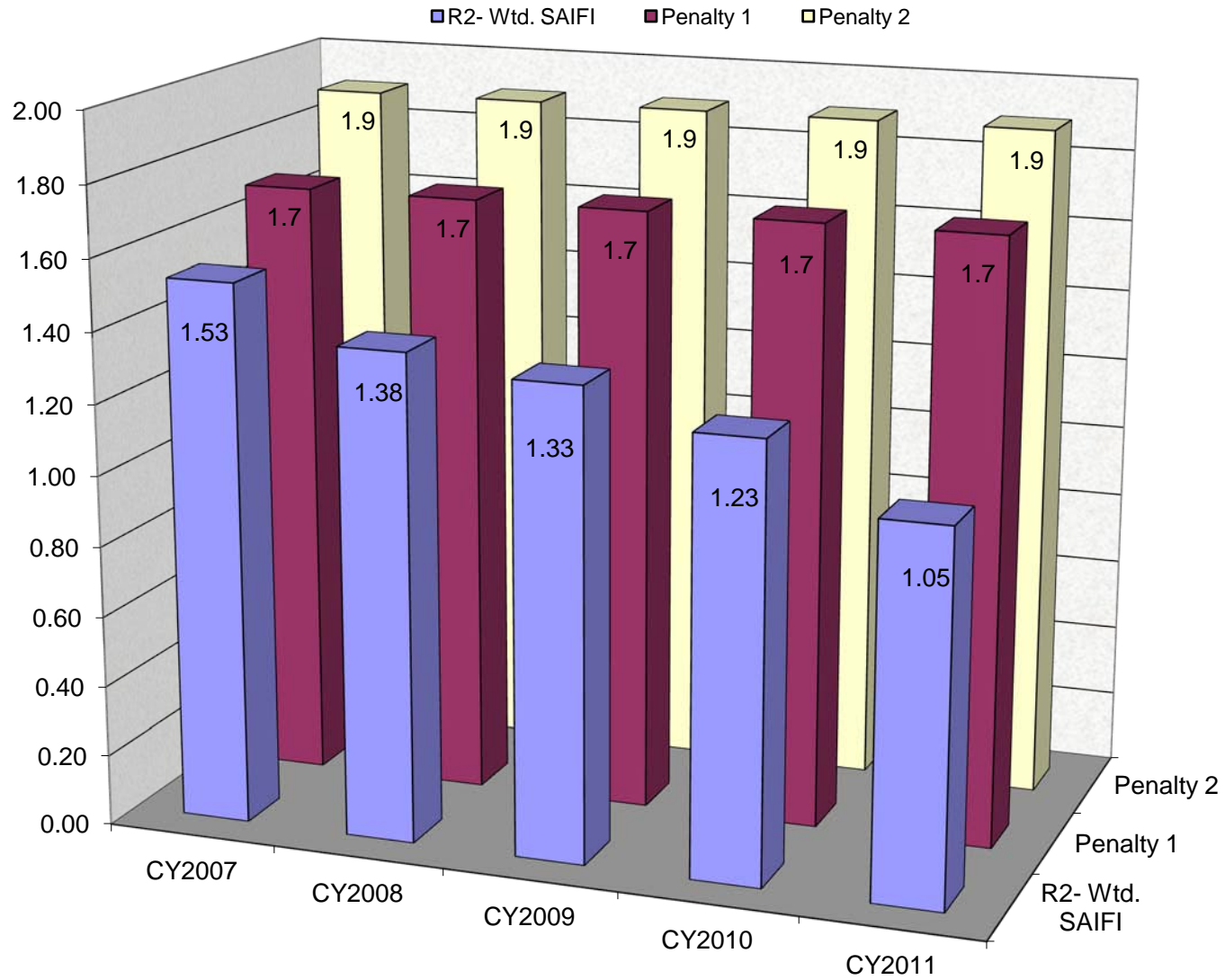
Year	CAIDI (hours)
CY1999	1.4
CY2000	1.6
CY2001	1.7
CY2002	1.9
CY2003	1.9
FY2005	1.8
FY2006	1.8
CY2006	1.7
CY2007	1.6
CY2008	1.7
CY2009	1.7
CY2010	1.9
CY2011	1.8



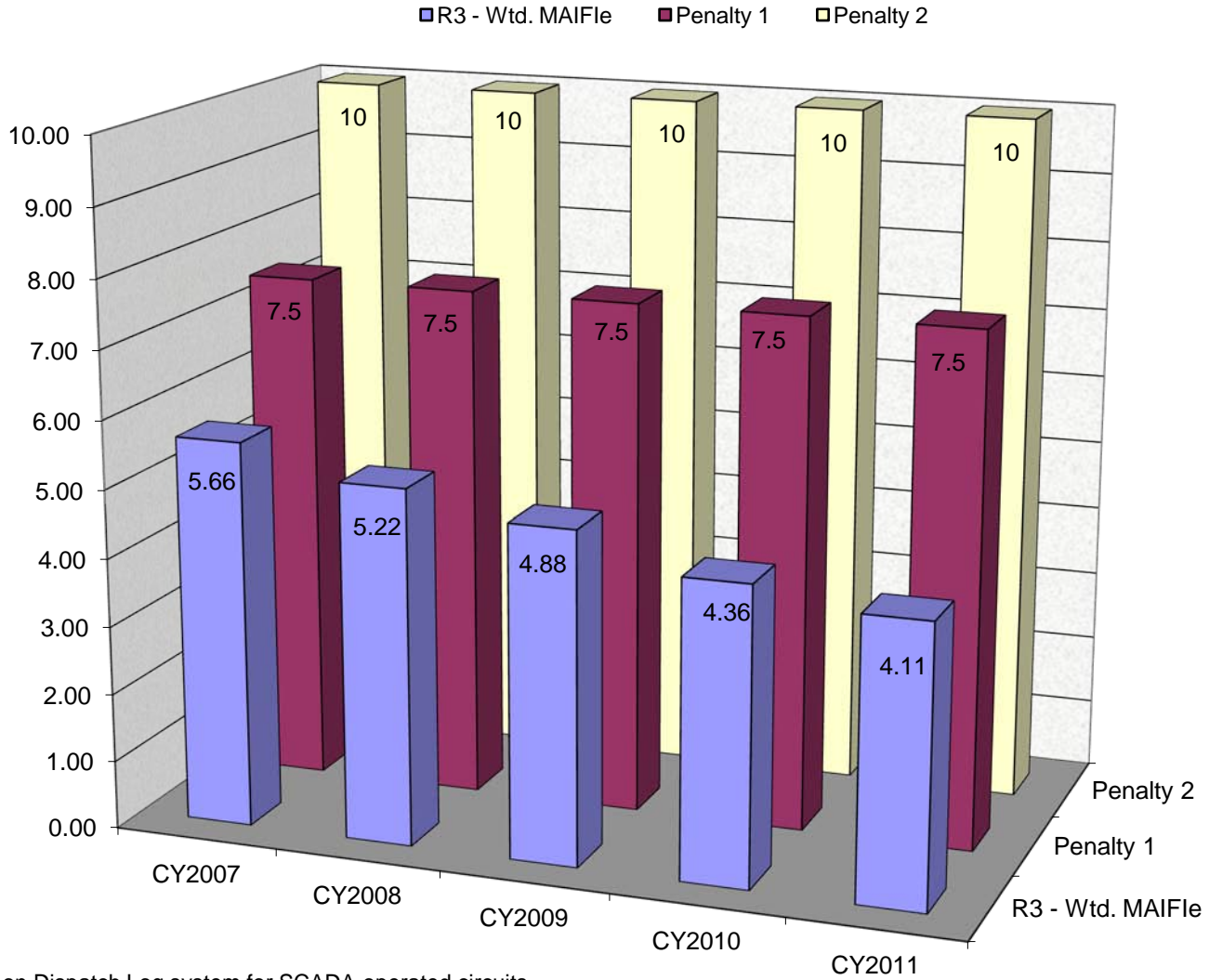
R1 - Wtd. SAIDI (excluding Major Events) and UE 94 Thresholds



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



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



MAIFle based on Dispatch Log system for SCADA-operated circuits.

Oregon Reliability Reporting Region Metrics - A Five-Year View

Excluding Major Events	MAIFle					SAIFI					SAIDI				
	2007	2008	2009	2010	2011	2007	2008	2009	2010	2011	2007	2008	2009	2010	2011
OR REGION	4.43	4.08	4.34	3.30	5.35	1.392	0.642	0.626	0.931	0.531	83	68	86	104	45
Central OR	4.43	4.08	4.34	3.30	5.35	1.392	0.642	0.626	0.931	0.531	83	68	86	104	45
CoastPlus	5.35	4.93	4.46	3.87	3.71	1.216	1.238	1.251	1.341	0.788	125	152	134	163	90
Northeast OR	2.68	3.74	3.04	3.23	2.64	1.716	2.210	1.235	1.465	0.876	214	236	147	122	80
South OR	6.11	4.97	4.53	4.10	3.96	1.776	1.302	1.568	0.971	0.880	167	172	135	130	98
WImVly	5.57	4.93	4.99	4.32	3.39	1.704	1.117	1.407	1.558	1.090	158	116	129	158	109
OREGON	5.45	4.80	4.69	3.99	3.94	1.555	1.198	1.318	1.188	0.851	145	144	127	139	90

Including Major Events	MAIFle					SAIFI					SAIDI				
	2007	2008	2009	2010	2011	2007	2008	2009	2010	2011	2007	2008	2009	2010	2011
OR REGION	4.43	4.08	4.34	3.30	5.35	1.392	0.642	1.359	0.931	0.862	83	68	116	104	171
Central OR	4.43	4.08	4.34	3.30	5.35	1.392	0.642	1.359	0.931	0.862	83	68	116	104	171
CoastPlus	5.35	4.93	4.46	3.87	3.71	2.173	1.348	1.689	1.565	1.206	1604	155	208	175	188
Northeast OR	2.68	3.74	3.04	3.23	2.64	1.793	2.657	1.396	1.972	0.876	280	512	220	171	80
South OR	6.11	4.97	4.53	4.10	3.96	2.718	1.856	2.194	0.999	1.402	350	276	235	134	405
WImVly	5.57	4.93	4.99	4.32	3.39	2.251	1.560	1.600	1.956	1.587	280	577	187	244	273
OREGON	5.45	4.80	4.69	3.99	3.94	2.257	1.542	1.803	1.356	1.295	606	289	202	163	279

Oregon Circuit Metrics by Reliability Region (Excluding Major Events)

OR Reliability Region	Op Area Name	Substation Name	Circuit Id	Circuit Name	Customers In Incident Sustained	Customer Minutes Lost for Incident	Circuit Customer Count	SAIFI	SAIDI
Central OR	BEND/REDMOND	BEND	5D10	PORTLAND AVE	114	24,694	2306	0.05	11
Central OR	BEND/REDMOND	BEND	5D11	GLEN VISTA	154	18,791	2408	0.06	8
Central OR	BEND/REDMOND	BEND	5D12	DIVISION ST.	7	574	211	0.03	3
Central OR	BEND/REDMOND	BEND	5D196	MALLARD	2	285	1468	0.00	0
Central OR	BEND/REDMOND	BOND STREET	5D411	BACHELOR	284	65,971	1643	0.17	40
Central OR	BEND/REDMOND	BOND STREET	5D413	OLD MILL.	1	27	335	0.00	0
Central OR	BEND/REDMOND	BOND STREET	5D418	BLAKELY	133	11,794	1246	0.11	9
Central OR	BEND/REDMOND	CHINA HAT	5D140	LAVA (CHINA HAT)	519	97,140	2245	0.23	43
Central OR	BEND/REDMOND	CHINA HAT	5D142	HIGH DESERT	334	93,547	1548	0.22	60
Central OR	BEND/REDMOND	CHINA HAT	5D144	D.R.W.	104	13,139	2283	0.05	6
Central OR	BEND/REDMOND	CLEVELAND AVE.	5D30	ARROWHEAD	24	4,407	877	0.03	5
Central OR	BEND/REDMOND	CLEVELAND AVE.	5D35	WICKIUP	6,741	363,092	1015	6.64	358
Central OR	BEND/REDMOND	CLEVELAND AVE.	5D38	TOMAHAWK	48	8,708	1399	0.03	6
Central OR	BEND/REDMOND	CLEVELAND AVE.	5D94	TEEPEE	811	107,171	3016	0.27	36
Central OR	BEND/REDMOND	CLEVELAND AVE.	5D96	OBSIDIAN	145	21,757	769	0.19	28
Central OR	BEND/REDMOND	CLEVELAND AVE.	5D98	HUCKLEBERRY	1,624	180,530	1306	1.24	138
Central OR	BEND/REDMOND	CROOKED RIVER RANCH	4D131	CANYON	61	7,758	1729	0.04	4
Central OR	BEND/REDMOND	CROOKED RIVER RANCH	4D30	CROOKED R.R.	138	21,138	757	0.18	28
Central OR	BEND/REDMOND	DESCHUTES	5D184	PRONGHORN	18	2,675	632	0.03	4
Central OR	BEND/REDMOND	DESCHUTES	5D2	DESCHUTES S	3,326	420,482	1420	2.34	296
Central OR	BEND/REDMOND	OVERPASS	5D104	AWBREY	10	693	672	0.01	1
Central OR	BEND/REDMOND	OVERPASS	5D106	NEZ PERCE	342	58,943	2606	0.13	23
Central OR	BEND/REDMOND	OVERPASS	5D120	CHINOOK	322	40,864	1293	0.25	32
Central OR	BEND/REDMOND	OVERPASS	5D128	PAIUTE	63	17,469	1836	0.03	10
Central OR	BEND/REDMOND	OVERPASS	5D155	APACHE	195	13,291	1792	0.11	7
Central OR	BEND/REDMOND	PILOT BUTTE	5D261	KLONDIKE	232	62,125	2506	0.09	25
Central OR	BEND/REDMOND	PILOT BUTTE	5D263	DRAKE FEEDER	209	33,055	2356	0.09	14
Central OR	BEND/REDMOND	REDMOND	5D21	SOUTH (REDMOND)	5	577	682	0.01	1
Central OR	BEND/REDMOND	REDMOND	5D22	INDUSTRIAL	1,981	96,439	1769	1.12	55
Central OR	BEND/REDMOND	REDMOND	5D223	TETHEROW	6	857	549	0.01	2
Central OR	BEND/REDMOND	REDMOND	5D226	CLINE FALLS	1,586	178,107	1865	0.85	95

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Central OR	BEND/REDMOND	REDMOND	5D227	WINDSOR	7	967	2217	0.00	0
Central OR	BEND/REDMOND	REDMOND	5D228	CITY	45	4,399	1323	0.03	3
Central OR	BEND/REDMOND	REDMOND	5D229	JUNIPER	8	1,788	314	0.03	6
Central OR	BEND/REDMOND	SHEVLIN PARK	5D238	WOLVERINE (SHP)	240	68,706	2474	0.10	28
Central OR	BEND/REDMOND	SHEVLIN PARK	5D241	BADGER (SHP)	123	31,441	2822	0.04	11
Central OR	BEND/REDMOND	SHEVLIN PARK	5D243	Black Bear	69	17,349	410	0.17	42
Central OR	BEND/REDMOND	YEW AVENUE	5D322	BIRDIE	89	11,201	1419	0.06	8
Central OR	BEND/REDMOND	YEW AVENUE	5D323	FAIRWAY	155	29,562	391	0.40	76
Central OR	BEND/REDMOND	YEW AVENUE	5D325	EAGLE	28	2,182	2351	0.01	1
Central OR	MADRAS	CHERRY LANE	5D295	7 PEAKS	435	15,524	142	3.06	109
Central OR	MADRAS	CULVER	5D5	CULVER	617	125,212	1755	0.35	71
Central OR	MADRAS	MADRAS	5D52	MADRAS RURAL	3,400	134,444	1019	3.34	132
Central OR	MADRAS	MADRAS	5D53	AGATE	2,468	92,452	816	3.02	113
Central OR	MADRAS	MADRAS	5D57	QUARTZ	5,939	227,154	1875	3.17	121
Central OR	MADRAS	MADRAS	5D61	MADRAS CITY	4,268	154,538	1329	3.21	116
Central OR	MADRAS	POWELL BUTTE	5D1	POWELL BUTTE	66	10,723	601	0.11	18
Central OR	MADRAS	PRINEVILLE	5D126	RIMROCK	310	25,770	2237	0.14	12
Central OR	MADRAS	PRINEVILLE	5D167	NORTHVILLE	108	30,099	1255	0.09	24
Central OR	MADRAS	PRINEVILLE	5D25	OCHOCO	301	47,585	977	0.31	49
Central OR	MADRAS	PRINEVILLE	5D47	MC KAY (PRINEVILL	130	29,430	1648	0.08	18
Central OR	MADRAS	PRINEVILLE	5D48	LAMONTA	157	28,100	638	0.25	44
Central OR	MADRAS	PRINEVILLE	5D69	GRIMES FLAT	655	63,903	1594	0.41	40
Central OR	MADRAS	WARM SPRINGS	4D68	WARM SPRINGS (O	1,699	401,639	1043	1.63	385
CoastPlus	CLATSOP (ASTORIA)	CANNON BEACH	5A10	HAYSTACK	2,403	153,273	1524	1.58	101
CoastPlus	CLATSOP (ASTORIA)	CANNON BEACH	5A8	ECOLA	3,062	237,833	1252	2.45	190
CoastPlus	CLATSOP (ASTORIA)	FERN HILL SUB	5A51	JOHN DAY	1,324	86,697	260	5.09	333
CoastPlus	CLATSOP (ASTORIA)	FERN HILL SUB	5A52	SCANDINAVIAN	107	918	106	1.01	9
CoastPlus	CLATSOP (ASTORIA)	KNAPPA SVENSEN	5A92	SVENSEN	774	16,009	684	1.13	23
CoastPlus	CLATSOP (ASTORIA)	KNAPPA SVENSEN	5A93	BRADWOOD	3,327	594,787	926	3.59	642
CoastPlus	CLATSOP (ASTORIA)	SEASIDE	5A80	GROVE	132	18,658	2350	0.06	8
CoastPlus	CLATSOP (ASTORIA)	SEASIDE	5A81	CENTRAL	54	4,343	1854	0.03	2

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CoastPlus	CLATSOP (ASTORIA)	SEASIDE	5A82	NECANICUM	1,503	69,673	1185	1.27	59
CoastPlus	CLATSOP (ASTORIA)	SEASIDE	5A83	GEARHART	10,955	892,944	2843	3.85	314
CoastPlus	CLATSOP (ASTORIA)	WARRENTON	5A15	CITY	6,640	1,327,942	1784	3.72	744
CoastPlus	CLATSOP (ASTORIA)	WARRENTON	5A16	MILL (WARRENTON)	54	8,579	493	0.11	17
CoastPlus	CLATSOP (ASTORIA)	WARRENTON	5A20	SOUTH (WARRENTON)	1,016	142,233	1471	0.69	97
CoastPlus	CLATSOP (ASTORIA)	YOUNGS BAY	5A202	PORT DOCK	218	31,064	1228	0.18	25
CoastPlus	CLATSOP (ASTORIA)	YOUNGS BAY	5A204	MOO COW	466	40,676	1106	0.42	37
CoastPlus	CLATSOP (ASTORIA)	YOUNGS BAY	5A205	FIFTH STREET	95	13,303	956	0.10	14
CoastPlus	CLATSOP (ASTORIA)	YOUNGS BAY	5A206	YOUNGS BAY #6	1	15	203	0.00	0
CoastPlus	CLATSOP (ASTORIA)	YOUNGS BAY	5A210	YOUNGS BAY #10	740	69,188	1274	0.58	54
CoastPlus	CLATSOP (ASTORIA)	YOUNGS BAY	5A211	OLNEY	2,799	538,345	966	2.90	557
CoastPlus	CLATSOP (ASTORIA)	YOUNGS BAY	5A213	INDUSTRIAL	1,743	149,502	1416	1.23	106
CoastPlus	COOS BAY/COQUILLE	BANDON TIE (BPA)	L804	BANDON	1,091	223,488	776	1.41	288
CoastPlus	COOS BAY/COQUILLE	COOS RIVER	4C106	COOS RIVER	1,648	294,093	1399	1.18	210
CoastPlus	COOS BAY/COQUILLE	COQUILLE	4C41	HENRY STREET	1,222	122,752	1768	0.69	69
CoastPlus	COOS BAY/COQUILLE	COQUILLE	4C42	TERRES HGHTS	4,155	349,406	1615	2.57	216
CoastPlus	COOS BAY/COQUILLE	COQUILLE	4C43	INDUSTRIAL	386	32,645	190	2.03	172
CoastPlus	COOS BAY/COQUILLE	EMPIRE NEW	4C108	EMPIRE	45	6,532	1735	0.03	4
CoastPlus	COOS BAY/COQUILLE	EMPIRE NEW	4C89	SCOTT	137	26,285	1406	0.10	19
CoastPlus	COOS BAY/COQUILLE	EMPIRE NEW	4C90	CHARLESTON	404	38,916	2159	0.19	18
CoastPlus	COOS BAY/COQUILLE	JORDAN POINT	5C11	WEYCO#2	1	247	1	1.00	247
CoastPlus	COOS BAY/COQUILLE	JORDAN POINT	5C6	SAND DUNES (JORDAN)	44	17,312	27	1.63	641
CoastPlus	COOS BAY/COQUILLE	LOCKHART STREET	4C48	CITY CENTER	80	6,718	1612	0.05	4
CoastPlus	COOS BAY/COQUILLE	LOCKHART STREET	4C49	EASTSIDE	23	3,917	795	0.03	5
CoastPlus	COOS BAY/COQUILLE	LOCKHART STREET	4C5	GEORGIA-PAC	3	172	104	0.03	2
CoastPlus	COOS BAY/COQUILLE	LOCKHART STREET	4C50	BUNKERHILL	3,394	755,115	1886	1.80	400
CoastPlus	COOS BAY/COQUILLE	LOCKHART STREET	4C97	ENGLEWOOD	1,551	59,329	1410	1.10	42
CoastPlus	COOS BAY/COQUILLE	MYRTLE POINT	4C36	NORTH (MYRTLE POINT)	1,162	209,894	357	3.25	588
CoastPlus	COOS BAY/COQUILLE	MYRTLE POINT	4C37	MAPLE STREET	2,476	518,002	2186	1.13	237
CoastPlus	COOS BAY/COQUILLE	SOUTH DUNES	5C9	DOUGLAS CHIP	6	676	2	3.00	338
CoastPlus	COOS BAY/COQUILLE	STATE STREET	4C112	WOODLAND	132	20,053	1861	0.07	11

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CoastPlus	COOS BAY/COQUILLE	STATE STREET	4C66	BAYSHORE	201	22,451	1716	0.12	13
CoastPlus	COOS BAY/COQUILLE	STATE STREET	4C67	INDUSTRIAL	244	27,722	2276	0.11	12
CoastPlus	COOS BAY/COQUILLE	STATE STREET	4C86	BANGOR	92	12,970	1771	0.05	7
CoastPlus	HOOD RIVER	GORDON HOLLOW	4K1	SHERMAN 208	280	62,552	448	0.63	140
CoastPlus	HOOD RIVER	GRASS VALLEY	6K1	KENT	108	24,401	62	1.74	394
CoastPlus	HOOD RIVER	GRASS VALLEY	8K4	GRASS VALLEY CIT	1	184	98	0.01	2
CoastPlus	HOOD RIVER	HOOD RIVER	5K37	RESIDENTIAL	4,567	279,495	1844	2.48	152
CoastPlus	HOOD RIVER	HOOD RIVER	5K43	BELMONT	167	3,919	1085	0.15	4
CoastPlus	HOOD RIVER	HOOD RIVER	5K44	NORTH (HOOD RIV	3,644	55,654	1758	2.07	32
CoastPlus	HOOD RIVER	HOOD RIVER	5K70	EASTSIDE	744	124,377	1032	0.72	121
CoastPlus	HOOD RIVER	HOOD RIVER	5K74	SOUTH (HOOD RIV	389	79,779	1610	0.24	50
CoastPlus	HOOD RIVER	KENWOOD	5K50	OAKGROVE	1,588	160,304	703	2.26	228
CoastPlus	HOOD RIVER	MORO	8K6	MORO	1	219	118	0.01	2
CoastPlus	HOOD RIVER	WASCO	7K1	WASCO	285	27,913	264	1.08	106
CoastPlus	LINCOLN CITY	CUTLER CITY	7A362	CUTLER CITY	1,921	214,037	318	6.04	673
CoastPlus	LINCOLN CITY	DEVILS LAKE	4A310	INLAND FEEDER	8,086	586,137	1725	4.69	340
CoastPlus	LINCOLN CITY	DEVILS LAKE	4A312	OCEAN	4,082	317,512	2873	1.42	111
CoastPlus	LINCOLN CITY	DEVILS LAKE	4A316	LAKE (DEVILS LAKE	9,224	1,215,796	4448	2.07	273
CoastPlus	LINCOLN CITY	DEVILS LAKE	4A338	SIUSLAW	158	50,472	454	0.35	111
CoastPlus	LINCOLN CITY	GLENEDEN	7A364	GLENEDEN	94	17,999	713	0.13	25
CoastPlus	LINCOLN CITY	GLENEDEN	7A366	SALISHAN	1	231	356	0.00	1
CoastPlus	LINCOLN CITY	NELSCOTT	7A390	NELSCOTT	1,872	206,423	358	5.23	577
CoastPlus	LINCOLN CITY	PGE GRAND RONDE	R136	BOYER	71	18,134	18	3.94	1007
CoastPlus	LINCOLN CITY	WECOMA BEACH	7A354	WECOMA	1,460	129,900	709	2.06	183
CoastPlus	PORTLAND	ALBINA	5P111	ALBINA 11C01-UG	1	236	312	0.00	1
CoastPlus	PORTLAND	ALBINA	5P150	ALBINA 11C15	9	783	169	0.05	5
CoastPlus	PORTLAND	ALBINA	5P66	11C25	1	39	57	0.02	1
CoastPlus	PORTLAND	ALBINA	5P92	11C12-UG	1	142	353	0.00	0
CoastPlus	PORTLAND	ALDERWOOD 115/12.5	5P22	ALDERWOOD #2	1	91	203	0.00	0
CoastPlus	PORTLAND	ALDERWOOD 115/12.5	5P23	ALDERWOOD #1-UC	1	822	96	0.01	9
CoastPlus	PORTLAND	COLUMBIA (OR)	5P266	#2	141	27,305	2602	0.05	10

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CoastPlus	PORTLAND	COLUMBIA (OR)	5P268	COLUMBIA #1	7	1,577	335	0.02	5
CoastPlus	PORTLAND	COLUMBIA (OR)	5P474	COLUMBIA #6	41	3,774	553	0.07	7
CoastPlus	PORTLAND	COLUMBIA (OR)	5P476	COLUMBIA #3	1,629	97,992	698	2.33	140
CoastPlus	PORTLAND	COLUMBIA (OR)	5P478	COLUMBIA #4	35	6,385	987	0.04	6
CoastPlus	PORTLAND	CULLY	5P288	CULLY #3-UG	21	8,951	801	0.03	11
CoastPlus	PORTLAND	CULLY	5P290	CULLY #2	100	8,124	2385	0.04	3
CoastPlus	PORTLAND	CULLY	5P292	CULLY #1	2,961	132,228	2886	1.03	46
CoastPlus	PORTLAND	HOLLADAY (OR)	5P156	HOLLADAY #4-UG	126	8,306	122	1.03	68
CoastPlus	PORTLAND	HOLLADAY (OR)	5P158	HOLLADAY #6	15	1,982	837	0.02	2
CoastPlus	PORTLAND	HOLLYWOOD	5P203	HOLLYWOOD #3	16	2,123	1313	0.01	2
CoastPlus	PORTLAND	HOLLYWOOD	5P204	HOLLYWOOD #2	75	8,508	1660	0.05	5
CoastPlus	PORTLAND	HOLLYWOOD	5P205	HOLLYWOOD #1	67	4,251	2114	0.03	2
CoastPlus	PORTLAND	HOLLYWOOD	5P208	HOLLYWOOD #5	218	10,780	1692	0.13	6
CoastPlus	PORTLAND	HOLLYWOOD	5P209	HOLLYWOOD #4	3,533	214,909	2344	1.51	92
CoastPlus	PORTLAND	KILLINGSWORTH	5P123	KILLINGSWORTH #	390	47,591	393	0.99	121
CoastPlus	PORTLAND	KILLINGSWORTH	5P217	KILLINGSWORTH #	48	42,163	458	0.10	92
CoastPlus	PORTLAND	KILLINGSWORTH	5P41	KILLINGSWORTH #	300	113,551	5446	0.06	21
CoastPlus	PORTLAND	KILLINGSWORTH	5P89	KILLINGSWORTH #	36	3,677	2207	0.02	2
CoastPlus	PORTLAND	KNOTT	5P231	KNOTT #1	41	6,047	2436	0.02	2
CoastPlus	PORTLAND	KNOTT	5P232	KNOTT #2	12	410	1291	0.01	0
CoastPlus	PORTLAND	KNOTT	5P233	KNOTT #3	4,502	701,117	2230	2.02	314
CoastPlus	PORTLAND	KNOTT	5P372	11046	29	3,324	418	0.07	8
CoastPlus	PORTLAND	KNOTT	5P374	11020	75	24,184	975	0.08	25
CoastPlus	PORTLAND	LINCOLN (OR)	5P422	11D06-UG	3	1,018	550	0.01	2
CoastPlus	PORTLAND	MALLORY	5P162	MALLORY #1	39	3,724	1901	0.02	2
CoastPlus	PORTLAND	MALLORY	5P164	MALLORY #2	3,531	855,958	3036	1.16	282
CoastPlus	PORTLAND	PARKROSE	5P244	PARKROSE#4	754	186,933	3074	0.25	61
CoastPlus	PORTLAND	PARKROSE	5P246	PARKROSE#3	310	49,959	3094	0.10	16
CoastPlus	PORTLAND	PARKROSE	5P250	PARKROSE#2	1,669	81,596	737	2.26	111
CoastPlus	PORTLAND	PARKROSE	5P252	PARKROSE#1	51	10,987	1860	0.03	6
CoastPlus	PORTLAND	RUSSELLVILLE	5P274	RUSSELLVILLE #3	893	51,899	3023	0.30	17

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CoastPlus	PORTLAND	RUSSELLVILLE	5P276	RUSSELLVILLE #4	2,188	94,956	2102	1.04	45
CoastPlus	PORTLAND	RUSSELLVILLE	5P278	RUSSELLVILLE #1	37	2,448	3211	0.01	1
CoastPlus	PORTLAND	RUSSELLVILLE	5P280	RUSSELLVILLE #2	119	11,809	1320	0.09	9
CoastPlus	PORTLAND	VERNON	5P391	VERNON #1	2,880	57,789	2722	1.06	21
CoastPlus	PORTLAND	VERNON	5P392	VERNON NO. 2	67	8,071	2474	0.03	3
CoastPlus	PORTLAND	VERNON	5P393	VERNON #3	247	41,408	2964	0.08	14
CoastPlus	PORTLAND	VERNON	5P394	VERNON # 4	237	19,372	2982	0.08	6
CoastPlus	PORTLAND	VERNON	5P395	VERNON # 5	32	2,572	2159	0.01	1
Northeast OR	ENTERPRISE	ENTERPRISE (OR)	4W8	CREIGHTON LN	2,493	157,523	1425	1.75	111
Northeast OR	ENTERPRISE	ENTERPRISE (OR)	5W15	CITY	44	7,279	950	0.05	8
Northeast OR	ENTERPRISE	ENTERPRISE (OR)	5W26	RURAL (ENTERPRISE)	1,283	129,400	1073	1.20	121
Northeast OR	ENTERPRISE	JOSEPH	5W21	PRAIRIE	2,397	198,016	856	2.80	231
Northeast OR	ENTERPRISE	MINAM	5W18	MINAM	16	4,110	13	1.23	316
Northeast OR	ENTERPRISE	PALLETTE	4W14	PALLETTE NORTH	355	30,307	173	2.05	175
Northeast OR	ENTERPRISE	PALLETTE	4W15	PALLETTE SOUTH	108	19,065	53	2.04	360
Northeast OR	ENTERPRISE	WALLOWA	5W28	CITY	1,035	31,384	869	1.19	36
Northeast OR	HERMISTON	ARLINGTON	5K25	ARLINGTON	1,132	97,477	541	2.09	180
Northeast OR	HERMISTON	BLALOCK	5K40	BLALOCK	36	6,120	25	1.44	245
Northeast OR	HERMISTON	DALREED	4K40	SIM/TAG	3	78	93	0.03	1
Northeast OR	HERMISTON	DALREED	4K46	BOEING	360	40,923	166	2.17	247
Northeast OR	HERMISTON	HERMISTON	5W602	RURAL (HERMISTON)	246	43,935	1366	0.18	32
Northeast OR	HERMISTON	HINKLE	5W82	MEADOWS	1,006	225,808	367	2.74	615
Northeast OR	HERMISTON	UMATILLA	5W658	UMATILLA	83	14,365	1166	0.07	12
Northeast OR	HERMISTON	UMATILLA	5W660	MCNARY	109	41,629	911	0.12	46
Northeast OR	HERMISTON	UMATILLA	5W664	PORT FEEDER	0	0	47	0.00	0
Northeast OR	MILTON/FREEWATER	UMAPINE	5W105	UMAPINE FEEDER	2,510	97,129	995	2.52	98
Northeast OR	PENDLETON	ATHENA	5W703	CITY	1,143	160,851	869	1.32	185
Northeast OR	PENDLETON	ATHENA	5W705	HELIX	347	55,014	435	0.80	126
Northeast OR	PENDLETON	BUCKAROO	5W201	STATE HOSP.	122	26,812	409	0.30	66
Northeast OR	PENDLETON	BUCKAROO	5W202	REITH	1,910	103,511	1534	1.25	67
Northeast OR	PENDLETON	BUCKAROO	5W203	MONTEE	632	100,493	1625	0.39	62

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Northeast OR	PENDLETON	PENDLETON	5W401	WEST HILLS	130	12,044	1746	0.07	7
Northeast OR	PENDLETON	PENDLETON	5W402	HARRIS HTS	451	52,444	1500	0.30	35
Northeast OR	PENDLETON	PENDLETON	5W403	MISSION	415	49,222	1690	0.25	29
Northeast OR	PENDLETON	PENDLETON	7W452	NORTHWEST	13	776	522	0.02	1
Northeast OR	PENDLETON	PENDLETON	7W454	EAST END	1	155	283	0.00	1
Northeast OR	PENDLETON	PILOT ROCK	5W406	PILOT ROCK CITY	322	65,449	1372	0.23	48
Northeast OR	PENDLETON	WESTON NEW (OR)	5W40	WESTON CANNERY	14	122	14	1.00	9
Northeast OR	PENDLETON	WESTON NEW (OR)	5W7	SCOTTS FEEDER	731	54,530	464	1.58	118
Northeast OR	WALLA WALLA	UMAPINE	5W106	FERNDALE	2,270	126,471	1407	1.61	90
South OR	GRANTS PASS	AGNESS AVE	5R172	SPALDING MILL	208	59,889	887	0.23	68
South OR	GRANTS PASS	AGNESS AVE	5R173	JONES CREEK	57	7,733	857	0.07	9
South OR	GRANTS PASS	AGNESS AVE	5R322	ANTEATER	76	15,636	1127	0.07	14
South OR	GRANTS PASS	APPLEGATE	5R267	MURPHY	1,164	43,344	1013	1.15	43
South OR	GRANTS PASS	APPLEGATE	5R278	HIGHWAY	3,999	138,995	1611	2.48	86
South OR	GRANTS PASS	BEACON	5R104	SAVAGE ST	31	2,163	1256	0.02	2
South OR	GRANTS PASS	BEACON	5R105	BEACON ST	111	16,386	821	0.14	20
South OR	GRANTS PASS	CAVE JUNCTION	5R52	FREE& EASY	3,890	869,799	2423	1.61	359
South OR	GRANTS PASS	CAVE JUNCTION	5R53	ROUGH &READY	304	40,575	1563	0.19	26
South OR	GRANTS PASS	CAVEMAN	5R295	QUAIL	58	4,567	1144	0.05	4
South OR	GRANTS PASS	CAVEMAN	5R82	WASHINGTON	66	5,501	1202	0.05	5
South OR	GRANTS PASS	CAVEMAN	5R98	MANZANITA	34	8,522	591	0.06	14
South OR	GRANTS PASS	CAVEMAN	5R99	CAVEMAN	83	15,383	1170	0.07	13
South OR	GRANTS PASS	DOWELL	5R331	DUCK	48	9,065	1483	0.03	6
South OR	GRANTS PASS	DOWELL	5R334	FEEDER #17 (SPAR	429	40,331	2350	0.18	17
South OR	GRANTS PASS	EASY VALLEY	5R123	G STREET	338	30,397	1988	0.17	15
South OR	GRANTS PASS	EASY VALLEY	5R125	ROGUE	170	26,279	1688	0.10	16
South OR	GRANTS PASS	EASY VALLEY	5R259	CHINOOK	3,280	606,673	1298	2.53	467
South OR	GRANTS PASS	FIELDER CREEK	4R33	ELK FDR.	3,223	234,255	1614	2.00	145
South OR	GRANTS PASS	FIELDER CREEK	4R34	BEAR FDR	1,434	146,939	870	1.65	169
South OR	GRANTS PASS	GLENDALE	5R133	GLENDALE	1,590	306,728	1968	0.81	156
South OR	GRANTS PASS	GLENDALE	5R143	INDUSTRIAL	844	56,501	695	1.21	81

Oregon Circuit Metrics by Reliability Region (Excluding Major Events)

OR Reliability Region	Op Area Name	Substation Name	Circuit Id	Circuit Name	Customers In Incident Sustained	Customer Minutes Lost for Incident	Circuit Customer Count	SAIFI	SAIDI
South OR	GRANTS PASS	JEROME PRAIRIE	5R62	WILD PRAIRIE	2,606	663,432	2410	1.08	275
South OR	GRANTS PASS	JEROME PRAIRIE	5R63	WOOD RIVER	3,759	818,727	813	4.62	1007
South OR	GRANTS PASS	MERLIN	5R232	MERLIN-HUGO	5,295	226,398	2062	2.57	110
South OR	GRANTS PASS	MERLIN	5R234	PARADISE	1,277	84,966	1170	1.09	73
South OR	GRANTS PASS	MERLIN	5R248	PLEASANT VALLEY	1,434	145,298	1825	0.79	80
South OR	GRANTS PASS	MERLIN	5R251	BADGER	123	9,390	913	0.13	10
South OR	GRANTS PASS	NEW O'BRIEN	5R106	O'BRIEN	668	122,725	457	1.46	269
South OR	GRANTS PASS	PARK STREET (OR)	5R114	FRUITDALE	2,227	27,589	2191	1.02	13
South OR	GRANTS PASS	PARK STREET (OR)	5R115	ALLEN CREEK	31	5,735	913	0.03	6
South OR	GRANTS PASS	PARK STREET (OR)	5R121	NEW HOPE	261	37,189	1838	0.14	20
South OR	GRANTS PASS	PARK STREET (OR)	5R164	EXPRESS	6	409	312	0.02	1
South OR	GRANTS PASS	PARK STREET (OR)	5R169	PORTOLA	1,421	17,386	1363	1.04	13
South OR	GRANTS PASS	PROVOLT	5R67	NORTH-SOUTH	3,400	319,334	1382	2.46	231
South OR	GRANTS PASS	ROGUE RIVER	4R7	EVANS/VALLEY	20	1,505	236	0.08	6
South OR	GRANTS PASS	ROGUE RIVER	5R77	SAVAGE/WIMER	361	90,069	1787	0.20	50
South OR	GRANTS PASS	ROGUE RIVER	5R78	ROCKY POINT (ROGUE)	123	14,530	1055	0.12	14
South OR	GRANTS PASS	SELMA	5R65	DEER CREEK	226	55,464	1225	0.18	45
South OR	KLAMATH FALLS	BEATTY	5L1	BEATTY	1,518	60,782	423	3.59	144
South OR	KLAMATH FALLS	BLY	5L14	TOWN (BLY)	1,285	49,382	452	2.84	109
South OR	KLAMATH FALLS	BONANZA (OR)	5L7	POE VALLEY	460	52,772	448	1.03	118
South OR	KLAMATH FALLS	BRYANT	5L2	GARY STREET	37	5,493	2193	0.02	3
South OR	KLAMATH FALLS	BRYANT	5L3	WASHBURN	144	21,894	1885	0.08	12
South OR	KLAMATH FALLS	BRYANT	5L4	SUMMERS LANE	30	2,208	1996	0.02	1
South OR	KLAMATH FALLS	BRYANT	5L5	MOYINA HTS.	183	11,263	2487	0.07	5
South OR	KLAMATH FALLS	CASEBEER SUB	4L16	LANGELL VLY	3,873	854,131	1189	3.26	718
South OR	KLAMATH FALLS	CHILOQUIN	5L57	CRATER LAKE	4,016	670,524	1103	3.64	608
South OR	KLAMATH FALLS	CHILOQUIN MARKET	5L37	WILLIAMSON	834	257,304	485	1.72	531
South OR	KLAMATH FALLS	DAIRY	5L42	SWAN LAKE	409	55,755	321	1.27	174
South OR	KLAMATH FALLS	DAIRY	5L43	DAIRY	154	16,421	488	0.32	34
South OR	KLAMATH FALLS	HAMAKER	5L55	KENO	1,497	213,744	1756	0.85	122
South OR	KLAMATH FALLS	HAMAKER	5L56	MOUNTAIN	1	193	163	0.01	1

