Avista

Electric
Service
Reliability
Monitoring
and Reporting
Plan

1.0 Introduction

Washington investor-owned electric companies are to provide statements describing their reliability monitoring and reporting plans and annual report submittal dates pursuant to WAC 480-100-393 and WAC 480-100-398, Electric system reliability. These rules were adopted in the Commission's rulemaking in Docket No. UE-991168. (For ease of reference, these rules are included in Section 9.0 of this document.)

In 2008 the WUTC Staff suggested that Avista update their plan to more accurately reflect the information reflected in the Annual Reports. This document reflects the latest information, monitoring used for Avista Utilities' reliability metrics and reporting documents.

The Company's system includes ten geographical areas that are in a three states. The Annual Reports include both the State of Washington and the State of Idaho. Two of these divisions straddle the Washington and Idaho border and commingle jurisdictional customers.

2.0 <u>Definition of Terms</u>

Pursuant to WAC 480-100-388, Avista Utilities provides its definitions of the following items.

"Reliability Statistic" – Standard Statistics measures and calculation methods are per the IEEE Standard 1366-2003 (or latest version) Titled "IEEE Guide for Electric Power Distribution Reliability Indices". Same as Reliability Indices.

"Major event" – Modified this definition to the IEEE Standard 1366-2003 (or latest version) of Major Event Day (MED), which uses a process "Beta Method" to identify a Major Event Day. The previous definition was "An event that impacts more than 5% of the Company's customers and causes outages of more than 24 hours in duration in any given division within its territory".

"Sustained Interruption" - An interruption lasting longer than 5 minutes.

"Momentary Event Interruption" – An interruption(s) of duration 5 minutes or less. Each event consists of one trip and one reclose operation that occur within 5 minutes. For example, if an interrupting device operates three times and then holds, this would be counted as three events with the number of customers affected as three times the Ni.

"Baseline reliability statistic" – Avista will compare its reliability statistics to the year 2005.

"Reliability Target" - A statistical method was developed in 2004 for baseline statistics. The method is defined as the average over a specific timeframe and 2 times the standard deviation. For 95% of the time, the Reliability Statistic should be below the baseline.

"Customer Complaint" - When a customer is not satisfied with a resolution or explanation of their concern.

"Commission Complaint" – When a customer is not satisfied with a resolution of a complaint to Avista or takes the complaint directly to the Commission.

3.0 Electric Service Reliability Monitoring and Reporting Plan

Avista Utilities provides this updated plan for monitoring and reporting electric service reliability (in adherence to WAC 480-100-393) based on changes and improvements in the methodology and capabilities in place as of the date of this submission. Any modification to the Company's monitoring or reporting procedure will be filed with the Commission.

Avista is and will continue to report to the Commission the following four reliability indices with major events both included and excluded. Additionally a new indice is being reported that looks at the number of sustained interruptions (including MED sustained interruptions) an individual customer experiences. This indice is CEMI. These Reliability Index Calculations were extracted from "IEEE Guide for Power Distribution Reliability Indices" (IEEE Std 1366--2003):

SAIFI - System Average Interruption Frequency Index

- The average number of sustained interruptions per customer
- = <u>The number of customers which had *sustained interruptions*</u> Total number of customers served

$$\bullet \quad = \quad \frac{\sum N_i}{N_T}$$

MAIFI - Momentary Average Interruption Frequency Index

- The average number of momentary interruption events per customer
- = <u>The number of customers which had momentary interruptions</u>

 Total number of customers served

$$\bullet = \underbrace{\sum ID_E N_i}_{N_T}$$

• MAIFI can be calculated by one of two methods. Using the number of momentary interruptions or the number momentary events. This report calculates MAIFI using momentary interruptions. The interruptions include all momentary interruptions occurring within 5 minutes.

SAIDI - System Average Interruption Duration Index

- Average sustained outage time per customer
- = <u>Outage duration multiplied by the customers effected for all *sustained interruptions*Total number of customers served</u>

$$\bullet \quad = \quad \frac{\sum r_i N_i}{N_T}$$

CAIDI - Customer Average Interruption Duration Index

- Average restoration time
- = <u>Outage duration multiplied by the customers effected for all *sustained interruptions*The number of customers which had *sustained interruptions*</u>

$$\bullet = \frac{\sum r_i N_i}{\sum N_i}$$

Quantities

i = An interruption event;

 $r_i = Restoration time for each interruption event;$

T = Total;

 $ID_E = Number of interrupting device events;$

 N_i = Number of interrupted customers for each interruption event during the reporting period;

 N_T = Total number of customers served for the area being indexed;

$CEMI_n$ – Customers Experiencing Multiple Sustained Interruptions more than n.

