

Energy Division Central Files Document Coversheet

A. Document Name

Today's Date: 7/14/2023

1. Utility Name: PacifiCorp d/b/a Pacific Power (U 901 E)
2. Document Submission Frequency (Annual, Semi-Annual, YTD, Quarterly, Monthly, Weekly, Ad-hoc, Once, Other Event): Annual
3. Report Name: Electric Reliability Report
4. Reporting Interval (for this submission, e.g. 2015 Q1 – that data date): CY 2022
5. Document File Name (format as 1+2 + 3 + 4): PacifiCorp Annual Electric Reliability Report CY 2022
6. Append the confidential and/or cover sheet notation, as appropriate. CONF

Sample Document Names:

Utility Name + Submittal Frequency + Report Name + Year + Reporting Interval + (COV or CONF or both or neither)

PacifiCorp Annual Electric Reliability Report CY 2022 PUBLIC	PacifiCorp Annual Electric Reliability Report CY 2022 CONF

7. Identify whether this filing is original or revision to a previous filing.
 - a. If revision, identify date of the original filing: [Click here to enter text.](#)

B. Documents Related to a Proceeding

All submittals should reference both a proceeding and a decision, if applicable. If not applicable, leave blank and fill out Section C.

1. Proceeding Number (starts with R, I, C, A, or P plus 7 numbers): R.14-12-014
2. Decision Number (starts with D plus 7 numbers): D. 16-01-008
3. Ordering Paragraph (OP) Number from the decision: Ordering Paragraph 1

C. Documents Submitted as Requested by Other Requirements

If the document submitted is in compliance with something other than a proceeding, (e.g. Resolution, Ruling, Staff Letter, Public Utilities Code, or sender's own motion), please explain:

[Click here to enter text.](#)

D. Document Summary

Provide a Document Summary that explains why this report is being filed with the Energy Division. This information is often contained in the cover letter, introduction, or executive summary.

D.16-01-008 OP 1 requires all electric utilities to submit system level and district or division level electric reliability information to the Commission on July 15 of each year.

E. Sender Contact Information

1. Sender Name: Santiago Gutierrez
2. Sender Organization: PacifiCorp d/b/a Pacific Power (U 901 E)
3. Sender Phone: 503-933-7288
4. Sender Email: p38650@pacificorp.com

Energy Division Central Files Document Coversheet

F. Confidentiality

1. Is this document confidential? No Yes

a. If Yes, provide an explanation of why confidentiality is claimed and identify the expiration of the confidentiality designation (e.g. Confidential until December 31, 2020.)

On January 14, 2016, the Commission approved D.16-01-008 updating the electric reliability reporting requirements for California electric utilities. D.16-01-008 requires utilities to submit annual information about planned outages to the Energy Division and the Safety and Enforcement Division on a confidential basis. As noted in D.16-01-008, “making planned outage data should be confidential to protect the public from potential harmful activities that could damage the grid and electric reliability.” See D.16-01-008 at p.19. A signed declaration for confidential treatment is provided with submission of the annual electric reliability report for 2021.

G. CPUC Routing

Energy Division’s Director, Ed Randolph, requests that you not copy him on filings sent to Energy Division Central Files. Identify below any Commission staff that were copied on the submittal of this document.

1. Names of Commission staff that sender copied on the submittal of this Document:
Lee Palmer, Julian Enis, Forest Kaser

ver.5/19/2016

July 14, 2023

VIA ELECTRONIC FILING

Leuwam Tesfa, Deputy Executive Director, Energy & Climate Policy
Leslie Palmer, Director, Safety and Enforcement Division
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, California 94102-3298
EnergyDivisionCentralFiles@cpuc.ca.gov
Lee.Palmer@cpuc.ca.gov

**RE: PacifiCorp (U 901-E) Annual Electric Reliability Report in Compliance
with D.16-01-008**

In compliance with California Public Utilities Commission Decision (D.) 16-01-008, enclosed is PacifiCorp's Annual Electric Reliability Report for January 1, 2022 – December 31, 2022.

Please note that the planned outage data is considered confidential subject to California Public Utilities Code Section 583, General Order 66-D and D.16-01-008. In compliance with D.16-01-008, this information is submitted under seal. A signed declaration in support of the request for confidential treatment is also provided with this submission.

If you have any questions, please contact Amy McCluskey, Managing Director, Wildfire Safety & Asset Management, at (503) 813-5493, or Pooja Kishore, Regulatory Affairs Manager, at (503) 813-7314.

Sincerely,



Matthew McVee
Vice President, Regulatory Policy and Operations

Enclosure

C: Julian Enis, Julian.Enis@cpuc.ca.gov
Forest Kaser, Forest.Kaser@cpuc.ca.gov



PacifiCorp, d/b/a Pacific Power

**Annual California
Electric Reliability Report**

(PUBLIC VERSION)

Calendar Year 2022 Review
(January 1 – December 31, 2022)

Table of Contents

Introduction..... 3

 Outage Data Collection Process..... 4

 Data Collected: Conventions, Indices and Certain Definitions 5

 Cost Effective Improvements..... 6

Worst Performing Circuits..... 7

Service Territory Map..... 9

State Reliability Underlying Indices - Excluding Planned Outages: Ten-Year SAIDI, SAIFI, MAIFI and CAIDI Results 10

 Distribution 10

 Transmission 13

 Combined Transmission and Distribution..... 16

District Reliability Underlying Indices - Excluding Planned Outages: Ten-Year SAIDI, SAIFI and CAIDI Results 19

 Crescent City 19

 Yreka/Mt. Shasta..... 22

 Tulelake/Alturas..... 25

State and District Reliability Underlying Indices - Including Planned Outages: Ten-Year Year SAIDI, SAIFI and CAIDI Results 28

 State 28

 Crescent City 31

 Yreka/Mt. Shasta..... 34

 Tulelake/Alturas..... 37

CONFIDENTIAL DATA SUBJECT TO PUBLIC UTILITIES CODE SECTION 583, GENERAL ORDER 66-D AND D.16-01-008 Error! Bookmark not defined.

 Planned Outage by District 40

Top Ten Unplanned Power Outage Events for 2022 43

Major Event Summary 44

Historical Top Ten Unplanned Power Outage Events – 2021 through 2011 45

Customer Inquiries and Response 48

 Customer Reliability Communications..... 48

 Reliability Inquiry and Complaint Process Overview 48

 Customer Reliability Inquiry/Complaint Tracking..... 49

 2022 Customer Reliability Inquiry Responses..... 49

Introduction

In rulemaking (R.)14-12-014, the California Public Utilities Commission developed rules regarding changes to the state's required reliability reporting requirements for California investor-owned electric utilities (IOUs), as outlined in Decision (D.) 16-01-008¹ (the Order). The report is being filed in compliance with those rules. The scope of the rulemaking included the following tasks:

1. Review of current reliability reporting requirements.
2. Develop revised annual reporting requirements that include information about frequency and duration of outages.
3. Define the term "local area" for reliability reporting.
4. Clarify the term "major event day" (to align with definition of local area for reliability reporting);
5. Develop criteria and methodology for identifying worst performing circuits.
6. Develop an approach for demonstrating cost-effective remediation and determining cost recovery procedures.
7. Consider whether the IOUs should be allowed to set up memorandum accounts for remediation costs; and
8. Develop an annual outreach plan and related reporting to inform customers about planned and unplanned outages.

The Order includes the following requirements:

1. IOUs shall submit system level and district or division level electric reliability information to the Commission on July 15 of each year.
2. IOUs shall submit draft copies of the reports prepared for July 15, 2016, and July 15, 2017, to the Energy Division Director in electronic format at least 45 days prior to the July 15 deadline. Draft copies for subsequent reporting years shall be required at the discretion of the Energy Division Director.
3. Commission staff, in consultation with the IOUs, has the authority to require any necessary revisions to the draft reports before they are made public.
4. Pacific Gas and Electric Company shall combine in one single report the electric reliability reporting requirements pursuant to Decision (D.) 96-09-045 and D.04-10-034.
5. IOUs shall use the electric reliability reporting template at Appendix B of the Order to create their annual reports.
6. IOUs shall publish on their internet websites or provide to customers via U.S. mail, procedures for making requests about electric circuits that serve their homes or businesses.
7. IOUs shall conduct at least one annual public in-person presentation about the information in their annual electric reliability reports.
8. IOUs shall make webinar participation available for their annual in-person events so that their customers can attend the presentation remotely or in-person.
9. Pacific Gas and Electric Company, Southern California Edison Company and San Diego Gas & Electric Company shall annually report the worst performing one percent of the circuits among all the electric circuits in their respective service territories.
10. Bear Valley Electric Service, Liberty Utilities, LLC, and PacifiCorp shall report the following number of circuits on their list of worst performing circuits: three circuits for PacifiCorp; two circuits for Liberty Utilities, LLC; and one circuit for Bear Valley Electric Service.
11. IOUs shall provide reliability data at both the system and the district level. Whatever major event days are determined for calculations at the system level shall also be used for reliability calculations at the district or division level.

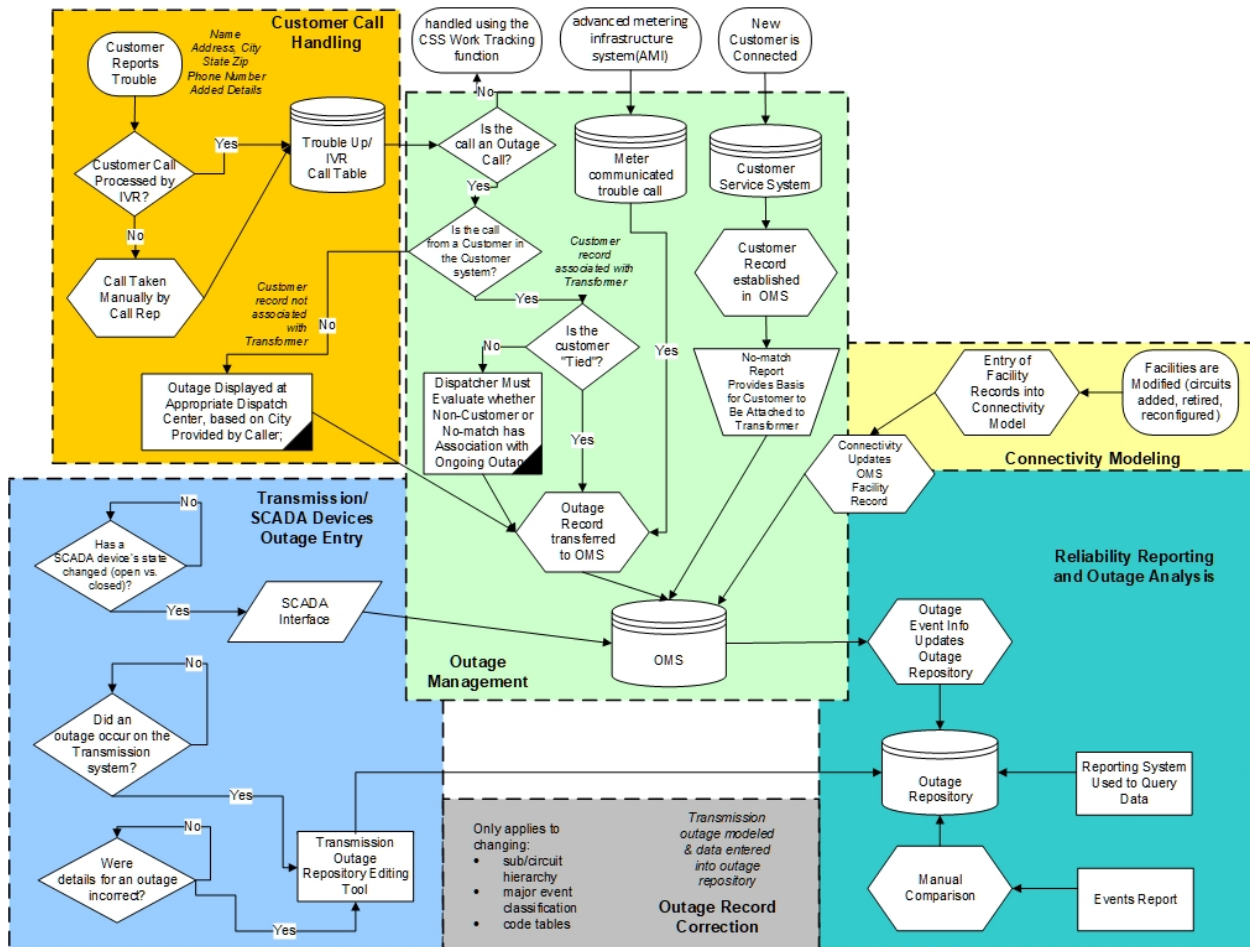
¹ D.16-01-008 <http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M157/K724/157724560.PDF>

12. Pacific Gas and Electric Company, Southern California Edison Company and San Diego Gas & Electric Company shall respond to customer inquiries about electric reliability within 15 business days.
13. Bear Valley Electric Service, Liberty Utilities, LLC, and PacifiCorp shall respond to customer inquiries about electric reliability within 30 business days.
14. IOUs should meet and confer to consolidate unidentified reliability reporting requirements from Commission decisions and General Orders into a single Commission decision and general order.
15. IOUs shall submit a single joint proposal for a proposed consolidated decision and general order to the directors of the Energy Division and the Safety and Enforcement Division within one year from the date of the Order.