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South OR	KLAMATH FALLS	HENLEY	5L58	HENLEY	288	18,389	240	1.20	77
South OR	KLAMATH FALLS	HENLEY	5L59	WEST	727	49,648	552	1.32	90
South OR	KLAMATH FALLS	HORNET	5L44	HOMEDALE	292	61,096	2669	0.11	23
South OR	KLAMATH FALLS	HORNET	5L45	CRYSTAL SPR	2,932	364,565	1480	1.98	246
South OR	KLAMATH FALLS	LAKEPORT	5L49	WOCUS	0	0	202	0.00	0
South OR	KLAMATH FALLS	LAKEPORT	5L54	SOUTH (LAKEPORT	3,786	222,742	2466	1.54	90
South OR	KLAMATH FALLS	LAKEPORT	5L61	JELDWEN	0	0	7	0.00	0
South OR	KLAMATH FALLS	MERRILL (OR)	5L26	LAKE (MERRILL)	1,909	183,961	1036	1.84	178
South OR	KLAMATH FALLS	MERRILL (OR)	5L27	NORTH (MERRILL)	803	51,730	556	1.44	93
South OR	KLAMATH FALLS	MODOC	5L36	MODOC	2,785	619,067	994	2.80	623
South OR	KLAMATH FALLS	ROSS AVENUE	5L46	ELDORADO	79	8,389	1389	0.06	6
South OR	KLAMATH FALLS	ROSS AVENUE	5L48	BROAD ST.	40	19,591	1247	0.03	16
South OR	KLAMATH FALLS	RUNNING Y	4L50	ROCKY POINT FEE	3,756	883,641	1511	2.49	585
South OR	KLAMATH FALLS	SHASTA WAY	7L25	SHASTA WAY	28	3,640	438	0.06	8
South OR	KLAMATH FALLS	SPRAGUE RIVER	5L8	SPRAGUE RIVER	1,068	106,617	518	2.06	206
South OR	KLAMATH FALLS	TEXUM	5L112	ANDERSON	147	10,740	1230	0.12	9
South OR	KLAMATH FALLS	TEXUM	5L113	TOWER	2	802	330	0.01	2
South OR	KLAMATH FALLS	TEXUM	5L116	ALTAMONT	430	51,530	1534	0.28	34
South OR	KLAMATH FALLS	TURKEY HILL	5L20	MALIN CITY	1,679	223,098	854	1.97	261
South OR	KLAMATH FALLS	TURKEY HILL	5L23	RURAL (TURKEY HI	380	25,562	331	1.15	77
South OR	KLAMATH FALLS	WEST SIDE HE PLANT	5L12	ORINDALE	833	7,869	821	1.01	10
South OR	KLAMATH FALLS	WEST SIDE HE PLANT	5L15	CALIFORNIA	2,756	441,086	1361	2.02	324
South OR	KLAMATH FALLS	WEST SIDE HE PLANT	5L16	MAIN ST (WEST SID	120	938	119	1.01	8
South OR	KLAMATH FALLS	WEST SIDE HE PLANT	5L17	PINE ST (WEST SID	1,113	98,885	562	1.98	176
South OR	KLAMATH FALLS	WEST SIDE HE PLANT	5L18	RIVERSIDE (WEST	652	7,265	604	1.08	12
South OR	KLAMATH FALLS	WEST SIDE HE PLANT	5L19	LAKESHORE	307	3,113	317	0.97	10
South OR	KLAMATH FALLS	WEST SIDE HE PLANT	8L10	CITY WTR PMP	1	7	1	1.00	7
South OR	LAKEVIEW	MILE-HI	5L104	INDUSTRIAL	1,483	74,842	297	4.99	252
South OR	LAKEVIEW	MILE-HI	5L105	BUSINESS	1,829	30,186	1097	1.67	28
South OR	MEDFORD	ASHLAND (MTN.AVE, PUD)	5R245	VALLEY VIEW	2,438	265,320	981	2.49	270
South OR	MEDFORD	BEALL LANE	5R361	BULLDOG	6	463	1734	0.00	0

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South OR	MEDFORD	BEALL LANE	5R364	BOBCAT	614	35,263	1669	0.37	21
South OR	MEDFORD	BELKNAP	5R1	KOGAP	2,448	135,682	1050	2.33	129
South OR	MEDFORD	BELKNAP	5R2	RIVERSIDE (BELKN	1,563	68,508	679	2.30	101
South OR	MEDFORD	BELKNAP	5R3	BARNETT	3,169	123,525	1552	2.04	80
South OR	MEDFORD	BELKNAP	5R47	STEWART	4,248	146,894	2105	2.02	70
South OR	MEDFORD	BROOKHURST	5R118	SPRINGBROOK	136	34,988	1676	0.08	21
South OR	MEDFORD	BROOKHURST	5R135	ROBERTS (BROOKH	249	63,640	1483	0.17	43
South OR	MEDFORD	BROOKHURST	5R32	ROXY	1,779	172,390	1612	1.10	107
South OR	MEDFORD	BROOKHURST	5R33	CRATER LAKE	232	70,219	1624	0.14	43
South OR	MEDFORD	BROOKHURST	5R75	SUNRISE (BROOKH	73	14,768	1178	0.06	13
South OR	MEDFORD	CAMPBELL	5R216	VOORHIES	2	175	481	0.00	0
South OR	MEDFORD	CAMPBELL	5R218	PHOENIX	554	177,761	1509	0.37	118
South OR	MEDFORD	CAMPBELL	5R227	FERN VALLEY	75	9,458	1313	0.06	7
South OR	MEDFORD	CAMPBELL	5R312	COBRA	209	27,559	1516	0.14	18
South OR	MEDFORD	DODGE BRIDGE	4R1	SALMON	3,511	163,028	1645	2.13	99
South OR	MEDFORD	DODGE BRIDGE	4R35	MEADOWS ROAD	5,841	504,763	1364	4.28	370
South OR	MEDFORD	FOOTHILLS	5R38	HOSPITAL	845	43,675	762	1.11	57
South OR	MEDFORD	FOOTHILLS	5R39	PIERCE ROAD	1,480	127,242	1158	1.28	110
South OR	MEDFORD	FRALEY	5R87	TABLE ROCK	2,087	268,938	513	4.07	524
South OR	MEDFORD	FRALEY	5R88	DODGE BRIDGE	1,975	213,793	377	5.24	567
South OR	MEDFORD	GOLD HILL	5R103	GOLD HILL	312	57,540	2030	0.15	28
South OR	MEDFORD	GRIFFIN CREEK	5R204	HULL RD	38	9,428	2543	0.01	4
South OR	MEDFORD	GRIFFIN CREEK	5R206	GRIFFIN CREEK	320	36,441	1677	0.19	22
South OR	MEDFORD	HUMBUG CREEK	5R287	HUMMINGBIRD	16	6,432	679	0.02	9
South OR	MEDFORD	MEDCO	5R280	BOISE CASCADE	1	461	1	1.00	461
South OR	MEDFORD	MEDFORD	5R21	MELROSE	3,799	249,684	1613	2.36	155
South OR	MEDFORD	MEDFORD	5R23	SPRING ST.	1,684	54,590	1608	1.05	34
South OR	MEDFORD	MEDFORD	5R250	BIG Y	2,832	221,583	2320	1.22	96
South OR	MEDFORD	MEDFORD	5R253	APPLE	179	35,013	1126	0.16	31
South OR	MEDFORD	MEDFORD	5R257	PEAR	3	111	598	0.01	0
South OR	MEDFORD	MEDFORD	5R659	MCLEAN	138	25,587	687	0.20	37

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South OR	MEDFORD	NEW JACKSONVILLE SUB-	5R284	STAGE RD	2,920	375,773	2072	1.41	181
South OR	MEDFORD	NEW JACKSONVILLE SUB-	5R285	JACKSONVILLE HW	2,587	337,996	2073	1.25	163
South OR	MEDFORD	OAK KNOLL	5R55	SISKIYOU	4,656	474,777	1594	2.92	298
South OR	MEDFORD	PROSPECT CENTRAL	5R40	NEW CASCADE	30	12,881	341	0.09	38
South OR	MEDFORD	RED BLANKET	7R5	PROSPECT	92	34,787	399	0.23	87
South OR	MEDFORD	ROXY ANN	5R350	St. Bernard	15	4,856	1025	0.01	5
South OR	MEDFORD	ROXY ANN	5R354	RACCOON	217	30,879	1281	0.17	24
South OR	MEDFORD	RUCH	5R68	APPLEGATE	4,575	944,710	1586	2.88	596
South OR	MEDFORD	RUCH	5R69	RUCH	1,066	172,545	551	1.93	313
South OR	MEDFORD	SAGE ROAD (OR)	5R211	COLUMBUS	80	9,741	2002	0.04	5
South OR	MEDFORD	SAGE ROAD (OR)	5R226	BOISE	34	3,079	821	0.04	4
South OR	MEDFORD	SAGE ROAD (OR)	5R28	ROSS	26	1,691	1660	0.02	1
South OR	MEDFORD	SAGE ROAD (OR)	5R29	EDWARDS	14	2,814	745	0.02	4
South OR	MEDFORD	SCENIC	5R174	UPTON	220	30,408	2008	0.11	15
South OR	MEDFORD	SCENIC	5R180	HEAD RD	247	37,037	1208	0.20	31
South OR	MEDFORD	SCENIC	5R182	TAYLOR RD	30	3,560	1441	0.02	2
South OR	MEDFORD	SCENIC	5R184	CHENEY	217	61,334	1441	0.15	43
South OR	MEDFORD	STEVENS ROAD	4R13	HENRY MILLER	83	15,890	1357	0.06	12
South OR	MEDFORD	STEVENS ROAD	4R17	Stingray	902	63,562	2456	0.37	26
South OR	MEDFORD	STEVENS ROAD	4R41	ANTELOPE	553	89,887	1886	0.29	48
South OR	MEDFORD	TAKELMA	4R9	LOST CK. (TAKELM)	620	181,662	2626	0.24	69
South OR	MEDFORD	TALENT	5R237	TALENT	5,118	204,621	2487	2.06	82
South OR	MEDFORD	TALENT	5R238	ANDERSON CRK	4,059	223,782	1637	2.48	137
South OR	MEDFORD	TALENT	5R239	HARTLEY ROAD	3,422	178,634	1524	2.25	117
South OR	MEDFORD	TALENT	5R240	NORTH HWY	2,186	91,269	1077	2.03	85
South OR	MEDFORD	TOLO	5R90	TBL ROCK LBR	4	413	168	0.02	2
South OR	MEDFORD	TOLO	5R91	SAMS VALLEY	732	84,569	649	1.13	130
South OR	MEDFORD	TOLO	5R92	KIRTLAND RD	223	43,974	207	1.08	212
South OR	MEDFORD	VILAS ROAD	5R110	MCLAUGHLIN	203	30,102	954	0.21	32
South OR	MEDFORD	VILAS ROAD	5R146	KING CENTER	18	1,601	1396	0.01	1
South OR	MEDFORD	VILAS ROAD	5R305	WEBFOOT	6	588	957	0.01	1

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South OR	MEDFORD	WHITE CITY	5R11	EAGLE POINT	8,806	1,407,453	1443	6.10	975
South OR	MEDFORD	WHITE CITY	5R12	INDUSTRIAL	1	75	30	0.03	3
South OR	MEDFORD	WHITE CITY	5R14	AGATE	7	788	103	0.07	8
South OR	MEDFORD	WHITE CITY	5R19	3M	3	241	95	0.03	3
South OR	MEDFORD	WHITE CITY	5R66	4 CORNERS	310	79,478	1598	0.19	50
South OR	MEDFORD	WHITE CITY	5R76	AVE C	2	275	91	0.02	3
South OR	ROSEBURG/MYRTLECREE	CARNES	5U44	RND PRARIE	485	77,590	414	1.17	187
South OR	ROSEBURG/MYRTLECREE	CLEARWATER #1 SUB	6U17	BRIGGS	4	1,767	3	1.33	589
South OR	ROSEBURG/MYRTLECREE	CLEARWATER #2 SUB	6U33	CLEARWATER	212	49,167	102	2.08	482
South OR	ROSEBURG/MYRTLECREE	CLOAKE	4U38	HARVARD	1,298	81,128	3415	0.38	24
South OR	ROSEBURG/MYRTLECREE	CLOAKE	4U39	GOEDECK	244	42,333	1072	0.23	39
South OR	ROSEBURG/MYRTLECREE	GARDEN VALLEY	4U80	EDENBOWER	526	57,901	639	0.82	91
South OR	ROSEBURG/MYRTLECREE	GARDEN VALLEY	4U81	VALLEY	2,272	122,840	1311	1.73	94
South OR	ROSEBURG/MYRTLECREE	GAZLEY	5U46	CANYONVILLE	1,392	183,386	430	3.24	426
South OR	ROSEBURG/MYRTLECREE	GAZLEY	5U52	BEALS CREEK FEE	1,431	198,829	910	1.57	218
South OR	ROSEBURG/MYRTLECREE	GLIDE SUBSTATION	5U83	IDLEYLD	2,933	273,658	1001	2.93	273
South OR	ROSEBURG/MYRTLECREE	GLIDE SUBSTATION	5U84	LITTLE RIVER	2,005	144,798	1349	1.49	107
South OR	ROSEBURG/MYRTLECREE	GREEN SUBSTATION	5U32	SAFARI	1,871	222,724	2272	0.82	98
South OR	ROSEBURG/MYRTLECREE	GREEN SUBSTATION	5U33	SUNNYSLOPE	6	1,217	1431	0.00	1
South OR	ROSEBURG/MYRTLECREE	ILLAHEE FLATS	6U13	ILLAHEE FLATS SIN	26	1,686	27	0.96	62
South OR	ROSEBURG/MYRTLECREE	LEMOLO # 1	5U920	DIAMOND LAKE	356	87,561	179	1.99	489
South OR	ROSEBURG/MYRTLECREE	MYRTLE CREEK	5U76	SUPER Y	658	44,305	1557	0.42	28
South OR	ROSEBURG/MYRTLECREE	MYRTLE CREEK	5U77	BOOMER HILL	731	147,174	2334	0.31	63
South OR	ROSEBURG/MYRTLECREE	OAKLAND (OR)	5U11	UMPQUA	60	8,296	1341	0.04	6
South OR	ROSEBURG/MYRTLECREE	OAKLAND (OR)	5U12	STAGECOACH	140	15,885	546	0.26	29
South OR	ROSEBURG/MYRTLECREE	RIDDLE	5U1	TRI CITY	625	42,952	1017	0.61	42
South OR	ROSEBURG/MYRTLECREE	RIDDLE	5U2	COW CREEK	2,460	235,396	1607	1.53	146
South OR	ROSEBURG/MYRTLECREE	RIDDLE	5U3	HANNA	66	14,674	268	0.25	55
South OR	ROSEBURG/MYRTLECREE	RIDDLE-VENEER	5U23	FORD MILL	0	0	1	0.00	0
South OR	ROSEBURG/MYRTLECREE	RIDDLE-VENEER	5U50	RFP-LVL (EWP)	2	91	51	0.04	2
South OR	ROSEBURG/MYRTLECREE	ROSEBURG	4U10	DIAMOND	254	42,420	2667	0.10	16

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South OR	ROSEBURG/MYRTLECREEE	ROSEBURG	4U22	DIXON	184	78,983	1095	0.17	72
South OR	ROSEBURG/MYRTLECREEE	ROSEBURG	4U5	DOUGLAS	84	7,144	1941	0.04	4
South OR	ROSEBURG/MYRTLECREEE	SLIDE CREEK	6U12	SLIDE CREEK	18	2,478	5	3.60	496
South OR	ROSEBURG/MYRTLECREEE	SLIDE CREEK	6U76	SLIDE CREEK CAM	6	1,190	6	1.00	198
South OR	ROSEBURG/MYRTLECREEE	SOUTHGATE	4U30	SHADY POINT	548	42,981	1594	0.34	27
South OR	ROSEBURG/MYRTLECREEE	SOUTHGATE	4U31	BOOTH	43	8,850	1368	0.03	6
South OR	ROSEBURG/MYRTLECREEE	STEAMBOAT	6U18	STEAMBOAT	55	21,964	21	2.62	1046
South OR	ROSEBURG/MYRTLECREEE	SUTHERLIN	5U35	NON-PAREIL	610	34,391	1322	0.46	26
South OR	ROSEBURG/MYRTLECREEE	SUTHERLIN	5U36	DEADY	805	49,268	1307	0.62	38
South OR	ROSEBURG/MYRTLECREEE	SUTHERLIN	5U56	Industrial	1	67	485	0.00	0
South OR	ROSEBURG/MYRTLECREEE	TILLER	5U89	JACKSON CRK	150	41,246	324	0.46	127
South OR	ROSEBURG/MYRTLECREEE	TOKETEE	8U12	TOKETEE CITY	38	12,566	19	2.00	661
South OR	ROSEBURG/MYRTLECREEE	WINCHESTER	4U18	WILBUR	295	46,078	1662	0.18	28
South OR	ROSEBURG/MYRTLECREEE	WINCHESTER	5U15	NEWTON CREEK	101	56,929	1744	0.06	33
South OR	ROSEBURG/MYRTLECREEE	WINCHESTER	5U17	FISHER	90	13,458	738	0.12	18
South OR	ROSEBURG/MYRTLECREEE	WINCHESTER	5U19	EVANS	150	71,979	743	0.20	97
South OR	ROSEBURG/MYRTLECREEE	WINSTON	5U48	BROCKWAY	8	4,479	877	0.01	5
South OR	ROSEBURG/MYRTLECREEE	WINSTON	5U49	DILLARD	1,819	93,703	1479	1.23	63
WImVly	ALBANY	HAZELWOOD	4M335	WEST HIGH	28	3,613	1480	0.02	2
WImVly	ALBANY	HAZELWOOD	4M336	RIVERVIEW (HAZEL	1,463	384,228	1213	1.21	317
WImVly	ALBANY	JEFFERSON (OR)	4M117	MARION	1,555	54,803	729	2.13	75
WImVly	ALBANY	JEFFERSON (OR)	4M125	MINT	8,237	318,816	2546	3.24	125
WImVly	ALBANY	MURDER CREEK	4M243	SCRAVEL HILL	11,626	853,855	3720	3.13	230
WImVly	ALBANY	MURDER CREEK	4M245	RURAL NW	748	164,727	1792	0.42	92
WImVly	ALBANY	MURDER CREEK	4M249	DURA-PACIFIC	1	127	2	0.50	64
WImVly	ALBANY	MURDER CREEK	4M250	INDUSTRIAL	107	22,977	1236	0.09	19
WImVly	ALBANY	OREMET	4M295	OAK CREEK	23	1,187	106	0.22	11
WImVly	ALBANY	OREMET	4M296	ROGERSDALE	523	82,968	3112	0.17	27
WImVly	ALBANY	OREMET	5M19	OREMET	1	133	3	0.33	44
WImVly	ALBANY	QUEEN AVE	4M217	SANTIAM	302	92,499	2006	0.15	46
WImVly	ALBANY	QUEEN AVE	4M258	HILL STREET	265	21,402	2126	0.12	10

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WImVly	ALBANY	QUEEN AVE	4M261	WAVERLY	1,119	231,408	3338	0.34	69
WImVly	ALBANY	QUEEN AVE	4M262	GEARY STREET	712	120,430	2601	0.27	46
WImVly	ALBANY	VINE STREET	4M15	FERRY	42	2,959	2213	0.02	1
WImVly	ALBANY	VINE STREET	4M16	WATER STREET	1,693	168,832	3681	0.46	46
WImVly	CORVALLIS	BUCHANAN	4M130	HEWLETT PACKAR	318	29,112	2454	0.13	12
WImVly	CORVALLIS	BUCHANAN	4M133	PEORIA	5,958	406,462	2478	2.40	164
WImVly	CORVALLIS	BUCHANAN	4M134	N. NINTH ST.	864	117,105	2599	0.33	45
WImVly	CORVALLIS	DIXON	7M29	SECOND ST.	1,003	71,115	298	3.37	239
WImVly	CORVALLIS	GRANT	4M265	HIGH SCHOOL	1,327	193,723	2508	0.53	77
WImVly	CORVALLIS	GRANT	4M266	CHINTIMINI	3,468	219,760	2495	1.39	88
WImVly	CORVALLIS	GRANT	4M268	KINGS ROAD	1,646	152,845	2561	0.64	60
WImVly	CORVALLIS	GRANT	4M269	29TH STREET	1,688	245,928	3266	0.52	75
WImVly	CORVALLIS	HILLVIEW	4M180	WEST HILLS	387	27,440	1685	0.23	16
WImVly	CORVALLIS	HILLVIEW	4M181	PHILOMATH	10	1,724	645	0.02	3
WImVly	CORVALLIS	HILLVIEW	4M182	SUNSET	337	31,066	1531	0.22	20
WImVly	CORVALLIS	HILLVIEW	4M185	PLYMOUTH	61	5,179	2218	0.03	2
WImVly	CORVALLIS	MARYS RIVER	4M151	GREENBERRY	8,327	573,449	3538	2.35	162
WImVly	CORVALLIS	MARYS RIVER	4M152	AVERY	43	9,526	192	0.22	50
WImVly	CORVALLIS	MARYS RIVER	4M153	GALLAGHER	164	30,059	160	1.03	188
WImVly	COTTAGE GROVE/J.CITY	COBURG	4M220	DETERING	40	2,622	521	0.08	5
WImVly	COTTAGE GROVE/J.CITY	GOSHEN (OR)	4M360	GOSHEN FDR	176	32,727	1651	0.11	20
WImVly	COTTAGE GROVE/J.CITY	HARRISBURG SUB	4M400	TERRITORIAL	2,253	150,125	1874	1.20	80
WImVly	COTTAGE GROVE/J.CITY	JUNCTION CITY	4M102	6TH STREET	1,367	57,181	1169	1.17	49
WImVly	COTTAGE GROVE/J.CITY	JUNCTION CITY	4M99	PRAIRIE ROAD	1,160	69,430	932	1.24	74
WImVly	COTTAGE GROVE/J.CITY	LANCASTER	4M209	MONROE	1,322	38,143	1115	1.19	34
WImVly	COTTAGE GROVE/J.CITY	VILLAGE GREEN	4M84	NORTH SIDE	2,505	532,878	2364	1.06	225
WImVly	COTTAGE GROVE/J.CITY	VILLAGE GREEN	4M86	MADISON	2,334	459,529	1606	1.45	286
WImVly	DALLAS/INDEPENDENCE	DALLAS	4M100	RURAL (DALLAS)	5,075	498,806	4349	1.17	115
WImVly	DALLAS/INDEPENDENCE	DALLAS	4M201	INDUSTRIAL	38	3,839	38	1.00	101
WImVly	DALLAS/INDEPENDENCE	DALLAS	4M202	ELLENDALE	3,232	81,796	2884	1.12	28
WImVly	DALLAS/INDEPENDENCE	DALLAS	4M238	DALLAS	2,903	269,202	2298	1.26	117

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WImVly	DALLAS/INDEPENDENCE	INDEPENDENCE	4M22	RICKREAL	4,466	628,997	1962	2.28	321
WImVly	DALLAS/INDEPENDENCE	INDEPENDENCE	4M25	BUENA VISTA	4,232	164,175	3074	1.38	53
WImVly	LEBANON	BROWNSVILLE	4M17	CALAPOOIA	3,129	417,413	1898	1.65	220
WImVly	LEBANON	CROWFOOT	4M204	CROWFOOT	445	86,028	1522	0.29	57
WImVly	LEBANON	CROWFOOT	4M206	US PLYWOOD (LEB	46	4,901	1741	0.03	3
WImVly	LEBANON	LEBANON	4M61	TANGENT	2,707	443,478	2454	1.10	181
WImVly	LEBANON	LEBANON	4M62	RALSTON	154	19,647	2027	0.08	10
WImVly	LEBANON	LEBANON	4M63	TENNESSEE	1,504	125,073	1839	0.82	68
WImVly	LEBANON	LEBANON	4M79	CROWN Z	1	86	927	0.00	0
WImVly	LEBANON	SWEET HOME	4M37	HOLLEY	8,924	820,560	2041	4.37	402
WImVly	LEBANON	SWEET HOME	4M38	NARROWS	259	54,523	987	0.26	55
WImVly	LEBANON	SWEET HOME	4M93	AMES CREEK	35	4,300	1703	0.02	3
WImVly	LEBANON	SWEET HOME	4M94	FOSTER	4,824	1,253,834	2292	2.10	547
WImVly	STAYTON	NEW LYONS	4M120	MILL CITY	7,124	698,909	1956	3.64	357
WImVly	STAYTON	NEW LYONS	4M70	MEHAMA	2,064	260,334	980	2.11	266
WImVly	STAYTON	NEW STAYTON	4M19	AUMSVILLE	3,901	430,608	3104	1.26	139
WImVly	STAYTON	NEW STAYTON	4M353	WEST STAYTON	863	186,249	3431	0.25	54
WImVly	STAYTON	NEW STAYTON	4M370	CASCADE	4,567	291,829	1619	2.82	180
WImVly	STAYTON	NEW STAYTON	4M50	3RD STREET	135	18,923	930	0.15	20
WImVly	STAYTON	SCIO	5M126	THOMAS	4,622	380,184	1580	2.93	241

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Central OR	BEND/REDMOND	BEND	5D10	PORTLAND AVE	544	188,418	2306	0.236	82
Central OR	BEND/REDMOND	BEND	5D11	GLEN VISTA	438	332,047	2408	0.182	138
Central OR	BEND/REDMOND	BEND	5D12	DIVISION ST.	10	4,887	211	0.047	23
Central OR	BEND/REDMOND	BEND	5D196	MALLARD	2	285	1468	0.001	0
Central OR	BEND/REDMOND	BOND STREET	5D411	BACHELOR	284	65,971	1643	0.173	40
Central OR	BEND/REDMOND	BOND STREET	5D413	OLD MILL.	1	27	335	0.003	0
Central OR	BEND/REDMOND	BOND STREET	5D418	BLAKELY	1,379	765,881	1246	1.107	615
Central OR	BEND/REDMOND	CHINA HAT	5D140	LAVA (CHINA HAT)	598	201,948	2245	0.266	90
Central OR	BEND/REDMOND	CHINA HAT	5D142	HIGH DESERT	3,848	902,727	1548	2.486	583
Central OR	BEND/REDMOND	CHINA HAT	5D144	D.R.W.	2,907	647,800	2283	1.273	284
Central OR	BEND/REDMOND	CLEVELAND AVE.	5D30	ARROWHEAD	138	112,452	877	0.157	128
Central OR	BEND/REDMOND	CLEVELAND AVE.	5D35	WICKIUP	10,745	1,451,784	1015	10.586	1430
Central OR	BEND/REDMOND	CLEVELAND AVE.	5D38	TOMAHAWK	55	18,225	1399	0.039	13
Central OR	BEND/REDMOND	CLEVELAND AVE.	5D94	TEEPEE	980	227,695	3016	0.325	75
Central OR	BEND/REDMOND	CLEVELAND AVE.	5D96	OBSIDIAN	160	42,207	769	0.208	55
Central OR	BEND/REDMOND	CLEVELAND AVE.	5D98	HUCKLEBERRY	2,957	1,016,056	1306	2.264	778
Central OR	BEND/REDMOND	CROOKED RIVER RANCH	4D131	CANYON	430	132,764	1729	0.249	77
Central OR	BEND/REDMOND	CROOKED RIVER RANCH	4D30	CROOKED R.R.	335	122,118	757	0.443	161
Central OR	BEND/REDMOND	DESCHUTES	5D184	PRONGHORN	209	179,959	632	0.331	285
Central OR	BEND/REDMOND	DESCHUTES	5D2	DESCHUTES S	3,887	991,140	1420	2.737	698
Central OR	BEND/REDMOND	OVERPASS	5D104	AWBREY	11	2,309	672	0.016	3
Central OR	BEND/REDMOND	OVERPASS	5D106	NEZ PERCE	1,213	342,311	2606	0.465	131
Central OR	BEND/REDMOND	OVERPASS	5D120	CHINOOK	752	399,235	1293	0.582	309
Central OR	BEND/REDMOND	OVERPASS	5D128	PAIUTE	164	144,746	1836	0.089	79
Central OR	BEND/REDMOND	OVERPASS	5D155	APACHE	2,329	417,282	1792	1.300	233
Central OR	BEND/REDMOND	PILOT BUTTE	5D261	KLONDIKE	270	102,141	2506	0.108	41
Central OR	BEND/REDMOND	PILOT BUTTE	5D263	DRAKE FEEDER	326	159,720	2356	0.138	68
Central OR	BEND/REDMOND	REDMOND	5D21	SOUTH (REDMOND)	300	56,612	682	0.440	83
Central OR	BEND/REDMOND	REDMOND	5D22	INDUSTRIAL	2,147	157,300	1769	1.214	89
Central OR	BEND/REDMOND	REDMOND	5D223	TETHEROW	82	76,695	549	0.149	140
Central OR	BEND/REDMOND	REDMOND	5D226	CLINE FALLS	1,969	332,589	1865	1.056	178

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Central OR	BEND/REDMOND	REDMOND	5D227	WINDSOR	7	967	2217	0.003	0
Central OR	BEND/REDMOND	REDMOND	5D228	CITY	87	18,517	1323	0.066	14
Central OR	BEND/REDMOND	REDMOND	5D229	JUNIPER	8	1,788	314	0.025	6
Central OR	BEND/REDMOND	SHEVLIN PARK	5D238	WOLVERINE (SHP)	492	224,982	2474	0.199	91
Central OR	BEND/REDMOND	SHEVLIN PARK	5D241	BADGER (SHP)	363	216,000	2822	0.129	77
Central OR	BEND/REDMOND	SHEVLIN PARK	5D243	Black Bear	69	17,349	410	0.168	42
Central OR	BEND/REDMOND	YEW AVENUE	5D322	BIRDIE	138	66,108	1419	0.097	47
Central OR	BEND/REDMOND	YEW AVENUE	5D323	FAIRWAY	156	31,316	391	0.399	80
Central OR	BEND/REDMOND	YEW AVENUE	5D325	EAGLE	94	29,374	2351	0.040	12
Central OR	MADRAS	CHERRY LANE	5D295	7 PEAKS	435	15,524	142	3.063	109
Central OR	MADRAS	CULVER	5D5	CULVER	2,409	309,601	1755	1.373	176
Central OR	MADRAS	MADRAS	5D52	MADRAS RURAL	3,400	134,444	1019	3.337	132
Central OR	MADRAS	MADRAS	5D53	AGATE	2,468	92,452	816	3.025	113
Central OR	MADRAS	MADRAS	5D57	QUARTZ	5,939	227,154	1875	3.167	121
Central OR	MADRAS	MADRAS	5D61	MADRAS CITY	4,268	154,538	1329	3.211	116
Central OR	MADRAS	POWELL BUTTE	5D1	POWELL BUTTE	1,094	306,901	601	1.820	511
Central OR	MADRAS	PRINEVILLE	5D126	RIMROCK	639	259,960	2237	0.286	116
Central OR	MADRAS	PRINEVILLE	5D167	NORTHVILLE	116	41,496	1255	0.092	33
Central OR	MADRAS	PRINEVILLE	5D25	OCHOCO	332	71,380	977	0.340	73
Central OR	MADRAS	PRINEVILLE	5D47	MC KAY (PRINEVILL	955	272,442	1648	0.579	165
Central OR	MADRAS	PRINEVILLE	5D48	LAMONTA	358	244,589	638	0.561	383
Central OR	MADRAS	PRINEVILLE	5D69	GRIMES FLAT	1,098	420,031	1594	0.689	264
Central OR	MADRAS	WARM SPRINGS	4D68	WARM SPRINGS (O	1,699	401,639	1043	1.629	385
CoastPlus	CLATSOP (ASTORIA)	CANNON BEACH	5A10	HAYSTACK	6,121	1,586,679	1524	4.016	1041
CoastPlus	CLATSOP (ASTORIA)	CANNON BEACH	5A8	ECOLA	5,823	1,256,892	1252	4.651	1004
CoastPlus	CLATSOP (ASTORIA)	FERN HILL SUB	5A51	JOHN DAY	1,598	233,076	260	6.146	896
CoastPlus	CLATSOP (ASTORIA)	FERN HILL SUB	5A52	SCANDINAVIAN	107	918	106	1.009	9
CoastPlus	CLATSOP (ASTORIA)	KNAPPA SVENSEN	5A92	SVENSEN	827	33,719	684	1.209	49
CoastPlus	CLATSOP (ASTORIA)	KNAPPA SVENSEN	5A93	BRADWOOD	4,378	738,520	926	4.728	798
CoastPlus	CLATSOP (ASTORIA)	SEASIDE	5A80	GROVE	2,892	490,153	2350	1.231	209
CoastPlus	CLATSOP (ASTORIA)	SEASIDE	5A81	CENTRAL	1,745	158,779	1854	0.941	86

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CoastPlus	CLATSOP (ASTORIA)	SEASIDE	5A82	NECANICUM	2,890	290,215	1185	2.439	245
CoastPlus	CLATSOP (ASTORIA)	SEASIDE	5A83	GEARHART	14,237	1,381,590	2843	5.008	486
CoastPlus	CLATSOP (ASTORIA)	WARRENTON	5A15	CITY	10,294	2,686,921	1784	5.770	1506
CoastPlus	CLATSOP (ASTORIA)	WARRENTON	5A16	MILL (WARRENTON)	568	50,080	493	1.152	102
CoastPlus	CLATSOP (ASTORIA)	WARRENTON	5A20	SOUTH (WARRENTON)	2,885	410,627	1471	1.961	279
CoastPlus	CLATSOP (ASTORIA)	YOUNGS BAY	5A202	PORT DOCK	2,029	254,241	1228	1.652	207
CoastPlus	CLATSOP (ASTORIA)	YOUNGS BAY	5A204	MOO COW	916	283,882	1106	0.828	257
CoastPlus	CLATSOP (ASTORIA)	YOUNGS BAY	5A205	FIFTH STREET	1,053	40,798	956	1.101	43
CoastPlus	CLATSOP (ASTORIA)	YOUNGS BAY	5A206	YOUNGS BAY #6	1	15	203	0.005	0
CoastPlus	CLATSOP (ASTORIA)	YOUNGS BAY	5A210	YOUNGS BAY #10	797	99,723	1274	0.626	78
CoastPlus	CLATSOP (ASTORIA)	YOUNGS BAY	5A211	OLNEY	4,750	1,256,239	966	4.917	1300
CoastPlus	CLATSOP (ASTORIA)	YOUNGS BAY	5A213	INDUSTRIAL	1,743	149,502	1416	1.231	106
CoastPlus	COOS BAY/COQUILLE	BANDON TIE (BPA)	L804	BANDON	2,189	367,395	776	2.821	473
CoastPlus	COOS BAY/COQUILLE	COOS RIVER	4C106	COOS RIVER	3,990	967,904	1399	2.852	692
CoastPlus	COOS BAY/COQUILLE	COQUILLE	4C41	HENRY STREET	3,489	485,699	1768	1.973	275
CoastPlus	COOS BAY/COQUILLE	COQUILLE	4C42	TERRES HGHTS	6,460	953,852	1615	4.000	591
CoastPlus	COOS BAY/COQUILLE	COQUILLE	4C43	INDUSTRIAL	386	32,645	190	2.032	172
CoastPlus	COOS BAY/COQUILLE	EMPIRE NEW	4C108	EMPIRE	54	7,932	1735	0.031	5
CoastPlus	COOS BAY/COQUILLE	EMPIRE NEW	4C89	SCOTT	137	26,285	1406	0.097	19
CoastPlus	COOS BAY/COQUILLE	EMPIRE NEW	4C90	CHARLESTON	2,688	167,752	2159	1.245	78
CoastPlus	COOS BAY/COQUILLE	JORDAN POINT	5C11	WEYCO#2	1	247	1	1.000	247
CoastPlus	COOS BAY/COQUILLE	JORDAN POINT	5C6	SAND DUNES (JORDAN)	44	17,312	27	1.630	641
CoastPlus	COOS BAY/COQUILLE	LOCKHART STREET	4C48	CITY CENTER	80	6,718	1612	0.050	4
CoastPlus	COOS BAY/COQUILLE	LOCKHART STREET	4C49	EASTSIDE	23	3,917	795	0.029	5
CoastPlus	COOS BAY/COQUILLE	LOCKHART STREET	4C5	GEORGIA-PAC	4	362	104	0.038	3
CoastPlus	COOS BAY/COQUILLE	LOCKHART STREET	4C50	BUNKERHILL	6,877	1,757,716	1886	3.646	932
CoastPlus	COOS BAY/COQUILLE	LOCKHART STREET	4C97	ENGLEWOOD	1,551	59,329	1410	1.100	42
CoastPlus	COOS BAY/COQUILLE	MYRTLE POINT	4C36	NORTH (MYRTLE POINT)	1,923	787,586	357	5.387	2206
CoastPlus	COOS BAY/COQUILLE	MYRTLE POINT	4C37	MAPLE STREET	5,382	2,355,444	2186	2.462	1078
CoastPlus	COOS BAY/COQUILLE	SOUTH DUNES	5C9	DOUGLAS CHIP	6	676	2	3.000	338
CoastPlus	COOS BAY/COQUILLE	STATE STREET	4C112	WOODLAND	146	37,810	1861	0.078	20

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CoastPlus	COOS BAY/COQUILLE	STATE STREET	4C66	BAYSHORE	201	22,451	1716	0.117	13
CoastPlus	COOS BAY/COQUILLE	STATE STREET	4C67	INDUSTRIAL	2,529	421,101	2276	1.111	185
CoastPlus	COOS BAY/COQUILLE	STATE STREET	4C86	BANGOR	92	12,970	1771	0.052	7
CoastPlus	HOOD RIVER	GORDON HOLLOW	4K1	SHERMAN 208	280	62,552	448	0.625	140
CoastPlus	HOOD RIVER	GRASS VALLEY	6K1	KENT	108	24,401	62	1.742	394
CoastPlus	HOOD RIVER	GRASS VALLEY	8K4	GRASS VALLEY CIT	1	184	98	0.010	2
CoastPlus	HOOD RIVER	HOOD RIVER	5K37	RESIDENTIAL	4,567	279,495	1844	2.477	152
CoastPlus	HOOD RIVER	HOOD RIVER	5K43	BELMONT	167	3,919	1085	0.154	4
CoastPlus	HOOD RIVER	HOOD RIVER	5K44	NORTH (HOOD RIVER)	3,644	55,654	1758	2.073	32
CoastPlus	HOOD RIVER	HOOD RIVER	5K70	EASTSIDE	744	124,377	1032	0.721	121
CoastPlus	HOOD RIVER	HOOD RIVER	5K74	SOUTH (HOOD RIVER)	389	79,779	1610	0.242	50
CoastPlus	HOOD RIVER	KENWOOD	5K50	OAKGROVE	1,588	160,304	703	2.259	228
CoastPlus	HOOD RIVER	MORO	8K6	MORO	1	219	118	0.008	2
CoastPlus	HOOD RIVER	WASCO	7K1	WASCO	285	27,913	264	1.080	106
CoastPlus	LINCOLN CITY	CUTLER CITY	7A362	CUTLER CITY	2,875	272,824	318	9.041	858
CoastPlus	LINCOLN CITY	DEVILS LAKE	4A310	INLAND FEEDER	13,011	767,772	1725	7.543	445
CoastPlus	LINCOLN CITY	DEVILS LAKE	4A312	OCEAN	6,965	344,580	2873	2.424	120
CoastPlus	LINCOLN CITY	DEVILS LAKE	4A316	LAKE (DEVILS LAKE)	14,703	3,020,688	4448	3.306	679
CoastPlus	LINCOLN CITY	DEVILS LAKE	4A338	SIUSLAW	158	50,472	454	0.348	111
CoastPlus	LINCOLN CITY	GLENEDEN	7A364	GLENEDEN	94	17,999	713	0.132	25
CoastPlus	LINCOLN CITY	GLENEDEN	7A366	SALISHAN	1	231	356	0.003	1
CoastPlus	LINCOLN CITY	NELSCOTT	7A390	NELSCOTT	2,943	242,890	358	8.221	678
CoastPlus	LINCOLN CITY	PGE GRAND RONDE	R136	BOYER	71	18,134	18	3.944	1007
CoastPlus	LINCOLN CITY	WECOMA BEACH	7A354	WECOMA	1,460	129,900	709	2.059	183
CoastPlus	PORTLAND	ALBINA	5P111	ALBINA 11C01-UG	1	236	312	0.003	1
CoastPlus	PORTLAND	ALBINA	5P150	ALBINA 11C15	9	783	169	0.053	5
CoastPlus	PORTLAND	ALBINA	5P66	11C25	1	39	57	0.018	1
CoastPlus	PORTLAND	ALBINA	5P92	11C12-UG	1	142	353	0.003	0
CoastPlus	PORTLAND	ALDERWOOD 115/12.5	5P22	ALDERWOOD #2	1	91	203	0.005	0
CoastPlus	PORTLAND	ALDERWOOD 115/12.5	5P23	ALDERWOOD #1-UG	1	822	96	0.010	9
CoastPlus	PORTLAND	COLUMBIA (OR)	5P266	#2	141	27,305	2602	0.054	10

Oregon Circuit Metrics by Reliability Region (Including Major Events)

OR Reliability Region	Op Area Name	Substation Name	Circuit Id	Circuit Name	Customers In Incident Sustained	Customer Minutes Lost for Incident	Circuit Customer Count	SAIFI	SAIDI
CoastPlus	PORTLAND	COLUMBIA (OR)	5P268	COLUMBIA #1	7	1,577	335	0.021	5
CoastPlus	PORTLAND	COLUMBIA (OR)	5P474	COLUMBIA #6	41	3,774	553	0.074	7
CoastPlus	PORTLAND	COLUMBIA (OR)	5P476	COLUMBIA #3	1,629	97,992	698	2.334	140
CoastPlus	PORTLAND	COLUMBIA (OR)	5P478	COLUMBIA #4	35	6,385	987	0.035	6
CoastPlus	PORTLAND	CULLY	5P288	CULLY #3-UG	21	8,951	801	0.026	11
CoastPlus	PORTLAND	CULLY	5P290	CULLY #2	100	8,124	2385	0.042	3
CoastPlus	PORTLAND	CULLY	5P292	CULLY #1	2,961	132,228	2886	1.026	46
CoastPlus	PORTLAND	HOLLADAY (OR)	5P156	HOLLADAY #4-UG	126	8,306	122	1.033	68
CoastPlus	PORTLAND	HOLLADAY (OR)	5P158	HOLLADAY #6	15	1,982	837	0.018	2
CoastPlus	PORTLAND	HOLLYWOOD	5P203	HOLLYWOOD #3	16	2,123	1313	0.012	2
CoastPlus	PORTLAND	HOLLYWOOD	5P204	HOLLYWOOD #2	75	8,508	1660	0.045	5
CoastPlus	PORTLAND	HOLLYWOOD	5P205	HOLLYWOOD #1	67	4,251	2114	0.032	2
CoastPlus	PORTLAND	HOLLYWOOD	5P208	HOLLYWOOD #5	218	10,780	1692	0.129	6
CoastPlus	PORTLAND	HOLLYWOOD	5P209	HOLLYWOOD #4	3,533	214,909	2344	1.507	92
CoastPlus	PORTLAND	KILLINGSWORTH	5P123	KILLINGSWORTH #1	390	47,591	393	0.992	121
CoastPlus	PORTLAND	KILLINGSWORTH	5P217	KILLINGSWORTH #4	48	42,163	458	0.105	92
CoastPlus	PORTLAND	KILLINGSWORTH	5P41	KILLINGSWORTH #3	300	113,551	5446	0.055	21
CoastPlus	PORTLAND	KILLINGSWORTH	5P89	KILLINGSWORTH #2	36	3,677	2207	0.016	2
CoastPlus	PORTLAND	KNOTT	5P231	KNOTT #1	41	6,047	2436	0.017	2
CoastPlus	PORTLAND	KNOTT	5P232	KNOTT #2	12	410	1291	0.009	0
CoastPlus	PORTLAND	KNOTT	5P233	KNOTT #3	4,502	701,117	2230	2.019	314
CoastPlus	PORTLAND	KNOTT	5P372	11046	29	3,324	418	0.069	8
CoastPlus	PORTLAND	KNOTT	5P374	11020	75	24,184	975	0.077	25
CoastPlus	PORTLAND	LINCOLN (OR)	5P422	11D06-UG	3	1,018	550	0.005	2
CoastPlus	PORTLAND	MALLORY	5P162	MALLORY #1	39	3,724	1901	0.021	2
CoastPlus	PORTLAND	MALLORY	5P164	MALLORY #2	3,531	855,958	3036	1.163	282
CoastPlus	PORTLAND	PARKROSE	5P244	PARKROSE#4	754	186,933	3074	0.245	61
CoastPlus	PORTLAND	PARKROSE	5P246	PARKROSE#3	310	49,959	3094	0.100	16
CoastPlus	PORTLAND	PARKROSE	5P250	PARKROSE#2	1,669	81,596	737	2.265	111
CoastPlus	PORTLAND	PARKROSE	5P252	PARKROSE#1	51	10,987	1860	0.027	6
CoastPlus	PORTLAND	RUSSELLVILLE	5P274	RUSSELLVILLE #3	893	51,899	3023	0.295	17