- \bullet CEMI_n
- = <u>Total Number of Customers that experience more than *n* **sustained interruptions**Total Number of Customers Served</u>
- $\bullet = \frac{CN_{(k>n)}}{N_T}$

CEMSMI_n – Customers experiencing multiple sustained interruption and momentary interruption events.

- CEMSMIn
- = <u>Total Number of Customers experiencing more than *n* **interruptions**Total Number of Customers Served</u>
- $\bullet = \frac{CNT_{(k>n)}}{N_T}$

MED - Major Event Day

A major event day is a day in which the daily system SAIDI exceeds a threshold value. Its purpose is to allow major events to be studied separately from daily operation, and in the process, to better reveal trends in daily operation that would be hidden by the large statistical effect of major events.

T_{MED} is calculated (taken from the IEEE 1366-2003 Standard)

The major event day identification threshold value, T_{MED} , is calculated at the end of each reporting period (typically one year) for use during the next reporting period as follows:

- a) Collect values of daily SAIDI for five sequential years ending on the last day of the last complete reporting period. If fewer than five years of historical data are available, use all available historical data until five years of historical data are available.
- b) Only those days that have a SAIDI/Day value will be used to calculate the T_{MED} (do not include days that did not have any interruptions).
- c) Take the natural logarithm (In) of each daily SAIDI value in the data set.
- d) Find a(Alpha), the average of the logarithms (also known as the log-average) of the data set.
- e) Find b(Beta), the standard deviation of the logarithms (also known as the log-standard deviation) of the data set.
- f) Compute the major event day threshold, TMED, using equation (25).

$$T_{MED} = e^{\langle a+2.5 b\rangle}$$
 (25)

g) Any day with daily SAIDI greater than the threshold value TMED that occurs during the subsequent reporting period is classified as a major event day. Activities that occur on days classified as major event days should be separately analyzed and reported.

These five indices for determining reliability on the full system will be reported annually. The Company will include a comparison of the reporting year and previous year's annual indices. Samples of the reporting format (charts) are shown in the individual Sections described below. These Sections have been dramatically improved over the original plan format. Data gathering has also improved with additional capabilities of the Companies Geographical Information System and Outage Management Tool (OMT).

System Indices (includes Office reporting)
Areas of concern
CEMIn Avista Service Territory
CEMIn Office charts
Monthly Indices
Customer Complaints tables
Sustained Interruption Causes
By Office and Monthly
Momentary Interruption Causes
By Office and Monthly
Major Event Day causes
Cause Codes
Anticipated Reliability System Enhancements
Applicable Washington Administrative Code

Data Collection

Since Avista's Electric Service Reliability Monitoring and Reporting Plan were filed in 2001, there have been several improvements in the methods used to collect outage data. In late 2001, centralizing the distribution trouble dispatch and data collection function for Avista's entire service territory began. The distribution dispatch office is located in the Spokane main complex. At the end of September 2005, 100% of the Company's feeders, accounting for 100% of the customers, are served from offices that employ central dispatching.

The data collected for 2010 represents the fifth full year of outage data collected through the Outage Management Tool (OMT). For 2010, all data was collected using the "Outage Management Tool" (OMT) based on the Company's Geographic Information System (GIS). The OMT system automates the logging of restoration times and customer counts.

Even as good as the OMT system is at quantifying the number of customers and duration of the outage duration, there still are areas where the data collection is not precise. Determining the exact starting time of an outage is dependent on when a customer calls in, how well the Avista Distribution Dispatcher determines where the outage is and defines the device that has opened to remove the faulted section.

The OMT system relies heavily on the Customer Interactive Voice Recorder (IVR) system to automatically generate incidents in OMT. As more customers call in, the Electric Dispatcher can bundle customers assuming a device has opened creating the sustained interruption record. Then the interruption is confirmed by field personnel and a partial restoration or final restoration is completed and closed. An outage cause is assigned at the time the record is closed out and the field personnel determine it.

Further, in compliance with WAC 480-100-398 (3) regarding causes of the Company's outages, to help illustrate event causes on a system-wide and office area basis, several tables and charts will be provided. The reporting format for these tables and charts is shown in Section 11.0 of this report. The Company's current table of Cause Codes is as follows:

MAIN Proposed CATEGORY (Changes Only)	SUB CATEGORY Proposed (Changes Only)	Definition
ANIMAL	Bird Protected Squirrel Underground Other	Outages caused by animal contacts. Specific animal called out in sub category.
PUBLIC	Car Hit Pad Car Hit Pole Dig In Fire Tree Other	Underground outage due to car, truck, construction equipment etc. contact with pad transformer, junction enclosure etc Overhead outage due to car, truck, construction equipment etc. contact with pole, guy, neutral etc. Dig in by a customer, a customer's contractor, or another utility. Outages caused by or required for a house/structure or field/forest fire. Homeowner, tree service, logger etc. fells a tree into the line. Other public caused outages
COMPANY	Dig in Other	Dig in by company or contract crew. Other company caused outages
EQUIPMENT OH	Arrestors Capacitor Conductor - Pri Conductor - Sec Connector - Pri Connector - Sec Crossarm- rotten Cutout / Fuse Insulator Insulator Pin Other Pole - Rotten Recloser Regulator Switch / Disconnect Transformer - OH	Outages caused by equipment failure. Specific equipment called out in sub category.
	Wildlife Guard	Wildlife guard failed or caused an outage