This report serves to fulfill the foregoing reporting requirements of the Order. In addition, this report includes a description of PacifiCorp's outage data collection process, the applicable conventions, indices and definitions, methods used by PacifiCorp to determine cost-effective reliability improvement opportunities, PacifiCorp's worst performing circuits and PacifiCorp's service territory map.

Outage Data Collection Process

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). Upon implementation of the company's advanced metering infrastructure system (AMI), which occurred since the last annual report, meters also communicate trouble calls into CADOPS. By overlaying these events onto the network model, the program infers outages at the appropriate devices (such as a transformer, fuse, or other interrupting device) for all customers down line of the interrupting device. The outage is then routed to appropriate field operations staff for restoration and the outage event is recorded in the Company's Prosper/US outage repository. In addition to this real-time model of the system's electrical flow, the Company relies heavily upon the SCADA system it has in place. This includes the Dispatch Log System (an SQL database application) which serves to collect all events on SCADA-operable circuits. That data is then analyzed for momentary interruptions to establish state-level and circuit-level momentary interruption indices. Only those circuits (and the customers who are served from those devices) outfitted with SCADA equipment are considered within the calculations.



Data Collected: Conventions, Indices and Certain Definitions

SAIDI, SAIFI, CAIDI, and MAIFI are the most common performance 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 were since modified in IEEE 1366-2003/2012, IEEE Guide for Electric Power Distribution Reliability Indices.

For performance reporting, as contained within this document, PacifiCorp uses the current standard indices, applied both at the state level and to each of the districts in which it provides service. These districts serve as “local areas” as defined within reporting requirements. Major event days are calculated at the state level and then applied at each of these districts consistent with the requirements of D.16-01-008.

PacifiCorp collects outage data on all outages on the source side of the electric meter. When it is required to interrupt power in order to perform work on the system, it records these outages with a separate designation to identify whether they were taken without notice, or whether the outages were pre-arranged or planned. For the purposes of the data provided in this report, Planned Outages are those in which either the customer or the Company arranged for the power interruption to occur. In certain situations, the notice may be very short, while generally two days’ notice is the goal. These may also often be referred to as Maintenance Outages. Certain other outages may be performed intentionally by employees, without notice (e.g., when a car strikes a utility pole and the crew replacing the damaged pole takes an operational outage), though they are not generally classified as Planned Outages because they happen abruptly.

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

Additionally, the Company also collects information about outages that happen on equipment at voltages higher than distribution level, specifically the transmission or generation system; transmission voltages within PacifiCorp are those in excess of 34.5 kilovolt (kV). If an interruption occurs to distribution customers as a result of events at those facilities, it designates these outages as Loss of Supply outages and denotes them in this report as Transmission.

Cost Effective Improvements

PacifiCorp uses its reliability data in a variety of ways that are designed to improve reliability to its customers. It has devised methods that are contained in the industry guide for electric reliability, IEEE 1782-2014.² Some of these analytical methods render the outage data in a tabular, graphical, or geospatial manner. All of them serve as inputs to identify and develop projects that improve reliability using the Company's fuse coordination program (commonly referred to as "Fuse It or Lose It" or FIOLI), its circuit hardening program (Saving SAIDI), and its capital construction program (Network Initiatives).

PacifiCorp evaluates the history of outages within a circuit and at specific devices (fuses, reclosers, circuit breakers) across the entire service area and determines the probability of avoiding outages of specific cause categories. The programs (FIOLI, Saving SAIDI, and Network Initiatives) are evaluated for their forecast improvements to network reliability, as measured by the avoidance of customer interruptions, customer minutes interrupted, and momentary customer interruptions. Each project has a value calculated for the cost of the project divided by the avoided interruptions.

PacifiCorp uses this cost per avoided customer interruption and customer minute interrupted to identify cost-effective reliability improvement projects. It assembles each of these candidate projects and their cost to benefit value into a project priority listing which rank orders the projects and based upon the best-cost projects, prepares a suite of projects that align with metric improvement and budget targets. As projects are completed the list is re-evaluated to determine whether reliability performance or funding levels have changed and warrant modifications to the plan.

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

Worst Performing Circuits

To calibrate and assess circuit performance, PacifiCorp uses a method to calculate a “Circuit Performance Indicator,” which is a blended multi-year metric for the circuit, applying weighted circuit SAIDI, SAIFI, MAIFI and breaker lockout events. This metric attempts to set all outage metrics on equal footing and provide that no one index is emphasized for overall reliability. So, customers experiencing a mix of sustained and momentary interruptions are more likely to have their circuit under consideration for improvement. This metric excludes outages that are Planned, Loss of Supply (Transmission), or Major Events. We identify this metric as CPI99. The equation and weightings are detailed below.

CPI99

CPI99 is an acronym for Circuit Performance Indicator, which uses key reliability metrics of the circuit to identify underperforming circuits. The variables and equation for calculating CPI are:

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

Index: 10.645

SAIDI: Weighting Factor 0.30, Normalizing Factor 0.029

SAIFI: Weighting Factor 0.30, Normalizing Factor 2.439

MAIFI_E: Weighting Factor 0.20, Normalizing Factor 0.70

Lockouts: Weighting Factor 0.20, Normalizing Factor 2.00

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

A higher CPI Score is worse than a lower CPI Score. Those circuits whose scores are poorer (higher) than may be warranted, given factors such as the number of customers they serve, the exposure, and the location of the circuit are identified as candidates worst performing circuits. Within five years of selection, the score must be improved (lowered) by a targeted amount. If that improvement has not been achieved, additional work may be implemented to further improve the circuit’s performance.

In selecting its three worst performing circuits, PacifiCorp uses CPI99 as its preferred metric, as discussed above, and targets a 20% improvement in that metric for the family of circuits selected within five years of their selection. If a given circuit is identified as a worst performing circuit in successive years, it would be asterisked, and additional parameters would be required to be reported.

The Order directs utilities in the following manner regarding worst performing circuit selection.³

b. Any circuit appearing on this list of “deficient” (WPC) circuits that also appeared on the previous year's list would be marked by an asterisk. For each asterisked circuit, each utility shall provide the following information:

- i. An explanation of why it was ranked as a "deficient" circuit, i.e., the value of the metric used to indicate its performance.
- ii. A historical record of the metric.
- iii. An explanation of why it was on the deficiency list again.

³ D.16-01-008 p. 3.

- iv. An explanation of what is being done to improve the circuit's future performance and the anticipated timeline for completing those activities (or an explanation why remediation is not being planned); and
- v. A quantitative description of the utility's expectation for that circuit's future performance.

Below are the circuits selected as worst performers for 2023. Since no circuit was a repeat selection⁴ the details listed above are not required.

Top 3 Worst Performing Circuits			
Program Year 24: (CY2023)			
Circuit Name	Mill (5L62)	South (5G31)	East (5L82)
District	Tulelake	Yreka/Mt. Shasta	Tulelake
Customer Count	106	258	455
Substation Name	Dorris	Montague	Tulelake
Circuit-Miles	59 miles	29 miles	95 miles
% OH	98%	85%	99.8%
% UG	2%	15%	0.2%
# Breaker/Recloser Operations⁵	0	6	191
# Fault Counts⁶	0	5	19
CPI99 Baseline	122	90	78
Preferred Baseline	98	72	62
Designated as Worst Performer in Prior Year⁷?	No	No	No

⁴In 2022, the three circuits identified as WPCs were Sawmill (5R171), Shasta Spr (5G69), and Red Rock (4L3). In 2021, the three circuits identified as WPCs were Crescent Ctr (5R160), Nutgale, (8G95), and Shastina (5G45). In 2020, the three circuits identified as WPCs were Florence Ave (7G71), Seiad Crk (5G39), and Snowbush (6G101). In 2019, the three circuits identified as WPCs were Bell-Air (5G83), Peach Orchard (5G2), and Southbank (5R165). In 2018, the three circuits identified as WPCs were Town (5G16), South (5G99), and Patrick's Creek (6R3).

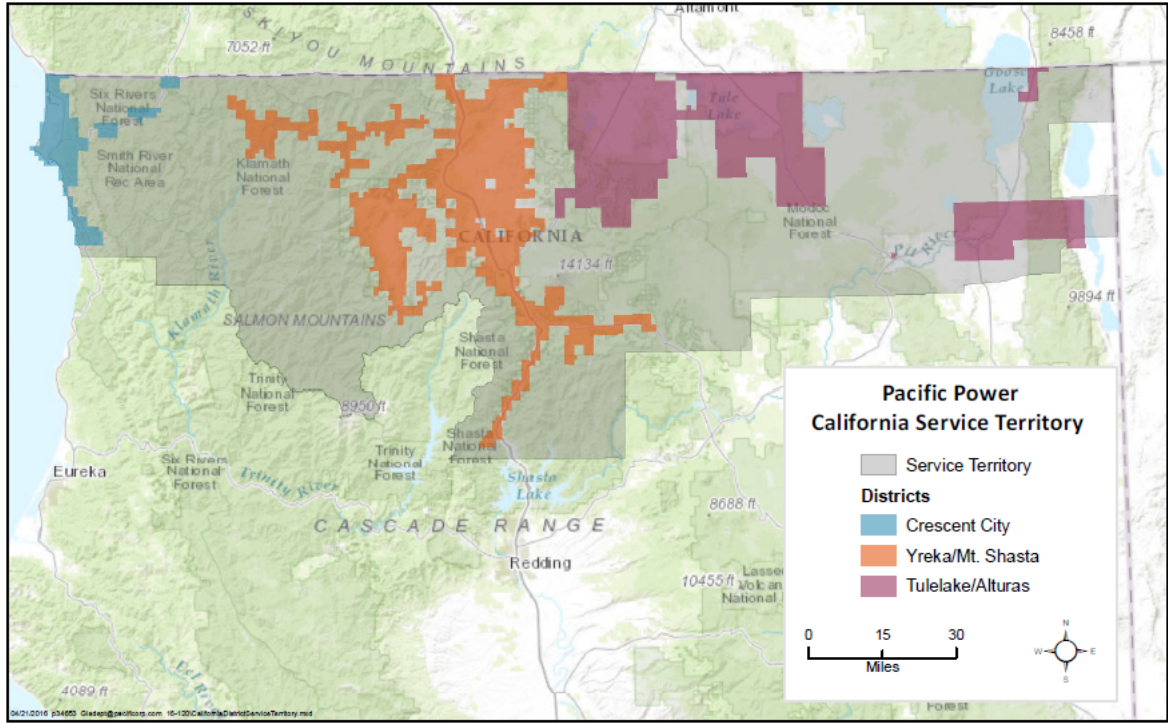
⁵ 2022 Operation counters are a physical counter on the equipment that ticks off an operation every time the breaker is operated regardless of how or why it is operated.

⁶ 2022 Fault counters are a manual calculation that is determined by operation counters that are found to have operated with an unknown cause (usually a fault on the line).

⁷ Designation of WPCs in accordance with this program began in 2017.

Service Territory Map

The graphic below shows PacifiCorp's service territory and identifies the districts used in this report.



State Reliability Underlying Indices - Excluding Planned Outages: Ten-Year SAIDI, SAIFI, MAIFI and CAIDI Results

PacifiCorp uses the current standard indices for performance reporting, as described within this document, at the state level and at reliability reporting regional levels. System Indices are calculated based on the IEEE 1366 method, which excludes Planned and ISO outages and includes generation outages. Major Events are determined using the “2.5 beta” statistical method to determine the threshold for a major event, as outlined in IEEE 1366 and performance with and without major events are both reported. For more on the reporting period’s major events, see Section 7.