Oregon Circuit Metrics by Reliability Region (Including Major Events)

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CoastPlus	PORTLAND	RUSSELLVILLE	5P276	RUSSELLVILLE #4	2,188	94,956	2102	1.041	45
CoastPlus	PORTLAND	RUSSELLVILLE	5P278	RUSSELLVILLE #1	37	2,448	3211	0.012	1
CoastPlus	PORTLAND	RUSSELLVILLE	5P280	RUSSELLVILLE #2	119	11,809	1320	0.090	9
CoastPlus	PORTLAND	VERNON	5P391	VERNON #1	2,880	57,789	2722	1.058	21
CoastPlus	PORTLAND	VERNON	5P392	VERNON NO. 2	67	8,071	2474	0.027	3
CoastPlus	PORTLAND	VERNON	5P393	VERNON #3	247	41,408	2964	0.083	14
CoastPlus	PORTLAND	VERNON	5P394	VERNON # 4	237	19,372	2982	0.079	6
CoastPlus	PORTLAND	VERNON	5P395	VERNON # 5	32	2,572	2159	0.015	1
Northeast OR	ENTERPRISE	ENTERPRISE (OR)	4W8	CREIGHTON LN	2,493	157,523	1425	1.749	111
Northeast OR	ENTERPRISE	ENTERPRISE (OR)	5W15	CITY	44	7,279	950	0.046	8
Northeast OR	ENTERPRISE	ENTERPRISE (OR)	5W26	RURAL (ENTERPRISE)	1,283	129,400	1073	1.196	121
Northeast OR	ENTERPRISE	JOSEPH	5W21	PRAIRIE	2,397	198,016	856	2.800	231
Northeast OR	ENTERPRISE	MINAM	5W18	MINAM	16	4,110	13	1.231	316
Northeast OR	ENTERPRISE	PALLETTE	4W14	PALLETTE NORTH	355	30,307	173	2.052	175
Northeast OR	ENTERPRISE	PALLETTE	4W15	PALLETTE SOUTH	108	19,065	53	2.038	360
Northeast OR	ENTERPRISE	WALLOWA	5W28	CITY	1,035	31,384	869	1.191	36
Northeast OR	HERMISTON	ARLINGTON	5K25	ARLINGTON	1,132	97,477	541	2.092	180
Northeast OR	HERMISTON	BLALOCK	5K40	BLALOCK	36	6,120	25	1.440	245
Northeast OR	HERMISTON	DALREED	4K40	SIM/TAG	3	78	93	0.032	1
Northeast OR	HERMISTON	DALREED	4K46	BOEING	360	40,923	166	2.169	247
Northeast OR	HERMISTON	HERMISTON	5W602	RURAL (HERMISTON)	246	43,935	1366	0.180	32
Northeast OR	HERMISTON	HINKLE	5W82	MEADOWS	1,006	225,808	367	2.741	615
Northeast OR	HERMISTON	UMATILLA	5W658	UMATILLA	83	14,365	1166	0.071	12
Northeast OR	HERMISTON	UMATILLA	5W660	MCNARY	109	41,629	911	0.120	46
Northeast OR	HERMISTON	UMATILLA	5W664	PORT FEEDER	0	0	47	0.000	0
Northeast OR	MILTON/FREEWATER	UMAPINE	5W105	UMAPINE FEEDER	2,510	97,129	995	2.523	98
Northeast OR	PENDLETON	ATHENA	5W703	CITY	1,143	160,851	869	1.315	185
Northeast OR	PENDLETON	ATHENA	5W705	HELIX	347	55,014	435	0.798	126
Northeast OR	PENDLETON	BUCKAROO	5W201	STATE HOSP.	122	26,812	409	0.298	66
Northeast OR	PENDLETON	BUCKAROO	5W202	REITH	1,910	103,511	1534	1.245	67
Northeast OR	PENDLETON	BUCKAROO	5W203	MONTEE	632	100,493	1625	0.389	62

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Northeast OR	PENDLETON	PENDLETON	5W401	WEST HILLS	130	12,044	1746	0.074	7
Northeast OR	PENDLETON	PENDLETON	5W402	HARRIS HTS	451	52,444	1500	0.301	35
Northeast OR	PENDLETON	PENDLETON	5W403	MISSION	415	49,222	1690	0.246	29
Northeast OR	PENDLETON	PENDLETON	7W452	NORTHWEST	13	776	522	0.025	1
Northeast OR	PENDLETON	PENDLETON	7W454	EAST END	1	155	283	0.004	1
Northeast OR	PENDLETON	PILOT ROCK	5W406	PILOT ROCK CITY	322	65,449	1372	0.235	48
Northeast OR	PENDLETON	WESTON NEW (OR)	5W40	WESTON CANNERY	14	122	14	1.000	9
Northeast OR	PENDLETON	WESTON NEW (OR)	5W7	SCOTTS FEEDER	731	54,530	464	1.575	118
Northeast OR	WALLA WALLA	UMAPINE	5W106	FERNDALE	2,270	126,471	1407	1.613	90
South OR	GRANTS PASS	AGNESS AVE	5R172	SPALDING MILL	616	767,688	887	0.694	865
South OR	GRANTS PASS	AGNESS AVE	5R173	JONES CREEK	98	20,575	857	0.114	24
South OR	GRANTS PASS	AGNESS AVE	5R322	ANTEATER	399	235,217	1127	0.354	209
South OR	GRANTS PASS	APPEGATE	5R267	MURPHY	3,336	323,871	1013	3.293	320
South OR	GRANTS PASS	APPEGATE	5R278	HIGHWAY	7,430	312,988	1611	4.612	194
South OR	GRANTS PASS	BEACON	5R104	SAVAGE ST	31	2,163	1256	0.025	2
South OR	GRANTS PASS	BEACON	5R105	BEACON ST	111	16,386	821	0.135	20
South OR	GRANTS PASS	CAVE JUNCTION	5R52	FREE& EASY	9,330	3,957,582	2423	3.851	1633
South OR	GRANTS PASS	CAVE JUNCTION	5R53	ROUGH &READY	1,320	1,664,944	1563	0.845	1065
South OR	GRANTS PASS	CAVEMAN	5R295	QUAIL	71	44,860	1144	0.062	39
South OR	GRANTS PASS	CAVEMAN	5R82	WASHINGTON	67	6,056	1202	0.056	5
South OR	GRANTS PASS	CAVEMAN	5R98	MANZANITA	34	8,522	591	0.058	14
South OR	GRANTS PASS	CAVEMAN	5R99	CAVEMAN	83	15,383	1170	0.071	13
South OR	GRANTS PASS	DOWELL	5R331	DUCK	48	9,065	1483	0.032	6
South OR	GRANTS PASS	DOWELL	5R334	FEEDER #17 (SPAR	430	43,533	2350	0.183	19
South OR	GRANTS PASS	EASY VALLEY	5R123	G STREET	339	32,617	1988	0.171	16
South OR	GRANTS PASS	EASY VALLEY	5R125	ROGUE	170	26,279	1688	0.101	16
South OR	GRANTS PASS	EASY VALLEY	5R259	CHINOOK	3,958	1,315,174	1298	3.049	1013
South OR	GRANTS PASS	FIELDER CREEK	4R33	ELK FDR.	3,296	398,362	1614	2.042	247
South OR	GRANTS PASS	FIELDER CREEK	4R34	BEAR FDR	2,336	342,020	870	2.685	393
South OR	GRANTS PASS	GLENDALE	5R133	GLENDALE	2,817	1,489,091	1968	1.431	757
South OR	GRANTS PASS	GLENDALE	5R143	INDUSTRIAL	856	79,559	695	1.232	114

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South OR	GRANTS PASS	JEROME PRAIRIE	5R62	WILD PRAIRIE	4,811	3,212,004	2410	1.996	1333
South OR	GRANTS PASS	JEROME PRAIRIE	5R63	WOOD RIVER	5,302	2,600,376	813	6.522	3198
South OR	GRANTS PASS	MERLIN	5R232	MERLIN-HUGO	6,993	1,384,388	2062	3.391	671
South OR	GRANTS PASS	MERLIN	5R234	PARADISE	1,296	117,364	1170	1.108	100
South OR	GRANTS PASS	MERLIN	5R248	PLEASANT VALLEY	1,530	275,562	1825	0.838	151
South OR	GRANTS PASS	MERLIN	5R251	BADGER	124	9,923	913	0.136	11
South OR	GRANTS PASS	NEW O'BRIEN	5R106	O'BRIEN	970	449,848	457	2.123	984
South OR	GRANTS PASS	PARK STREET (OR)	5R114	FRUITDALE	2,227	27,589	2191	1.016	13
South OR	GRANTS PASS	PARK STREET (OR)	5R115	ALLEN CREEK	31	5,735	913	0.034	6
South OR	GRANTS PASS	PARK STREET (OR)	5R121	NEW HOPE	317	83,454	1838	0.172	45
South OR	GRANTS PASS	PARK STREET (OR)	5R164	EXPRESS	6	409	312	0.019	1
South OR	GRANTS PASS	PARK STREET (OR)	5R169	PORTOLA	1,435	31,050	1363	1.053	23
South OR	GRANTS PASS	PROVOLT	5R67	NORTH-SOUTH	7,558	650,351	1382	5.469	471
South OR	GRANTS PASS	ROGUE RIVER	4R7	EVANS/VALLEY	256	90,973	236	1.085	385
South OR	GRANTS PASS	ROGUE RIVER	5R77	SAVAGE/WIMER	2,156	780,817	1787	1.206	437
South OR	GRANTS PASS	ROGUE RIVER	5R78	ROCKY POINT (ROGUE)	1,187	713,742	1055	1.125	677
South OR	GRANTS PASS	SELMA	5R65	DEER CREEK	2,281	1,904,705	1225	1.862	1555
South OR	KLAMATH FALLS	BEATTY	5L1	BEATTY	1,938	110,881	423	4.582	262
South OR	KLAMATH FALLS	BLY	5L14	TOWN (BLY)	1,738	103,417	452	3.845	229
South OR	KLAMATH FALLS	BONANZA (OR)	5L7	POE VALLEY	908	162,465	448	2.027	363
South OR	KLAMATH FALLS	BRYANT	5L2	GARY STREET	37	5,493	2193	0.017	3
South OR	KLAMATH FALLS	BRYANT	5L3	WASHBURN	144	21,894	1885	0.076	12
South OR	KLAMATH FALLS	BRYANT	5L4	SUMMERS LANE	30	2,208	1996	0.015	1
South OR	KLAMATH FALLS	BRYANT	5L5	MOYINA HTS.	183	11,263	2487	0.074	5
South OR	KLAMATH FALLS	CASEBEER SUB	4L16	LANGELL VLY	5,064	1,145,747	1189	4.259	964
South OR	KLAMATH FALLS	CHILOQUIN	5L57	CRATER LAKE	4,016	670,524	1103	3.641	608
South OR	KLAMATH FALLS	CHILOQUIN MARKET	5L37	WILLIAMSON	834	257,304	485	1.720	531
South OR	KLAMATH FALLS	DAIRY	5L42	SWAN LAKE	728	71,168	321	2.268	222
South OR	KLAMATH FALLS	DAIRY	5L43	DAIRY	646	211,789	488	1.324	434
South OR	KLAMATH FALLS	HAMAKER	5L55	KENO	1,498	213,807	1756	0.853	122
South OR	KLAMATH FALLS	HAMAKER	5L56	MOUNTAIN	1	193	163	0.006	1

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South OR	KLAMATH FALLS	HENLEY	5L58	HENLEY	289	18,489	240	1.204	77
South OR	KLAMATH FALLS	HENLEY	5L59	WEST	727	49,648	552	1.317	90
South OR	KLAMATH FALLS	HORNET	5L44	HOMEDALE	2,963	170,207	2669	1.110	64
South OR	KLAMATH FALLS	HORNET	5L45	CRYSTAL SPR	4,412	425,023	1480	2.981	287
South OR	KLAMATH FALLS	LAKEPORT	5L49	WOCUS	0	0	202	0.000	0
South OR	KLAMATH FALLS	LAKEPORT	5L54	SOUTH (LAKEPORT)	3,786	222,742	2466	1.535	90
South OR	KLAMATH FALLS	LAKEPORT	5L61	JELDWEN	0	0	7	0.000	0
South OR	KLAMATH FALLS	MERRILL (OR)	5L26	LAKE (MERRILL)	1,987	198,238	1036	1.918	191
South OR	KLAMATH FALLS	MERRILL (OR)	5L27	NORTH (MERRILL)	804	51,792	556	1.446	93
South OR	KLAMATH FALLS	MODOC	5L36	MODOC	2,785	619,067	994	2.802	623
South OR	KLAMATH FALLS	ROSS AVENUE	5L46	ELDORADO	79	8,389	1389	0.057	6
South OR	KLAMATH FALLS	ROSS AVENUE	5L48	BROAD ST.	40	19,591	1247	0.032	16
South OR	KLAMATH FALLS	RUNNING Y	4L50	ROCKY POINT FEE	3,756	883,641	1511	2.486	585
South OR	KLAMATH FALLS	SHASTA WAY	7L25	SHASTA WAY	28	3,640	438	0.064	8
South OR	KLAMATH FALLS	SPRAGUE RIVER	5L8	SPRAGUE RIVER	1,580	167,690	518	3.050	324
South OR	KLAMATH FALLS	TEXUM	5L112	ANDERSON	147	10,740	1230	0.120	9
South OR	KLAMATH FALLS	TEXUM	5L113	TOWER	2	802	330	0.006	2
South OR	KLAMATH FALLS	TEXUM	5L116	ALTAMONT	430	51,530	1534	0.280	34
South OR	KLAMATH FALLS	TURKEY HILL	5L20	MALIN CITY	1,679	223,098	854	1.966	261
South OR	KLAMATH FALLS	TURKEY HILL	5L23	RURAL (TURKEY HI	383	25,851	331	1.157	78
South OR	KLAMATH FALLS	WEST SIDE HE PLANT	5L12	ORINDALE	833	7,869	821	1.015	10
South OR	KLAMATH FALLS	WEST SIDE HE PLANT	5L15	CALIFORNIA	2,756	441,086	1361	2.025	324
South OR	KLAMATH FALLS	WEST SIDE HE PLANT	5L16	MAIN ST (WEST SID	120	938	119	1.008	8
South OR	KLAMATH FALLS	WEST SIDE HE PLANT	5L17	PINE ST (WEST SID	1,113	98,885	562	1.980	176
South OR	KLAMATH FALLS	WEST SIDE HE PLANT	5L18	RIVERSIDE (WEST	652	7,265	604	1.079	12
South OR	KLAMATH FALLS	WEST SIDE HE PLANT	5L19	LAKESHORE	307	3,113	317	0.968	10
South OR	KLAMATH FALLS	WEST SIDE HE PLANT	8L10	CITY WTR PMP	1	7	1	1.000	7
South OR	LAKEVIEW	MILE-HI	5L104	INDUSTRIAL	1,483	74,842	297	4.993	252
South OR	LAKEVIEW	MILE-HI	5L105	BUSINESS	1,829	30,186	1097	1.667	28
South OR	MEDFORD	ASHLAND (MTN.AVE, PUD)	5R245	VALLEY VIEW	2,438	265,320	981	2.485	270
South OR	MEDFORD	BEALL LANE	5R361	BULLDOG	6	463	1734	0.003	0

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South OR	MEDFORD	BEALL LANE	5R364	BOBCAT	615	35,720	1669	0.368	21
South OR	MEDFORD	BELKNAP	5R1	KOGAP	3,484	260,728	1050	3.318	248
South OR	MEDFORD	BELKNAP	5R2	RIVERSIDE (BELKN	2,241	113,369	679	3.300	167
South OR	MEDFORD	BELKNAP	5R3	BARNETT	4,721	313,930	1552	3.042	202
South OR	MEDFORD	BELKNAP	5R47	STEWART	6,353	286,104	2105	3.018	136
South OR	MEDFORD	BROOKHURST	5R118	SPRINGBROOK	136	34,988	1676	0.081	21
South OR	MEDFORD	BROOKHURST	5R135	ROBERTS (BROOKH	249	63,640	1483	0.168	43
South OR	MEDFORD	BROOKHURST	5R32	ROXY	1,779	172,390	1612	1.104	107
South OR	MEDFORD	BROOKHURST	5R33	CRATER LAKE	232	70,219	1624	0.143	43
South OR	MEDFORD	BROOKHURST	5R75	SUNRISE (BROOKH	74	14,905	1178	0.063	13
South OR	MEDFORD	CAMPBELL	5R216	VOORHIES	2	175	481	0.004	0
South OR	MEDFORD	CAMPBELL	5R218	PHOENIX	554	177,761	1509	0.367	118
South OR	MEDFORD	CAMPBELL	5R227	FERN VALLEY	75	9,458	1313	0.057	7
South OR	MEDFORD	CAMPBELL	5R312	COBRA	209	27,559	1516	0.138	18
South OR	MEDFORD	DODGE BRIDGE	4R1	SALMON	6,873	1,202,682	1645	4.178	731
South OR	MEDFORD	DODGE BRIDGE	4R35	MEADOWS ROAD	7,357	814,144	1364	5.394	597
South OR	MEDFORD	FOOTHILLS	5R38	HOSPITAL	1,607	93,738	762	2.109	123
South OR	MEDFORD	FOOTHILLS	5R39	PIERCE ROAD	2,637	203,257	1158	2.277	176
South OR	MEDFORD	FRALEY	5R87	TABLE ROCK	2,600	333,063	513	5.068	649
South OR	MEDFORD	FRALEY	5R88	DODGE BRIDGE	2,354	262,238	377	6.244	696
South OR	MEDFORD	GOLD HILL	5R103	GOLD HILL	2,548	882,590	2030	1.255	435
South OR	MEDFORD	GRIFFIN CREEK	5R204	HULL RD	39	10,654	2543	0.015	4
South OR	MEDFORD	GRIFFIN CREEK	5R206	GRIFFIN CREEK	320	36,441	1677	0.191	22
South OR	MEDFORD	HUMBUG CREEK	5R287	HUMMINGBIRD	16	6,432	679	0.024	9
South OR	MEDFORD	MEDCO	5R280	BOISE CASCADE	1	461	1	1.000	461
South OR	MEDFORD	MEDFORD	5R21	MELROSE	5,417	357,801	1613	3.358	222
South OR	MEDFORD	MEDFORD	5R23	SPRING ST.	3,293	161,198	1608	2.048	100
South OR	MEDFORD	MEDFORD	5R250	BIG Y	2,835	222,720	2320	1.222	96
South OR	MEDFORD	MEDFORD	5R253	APPLE	179	35,013	1126	0.159	31
South OR	MEDFORD	MEDFORD	5R257	PEAR	3	111	598	0.005	0
South OR	MEDFORD	MEDFORD	5R659	MCLEAN	138	25,587	687	0.201	37

Oregon Circuit Metrics by Reliability Region (Including Major Events)

OR Reliability Region	Op Area Name	Substation Name	Circuit Id	Circuit Name	Customers In Incident Sustained	Customer Minutes Lost for Incident	Circuit Customer Count	SAIFI	SAIDI
South OR	MEDFORD	NEW JACKSONVILLE SUB-	5R284	STAGE RD	3,016	425,479	2072	1.456	205
South OR	MEDFORD	NEW JACKSONVILLE SUB-	5R285	JACKSONVILLE HW	2,656	354,368	2073	1.281	171
South OR	MEDFORD	OAK KNOLL	5R55	SISKIYOU	4,656	474,777	1594	2.921	298
South OR	MEDFORD	PROSPECT CENTRAL	5R40	NEW CASCADE	514	302,755	341	1.507	888
South OR	MEDFORD	RED BLANKET	7R5	PROSPECT	495	169,479	399	1.241	425
South OR	MEDFORD	ROXY ANN	5R350	St. Bernard	15	4,856	1025	0.015	5
South OR	MEDFORD	ROXY ANN	5R354	RACCOON	217	30,879	1281	0.169	24
South OR	MEDFORD	RUCH	5R68	APPLEGATE	6,889	1,868,381	1586	4.344	1178
South OR	MEDFORD	RUCH	5R69	RUCH	1,618	428,707	551	2.936	778
South OR	MEDFORD	SAGE ROAD (OR)	5R211	COLUMBUS	80	9,741	2002	0.040	5
South OR	MEDFORD	SAGE ROAD (OR)	5R226	BOISE	34	3,079	821	0.041	4
South OR	MEDFORD	SAGE ROAD (OR)	5R28	ROSS	50	27,371	1660	0.030	16
South OR	MEDFORD	SAGE ROAD (OR)	5R29	EDWARDS	15	3,581	745	0.020	5
South OR	MEDFORD	SCENIC	5R174	UPTON	220	30,408	2008	0.110	15
South OR	MEDFORD	SCENIC	5R180	HEAD RD	247	37,037	1208	0.204	31
South OR	MEDFORD	SCENIC	5R182	TAYLOR RD	30	3,560	1441	0.021	2
South OR	MEDFORD	SCENIC	5R184	CHENEY	217	61,334	1441	0.151	43
South OR	MEDFORD	STEVENS ROAD	4R13	HENRY MILLER	1,440	38,145	1357	1.061	28
South OR	MEDFORD	STEVENS ROAD	4R17	Stingray	3,362	103,906	2456	1.369	42
South OR	MEDFORD	STEVENS ROAD	4R41	ANTELOPE	2,443	148,162	1886	1.295	79
South OR	MEDFORD	TAKELMA	4R9	LOST CK. (TAKELM)	3,508	2,222,055	2626	1.336	846
South OR	MEDFORD	TALENT	5R237	TALENT	7,608	628,294	2487	3.059	253
South OR	MEDFORD	TALENT	5R238	ANDERSON CRK	5,699	502,828	1637	3.481	307
South OR	MEDFORD	TALENT	5R239	HARTLEY ROAD	4,950	436,172	1524	3.248	286
South OR	MEDFORD	TALENT	5R240	NORTH HWY	3,261	272,209	1077	3.028	253
South OR	MEDFORD	TOLO	5R90	TBL ROCK LBR	4	413	168	0.024	2
South OR	MEDFORD	TOLO	5R91	SAMS VALLEY	733	85,950	649	1.129	132
South OR	MEDFORD	TOLO	5R92	KIRTLAND RD	223	43,974	207	1.077	212
South OR	MEDFORD	VILAS ROAD	5R110	MCLAUGHLIN	203	30,102	954	0.213	32
South OR	MEDFORD	VILAS ROAD	5R146	KING CENTER	18	1,601	1396	0.013	1
South OR	MEDFORD	VILAS ROAD	5R305	WEBFOOT	6	588	957	0.006	1

Oregon Circuit Metrics by Reliability Region (Including Major Events)

OR Reliability Region	Op Area Name	Substation Name	Circuit Id	Circuit Name	Customers In Incident Sustained	Customer Minutes Lost for Incident	Circuit Customer Count	SAIFI	SAIDI
South OR	MEDFORD	WHITE CITY	5R11	EAGLE POINT	8,806	1,407,453	1443	6.103	975
South OR	MEDFORD	WHITE CITY	5R12	INDUSTRIAL	1	75	30	0.033	3
South OR	MEDFORD	WHITE CITY	5R14	AGATE	7	788	103	0.068	8
South OR	MEDFORD	WHITE CITY	5R19	3M	3	241	95	0.032	3
South OR	MEDFORD	WHITE CITY	5R66	4 CORNERS	310	79,478	1598	0.194	50
South OR	MEDFORD	WHITE CITY	5R76	AVE C	2	275	91	0.022	3
South OR	ROSEBURG/MYRTLECRE	CARNES	5U44	RND PRARIE	936	276,842	414	2.261	669
South OR	ROSEBURG/MYRTLECRE	CLEARWATER #1 SUB	6U17	BRIGGS	4	1,767	3	1.333	589
South OR	ROSEBURG/MYRTLECRE	CLEARWATER #2 SUB	6U33	CLEARWATER	212	49,167	102	2.078	482
South OR	ROSEBURG/MYRTLECRE	CLOAKE	4U38	HARVARD	5,350	1,106,156	3415	1.567	324
South OR	ROSEBURG/MYRTLECRE	CLOAKE	4U39	GOEDECK	1,511	1,341,261	1072	1.410	1251
South OR	ROSEBURG/MYRTLECRE	GARDEN VALLEY	4U80	EDENBOWER	1,166	1,297,037	639	1.825	2030
South OR	ROSEBURG/MYRTLECRE	GARDEN VALLEY	4U81	VALLEY	3,605	2,710,770	1311	2.750	2068
South OR	ROSEBURG/MYRTLECRE	GAZLEY	5U46	CANYONVILLE	1,414	242,736	430	3.288	565
South OR	ROSEBURG/MYRTLECRE	GAZLEY	5U52	BEALS CREEK FEE	1,892	924,421	910	2.079	1016
South OR	ROSEBURG/MYRTLECRE	GLIDE SUBSTATION	5U83	IDLEYLD	3,757	2,448,432	1001	3.753	2446
South OR	ROSEBURG/MYRTLECRE	GLIDE SUBSTATION	5U84	LITTLE RIVER	3,365	3,290,122	1349	2.494	2439
South OR	ROSEBURG/MYRTLECRE	GREEN SUBSTATION	5U32	SAFARI	4,150	372,844	2272	1.827	164
South OR	ROSEBURG/MYRTLECRE	GREEN SUBSTATION	5U33	SUNNYSLOPE	1,457	124,191	1431	1.018	87
South OR	ROSEBURG/MYRTLECRE	ILLAHEE FLATS	6U13	ILLAHEE FLATS SIN	26	1,686	27	0.963	62
South OR	ROSEBURG/MYRTLECRE	LEMOLO # 1	5U920	DIAMOND LAKE	356	87,561	179	1.989	489
South OR	ROSEBURG/MYRTLECRE	MYRTLE CREEK	5U76	SUPER Y	1,704	870,352	1557	1.094	559
South OR	ROSEBURG/MYRTLECRE	MYRTLE CREEK	5U77	BOOMER HILL	780	289,142	2334	0.334	124
South OR	ROSEBURG/MYRTLECRE	OAKLAND (OR)	5U11	UMPQUA	1,725	1,873,931	1341	1.286	1397
South OR	ROSEBURG/MYRTLECRE	OAKLAND (OR)	5U12	STAGECOACH	148	19,199	546	0.271	35
South OR	ROSEBURG/MYRTLECRE	RIDDLE	5U1	TRI CITY	634	62,908	1017	0.623	62
South OR	ROSEBURG/MYRTLECRE	RIDDLE	5U2	COW CREEK	2,731	568,027	1607	1.699	353
South OR	ROSEBURG/MYRTLECRE	RIDDLE	5U3	HANNA	200	197,612	268	0.746	737
South OR	ROSEBURG/MYRTLECRE	RIDDLE-VENEER	5U23	FORD MILL	0	0	1	0.000	0
South OR	ROSEBURG/MYRTLECRE	RIDDLE-VENEER	5U50	RFP-LVL (EWP)	2	91	51	0.039	2
South OR	ROSEBURG/MYRTLECRE	ROSEBURG	4U10	DIAMOND	5,782	5,257,978	2667	2.168	1971

Oregon Circuit Metrics by Reliability Region (Including Major Events)

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South OR	ROSEBURG/MYRTLECRE	ROSEBURG	4U22	DIXON	2,254	2,488,597	1095	2.058	2273
South OR	ROSEBURG/MYRTLECRE	ROSEBURG	4U5	DOUGLAS	3,968	3,836,703	1941	2.044	1977
South OR	ROSEBURG/MYRTLECRE	SLIDE CREEK	6U12	SLIDE CREEK	18	2,478	5	3.600	496
South OR	ROSEBURG/MYRTLECRE	SLIDE CREEK	6U76	SLIDE CREEK CAMP	6	1,190	6	1.000	198
South OR	ROSEBURG/MYRTLECRE	SOUTHGATE	4U30	SHADY POINT	1,558	1,245,603	1594	0.977	781
South OR	ROSEBURG/MYRTLECRE	SOUTHGATE	4U31	BOOTH	113	311,659	1368	0.083	228
South OR	ROSEBURG/MYRTLECRE	STEAMBOAT	6U18	STEAMBOAT	76	143,927	21	3.619	6854
South OR	ROSEBURG/MYRTLECRE	SUTHERLIN	5U35	NON-PAREIL	1,204	1,151,451	1322	0.911	871
South OR	ROSEBURG/MYRTLECRE	SUTHERLIN	5U36	DEADY	851	186,109	1307	0.651	142
South OR	ROSEBURG/MYRTLECRE	SUTHERLIN	5U56	Industrial	16	59,240	485	0.033	122
South OR	ROSEBURG/MYRTLECRE	TILLER	5U89	JACKSON CRK	260	369,068	324	0.802	1139
South OR	ROSEBURG/MYRTLECRE	TOKETEE	8U12	TOKETEE CITY	38	12,566	19	2.000	661
South OR	ROSEBURG/MYRTLECRE	WINCHESTER	4U18	WILBUR	3,292	3,244,051	1662	1.981	1952
South OR	ROSEBURG/MYRTLECRE	WINCHESTER	5U15	NEWTON CREEK	1,841	3,497,808	1744	1.056	2006
South OR	ROSEBURG/MYRTLECRE	WINCHESTER	5U17	FISHER	863	1,545,217	738	1.169	2094
South OR	ROSEBURG/MYRTLECRE	WINCHESTER	5U19	EVANS	893	1,536,890	743	1.202	2068
South OR	ROSEBURG/MYRTLECRE	WINSTON	5U48	BROCKWAY	885	151,479	877	1.009	173
South OR	ROSEBURG/MYRTLECRE	WINSTON	5U49	DILLARD	3,592	682,243	1479	2.429	461
WImVly	ALBANY	HAZELWOOD	4M335	WEST HIGH	309	143,299	1480	0.209	97
WImVly	ALBANY	HAZELWOOD	4M336	RIVERVIEW (HAZEL	1,678	454,272	1213	1.383	375
WImVly	ALBANY	JEFFERSON (OR)	4M117	MARION	1,555	54,803	729	2.133	75
WImVly	ALBANY	JEFFERSON (OR)	4M125	MINT	8,238	319,227	2546	3.236	125
WImVly	ALBANY	MURDER CREEK	4M243	SCRAVEL HILL	11,632	856,509	3720	3.127	230
WImVly	ALBANY	MURDER CREEK	4M245	RURAL NW	1,240	275,567	1792	0.692	154
WImVly	ALBANY	MURDER CREEK	4M249	DURA-PACIFIC	1	127	2	0.500	64
WImVly	ALBANY	MURDER CREEK	4M250	INDUSTRIAL	107	22,977	1236	0.087	19
WImVly	ALBANY	OREMET	4M295	OAK CREEK	24	1,410	106	0.226	13
WImVly	ALBANY	OREMET	4M296	ROGERSDALE	890	568,485	3112	0.286	183
WImVly	ALBANY	OREMET	5M19	OREMET	1	133	3	0.333	44
WImVly	ALBANY	QUEEN AVE	4M217	SANTIAM	302	92,499	2006	0.151	46
WImVly	ALBANY	QUEEN AVE	4M258	HILL STREET	274	25,916	2126	0.129	12

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WImVly	ALBANY	QUEEN AVE	4M261	WAVERLY	1,119	231,408	3338	0.335	69
WImVly	ALBANY	QUEEN AVE	4M262	GEARY STREET	3,315	484,460	2601	1.275	186
WImVly	ALBANY	VINE STREET	4M15	FERRY	43	3,010	2213	0.019	1
WImVly	ALBANY	VINE STREET	4M16	WATER STREET	2,064	250,224	3681	0.561	68
WImVly	CORVALLIS	BUCHANAN	4M130	HEWLETT PACKAR	318	29,112	2454	0.130	12
WImVly	CORVALLIS	BUCHANAN	4M133	PEORIA	5,958	406,462	2478	2.404	164
WImVly	CORVALLIS	BUCHANAN	4M134	N. NINTH ST.	864	117,105	2599	0.332	45
WImVly	CORVALLIS	DIXON	7M29	SECOND ST.	1,003	71,115	298	3.366	239
WImVly	CORVALLIS	GRANT	4M265	HIGH SCHOOL	1,327	193,723	2508	0.529	77
WImVly	CORVALLIS	GRANT	4M266	CHINTIMINI	3,468	219,760	2495	1.390	88
WImVly	CORVALLIS	GRANT	4M268	KINGS ROAD	1,646	152,845	2561	0.643	60
WImVly	CORVALLIS	GRANT	4M269	29TH STREET	1,688	245,928	3266	0.517	75
WImVly	CORVALLIS	HILLVIEW	4M180	WEST HILLS	387	27,440	1685	0.230	16
WImVly	CORVALLIS	HILLVIEW	4M181	PHILOMATH	10	1,724	645	0.016	3
WImVly	CORVALLIS	HILLVIEW	4M182	SUNSET	337	31,066	1531	0.220	20
WImVly	CORVALLIS	HILLVIEW	4M185	PLYMOUTH	61	5,179	2218	0.028	2
WImVly	CORVALLIS	MARYS RIVER	4M151	GREENBERRY	8,327	573,449	3538	2.354	162
WImVly	CORVALLIS	MARYS RIVER	4M152	AVERY	43	9,526	192	0.224	50
WImVly	CORVALLIS	MARYS RIVER	4M153	GALLAGHER	164	30,059	160	1.025	188
WImVly	COTTAGE GROVE/J.CITY	COBURG	4M220	DETERING	1,084	194,326	521	2.081	373
WImVly	COTTAGE GROVE/J.CITY	GOSHEN (OR)	4M360	GOSHEN FDR	1,830	303,322	1651	1.108	184
WImVly	COTTAGE GROVE/J.CITY	HARRISBURG SUB	4M400	TERRITORIAL	8,316	1,650,618	1874	4.438	881
WImVly	COTTAGE GROVE/J.CITY	JUNCTION CITY	4M102	6TH STREET	3,744	1,054,636	1169	3.203	902
WImVly	COTTAGE GROVE/J.CITY	JUNCTION CITY	4M99	PRAIRIE ROAD	3,032	613,359	932	3.253	658
WImVly	COTTAGE GROVE/J.CITY	LANCASTER	4M209	MONROE	3,636	700,179	1115	3.261	628
WImVly	COTTAGE GROVE/J.CITY	VILLAGE GREEN	4M84	NORTH SIDE	9,223	955,753	2364	3.901	404
WImVly	COTTAGE GROVE/J.CITY	VILLAGE GREEN	4M86	MADISON	4,097	565,115	1606	2.551	352
WImVly	DALLAS/INDEPENDENCE	DALLAS	4M100	RURAL (DALLAS)	5,078	498,888	4349	1.168	115
WImVly	DALLAS/INDEPENDENCE	DALLAS	4M201	INDUSTRIAL	38	3,839	38	1.000	101
WImVly	DALLAS/INDEPENDENCE	DALLAS	4M202	ELLENDAL	3,236	82,165	2884	1.122	28
WImVly	DALLAS/INDEPENDENCE	DALLAS	4M238	DALLAS	4,222	863,905	2298	1.837	376

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WImVly	DALLAS/INDEPENDENCE	INDEPENDENCE	4M22	RICKREAL	4,591	646,734	1962	2.340	330
WImVly	DALLAS/INDEPENDENCE	INDEPENDENCE	4M25	BUENA VISTA	4,821	277,429	3074	1.568	90
WImVly	LEBANON	BROWNSVILLE	4M17	CALAPOOIA	7,028	2,630,929	1898	3.703	1386
WImVly	LEBANON	CROWFOOT	4M204	CROWFOOT	2,233	644,964	1522	1.467	424
WImVly	LEBANON	CROWFOOT	4M206	US PLYWOOD (LEB	1,792	483,771	1741	1.029	278
WImVly	LEBANON	LEBANON	4M61	TANGENT	5,248	728,545	2454	2.139	297
WImVly	LEBANON	LEBANON	4M62	RALSTON	2,178	214,202	2027	1.074	106
WImVly	LEBANON	LEBANON	4M63	TENNESSEE	4,024	2,928,631	1839	2.188	1593
WImVly	LEBANON	LEBANON	4M79	CROWN Z	929	79,600	927	1.002	86
WImVly	LEBANON	SWEET HOME	4M37	HOLLEY	12,345	3,044,318	2041	6.049	1492
WImVly	LEBANON	SWEET HOME	4M38	NARROWS	1,518	1,053,527	987	1.538	1067
WImVly	LEBANON	SWEET HOME	4M93	AMES CREEK	1,746	1,005,913	1703	1.025	591
WImVly	LEBANON	SWEET HOME	4M94	FOSTER	9,267	2,685,220	2292	4.043	1172
WImVly	STAYTON	NEW LYONS	4M120	MILL CITY	7,253	732,161	1956	3.708	374
WImVly	STAYTON	NEW LYONS	4M70	MEHAMA	2,107	279,900	980	2.150	286
WImVly	STAYTON	NEW STAYTON	4M19	AUMSVILLE	4,200	566,137	3104	1.353	182
WImVly	STAYTON	NEW STAYTON	4M353	WEST STAYTON	2,905	416,315	3431	0.847	121
WImVly	STAYTON	NEW STAYTON	4M370	CASCADE	4,773	351,313	1619	2.948	217
WImVly	STAYTON	NEW STAYTON	4M50	3RD STREET	135	18,923	930	0.145	20
WImVly	STAYTON	SCIO	5M126	THOMAS	4,859	543,131	1580	3.075	344

Oregon Cause Analysis (Excluding Major Events)

AFOR Cause	2007		2008		2009		2010		2011	
	Customers In Incident Sustained	Incidents	Customers In Incident Sustained	Incidents	Customers In Incident Sustained	Incidents	Customers In Incident Sustained	Incidents	Customers In Incident Sustained	Incidents
A Loss of Supply - Transmission Total	336,104	350	154,905	226	315,597	304	207,272	211	115,185	136
B Loss of Supply - Substation Total	19,722	109	42,006	54	17,467	25	18,832	31	15,297	13
C Distribution - Equipment Total	127,323	4381	98,130	4027	88,441	3880	109,604	3703	86,844	3605
D Distribution - Lightning Total	7,614	301	11,850	321	10,159	449	6,772	180	2,850	192
E Distribution - Planned Total	88,522	2018	98,398	1945	92,474	2081	109,952	2213	81,532	2085
F Distribution - Public Total	76,670	880	77,251	518	48,686	452	44,328	429	44,319	371
G Distribution - Vegetation Total	79,842	1334	101,154	1331	106,497	1250	88,059	1346	76,024	1051
H Distribution - Weather Total	48,763	852	34,596	786	17,545	270	23,150	264	10,260	239
I Distribution - Wildlife Total	42,526	1156	27,316	1035	23,542	941	29,463	905	33,903	674
J Distribution - Unknown Total	60,520	1251	54,602	1221	52,878	1203	67,541	1310	52,065	1107
K Distribution - Other Total	25,445	276	11,030	180	14,793	166	18,032	153	10,776	175
OREGON Totals	913,051	12,908	711,238	11,644	788,079	11,021	723,005	10,745	529,055	9,648

Oregon Cause Analysis (Excluding Major Events)

OR REGION	AFOR Cause	Direct Cause	2007		2008		2009		2010		2011	
			Customers In Incident Sustained	Incidents	Customers In Incident Sustained	Incidents	Customers In Incident Sustained	Incidents	Customers In Incident Sustained	Incidents	Customers In Incident Sustained	Incidents
Central OR	A Loss of Supply - Transmission	LOSS OF FEED FROM SUPPLIER							-	0		
Central OR	A Loss of Supply - Transmission	LOSS OF TRANSMISSION LINE	60,157	44	10,250	9			10,684	9	15,538	15
Central OR	A Loss of Supply - Transmission	RELAYS, BREAKERS, SWITCHES			-	1	-	2				
Central OR	A Loss of Supply - Transmission	STRUCTURES, INSULATORS, CONDUCT	-	1							-	3
Central OR	B Loss of Supply - Substation	LOSS OF SUBSTATION			6,130	5						
Central OR	C Distribution - Equipment	B/O EQUIPMENT	8,676	251	3,501	210	3,843	155	4,172	135	983	166
Central OR	C Distribution - Equipment	DETERIORATION OR ROTTING	3,225	241	4,067	177	4,067	266	5,736	202	5,629	217
Central OR	C Distribution - Equipment	NEARBY FAULT			13	1	1	1	98	1		
Central OR	C Distribution - Equipment	OVERLOAD	725	6	1,378	25	765	10	1	1	4	2
Central OR	C Distribution - Equipment	POLE FIRE	268	3	289	5	153	2	132	4	190	4
Central OR	D Distribution - Lightning	LIGHTNING	2,145	46	2,997	123	1,275	67	2,321	37	1,811	68
Central OR	E Distribution - Planned	CONSTRUCTION	3	2	143	15	164	6	98	14	9	2
Central OR	E Distribution - Planned	CUSTOMER NOTICE GIVEN	2,730	199	4,513	118	485	65	1,295	52	1,439	65
Central OR	E Distribution - Planned	CUSTOMER REQUESTED	21	6	12	5	73	14	20	10	61	23
Central OR	E Distribution - Planned	EMERGENCY DAMAGE REPAIR	2,189	34	2,690	55	4,544	55	1,068	42	2,067	57
Central OR	E Distribution - Planned	INTENTIONAL TO CLEAR TROUBLE	391	8	3	1	88	8	22,793	17	38	7
Central OR	F Distribution - Public	DIG-IN (NON-PACIFICORP PERSONNEL)	275	24	395	10	10	8	165	9	1,162	11
Central OR	F Distribution - Public	OTHER INTERFERING OBJECT	732	7	73	3	11	4			311	7
Central OR	F Distribution - Public	OTHER UTILITY/CONTRACTOR	1,274	18	51	5	2,717	8	137	7	67	6
Central OR	F Distribution - Public	VANDALISM OR THEFT	5	5			3	3	1	1	1	1
Central OR	F Distribution - Public	VEHICLE ACCIDENT	9,458	59	4,473	39	1,586	27	2,037	16	1,915	25
Central OR	G Distribution - Vegetation	TREE - NON-PREVENTABLE	6,372	64	1,309	50	17,300	98	2,725	40	1,150	58
Central OR	G Distribution - Vegetation	TREE - TRIMMABLE	36	3	1	1			4	1		
Central OR	H Distribution - Weather	FREEZING FOG & FROST	27	2					1	1		
Central OR	H Distribution - Weather	ICE			1	1	1	1				
Central OR	H Distribution - Weather	SNOW, SLEET AND BLIZZARD			1	1	140	24			525	45
Central OR	H Distribution - Weather	WIND	2,919	21	2,517	23	231	9	2,693	6	2,169	7
Central OR	I Distribution - Wildlife	ANIMALS	684	47	328	23	99	35	206	32	58	20
Central OR	I Distribution - Wildlife	BIRD MORTALITY (NON-PROTECTED SP	110	32	74	19	76	15	199	22	119	12
Central OR	I Distribution - Wildlife	BIRD MORTALITY (PROTECTED SPECIE	218	7	47	5	2,481	8	1,101	10	7	2
Central OR	I Distribution - Wildlife	BIRD NEST (BMTS)	1,734	6	2,518	2	1,509	5			37	1
Central OR	I Distribution - Wildlife	BIRD SUSPECTED, NO MORTALITY	105	14	21	11	176	11	127	19	57	10
Central OR	J Distribution - Unknown	UNKNOWN	3,438	112	2,938	89	1,124	96	9,870	111	6,617	85
Central OR	K Distribution - Other	CONTACT BY PACIFICORP	1,246	1								
Central OR	K Distribution - Other	FAULTY INSTALL	114	6	48	1	2	2	6	2		
Central OR	K Distribution - Other	FIRE/SMOKE (NOT DUE TO FAULTS)			2	1	6	1	2	3	11	8