EQUIPMENT UG	URD Cable - Pri URD Cable- Sec Connector - Sec Elbow Junctions Primary Splice Termination Transformer - UG Other	Outages caused by equipment failure. Specific equipment called out in sub category.
EQUIPMENT SUB	High side fuse Bus Insulator High side PCB High side Swt / Disc Low side OCB/Recloser Low side Swt / Disc Relay Misoperation Regulator Transformer Other	
MISCELLANEOUS NOT OUR PROBLEM (Outages in this category are not included in reported	SEE REMARKS Customer Equipment SEE REMARKS	For causes not specifically listed elsewhere Customer equipment causing an outage to their service. If a customer causes an outage to another customer this is covered under Public.
statistics)	Other Utility	Outages when another utility's facilities cause an outage on our system. Used when water and contamination causes
POLE FIRE		insulator leakage current and fire. If insulator is leaking due to material failure list under equipment failure. If cracked due to gunfire use customer caused other.
PLANNED	Maintenance / Upgrade Forced	Outage, normally prearranged, needed for normal construction work Outage scheduled to repair outage damage
TREE	Tree fell Tree growth	For outages when a tree falls into distribution primary/secondary or transmission during normal weather Tree growth causes a tree to contact distribution primary/secondary or transmission during
	Service	normal weather. For outages when a tree falls or grows into a service.
	Weather	When snow and wind storms causes a tree or branch to fall into, or contact the line. Includes snow loading and unloading.
UNDETERMINED		Use when the cause cannot be determined
WEATHER	Snow / Ice	Outages caused by snow or ice loading or unloading on a structure or conductor. Use weather tree for snow and ice loading on a tree.
	Lightning	Lightning flashovers without equipment damage. Equipment failures reported under the equipment type.
	Wind	Outages when wind causes conductors to blow into each other, another structure, building etc.

With the definition of Major Event Days using the IEEE 1366 standard an analysis of major events will be included in the Company's index calculations. All events are included because the Company's goal is to reduce outages whether caused by major events or day-to-day operations.

The Company notes that these rules establish reliability monitoring and reporting requirements only and do not set performance or program standards. Avista Utilities did begin reporting against performance targets to address the need for baseline statistics within three years of the effective date of the rule or April 21, 2004. The performance target is based upon a statistical "bell curve" relationship between outages, weather, and other influences. The baseline was modified as more reliability data was collected and also with better data reporting through the technology improvements made to the OMT system. This plan establishes 2005 as the baseline year for reliability statistics.

4.0 Intent to file Electric Service Reliability Reports

Avista Utilities will file an annual report with the Commission, encompassing the previous calendar year of events, by April 30th of each year, consistent with the reliability monitoring and reporting plan filed herein. Using the baseline statistics, Avista Utilities will compare each year's results to the baseline results and to those results from previous years as well. Avista will maintain historical reliability information for seven years.

Any changes made to the Company's plan regarding data collection methods or calculations of the reliability indices will be described in that year's report. In addition, Avista Utilities will explain how these changes affect comparisons to previous, future and baseline information.

Avista Utilities will identify the utility's geographical divisions of greatest reliability concern, explain their causes, and explain how the Company plans to address them.

Customer Complaints, as defined in Section 2.0, will be logged by a Customer Service Representative in the Customer Service System (CSS). The Company originally expected to be able to determine if the complaint is a result of a sustained interruption, a momentary interruption or a power quality issue. The Company also expected to be able to identify complaints that stem from major events. However, after two or three years of evaluating and resolving Customer Complaints it appears that the best that can be completed is to resolve the complaint as needed. Documentation of the cause of the events has proven to be problematic.