Distribution

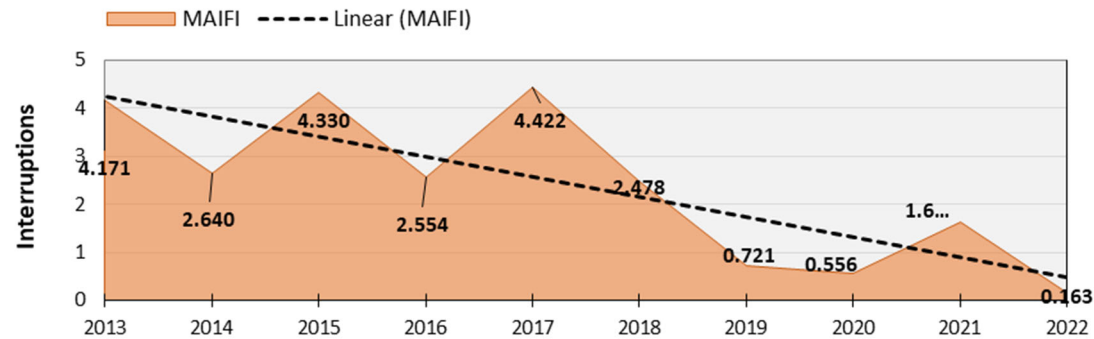
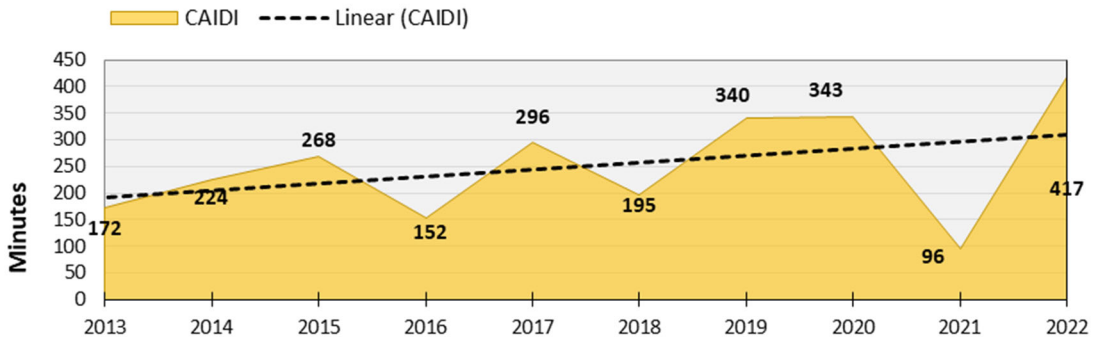
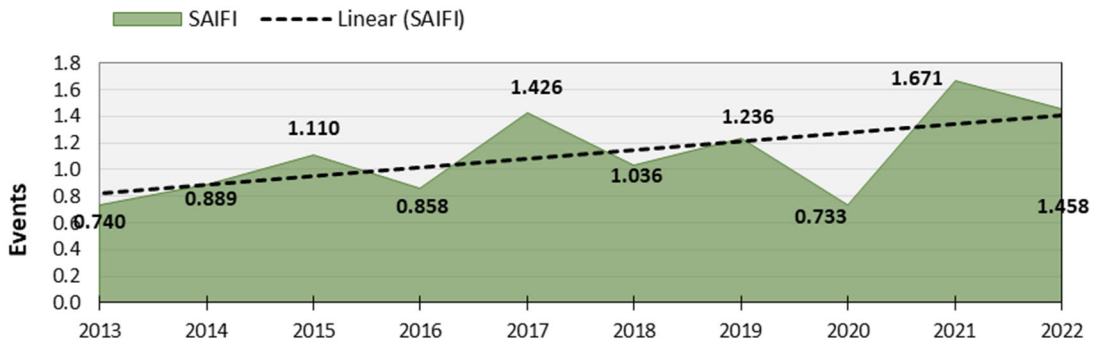
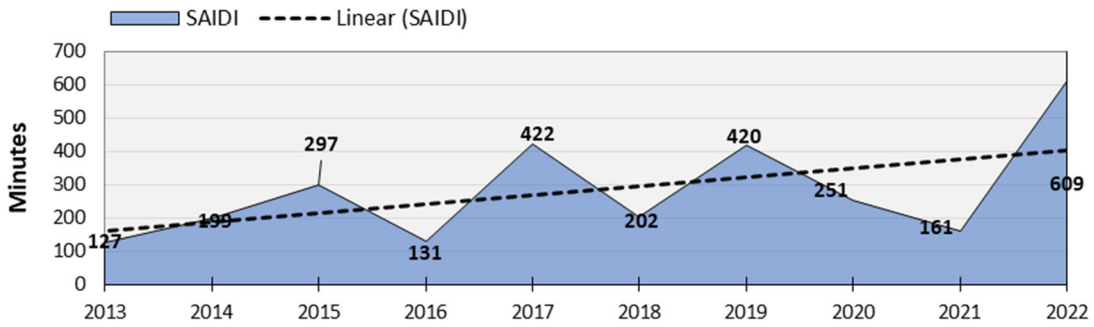
Distribution outages include any outage where the device which operates is downstream of the high side disconnect of the substation down to the customer’s meter.

Distribution System Indices								
Year	Major Events Included ¹				Major Events Excluded ² (2.5 β P1366)			
	SAIDI	SAIFI	CAIDI	MAIFI ³	SAIDI	SAIFI	CAIDI	MAIFI ³
2022	608.7	1.458	417	0.163	96.7	1.027	94	0.129
2021	160.9	1.671	96	1.639	78.4	0.814	96	1.639
2020	251.5	0.733	343	0.556	87.5	0.610	144	0.556
2019	419.7	1.236	340	0.721	70.2	0.473	149	0.721
2018	202.5	1.036	195	2.478	72.0	0.688	105	2.478
2017	421.8	1.426	296	4.422	75.5	0.607	125	4.422
2016	130.8	0.858	152	2.554	96.2	0.719	134	2.554
2015	297.5	1.110	268	4.330	100.0	0.674	148	4.330
2014	199.4	0.889	224	2.640	160.8	0.840	191	2.640
2013	127.4	0.740	172	4.171	123.1	0.705	174	4.171

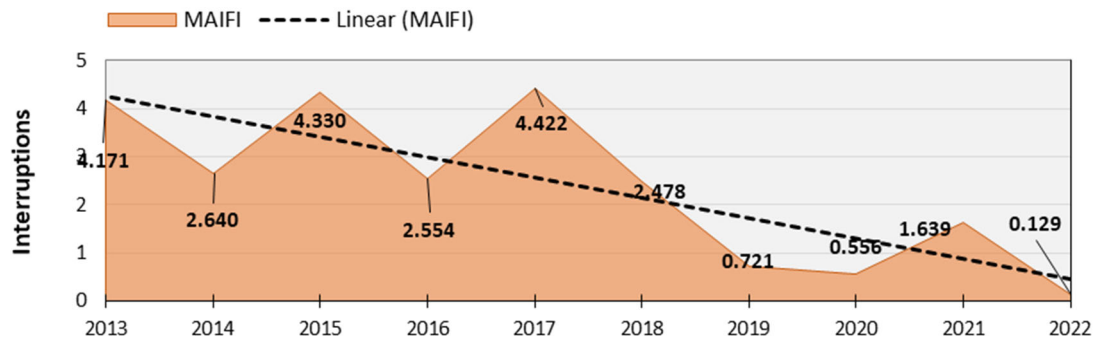
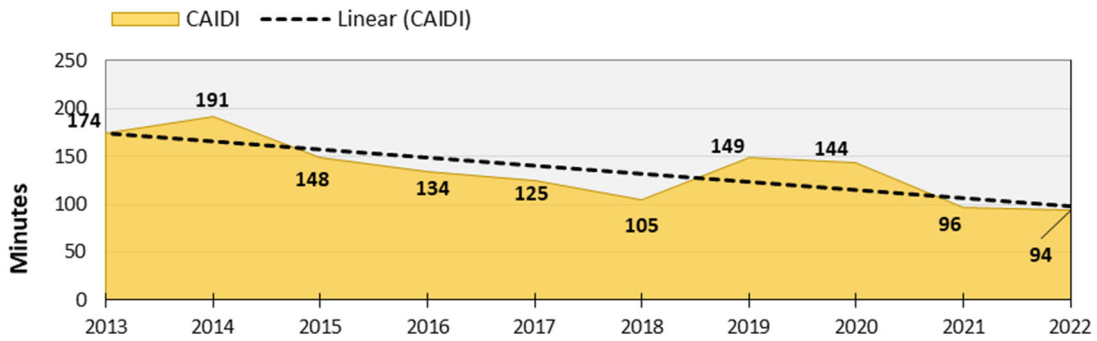
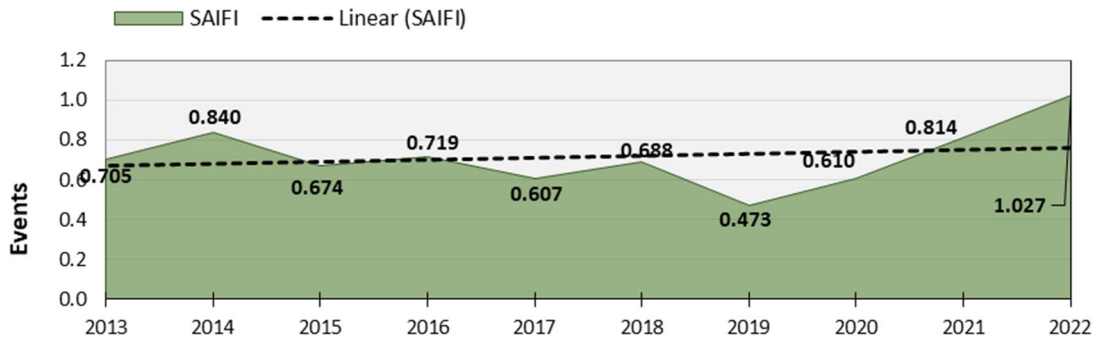
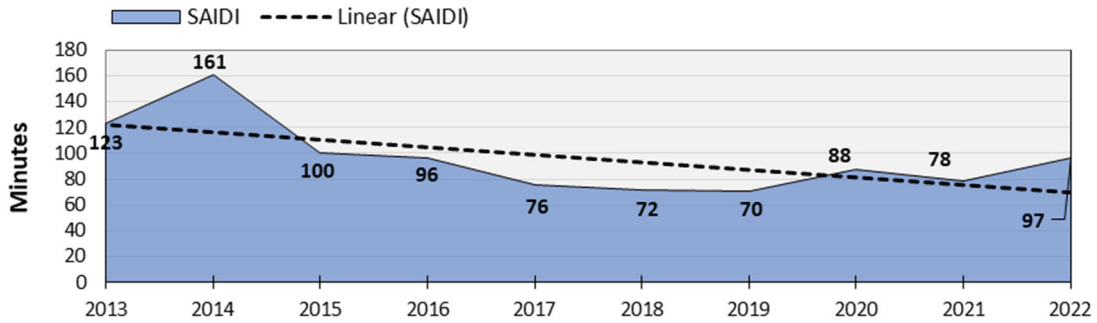
Notes:

1. Excludes outages that are customer requested, pre-arranged, extended a result of "Elevated Fire Risk" settings, or resulting from a failure of another company's system.
2. In 2016, D.16-01-008 approved Major Event designation process. 2015 Local events were reviewed and are excluded from the indices going -forward.
3. Momentary indices are reported within distribution system metrics and are inclusive of outages that occurred during major events.