Oregon Cause Analysis (Excluding Major Events)

OR REGION	AFOR Cause	Direct Cause	2007		2008		2009		2010		2011	
			Customers In Incident Sustained	Incidents	Customers In Incident Sustained	Incidents	Customers In Incident Sustained	Incidents	Customers In Incident Sustained	Incidents	Customers In Incident Sustained	Incidents
Central OR	K Distribution - Other	IMPROPER PROTECTIVE COORDINATION	6	1								
Central OR	K Distribution - Other	INCORRECT RECORDS	6	6	184	9	5	5	2	2	3	3
Central OR	K Distribution - Other	OTHER, KNOWN CAUSE	700	17	22	7	95	10	4,091	10	10	11
Central OR	K Distribution - Other	PACIFICORP EMPLOYEE - FIELD			-	0	4,294	10	-	0	2	2
Central OR	K Distribution - Other	TESTING/STARTUP ERROR			654	1						
Central OR	K Distribution - Other	UNSAFE SITUATION					5	1				
CoastPlus	A Loss of Supply - Transmission	FAILURE ON OTHER LINE OR STATION			-	2						
CoastPlus	A Loss of Supply - Transmission	LOSS OF FEED FROM SUPPLIER	2,226	18	3,885	8	2,758	14	10,565	9	1,980	5
CoastPlus	A Loss of Supply - Transmission	LOSS OF TRANSMISSION LINE	42,025	42	30,757	34	54,911	44	55,093	52	3,060	6
CoastPlus	A Loss of Supply - Transmission	STRUCTURES, INSULATORS, CONDUCTORS	-	4	-	2	-	1	-	2	-	1
CoastPlus	A Loss of Supply - Transmission	SYSTEM PROTECTION	-	1								
CoastPlus	B Loss of Supply - Substation	LOSS OF SUBSTATION	5,304	75	28,749	30	3,608	2	14,674	18	6,828	4
CoastPlus	C Distribution - Equipment	B/O EQUIPMENT	22,498	897	10,043	705	14,425	558	12,666	541	15,939	551
CoastPlus	C Distribution - Equipment	DETERIORATION OR ROTTING	10,365	427	6,690	553	6,654	594	14,997	647	8,630	542
CoastPlus	C Distribution - Equipment	NEARBY FAULT			-	0	2	2	1	1		
CoastPlus	C Distribution - Equipment	OVERLOAD	738	29	5	2	470	14	2,686	4	355	5
CoastPlus	C Distribution - Equipment	POLE FIRE	3,122	18	51	3	12	2	204	4	1,844	3
CoastPlus	D Distribution - Lightning	LIGHTNING	2,271	15	3,327	51	425	14	114	13	129	24
CoastPlus	E Distribution - Planned	CONSTRUCTION	96	7	61	12	150	25	107	15	172	6
CoastPlus	E Distribution - Planned	CUSTOMER NOTICE GIVEN	3,536	343	3,210	255	7,801	297	5,947	377	7,791	326
CoastPlus	E Distribution - Planned	CUSTOMER REQUESTED	125	9	50	12	782	40	302	34	50	35
CoastPlus	E Distribution - Planned	EMERGENCY DAMAGE REPAIR	9,453	106	12,332	107	15,426	183	15,918	138	13,705	136
CoastPlus	E Distribution - Planned	INTENTIONAL TO CLEAR TROUBLE	1,514	25	7,388	36	4,695	26	200	10	2,047	8
CoastPlus	E Distribution - Planned	TRANSMISSION REQUESTED	3,498	3			694	1	760	2	2,807	4
CoastPlus	F Distribution - Public	DIG-IN (NON-PACIFICORP PERSONNEL)	35	14	216	8	98	11	12	5	43	9
CoastPlus	F Distribution - Public	OTHER INTERFERING OBJECT	52	9	1,062	11	13	2	328	5	209	7
CoastPlus	F Distribution - Public	OTHER UTILITY/CONTRACTOR	2,248	24	6,200	20	213	15	21	12	2,088	23
CoastPlus	F Distribution - Public	TREE-FELLED BY LOGGER			-	2						
CoastPlus	F Distribution - Public	VANDALISM OR THEFT	34	11	34	5	42	6	4	4	15	5
CoastPlus	F Distribution - Public	VEHICLE ACCIDENT	8,455	133	15,475	79	18,401	69	10,421	75	3,495	47
CoastPlus	G Distribution - Vegetation	TREE - NON-PREVENTABLE	20,463	342	30,155	342	34,013	389	22,128	323	26,981	290
CoastPlus	G Distribution - Vegetation	TREE - TRIMMABLE	360	11	50	13	73	5	3	3	10	3
CoastPlus	H Distribution - Weather	CONDENSATION / MOISTURE	1	1	2	2	188	4	19	1		
CoastPlus	H Distribution - Weather	FREEZING FOG & FROST					61	5				
CoastPlus	H Distribution - Weather	ICE			32	6	410	10				
CoastPlus	H Distribution - Weather	SNOW, SLEET AND BLIZZARD	113	15	1,060	31	19	3	39	2	262	12

Oregon Cause Analysis (Excluding Major Events)

OR REGION	AFOR Cause	Direct Cause	2007		2008		2009		2010		2011	
			Customers In Incident Sustained	Incidents	Customers In Incident Sustained	Incidents	Customers In Incident Sustained	Incidents	Customers In Incident Sustained	Incidents	Customers In Incident Sustained	Incidents
CoastPlus	H Distribution - Weather	WIND	7,050	134	5,705	43	5,661	39	4,927	53	2,169	40
CoastPlus	I Distribution - Wildlife	ANIMALS	13,464	212	1,879	144	1,442	101	7,174	98	7,986	60
CoastPlus	I Distribution - Wildlife	BIRD MORTALITY (NON-PROTECTED SPECIES)	2,464	17	51	9	150	14	44	6	408	8
CoastPlus	I Distribution - Wildlife	BIRD MORTALITY (PROTECTED SPECIES)	506	22	415	24	303	13	1,862	16	10,911	20
CoastPlus	I Distribution - Wildlife	BIRD NEST (BMTS)	-	1	200	1	1,231	7			4	1
CoastPlus	I Distribution - Wildlife	BIRD SUSPECTED, NO MORTALITY	53	8	11	3	174	6	733	5	34	7
CoastPlus	J Distribution - Unknown	UNKNOWN	8,093	152	6,694	133	11,766	158	14,007	151	4,262	156
CoastPlus	K Distribution - Other	CONTACT BY PACIFICORP	2,527	9	1	1						
CoastPlus	K Distribution - Other	CONTAMINATION	23	4	14	6	20	8	4,461	16	1	1
CoastPlus	K Distribution - Other	FAULTY INSTALL	153	8	2	2	1	1	1	1	3	3
CoastPlus	K Distribution - Other	FIRE/SMOKE (NOT DUE TO FAULTS)	9	2	10	5	4	4	15	2	4	4
CoastPlus	K Distribution - Other	FLOODING					620	2	797	1		
CoastPlus	K Distribution - Other	IMPROPER PROTECTIVE COORDINATION	2,351	2					2,504	10		
CoastPlus	K Distribution - Other	INCORRECT RECORDS	741	8	39	10	7	3			17	6
CoastPlus	K Distribution - Other	INTERNAL CONTRACTOR					29	2				
CoastPlus	K Distribution - Other	INTERNAL TREE CONTRACTOR									1	1
CoastPlus	K Distribution - Other	OTHER, KNOWN CAUSE	69	42	193	22	2,537	13	13	7	2,790	13
CoastPlus	K Distribution - Other	PACIFICORP EMPLOYEE - FIELD			1	1	113	7	71	3	2	2
CoastPlus	K Distribution - Other	SWITCHING ERROR			1,096	1						
CoastPlus	K Distribution - Other	TESTING/STARTUP ERROR	64	1	3,823	18						
CoastPlus	K Distribution - Other	UNSAFE SITUATION									6	1
Northeast OR	A Loss of Supply - Transmission	FAILURE ON OTHER LINE OR STATION							-	1		
Northeast OR	A Loss of Supply - Transmission	LOSS OF FEED FROM SUPPLIER			220	2	2,150	7	793	4	978	5
Northeast OR	A Loss of Supply - Transmission	LOSS OF TRANSMISSION LINE	9,970	14	17,658	22	3,216	5	6,219	8	2,901	8
Northeast OR	A Loss of Supply - Transmission	RELAYS, BREAKERS, SWITCHES									-	0
Northeast OR	A Loss of Supply - Transmission	STRUCTURES, INSULATORS, CONDUCTOR						1				
Northeast OR	A Loss of Supply - Transmission	SYSTEM PROTECTION			-	1						
Northeast OR	B Loss of Supply - Substation	LOSS OF SUBSTATION	237	2	449	1			92	1		
Northeast OR	C Distribution - Equipment	B/O EQUIPMENT	3,988	117	4,738	136	2,659	105	931	108	661	102
Northeast OR	C Distribution - Equipment	DETERIORATION OR ROTTING	1,919	84	3,905	96	3,144	105	2,054	108	991	119
Northeast OR	C Distribution - Equipment	OVERLOAD	122	9	52	1	6	3	2	1	12	3
Northeast OR	C Distribution - Equipment	POLE FIRE	1,822	10	5,836	18	1,349	8	4,095	8	954	16
Northeast OR	D Distribution - Lightning	LIGHTNING	1,550	67	1,170	34	1,942	17	1,454	30	218	29
Northeast OR	E Distribution - Planned	CONSTRUCTION	43	2	-	0	3	1	14	2	872	1
Northeast OR	E Distribution - Planned	CUSTOMER NOTICE GIVEN	2,516	80	561	83	1,019	55	880	86	839	61
Northeast OR	E Distribution - Planned	CUSTOMER REQUESTED			3	3	4	4	6	6	10	6

Oregon Cause Analysis (Excluding Major Events)

OR REGION	AFOR Cause	Direct Cause	2007		2008		2009		2010		2011	
			Customers In Incident Sustained	Incidents	Customers In Incident Sustained	Incidents	Customers In Incident Sustained	Incidents	Customers In Incident Sustained	Incidents	Customers In Incident Sustained	Incidents
Northeast OR	E Distribution - Planned	EMERGENCY DAMAGE REPAIR	2,423	18	766	12	3,284	25	2,956	23	1,035	27
Northeast OR	E Distribution - Planned	INTENTIONAL TO CLEAR TROUBLE	728	8	36	3	5	2	1,919	6	24	2
Northeast OR	E Distribution - Planned	TRANSMISSION REQUESTED	4	2	13	1	869	2	-	0		
Northeast OR	F Distribution - Public	DIG-IN (NON-PACIFICORP PERSONNEL)	51	6	52	5	4	3	17	3	13	6
Northeast OR	F Distribution - Public	OTHER INTERFERING OBJECT	41	6	1,432	5	5	2	1	1	148	4
Northeast OR	F Distribution - Public	OTHER UTILITY/CONTRACTOR	48	2	12	4	95	2	197	3	11	2
Northeast OR	F Distribution - Public	VANDALISM OR THEFT	1	1	42	3			10	1		
Northeast OR	F Distribution - Public	VEHICLE ACCIDENT	971	36	2,753	16	3,307	16	627	31	896	10
Northeast OR	G Distribution - Vegetation	TREE - NON-PREVENTABLE	3,733	54	4,257	52	2,279	69	1,061	55	5,075	40
Northeast OR	G Distribution - Vegetation	TREE - TRIMMABLE	26	4			1	1	1	1	57	1
Northeast OR	H Distribution - Weather	FREEZING FOG & FROST									105	3
Northeast OR	H Distribution - Weather	ICE	1	1	179	2	107	13			14	2
Northeast OR	H Distribution - Weather	SNOW, SLEET AND BLIZZARD	544	16	219	10	291	16	250	6	120	6
Northeast OR	H Distribution - Weather	WIND	2,107	74	5,442	96	1,700	16	5,635	26	346	12
Northeast OR	I Distribution - Wildlife	ANIMALS	4,346	116	1,912	110	318	79	566	74	1,944	75
Northeast OR	I Distribution - Wildlife	BIRD MORTALITY (NON-PROTECTED SPECIES)	26	20	29	20	912	26	28	14	60	26
Northeast OR	I Distribution - Wildlife	BIRD MORTALITY (PROTECTED SPECIES)	27	3	4	3	21	6	322	8	111	5
Northeast OR	I Distribution - Wildlife	BIRD NEST (BMTS)			14	1			15	1		
Northeast OR	I Distribution - Wildlife	BIRD SUSPECTED, NO MORTALITY	35	8	27	8	20	10	135	14	15	7
Northeast OR	J Distribution - Unknown	UNKNOWN	6,536	127	1,437	93	2,638	111	6,423	132	2,305	119
Northeast OR	K Distribution - Other	CONTAMINATION	1	1	1	1					1	1
Northeast OR	K Distribution - Other	FIRE/SMOKE (NOT DUE TO FAULTS)	69	5	7	1	15	4	9	2	7	1
Northeast OR	K Distribution - Other	INCORRECT RECORDS			2	2	1	1	5	1	1	1
Northeast OR	K Distribution - Other	INTERNAL CONTRACTOR									275	3
Northeast OR	K Distribution - Other	OTHER, KNOWN CAUSE	4	4	1,177	2	5	3	407	2	5	5
Northeast OR	K Distribution - Other	PACIFICORP EMPLOYEE - FIELD					1	1			998	3
South OR	A Loss of Supply - Transmission	FAILURE ON OTHER LINE OR STATION			-	3					-	1
South OR	A Loss of Supply - Transmission	LOSS OF FEED FROM SUPPLIER	19	2	54	4	64	1	19	1	66	6
South OR	A Loss of Supply - Transmission	LOSS OF GENERATOR	180	1					178	1		
South OR	A Loss of Supply - Transmission	LOSS OF TRANSMISSION LINE	177,975	187	78,123	112	209,253	191	52,506	80	66,921	69
South OR	A Loss of Supply - Transmission	RELAYS, BREAKERS, SWITCHES	-	4	-	3	-	0	-	1	-	3
South OR	A Loss of Supply - Transmission	STRUCTURES, INSULATORS, CONDUCTORS	-	2	-	4	-	6	-	3	-	1
South OR	A Loss of Supply - Transmission	SYSTEM PROTECTION			-	1			-	1		
South OR	B Loss of Supply - Substation	LOSS OF SUBSTATION	14,181	32	6,678	18	13,614	21	4,066	12	8,469	9
South OR	C Distribution - Equipment	B/O EQUIPMENT	20,611	678	14,981	628	13,840	639	13,588	602	17,829	502
South OR	C Distribution - Equipment	DETERIORATION OR ROTTING	18,969	709	12,333	687	8,591	588	11,576	649	10,364	665

Oregon Cause Analysis (Excluding Major Events)

OR REGION	AFOR Cause	Direct Cause	2007		2008		2009		2010		2011	
			Customers In Incident Sustained	Incidents	Customers In Incident Sustained	Incidents	Customers In Incident Sustained	Incidents	Customers In Incident Sustained	Incidents	Customers In Incident Sustained	Incidents
South OR	C Distribution - Equipment	NEARBY FAULT	60	8	603	5	75	5	2,664	3	2	1
South OR	C Distribution - Equipment	OVERLOAD	4,912	55	578	13	5,884	29	5	4	640	18
South OR	C Distribution - Equipment	POLE FIRE	2,202	12	157	7	1,575	4	1,081	5	123	8
South OR	D Distribution - Lightning	LIGHTNING	1,629	168	3,892	98	3,618	291	2,221	85	489	32
South OR	E Distribution - Planned	CONSTRUCTION	536	21	922	36	526	32	373	39	401	21
South OR	E Distribution - Planned	CUSTOMER NOTICE GIVEN	4,816	491	9,037	542	4,459	354	7,271	400	5,449	447
South OR	E Distribution - Planned	CUSTOMER REQUESTED	43	13	1,135	31	244	30	167	69	440	104
South OR	E Distribution - Planned	EMERGENCY DAMAGE REPAIR	19,528	174	25,109	195	11,011	188	25,626	309	19,374	283
South OR	E Distribution - Planned	INTENTIONAL TO CLEAR TROUBLE	3,120	54	10,718	56	2,805	27	2,239	37	1,497	18
South OR	E Distribution - Planned	TRANSMISSION REQUESTED	27	2	4,260	6	5,455	3	5,923	10	18	2
South OR	F Distribution - Public	DIG-IN (NON-PACIFICORP PERSONNEL)	222	35	81	26	140	21	125	19	370	17
South OR	F Distribution - Public	OTHER INTERFERING OBJECT	2,292	14	1,495	7	303	7	805	11	1,030	8
South OR	F Distribution - Public	OTHER UTILITY/CONTRACTOR	3,096	51	3,522	26	851	28	372	28	2,324	35
South OR	F Distribution - Public	TREE-FELLED BY LOGGER	-	1			-	1				
South OR	F Distribution - Public	VANDALISM OR THEFT	24	9	63	10	1,070	7	314	11	237	6
South OR	F Distribution - Public	VEHICLE ACCIDENT	19,789	183	14,944	91	12,451	85	9,454	77	7,823	69
South OR	G Distribution - Vegetation	TREE - NON-PREVENTABLE	26,475	459	50,174	618	19,651	327	36,093	525	22,241	403
South OR	G Distribution - Vegetation	TREE - TRIMMABLE	5	5	20	8	7	5	54	3	8	6
South OR	H Distribution - Weather	CONDENSATION / MOISTURE			1	1	1	1				
South OR	H Distribution - Weather	ICE	1	1	2	2						
South OR	H Distribution - Weather	SNOW, SLEET AND BLIZZARD	16,053	389	12,027	258	389	24	5,023	79	313	27
South OR	H Distribution - Weather	WIND	6,992	81	4,977	181	2,359	48	4,163	69	1,483	58
South OR	I Distribution - Wildlife	ANIMALS	1,898	204	3,059	242	3,604	205	4,476	189	861	106
South OR	I Distribution - Wildlife	BIRD MORTALITY (NON-PROTECTED SPECIES)	171	72	992	73	3,117	90	2,650	91	3,163	92
South OR	I Distribution - Wildlife	BIRD MORTALITY (PROTECTED SPECIES)	522	30	1,558	20	1,571	31	473	17	442	20
South OR	I Distribution - Wildlife	BIRD NEST (BMTS)	3,281	13	2,431	16	788	15	1,561	10	188	10
South OR	I Distribution - Wildlife	BIRD SUSPECTED, NO MORTALITY	162	30	800	42	390	15	1,626	45	1,341	49
South OR	J Distribution - Unknown	UNKNOWN	26,723	544	25,644	561	20,651	506	21,082	586	21,928	460
South OR	K Distribution - Other	CONTACT BY PACIFICORP	5,260	17	8	1						
South OR	K Distribution - Other	FAULTY INSTALL	21	19	1,624	15	24	7	25	8	30	10
South OR	K Distribution - Other	FIRE/SMOKE (NOT DUE TO FAULTS)	14	4	33	5	2	2	36	5	568	3
South OR	K Distribution - Other	FLOODING	2	2			2	1	1	1		
South OR	K Distribution - Other	IMPROPER PROTECTIVE COORDINATION	1,564	3	75	4	129	9	31	5	40	4
South OR	K Distribution - Other	INCORRECT RECORDS	58	13	6	6	88	10	5	5	49	7
South OR	K Distribution - Other	INTERNAL CONTRACTOR			12	1	-	0	527	2	103	1
South OR	K Distribution - Other	INTERNAL TREE CONTRACTOR							7	2		

Oregon Cause Analysis (Excluding Major Events)

OR REGION	AFOR Cause	Direct Cause	2007		2008		2009		2010		2011	
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South OR	K Distribution - Other	OTHER, KNOWN CAUSE	384	62	757	31	305	29	3,428	33	3,306	47
South OR	K Distribution - Other	PACIFICORP EMPLOYEE - DISPATCH									-	0
South OR	K Distribution - Other	PACIFICORP EMPLOYEE - FIELD			1	1	486	3	1,037	4	5	5
South OR	K Distribution - Other	PACIFICORP EMPLOYEE - SUB					-	0			2,191	1
South OR	K Distribution - Other	SWITCHING ERROR	776	3								
South OR	K Distribution - Other	TESTING/STARTUP ERROR	2,320	1			945	1				
South OR	K Distribution - Other	UNSAFE SITUATION	178	4	29	1					4	1
WImVly	A Loss of Supply - Transmission	FAILURE ON OTHER LINE OR STATION	-	1								
WImVly	A Loss of Supply - Transmission	LOSS OF FEED FROM SUPPLIER	21,958	12	-	0			5,614	3		
WImVly	A Loss of Supply - Transmission	LOSS OF TRANSMISSION LINE	21,594	17	13,958	15	43,245	28	65,601	33	23,741	12
WImVly	A Loss of Supply - Transmission	RELAYS, BREAKERS, SWITCHES			-	1						
WImVly	A Loss of Supply - Transmission	STRUCTURES, INSULATORS, CONDUCTOR			-	2	-	3	-	3	-	1
WImVly	A Loss of Supply - Transmission	SYSTEM PROTECTION					-	1				
WImVly	B Loss of Supply - Substation	LOSS OF SUBSTATION					245	2	-	0		
WImVly	C Distribution - Equipment	B/O EQUIPMENT	16,677	488	18,837	435	10,714	366	16,487	315	14,437	308
WImVly	C Distribution - Equipment	DETERIORATION OR ROTTING	5,976	327	6,678	310	9,826	417	16,428	360	7,006	365
WImVly	C Distribution - Equipment	NEARBY FAULT			1,990	4					202	5
WImVly	C Distribution - Equipment	OVERLOAD	2	2			350	6			30	2
WImVly	C Distribution - Equipment	POLE FIRE	446	10	1,405	6	36	1			19	1
WImVly	D Distribution - Lightning	LIGHTNING	19	5	464	15	2,899	60	662	15	203	39
WImVly	E Distribution - Planned	CONSTRUCTION	187	40	81	9	235	43	110	15	524	7
WImVly	E Distribution - Planned	CUSTOMER NOTICE GIVEN	1,602	235	1,317	208	2,997	395	1,831	253	5,359	200
WImVly	E Distribution - Planned	CUSTOMER REQUESTED	165	22	78	23	129	44	423	74	209	59
WImVly	E Distribution - Planned	EMERGENCY DAMAGE REPAIR	13,003	84	12,051	93	20,356	137	11,132	153	9,592	156
WImVly	E Distribution - Planned	INTENTIONAL TO CLEAR TROUBLE	1,577	22	1,909	28	4,161	15	574	20	603	16
WImVly	E Distribution - Planned	TRANSMISSION REQUESTED	14,648	8			10	4			5,100	6
WImVly	F Distribution - Public	DIG-IN (NON-PACIFICORP PERSONNEL)	350	16	17	7	22	5	14	12	7	4
WImVly	F Distribution - Public	OTHER INTERFERING OBJECT	3,189	56	683	22	660	30	2,520	37	1,936	9
WImVly	F Distribution - Public	OTHER UTILITY/CONTRACTOR	7,821	17	70	11	902	13	1,734	15	5,191	19
WImVly	F Distribution - Public	VANDALISM OR THEFT	70	7	3,018	8	5	5	3	3	2,301	3
WImVly	F Distribution - Public	VEHICLE ACCIDENT	16,137	136	21,088	95	5,777	74	15,009	43	12,726	38
WImVly	G Distribution - Vegetation	TREE - NON-PREVENTABLE	20,680	383	15,063	240	33,147	352	25,025	386	20,502	250
WImVly	G Distribution - Vegetation	TREE - TRIMMABLE	1,692	9	125	7	26	4	965	9		
WImVly	H Distribution - Weather	FREEZING FOG & FROST	987	13								
WImVly	H Distribution - Weather	ICE			272	4						
WImVly	H Distribution - Weather	SNOW, SLEET AND BLIZZARD	95	10	1,086	97	40	19	9	1	25	1

Oregon Cause Analysis (Excluding Major Events)

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WImVly	H Distribution - Weather	WIND	11,873	94	1,073	28	5,947	38	391	20	2,729	26
WImVly	I Distribution - Wildlife	ANIMALS	3,285	115	3,096	99	1,161	95	3,925	102	4,347	37
WImVly	I Distribution - Wildlife	BIRD MORTALITY (NON-PROTECTED SPECIES)	5,468	101	2,535	92	3,440	99	1,134	85	246	58
WImVly	I Distribution - Wildlife	BIRD MORTALITY (PROTECTED SPECIES)	400	20	5,017	30	130	20	690	26	736	17
WImVly	I Distribution - Wildlife	BIRD NEST (BMETS)	3,453	21	141	19	91	9	9	2	25	9
WImVly	I Distribution - Wildlife	BIRD SUSPECTED, NO MORTALITY	114	37	157	19	338	26	407	19	803	22
WImVly	J Distribution - Unknown	UNKNOWN	15,730	316	17,889	345	16,699	332	16,159	330	16,953	287
WImVly	K Distribution - Other	CONTACT BY PACIFICORP	4,245	6	1	1						
WImVly	K Distribution - Other	CONTAMINATION	1	1	4	1			5	3	2	1
WImVly	K Distribution - Other	FAULTY INSTALL	4	4	58	4	2	2				
WImVly	K Distribution - Other	FIRE/SMOKE (NOT DUE TO FAULTS)	1,858	4	1,050	6	2,183	3	9	4	22	4
WImVly	K Distribution - Other	FLOODING									4	1
WImVly	K Distribution - Other	IMPROPER PROTECTIVE COORDINATION	2	1			9	2	91	1	97	4
WImVly	K Distribution - Other	INCORRECT RECORDS	2	2	3	3	289	5	121	4	34	2
WImVly	K Distribution - Other	INTERNAL CONTRACTOR					49	1			1	1
WImVly	K Distribution - Other	INTERNAL TREE CONTRACTOR									1	1
WImVly	K Distribution - Other	OTHER, KNOWN CAUSE	673	13	13	7	19	9	325	14	142	10
WImVly	K Distribution - Other	PACIFICORP EMPLOYEE - FIELD			38	1	49	2				
WImVly	K Distribution - Other	TESTING/STARTUP ERROR			42	1	2,451	1			38	2
WImVly	K Distribution - Other	UNSAFE SITUATION					1	1			2	1

Reliability Region and Operating Area Customer Counts

Region	Op Area	CY2011	CY2010	CY2009	CY2008	CY2007
Central OR	BEND/REDMOND	59,238	58,757	57,947	56,790	60,805
Central OR	MADRAS	17,006	16,919	16,813	16,608	16,249
Central OR		76,244	75,676	74,760	73,398	77,054
CoastPlus	CLATSOP (ASTORIA)	23,883	23,724	23,542	23,261	22,903
CoastPlus	COOS BAY/COQUILLE	27,080	26,929	26,793	26,594	26,306
CoastPlus	HOOD RIVER	9,067	8,924	8,835	8,686	8,575
CoastPlus	LINCOLN CITY	11,972	11,929	11,841	11,708	11,485
CoastPlus	PORTLAND	79,270	75,838	74,371	73,324	72,559
CoastPlus		151,272	147,344	145,382	143,573	141,828
Northeast OR	ENTERPRISE	5,412	5,383	5,335	5,273	5,206
Northeast OR	HERMISTON	4,686	4,614	4,577	4,513	4,455
Northeast OR	MILTON/FREEWATER	996	988	984	980	976
Northeast OR	PENDLETON	13,063	13,756	13,669	13,591	13,471
Northeast OR	WALLA WALLA OR	1,407	1,398	1,391	1,369	1,353
Northeast OR		25,564	26,139	25,956	25,726	25,461
South OR	GRANTS PASS	51,572	51,346	51,051	50,503	50,813
South OR	KLAMATH FALLS	38,763	38,492	38,246	37,825	37,060
South OR	LAKEVIEW	2,516	2,497	2,467	2,451	2,443
South OR	MEDFORD	87,397	86,957	86,269	85,315	83,437
South OR	ROSEBURG/MYRTLECREEK	42,694	42,553	42,376	41,112	41,515
South OR		222,942	221,845	220,409	217,206	215,268
WlmVly	ALBANY	31,907	31,710	31,171	30,740	29,807
WlmVly	CORVALLIS	28,820	28,695	28,527	28,356	28,020
WlmVly	COTTAGE GROVE/J.CITY	11,233	11,184	11,135	11,034	10,940
WlmVly	DALLAS/INDEPENDENCE	14,605	14,525	14,385	14,213	13,862
WlmVly	LEBANON	19,434	19,229	19,014	18,757	18,375
WlmVly	STAYTON	13,600	13,513	13,416	13,248	12,954
WlmVly		119,599	118,856	117,648	116,348	113,958

Reliability Reporting Region	Op Area Name	Substation Name	Circuit Id	Circuit Name	Kv	Customer Count
Central OR	BEND/REDMOND	BEND	5D10	PORTLAND AVE	12.50	2,306
Central OR	BEND/REDMOND	BEND	5D11	GLEN VISTA	12.50	2,408
Central OR	BEND/REDMOND	BEND	5D12	DIVISION ST.	12.50	211
Central OR	BEND/REDMOND	BEND	5D196	MALLARD	12.50	1,468
Central OR	BEND/REDMOND	BOND STREET	5D411	BACHELOR	12.50	1,643
Central OR	BEND/REDMOND	BOND STREET	5D413	OLD MILL.	12.50	335
Central OR	BEND/REDMOND	BOND STREET	5D418	BLAKELY	12.50	1,246
Central OR	BEND/REDMOND	CHINA HAT	5D140	LAVA (CHINA HAT)	12.50	2,245
Central OR	BEND/REDMOND	CHINA HAT	5D142	HIGH DESERT	12.50	1,548
Central OR	BEND/REDMOND	CHINA HAT	5D144	D.R.W.	12.50	2,283
Central OR	BEND/REDMOND	CLEVELAND AVE.	5D30	ARROWHEAD	12.50	877
Central OR	BEND/REDMOND	CLEVELAND AVE.	5D35	WICKIUP	12.50	1,015
Central OR	BEND/REDMOND	CLEVELAND AVE.	5D38	TOMAHAWK	12.50	1,399
Central OR	BEND/REDMOND	CLEVELAND AVE.	5D94	TEEPEE	12.50	3,016
Central OR	BEND/REDMOND	CLEVELAND AVE.	5D96	OBSIDIAN	12.50	769
Central OR	BEND/REDMOND	CLEVELAND AVE.	5D98	HUCKLEBERRY	12.50	1,306
Central OR	BEND/REDMOND	CROOKED RIVER R	4D131	CANYON	20.80	1,729
Central OR	BEND/REDMOND	CROOKED RIVER R	4D30	CROOKED R.R.	20.80	757
Central OR	BEND/REDMOND	DESCHUTES	5D184	PRONGHORN	12.50	632
Central OR	BEND/REDMOND	DESCHUTES	5D2	DESCHUTES S	12.50	1,420
Central OR	BEND/REDMOND	HUNTERS CIRCLE	5D192	Mackinaw	12.50	444
Central OR	BEND/REDMOND	MIDPOINT	CO01-1	MIDPOINT-HEMMINGWAY-500KV	500.00	-
Central OR	BEND/REDMOND	OVERPASS	5D104	AWBREY	12.50	672
Central OR	BEND/REDMOND	OVERPASS	5D106	NEZ PERCE	12.50	2,606
Central OR	BEND/REDMOND	OVERPASS	5D120	CHINOOK	12.50	1,293
Central OR	BEND/REDMOND	OVERPASS	5D128	PAIUTE	12.50	1,836
Central OR	BEND/REDMOND	OVERPASS	5D155	APACHE	12.50	1,792
Central OR	BEND/REDMOND	PILOT BUTTE	5D261	KLONDIKE	12.50	2,506
Central OR	BEND/REDMOND	PILOT BUTTE	5D263	DRAKE FEEDER	12.50	2,356
Central OR	BEND/REDMOND	PILOT BUTTE	CO08	BEND PLANT-PILOT BUTTE-69KV	69.00	-
Central OR	BEND/REDMOND	PILOT BUTTE	CO09	BEND-REDMOND-69KV	69.00	-
Central OR	BEND/REDMOND	PILOT BUTTE	CO17	PILOT BUTTE - CEC 69KV	69.00	-
Central OR	BEND/REDMOND	REDMOND	5D21	SOUTH (REDMOND)	12.50	682
Central OR	BEND/REDMOND	REDMOND	5D22	INDUSTRIAL	12.50	1,769
Central OR	BEND/REDMOND	REDMOND	5D223	TETHEROW	12.50	549

Reliability Reporting Region	Op Area Name	Substation Name	Circuit Id	Circuit Name	Kv	Customer Count
Central OR	BEND/REDMOND	REDMOND	5D226	CLINE FALLS	12.50	1,865
Central OR	BEND/REDMOND	REDMOND	5D227	WINDSOR	12.50	2,217
Central OR	BEND/REDMOND	REDMOND	5D228	CITY	12.50	1,323
Central OR	BEND/REDMOND	REDMOND	5D229	JUNIPER	12.50	314
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	REDMOND BPA	CO03	REDMOND-PRINEVILLE-115KV	115.00	-
Central OR	BEND/REDMOND	SHEVLIN PARK	5D238	WOLVERINE (SHP) (WAS 5D327)	12.50	2,474
Central OR	BEND/REDMOND	SHEVLIN PARK	5D241	BADGER (SHP)	12.50	2,822
Central OR	BEND/REDMOND	SHEVLIN PARK	5D243	Black Bear	12.50	410
Central OR	BEND/REDMOND	SUMMER LAKE (BPA)	CO01-1A	SUMMER LAKE (BPA)-HEMMINGWAY-50	500.00	1
Central OR	BEND/REDMOND	YEW AVENUE	5D322	BIRDIE	12.50	1,419
Central OR	BEND/REDMOND	YEW AVENUE	5D323	FAIRWAY	12.50	391
Central OR	BEND/REDMOND	YEW AVENUE	5D325	EAGLE	12.50	2,351
Central OR	MADRAS	CHERRY LANE	5D295	7 PEAKS	12.50	142
Central OR	MADRAS	COVE (OR)	CO06-2	COVE-WARM SPRINGS-REDMOND-69KV	69.00	-
Central OR	MADRAS	COVE (OR)	CO13	COVE-PELTON-WARM SPRINGS-69KV	69.00	-
Central OR	MADRAS	CULVER	5D5	CULVER	12.50	1,755
Central OR	MADRAS	MADRAS	5D52	MADRAS RURAL	12.50	1,019
Central OR	MADRAS	MADRAS	5D53	AGATE	12.50	816
Central OR	MADRAS	MADRAS	5D57	QUARTZ	12.50	1,875
Central OR	MADRAS	MADRAS	5D61	MADRAS CITY	12.50	1,329
Central OR	MADRAS	OPAL SPRINGS	CO04	COVE - OPAL SPRINGS-69KV TAP	69.00	-
Central OR	MADRAS	POWELL BUTTE	5D1	POWELL BUTTE	12.50	601
Central OR	MADRAS	PRINEVILLE	5D126	RIMROCK	12.50	2,237
Central OR	MADRAS	PRINEVILLE	5D167	NORTHVILLE	12.50	1,255
Central OR	MADRAS	PRINEVILLE	5D25	OCHOCO	12.50	977
Central OR	MADRAS	PRINEVILLE	5D47	MC KAY (PRINEVILLE)	12.50	1,648
Central OR	MADRAS	PRINEVILLE	5D48	LAMONTA	12.50	638
Central OR	MADRAS	PRINEVILLE	5D50	PINE CONE	12.50	77
Central OR	MADRAS	PRINEVILLE	5D69	GRIMES FLAT	12.50	1,594
Central OR	MADRAS	WARM SPRINGS	4D68	WARM SPRINGS (OR)	20.80	1,043
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	-

Reliability Reporting Region	Op Area Name	Substation Name	Circuit Id	Circuit Name	Kv	Customer Count
CoastPlus	CLATSOP (ASTORIA)	CANNON BEACH	5A10	HAYSTACK	12.50	1,524
CoastPlus	CLATSOP (ASTORIA)	CANNON BEACH	5A8	ECOLA	12.50	1,252
CoastPlus	CLATSOP (ASTORIA)	FERN HILL SUB	5A51	JOHN DAY	12.50	260
CoastPlus	CLATSOP (ASTORIA)	FERN HILL SUB	5A52	SCANDINAVIAN	12.50	106
CoastPlus	CLATSOP (ASTORIA)	KNAPPA SVENSEN	5A92	SVENSEN	12.50	684
CoastPlus	CLATSOP (ASTORIA)	KNAPPA SVENSEN	5A93	BRADWOOD	12.50	926
CoastPlus	CLATSOP (ASTORIA)	LEWIS & CLARK	CL03	LEWIS & CLARK-CLATSOP-BPA-115KV	115.00	-
CoastPlus	CLATSOP (ASTORIA)	SEASIDE	5A80	GROVE	12.50	2,350
CoastPlus	CLATSOP (ASTORIA)	SEASIDE	5A81	CENTRAL	12.50	1,854
CoastPlus	CLATSOP (ASTORIA)	SEASIDE	5A82	NECANICUM	12.50	1,185
CoastPlus	CLATSOP (ASTORIA)	SEASIDE	5A83	GEARHART	12.50	2,843
CoastPlus	CLATSOP (ASTORIA)	WARRENTON	5A15	CITY	12.50	1,784
CoastPlus	CLATSOP (ASTORIA)	WARRENTON	5A16	MILL (WARRENTON)	12.50	493
CoastPlus	CLATSOP (ASTORIA)	WARRENTON	5A20	SOUTH (WARRENTON)	12.50	1,471
CoastPlus	CLATSOP (ASTORIA)	YOUNGS BAY	5A202	PORT DOCK	12.50	1,228
CoastPlus	CLATSOP (ASTORIA)	YOUNGS BAY	5A204	MOO COW	12.50	1,106
CoastPlus	CLATSOP (ASTORIA)	YOUNGS BAY	5A205	FIFTH STREET	12.50	956
CoastPlus	CLATSOP (ASTORIA)	YOUNGS BAY	5A206	YOUNGS BAY #6	12.50	203
CoastPlus	CLATSOP (ASTORIA)	YOUNGS BAY	5A210	YOUNGS BAY #10	12.50	1,274
CoastPlus	CLATSOP (ASTORIA)	YOUNGS BAY	5A211	OLNEY	12.50	966
CoastPlus	CLATSOP (ASTORIA)	YOUNGS BAY	5A213	INDUSTRIAL	12.50	1,416
CoastPlus	CLATSOP (ASTORIA)	YOUNGS BAY	CL01-1	YOUNGS BAY-ASTORIA-115KV	115.00	-
CoastPlus	COOS BAY/COQUILLE	BANDON TIE (BPA)	L804	BANDON	20.80	776
CoastPlus	COOS BAY/COQUILLE	COOS RIVER	4C106	COOS RIVER	20.80	1,399
CoastPlus	COOS BAY/COQUILLE	COQUILLE	4C41	HENRY STREET	20.80	1,768
CoastPlus	COOS BAY/COQUILLE	COQUILLE	4C42	TERRES HGHTS	20.80	1,615
CoastPlus	COOS BAY/COQUILLE	COQUILLE	4C43	INDUSTRIAL	20.80	190
CoastPlus	COOS BAY/COQUILLE	COQUILLE	CB07	COQUILLE-MYRTLE POINT-115KV	115.00	-
CoastPlus	COOS BAY/COQUILLE	EMPIRE NEW	4C108	EMPIRE	20.80	1,735
CoastPlus	COOS BAY/COQUILLE	EMPIRE NEW	4C89	SCOTT	20.80	1,406
CoastPlus	COOS BAY/COQUILLE	EMPIRE NEW	4C90	CHARLESTON	20.80	2,159
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	G P COQUILLE	L804X	BANDON	20.80	-
CoastPlus	COOS BAY/COQUILLE	ISTHMUS	CB06	ISTHMUS-LOCKHART-115KV	115.00	-

Reliability Reporting Region	Op Area Name	Substation Name	Circuit Id	Circuit Name	Kv	Customer Count
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	-
CoastPlus	COOS BAY/COQUILLE	JORDAN POINT	5C6	SAND DUNES (JORDAN POINT)	12.50	27
CoastPlus	COOS BAY/COQUILLE	LOCKHART STREET	4C48	CITY CENTER	20.80	1,612
CoastPlus	COOS BAY/COQUILLE	LOCKHART STREET	4C49	EASTSIDE	20.80	795
CoastPlus	COOS BAY/COQUILLE	LOCKHART STREET	4C5	GEORGIA-PAC	20.80	104
CoastPlus	COOS BAY/COQUILLE	LOCKHART STREET	4C50	BUNKERHILL	20.80	1,886
CoastPlus	COOS BAY/COQUILLE	LOCKHART STREET	4C97	ENGLEWOOD	20.80	1,410
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	357
CoastPlus	COOS BAY/COQUILLE	MYRTLE POINT	4C37	MAPLE STREET	20.80	2,186
CoastPlus	COOS BAY/COQUILLE	SOUTH DUNES	5C9	DOUGLAS CHIP	12.50	2
CoastPlus	COOS BAY/COQUILLE	STATE STREET	4C112	WOODLAND	20.80	1,861
CoastPlus	COOS BAY/COQUILLE	STATE STREET	4C66	BAYSHORE	20.80	1,716
CoastPlus	COOS BAY/COQUILLE	STATE STREET	4C67	INDUSTRIAL	20.80	2,276
CoastPlus	COOS BAY/COQUILLE	STATE STREET	4C86	BANGOR	20.80	1,771
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	448
CoastPlus	HOOD RIVER	GRASS VALLEY	6K1	KENT	7.20	62
CoastPlus	HOOD RIVER	GRASS VALLEY	8K4	GRASS VALLEY CITY	2.40	98
CoastPlus	HOOD RIVER	HOOD RIVER	5K29	MOSIER FDR	12.50	-
CoastPlus	HOOD RIVER	HOOD RIVER	5K37	RESIDENTIAL	12.50	1,844
CoastPlus	HOOD RIVER	HOOD RIVER	5K43	BELMONT	12.50	1,085
CoastPlus	HOOD RIVER	HOOD RIVER	5K44	NORTH (HOOD RIVER)	12.50	1,758
CoastPlus	HOOD RIVER	HOOD RIVER	5K70	EASTSIDE	7.20	1,032
CoastPlus	HOOD RIVER	HOOD RIVER	5K74	SOUTH (HOOD RIVER)	12.50	1,610
CoastPlus	HOOD RIVER	HOOD RIVER	6K336	WEST SIDE	7.20	1
CoastPlus	HOOD RIVER	KENWOOD	5K50	OAKGROVE	12.50	703
CoastPlus	HOOD RIVER	MORO	8K6	MORO	2.40	118
CoastPlus	HOOD RIVER	POWERDALE HE PL	HR03	CONDUIT-POWERDALE-69KV	69.00	-
CoastPlus	HOOD RIVER	TUCKER	3K24	INDIAN CREEK (TUCKER)	69.00	-
CoastPlus	HOOD RIVER	TUCKER	HR01	TUCKER-POWERDALE-69KV	69.00	-
CoastPlus	HOOD RIVER	TUCKER	HR04	TUCKER-POWERDALE-69KV	69.00	-