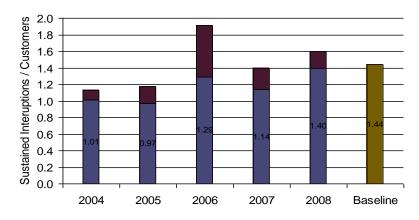
5.0 <u>Sample Reporting—System Indices</u>

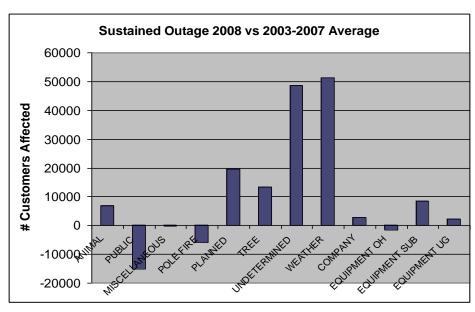
5.1 System Total

The following 2008 charts provide a sample showing the Company's method of charting the four indices on a yearly basis. The Company comparison to the baseline statistic for each index is shown on each of these charts. The second chart provides a current year to the previous time period average indice to show variance from year to year.

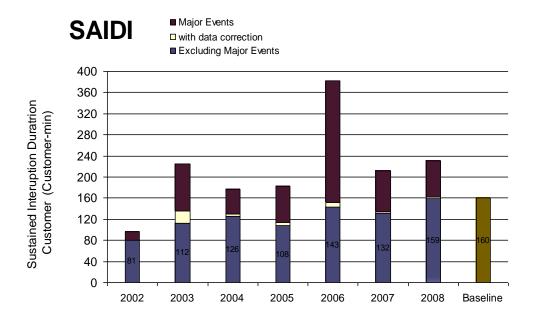
5.2 SAIFI



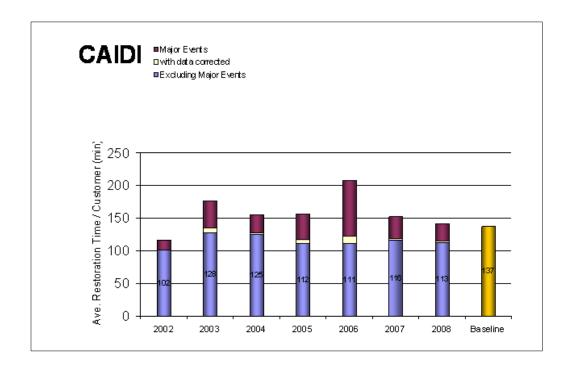




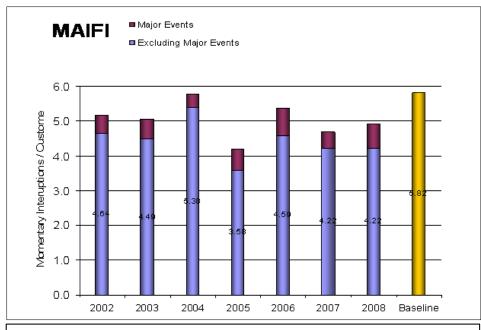
5.3 SAIDI

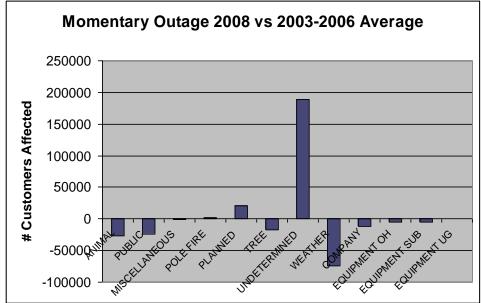


5.4 CAIDI



5.5 MAIFI

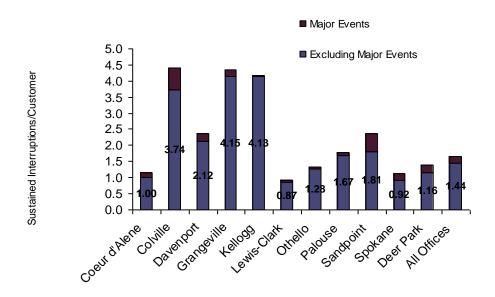




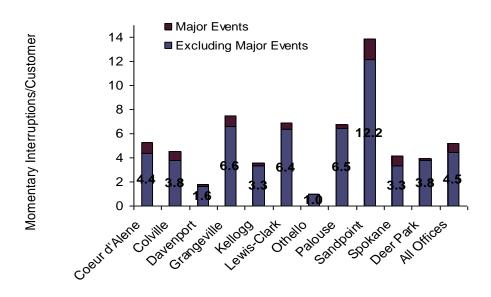
All charts and tables in this section are provided for illustrative purposes; the Company may change the future presentation of this information without changing the underlying data.

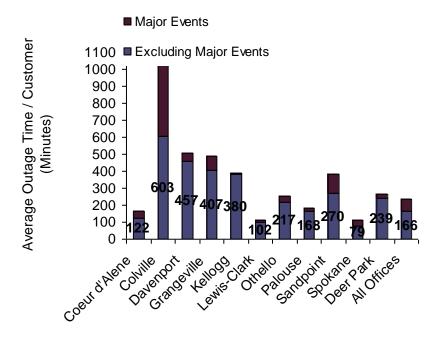
Office Indice 2008 sample charts are shown below.