Distribution Reliability History - Including Major Events (excludes customer notice given and customer requested)



Distribution Reliability History - Excluding Major Events (excludes customer notice given and customer requested)



Transmission

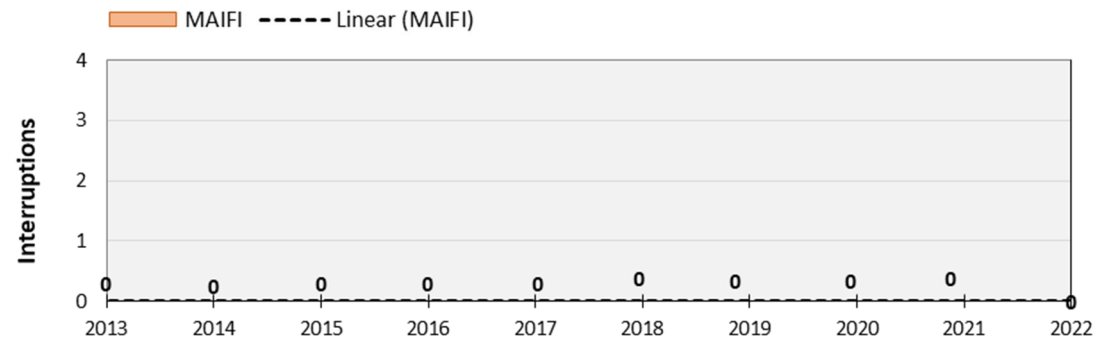
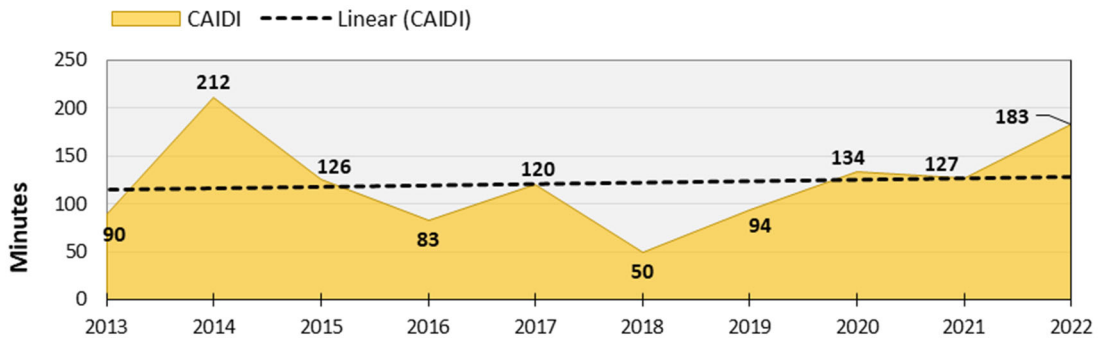
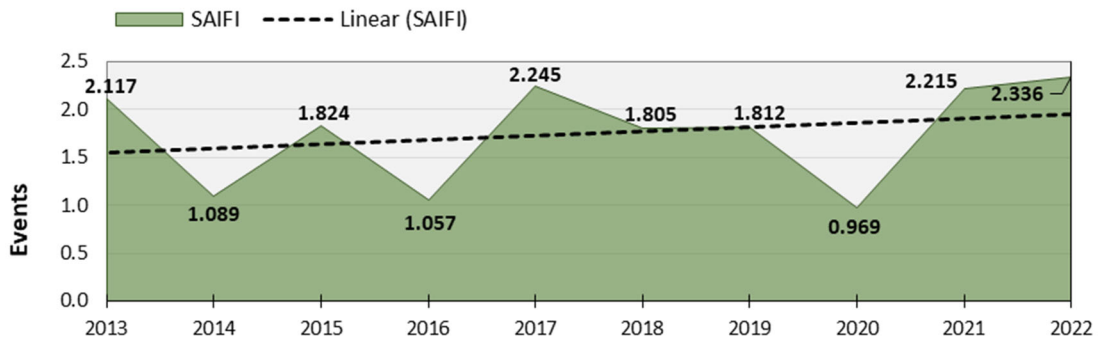
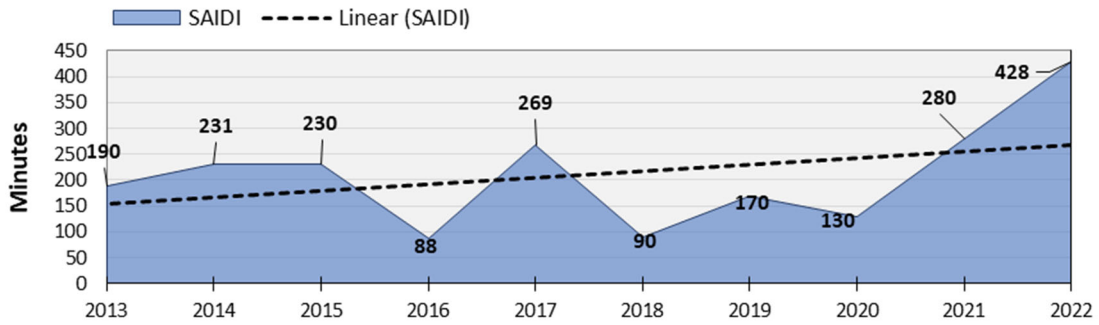
Transmission outages include any outage where the device that operates is upstream of the substation transformer. This can include outages that are the result of generator operations. Transmission voltages are in excess of 34.5 kilovolt (kV).

Transmission System Indices								
	Major Events Included ¹				Major Events Excluded ² (2.5 & P1366)			
Year	SAIDI	SAIFI	CAIDI	MAIFI ³	SAIDI	SAIFI	CAIDI	MAIFI ³
2022	428.4	2.336	183	0	29.7	1.083	27	0
2021	280.2	2.215	127	0	37.2	0.851	44	0
2020	129.9	0.969	134	0	45.3	0.488	93	0
2019	169.9	1.812	94	0	36.1	0.365	99	0
2018	89.6	1.805	50	0	37.0	1.275	29	0
2017	269.1	2.245	120	0	46.6	1.144	41	0
2016	88.1	1.057	83	0	46.5	0.714	65	0
2015	230.4	1.824	126	0	81.9	1.013	81	0
2014	230.5	1.089	212	0	72.7	0.586	124	0
2013	189.9	2.117	90	0	88.8	1.535	58	0
2012	160.5	1.742	92	0	94.0	1.225	77	0

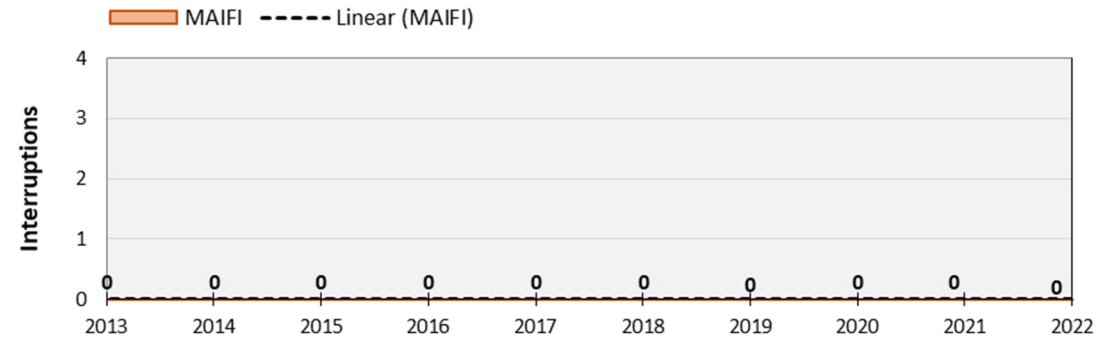
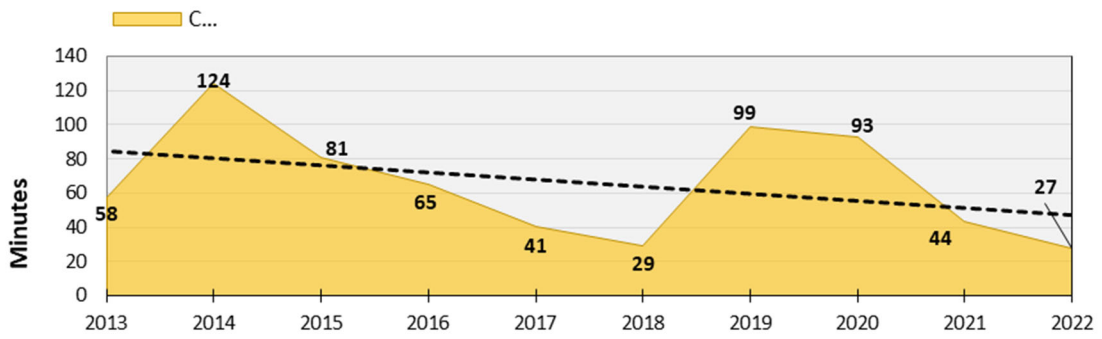
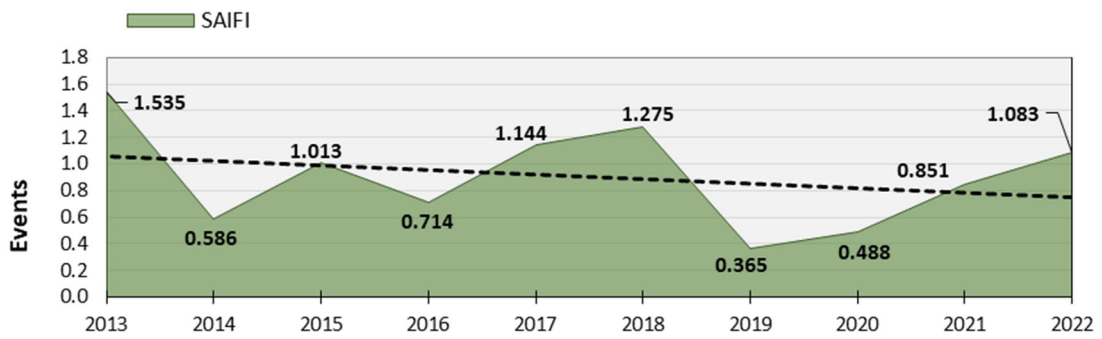
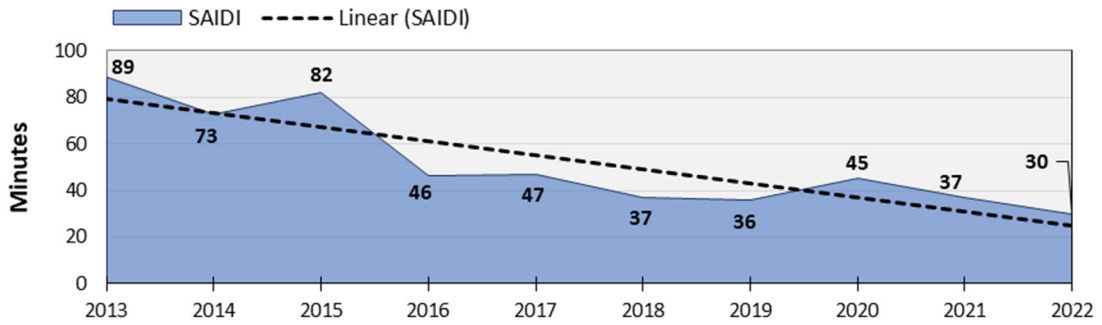
Notes:

1. Excludes outages that are customer requested, pre-arranged, extended a result of "Elevated Fire Risk" settings, or resulting from a failure of another company's system.
2. In 2016, D.16-01-008 approved Major Event designation process. 2015 Local events were reviewed and are excluded from the indices going forward.
3. Momentary indices are reported within distribution system metrics and are inclusive of outages that occurred during major events.