Reliability Reporting Region	Op Area Name	Substation Name	Circuit Id	Circuit Name	Kv	Customer Count
CoastPlus	HOOD RIVER	WASCO	7K1	WASCO	4.10	264
CoastPlus	LINCOLN CITY	BOYER	LC01	BOYER-DEVILS LAKE #1-115KV	115.00	-
CoastPlus	LINCOLN CITY	BOYER	LC02	BOYER-DEVILS LAKE #2-115KV	115.00	-
CoastPlus	LINCOLN CITY	DEVILS LAKE	4A310	INLAND FEEDER	20.80	1,725
CoastPlus	LINCOLN CITY	DEVILS LAKE	4A312	OCEAN	20.80	2,873
CoastPlus	LINCOLN CITY	DEVILS LAKE	4A316	LAKE (DEVILS LAKE)	20.80	4,448
CoastPlus	LINCOLN CITY	DEVILS LAKE	4A338	SIUSLAW	20.80	454
CoastPlus	LINCOLN CITY	GLENEDEN	7A364	GLENEDEN	4.10	713
CoastPlus	LINCOLN CITY	GLENEDEN	7A366	SALISHAN	4.10	356
CoastPlus	LINCOLN CITY	NELSCOTT	7A390	NELSCOTT	4.10	358
CoastPlus	LINCOLN CITY	PGE GRAND RONDE	R136	BOYER	12.00	18
CoastPlus	LINCOLN CITY	WECOMA BEACH	7A354	WECOMA	4.10	709
CoastPlus	PORTLAND	ALBINA	5P111	ALBINA 11C01-UG	11.70	312
CoastPlus	PORTLAND	ALBINA	5P150	ALBINA 11C15	11.70	169
CoastPlus	PORTLAND	ALBINA	5P194	11C24-UG	11.70	17
CoastPlus	PORTLAND	ALBINA	5P196	11C16-UG	11.70	468
CoastPlus	PORTLAND	ALBINA	5P200	11C20-UG	11.70	413
CoastPlus	PORTLAND	ALBINA	5P66	11C25	11.70	57
CoastPlus	PORTLAND	ALBINA	5P91	11C11-UG	11.70	347
CoastPlus	PORTLAND	ALBINA	5P92	11C12-UG	11.70	353
CoastPlus	PORTLAND	ALDERWOOD 115/11	5P22	ALDERWOOD #2	12.50	203
CoastPlus	PORTLAND	ALDERWOOD 115/11	5P23	ALDERWOOD #1-UG	12.50	96
CoastPlus	PORTLAND	ALDERWOOD 115/11	5P604	ALDERWOOD #3	12.50	171
CoastPlus	PORTLAND	BLOSS	5P170	OFFICE	12.50	-
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	2,602
CoastPlus	PORTLAND	COLUMBIA (OR)	5P268	COLUMBIA #1	12.50	335
CoastPlus	PORTLAND	COLUMBIA (OR)	5P474	COLUMBIA #6	12.50	553
CoastPlus	PORTLAND	COLUMBIA (OR)	5P476	COLUMBIA #3	12.50	698
CoastPlus	PORTLAND	COLUMBIA (OR)	5P478	COLUMBIA #4	12.50	987
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	-

Reliability Reporting Region	Op Area Name	Substation Name	Circuit Id	Circuit Name	Kv	Customer Count
CoastPlus	PORTLAND	CULLY	5P288	CULLY #3-UG	12.50	801
CoastPlus	PORTLAND	CULLY	5P290	CULLY #2	12.50	2,385
CoastPlus	PORTLAND	CULLY	5P292	CULLY #1	12.50	2,886
CoastPlus	PORTLAND	HARRISON	P18	HARRISON-LINCOLN-115KV	115.00	-
CoastPlus	PORTLAND	HOLLADAY (OR)	5P145	HOLLADAY #1-UG	11.70	8
CoastPlus	PORTLAND	HOLLADAY (OR)	5P146	HOLLADAY #2-UG	11.70	1
CoastPlus	PORTLAND	HOLLADAY (OR)	5P147	HOLLADAY #3-UG	11.70	29
CoastPlus	PORTLAND	HOLLADAY (OR)	5P156	HOLLADAY #4-UG	11.70	122
CoastPlus	PORTLAND	HOLLADAY (OR)	5P157	HOLLADAY #5-UG	11.70	320
CoastPlus	PORTLAND	HOLLADAY (OR)	5P158	HOLLADAY #6	11.70	837
CoastPlus	PORTLAND	HOLLADAY (OR)	P13	HOLLADAY-HARRISON-115KV	115.00	-
CoastPlus	PORTLAND	HOLLYWOOD	5P203	HOLLYWOOD #3	12.50	1,313
CoastPlus	PORTLAND	HOLLYWOOD	5P204	HOLLYWOOD #2	12.50	1,660
CoastPlus	PORTLAND	HOLLYWOOD	5P205	HOLLYWOOD #1	12.50	2,114
CoastPlus	PORTLAND	HOLLYWOOD	5P208	HOLLYWOOD #5	12.50	1,692
CoastPlus	PORTLAND	HOLLYWOOD	5P209	HOLLYWOOD #4	12.50	2,344
CoastPlus	PORTLAND	KILLINGSWORTH	5P123	KILLINGSWORTH #3	12.50	393
CoastPlus	PORTLAND	KILLINGSWORTH	5P217	KILLINGSWORTH #5	12.50	458
CoastPlus	PORTLAND	KILLINGSWORTH	5P41	KILLINGSWORTH #4	12.50	5,446
CoastPlus	PORTLAND	KILLINGSWORTH	5P88	KILLINGSWORTH #1-UG	12.50	16
CoastPlus	PORTLAND	KILLINGSWORTH	5P89	KILLINGSWORTH #2	12.50	2,207
CoastPlus	PORTLAND	KNOTT	5P231	KNOTT #1	12.50	2,436
CoastPlus	PORTLAND	KNOTT	5P232	KNOTT #2	12.50	1,291
CoastPlus	PORTLAND	KNOTT	5P233	KNOTT #3	12.50	2,230
CoastPlus	PORTLAND	KNOTT	5P366	11010	11.70	7
CoastPlus	PORTLAND	KNOTT	5P372	11046	11.70	418
CoastPlus	PORTLAND	KNOTT	5P374	11020	11.70	975
CoastPlus	PORTLAND	KNOTT	P26	KNOTT-PARKROSE-57KV	57.00	-
CoastPlus	PORTLAND	LINCOLN (OR)	5P418	11D17	11.70	52
CoastPlus	PORTLAND	LINCOLN (OR)	5P422	11D06-UG	11.70	550
CoastPlus	PORTLAND	LINCOLN (OR)	5P424	11D03-UG	11.70	1
CoastPlus	PORTLAND	LINCOLN (OR)	5P426	11D04-UG	11.70	14
CoastPlus	PORTLAND	LINCOLN (OR)	5P430	11D05-UG	11.70	366
CoastPlus	PORTLAND	LINCOLN (OR)	5P432	11D02-UG	11.70	12
CoastPlus	PORTLAND	LINCOLN (OR)	5P434	11D12-UG	11.70	17

Reliability Reporting Region	Op Area Name	Substation Name	Circuit Id	Circuit Name	Kv	Customer Count
CoastPlus	PORTLAND	LINCOLN (OR)	5P436	11G18-UG	11.70	103
CoastPlus	PORTLAND	LINCOLN (OR)	5P438	11D08-UG	11.70	163
CoastPlus	PORTLAND	LINCOLN (OR)	5P456	11D09-UG	11.70	813
CoastPlus	PORTLAND	LINCOLN (OR)	5P458	11D07-UG	11.70	216
CoastPlus	PORTLAND	LINCOLN (OR)	5P462	11G13-UG	11.70	32
CoastPlus	PORTLAND	LINCOLN (OR)	5P464	11G16-UG	11.60	61
CoastPlus	PORTLAND	LINCOLN (OR)	P16	LINCOLN-URBAN-115KV	115.00	-
CoastPlus	PORTLAND	MALLORY	5P162	MALLORY #1	12.80	1,901
CoastPlus	PORTLAND	MALLORY	5P164	MALLORY #2	12.80	3,036
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	PARKROSE	5P244	PARKROSE#4	12.50	3,074
CoastPlus	PORTLAND	PARKROSE	5P246	PARKROSE#3	12.50	3,094
CoastPlus	PORTLAND	PARKROSE	5P250	PARKROSE#2	12.50	737
CoastPlus	PORTLAND	PARKROSE	5P252	PARKROSE#1	12.50	1,860
CoastPlus	PORTLAND	RUSSELLVILLE	5P274	RUSSELLVILLE #3	12.50	3,023
CoastPlus	PORTLAND	RUSSELLVILLE	5P276	RUSSELLVILLE #4	12.50	2,102
CoastPlus	PORTLAND	RUSSELLVILLE	5P278	RUSSELLVILLE #1	12.50	3,211
CoastPlus	PORTLAND	RUSSELLVILLE	5P280	RUSSELLVILLE #2	12.50	1,320
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	P34	TROUTDALE-CPU RUNYAN-115KV	115.00	-
CoastPlus	PORTLAND	TROUTDALE TIE (BPA	P03	BPA TROUTDALE-PGE GRESHAM-230KV	230.00	-
CoastPlus	PORTLAND	VERNON	5P391	VERNON #1	12.50	2,722
CoastPlus	PORTLAND	VERNON	5P392	VERNON NO. 2	12.50	2,474
CoastPlus	PORTLAND	VERNON	5P393	VERNON #3	12.50	2,964
CoastPlus	PORTLAND	VERNON	5P394	VERNON # 4	12.50	2,982
CoastPlus	PORTLAND	VERNON	5P395	VERNON # 5	12.50	2,159
CoastPlus	PORTLAND	YALE	5P53	YALE VILLAGE	12.50	-
Northeast OR	ENTERPRISE	ENTERPRISE (OR)	4W8	CREIGHTON LN	20.80	1,425
Northeast OR	ENTERPRISE	ENTERPRISE (OR)	5W15	CITY	12.50	950
Northeast OR	ENTERPRISE	ENTERPRISE (OR)	5W26	RURAL (ENTERPRISE)	12.50	1,073
Northeast OR	ENTERPRISE	ENTERPRISE (OR)	WW07	ENTERPRISE-ELGIN-69KV	69.00	-

Reliability Reporting Region	Op Area Name	Substation Name	Circuit Id	Circuit Name	Kv	Customer Count
Northeast OR	ENTERPRISE	HURRICANE (OR)	WW08	HURRICANE-ENTERPRISE-69KV	69.00	-
Northeast OR	ENTERPRISE	JOSEPH	5W21	PRAIRIE	12.50	856
Northeast OR	ENTERPRISE	MINAM	5W18	MINAM	12.50	13
Northeast OR	ENTERPRISE	PALLETTE	4W14	PALLETTE NORTH	19.90	173
Northeast OR	ENTERPRISE	PALLETTE	4W15	PALLETTE SOUTH	19.90	53
Northeast OR	ENTERPRISE	WALLOWA	5W28	CITY	12.50	869
Northeast OR	HERMISTON	ARLINGTON	5K25	ARLINGTON	12.50	541
Northeast OR	HERMISTON	BLALOCK	5K40	BLALOCK	12.50	25
Northeast OR	HERMISTON	COLD SPRINGS	WW16	COLD SPRINGS-HERMISTON-69KV	69.00	-
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	93
Northeast OR	HERMISTON	DALREED	4K46	BOEING	34.50	166
Northeast OR	HERMISTON	HERMISTON	5W602	RURAL (HERMISTON)	12.50	1,366
Northeast OR	HERMISTON	HERMISTON	WW14	HERMISTON-PENDLETON-69KV	69.00	-
Northeast OR	HERMISTON	HINKLE	5W80	SIMPLOT	12.50	2
Northeast OR	HERMISTON	HINKLE	5W82	MEADOWS	12.50	367
Northeast OR	HERMISTON	MCNARY (BPA)	WW15	BPA MCNARY-HERMISTON-69KV	69.00	-
Northeast OR	HERMISTON	UMATILLA	5W658	UMATILLA	12.50	1,166
Northeast OR	HERMISTON	UMATILLA	5W660	MCNARY	12.50	911
Northeast OR	HERMISTON	UMATILLA	5W664	PORT FEEDER	12.50	47
Northeast OR	MILTON/FREEWATER	UMAPINE	5W105	UMAPINE FEEDER	12.50	995
Northeast OR	PENDLETON	ATHENA	5W703	CITY	12.50	869
Northeast OR	PENDLETON	ATHENA	5W705	HELIX	12.50	435
Northeast OR	PENDLETON	BUCKAROO	5W201	STATE HOSP.	12.50	409
Northeast OR	PENDLETON	BUCKAROO	5W202	REITH	12.50	1,534
Northeast OR	PENDLETON	BUCKAROO	5W203	MONTEE	12.50	1,625
Northeast OR	PENDLETON	PENDLETON	5W401	WEST HILLS	12.50	1,746
Northeast OR	PENDLETON	PENDLETON	5W402	HARRIS HTS	12.50	1,500
Northeast OR	PENDLETON	PENDLETON	5W403	MISSION	12.50	1,690
Northeast OR	PENDLETON	PENDLETON	7W451	BUSINESS	4.10	262
Northeast OR	PENDLETON	PENDLETON	7W452	NORTHWEST	4.10	522
Northeast OR	PENDLETON	PENDLETON	7W453	SOUTHWEST (PENDELTON)	4.10	334
Northeast OR	PENDLETON	PENDLETON	7W454	EAST END	4.10	283
Northeast OR	PENDLETON	PENDLETON	WW10	PENDLETON-BPA ROUNDUP-69KV	69.00	-

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Northeast OR	PENDLETON	PENDLETON	WW12	PENDLETON-BPA ROUNDUP-69KV	69.00	-
Northeast OR	PENDLETON	PILOT ROCK	5W404	MILL (PILOT ROCK)	12.50	3
Northeast OR	PENDLETON	PILOT ROCK	5W406	PILOT ROCK CITY	12.50	1,372
Northeast OR	PENDLETON	PILOT ROCK	5W417	USG - US Gypsum	12.50	1
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	464
Northeast OR	WALLA WALLA	UMAPINE	5W106	FERNDALE	12.50	1,407
South OR	GRANTS PASS	AGNESS AVE	5R172	SPALDING MILL	12.50	887
South OR	GRANTS PASS	AGNESS AVE	5R173	JONES CREEK	12.50	857
South OR	GRANTS PASS	AGNESS AVE	5R322	ANTEATER	12.50	1,127
South OR	GRANTS PASS	APPLEGATE	5R267	MURPHY	12.50	1,013
South OR	GRANTS PASS	APPLEGATE	5R278	HIGHWAY	12.50	1,611
South OR	GRANTS PASS	APPLEGATE	R23-A	APPLEGATE-PROVOLT-69KV	69.00	-
South OR	GRANTS PASS	BEACON	5R104	SAVAGE ST	12.50	1,256
South OR	GRANTS PASS	BEACON	5R105	BEACON ST	12.50	821
South OR	GRANTS PASS	CAVE JUNCTION	5R52	FREE& EASY	12.50	2,423
South OR	GRANTS PASS	CAVE JUNCTION	5R53	ROUGH &READY	12.50	1,563
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	1,144
South OR	GRANTS PASS	CAVEMAN	5R82	WASHINGTON	12.50	1,202
South OR	GRANTS PASS	CAVEMAN	5R98	MANZANITA	12.50	591
South OR	GRANTS PASS	CAVEMAN	5R99	CAVEMAN	12.50	1,170
South OR	GRANTS PASS	DOWELL	5R331	DUCK	12.50	1,483
South OR	GRANTS PASS	DOWELL	5R334	FEEDER #17 (SPARE)	12.50	2,350
South OR	GRANTS PASS	EASY VALLEY	5R123	G STREET	12.50	1,988
South OR	GRANTS PASS	EASY VALLEY	5R125	ROGUE	12.50	1,688
South OR	GRANTS PASS	EASY VALLEY	5R259	CHINOOK	12.50	1,298
South OR	GRANTS PASS	FIELDER CREEK	4R33	ELK FDR.	20.80	1,614
South OR	GRANTS PASS	FIELDER CREEK	4R34	BEAR FDR	20.80	870
South OR	GRANTS PASS	GLENDALE	5R133	GLENDALE	12.50	1,968
South OR	GRANTS PASS	GLENDALE	5R143	INDUSTRIAL	12.50	695
South OR	GRANTS PASS	GRANTS PASS	R01-B	GRANTS PASS-WHITE CITY-115KV	115.00	-

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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	-
South OR	GRANTS PASS	GRANTS PASS	R13-1	GRANTS PASS-ROGUE RIVER-69KV	69.00	-
South OR	GRANTS PASS	GRANTS PASS	R24	GRANTS PASS-BEACON-69KV	69.00	-
South OR	GRANTS PASS	JEROME PRAIRIE	5R62	WILD PRAIRIE	12.50	2,410
South OR	GRANTS PASS	JEROME PRAIRIE	5R63	WOOD RIVER	12.50	813
South OR	GRANTS PASS	MERLIN	5R232	MERLIN-HUGO	12.50	2,062
South OR	GRANTS PASS	MERLIN	5R234	PARADISE	12.50	1,170
South OR	GRANTS PASS	MERLIN	5R248	PLEASANT VALLEY-MERLIN FEEDER	12.50	1,825
South OR	GRANTS PASS	MERLIN	5R251	BADGER	12.50	913
South OR	GRANTS PASS	NEW O'BRIEN	5R106	O'BRIEN	12.50	457
South OR	GRANTS PASS	PARK STREET (OR)	5R114	FRUITDALE	12.50	2,191
South OR	GRANTS PASS	PARK STREET (OR)	5R115	ALLEN CREEK	12.50	913
South OR	GRANTS PASS	PARK STREET (OR)	5R121	NEW HOPE	12.50	1,838
South OR	GRANTS PASS	PARK STREET (OR)	5R164	EXPRESS	12.50	312
South OR	GRANTS PASS	PARK STREET (OR)	5R169	PORTOLA	12.50	1,363
South OR	GRANTS PASS	PROVOLT	5R67	NORTH-SOUTH	12.50	1,382
South OR	GRANTS PASS	ROGUE RIVER	4R7	EVANS/VALLEY	20.80	236
South OR	GRANTS PASS	ROGUE RIVER	5R77	SAVAGE/WIMMER	12.50	1,787
South OR	GRANTS PASS	ROGUE RIVER	5R78	ROCKY POINT (ROGUE RIVER)	12.50	1,055
South OR	GRANTS PASS	SCENIC	R13-2	SCENIC-GOLD HILL-69KV	69.00	-
South OR	GRANTS PASS	SELMA	5R65	DEER CREEK	12.50	1,225
South OR	KLAMATH FALLS	BEATTY	5L1	BEATTY	12.50	423
South OR	KLAMATH FALLS	BLY	5L14	TOWN (BLY)	12.50	452
South OR	KLAMATH FALLS	BOISE CASCADE	7L9	BOISE CASCAD	4.10	-
South OR	KLAMATH FALLS	BONANZA (OR)	5L7	POE VALLEY	12.50	448
South OR	KLAMATH FALLS	BRYANT	5L2	GARY STREET	12.50	2,193
South OR	KLAMATH FALLS	BRYANT	5L3	WASHBURN	12.50	1,885
South OR	KLAMATH FALLS	BRYANT	5L4	SUMMERS LANE	12.50	1,996
South OR	KLAMATH FALLS	BRYANT	5L5	MOYINA HTS.	12.50	2,487
South OR	KLAMATH FALLS	CASEBEER SUB	4L16	LANGELL VLY	20.80	1,189
South OR	KLAMATH FALLS	CHILOQUIN	5L57	CRATER LAKE	12.00	1,103
South OR	KLAMATH FALLS	CHILOQUIN	BB04-1	KLAMATH FALLS-CHILOQUIN-230KV	230.00	-

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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 MARKE	5L37	WILLIAMSON	12.50	485
South OR	KLAMATH FALLS	DAIRY	5L42	SWAN LAKE	12.50	321
South OR	KLAMATH FALLS	DAIRY	5L43	DAIRY	12.50	488
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	1,756
South OR	KLAMATH FALLS	HAMAKER	5L56	MOUNTAIN	12.50	163
South OR	KLAMATH FALLS	HENLEY	5L58	HENLEY	12.50	240
South OR	KLAMATH FALLS	HENLEY	5L59	WEST	12.50	552
South OR	KLAMATH FALLS	HORNET	5L44	HOMEDALE	12.50	2,669
South OR	KLAMATH FALLS	HORNET	5L45	CRYSTAL SPR	12.50	1,480
South OR	KLAMATH FALLS	JOHN C. BOYLE SUB	BB06-2	BOYLE-LONE PINE-230KV	230.00	-
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	KLAMATH FALLS-ROSS AVE-69KV	69.00	-
South OR	KLAMATH FALLS	KLAMATH	K08	KLAMATH FALLS-WEYERHAUSER-69KV	69.00	-
South OR	KLAMATH FALLS	KLAMATH	K12-1	KLAMATH FALLS-WEYERHAUSER-69KV	69.00	-
South OR	KLAMATH FALLS	KLAMATH	K13	KLAMATH FALLS-LAKEPORT-69KV	69.00	-
South OR	KLAMATH FALLS	KLAMATH COGEN 5	BB02-1	KLAMATH CO-GEN - CAPT JACK	500.00	-
South OR	KLAMATH FALLS	KLAMATH COGEN 5	BB02-2	KLAMATH COGEN-MERIDAN 500KV LINE	500.00	-
South OR	KLAMATH FALLS	LAKEPORT	5L49	WOCUS	12.50	202
South OR	KLAMATH FALLS	LAKEPORT	5L54	SOUTH (LAKEPORT)	12.50	2,466
South OR	KLAMATH FALLS	LAKEPORT	5L61	JELDWEN	12.50	7
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	1,036
South OR	KLAMATH FALLS	MERRILL (OR)	5L27	NORTH (MERRILL)	12.50	556
South OR	KLAMATH FALLS	MILE-HI	K15	MILE HI-LAKEVIEW-69KV	69.00	-
South OR	KLAMATH FALLS	MODOC	5L36	MODOC	12.50	994

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South OR	KLAMATH FALLS	ROSS AVENUE	5L46	ELDORADO	12.50	1,389
South OR	KLAMATH FALLS	ROSS AVENUE	5L47	FORT ROAD	12.50	-
South OR	KLAMATH FALLS	ROSS AVENUE	5L48	BROAD ST.	12.50	1,247
South OR	KLAMATH FALLS	RUNNING Y	4L50	ROCKY POINT FEEDER (RUNNING Y)	20.80	1,511
South OR	KLAMATH FALLS	SHASTA WAY	7L25	SHASTA WAY	4.10	438
South OR	KLAMATH FALLS	SPRAGUE RIVER	5L8	SPRAGUE RIVER	12.50	518
South OR	KLAMATH FALLS	SUMMER LAKE (BPA	CO01-2	MALIN-SUMMER LAKE-500KV	500.00	-
South OR	KLAMATH FALLS	TEXUM	5L112	ANDERSON	12.50	1,230
South OR	KLAMATH FALLS	TEXUM	5L113	TOWER	12.50	330
South OR	KLAMATH FALLS	TEXUM	5L116	ALTAMONT	12.50	1,534
South OR	KLAMATH FALLS	TURKEY HILL	5L20	MALIN CITY	12.50	854
South OR	KLAMATH FALLS	TURKEY HILL	5L23	RURAL (TURKEY HILL)	12.50	331
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	1,361
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	562
South OR	KLAMATH FALLS	WEST SIDE HE PLANT	5L18	RIVERSIDE (WEST SIDE HE PLANT)	12.50	604
South OR	KLAMATH FALLS	WEST SIDE HE PLANT	5L19	LAKESHORE	12.50	317
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	297
South OR	LAKEVIEW	MILE-HI	5L105	BUSINESS	12.50	1,097
South OR	LAKEVIEW	MILE-HI	K03	MILE HI-ALTURAS-115KV	115.00	-
South OR	MEDFORD	ASHLAND (MTN.AVE	5R241	CITY	12.50	30
South OR	MEDFORD	ASHLAND (MTN.AVE	5R245	VALLEY VIEW	12.50	981
South OR	MEDFORD	BEALL LANE	5R359	BEEHIVE	12.50	2
South OR	MEDFORD	BEALL LANE	5R361	BULLDOG	12.50	1,734
South OR	MEDFORD	BEALL LANE	5R364	BOBCAT	12.50	1,669
South OR	MEDFORD	BELKNAP	5R1	KOGAP	12.50	1,050
South OR	MEDFORD	BELKNAP	5R2	RIVERSIDE (BELKNAP)	12.50	679
South OR	MEDFORD	BELKNAP	5R3	BARNETT	12.50	1,552
South OR	MEDFORD	BELKNAP	5R47	STEWART	12.50	2,105
South OR	MEDFORD	BROOKHURST	5R118	SPRINGBROOK	12.50	1,676
South OR	MEDFORD	BROOKHURST	5R135	ROBERTS (BROOKHURST)	12.50	1,483
South OR	MEDFORD	BROOKHURST	5R32	ROXY	12.50	1,612

Reliability Reporting Region	Op Area Name	Substation Name	Circuit Id	Circuit Name	Kv	Customer Count
South OR	MEDFORD	BROOKHURST	5R33	CRATER LAKE	12.50	1,624
South OR	MEDFORD	BROOKHURST	5R75	SUNRISE (BROOKHURST)	12.50	1,178
South OR	MEDFORD	CAMPBELL	5R216	VOORHIES	12.50	481
South OR	MEDFORD	CAMPBELL	5R218	PHOENIX	12.50	1,509
South OR	MEDFORD	CAMPBELL	5R227	FERN VALLEY	12.50	1,313
South OR	MEDFORD	CAMPBELL	5R312	COBRA	12.50	1,516
South OR	MEDFORD	DODGE BRIDGE	4R1	SALMON	20.80	1,645
South OR	MEDFORD	DODGE BRIDGE	4R35	MEADOWS ROAD	20.80	1,364
South OR	MEDFORD	FOOTHILLS	5R252	HILLCREST ROAD	12.50	4
South OR	MEDFORD	FOOTHILLS	5R38	HOSPITAL	12.50	762
South OR	MEDFORD	FOOTHILLS	5R39	PIERCE ROAD	12.50	1,158
South OR	MEDFORD	FRALEY	5R87	TABLE ROCK	12.50	513
South OR	MEDFORD	FRALEY	5R88	DODGE BRIDGE	12.50	377
South OR	MEDFORD	GOLD HILL	5R103	GOLD HILL	12.50	2,030
South OR	MEDFORD	GRIFFIN CREEK	5R200	ARNOLD LANE	12.50	-
South OR	MEDFORD	GRIFFIN CREEK	5R204	HULL RD	12.50	2,543
South OR	MEDFORD	GRIFFIN CREEK	5R206	GRIFFIN CREEK	12.50	1,677
South OR	MEDFORD	HUMBUG CREEK	5R287	HUMMINGBIRD	12.50	679
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	-
South OR	MEDFORD	MEDCO	5R280	BOISE CASCADE	12.50	1
South OR	MEDFORD	MEDFORD	5R21	MELROSE	12.50	1,613
South OR	MEDFORD	MEDFORD	5R23	SPRING ST.	12.50	1,608
South OR	MEDFORD	MEDFORD	5R250	BIG Y	12.50	2,320
South OR	MEDFORD	MEDFORD	5R253	APPLE	12.50	1,126
South OR	MEDFORD	MEDFORD	5R257	PEAR	12.50	598
South OR	MEDFORD	MEDFORD	5R659	MCLEAN	12.50	687
South OR	MEDFORD	MEDFORD	7R150	SE POWER	4.10	35
South OR	MEDFORD	MEDFORD	R23	MEDFORD-JACKSONVILLE-RUCH-PROV	69.00	-
South OR	MEDFORD	MERIDIAN	BB07	LONE PINE #1-MERIDIAN-230KV	230.00	-
South OR	MEDFORD	MERIDIAN	BB13	MERIDIAN-GRANTS PASS-230KV	230.00	-

Reliability Reporting Region	Op Area Name	Substation Name	Circuit Id	Circuit Name	Kv	Customer Count
South OR	MEDFORD	MERIDIAN	BB16	LONE PINE #2-MERIDIAN-230KV	230.00	-
South OR	MEDFORD	NEW JACKSONVILL	5R284	STAGE RD	12.50	2,072
South OR	MEDFORD	NEW JACKSONVILL	5R285	JACKSONVILLE HWY	12.50	2,073
South OR	MEDFORD	OAK KNOLL	5R55	SISKIYOU	12.50	1,594
South OR	MEDFORD	PROSPECT CENTRA	5R40	NEW CASCADE	12.50	341
South OR	MEDFORD	PROSPECT CENTRA	8R5	COTTAGES	2.40	5
South OR	MEDFORD	PROSPECT CENTRA	8R8	DAM & FOREBAY	2.40	2
South OR	MEDFORD	PROSPECT CENTRA	R14	PROSPECT CNTRL-PROSPECT #3-69KV	69.00	-
South OR	MEDFORD	PROSPECT CENTRA	R16	PROSPECT-PROSPECT CNTRL #2-69KV	69.00	-
South OR	MEDFORD	RED BLANKET	7R5	PROSPECT	4.10	399
South OR	MEDFORD	ROXY ANN	5R350	St. Bernard	12.50	1,025
South OR	MEDFORD	ROXY ANN	5R354	RACCOON	12.50	1,281
South OR	MEDFORD	RUCH	5R68	APPLEGATE	12.50	1,586
South OR	MEDFORD	RUCH	5R69	RUCH	12.50	551
South OR	MEDFORD	SAGE ROAD (OR)	5R209	TIMBER PROD	12.50	1
South OR	MEDFORD	SAGE ROAD (OR)	5R211	COLUMBUS	12.50	2,002
South OR	MEDFORD	SAGE ROAD (OR)	5R226	BOISE	12.50	821
South OR	MEDFORD	SAGE ROAD (OR)	5R27	MCANDREWS	12.50	120
South OR	MEDFORD	SAGE ROAD (OR)	5R28	ROSS	12.50	1,660
South OR	MEDFORD	SAGE ROAD (OR)	5R29	EDWARDS	12.50	745
South OR	MEDFORD	SAGE ROAD (OR)	R01-C	SAGE ROAD-SCENIC-115KV	115.00	-
South OR	MEDFORD	SCENIC	5R174	UPTON	12.50	2,008
South OR	MEDFORD	SCENIC	5R180	HEAD RD	12.50	1,208
South OR	MEDFORD	SCENIC	5R182	TAYLOR RD	12.50	1,441
South OR	MEDFORD	SCENIC	5R184	CHENEY	12.50	1,441
South OR	MEDFORD	STEVENS ROAD	4R13	HENRY MILLER	20.80	1,357
South OR	MEDFORD	STEVENS ROAD	4R17	Stingray	20.80	2,456
South OR	MEDFORD	STEVENS ROAD	4R41	ANTELOPE	20.80	1,886
South OR	MEDFORD	TAKELMA	4R9	LOST CK. (TAKELMA)	20.80	2,626
South OR	MEDFORD	TALENT	5R237	TALENT	12.50	2,487
South OR	MEDFORD	TALENT	5R238	ANDERSON CRK	12.50	1,637
South OR	MEDFORD	TALENT	5R239	HARTLEY ROAD	12.50	1,524
South OR	MEDFORD	TALENT	5R240	NORTH HWY	12.50	1,077
South OR	MEDFORD	TOLO	5R90	TBL ROCK LBR	12.50	168
South OR	MEDFORD	TOLO	5R91	SAMS VALLEY	12.50	649

Reliability Reporting Region	Op Area Name	Substation Name	Circuit Id	Circuit Name	Kv	Customer Count
South OR	MEDFORD	TOLO	5R92	KIRTLAND RD	12.50	207
South OR	MEDFORD	VILAS ROAD	5R110	MCLAUGHLIN	12.50	954
South OR	MEDFORD	VILAS ROAD	5R146	KING CENTER	12.50	1,396
South OR	MEDFORD	VILAS ROAD	5R305	WEBFOOT	12.50	957
South OR	MEDFORD	WHITE CITY	5R11	EAGLE POINT	12.50	1,443
South OR	MEDFORD	WHITE CITY	5R12	INDUSTRIAL	12.50	30
South OR	MEDFORD	WHITE CITY	5R13	FIR-PLY	12.50	24
South OR	MEDFORD	WHITE CITY	5R14	AGATE	12.50	103
South OR	MEDFORD	WHITE CITY	5R19	3M	12.50	95
South OR	MEDFORD	WHITE CITY	5R66	4 CORNERS	12.50	1,598
South OR	MEDFORD	WHITE CITY	5R76	AVE C	12.50	91
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	414
South OR	ROSEBURG/MYRTLECREEK	CARNES	5U45	GREEN	12.50	-
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	-
South OR	ROSEBURG/MYRTLECREEK	CLOAKE	4U38	HARVARD	20.80	3,415
South OR	ROSEBURG/MYRTLECREEK	CLOAKE	4U39	GOEDECK	20.80	1,072
South OR	ROSEBURG/MYRTLECREEK	DAYS CREEK	U01	DAYS CREEK-PROSPECT CNTRL-115KV	115.00	-
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	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	-
South OR	ROSEBURG/MYRTLECREEK	DIXONVILLE	U02	DIXONVILLE-DAYS CREEK-115KV	115.00	-
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	-

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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	639
South OR	ROSEBURG/MYRTLECREEK	GARDEN VALLEY	4U81	VALLEY	20.80	1,311
South OR	ROSEBURG/MYRTLECREEK	GAZLEY	5U46	CANYONVILLE	12.50	430
South OR	ROSEBURG/MYRTLECREEK	GAZLEY	5U52	BEALS CREEK FEEDER	12.50	910
South OR	ROSEBURG/MYRTLECREEK	GLIDE SUBSTATION	5U83	IDLEYLD	12.50	1,001
South OR	ROSEBURG/MYRTLECREEK	GLIDE SUBSTATION	5U84	LITTLE RIVER	12.50	1,349
South OR	ROSEBURG/MYRTLECREEK	GREEN SUBSTATIO	5U32	SAFARI	12.50	2,272
South OR	ROSEBURG/MYRTLECREEK	GREEN SUBSTATIO	5U33	SUNNYSLOPE	12.50	1,431
South OR	ROSEBURG/MYRTLECREEK	ILLAHEE FLATS	6U13	ILLAHEE FLATS SINGLE PHASE RECLOS	7.20	27
South OR	ROSEBURG/MYRTLECREEK	LEMOLO # 1	5U920	DIAMOND LAKE	12.50	179
South OR	ROSEBURG/MYRTLECREEK	MYRTLE CREEK	5U76	SUPER Y	12.50	1,557
South OR	ROSEBURG/MYRTLECREEK	MYRTLE CREEK	5U77	BOOMER HILL	12.50	2,334
South OR	ROSEBURG/MYRTLECREEK	OAKLAND (OR)	5U11	UMPQUA	12.50	1,341
South OR	ROSEBURG/MYRTLECREEK	OAKLAND (OR)	5U12	STAGECOACH	12.50	546
South OR	ROSEBURG/MYRTLECREEK	RIDDLE	5U1	TRI CITY	12.50	1,017
South OR	ROSEBURG/MYRTLECREEK	RIDDLE	5U2	COW CREEK	12.50	1,607
South OR	ROSEBURG/MYRTLECREEK	RIDDLE	5U3	HANNA	12.50	268
South OR	ROSEBURG/MYRTLECREEK	RIDDLE-VENEER	5U23	FORD MILL	12.50	1
South OR	ROSEBURG/MYRTLECREEK	RIDDLE-VENEER	5U50	RFP-LVL (EWP)	12.00	51
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	2,667
South OR	ROSEBURG/MYRTLECREEK	ROSEBURG	4U22	DIXON	20.80	1,095
South OR	ROSEBURG/MYRTLECREEK	ROSEBURG	4U5	DOUGLAS	20.80	1,941
South OR	ROSEBURG/MYRTLECREEK	ROSEBURG	5U10	DIXON	12.50	-
South OR	ROSEBURG/MYRTLECREEK	ROSEBURG LUMBE	5U95	ROSEBURG LBR	12.50	1
South OR	ROSEBURG/MYRTLECREEK	SODA SPRINGS HE	U04	SODA SPRINGS-TOKETEE-115KV	115.00	-
South OR	ROSEBURG/MYRTLECREEK	SOUTHGATE	4U30	SHADY POINT	20.80	1,594
South OR	ROSEBURG/MYRTLECREEK	SOUTHGATE	4U31	BOOTH	20.80	1,368
South OR	ROSEBURG/MYRTLECREEK	STEAMBOAT	6U18	STEAMBOAT	7.20	21
South OR	ROSEBURG/MYRTLECREEK	SUTHERLIN	5U35	NON-PAREIL	12.50	1,322
South OR	ROSEBURG/MYRTLECREEK	SUTHERLIN	5U36	DEADY	12.50	1,307
South OR	ROSEBURG/MYRTLECREEK	SUTHERLIN	5U56	Industrial	12.50	485

Reliability Reporting 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	1,662
South OR	ROSEBURG/MYRTLECREEK	WINCHESTER	5U15	NEWTON CREEK	12.50	1,744
South OR	ROSEBURG/MYRTLECREEK	WINCHESTER	5U17	FISHER	12.50	738
South OR	ROSEBURG/MYRTLECREEK	WINCHESTER	5U19	EVANS	12.50	743
South OR	ROSEBURG/MYRTLECREEK	WINCHESTER	U10-2	WINCHESTER-GARDEN VALLEY-69KV	69.00	-
South OR	ROSEBURG/MYRTLECREEK	WINSTON	5U48	BROCKWAY	12.50	877
South OR	ROSEBURG/MYRTLECREEK	WINSTON	5U49	DILLARD	12.50	1,479
Willamette Valley	ALBANY	BPA ALBANY	WI09	BPA ALBANY-HAZELWOOD-115KV	115.00	-
Willamette Valley	ALBANY	HAZELWOOD	4M335	WEST HIGH	20.80	1,480
Willamette Valley	ALBANY	HAZELWOOD	4M336	RIVERVIEW (HAZELWOOD)	20.80	1,213
Willamette Valley	ALBANY	HAZELWOOD	WI07	HAZELWOOD-FRY-115KV	115.00	-
Willamette Valley	ALBANY	HAZELWOOD	WI10	HAZELWOOD-MARYS RIVER-115KV	115.00	-
Willamette Valley	ALBANY	JEFFERSON (OR)	4M117	MARION	20.80	729
Willamette Valley	ALBANY	JEFFERSON (OR)	4M125	MINT	20.80	2,546
Willamette Valley	ALBANY	MURDER CREEK	4M243	SCRAVEL HILL	20.80	3,720
Willamette Valley	ALBANY	MURDER CREEK	4M245	RURAL NW	20.80	1,792
Willamette Valley	ALBANY	MURDER CREEK	4M249	DURA-PACIFIC	20.80	2
Willamette Valley	ALBANY	MURDER CREEK	4M250	INDUSTRIAL	20.80	1,236
Willamette Valley	ALBANY	MURDER CREEK	5M131	WAH CHANG SOUTH	12.50	1
Willamette Valley	ALBANY	MURDER CREEK	5M132	WAH CHANG WEST	12.50	-
Willamette Valley	ALBANY	OREMET	4M295	OAK CREEK	20.80	106
Willamette Valley	ALBANY	OREMET	4M296	ROGERSDALE	20.80	3,112
Willamette Valley	ALBANY	OREMET	5M19	OREMET	12.50	3
Willamette Valley	ALBANY	OREMET	5M20	OREMET-BPA	12.50	-
Willamette Valley	ALBANY	QUEEN AVE	4M217	SANTIAM	20.80	2,006
Willamette Valley	ALBANY	QUEEN AVE	4M258	HILL STREET	20.80	2,126
Willamette Valley	ALBANY	QUEEN AVE	4M261	WAVERLY	20.80	3,338
Willamette Valley	ALBANY	QUEEN AVE	4M262	GEARY STREET	20.80	2,601
Willamette Valley	ALBANY	VINE STREET	4M15	FERRY	20.80	2,213
Willamette Valley	ALBANY	VINE STREET	4M16	WATER STREET	20.80	3,681
Willamette Valley	ALBANY	WESTERN KRAFT	5M24	WEST MAIN	12.50	1

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Willamette Valley	ALBANY	WESTERN KRAFT	5M25	EAST MAIN	12.50	1
Willamette Valley	CORVALLIS	BUCHANAN	4M130	HEWLETT PACKARD	20.80	2,454
Willamette Valley	CORVALLIS	BUCHANAN	4M133	PEORIA	20.80	2,478
Willamette Valley	CORVALLIS	BUCHANAN	4M134	N. NINTH ST.	20.80	2,599
Willamette Valley	CORVALLIS	CIRCLE BLVD	4M394	H. P. #1	20.80	-
Willamette Valley	CORVALLIS	CIRCLE BLVD	4M396	H. P. #2	20.80	-
Willamette Valley	CORVALLIS	CIRCLE BLVD	4M427	H. P. #3	20.80	-
Willamette Valley	CORVALLIS	CIRCLE BLVD	4M428	H. P. #4	20.80	-
Willamette Valley	CORVALLIS	CIRCLE BLVD	4M429	H. P. #5	20.80	-
Willamette Valley	CORVALLIS	CIRCLE BLVD	4M430	H. P. #6	20.80	-
Willamette Valley	CORVALLIS	DIXON	7M26	FOURTH ST.	4.10	201
Willamette Valley	CORVALLIS	DIXON	7M29	SECOND ST.	4.10	298
Willamette Valley	CORVALLIS	GRANT	4M265	HIGH SCHOOL	20.80	2,508
Willamette Valley	CORVALLIS	GRANT	4M266	CHINTIMINI	20.80	2,495
Willamette Valley	CORVALLIS	GRANT	4M268	KINGS ROAD	20.80	2,561
Willamette Valley	CORVALLIS	GRANT	4M269	29TH STREET	20.80	3,266
Willamette Valley	CORVALLIS	HILLVIEW	4M180	WEST HILLS	20.80	1,685
Willamette Valley	CORVALLIS	HILLVIEW	4M181	PHILOMATH	20.80	645
Willamette Valley	CORVALLIS	HILLVIEW	4M185	PLYMOUTH	20.80	2,218
Willamette Valley	CORVALLIS	MARYS RIVER	4M151	GREENBERRY	20.80	3,538
Willamette Valley	CORVALLIS	MARYS RIVER	4M152	AVERY	20.80	192
Willamette Valley	CORVALLIS	MARYS RIVER	4M153	GALLAGHER	20.80	160
Willamette Valley	COTTAGE GROVE/J.CITY	ALVEY (BPA)	WI12	BPA ALVEY-VILLAGE GREEN-115KV	115.00	-
Willamette Valley	COTTAGE GROVE/J.CITY	CALAPOOYA	WI23	CALAPOOYA-HALSEY-69KV	69.00	-
Willamette Valley	COTTAGE GROVE/J.CITY	COBURG	4M220	DETERING	20.80	521
Willamette Valley	COTTAGE GROVE/J.CITY	DIAMOND HILL	WI02-2	DIAMOND HILL-BPA ALVEY-230KV	230.00	-
Willamette Valley	COTTAGE GROVE/J.CITY	DIAMOND HILL	WI19	DIAMOND HILL-BROWNSVILLE-69KV	69.00	-
Willamette Valley	COTTAGE GROVE/J.CITY	DIAMOND HILL	WI20	DIAMOND HILL-EWEB MCKENZIE-69KV	69.00	-
Willamette Valley	COTTAGE GROVE/J.CITY	DIAMOND HILL	WI21	DIAMOND HILL-JUNCTION CITY-69KV	69.00	-
Willamette Valley	COTTAGE GROVE/J.CITY	GOSHEN (OR)	4M360	GOSHEN FDR	20.80	1,651
Willamette Valley	COTTAGE GROVE/J.CITY	HARRISBURG SUB	4M400	TERRITORIAL	20.80	1,874
Willamette Valley	COTTAGE GROVE/J.CITY	JUNCTION CITY	4M102	6TH STREET	20.80	1,169
Willamette Valley	COTTAGE GROVE/J.CITY	JUNCTION CITY	4M99	PRAIRIE ROAD	20.80	932
Willamette Valley	COTTAGE GROVE/J.CITY	LANCASTER	4M209	MONROE	20.80	1,115
Willamette Valley	COTTAGE GROVE/J.CITY	VILLAGE GREEN	4M84	NORTH SIDE	20.80	2,364

Reliability Reporting Region	Op Area Name	Substation Name	Circuit Id	Circuit Name	Kv	Customer Count
Willamette Valley	COTTAGE GROVE/J.CITY	VILLAGE GREEN	4M86	MADISON	20.80	1,606
Willamette Valley	DALLAS/INDEPENDENCE	DALLAS	4M100	RURAL (DALLAS)	20.80	4,349
Willamette Valley	DALLAS/INDEPENDENCE	DALLAS	4M201	INDUSTRIAL	20.80	38
Willamette Valley	DALLAS/INDEPENDENCE	DALLAS	4M202	ELLENDALE	20.80	2,884
Willamette Valley	DALLAS/INDEPENDENCE	DALLAS	4M238	DALLAS	20.80	2,298
Willamette Valley	DALLAS/INDEPENDENCE	INDEPENDENCE	4M22	RICKREAL	20.80	1,962
Willamette Valley	DALLAS/INDEPENDENCE	INDEPENDENCE	4M25	BUENA VISTA	20.80	3,074
Willamette Valley	DALLAS/INDEPENDENCE	MONPAC	WI05	MONPAC-BPA SALEM-115KV	115.00	-
Willamette Valley	DALLAS/INDEPENDENCE	MONPAC	WI13-2	MONPAC-VINE STREET-69KV	69.00	-
Willamette Valley	LEBANON	BROWNSVILLE	4M17	CALAPOOIA	12.50	1,898
Willamette Valley	LEBANON	CROWFOOT	4M204	CROWFOOT	20.80	1,522
Willamette Valley	LEBANON	CROWFOOT	4M206	US PLYWOOD (LEBANON)	20.80	1,741
Willamette Valley	LEBANON	FRY	WI02-1	FRY-DIAMOND HILL	230.00	-
Willamette Valley	LEBANON	FRY	WI06	FRY-MARYS RIVER-115KV	115.00	-
Willamette Valley	LEBANON	FRY	WI08	FRY-WESTERN KRAFT-115KV	115.00	-
Willamette Valley	LEBANON	FRY	WI11	FRY-FOSTER-115KV	115.00	-
Willamette Valley	LEBANON	LEBANON	4M61	TANGENT	20.80	2,454
Willamette Valley	LEBANON	LEBANON	4M62	RALSTON	20.80	2,027
Willamette Valley	LEBANON	LEBANON	4M63	TENNESSEE	20.80	1,839
Willamette Valley	LEBANON	LEBANON	4M79	CROWN Z	20.80	927
Willamette Valley	LEBANON	SWEET HOME	4M37	HOLLEY	20.80	2,041
Willamette Valley	LEBANON	SWEET HOME	4M38	NARROWS	20.80	987
Willamette Valley	LEBANON	SWEET HOME	4M93	AMES CREEK	20.80	1,703
Willamette Valley	LEBANON	SWEET HOME	4M94	FOSTER	20.80	2,292
Willamette Valley	STAYTON	NEW LYONS	4M120	MILL CITY	20.80	1,956
Willamette Valley	STAYTON	NEW LYONS	4M70	MEHAMA	20.80	980
Willamette Valley	STAYTON	NEW STAYTON	4M19	AUMSVILLE	20.80	3,104
Willamette Valley	STAYTON	NEW STAYTON	4M353	WEST STAYTON	20.80	3,431
Willamette Valley	STAYTON	NEW STAYTON	4M370	CASCADE	20.80	1,619
Willamette Valley	STAYTON	NEW STAYTON	4M50	3RD STREET	20.80	930
Willamette Valley	STAYTON	SCIO	5M126	THOMAS	12.50	1,580

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, forest techs, are required to be International Society of Arboriculture (ISA) Certified Arborists and ISA Certified Utility Specialists.