5.6 SAIFI

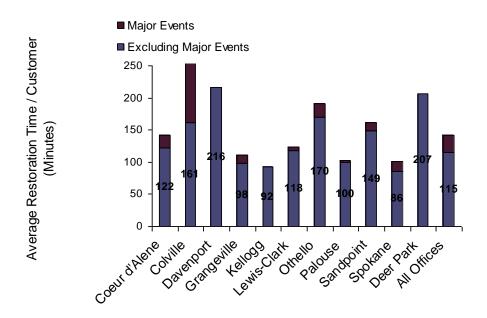


5.7 MAIFI





5.9 CAIDI

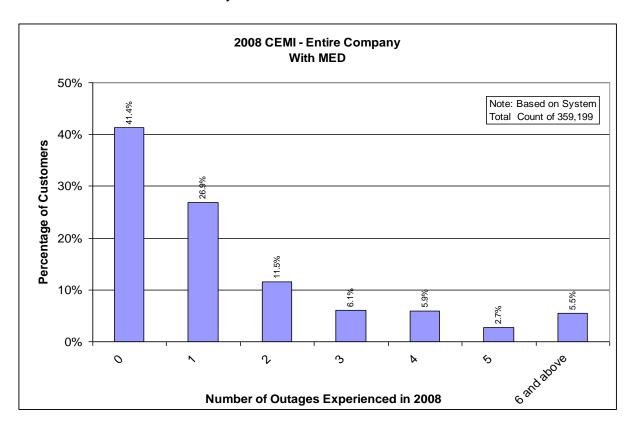


All charts and tables in this section are provided for illustrative purposes; the Company may change the future presentation of this information without changing the underlying data.

6.0 Sample Reporting—CEMIn Avista Service Territory

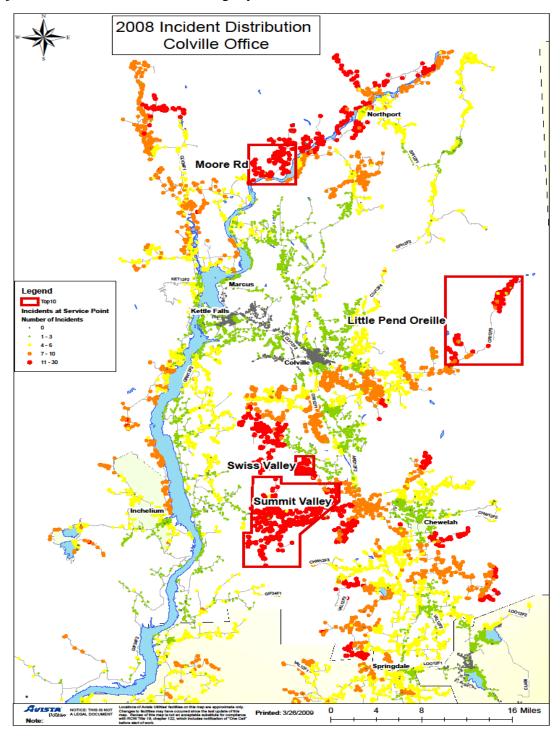
The first chart below provides a view of the percentage of customers served from the Avista system that have sustained interruptions. 68 % of Avista customers had 1 or fewer sustained interruptions and 5.5% of Avista customers had 6 or more sustained interruptions during 2008

6.1 CEMIn Service Territory



6.2 CEMIn Office Charts

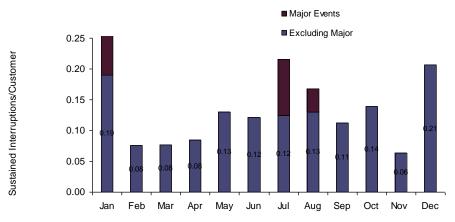
The remaining geographic plots show the sustained interruptions by color designation according to the legend on each plot for each office area. Note the office area is designated as the area in white for each plot and that there is overlap between adjacent office area plots. The adjacent office areas are shown in light yellow.



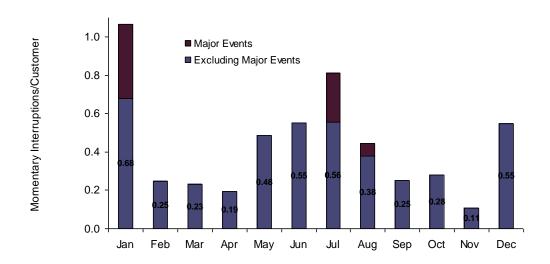
7.0 Monthly Indices

Each of the following indices, reported by month, shows the variations from month to month. These variations are partially due to inclement weather and, in some cases, reflect incidents of winter snowstorms, seasonal windstorms, and in mid- and late summer lightning storms. They also reflect varying degrees of animal activity causing disruptions in different months of the year.