Transmission Reliability History - Including Major Events (excludes customer notice given and customer requested)



Transmission Reliability History - Excluding Major Events (excludes customer notice given and customer requested)



Combined Transmission and Distribution

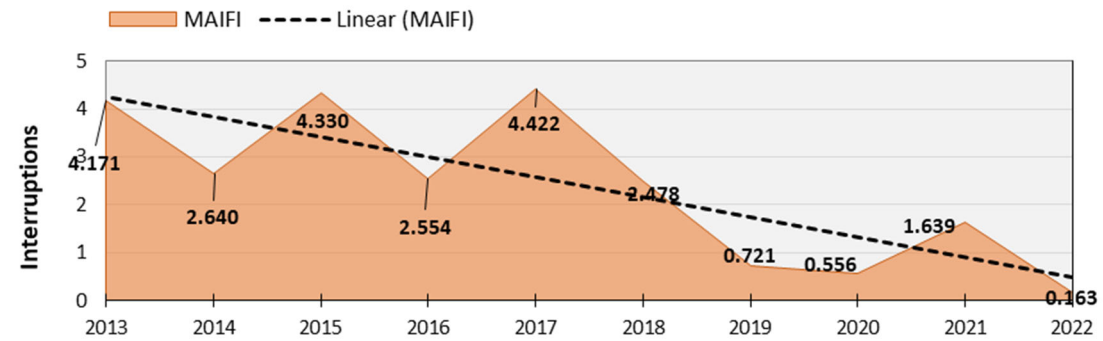
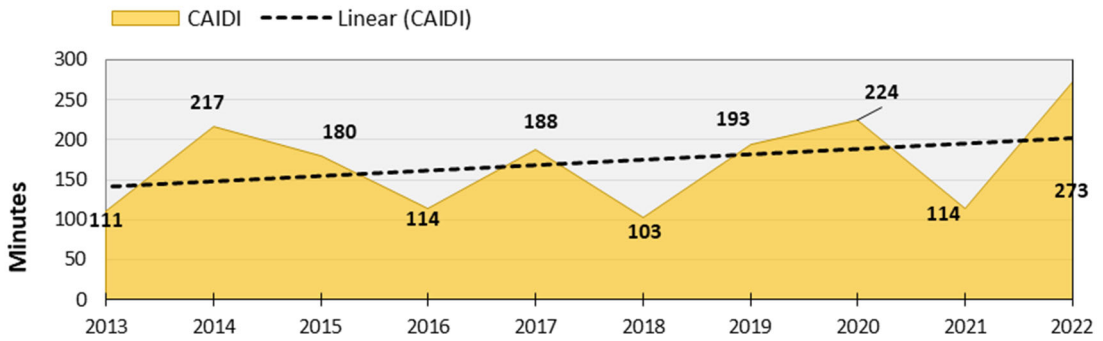
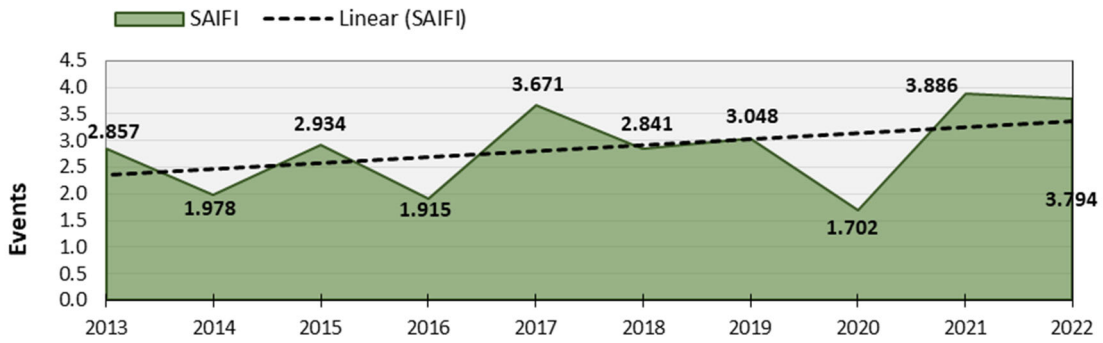
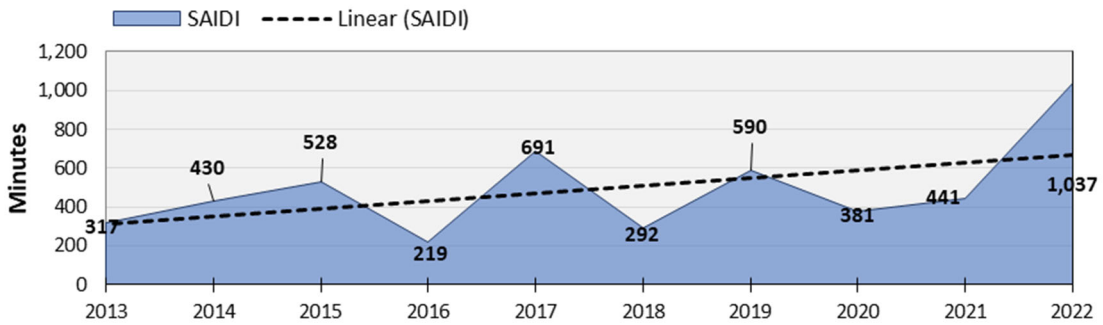
Combined Transmission and Distribution System Indices								
Year	Major Events Included ¹				Major Events Excluded ² (2.5 & P1366)			
	SAIDI	SAIFI	CAIDI	MAIFI ³	SAIDI	SAIFI	CAIDI	MAIFI ³
2022	1037.1	3.794	273	0.163	126.41	2.11	59.91	0.13
2021	441.1	3.886	114	1.639	115.6	1.665	69	1.639
2020	381.4	1.702	224	0.556	132.9	1.098	121	0.556
2019	589.7	3.048	193	0.721	106.3	0.838	127	0.721
2018	292.1	2.841	103	2.478	108.9	1.963	55	2.478
2017	690.9	3.671	188	4.422	122.2	1.751	70	4.422
2016	218.9	1.915	114	2.554	142.7	1.433	100	2.554
2015	527.8	2.934	180	4.330	181.9	1.687	108	4.330
2014	430.0	1.978	217	2.640	233.6	1.426	164	2.640
2013	317.3	2.857	111	4.171	211.9	2.240	95	4.171
2012	501.8	2.990	168	6.936	259.5	2.240	116	6.936

Notes:

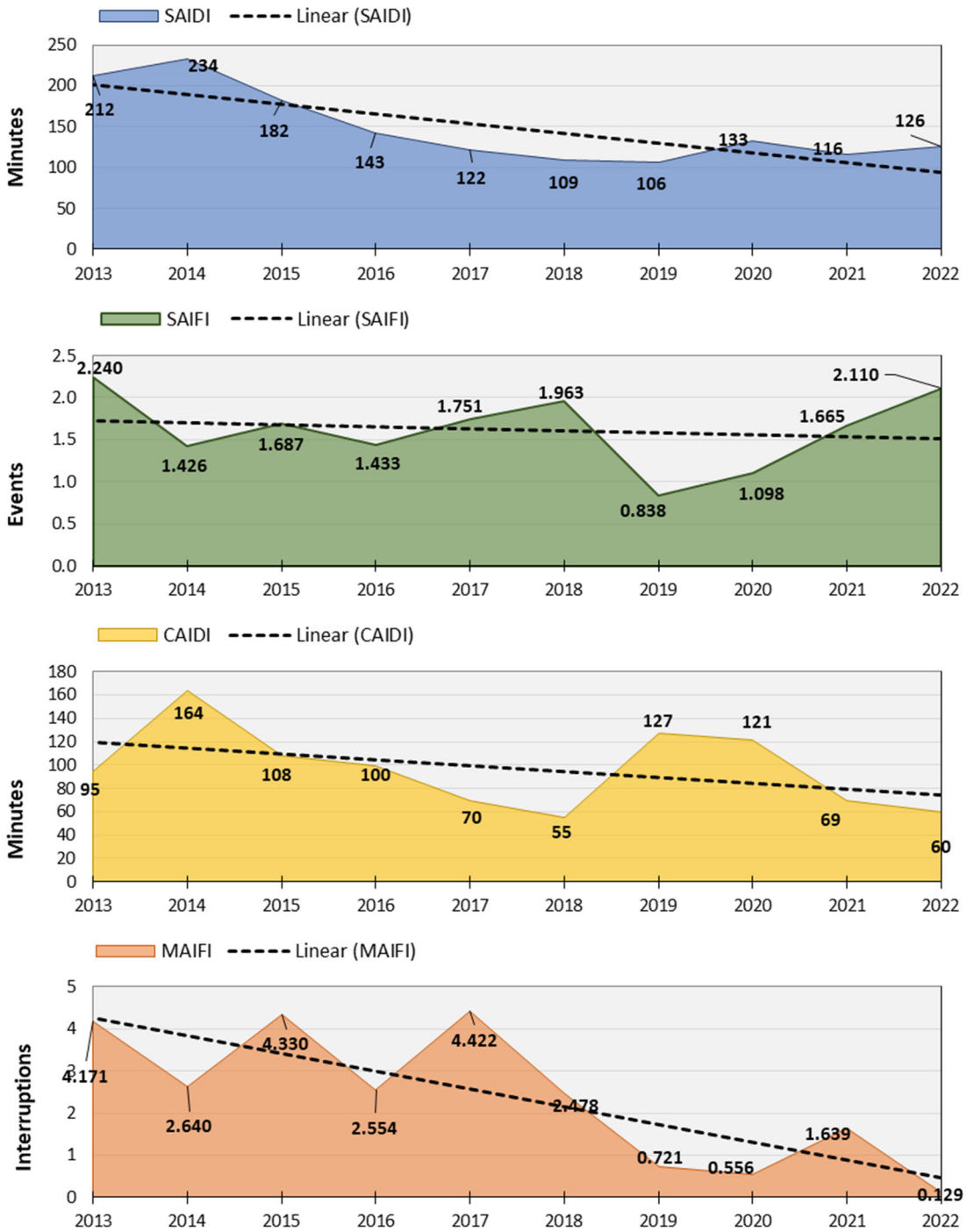
1. Excludes outages that are customer requested, pre-arranged, extended a result of "Elevated Fire Risk" settings, or resulting from a failure of another company's system.
2. In 2016, D.16-01-008 approved Major Event designation process. 2015 Local events were reviewed and are excluded from the indices going -forward.
3. Momentary indices are reported within distribution system metrics and are inclusive of outages that occurred during major events.

Transmission and Distribution Reliability History - Including Major Events

(excludes customer notice given and customer requested)



Transmission and Distribution Reliability History - Excluding Major Events (excludes customer notice given and customer requested)



District Reliability Underlying Indices - Excluding Planned Outages: Ten-Year SAIDI, SAIFI and CAIDI Results

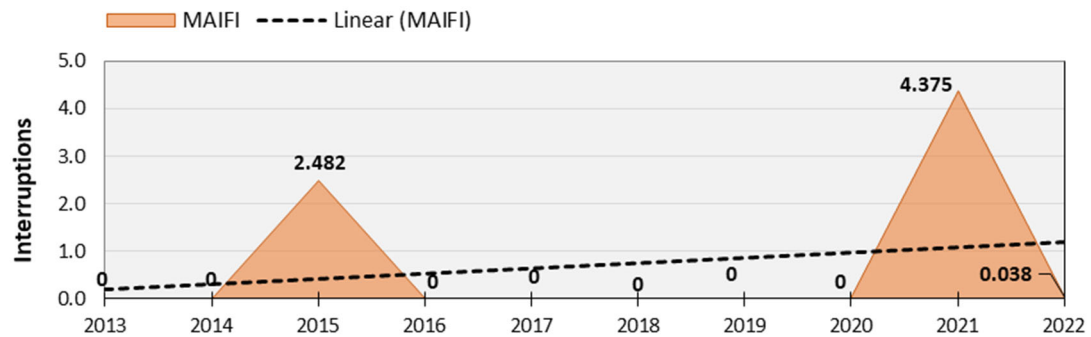
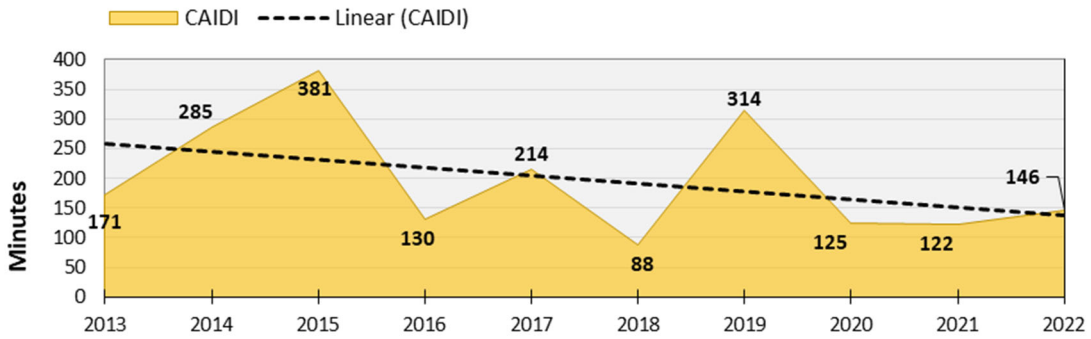
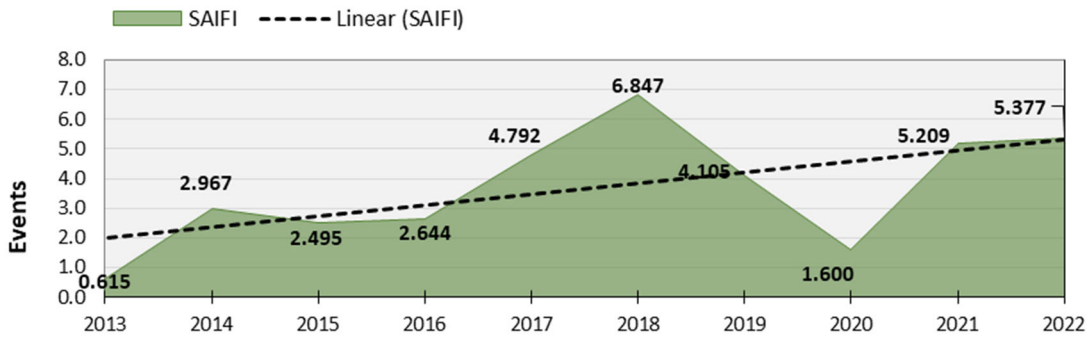
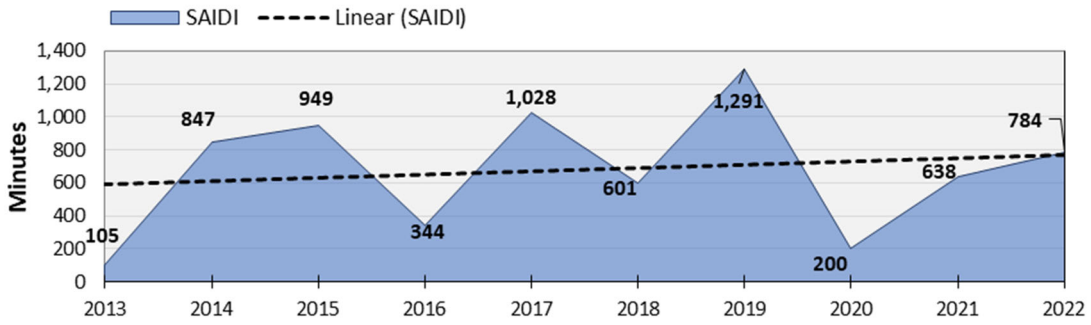
Crescent City