In addition, the program is founded on best 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 recent major electric grid failures, including the catastrophic blackout on August 14, 2003, were initiated by tree-caused outages on transmission lines (U.S.-Canada Power System Outage Task Force 2003).

For these reasons and others, the National Electric Safety Code ANSI 1997) 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, particularly in the case of transmission lines, 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. 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 Operating Area/Circuit or Grid Distribution Detail Status Report*
Section A reports all circuits & grids by Operating Area. All Operating Areas except Portland manage their vegetation management programs by circuits. Within Portland, such an approach is not viable; therefore a grid-approach has been adopted for management of cycles and interim work.
- *Section B Operating Area Summary Distribution & Transmission Status Report*
Section B reports all work completed, both cycle and interim for all Operating Areas within Oregon. It summarizes distribution and transmission schedule adherence, and progress against cycle goals. It also provides the percent completion of distribution progress to date (for the reporting year) within that Operating Area.
- *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 Tree Crew Productivity Measures & Benchmarks*

Section F summarizes productivity benchmarks for the year, including costs for trees worked and trees removed, and percent of trees pruned versus trees removed.

- *Section G Scheduled versus Non-Scheduled Work Measures*

Section G provides an overview of the amount of programmed cycle and interim work that was performed during the year.

Oregon AFOR Report - X1 Vegetation (A)

Feeder #	DISTRICT Grid Name	Last sched maint date (yr/qtr)	Next sched maint date (yr/qtr)	% Current Tree Condition in Compliance ?
ALBANY				
4M117	Marion (4M117)	2010/3	2012/4	100%
4M125	Mint (4M125)	2010/2	2012/4	100%
4M15	Ferry (4M15)	2010/4	2012/4	100%
4M16	Water St. (4M16)	2010/4	2012/4	100%
4M217	Santiam (4M217)	2010/4	2012/3	100%
4M243	Scravel Hill (4M243)	2009/4	2012/1	100%
4M245	Rural NW (4M245)	2009/4	2012/1	100%
4M249	Dura - Pacific	2010/4	2012/1	100%
4M250	Industrial (4M250)	2010/4	2012/3	100%
4M258	Hill Street (4M258)	2010/3	2012/3	100%
4M261	Waverly (4M261)	2010/4	2012/4	100%
4M262	Geary St. (4M262)	2010/3	2012/3	100%
4M295	Oak Creek (4M295)	2010/4	2012/4	100%
4M296	Rogersdale (4M296)	2008/4	2012/1	100%
4M335	West High (4M335)	2010/1	2012/3	100%
4M336	Riverview (4M336)	2010/1	2012/3	100%
5M131	Wah Chang South	new	2012/1	100%
5M132	Wah Chang West	new	2012/1	100%
5M19	Oremet	2010/4	2012/1	100%
5M20	Oremet - BPA	2010/4	2012/1	100%
BEND/REDMOND				
4D131	Canyon	2009/4	2011/4	100%
4D30	Crooked R R 4D30	2009/4	2011/4	100%
5D10	Portland Ave 5D10	2011/1	2013/1	100%
5D104	Awbrey 5D104	2011/2	2013/2	100%
5D106	Nez Perce 5D106	2011/2	2013/2	100%
5D11	Glen Vista 5D11	2011/1	2013/1	100%
5D12	Division St 5D12	2011/1	2013/1	100%
5D120	Chinook 5D120	2011/2	2013/2	100%
5D128	Paiute 5D128	2011/2	2013/2	100%
5D140	Lava (China Hat) 5D140	2011/2	2013/2	100%
5D142	High Desert 5D142	2010/1	2012/1	100%
5D144	DRW 5D144	2010/1	2012/1	100%
5D155	Apache 5D155	2011/2	2013/2	100%
5D184	Pronghorn 5D184	2010/1	2012/1	100%
5D192	Mackinaw	2011/2	2013/2	100%
5D2	Deschutes S 5D2	2010/1	2012/1	100%
5D21	South (Redmond) 5D21	2009/4	2011/4	100%
5D22	Industrial 5D22	2009/4	2011/4	100%
5D223	Tetherow	2010/3	2012/3	100%
5D226	Cline Falls 5D226	2010/4	2012/4	100%
5D227	Windsor 5D227	2010/1	2012/1	100%
5D228	City 5D228	2010/3	2012/3	100%
5D229	Juniper 5D229	2010/3	2012/3	100%
5D238	Wolverine 5D238 (was 5D327)	2011/1	2013/1	100%
5D241	Badger	2010/2	2012/2	100%
5D243	Black Bear	2011/2	2013/2	100%
5D261	Klondike 5D261	2011/1	2013/1	100%
5D263	Drake Feeder 5D263	2011/1	2013/1	100%
5D30	Arrowhead 5D30	2010/2	2012/2	100%
5D322	Birdie	new	2011/4	100%
5D323	Fairway	2010/3	2012/3	100%
5D325	Eagle	2010/3	2012/3	100%
5D35	Wickiup 5D35	2010/2	2012/2	100%
5D38	Tomahawk 5D38	2010/2	2012/2	100%
5D411	Bachelor	2011/1	2013/1	100%
5D413	Old Mill	2011/1	2013/1	100%
5D418	Blakely	2011/1	2013/1	100%
5D94	Teepee 5D94	2010/2	2012/2	100%
5D96	Obsidian 5D96	2010/2	2012/2	100%
5D98	Huckleberry 5D98	2010/2	2012/2	100%
CLATSOP				
5A10	Haystack (5A10)	2010/4	2012/4	100%
5A15	City (5A15)	2010/1	2011/4	100%
5A16	Mill (5A16)	2010/1	2011/4	100%
5A20	South (5A20)	2010/2	2011/4	100%
5A202	Port Dock (5A202)	2010/1	2012/1	100%
5A204	Moo Cow (5A204)	2010/4	2012/4	100%
5A205	Fifth Street (5A205)	2010/1	2012/1	100%
5A206	Youngs Bay # 6 (5A206)	2010/1	2012/1	100%
5A210	Youngs Bay #10	2010/2	2012/2	100%
5A211	Olney (5A211)	2010/2	2012/2	100%
5A213	Industrial (5A213)	2010/4	2012/4	100%
5A51	John Day (5A51)	2010/4	2012/4	100%

5A52	Scandinavian (5A52)	2010/4	2012/4	100%
5A8	Ecola (5A8)	2010/1	2012/1	100%
5A80	Grove (5A80)	2010/3	2012/3	100%
5A81	Central	2010/4	2012/4	100%
5A82	Necanicum (5A82)	2010/3	2012/3	100%
5A83	Gearhart (5A83)	2011/1	2013/1	100%
5A92	Svensen (5A92)	20011/1	2013/1	100%
5A93	Bradwood (5A93)	20011/1	2013/1	100%
COOS BAY				
4C106	Coos River (4C106)	2012/1	2014/1	100%
4C108	Empire (4C108)	2010/1	2010/1	100%
4C112	Woodland (4C112)	2010/1	2012/4	100%
4C36	North (4C36)	2010/3	2012/3	99%
4C37	Maple Street (4C37)	2010/3	2013/1	99%
4C41	Henry Street (4C41)	2010/4	2012/3	99%
4C42	Terres Heights (4C42)	2010/4	2012/4	100%
4C43	Industrial (4C43)	2010/4	2012/4	100%
4C48	City Center (4C48)	2008/4	2012/2	100%
4C49	Eastside (4C49)	2011/4	2013/4	100%
4C5	Georgia-Pacific (4C5)	2008/3	2012/3	99%
4C50	Bunkerhill (4C50)	2011/2	2013/2	100%
4C66	Bayshore (4C66)	2010/1	2012/2	100%
4C67	Industrial (4C67)	2010/1	2012/2	100%
4C86	Bangor (4C86)	2009/3	2012/3	100%
4C89	Scott (4C89)	2010/1	2012/3	99%
4C90	Charleston (4C90)	2009/3	2012/2	100%
4C97	Englewood (4C97)	2011/4	2014/1	100%
5C6	Sand Dunes (5C6)	2007/2	2012/4	99%
5C9	Douglas Chip (5C9)	2007/2	2012/3	99%
L804	Bandon (L804)	2011/3	2013/3	100%
CORVALLIS				
4M130	Hew Packard (4M130)	2010/2	2012/2	100%
4M133	Peoria (4M133)	2010/2	2012/3	100%
4M134	North Ninth (4M134)	2010/2	2012/3	100%
4M151	Greenberry (4M151)	2010/3	2012/3	100%
4M152	Avery (4M152)	2009/3	2012/2	100%
4M153	Gallagher (4M153)	2009/3	2012/2	100%
4M180	West Hills (4M180)	2009/3	2012/2	100%
4M181	Philomath (4M181)	2010/1	2012/2	100%
4M182	Sunset (4M182)	2009/3	2012/2	100%
4M185	Plymouth (4M185)	2009/2	2012/2	100%
4M265	High School (4M265)	2009/2	2012/2	100%
4M266	Chintimini (4M266)	2010/2	2012/3	100%
4M268	Kings Road (4M268)	2009/1	2012/2	100%
4M269	29th Street (4M269)	2009/1	2012/2	100%
7M10	Tyler (7M10)	2009/2	2012/2	100%
7M26	Fourth (7M26)	2009/3	2012/2	100%
7M29	Second (7M29)	2009/3	2012/2	100%
COTTAGE GROVE/JUNCTION CITY				
4M102	6th Street (4M102)	2010/2	2012/3	100%
4M209	Monroe (4M209)	2010/2	2012/3	100%
4M220	Detering (4M220)	2009/1	2012/2	100%
4M360	Goshen (4M360)	2009/3	2011/4	100%
4M400	Territorial (4M400)	2010/2	2012/2	100%
4M84	North Side (4M84)	2009/3	2011/4	100%
4M86	Madison (4M86)	2009/3	2011/4	100%
4M99	Prairie Road (4M99)	2010/2	2012/2	100%
DALLAS				
4M100	Rural (4M100)	2009/3	2011/3	100%
4M201	Industrial (4M201)	2009/3	2011/3	100%
4M202	Ellendale (4M202)	2009/1	2011/3	100%
4M22	Rickreall (4M22)	2009/2	2012/2	100%
4M238	Dallas (4M238)	2009/2	2011/3	100%
4M25	Buena Vista (4M25)	2009/3	2012/2	100%
ENTERPRISE				
4W14	Pallette North 4W14	2009/3	2011/3	100%
4W15	Pallette South	2010/2	2012/2	100%
4W8	Creightin Ln 4W8	2010/2	2012/2	100%
5W15	City 5W15	2010/2	2012/3	100%
5W18	Minam 5W18	2009/2	2011/3	100%
5W21	Praire 5W21	2010/2	2012/3	100%
5W26	Rural (Enterprise) 5W26	2009/4	2011/4	100%
5W28	City 5W28	2009/4	2011/4	100%
GRANTS PASS				
4R33	Elk (4R33)	2007/2	2012/1	100%
4R34	Bear (4R34)	2008/4	2012/1	100%
4R7	Evans Valley (4R7)	2009/1	2012/1	100%
5R104	Savage St (5R104)	2009/4	2012/2	100%
5R105	Beacon St (5R105)	2010/1	2012/1	99%

5R106	O'Brien (5R106)	2010/3	2012/4	99%
5R114	Fruitdale (5R114)	2009/4	2012/2	100%
5R115	Allen Ck (5R115)	2010/1	2012/2	100%
5R121	New Hope (5R121)	2009/4	2012/1	100%
5R123	"G" St (5R123)	2008/4	2011/3	100%
5R125	Rogue (5R125)	2010/1	2012/1	100%
5R133	Glendale (5R133)	2011/1	2012/1	100%
5R143	Industrial (5R143)	2011/3	2013/3	100%
5R164	Express (5R164)	2009/4	2012/2	100%
5R169	Portola (5R169)	2010/1	2012/2	100%
5R172	Spaulding Mill (5R172)	2010/1	2012/3	100%
5R173	Jones Ck (5R173)	2010/2	2012/3	100%
5R232	Merlin Hugo (5R232)	2012/1	2014/1	100%
5R234	Paradise (5R234)	2009/4	2012/2	99%
5R248	Pleasant Valley (5R248)	2012/1	2014/1	100%
5R251	Badger (5R251)	2011/4	2013/4	100%
5R259	Chinook (5R259)	2010/2	2012/3	100%
5R267	Murphy (5R267)	2010/1	2012/3	99%
5R278	Highway (5R278)	2011/4	2013/2	100%
5R295	Quail (5R295)	2011/3	2013/4	100%
5R322	Anteater (5R322)	2011/3	2013/3	100%
5R52	Free & Easy (5R52)	2010/4	2012/4	100%
5R53	Rough & Ready (5R53)	2011/4	2013/4	100%
5R62	Wild Prairie (5R62)	2011/2	2013/3	100%
5R63	Wood River (5R63)	2011/4	2014/1	100%
5R65	Deer Ck (5R65)	2011/3	2013/4	100%
5R67	North South (5R67)	2010/2	2012/2	100%
5R77	Savage Wimer (5R77)	2010/2	2012/2	100%
5R78	Rocky Pt (5R78)	2009/4	2012/2	100%
5R82	Washington (5R82)	2010/1	2012/2	100%
5R98	Manzanita (5R98)	2011/4	2013/4	100%
5R99	Caveman (5R99)	2010/1	2012/2	100%
HERMISTON				
4K30	Willow Creek		2011/3	100%
4K40	Sim/Tag	2009/3	2011/3	100%
4K46	Boeing 4K46	2010/4	2012/4	100%
5K25	Arlington 5K25	2009/3	2011/3	100%
5K40	Blalock 5K40	2009/3	2011/3	100%
5W602	Rural (Hermiston) 5W602	2010/4	2012/4	100%
5W658	Umatilla 5W658	2010/4	2012/4	100%
5W660	McNary 5W660	2010/4	2012/4	100%
5W664	Port Feeder 5W664	2010/4	2012/4	100%
5W80	Simplot 5W80	2009/3	2011/3	100%
5W82	Meadows 5W82	2009/3	2011/3	100%
HOOD RIVER				
4K1	Sherman 208	2009/3	2011/3	100%
5K37	Residential 5K37	2009/4	2011/4	100%
5K43	Belmont 5K43	2010/2	2012/2	100%
5K44	North (Hood River) 5K44	2009/1	2011/2	90%
5K50 No	Oakgrove 5K50 No	2010/4	2012/4	100%
5K50 So	Oakgrove 5K50 So	2010/1	2012/1	100%
5K70	Eastside 5K70	2010/4	2012/4	100%
5K74	South (Hood River) 5K74	2009/1	2011/3	90%
6K1	Kent 6K1	2008/2	2010/4	100%
7K1	Wasco 7K1	2010/4	2012/4	100%
8K4	Grass Valley City 8K4	2010/4	2012/4	100%
8K6	Moro 8K6	2009/3	2011/3	100%
KLAMATH FALLS				
4L16	Langell Vly (4L16)	2011/3	2013/3	100%
4L50	Rocky Point (4L50)	2010/2	2012/2	100%
5L1	Beatty (5L1)	2010/3	2012/3	99%
5L113	Tower (5L113) New Feeder, Was 5L35	2010/1	2012/4	99%
5L12	Orindale (5L12)	2010/1	2012/1	99%
5L14	Town (5L14)	2011/2	2013/2	100%
5L15	California (5L15)	2010/1	2012/1	99%
5L16	Main St.(5L16)	2010/1	2012/1	100%
5L17	Pine St (5L17)	2010/1	2012/1	100%
5L18	Riverside (5L18)	2010/1	2012/1	99%
5L19	Lakeshore	2011/4	2013/4	100%
5L2	Gary St (5L2)	2011/4	2013/4	100%
5L20	Malin City (5L20)	2010/3	2012/4	99%
5L23	Rural (5L23)	2010/3	2012/4	99%
5L26	Lake (Merrill) (5L26)	2011/2	2013/2	100%
5L27	North (5L27)	2011/2	2013/2	100%
5L3	Washburn (5L3)	2009/2	2012/1	100%
5L36	Modoc (5L36)	2010/4	2012/3	99%
5L37	Williamson (5L37)	2011/2	2012/2	99%
5L4	Summers Lane (5L4)	2011/4	2013/4	100%
5L42	Swan Lake (5L42)	2010/4	2012/4	99%

5L43	Dairy (5L43)	2011/3	2013/3	100%
5L44	Homedale (5L44)	2011/4	2013/4	100%
5L45	Crystal Spring (5L45)	2011/3	2013/3	100%
5L46	Eldorado (5L46)	2011/1	2013/1	100%
5L48	Broad Street (5L48)	2011/1	2013/1	100%
5L49	Wocus (5L49)	2010/1	2012/1	99%
5L5	Moyina Heights (5L5)	2009/4	2012/1	100%
5L54	South (5L54)	2010/1	2012/1	100%
5L55	Keno (5L55)	2010/4	2012/4	99%
5L56	Mountain (5L56)	2011/3	2013/3	100%
5L57	Chilo Market (5L57)	2010/2	2012/2	100%
5L58	Henley (5L58)	2010/1	2012/3	99%
5L59	West (5L59)	2010/1	2012/2	99%
5L61	Jeldwen (5L61)	2011/4	2013/4	100%
5L63A	Town (5L63)	2010/1	2012/2	100%
5L64A	Dorris (OR) (5L64)	2010/1	2012/2	100%
5L7	Poe Valley (5L7)	2011/1	2013/1	100%
5L8	Sprague River (5L8)	2010/3	2012/3	100%
7L23	Orchard St (cust on 7L25 & 5L3 now)	2009/2	2011/4	99%
7L25	Shasta Way (7L25)	2011/4	2013/4	100%
7L9	Boise Cascade (7L9) - Now on 7L25.	2011/2		100%
8L10	City Water Pump (8L10)	2010/1	2012/1	100%
LAKEVIEW				
5L100	South (5L100)	2011/2	2013/2	100%
5L104	Industrial (5L104)	2011/2	2013/2	100%
5L105	Business (5L105)	2011/2	2013/2	100%
LEBANON				
4M17	Calapooia (4M17)	2009/1	2012/1	100%
4M204	Crowfoot (4M204)	2010/3	2013/2	100%
4M206	US Plywood (4M206)	2010/3	2012/4	100%
4M37	Holley (4M37)	2010/4	2013/1	100%
4M38	Narrows (4M38)	2011/2	2013/1	100%
4M61	Tangent (4M61)	2009/3	2011/3	100%
4M62	Ralston (4M62)	2009/3	2011/4	100%
4M63	Tennessee (4M63)	2009/1	2011/3	100%
4M79	Crown Z (4M79)	2010/3	2012/4	100%
4M93	Ames Creek (4M93)	2011/2	2013/2	100%
4M94	Foster (4M94)	2010/4	2013/2	100%
LINCOLN CITY				
4A310	Inland (4A310)	2010/1	2012/1	100%
4A312	Ocean (4A312)	2010/1	2012/1	100%
4A316	Lake (4A316)	2010/2	2012/1	100%
4A338	Siuslaw (4A338)	2010/1	2012/1	100%
7A354	Wecoma (7A354)	2010/1	2012/1	100%
7A362	Cutler City (7A362)	2010/1	2012/1	100%
7A364	Gleneden (7A364)	2010/1	2012/1	100%
7A366	Salishan (7A366)	2010/1	2012/1	100%
7A390	Nelscott (7A390)	2010/1	2012/1	100%
R136	Boyer (R-136)	2010/2	2012/1	100%
MADRAS/PRINEVILLE				
4D68	Warm Springs (OR) 4D68	2009/4	2011/3	100%
5D1	Powell Butte 5D1	2010/3	2012/3	100%
5D126	Rimrock 5D126	2009/2	2011/3	100%
5D167	Northville 5D167	2009/2	2011/3	100%
5D25	Ochoco 5D25	2009/3	2011/3	100%
5D295	7 Peaks 5D295	2010/4	2012/4	100%
5D47	McKay (Prineville) 5D47	2010/3	2012/3	100%
5D48	Lamonta 5D48	2009/2	2011/4	100%
5D5	Culver 5D5	2011/1	2012/4	100%
5D50	Pine Cone 5D50	2009/2	2011/4	100%
5D52	Madras Rural 5D52	2010/4	2012/4	100%
5D53	Agate 5D53	2010/4	2012/4	100%
5D57	Quartz 5D57	2009/4	2011/4	100%
5D61	Madras City 5D61	2009/4	2011/4	100%
5D69	Grimes Flat 5D69	2009/3	2011/3	100%
MEDFORD				
4R1	Salmon (4R1)	2011/1	2013/1	100%
4R13	Henry Miller (4R13)	2011/3	2013/3	100%
4R35	Meadows Rd (4R35)	2011/4	2012/2	99%
4R41	Antelope (4R41)	2010/4	2012/4	99%
4R9	Lost Ck (4R9)	2010/4	2013/1	99%
5R1	Kogap (5R1)	2010/3	2012/3	100%
5R103	Gold Hill (5R103)	2009/1	2012/1	98%
5R11	Eagle Pt (5R11)	2011/3	2013/3	100%
5R110	McLaughlin (5R110)	2010/1	2012/4	99%
5R118	Springbrook (5R118)	2010/4	2012/4	99%
5R12	Industrial (5R12)	2010/2	2012/1	100%
5R13	Fir Ply (5R13)	2010/4	2012/3	100%
5R135	Roberts (5R135)	2010/4	2012/4	99%

5R14	Agate (5R14)	2011/4	2013/4	100%
5R146	King Ctr (5R146)	2010/1	2012/3	100%
5R174	Upton (5R174)	2010/1	2013/1	99%
5R180	Head Rd (5R180)	2011/3	2013/3	100%
5R182	Taylor Rd. (5R182)	2010/1	2013/1	99%
5R184	Cheney (5R184)	2011/4	2012/1	99%
5R19	3M (5R19)	2010/3	2012/1	100%
5R2	Riverside (5R2)	2010/2	2012/3	100%
5R204	Hull Rd (5R204)	2009/2	2012/2	99%
5R206	Griffin Ck (5R206)	2009/2	2012/3	99%
5R209	Timber Products (5R209)	2010/2	2012/3	100%
5R21	Melrose (5R21)	2011/3	2012/1	99%
5R211	Columbus (5R211)	2010/1	2013/1	99%
5R216	Voorhies (5R216)	2011/3	2013/3	100%
5R218	Phoenix (5R218)	2011/1	2013/1	100%
5R226	Boise (5R226)	2010/1	2013/1	100%
5R227	Fern Valley (5R227)	2011/3	2012/1	100%
5R23	Spring St (5R23)	2011/3	2012/1	100%
5R237	Talent (5R237)	2011/4	2012/2	99%
5R238	Anderson Ck (5R238)	2009/3	2012/3	99%
5R239	Hartley Rd (5R239)	2009/2	2012/1	99%
5R240	North Hwy (5R240)	2011/4	2012/2	99%
5R245	Valley View (5R245)	2010/4	2013/1	99%
5R250	Big Y (5R250)	2011/3	2012/1	100%
5R252	Hillcrest (5R252)	2010/3	2013/1	99%
5R253	Apple (5R253)	2011/3	2012/1	100%
5R257	Pear (5R257)	2011/4	2012/1	100%
5R27	McAndrews (5R27)	2010/1	2012/3	99%
5R28	Ross (5R28)	2010/1	2012/1	99%
5R284	Stage Rd (5R284)	2010/1	2012/3	99%
5R285	Jacksonville Hwy (5R285)	2010/2	2013/1	99%
5R29	Edwards (5R29)	2010/3	2012/4	99%
5R3	Barnett (5R3)	2010/2	2012/3	100%
5R305	Webfoot (5R305)	2010/1	2012/3	100%
5R312	Cobra	2010/2	2013/1	100%
5R32	Roxy (5R32)	2011/2	2013/2	100%
5R33	Crater Lk (5R33)	2011/2	2013/2	100%
5R350	St Bernard	2010/1	2013/1	100%
5R354	Racoon (5R354)	2011/4	2013/2	100%
5R359	Beehive	2010/1	2012/3	100%
5R361	Bulldog	2010/1	2013/2	100%
5R364	Bobcat	2010/1	2013/2	100%
5R38	Hospital (5R38)	2010/2	2012/3	100%
5R39	Pierce (5R39)	2011/3	2012/3	99%
5R40	New Cascade (5R40)	2010/4	2013/2	99%
5R47	Stewart (5R47)	2009/3	2012/1	99%
5R55	Siskiyou (5R55)	2011/1	2013/1	99%
5R659	McLean (5R659)	2011/4	2012/1	100%
5R66	4 Corners (5R66)	2010/3	2012/1	100%
5R67X	North South (5R67)	2010/4	2012/4	99%
5R68	Applegate (5R68)	2011/2	2013/2	100%
5R69	Ruch (5R69)	2010/4	2012/4	99%
5R75	Sunrise (5R75)	2011/2	2013/2	100%
5R76	Ave C (5R76)	2010/2	2012/2	100%
5R87	Table Rock (5R87)	2011/4	2012/2	99%
5R88	Dodge Bridge (5R88)	2011/4	2012/1	99%
5R90	Table Rock Lbr (5R90)	2011/3	2013/3	100%
5R91	Sams Valley (5R91)	2011/2	2013/2	100%
5R92	Kirtland Rd (5R92)	2011/3	2012/1	100%
7R150	SE Power	closed	closed	closed
7R5	Prospect (7R5)	2010/4	2013/2	99%
R11-1	Central	closed	closed	closed
MILTON-FREEWATER				
5W105A	5W105	2010/4	2012/4	100%
5W106A	5W106	2010/4	2012/4	100%
5W120A	(OR)5W120	2010/4	2012/4	100%
5W124A	(OR)5W124	2010/4	2012/4	100%
5W16A	(OR)5W16	2010/4	2012/4	100%
5W50A	(OR)5W50	2010/4	2012/4	100%
PENDLETON				
5W201	State Hospital 5W201	2010/1	2012/1	100%
5W202	Reith 5W202	2010/1	2012/1	100%
5W203	Montee 5W203	2010/1	2012/1	100%
5W40	Weston Cannery 5W40	2010/1	2012/1	100%
5W401	Werst Hills 5W401	2011/2	2013/2	100%
5W402	Harris Hts 5W402	2011/1	2013/1	100%
5W403	Mission 5W403	2011/1	2013/1	100%
5W406	Pilot Rock City 5W406	2010/1	2012/2	100%
5W7	Scotts Feeder 5W7	2010/1	2012/1	100%
5W703	City 5W703	2011/1	2013/1	100%

5W705	Helix 5W705	2011/1	2013/1	100%
7W451	Business 7W451	2010/1	2012/1	100%
7W452	Northwest 7W452	2010/1	2012/1	100%
7W453	Southwest (Pendleton) 7W453	2010/1	2012/1	100%
7W454	East End 7W454	2010/1	2012/1	100%
ROSEBURG/MYRTLECREEK				
4U10	Diamond (4U10)	2008/3	2012/3	99%
4U18	Wilbur (4U18)	2010/2	2012/4	99%
4U22	Dixon (4U22)	2008/4	2012/2	99%
4U30	Shady Point (4U30)	2008/4	2012/4	99%
4U31	Booth (4U31)	2008/3	2012/4	99%
4U37	Rusa (mostly underground)	2009/4	2012/4	99%
4U38	Harvard (4U38)	2010/1	2013/1	100%
4U39	Goedeck (4U39)	2009/4	2012/2	100%
4U5	Douglas (4U5)	2010/2	2013/1	100%
4U80	Edenbower (4U80)	2010/2	2013/1	100%
4U81	Valley (4U81)	2009/3	2012/2	100%
5U1	Tri City (5U1)	2011/2	2013/3	99%
5U11	Umpqua (5U11)	2010/2	2013/1	99%
5U12	Stagecoach (5U12)	2008/4	2012/4	99%
5U15	Newton Creek (5U15)	2008/3	2012/4	99%
5U17	Fisher (5U17)	2008/3	2012/4	99%
5U19	Evans (5U19)	2010/1	2013/2	100%
5U2	Cow Creek (5U2)	2011/3	2013/3	100%
5U3	Hanna (5U3)	2011/2	2013/2	100%
5U32	Safari (5U32)	2010/4	2012/4	100%
5U33	Sunny Slope (5U33)	2008/4	2012/4	99%
5U35	Non Paniel (5U86)	2008/3	2012/3	99%
5U36	Deady (5U36)	2010/2	2012/4	99%
5U44	Round Prairie (5U44)	2011/1	2013/1	100%
5U46	Canyonville (5U46)	2012/1	2014/2	100%
5U48	Brockway (5U48)	2010/2	2013/1	99%
5U49	Dillard (5U49)	2010/2	2013/1	99%
5U50	RFP-LVL (EWP) Ken Ford	2011/2	2013/4	100%
5U52	Beals Creek (5U52)	2011/1	2013/2	100%
5U56	Industrial split off of 5U36, trimmed at same time	2010/2	2012/2	100%
5U76	Super Y (5U76)	2012/1	2014/4	100%
5U77	Boomer Hill (5U77)	2012/1	2014/4	100%
5U83	Idleyld (5U83)	2009/4	2012/1	100%
5U84	Little River (5U84)	2010/1	2012/1	100%
5U88	Milo Drew (5U88)	2011/1	2013/3	100%
5U89	Jackson Creek (5U89)	2010/4	2013/2	100%
5U920	Diamond Lake (5U920)	2009/4	2012/4	99%
6U12	Slide Creek (6U12)	2010/3	2012/3	100%
6U13	Dry Creek (6U13)	2010/1	2013/1	99%
6U17	Briggs (6U17)	2009/4	2012/2	100%
6U18	Steamboat (6U18)	2009/1	2013/1	99%
6U21	Clearwater 6U33 backup(done with 6U33)	2008/4	2012/2	100%
6U33	Clearwater (6U33)	2008/4	2012/2	100%
8U12	Toketee City (8U12)	2008/4	2012/2	100%
STAYTON				
4M120	Mill City (4M120)	2011/2	2013/2	100%
4M19	Aumsville (4M19)	2010/4	2012/4	100%
4M353	W Stayton (4M353)	2010/4	2012/4	100%
4M370	Cascade (4M370)	2011/1	2013/1	100%
4M50	Third Street (4M50)	2010/4	2012/4	100%
4M70	Mehama (4M70)	2011/2	2013/2	100%
5M126	Thomas Crk (5M126)	2011/2	2013/2	100%
PORTLAND				
	101	2010/4	2012/4	100%
	102	2010/4	2012/4	100%
	103	2010/4	2012/4	100%
	110	2010/4	2012/4	100%
	111	2010/4	2012/4	100%
	112	2010/4	2012/4	100%
	113	2009/1	2011/3	100%
	114	2009/1	2011/3	100%
	115	2009/1	2011/3	99%
	122	2009/2	2011/3	100%
	123	2009/2	2011/3	100%
	124	2009/2	2011/4	99%
	125	2009/1	2011/3	99%
	126	2010/4	2012/4	100%
	127	2009/2	2011/4	99%
	134	2009/3	2011/3	100%
	135	2009/3	2011/3	100%
	136	2009/2	2011/3	100%
	207	2011/2	2013/2	100%
	209	2010/1	2012/1	100%
	214	2010/1	2012/1	100%

215	2010/1	2012/1	100%
216	2010/2	2012/2	100%
217	2010/2	2012/2	100%
218	2011/2	2013/2	100%
219	2009/2	2011/4	99%
220	2009/3	2011/4	99%
221	2010/2	2012/2	100%
222	2010/2	2012/2	100%
227	2010/2	2012/2	100%
228	2010/2	2012/3	100%
229	2009/3	2011/3	100%
230	2009/4	2011/3	100%
231	2010/1	2012/1	100%
232	2010/1	2012/1	100%
233	2010/3	2012/3	100%
234	2010/3	2012/3	100%

OREGON
Tree Program Reporting (B)

	Distribution							Transmission						
	Total Line Miles	Line Miles Planned	Line Miles Worked	2011 Miles ahead(behind) Planned	% of 2011 Miles Compared to Schedule	2008-'11 Miles Worked	% 2008-'11 Cycle on Schedule	Total Line Miles	Line Miles Planned	Line Miles Worked	Miles ahead(behind) Planned	Miles on Cycle Schedule	% of Miles Compared to Schedule	% of Cycle ahead(behind) Schedule
Josh Hooley - Forester														
ALBANY	705	176	0	(176)	0%	460	65%	67	2	2	0	67	100%	100%
CORVALLIS	291	73	0	(73)	0%	54	19%	34			0	34		100%
COTTAGE GROVE	59	15	22	7	149%	52	88%	57	6	8	2	59	127%	100%
DALLAS	406	102	107	6	105%	231	57%	55			0	55		100%
JUNCTION CITY	155	39	0	(39)	0%	0	0%	54			0	54		100%
LEBANON	610	153	197	45	129%	335	55%	46	0	7	7	53	2114%	100%
LINCOLN CITY	181	45	0	(45)	0%	36	20%	41	1		(1)	40		98%
STAYTON	423	106	0	(106)	0%	438	104%	91	0	29	29	120		100%
FORESTER TOTAL	2,830	708	326	(382)	46%	1,606	57%	446	9	46	37	482	506%	100%
Joe Partridge - Forester														
COOS BAY	715	179	52	(127)	29%	497	70%	75	5	10	5	80	200%	100%
GRANTS PASS	1,673	418	177	(241)	42%	1214	73%	221	67.01	68.15	1	222	102%	100%
ROSEBURG	1,238	310	187	(123)	60%	1018	82%	420	46	43	(3)	417	93%	99%
FORESTER TOTAL	3,626	907	416	-491	46%	2,729	75%	716	118	121	3	719	103%	100%
Lorelei Phillips - Forester														
KLAMATH FALLS	1,853	463	428	(35)	92%	1821	98%	538	8.3	17.3	9	547	208%	100%
LAKEVIEW	68	17	28	11	165%	71	104%	106	0	0	0	106		100%
MEDFORD	1,872	468	176	(292)	38%	1412	75%	342	67.6	108.35	41	383	160%	100%
FORESTER TOTAL	3,793	948	632	(316)	67%	3,304	87%	986	75.9	125.65	50	1036	166%	100%
Ken Armstrong - Forester														
CENTRAL OREGON	1,352	338	209	(129)	62%	1150	85%	123	1	14	13	136		100%
CLATSOP	414	104	90	(14)	87%	345	83%	58	0	0	0	58		100%
ENTERPRISE	435	109	109	0	100%	430	99%	42	0	0	0	42		100%
HERMISTON	248	62	24	(38)	39%	204	82%	82	0	0	0	82		100%
HOOD RIVER	324	81	44	(37)	54%	291	90%	30	0	4	4	34		100%
PENDLETON	584	146	187	41	128%	624	107%	80	0	25	25	105		100%
PORTLAND	434	217	159	(58)	73%	330	76%	28	13	13	0	28	100%	100%
WALLA WALLA	144	36	0	(36)	0%	291	202%	22	0	0	0	22		100%
VARIOUS MAIN GRID LINES								485	73	27	(46)	439	37%	91%
FORESTER TOTAL	3,935	1,092	822	(270)	75%	3,665	93%	950	87	83	(4)	946	95%	100%
TOTAL	14,184	3,655	2,196	(1,459)	60%	11,304	80%	3,098	290	375	85	3,184	129%	100%

Note that distribution 2011 cycle progress and miles on cycle schedule represent completed cycle miles for both regular and interim cycle mile totals

**OREGON
Tree Program Reporting (C)**

	2012 est. ^{1,2}	2013 est. ^{1,2}	2014 est. ^{1,2}	2015 est. ^{1,2}	2016 est. ^{1,2}	2017 est. ^{1,2}
Distribution						
Tree Budget	16,666,135	15,831,710	16,322,493	16,828,490	16,828,490	16,828,490
Transmission						
Tree Budget	3,033,067	3,323,977	3,427,020	3,533,258	3,533,258	3,533,258
Total Tree Budget	\$ 19,699,202	\$ 19,155,687	\$ 19,749,513	\$ 20,361,748	\$ 20,361,748	\$ 20,361,748

	FY2006	CY2007	CY2008	CY2009	CY2010	CY2011
Distribution						
Tree Actuals	\$ 16,033,111	\$ 15,719,793	\$ 15,350,304	13,846,144	14,064,912	13,853,185
Transmission						
Tree Actuals	\$ 1,868,890	\$ 2,138,502	\$ 2,820,632	3,033,066	3,125,438	3,762,895
Total Tree Actuals	\$ 17,902,001	\$ 17,858,295	\$ 18,170,935	\$ 16,879,210	\$ 17,190,350	\$ 17,616,080

Calendar year 2011	Distribution			Transmission		
	Actuals	Budget	Variance	Actuals	Budget	Variance
Jan	\$ 1,212,035	1,203,845	\$ 8,190	\$ 220,223	\$ 195,881	\$ 24,342
Feb	\$ 894,391	1,089,193	\$ (194,802)	\$ 236,647	\$ 200,821	\$ 35,826
Mar	\$ 1,356,018	1,318,497	\$ 37,521	\$ 208,117	\$ 253,155	\$ (45,038)
Apr	\$ 1,138,289	1,203,845	\$ (65,556)	\$ 241,711	\$ 275,314	\$ (33,603)
May	\$ 1,380,475	1,203,845	\$ 176,630	\$ 312,454	\$ 282,535	\$ 29,919
Jun	\$ 1,277,458	1,261,171	\$ 16,287	\$ 422,887	\$ 244,330	\$ 178,557
Jul	\$ 1,177,220	1,146,519	\$ 30,701	\$ 472,764	\$ 325,277	\$ 147,487
Aug	\$ 1,182,386	1,318,497	\$ (136,111)	\$ 438,395	\$ 308,888	\$ 129,507
Sep	\$ 1,216,555	1,203,845	\$ 12,710	\$ 346,337	\$ 301,607	\$ 44,730
Oct	\$ 1,110,071	1,203,845	\$ (93,774)	\$ 370,716	\$ 256,428	\$ 114,288
Nov	\$ 911,445	1,089,193	\$ (177,748)	\$ 222,813	\$ 196,006	\$ 26,807
Dec	\$ 996,841	\$ 1,203,845	\$ (207,004)	\$ 269,830	\$ 192,825	\$ 77,005
Total	\$ 13,853,185	\$ 14,446,140	\$ (592,955)	\$ 3,762,895	\$ 3,033,067	\$ 729,828

Average # Tree Crews on Property (YTD)

62

¹ Amounts acquired from Vegetation Management ten year plan.