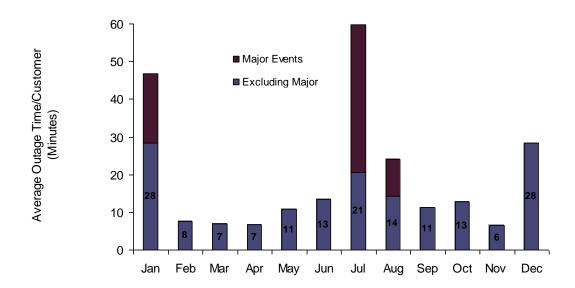
SAIFI



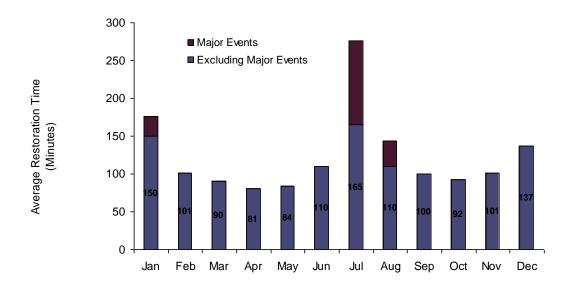
MAIFI



SAIDI



CAIDI



8.0 Sample Reporting—Customer Complaints

The following is a list of Complaints made to the Commission during this year.

Customer Address	Complaint	Resolution
Grangeville ID Grangeville 1274	Customer concerned about lack of timely notification for planned outages. He uses oxygen & needs power or a decent notice so he has backup power for his batteries. Customer stated that Avista told him after the last incident that notification would be printed in the local paper to let everyone in Grangeville know about the planned power outage a week before outage.	No resolution documented

9.0 Sample Reporting—Sustained Interruption Causes

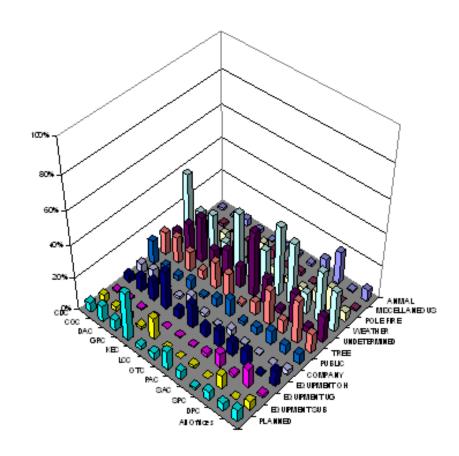
Table .1 - % SAIFI per Cause by Office

The following table lists the percentage SAIFI contribution by causes for outages excluding major event days.

Reason	CDC	COC	DAC	GRC	KEC	LCC	отс	PAC	SAC	SPC	DPC	All Offices
ANIMAL	1.4%	0.9%	4.1%	2.3%	0.3%	2.0%	2.0%	1.3%	9.8%	19.7%	1.0%	7.0%
MISCELLANEOUS	0.1%	1.8%	1.1%	0.0%	0.0%	5.3%	0.0%	2.3%	0.6%	0.3%	0.0%	1.0%
POLE FIRE	0.5%	8.9%	6.3%	5.0%	0.2%	16.1%	5.3%	3.8%	3.9%	7.2%	15.4%	5.8%
WEATHER	39.0%	20.5%	23.8%	11.6%	34.9%	22.0%	22.6%	42.5%	37.7%	12.5%	31.4%	24.9%
UNDETERMINED	9.2%	18.4%	28.2%	12.9%	18.0%	13.1%	39.9%	16.6%	3.0%	18.7%	3.3%	16.1%
TREE	13.9%	15.9%	11.9%	5.6%	16.3%	14.5%	1.5%	8.1%	21.2%	8.2%	26.5%	11.8%
PUBLIC	14.5%	3.9%	2.9%	5.6%	1.3%	5.4%	10.6%	2.3%	4.5%	8.2%	5.4%	6.0%
COMPANY	5.8%	7.3%	0.0%	1.5%	7.8%	2.1%	0.3%	3.7%	0.7%	0.3%	0.0%	3.2%
EQUIPMENT OH	4.8%	9.2%	12.0%	23.5%	5.0%	14.7%	6.2%	9.9%	8.8%	9.5%	0.9%	9.8%
EQUIPMENT UG	0.6%	1.0%	0.6%	0.8%	0.2%	0.6%	0.5%	2.5%	8.5%	1.7%	11.4%	1.8%
EQUIPMENT SUB	4.4%	2.7%	2.5%	2.0%	13.2%	0.0%	0.0%	1.6%	0.0%	8.2%	0.0%	5.1%
PLANNED	5.9%	9.4%	6.4%	29.3%	2.6%	4.1%	11.1%	5.3%	1.3%	5.4%	4.8%	7.5%

% SAIFI per Cause by Office

The following chart shows the percentage SAIFI contribution by causes for outages excluding major event days.