Crescent City - District System Indices								
	Major Events Included ¹				Major Events Excluded ² (2.5 B P1366)			
Year	SAIDI	SAIFI	CAIDI	MAIFI ³	SAIDI	SAIFI	CAIDI	MAIFI ³
2022	784.2	5.377	146	0.038	95.2	2.096	45	0.006
2021	637.6	5.209	122	4.375	112.4	1.596	70	4.375
2020	199.6	1.600	125	0	115.3	1.166	99	0.0
2019	1291.0	4.105	314	0	96.4	0.881	109	0.0
2018	600.7	6.847	88	0	104.6	3.607	29	0.0
2017	1027.6	4.792	214	0	124.6	1.178	106	0.0
2016	343.7	2.644	130	0	161.6	1.431	113	0.0
2015	949.5	2.495	381	2.482	96.7	0.776	125	2.482
2014	846.7	2.967	285	0	318.2	1.592	200	0
2013	105.4	0.615	171	0	105.4	0.615	171	0
2012	453.0	4.115	110	0	391.4	3.770	104	0

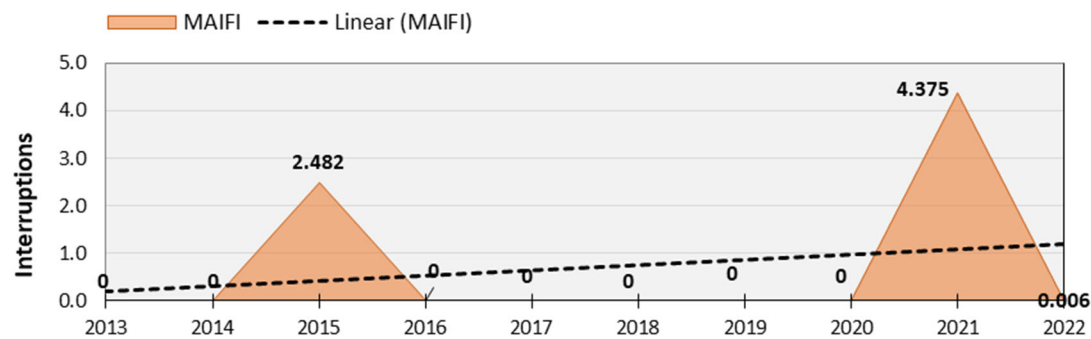
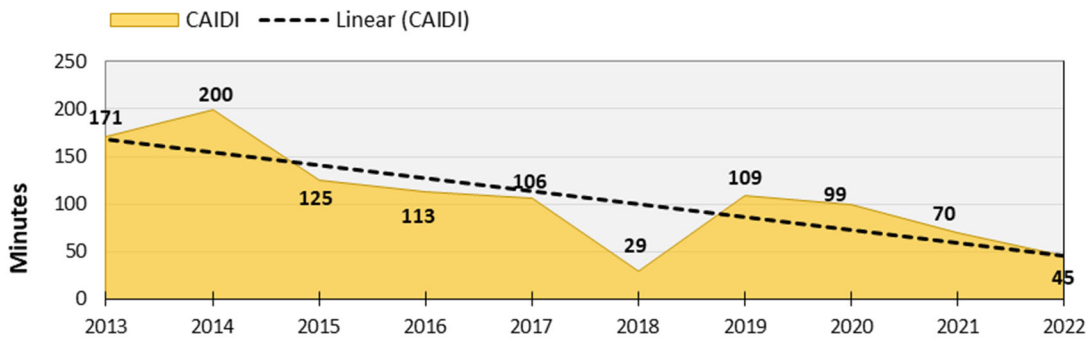
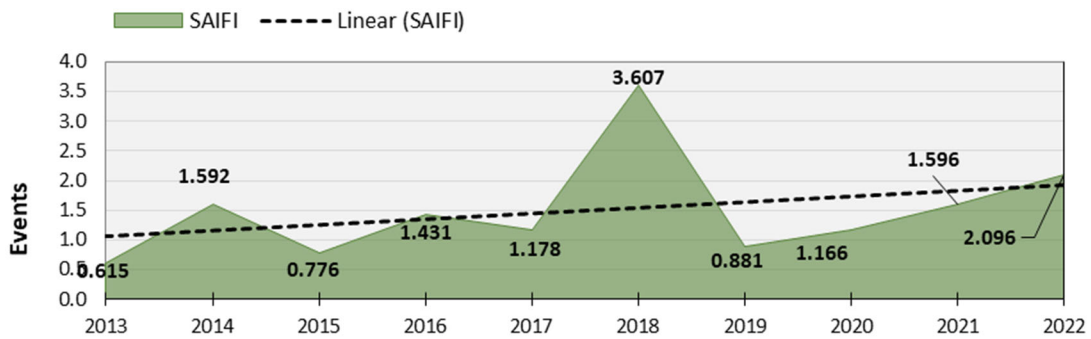
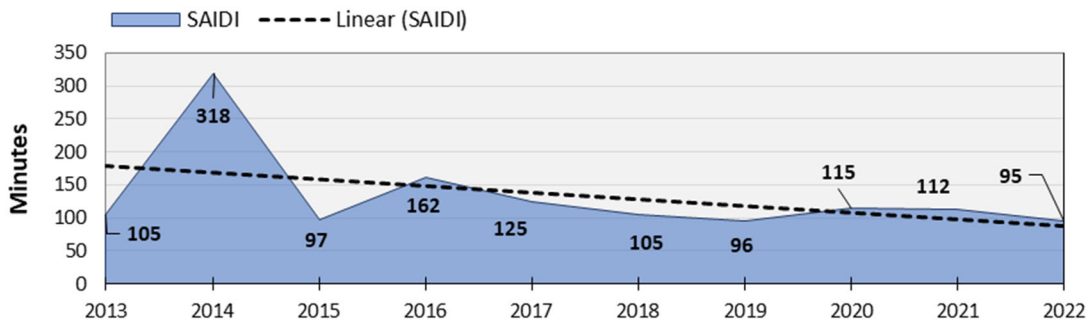
Notes:

1. Excludes outages that are customer requested, pre-arranged, extended a result of "Elevated Fire Risk" settings, or resulting from a failure of another company's system.
2. In 2016, D.16-01-008 approved Major Event designation process. 2015 Local events were reviewed and are excluded from the indices going -forward.
3. Momentary indices are reported within distribution system metrics and are inclusive of outages that occurred during major events.

Crescent City Reliability History - Including Major Events (excludes customer notice given and customer requested)



Crescent City Reliability History - Excluding Major Events (excludes customer notice given and customer requested)



Yreka/Mt. Shasta

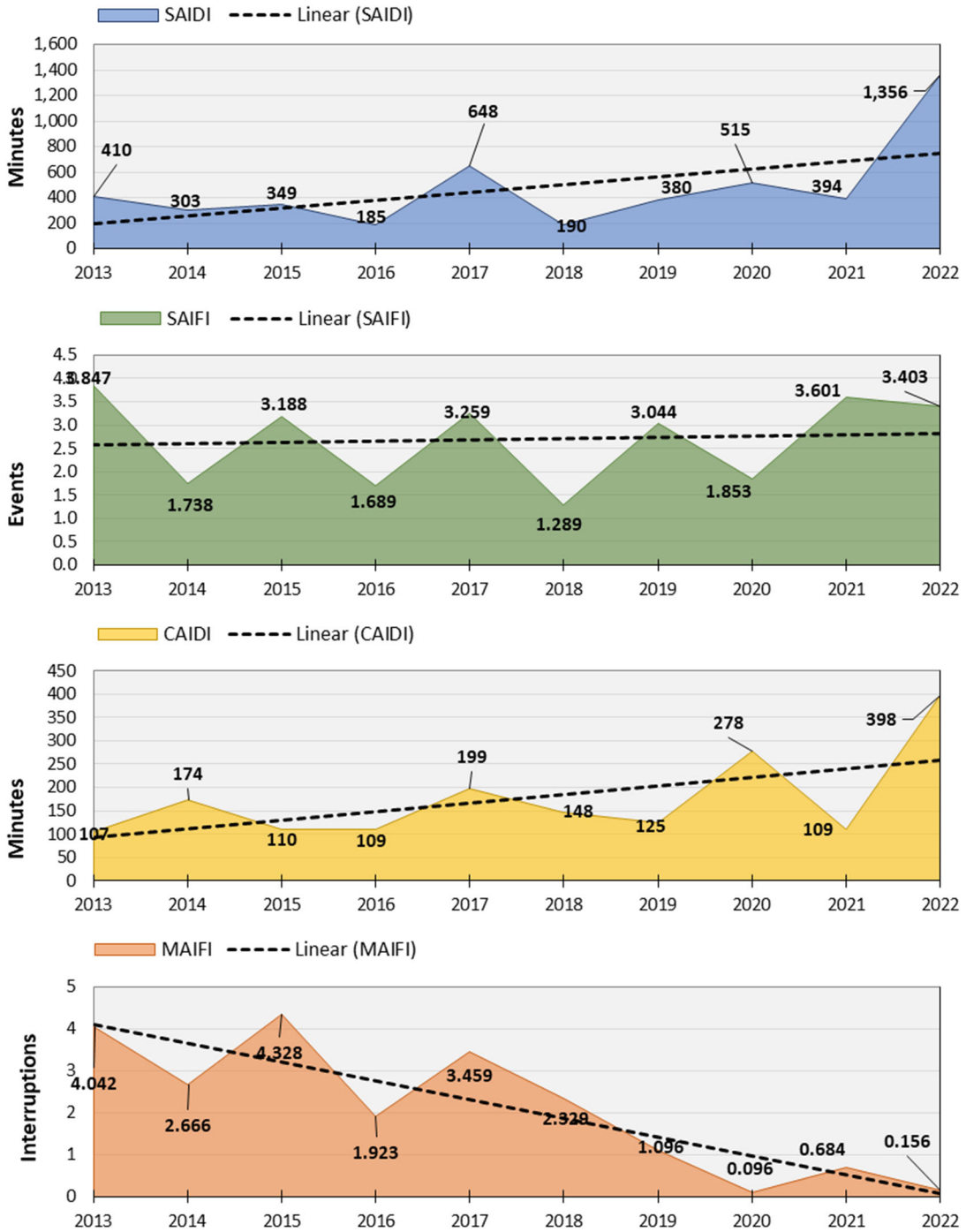
Yreka/Mt. Shasta - District System Indices								
Year	Major Events Included ¹				Major Events Excluded ² (2.5 & P1366)			
	SAIDI	SAIFI	CAIDI	MAIFI ³	SAIDI	SAIFI	CAIDI	MAIFI ³
2022	1355.9	3.403	398	0.156	122.9	2.078	59	0.113
2021	393.5	3.601	109	0.684	124.2	1.776	70	0.684
2020	515.2	1.853	278	0.096	137.9	1.070	129	0.096
2019	379.9	3.044	125	1.096	116.9	0.784	149	1.096
2018	190.5	1.289	148	2.329	106.5	1.283	83	2.329
2017	648.0	3.259	199	3.459	121.8	1.905	64	3.459
2016	184.6	1.689	109	1.923	146.4	1.455	101	1.923
2015	349.2	3.188	110	4.328	230.3	2.290	101	4.328
2014	303.0	1.738	174	2.666	222.0	1.437	155	2.666
2013	409.8	3.847	107	4.042	231.3	2.821	82	4.042
2012	616.1	2.967	208	7.268	228.1	1.838	124	7.268