² 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	4
# Readily climbable trees reported	0
# Readily climbable trees corrected	1

E. Service Reliability

# Non-preventable tree related outages	1,469
# Preventable tree related outages	10
# Total tree related outages	1,479

F. Tree Crew Productivity and Benchmarking (overall)

Average Cost per tree worked	\$ 33.30
Average Cost per tree pruned	\$ 75.52
Average Cost per tree removed	\$ 11.74
Percent tree pruned vs. trees removed	37%/63%

G. Scheduled Work vs. Non-scheduled work

Distribution non-scheduled work compared to total annual costs:	5% non-scheduled	95% scheduled
Transmission non-scheduled work compared to total annual costs:	17% non-scheduled	83% scheduled

OREGON VEGETATION INCIDENT REPORT

TREE-RELATED FIRE

1 Incident Date: 8/24/2011

Date Reported: 8/24/2011

Location: Roseburg

Address: 109 Larson Rd

City: Roseburg

Description: 12 year old cottonwood directly under power line was missed when inspected during dormant season. At time no trees were within threshold indicating need for work to be completed on this tap line. Cottonwood grew approximately 12 feet through Spring and into Summer (very rainy in the Spring), and came in contact with the primary. There was a deep layer of sawdust and duff mulch on the ground around the tree. Some embers landed on the ground and a fire started affecting a 20 foot by 30 foot area before it was extinguished.

2 Incident Date: 9/7/2011

Date Reported: 9/7/2011

Location: Line 51 115KV

Address: Lower Clearwater Village Road

City: Near Toketee Lake

Description: The top of a 17"DBH Douglas Fir came in or close to contact with line 51 (115 KV) near the maintenance shop in Toketee. A Pacific Power contracted tree crew was working near by and was able to cut the top out of the tree and dispose of the singed top. A fire was not started, but the top of the tree was singed. Despite a fire not being started, the crew did a fire watch.

3 Incident Date: 7/7/2011

Date Reported: 7/11/2011

Location: Olene

Address: 1 mile west of Swan Lake Road on HWY 140

City: Olene

Description: Live juniper tree, 36" tall and 6" in diameter, fell from outside of right of way and caused 3/4 acre fire. Oregon Department of Forestry extinguished fire. Tree appeared to have leaned due to snow load. Fire occurred in forested area with no property damage. Feeder, 5L42 had been completed 4th quarter of 2010.

4 Incident Date: 9/24/2011

Date Reported: 10/5/2011

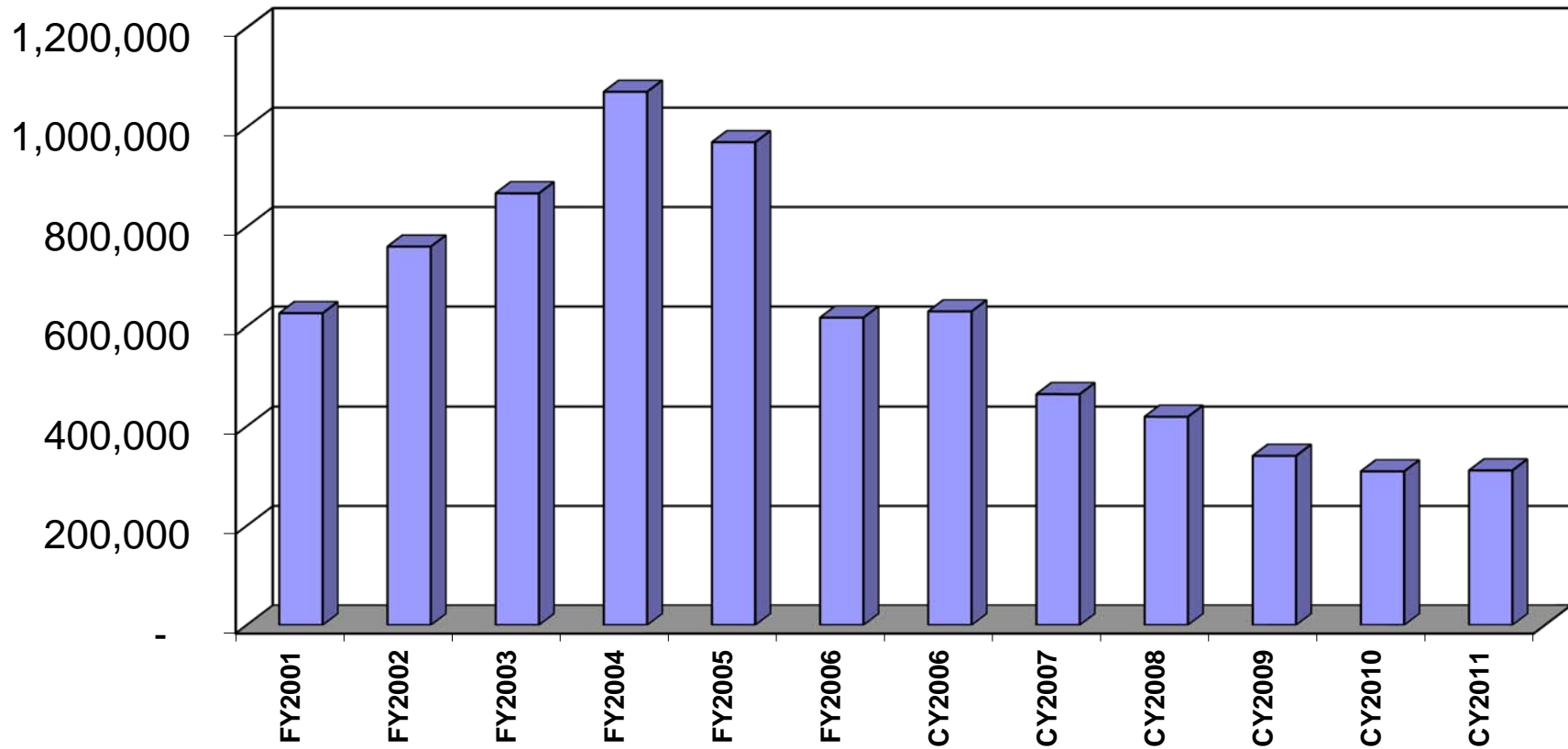
Location: 1106 Madison Street

Address: 1106 Madison Street

City: Klamath Falls

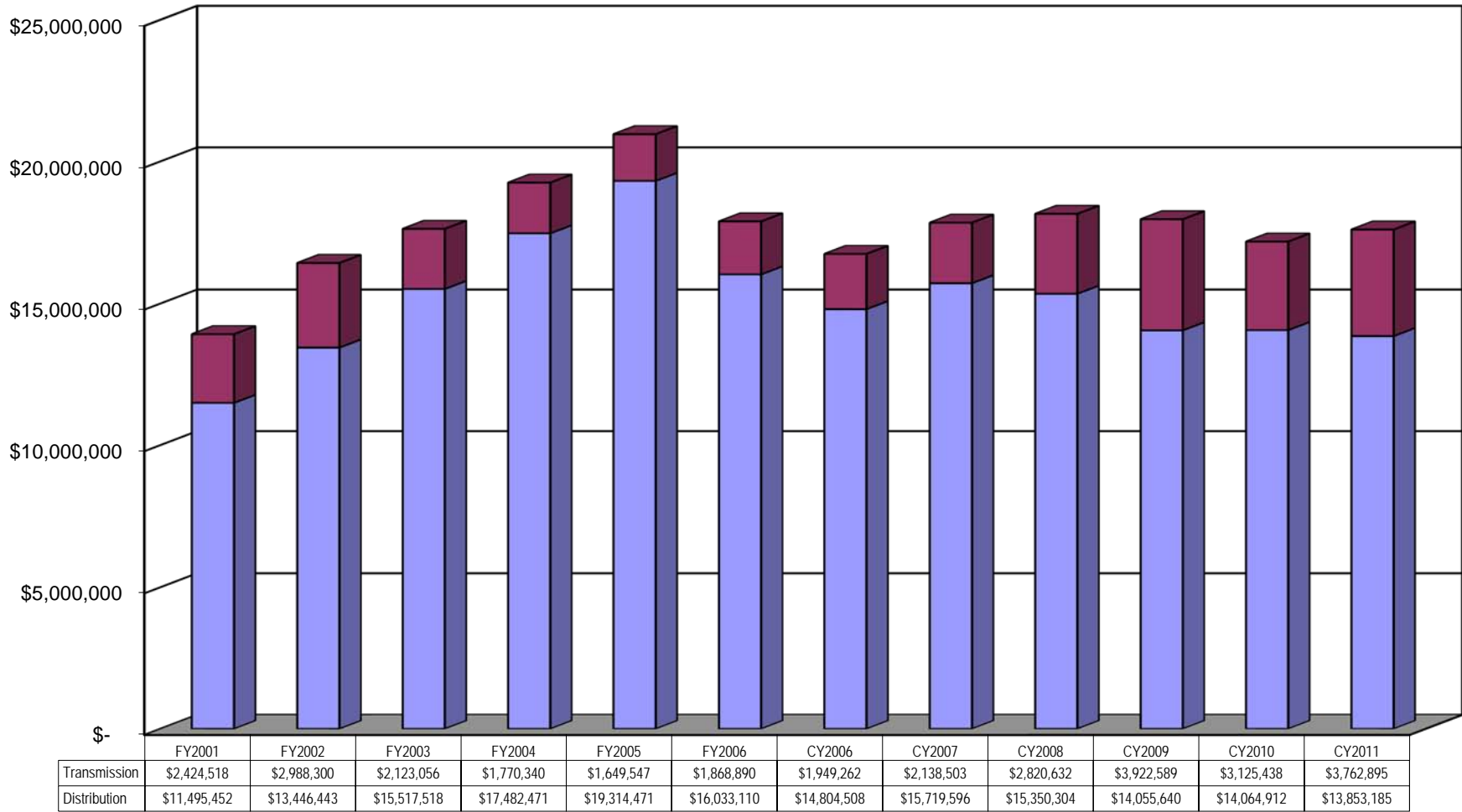
Description: Elm limb rubbed through insulation of service drop. Fire was approximately 1.5 acres in size. Customer reported damage to appliances in home and Pacific Power operations handled claim. Feeder 5L5 last worked 4th quarter of 2009.

Distribution Trees Worked



Vegetation Expenditure

■ Distribution
 ■ Transmission



X2 – INSPECTION AND MAINTENANCE PROGRAMS

Inspection and Repairs

In Calendar Year 2011, among distribution and transmission facilities (both overhead and underground), 1,241 ‘A’ Priority conditions were recorded and 1,257 were corrected.

For ‘B’ priority conditions, 24,280 were identified and 14,891 (61.3%) were corrected in CY2011.

For ‘C’ priority conditions, 10,664 were identified and 4,524 (42.4%) were corrected in CY2011.

Some condition types have been removed from the condition counts report for CY2011:

Vegetation Management:

Vegetation Management issues regarding tree trimming and tree climbing that do not pose an imminent threat are not logged into PacifiCorp’s main reporting system if found during normal line inspections. These issues are routinely and consistently resolved through the internal cyclical vegetation maintenance program managed by PacifiCorp’s Vegetation Management Department. Consequently, these conditions have been removed from the condition counts reported above for CY2011. The total vegetation conditions excluded are as follows:

TREECLMB
Identified: 2
Corrected: 6

TREETRIM
Identified: 389
Corrected: 467

Customer Issues:

All conditions for which a customer correction is required are excluded from the condition counts reported in CY2011. During CY2011 a new condition code was introduced into PacifiCorp’s main reporting system to record customer conditions. The new code CUSTRESP (Customer Responsibility) replaced the deactivated OWNERPRB code. All existing OWNERPRB conditions were changed to CUSTRESP. The total numbers of customer conditions excluded from the condition counts reported above are as follows:

OWNERPRB
Identified: 80
Corrected/Changed to CUSTRESP: 3,666

LOWWHEAD
Identified: 1,958
Corrected: 434

CUSTRESP
Identified: 1,295
Corrected: 251

Pole and Overhead Facilities

- PacifiCorp is currently on a 10-year cycle for the Detail inspection and treatment of overhead Distribution and Transmission facilities. In CY2011, 46,065 Distribution poles, 7,217 Local Transmission poles and 10,752 Main Grid Transmission poles were Detail inspected. Detail inspections were performed on 13.9% of the total 461,106 overhead facilities. Additionally 2,172 Distribution poles were given a second Detail inspection in CY2011 due to failure of the internal audit process of the initial inspection results.
- 43,218 Distribution poles, 3,121 Local Transmission poles and 739 Main Grid Transmission poles were Tested and Treated. Test and Treatment was performed on 10.2% of the total 461,106 overhead facilities.
- PacifiCorp replaced or reinforced 1,298 poles that were rejected through the inspection program. The CY2011 rejection rate was 2.43% for Distribution, 6.63% for Local Transmission and 3.52% for Main Grid Transmission. The overall reject rate for CY2011 was 2.73%.

A. Safety Survey

The drive-by survey of the Distribution and Transmission system is on a 2-year cycle. In CY2011, 221,415 Distribution poles, 32,475 Local Transmission poles and 25,082 Main Grid poles were inspected for a total of 278,972 poles which equates to 60.5% of the total overhead facilities. Random samples by operations managers were completed to ensure uniform results and adherence.

B. Underground Facilities

The inspection of underground facilities is on a 10-year cycle. It includes a detail inspection of primary underground facilities and an infrared inspection of accessible terminals and splices. During CY2011, 11,945 facilities were inspected; 10.4% of 115,361 underground facilities.

Substation Safety

Substation safety and security inspections are performed on a monthly cycle. 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. PacifiCorp met 100% of the Security inspection requirement in CY2011.

C. Marina Inspection Program

The inspection of marinas is annual. In CY2011, 100% of marinas were inspected.

D. Major Equipment Maintenance

1. Line Equipment – Overhead Reclosers, Sectionalizers, Regulators, Switches

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

2. Substation Equipment

Quarterly Inspections (items a. – h.)

Batteries, Capacitor Banks, Circuit Breakers, Switches, LTC's, Regulators, Transformers, and protective relays are inspected on a 3-month cycle. Inspection checks pressure, temperature, voltage, LTC operation, cooling equipment, insulators, relay targets, etc.

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

PacifiCorp performed 100% of the Oregon Quarterly Inspection requirement in CY2011.

Annual Operational Tests (items c, e, f, g, h)

Operation of protective relays, controls, load tap changers, regulators, and circuit breakers is performed on an annual basis. The tests include operating voltage regulating device out of band width, operating relay and circuit breaker that have not had a known proper operation within the last cycle, operating emergency power supplies and switches, etc.

Reference PacifiCorp Maintenance Policy 034 - Substation Inspection Policy and form 3274F-Substation Inspection and PacifiCorp Maintenance Policy 001-Maintenance Intervals for Apparatus, Relay, and Communications Equipment.

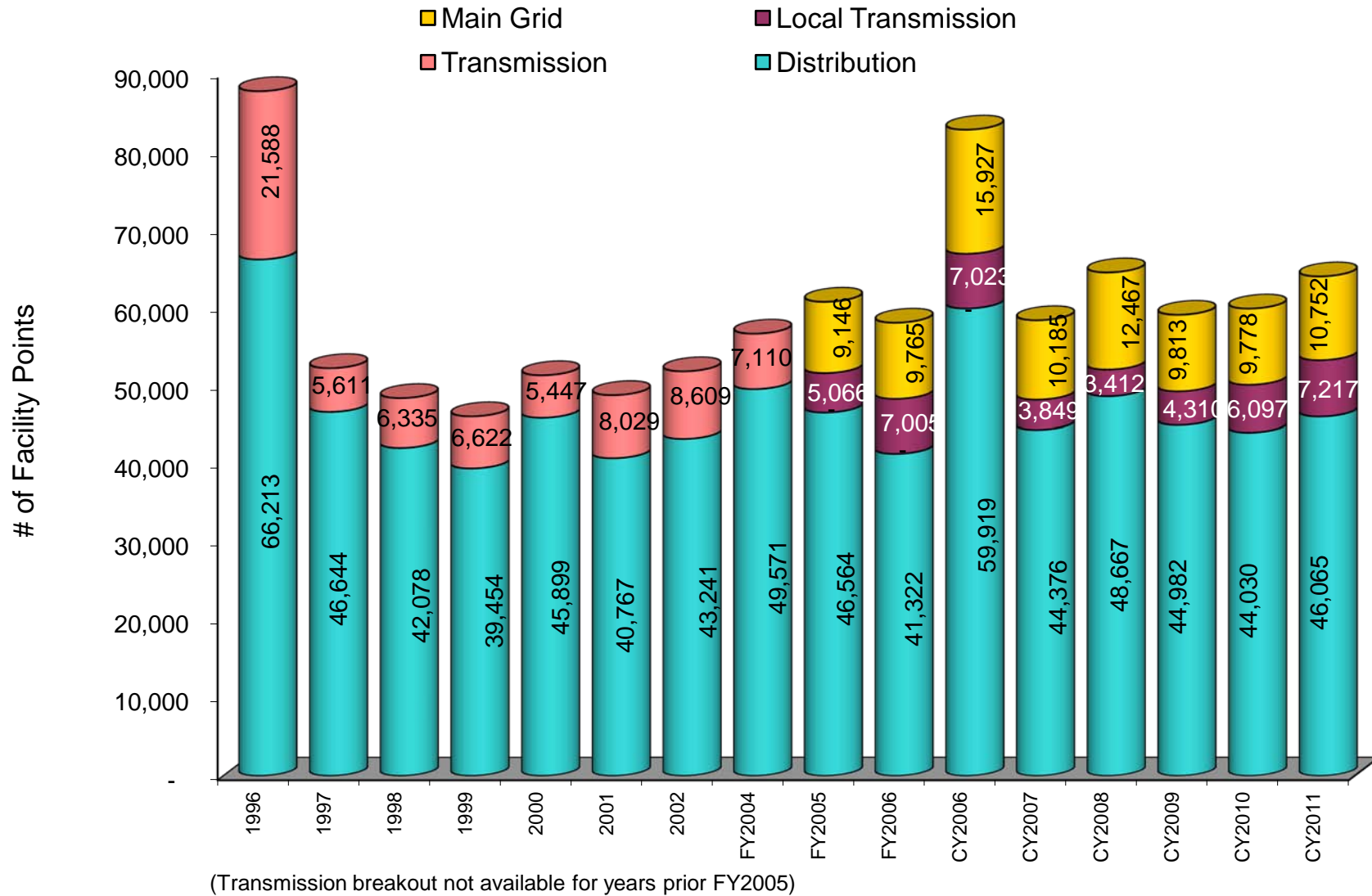
In CY2011, PacifiCorp performed 98% of the Annual Operational test requirements.

Infrared Inspection (item d.)

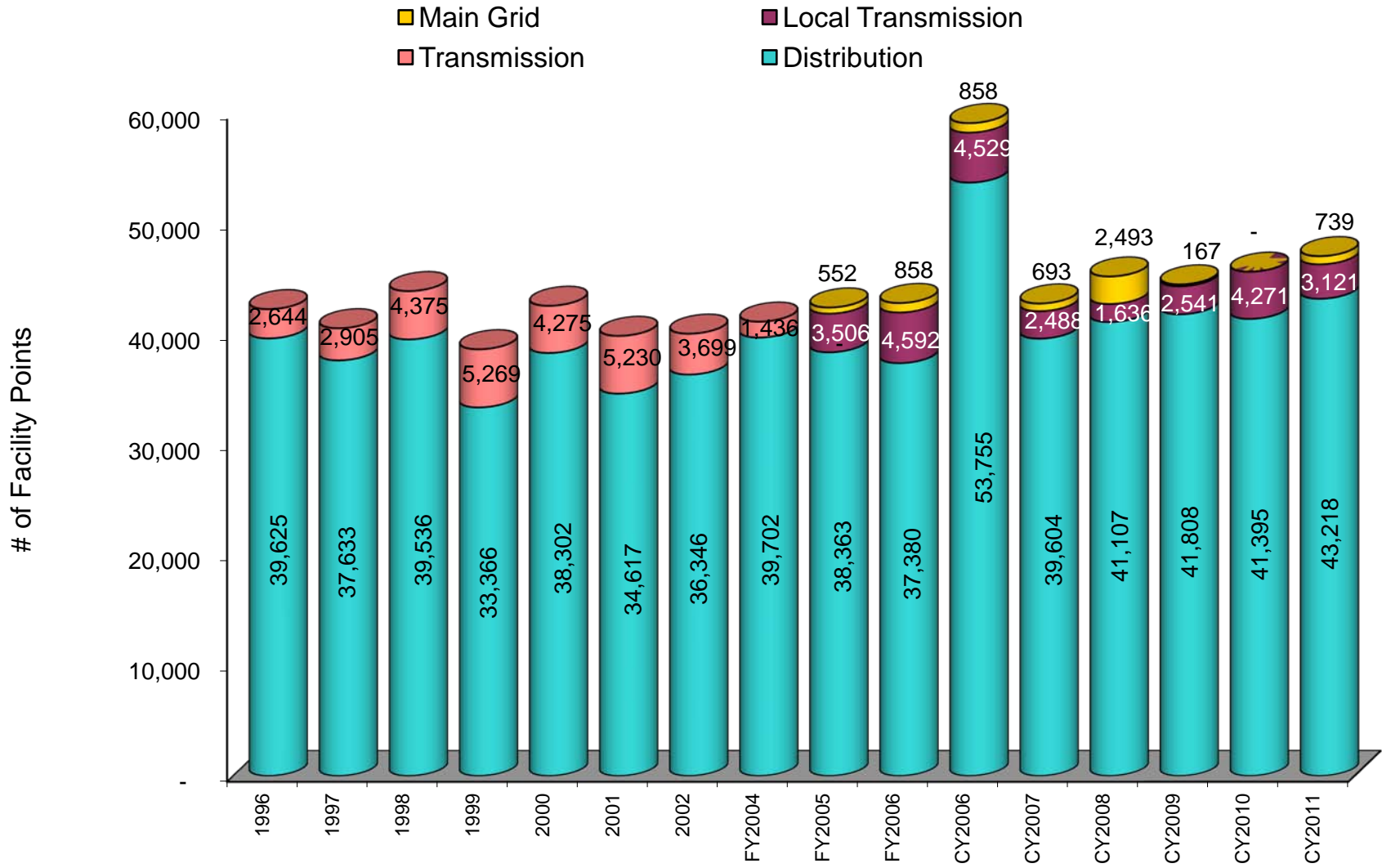
Substation equipment, including disconnect switches and connectors are inspected and infrared scanned for proper operation. Transmission (main grid transmission and local transmission) substations are infrared inspected annually, and distribution facilities are on a 2-year cycle.

PacifiCorp performed 100% of the infrared inspections on the transmission substations and 100% of the planned inspections on distribution facilities.

CY2011 Overhead Detail Inspection History

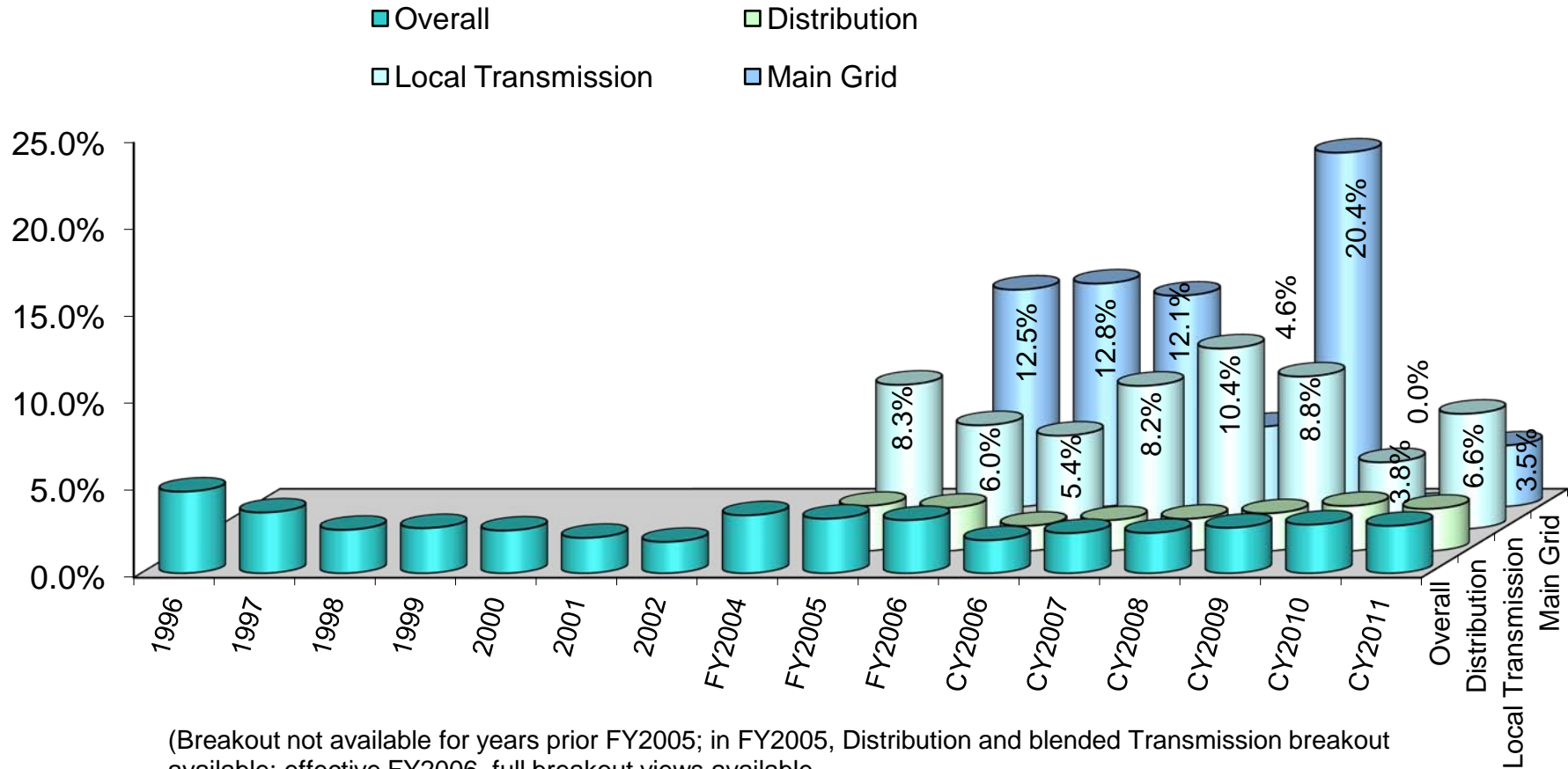


CY2011 Test & Treat History



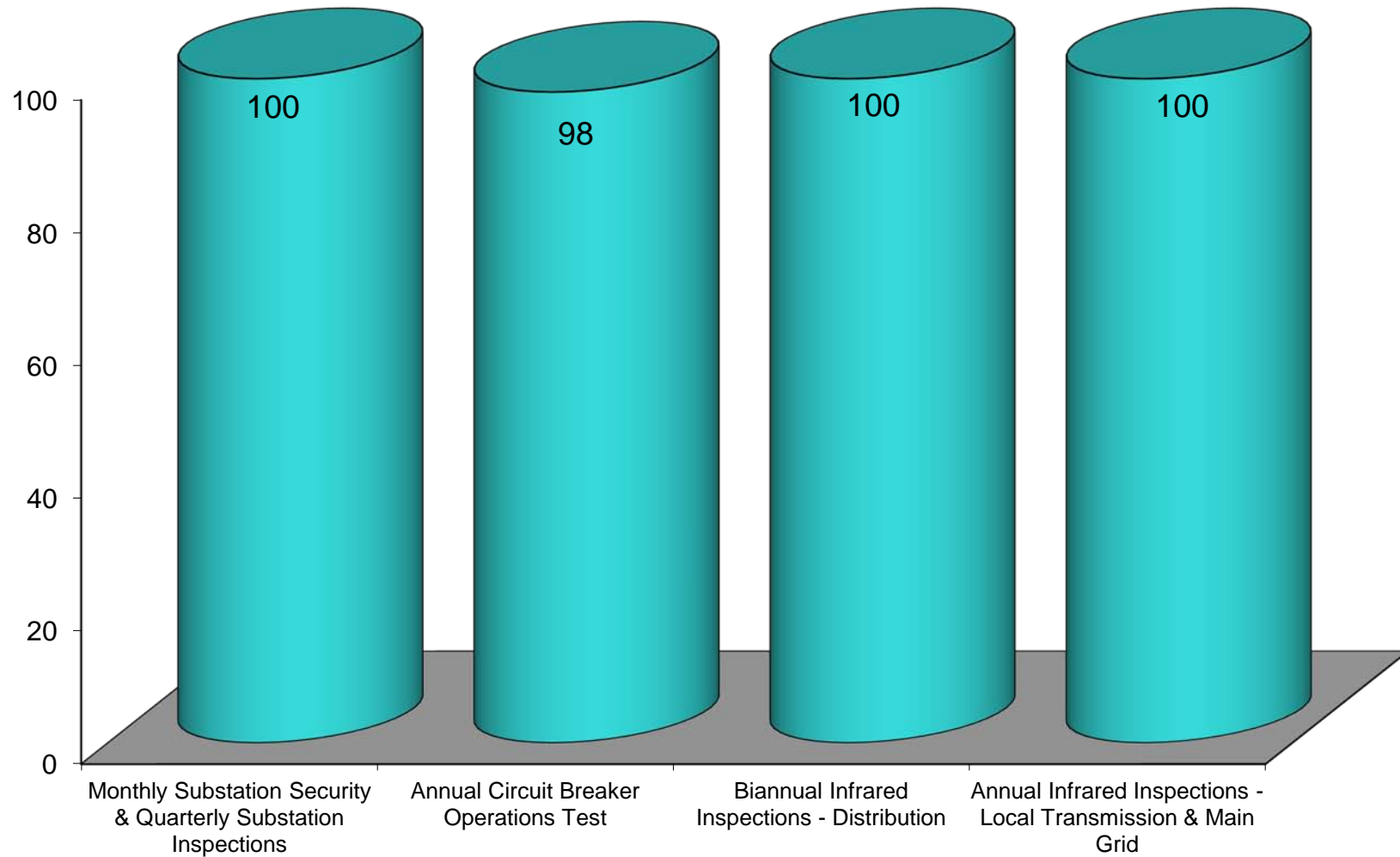
(Transmission breakout not available for years prior FY2005)

CY2011 Test & Treat Reject Rate History



(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.)

CY2011 Substation Inspections Percent Compliance



Substation Compliance Rates

Operating Area	Monthly Substation Security & Quarterly Substation Inspections	Annual Circuit Breaker Operations Test	Biannual Infrared Inspections - Distribution	Annual Infrared Inspections - Local Transmission & Main Grid
Albany	100%	88%	100%	100%
Bend	100%	100%	100%	100%
Klamath	100%	100%	100%	100%
Medford	100%	100%	100%	100%
Portland	100%	100%	100%	100%
Roseburg	100%	97%	100%	100%
Milton Freewater	100%	98%	100%	100%
Percent Completed	100%	98%	100%	100%

X2 – 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 5,300 meters company-wide were sample tested this year.

In year 2008, the Westinghouse model C and the GE I-14, 16 and 20 single-phase meter groups were removed from the scheduled testing due to the population size not being large enough for an adequate sample. These meter groups are already on the company's meter retirement list with instructions to retire whenever a site is visited and to retire any in stock. In addition, a certain number of these models are selected and assigned to be removed on a monthly basis.

For two consecutive years, 2010 and 2011, the Westinghouse model D5 did not meet ANSI Z1.9 criteria and failed the annual in-service sample test program. This meter model 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 ensures timely removal of these meters.

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 companywide was 4,800 this 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 standards are certified quarterly.

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

Energy Theft and Revenue Protection

Metering assets and technology processes and summarizes a monthly inspection report on metering problems found by metermen. The type of meter problem, calculated dollar losses, and the resolution on collection of the losses are documented.

X2 – STANDARDS

PacifiCorp's Standards mission is to produce policies and practices that enhance consistently high construction quality and provide highly durable materials at the lowest possible cost. Additionally, it is incumbent upon the Company to ensure that aged facilities are also properly inspected and maintained 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 FY2006, the Company developed a company-wide Electric Service Requirements manual. The new 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 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.

Operations Advisory Group

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 Operations Advisory Group, which is comprised of field construction employees who advise of needed policies and priorities for such development.

Engineering and Quality Evaluations

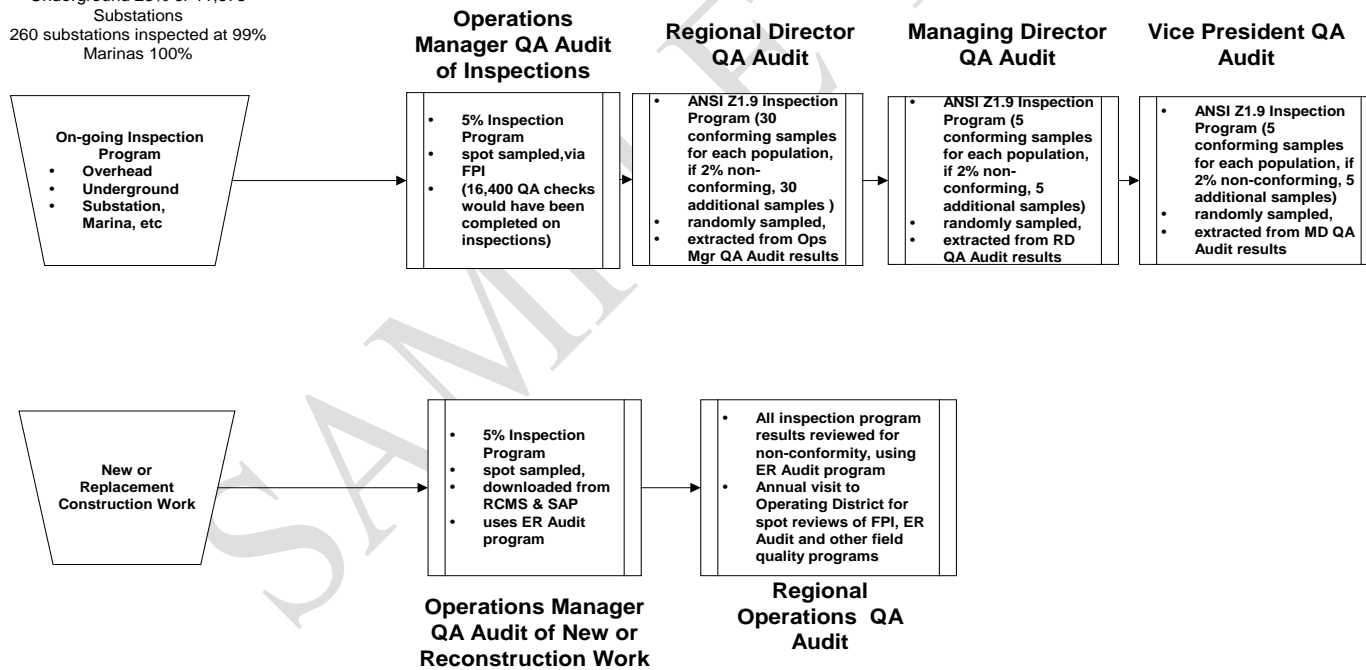
The Company ensures the quality of a variety of services and goods provided, including that of materials and material suppliers, construction and inspection services.

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. Within the Operations environment, there has been substantial effort undertaken within the last year to increase the delivered quality of the services provided. Additionally, Senior Management, Management and standards personnel perform random samples of construction practices to ensure that company policies and standards are adhered to. This general program is outlined in the diagram below:

Field Operations Quality Assurance Management Process

For Cal 2002:
 Safety Inspections: 48.6% or 224,721
 Detail Inspections: 11.2% or 51,850
 Detail Test & Treat: 8.7% or 40,045
 Underground 23% or 11,673
 Substations
 260 substations inspected at 99%
 Marinas 100%



X3 - UNDERGROUND CABLE REPLACEMENT

Background

The life expectancy performance of underground cable is a function of the quality of the design, manufacturing process, installation, load characteristics and environmental conditions of the cable. Since our initial use of underground cable began in the 1960's, design improvements have over the years provided substantial improvements in the life expectancy of underground cable. The underground cable replacement program identifies cable that is approaching the end of its serviceable life and replaces it to maintain acceptable customer service levels.

Actions Taken

- Consistent company-wide criteria implemented to prioritize cable replacement prior to the beginning of each budget year.
- Approximately 10.8% of the underground cable installed in Oregon in calendar year 2011 was used to replace existing cable that had reached its serviceable life.
- Approximately 86,497 feet of primary underground cable were replaced in Oregon in calendar year 2011 out of a total of 804,133 total feet installed.