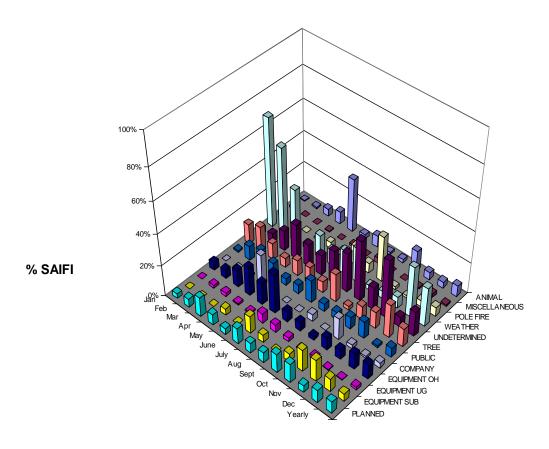


% SAIFI

% SAIFI per Cause by Month
The following table lists the percentage SAIFI contribution by causes for all outages, excluding major event days.

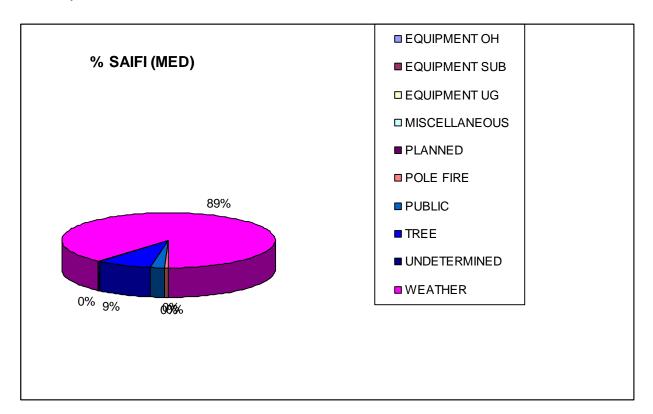
Reason	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Yearly
ANIMAL	0.4%	1.0%	4.7%	7.7%	34.2%	2.9%	7.2%	1.6%	2.2%	13.2%	4.5%	3.8%	7.0%
MISCELLANEOUS	1.1%	0.0%	0.0%	0.4%	0.0%	1.3%	0.0%	3.4%	0.0%	0.0%	0.7%	2.5%	1.0%
POLE FIRE	3.6%	0.0%	0.3%	0.9%	4.0%	3.2%	11.9%	6.4%	29.2%	1.9%	1.1%	3.9%	5.8%
WEATHER	69.0%	55.4%	33.9%	3.1%	14.5%	10.2%	15.3%	22.0%	2.9%	5.0%	7.3%	32.5%	24.9%
UNDETERMINED	4.0%	5.7%	12.8%	22.2%	14.5%	12.9%	21.2%	25.0%	38.5%	14.3%	37.5%	6.6%	16.1%
TREE	12.5%	16.0%	10.3%	6.1%	10.0%	10.9%	7.2%	17.8%	2.4%	8.3%	10.6%	21.2%	11.8%
PUBLIC	0.9%	9.1%	11.9%	8.9%	4.3%	5.6%	14.3%	4.6%	4.9%	7.7%	10.8%	1.3%	6.0%
COMPANY	0.0%	0.0%	0.8%	20.2%	0.1%	0.2%	0.1%	4.3%	0.1%	13.8%	2.4%	1.2%	3.2%
EQUIPMENT OH	5.1%	5.7%	11.0%	18.5%	13.8%	25.7%	6.8%	6.0%	2.4%	8.0%	6.4%	10.1%	9.8%
EQUIPMENT UG	0.3%	1.6%	2.2%	1.1%	1.0%	6.3%	4.8%	2.3%	0.5%	1.9%	0.4%	0.4%	1.8%
EQUIPMENT SUB	0.0%	0.0%	0.0%	4.1%	0.0%	10.9%	4.7%	0.0%	5.1%	14.0%	13.9%	8.3%	5.1%
PLANNED	3.0%	5.3%	12.1%	6.8%	3.8%	9.9%	6.4%	6.7%	12.0%	11.9%	4.4%	8.3%	7.5%

The following chart shows the percentage SAIFI contribution by causes for all outages, excluding major event days.



10.0 Major Event Day causes

% SAIFI by Cause Code for the Major Event Days
The following chart shows the percentage SAIFI contribution by causes for outages during major event days



All charts and tables in this section are provided for illustrative purposes; the Company may change the future presentation of this information without changing the underlying data.