Notes:

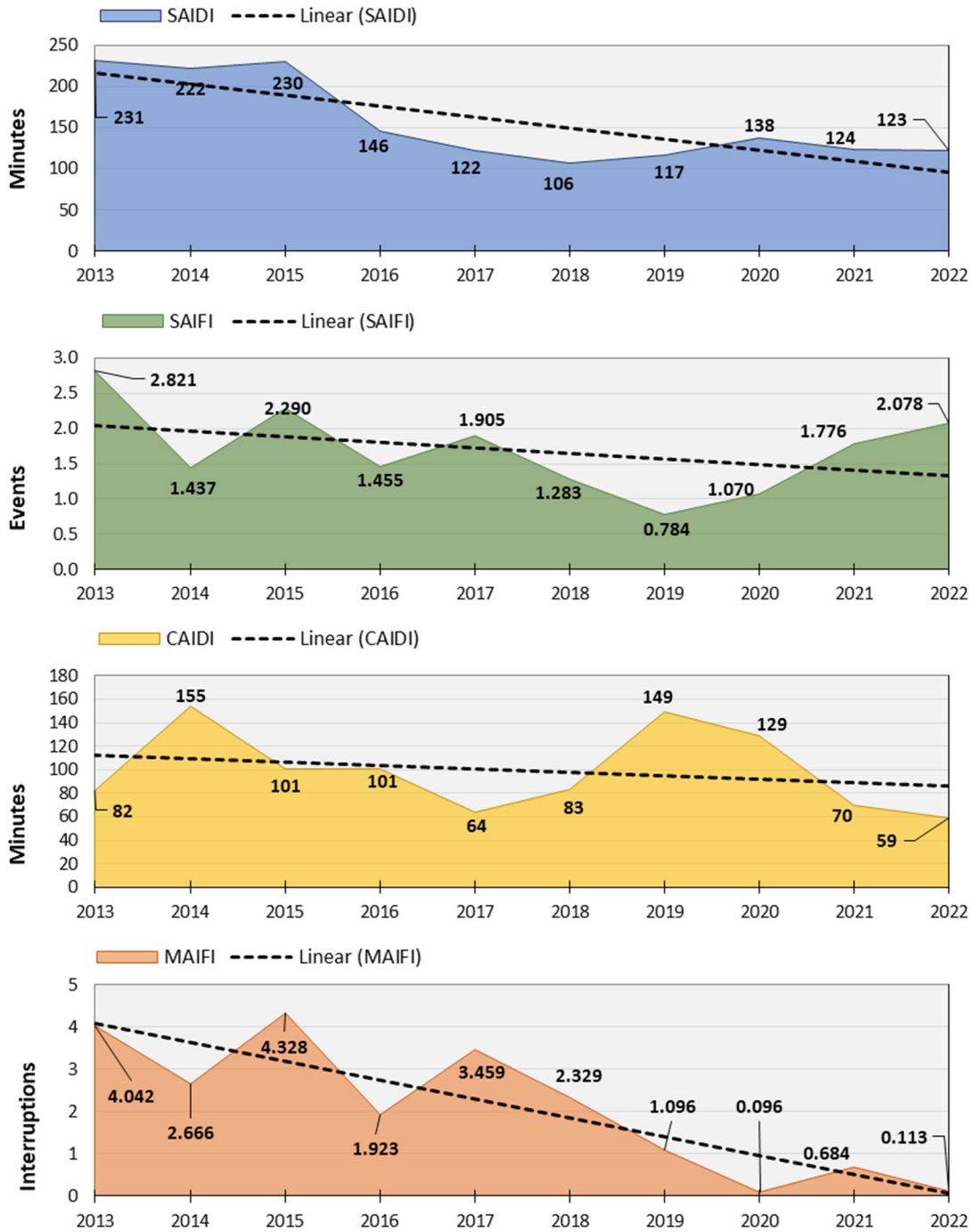
1. Excludes outages that are customer requested, pre-arranged, extended a result of "Elevated Fire Risk" settings, or resulting from a failure of another company's system.
2. In 2016, D.16-01-008 approved Major Event designation process. 2015 Local events were reviewed and are excluded from the indices going -forward.
3. Momentary indices are reported within distribution system metrics and are inclusive of outages that occurred during major events.

Yreka/Mt. Shasta Reliability History - Including Major Events

(excludes customer notice given and customer requested)



Yreka/Mt. Shasta Reliability History - Excluding Major Events (excludes customer notice given and customer requested)



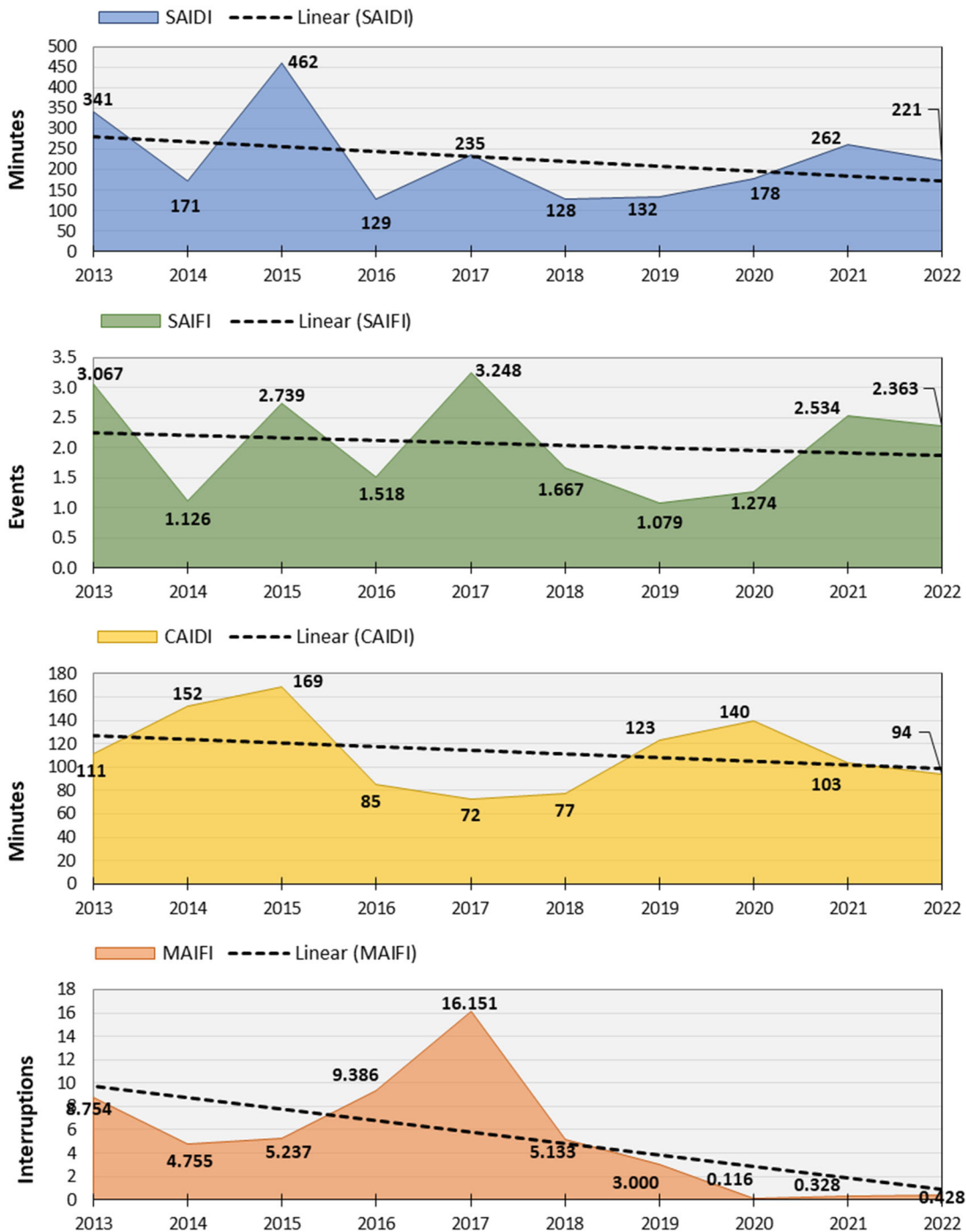
Tulelake/Alturas - District System Indices								
Year	Major Events Included ¹				Major Events Excluded ² (2.5 & P1366)			
	SAIDI	SAIFI	CAIDI	MAIFI ³	SAIDI	SAIFI	CAIDI	MAIFI ³
2022	221.0	2.363	94	0.428	200.1	2.267	88	0.428
2021	262.0	2.534	103	0.328	86.8	1.343	65	0.328
2020	178.2	1.274	140	0.116	146.4	1.079	136	0.116
2019	132.4	1.079	123	3.000	81.6	0.978	83	3.000
2018	128.4	1.667	77	5.133	127.0	1.658	77	5.133
2017	235.5	3.248	72	16.151	119.3	2.198	54	16.151
2016	128.7	1.518	85	9.386	95.3	1.389	69	9.386
2015	462.3	2.739	169	5.237	147.1	0.978	150	5.237
2014	171.2	1.126	152	4.755	125.0	1.083	115	4.755
2013	341.4	3.067	111	8.754	329.6	2.925	113	8.754
2012	142.7	1.033	138	10.761	142.7	1.033	138	10.761

Notes:

1. Excludes outages that are customer requested, pre-arranged, extended a result of "Elevated Fire Risk" settings, or resulting from a failure of another company's system.
2. In 2016, D.16-01-008 approved Major Event designation process. 2015 Local events were reviewed and are excluded from the indices going -forward.
3. Momentary indices are reported within distribution system metrics and are inclusive of outages that occurred during major events.