X3 - Underground Cable Projects

WBS	2011 Cable Ft
DALB/2010/C/DRA/5484415 - LEB: CABLE REPL 3066 COLUMBINE ST LEBANO	155.99
DALB/2010/C/DRA/5484420 - COR: CABLE REPL 4008 WITHAM HILL CORVAIL	1.38
DALB/2011/C/DRA/5514765 - WAV: 4M261 REPL UG FP 087181 ALBANY	293.18
DALB/2011/C/DRA/5515033 - GNT, 4M269; RPL UG CABLE FP288584-289580	363.01
DALB/2011/C/DRA/5515051 - GNT;4M269;RPL UG CABLE FP 271980-271981	334.59
DALB/2011/C/DRA/5517811 - WAV,4M261,REPL UG FP131103/176882/176780	494.55
DALB/2011/C/DRA/5539037 - JFF:4M125 CBL RPL 12630 RIDGEWOOD RD JEF	601.35
DALB/2011/C/DRA/5539054 - GRNT:4M268 CBL RPL 231181 GARRYANNA CORV	1,160.03
DALB/2011/C/DRA/5547647 - ORM: 4M296 CBL RPL BELMONT ALB 255981	515.07
DALB/2011/C/DRA/5557554 - ORMT: 4M296 CBL RPL DREW PL ALB 254981	1,278.64
DALB/2011/C/DRA/5558254 - NN	321.38
DALB/2011/C/DRA/5561031 - 333	386.65
DALB/2011/C/DRA/5570484 - HLLY:4M37 308980 CBL RPL 25499 MCCLUM SH	2,038.09
DALB/2011/C/DRA/5572912 - BCHN: 4M133 3390 CANTERBURY 245780 CORVA	428.08
DALB/2011/C/DRA/5584383 - MRDR CRK: 4M245 38596 CONSER RD 133280	597.87
DALB/2011/C/DRA/5591191 - QNVN: 4M261 CBL RPLC 2485 ERMINE 176780	424.52
DALB/2011/C/DRA/5591222 - GRNTST: 4M268 1605 FRST GRN DR 279880	576.34
DALB/2012/C/DRA/5602484 - GRNT ST: 4M269 CBL RPLCMNT 131105/270501	636.77
DALB/2012/C/DRA/5604009 - LBNN: 4M61 CBL RPLCMNT 131202/098380	556.67
DAST/2010/C/DRA/5485644 - SEAS:5A83:BLUE HERON SUB CABLE REPLACEMT	99.07
DAST/2011/C/DRA/5518752 - ATF:2/9/11:WRRT:5A20:FAILED PRIMARY	136.17
DAST/2011/C/DRA/5533703 - WRRT:5A15:CBL RPL: HECETA & PACIFIC	1,056.02
DAST/2011/C/DRA/5582748 - KNSV:5A93:RPL DET CABLE:KNAPPA TRAILER	346.50
DAST/2011/C/DRA/5582815 - YNBY:5A211:RPL DET CABLE:RIVERINE APTS	577.47
DAST/2011/C/DRA/5586546 - SEAS:5A83:RPL DET CABLE:88739 HIGHWAY101	633.59
DAST/2011/C/DRA/5588898 - CNBC:5A8:RPL DET CABLE:ECOLA PARK RD	886.85
DAST/2011/C/DRA/5611462 - KNSV:5A93:RPL DET CABLE:KNAPPA TERRACE	797.16
DBEN/2010/C/DRA/5486448 - OVR-5D106/LIBBY PLACE UG CABLE REPLACE	6.48
DBEN/2010/C/DRA/5494338 - 5D263-PBT-DOBBIN RD S/O BEAR CRK RD-P.P.	29.81
DBEN/2011/C/DRA/5551804 - 5D2DES REPL B/O PRI CABLE 64520 ELDORADO	1,412.94
DBEN/2011/C/DRA/5551805 - 5D38CLV REPL B/O CABLE POLARIS & SUN LN	1,369.40
DBEN/2011/C/DRA/5551808 - RDD-5D227/	439.59
DBEN/2011/C/DRA/5552534 - 5D261-PBT-PURCELL BTW LOTUS & SAMS PL-PP	916.76
DBEN/2011/C/DRA/5564691 - 5D2;REPL B/O CABLE SIMON RD	1,306.23
DBEN/2011/C/DRA/5576939 - 5D2;R/P CABLE 1612/282481 GALCIER VIEW	430.68
DBEN/2011/C/DRA/5579377 - CHH: 5D140 B/O CABLE RE-PLACE PONDEROSA	971.73
DBEN/2011/C/DRA/5599935 - CLV-5D94/TAPADERA UG CABLE REPLACEMENT	1,981.27
DCOO/2010/C/DRA/5485902 - COOS RIVER;4C106 COOS RIVER;UG CABLE	97.40
DCOO/2011/C/DRA/5574823 - ATF:8/9/2011 TRANSPACIFIC PARKWAY NB	125.42
DCOO/2011/C/DRA/5577399 - SDU;5C9;REPLACE B/O UG CONDUCTOR;N SPIT	4,100.53
DCOO/2011/C/DRA/5585108 - STST:4C112:RPL DET UG PRIMARY CABLE	1,339.15
DCOO/2011/C/DRA/5585109 - LCKH:4C48:RPL DET UG PRIMARY CABLE	321.86
DCOO/2011/C/DRA/5604565 - CQLL;4C42;RPL DET. UG PRIM CABLE 172900	345.23
DCOO/2011/C/DRA/5607925 - 4C106:RPL EXPOSED/DET UG PRI 2612/081300	47.65
DCOT/2011/C/DRA/5563285 - PRRD: 4M99 680 KALMIA 050680 JUNCTION CI	528.04
DCOT/2011/C/DRA/5573791 - HRRS: 4M400 CBL RPL 1025 6TH ST 154380	1,035.31

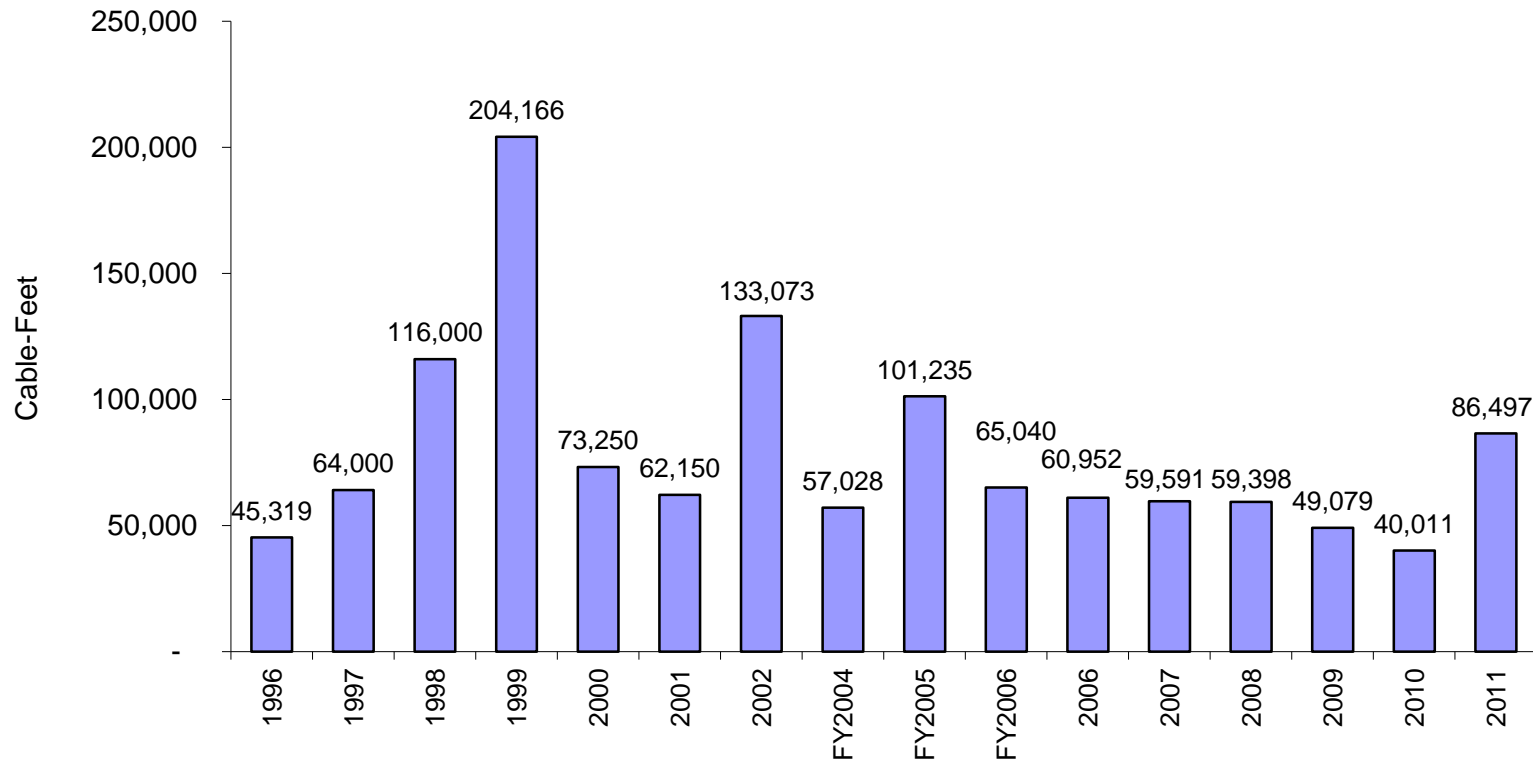
X3 - Underground Cable Projects

DDAL/2011/C/DRA/5516062 - DAL:	778.97
DDAL/2012/C/DRA/5612290 - DAL/MCBEE RD URD CABLE REPLACEMENT	24.24
DENT/2011/C/DRA/5552699 - ENT: 4W8: UG CABLE REPL: MELVILLE	294.48
DENT/2011/C/DRA/5581841 - ENT: 5W15: 800' UG CABLE REPL: PACE ST	334.12
DGRA/2011/C/DRA/5509231 - DRA CBL REPL 1055 STARLIGHT PLACE GP	4,782.76
DGRA/2011/C/DRA/5523823 - REPLACE 3 PHASE UG CABLE 727 SW ROGUE AV	264.23
DGRA/2011/C/DRA/5540544 - DOWELL:5R334:RPL300#2&4/0TX:1484 RAYDEN	481.68
DGRA/2011/C/DRA/5543930 - PKS-5R121-COLORADO LN-RPL FLTD PRI UG	160.94
DGRA/2011/C/DRA/5543943 - APP-5R278-250 ARROYO DR-GP-RPL FLTD UG P	390.41
DGRA/2011/C/DRA/5545058 - EYV-5R259-8233 LWR RVR RD-RPL UG SVC-B/O	140.46
DGRA/2011/C/DRA/5562181 - EYV-5R125 DRA LOWER RIVER&ROGUELEA, G.P.	1,077.64
DGRA/2011/C/DRA/5564886 - RGR:5R77:RPL 200'2AL W/1/0AL 25KV 103 MA	446.55
DGRA/2011/C/DRA/5571812 - DRA MLN 5R232 RPL 1000'#2 285 RIESSEN RD	836.36
DGRA/2011/C/DRA/5583979 - DRA.DWL.5R331.CBL RPL.1631 ALLEN CREEK	246.78
DGRA/2011/C/DRA/5596804 - DRA CVM 5R99 RPL UG PRI 515 BUTLER AVE	301.65
DGRA/2011/C/DRA/5598668 - DRA.JER.5R63.RPL CBL.2939 WOODLAND PARK	176.31
DHER/2010/C/DRA/5423635 - PP&L-B/O UG PRIM. CABLE-450 CHERRY ST.	21.12
DHER/2011/C/DRA/5548668 - HER:5W602:RPL 600' 4/0AL:ROSALYN DR.	511.14
DHER/2011/C/DRA/5569897 - BCK:5W203:RPL 300'#2AL:SHERWOOD SCHOOL	238.58
DHER/2011/C/DRA/5581734 - BCK:5W203:RPL 4 SECTS #2AL:248 SW 28TH	616.46
DHOO/2011/C/DRA/5518597 - PACIFIC POWER- NEAR HOOD RIVER INN	188.61
DHOO/2011/C/DRA/5548552 - HDR, 5K37,DRA, 4597 WESTWOOD DR.	1,374.52
DHOO/2011/C/DRA/5548553 - HDR,5K74,DRA, PACIFIC AVENUE, HR	150.64
DHOO/2011/C/DRA/5579204 - DRA, 5K70, ROWENA DELL, MOSIER	180.71
DHOO/2011/C/DRA/5586729 - 5K50 1661 MARKHAM REPLACE B/O UG SVC	193.11
DHOO/2011/C/DRA/5586739 - 5K70 REPLACE UG SVC, RELOCATE XFMR	189.30
DKLA/2010/C/DRA/5508812 - CABLE REPLACEMENT TAMERA DR MOYINA HTS	2,815.85
DKLA/2011/C/DRA/5519563 - ATF KLA 5L55 FP310280 RICHARDSON LN B/UG	326.32
DKLA/2011/C/DRA/5544616 - ATF KLA 5L42 COLEMAN RD BROKEN CONDUIT	50.20
DKLA/2011/C/DRA/5560140 - CHQ:5L57:RPL 400' 4/0-TX:1717 BRONCO LN	151.78
DKLA/2011/C/DRA/5561747 - UG CBL RPL 1331 AVALON APTS, K-FALLS	858.43
DKLA/2012/C/DRA/5598963 - CHQ:5L57:CRATER LAKE CABLE REPLACEMENT	21.56
DLIN/2011/C/DRA/5544889 - DVK-4A316-UG PRMRY RPL-3500 W.DVLS LK RD	517.15
DLIN/2011/C/DRA/5554772 - WEC:7A354:RPL 3PH UG PRMRY 0711/037007	253.14
DLIN/2011/C/DRA/5580024 - ATF:05/24/2011:DVK:4A316:FAILED UG SEC.	10.05
DLIN/2011/C/DRA/5591621 - DVK:4A316:RPL CABINET: 0611/141381	5.28
DLIN/2011/C/DRA/5595928 - DVK:4A312:RPL UG PRIMARY:0611/349281	359.17
DLIN/2011/C/DRA/5606274 - DVK:4A310:B/O UG DX: SE 44TH AND INLET	101.58
DLKV/2010/C/DRA/5365373 - MILE HIGH SUB 5L104 REPLACE CABLE 1900'	79.32
DMAD/2011/C/DRA/5530289 - 4D68:WSP:FAULT IN PRIMARY UG:POOSH DR,WS	296.25
DMAD/2011/C/DRA/5539098 - WSP:4D68:CABLE REPLACEMENT	384.94
DMED/2010/C/DRA/5458729 - JCK-5R285-1055 N 5TH ST-JACKSONVILLE	352.22
DMED/2010/C/DRA/5484158 - WHC-5R66 DRA 7702 INGALLS DR., WHITE CTY	466.43
DMED/2010/C/DRA/5486977 - SCE-5R182-2051 TAYLOR RD-CP-IEW	275.50
DMED/2010/C/DRA/5506694 - WHC-5R14 DRA 8181 CRATER LAKE HWY, WHCTY	104.00
DMED/2011/C/DRA/5511991 - STV-4R17-ARCHWOOD & SHADOW LAWN-EP	378.20
DMED/2011/C/DRA/5513813 - FRL-5R87-3385 SAMS VALLEY-CP-IEW	150.97

X3 - Underground Cable Projects

DMED/2011/C/DRA/5524257 - SCE-5R180-301 FREEMAN RD-CP-IEW	55.19
DMED/2011/C/DRA/5539843 - TAL-5R240-913 N. ROSE ST.-PHX	128.51
DMED/2011/C/DRA/5560145 - STV-4R13 IEW 840 S. SHASTA AV., E.P., OR	1,765.86
DMED/2011/C/DRA/5571449 - TAL:5R239:RPL #2CABLE:FIRST ST. PHX	1,434.81
DMED/2011/C/DRA/5572806 - WHC-5R66 DRA 28TH & 29TH ST., WHITE CITY	859.18
DMED/2011/C/DRA/5574678 - MFD-5R250-2252 TABLE ROCK RD-MEDFORD	1,679.34
DMED/2011/C/DRA/5575198 - BRO-5R118 DRA 2545 BEL ABBES AVE, MEDFOR	654.46
DMED/2011/C/DRA/5576546 - MFD-5R250 DRA 2253 TABLE ROCK #213, MEDF	1,137.56
DMED/2011/C/DRA/5576864 - BRO-5R75 DRA 2433 CAPITAL AVE., MEDFORD	517.24
DMED/2011/C/DRA/5577245 - CAM-5R218-CBL RPLCMNT-3555 S PAC HWY-PHX	3,541.95
DMED/2011/C/DRA/5580001 - TAL:5R240:RPL 210'#2:INDEPENDENCE CIR	662.89
DMED/2011/C/DRA/5580894 - MFD-5R659 DRA 870 BIDDLE RD., MEDFORD	1,183.45
DMED/2011/C/DRA/5583914 - SCE-5R180-916 CREST DR-CENTRAL POINT-DRA	507.25
DMED/2011/C/DRA/5588565 - RXY-5R350 DRA 3700 E. BARNETT RD., MEDFO	349.10
DMED/2011/C/DRA/5599017 - RUC-5R69 DRA 6059 HWY 238, JACKSONVILLE	371.73
DMED/2011/C/DRA/5600517 - JCK-5R285 DRA 2250 OLD STAGE RD., CENTPT	239.74
DMED/2011/C/DRA/5609060 - FHL-5R39-2267 BRENTWOOD ST, MEDFORD	209.04
DMED/2012/C/DRA/5593219 - BRO-5R33 DRA 2443 AMARYLLIS AVE, MEDFORD	783.56
DMED/2012/C/DRA/5607941 - BKN-5R1 DRA 700 ELLENDALE, MEDFORD	28.92
DMED/2012/C/DRA/5608434 - BRO-5R135 DRA CRATER LK AVE & ALPINE, MD	309.96
DMED/2012/C/DRA/5611936 - BKN-5R3 DRA 2561 FREEDOM WAY, MEDFORD	293.51
DPEN/2010/C/DRA/5488604 - BUCKAROO: 5W203: REPL 3 CABLES-QUINNEY	56.03
DPEN/2010/C/DRA/5496243 - BUCKAROO: 5W202: REPL B/O CABLE-DOUGLAS	163.90
DPEN/2011/C/DRA/5486320 - WSTN:5W7:DOWNING PUMP CABLE REPLACEMENT	917.76
DPEN/2011/C/DRA/5548667 - BCK:5W203:RPL 2 SECTS. #2AL:300 SW 28TH	521.69
DPEN/2011/C/DRA/5570591 - PEN: 5W401: REPL B/O CABLE BHND WALMART	211.79
DPEN/2011/C/DRA/5575676 - BCK:5W203:RPL 3 SECTS #2AL:300 SW 28TH	832.52
DPOR/2010/C/DRA/5500955 - ATF:12/06/10:RVL:5P274:B/O UG PRIMARY	24.15
DPOR/2010/C/DRA/5503070 - ATF:12/14/10:ALB:5P111:B/O UG PRIMARY	97.96
DPOR/2011/C/DRA/5526738 - PP&L-10608 NE WYGANT REPL B/O PRI 5P252	2,908.21
DPOR/2011/C/DRA/5538034 - ALBINA 5P196 NW 10TH & COUCH REPL SPLICE	364.98
DPOR/2011/C/DRA/5573912 - ATF:8/5/11:5P158:B/O PRI COND:3RD&HALSEY	163.90
DPOR/2011/C/DRA/5600911 - PP&L - 5310 NE CULLY REPL B/O PRI 5P288	379.76
DPOR/2011/C/DRA/5602095 - 5P164: B/O PRI: 5802 N MICHIGAN AVE.	352.09
DPOR/2011/C/DRA/5602097 - 5P246: B/O PRI: 3230 NE 110TH AVE	353.94
DPOR/2012/C/DRA/5603439 - KLLN:5P41:REPLACE B/O UG PRIMARY CABLE	450.19
DPRN/2010/C/DRA/5479319 - PRN:5D69 PRIN/ELEM. TFMR CHANGEOUT	64.85
DROS/2010/C/DRA/5486742 - DRA PACIFIC POWER CANTERBURY & ESQUIRE	199.21
DROS/2011/C/DRA/5545088 - TIL:5U89 UG CBL RPL JOHNNY SPRINGS ED	930.22
DROS/2011/C/DRA/5545495 - CLO 4U38 UG CABLE RPLMENT,WANELL/APACHE	1,703.64
DROS/2011/C/DRA/5567108 - GVA 4U80 RPL 1,74'#2 1444 GDN VLY BLVD	2,940.45
DROS/2011/C/DRA/5582793 - RSB 4U10 RPL X,XXX' PRI UG 1350 STEPHENS	23.84
DSTA/2011/C/DRA/5516065 - STA: CABLE REPL 130802/134780	289.10
DSTA/2012/C/DRA/5595627 - STYTN: 4M19 CBL RPLCMNT 130802/148180	970.94
Total	86,496.92

Oregon UG Cable Replacement History



CY2011 Actuals and Budget

X2 A & E: Pole Inspect & Treat (Includes Marina Inspections)			ACTUALS	BUDGET
* Distribution	T&T	515	\$2,080,659	\$2,378,283
	Detail	520	\$598	\$0
Transmission	T&T	843, 883	\$284,282	\$286,358
	Detail	840, 880	\$412,663	\$340,159
Total			\$2,778,202	\$3,004,800

X2 A & E: Pole Replacements			ACTUALS	BUDGET
Distribution			\$6,432,738	\$3,170,362
Transmission			\$5,876,246	\$3,481,025
Total			\$12,308,984	\$6,651,387

X2 A & E: Repair and Replace Facilities			ACTUALS	BUDGET
Distribution	500, 501, 502, 503, 504, 505, 509, 518, 526, 527, 595, 625, 626		\$15,399,449	\$16,120,237
Transmission	845, 847, 846, 865, 884, 886, 848, 889		\$1,727,339	\$1,358,594
Total			\$17,126,788	\$17,478,831

X2 B & F: Safety Inspections (Includes Equipment Inspections)			ACTUALS	BUDGET
Distribution	521		\$453,350	\$443,233
Transmission	841, 881		\$268,524	\$213,933
Total			\$721,874	\$657,166

X2 C: Underground Inspections			ACTUALS	BUDGET
	508		\$247,812	\$248,307
Total			\$247,812	\$248,307

X2 D & F: Substation Inspections			ACTUALS	BUDGET
Distribution	532		\$743,992	\$686,884
Transmission	850		\$275,808	\$256,555
Total			\$1,019,800	\$943,439

* For Distribution Pole Inspect and Treat, the Detail inspection charges are combined with T&T

Oregon Workforce CY2011		
	Number of Workers	
Field Operations & Maintenance	Budget	Actual
Intern	0	4
Sevicemen	32	30
Lineman	149	141
Line / General Foreman	59	59
Underground Equipment/Cable Splicer	4	4
Clerks	38	36
Estimators	55	48
Field Inspectors	3	7
Field Engineers	9	9
Support Staff	8	3
Managers/Supervision	29	29
Field Operations & Maintenance Total	386	370
Metering	Budget	Actual
Collectors	26	27
Meter Readers	95	84
Connect/Disconnet/Collectors	7	6
Meterman	32	25
Engineers	3	3
Clerks	7	6
Support Staff	6	8
Managers/Supervision	11	11
Metering Total	187	170
Plant and Dispatch	Budget	Actual
Contractors	3	2
Substation Foreman	10	12
Substation Journeyman	18	14
Communication Technicians	15	13
Meter Relay Technicians	24	21
Wireman Foreman	4	4
Wireman	6	4
Incident Coordinators	5	5
Engineers	8	7
Dispatchers	44	41
Clerks	12	12
Support Staff	21	21
Managers/Supervision	33	31
Plant & Dispatch Total	203	187
Transportation and Logistics	Budget	Actual
Contractors	0	0
Clerks	0	0
Logistics Workers	34	33
Mechanics	18	16
Support Staff	3	3
Managers/Supervisors	4	3
Transportation & Logistics Total	59	55

Oregon Workforce CY2011		
	Number of Workers	
Procurement	Budget	Actual
Contractors	2	0
Clerks	0	0
Buyers	12	13
Support Staff	4	3
Managers/Supervision	7	7
Procurement Total	25	23
Customer Service @ Portland Business Center	Budget	Actual
Contractors	13	0
Customer Service Employees	183	185
Support staff	6	6
Managers/Supervisors	17	16
Portland Business Center Total	219	207
Customer Service @ Wasatch Business Center	Budget	Actual
<i>(Note: Calls can be routed to both Business Centers.)</i>		
Clerks	1	1
Contractors	7	14
Customer Service Employees	108	103
Support staff	4	5
Managers/Supervisors	10	10
Wasatch Business Center Total	130	133
OREGON LABOR	Budget	Actual
TOTAL NON-SUPPORT, NON-MANAGEMENT STAFF	1047	989
TOTAL SUPPORT STAFF	51	49
TOTAL MANAGEMENT STAFF	111	107
Oregon Workforce Total	1209	1145

NOTE: Number of Workers reflects the counts of Actual number of workers on record as of 12/31/2011.

PacifiCorp Vegetation Management
Monthly Crew Report: Oregon

Date: 12/31/2011

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
Phillips																					
KLAMATH	3		1								0.5	0.5	4							0	4
FALLS													0							0	0
LAKEVIEW													0							0	0
MEDFORD	8	1	2							1	4	2	12							0	12
Total	11	1	3	0	0	0	0	0	0	1	4.5	2.5	16	0	0	0	0	0	0	0	16
Hooley																					
ALBANY													0							0	0
CORVALLIS													0							0	0
COTTAGE													0							0	0
GROVE													0							0	0
DALLAS	2	3								1	1	1	6							0	6
JUNCTION													0							0	0
CITY													0							0	0
LEBANON	3	2								0.5	1	1	5.5							0	5.5
LINCOLN													0							0	0
CITY													0							0	0
STAYTON													0							0	0
Total	5	5	0	0	0	0	0	0	0	1.5	2	2	11.5	0	0	0	0	0	0	0	11.5
Partridge																					
COOS BAY	2	1								0.5	0.5	0.5	3.5							0	3.5
GRANTS																					
PASS	5	3	1						0.5	2	2.5	1.75	11.5	2						2	13.5
ROSEBURG	3	2	2						0	0.5	2	1	7.5							0	7.5
Total	10	6	3	0	0	0	0	0	0.5	3	5	3.25	22.5	2	0	0	0	0	0	2	24.5

PacifiCorp Vegetation Management
 Monthly Crew Report: Oregon

Date: 12/31/2011

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	
Armstrong																						
BEND													0								0	0
CLATSOP	1	1										0.25	0.25	2							0	2
ENTERPRISE														0							0	0
HERMISTON	1													1							0	1
HOOD RIVER	1												0.3	1							0	1
MADRAS														0							0	0
MILTON-																						
FREEWATER														0							0	0
PENDLETON														0							0	0
PORTLAND	3										1	0.25	0.25	4							0	4
PRINEVILLE														0							0	0
REDMOND	1												0.3	1							0	1
Total	7	1	0	0	0	0	0	0	0	1	0.5	1.1	9	0	0	0	0	0	0	0	0	9
Total Crews	33	13	6	0	0	0	0	0	0.5	6.5	12	8.85	59	2	0	0	0	0	0	2	61	

X3 – SPECIAL PROGRAMS

Introduction

This year's Special Programs report includes updated information relevant to two areas reviewed with Commission Staff during the previous year: A) the Company's recently modified Neutral Extension Program and B) Substation Signage Plan. This material is intended to provide a brief discussion of actions taken during 2011.

X3-A Neutral Extension 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 miles calculated at year-end 2011.

Neutral Extension Inventory for Year-End 2011

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 2011 that it now contains 1212.14 miles of ungrounded grounding systems in Oregon. This inventory is distributed across Oregon operating areas as shown below.

2011 Year-End Mileage of Uniground Facilities	
Operating Area	Miles Recorded
Albany	7.93
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	24.21
Hermiston	1.96
Hood River	21.79
Klamath Falls	639.51
Lakeview	36.05
Lebanon	1.76
Lincoln City	2.57
Madras	0.83
Medford	10.20
Pendleton	1.15
Portland	43.26
Roseburg/Myrtle creek	374.78
Stayton	27.89
Oregon Total	1212.14

2011 Neutral Extension Summary of Planned Versus Actual Expenditures

At year-end 2011, the Company completed spending slightly over plan with its authorized spending for neutral extensions. The Company had originally intended that many of the 2011 efforts would continue to be directed towards record corrections and plan development. While the original plan for 2011 contained approximately \$558,000, as the year progressed additional funds became available due to under-spend in other areas, which were rapidly redirected toward neutral extension projects (although year end weather slightly impacted how many of these extra projects were able to be completed). Overall, greater headway was made than originally planned for 2011.

District	Circuit ID	Circuit Name	Description of Project	Original ESTIMATE CY11 CAPEX	Approved ER	CY11 Capital \$'s Spent to Date	% Spent from Approve	ESTIMATED Total Spend for CY11
Klamath Falls	5L8	Sprague River	Finish Neutral Extension Project	\$ 286,186	\$ 286,186	\$ 223,549	78.11%	\$ 223,549
Klamath Falls	5L3	Washburn	Extend Neutral Throughout (17186@4/ft)	\$ 68,745	\$ 98,641	\$ 128,902	130.68%	\$ 128,902
Medford	5R87	Table Rock	Extend Neutral Throughout (25924@4/ft)	\$ 103,700	\$ 126,295	\$ 81,773	64.75%	\$ 81,773
Medford	5R103	Gold Hill	Extend Neutral Throughout (8696@4/ft)	\$ 34,785	\$ 58,319	\$ 49,302	84.54%	\$ 49,302
Roseburg	5U89	Jackson Creek	Extend Neutral Throughout Circuit to Clear OPUC Citations (10900' at \$5/ft); Phase I and Phase II	\$ 54,500	\$ 155,208	\$ 95,450	61.50%	\$ 95,450
Roseburg	5U52	Beals Creek	Correct Equipment Grounding or Extend Neutral to Clear OPUC Citations (10 xfr @1000)	\$ 10,000	\$ 63,362	\$ 35,669	56.29%	\$ 35,669
				\$ 557,916	\$ 788,011	\$ 614,644	110.17%	\$ 614,644

2011 Neutral Extension Projects Planned

During capital planning for 2012 the following projects were identified for construction during the year. 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.

2012 Pacific Power Neutral Extensions - M4

Area	District	W/O #	Project	Estimate	Footage
SW Wires	Albany	5571549	PHIL: 4M185 NEUTRAL EXTENSION - WWTP	\$10,142	900
SW Wires	Klamath Falls	5578879	TEX:5L113 NEUT.EXT:MAYWOOD,WASHBURN,S6TH	\$31,349	2,200
SW Wires	Klamath Falls	Project	5L55 Keno Neut Ext - 86.11 est & design	\$454,916	447,200
SW Wires	Klamath Falls	5626341	Neut Ext 5L55 HMK 1439008.0/220200	\$16,255	5,400
SW Wires	Klamath Falls	5626719	Neut Ext 5L55 HMK 1439008.0/270803	\$11,823	2,400
SW Wires	Klamath Falls	5627220	NEUT.EXT.HMK 5L55 1439008 2910 ROUND LK	\$10,650	3,100
SW Wires	Klamath Falls	5627445	HMK:5L55: NEUT EXT: KERN SWAMP RD W.O.#1	\$64,303	24,000
SW Wires	Klamath Falls	5628330	HMK 5L55 1439008.0 145000 BLUE MTN DR.	\$18,926	3,800
SW Wires	Klamath Falls	5627677	HMK 5L55 1439008.0 14/034 HWY Hwy 66	\$16,143	5,100
SW Wires	Klamath Falls	5629015	HMK 5L55 1439008.0 143202 LAWANDA DR.	\$18,852	9,400
SW Wires	Klamath Falls	5629293	HMK:5L55; NEUT EXT:WEST KLAMATH #1	\$13,132	1,789
SW Wires	Klamath Falls	5630401	HMK:5L55: NEUT EXT: WEST KLAMATH #2	\$0	-
SW Wires	Klamath Falls	5632925	HMK 5L55 NEUT. EXT CLOVER CREEK ROAD	\$34,990	8,000
SW Wires	Klamath Falls	N/A	5L56 Mountain Neut Ext - Est & Construct 2012	\$75,000	-
SW Wires	Klamath Falls	N/A	5L58 Henley Neut Ext - Estimate only	\$2,500	-
SW Wires	Klamath Falls	N/A	5L59 West Neut Ext - Est & design	\$2,500	-
SW Wires	Klamath Falls	N/A	5L116 -Anderson- Estimate & design for 57.425	\$5,000	-
SW Wires	Klamath Falls	N/A	5L26 - OR Lower Lake -Estimate & design 78.4	\$5,000	-
SW Wires	Klamath Falls	N/A	5L27- North Neutral Extension Estiamte & Design 70.1	\$5,000	-
NW Wires	Pendleton	5603597	BCK;5W201;NEUT.EXT: A ST. Pendleton	\$46,588	1,420
SW Wires	Roseburg	5585970	GLD 5U84 CN EXT 21 Spans N UMPQUA HWY	\$33,675	-
SW Wires	Roseburg	5629226	GLIDE 5U84 INSTALL NEUT VARIUS LOCATIONS	\$201,912	28,760
SW Wires	Roseburg	5623764	MYR:5U77:NEUT EXT: 907 Pacific Hwy	\$15,263	3,000
SW Wires	Roseburg	5629234	GLIDE 5U84 INSTALL NEUT PHASE 2	\$210,098	30,067
SW Wires	Roseburg	5629244	GLIDE 5U84 INSTALL NEUT VARIUS LOCATIONS	\$211,966	36,370

X3-B Substation Signage Summary

In 2011, the Company reported on its plan regarding substation signage that had been obsolete by recent versions of the NESC. In this plan the Company developed a long-term program around substation signage replacement. These changes were consistent with NEMA signage standards and will result in long-term modifications of substations signs.

- ✓ The Company reviewed and revised its signage standards and completed them by March 10, 2011. They were modified as shown below.
- ✓ During 2011, one modified sign was installed at one location (Spanish version).

Substation High-Voltage Warning Signs

A. Scope

This standard specifies the details of, and installation procedures for high-voltage warning signs. These signs shall be placed on all fenced enclosures containing high-voltage electrical equipment.

B. References

The following publications also pertain to substation high-voltage warning signs:

- ANSI Z535.1-2006, *Safety Color Code*
- ANSI Z535.2-2006, *Environmental and Facility Safety Signs*
- ANSI Z535.3-2006, *Criteria for Safety Symbols*
- ANSI Z535.5-2006, *Accident Prevention Tags (For Temporary Hazards)*
- NESC Handbook 5th Edition, Appendix B, *Safety Signs*
- PacifiCorp Substation Engineering Handbook Document 6B.5, *Fence Application and Construction*.

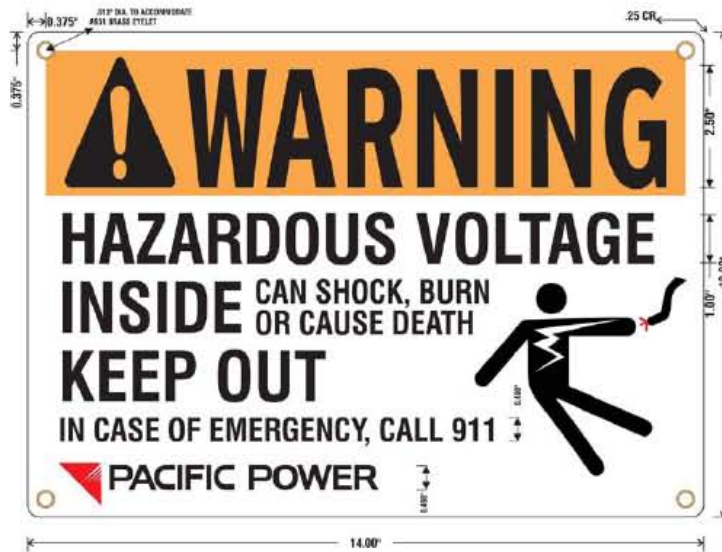
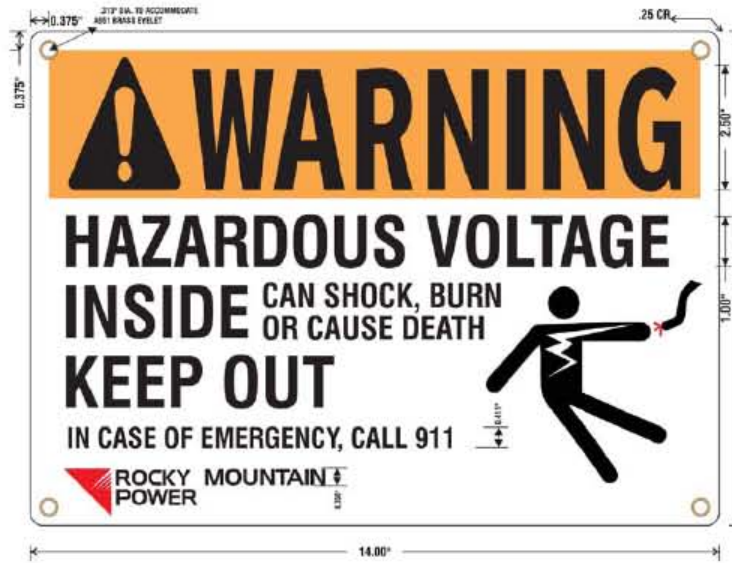


Figure 1—English High-Voltage Warning Sign for Pacific Power (SI# 7999851)

Substations and High-Voltage Equipment Construction Standard	Substation High-Voltage Warning Signs	 PACIFICORP <small>A MIDAMERICAN ENERGY HOLDINGS COMPANY</small>
Engineer (I. Morar): <i>IM</i> Standards Manager (G. Lyons) <i>GL</i>	© 2011 by PacifiCorp. All rights reserved.	17 Mar 11 SG 001 Page 1 of 4



■ Figure 2—English High-Voltage Warning Sign for Rocky Mountain Power (SI# 7999852)



■ Figure 3—Spanish High-Voltage Warning Sign for Pacific Power (SI# 7999853)

 <p>PACIFICORP A MIDAMERICAN ENERGY HOLDINGS COMPANY</p>	<p>Substation High-Voltage Warning Signs</p> <p>© 2011 by PacifiCorp. All rights reserved.</p>	<p>Substations and High-Voltage Equipment Construction Standard</p>
		<p>SG 001 Page 2 of 4</p>



Figure 4—Spanish High-Voltage Warning Sign for Rocky Mountain Power (SI# 7999854)

C. Sign Description and Layout

1. Substation high-voltage warning signs are 10" x 14" in size, of an Everlast material, with a white background. A black signal word 2.5" high is placed in a safety-orange colored rectangular box across the top of the sign. A safety alert symbol 2.5" tall (the symbol is triangular and contains an exclamation point) precedes the signal word.
2. A warning message in black letters 1" tall follows the signal word and safety alert symbol. The warning message is printed in black, on the sign's white background.
3. An electrical "person with wire" safety symbol follows the warning message (it may also precede the warning message). This symbol is printed in black, on the sign's white background.
4. Signal and message wording is printed in a sans-serif font. Signal wording is always in uppercase. Message wording may be a combination of upper and lowercase letters, with the first word in the sentence capitalized. Message wording in uppercase is acceptable for short messages or emphasis of individual words.
5. Text justification is left-aligned for the word messages. Signal words are centered.
6. The signs are available in either English or Spanish. The utilization of signs in one or both languages is up to the area manager.

<p>Substations and High-Voltage Equipment Construction Standard</p>	<p>Substation High-Voltage Warning Signs</p>	
<p>Engineer (I. Morar): <i>IM</i> Standards Manager (G. Lyons): <i>GL</i></p>	<p>© 2011 by PacifiCorp. All rights reserved.</p>	<p>17 Mar 11 SG 001 Page 3 of 4</p>

7. On the English sign, the signal word reads, "WARNING." The warning message reads, "HAZARDOUS VOLTAGE INSIDE KEEP OUT." Additional wording includes, "CAN SHOCK, BURN OR CAUSE DEATH" and "IN CASE OF EMERGENCY, CALL 911." The Pacific Power or Rocky Mountain Power logo follows as shown in Figure 1 and Figure 2.
8. On the Spanish sign, the signal word reads, "RIESGOSO." The warning message reads, "VOLTAJE PELIGROSO ADENTRO NO ENTRE." Additional wording includes, "PUEDE CAUSAR CHOQUE ELECTRICO, QUEMADURAS O MUERTE" and "EN CASO DE EMERGENCIA LLAME AL 911." The Pacific Power or Rocky Mountain Power logo follows as shown in Figure 3 and Figure 4.

D. Placement and Spacing

1. Signs shall be placed on each side of the substation's perimeter fence at a maximum spacing distance of 65 feet.
2. Signs shall also be placed on each gate, and shall be placed on the left-hand leaf of double gate.
3. Signs shall be placed on the outside of the fence (not the inside) at an approximate height of 5'-6" from the center of the sign to the ground. Sign location and height may be adjusted as needed to ensure maximum visibility. (For example, signs should not be obstructed by bushes, trees, berms, etc.)

E. Ordering, Installation and Inspection

1. Substation Engineering will order signs for new installations.
2. On existing installations, Technical Operations will inspect signs, verify placement, address conditions, and secure or order signs where and if needed.
3. Order high voltage warning signs with internal stock item number:
 English Pacific Power sign: SI# 7999851
 Spanish Pacific Power sign: SI# 7999853
 English Rocky Mountain Power sign: SI# 7999852
 Spanish Rocky Mountain Power sign: SI# 7999854
4. Order mounting hardware for mounting the sign on the substation fence, with internal Stock Item Number 7999092.
Description: The mounting hardware is comprised of aluminum brackets with 1" temper-proof bolts and locking nuts. The bolts are installed through the sign's front, and screw into the aluminum brackets located on the interior of the fence. Four sets of mounting hardware are needed for each sign.

	<p align="center">Substation High-Voltage Warning Signs</p> <p align="center">© 2011 by PacifiCorp. All rights reserved.</p>	<p align="center">Substations and High-Voltage Equipment Construction Standard</p>
		<p>SG 001 Page 4 of 4</p>

Substation High-Voltage Warning Signs

A. Scope

This standard specifies the details of, and installation procedures for high-voltage warning signs. These signs shall be placed on all fenced enclosures containing high-voltage electrical equipment.

B. References

The following publications also pertain to substation high-voltage warning signs:

- ANSI Z535.1-2006, *Safety Color Code*
- ANSI Z535.2-2006, *Environmental and Facility Safety Signs*
- ANSI Z535.3-2006, *Criteria for Safety Symbols*
- ANSI Z535.5-2006, *Accident Prevention Tags (For Temporary Hazards)*
- NESC Handbook 5th Edition, Appendix B, *Safety Signs*
- PacifiCorp Substation Engineering Handbook Document 6B.5, *Fence Application and Construction*.

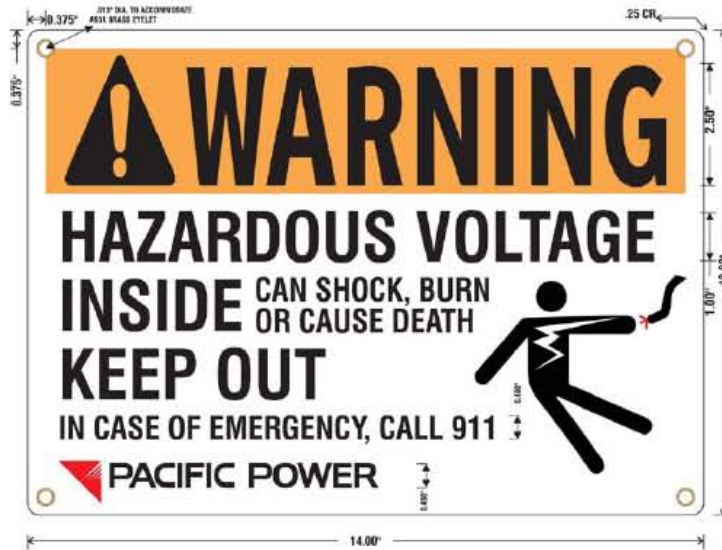
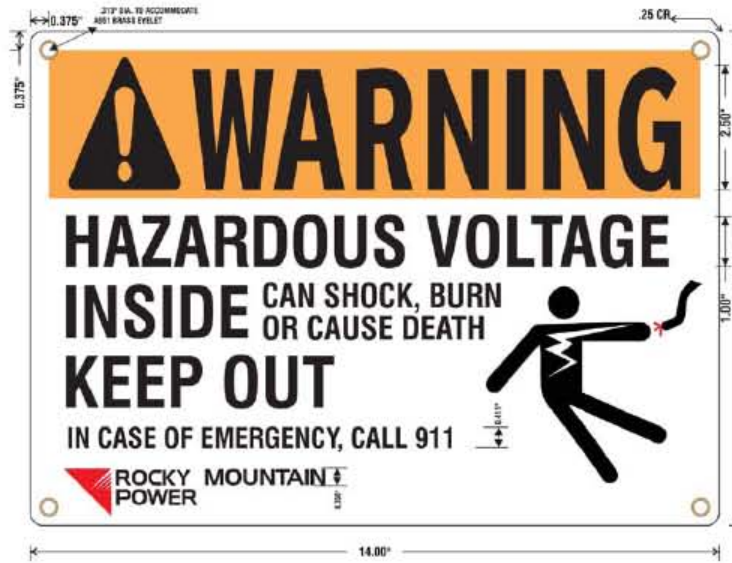


Figure 1—English High-Voltage Warning Sign for Pacific Power (SI# 7999851)

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■ Figure 2—English High-Voltage Warning Sign for Rocky Mountain Power (SI# 7999852)



■ Figure 3—Spanish High-Voltage Warning Sign for Pacific Power (SI# 7999853)

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		<p>SG 001 Page 2 of 4</p>



■ Figure 4—Spanish High-Voltage Warning Sign for Rocky Mountain Power (SI# 7999854)

C. Sign Description and Layout

1. Substation high-voltage warning signs are 10" x 14" in size, of an Everlast material, with a white background. A black signal word 2.5" high is placed in a safety-orange colored rectangular box across the top of the sign. A safety alert symbol 2.5" tall (the symbol is triangular and contains an exclamation point) precedes the signal word.
2. A warning message in black letters 1" tall follows the signal word and safety alert symbol. The warning message is printed in black, on the sign's white background.
3. An electrical "person with wire" safety symbol follows the warning message (it may also precede the warning message). This symbol is printed in black, on the sign's white background.
4. Signal and message wording is printed in a sans-serif font. Signal wording is always in uppercase. Message wording may be a combination of upper and lowercase letters, with the first word in the sentence capitalized. Message wording in uppercase is acceptable for short messages or emphasis of individual words.
5. Text justification is left-aligned for the word messages. Signal words are centered.
6. The signs are available in either English or Spanish. The utilization of signs in one or both languages is up to the area manager.

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7. On the English sign, the signal word reads, "WARNING." The warning message reads, "HAZARDOUS VOLTAGE INSIDE KEEP OUT." Additional wording includes, "CAN SHOCK, BURN OR CAUSE DEATH" and "IN CASE OF EMERGENCY, CALL 911." The Pacific Power or Rocky Mountain Power logo follows as shown in Figure 1 and Figure 2.
8. On the Spanish sign, the signal word reads, "RIESGOSO." The warning message reads, "VOLTAJE PELIGROSO ADENTRO NO ENTRE." Additional wording includes, "PUEDE CAUSAR CHOQUE ELECTRICO, QUEMADURAS O MUERTE" and "EN CASO DE EMERGENCIA LLAME AL 911." The Pacific Power or Rocky Mountain Power logo follows as shown in Figure 3 and Figure 4.

D. Placement and Spacing

1. Signs shall be placed on each side of the substation's perimeter fence at a maximum spacing distance of 65 feet.
2. Signs shall also be placed on each gate, and shall be placed on the left-hand leaf of double gate.
3. Signs shall be placed on the outside of the fence (not the inside) at an approximate height of 5'-6" from the center of the sign to the ground. Sign location and height may be adjusted as needed to ensure maximum visibility. (For example, signs should not be obstructed by bushes, trees, berms, etc.)

E. Ordering, Installation and Inspection

1. Substation Engineering will order signs for new installations.
2. On existing installations, Technical Operations will inspect signs, verify placement, address conditions, and secure or order signs where and if needed.
3. Order high voltage warning signs with internal stock item number:
 English Pacific Power sign: SI# 7999851
 Spanish Pacific Power sign: SI# 7999853
 English Rocky Mountain Power sign: SI# 7999852
 Spanish Rocky Mountain Power sign: SI# 7999854
4. Order mounting hardware for mounting the sign on the substation fence, with internal Stock Item Number 7999092.
Description: The mounting hardware is comprised of aluminum brackets with 1" temper-proof bolts and locking nuts. The bolts are installed through the sign's front, and screw into the aluminum brackets located on the interior of the fence. Four sets of mounting hardware are needed for each sign.

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