11.0 Cause Codes

Any proposed changes to the cause codes is documented in the table shown in Section 3 above and in the Cause Code section of the annual report. At this time, the cause codes should be fairly stable to allow consistent year to year analysis.

12.0 Anticipated Reliability System Enhancements

As AMR/AMI metering is implemented in the future and the customer meter provides outage information to the OMT system through an interface, the SAIDI and CAIDI numbers are expected to increase. This is similar to the previous annual report discussion on the implementation of the OMT system increasing the SAIFI and SAIDI numbers just due to the better reporting of the customer affected.

Use of the OMT system and GIS data has improved the tracking of the numbers of customers without power, allowed for better prioritization of the restoration of service and the improved dispatching of crews.

For the year end 2010 to 2014 reports there is an expectation of varying numbers and also improving numbers for some specific Office areas as the implementation of Smart Grid is completed. Various stages of transition are also expected.

13.0 Applicable Washington Administrative Code

This document is based on new WUTC administrative rules adopted in 2001. These rules, for convenience of the reader are as follows.

WAC 480-100-388 Electric service reliability definitions. "Electric service reliability" means the continuity of electric service experienced by retail customers.

"Reliability statistic" means a number, which may include multiple components (for example, service interruptions, customers, and hours), that measures electric service reliability.

"Baseline reliability statistic" means a number calculated by the utility measuring aspects of electric service reliability in a specified year that may be used as a comparison for measuring electric service reliability in subsequent years.

"Sustained interruption" means an interruption to electric service that has a length of duration specified by the electric utility, but in any case not less than one minute.

"Power quality" means characteristics of electricity, primarily voltage and frequency, that must meet certain specifications for safe, adequate and efficient operations.

"Full-system" means all equipment and lines necessary to serve retail customers whether for the purpose of generation, transmission, distribution or individual service.

"Major event" means an event, such as a storm, that causes serious reliability problems, and that meets criteria established by the utility for such an event.

[Statutory Authority: RCW 80.01.040. 01-08-009 (Docket No. UE-991168, General Order No. R-478), § 480-100-388, filed 3/22/01, effective 4/22/01.]

WAC 480-100-393 Electric service reliability monitoring and reporting plan. (1) Who must file. Electric utilities subject to commission jurisdiction must file a plan for monitoring and reporting electric service reliability information to the commission.

- (2) When to file. The plan for monitoring and reporting electric service reliability information must be filed with the commission six months after the effective date of this rule, though utilities are encouraged to file the plan sooner. Any modification to the plan must be filed with the commission before the modification is implemented.
- (3) What to file. The utility must file a plan for monitoring and reporting electric service reliability information to the commission. The plan, and any modification to it, must be accepted by the commission. The plan must include the following items:
- (a) What reliability statistics and information the utility will report to the commission. The utility must select and define statistics that track full-system reliability, and information, which may include statistics, that tracks localized reliability and identifies areas of greatest reliability concern.
- (b) When the utility will establish baseline reliability statistics to report to the commission. Prior to establishing baseline reliability statistics, the utility must report the best information available. The utility must establish baseline reliability statistics within three years of the effective date of this rule.
- (c) When the utility will file its annual electric service reliability report to the commission.

[Statutory Authority: RCW 80.01.040. 01-08-009 (Docket No. UE-991168, General Order No.

WAC 480-100-398 Electric service reliability reports. The electric utility must file an electric service reliability report with the commission at least once a year. The report must meet the following conditions:

- (1) The report must be consistent with the electric service reliability monitoring and reporting plan filed under WAC 480-100-393. As set forth in the plan, in an identified year, baseline reliability statistics must be established and reported. In subsequent years, new reliability statistics must be compared to the baseline reliability statistics and to reliability statistics from all intervening years. The utility must maintain historical reliability information necessary to show trends for a minimum of seven years.
- (2) The report must address any changes that the utility may make in the collection of data and calculation of reliability information after initial baselines are set. The utility must explain why the changes occurred and explain how the change is expected to affect comparisons of the newer and older information. Additionally, to the extent practical, the utility must quantify the effect of such changes on the comparability of new reliability statistics to baseline reliability statistics.
- (3) The report must identify the utility's geographic areas of greatest reliability concern, explain their causes, and explain how the utility plans to address them.
- (4) The report must identify the total number of customer complaints about reliability and power quality made to the utility during the year, and must distinguish between complaints about sustained interruptions and power quality. The report must also identify complaints that were made about major events.

[Statutory Authority: RCW 80.01.040. 01-08-009 (Docket No. UE-991168, General Order No. R-478), § 480-100-398, filed 3/22/01, effective 4/22/01.]

14.0 Attachment 1 – SAIDI and SAIFI Historical Summary

See attachment.

15.0 Company Contact

For further information regarding this document, please contact:

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