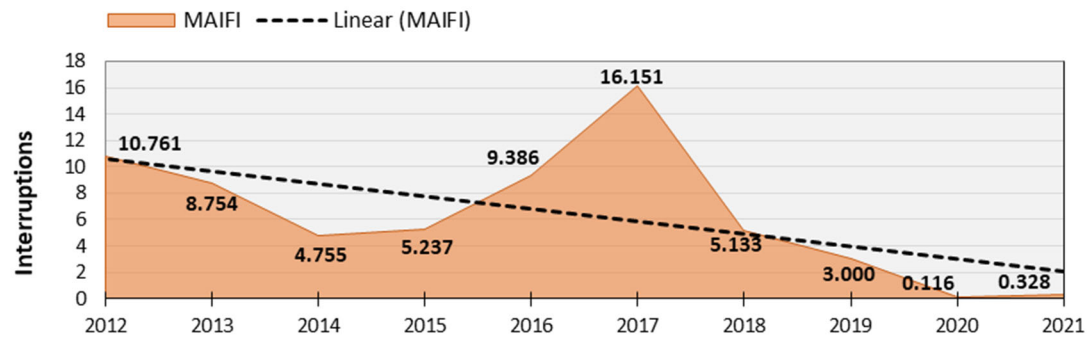
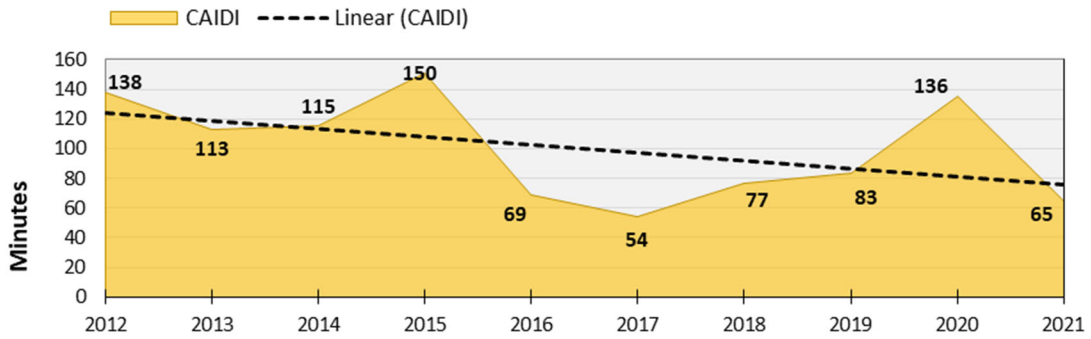
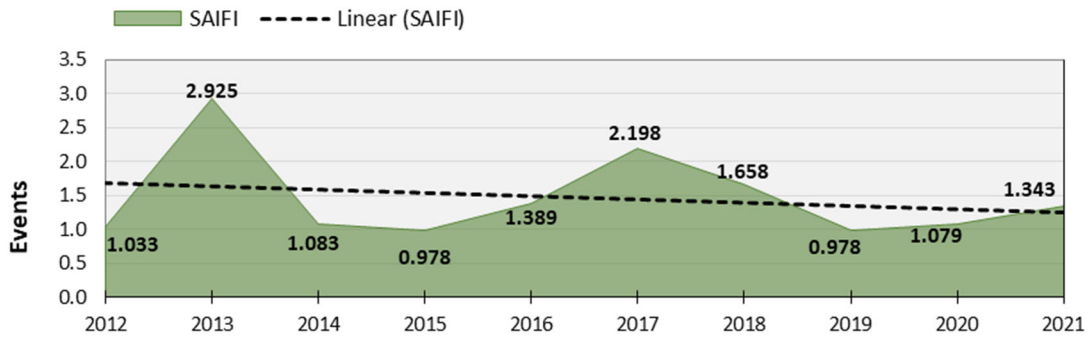
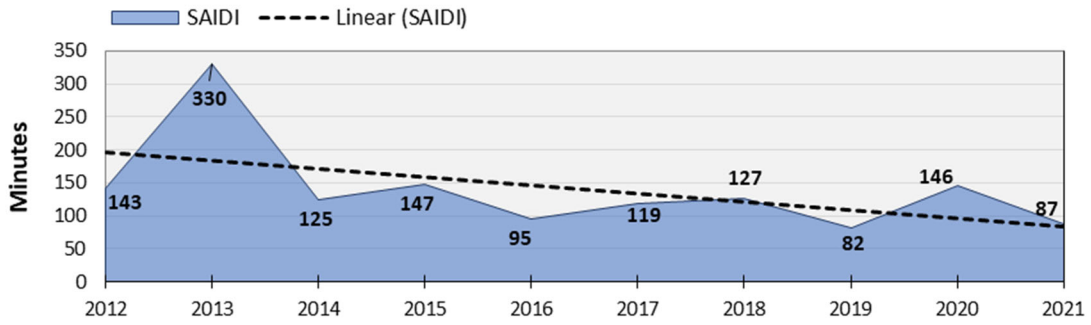
Tulelake/Alturas Reliability History - Including Major Events

(excludes customer notice given and customer requested)



Tulelake/Alturas Reliability History - Excluding Major Events

(excludes customer notice given and customer requested)



State and District Reliability Underlying Indices - Including Planned Outages: Ten-Year Year SAIDI, SAIFI and CAIDI Results

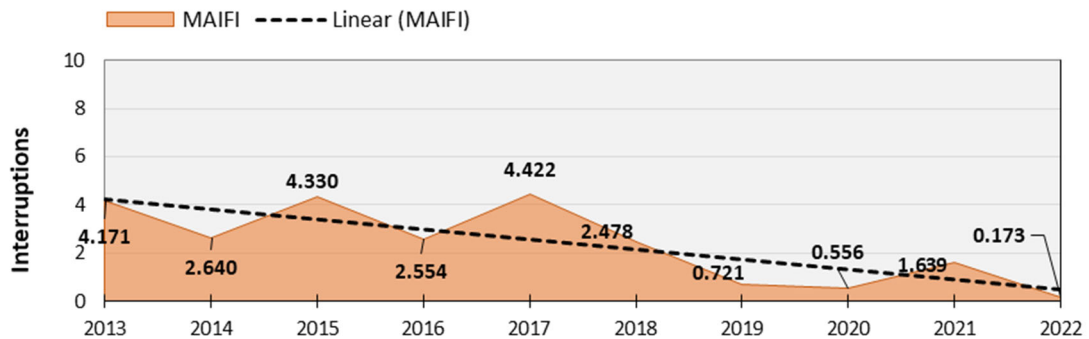
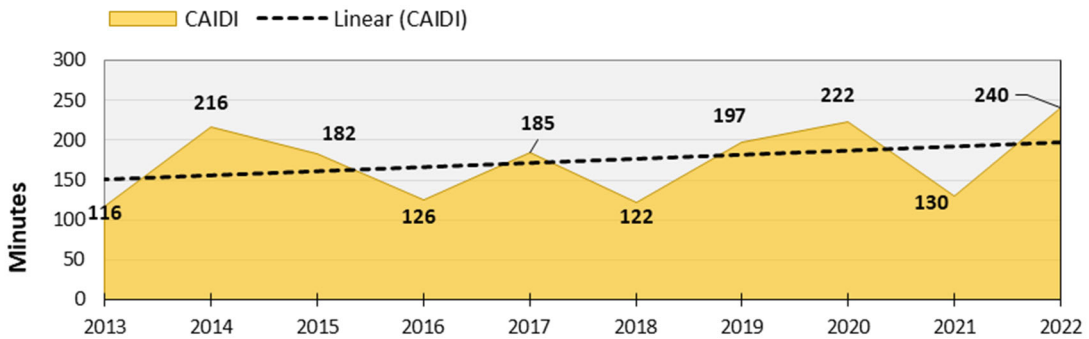
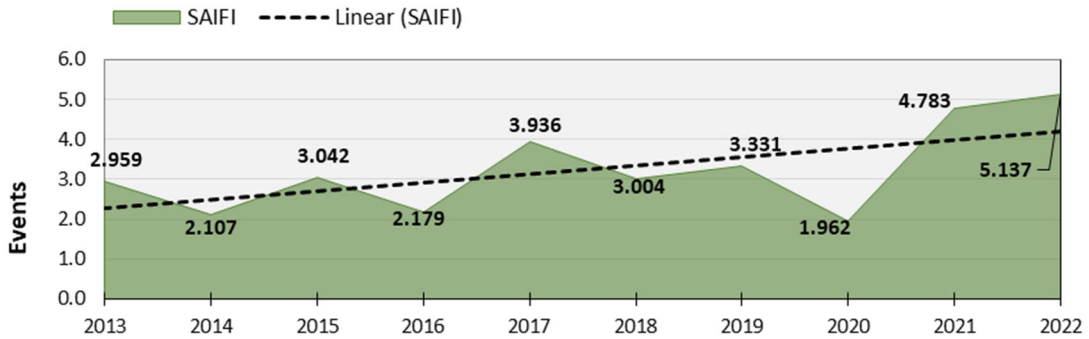
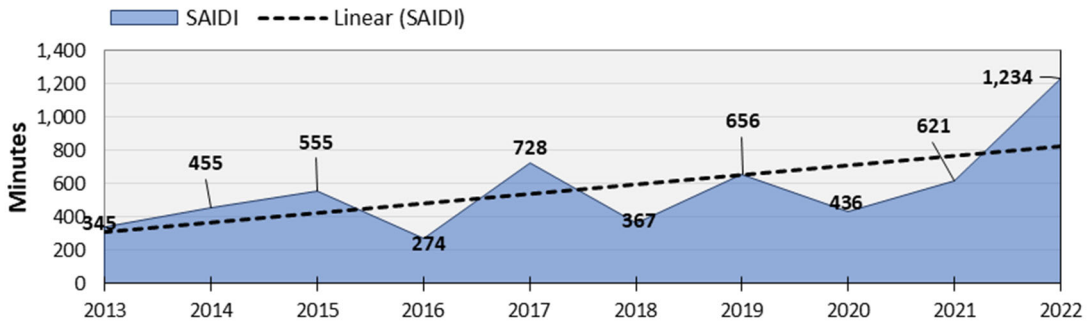
State

State - District System Indices								
	Major Events Included ¹				Major Events Excluded ² (2.5 & P1366)			
Year	SAIDI	SAIFI	CAIDI	MAIFI ³	SAIDI	SAIFI	CAIDI	MAIFI ³
2022	1234.3	5.137	240	0.173	293.8	2.370	124	0.139
2021	621.1	4.783	130	1.639	284.2	2.514	113	1.639
2020	436.3	1.962	222	0.556	185.4	1.353	137	0.556
2019	656.1	3.331	197	0.721	172.7	1.118	154	0.721
2018	366.8	3.004	122	2.478	183.6	2.126	86	2.478
2017	727.6	3.936	185	4.422	158.7	2.014	79	4.422
2016	273.8	2.179	126	2.554	197.6	1.697	116	2.554
2015	554.5	3.042	182	4.330	208.6	1.795	116	4.330
2014	455.4	2.107	216	2.640	259.0	1.554	167	2.640
2013	344.6	2.959	116	4.171	239.1	2.342	102	4.171
2012	512.9	3.046	168	6.936	270.7	2.296	118	6.936

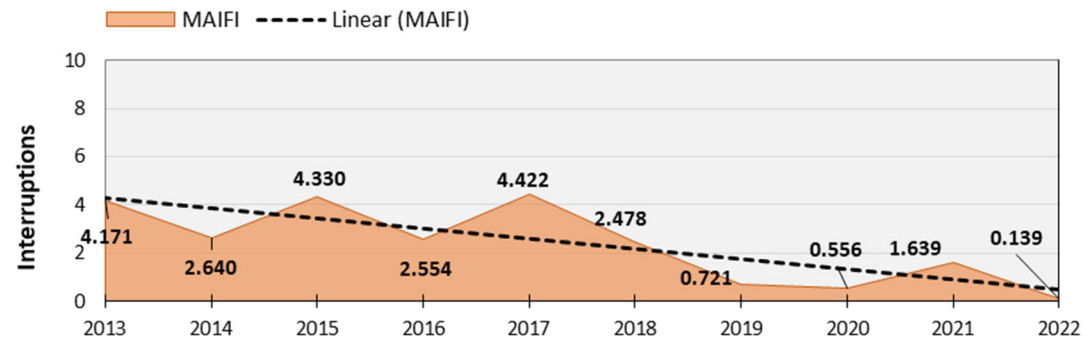
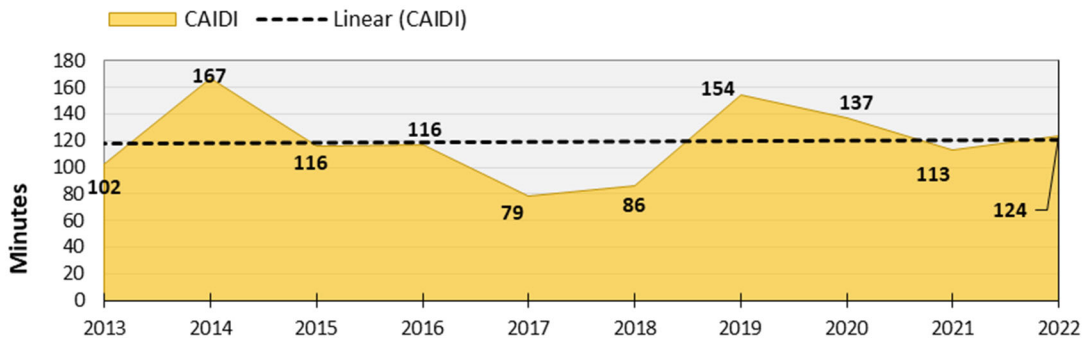
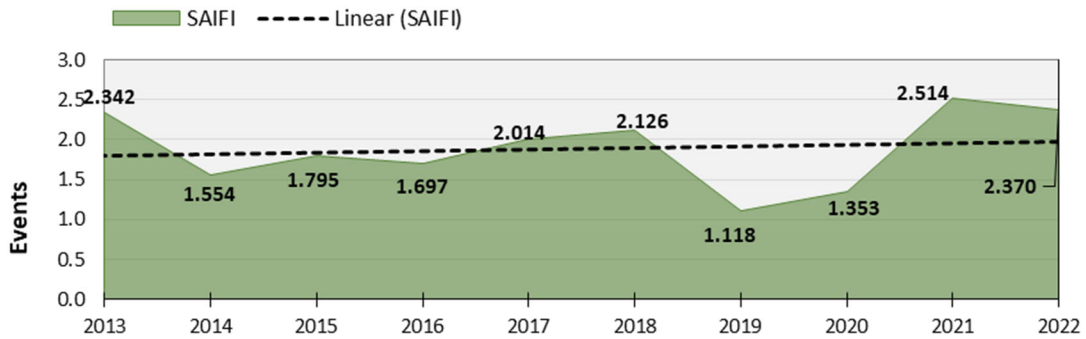
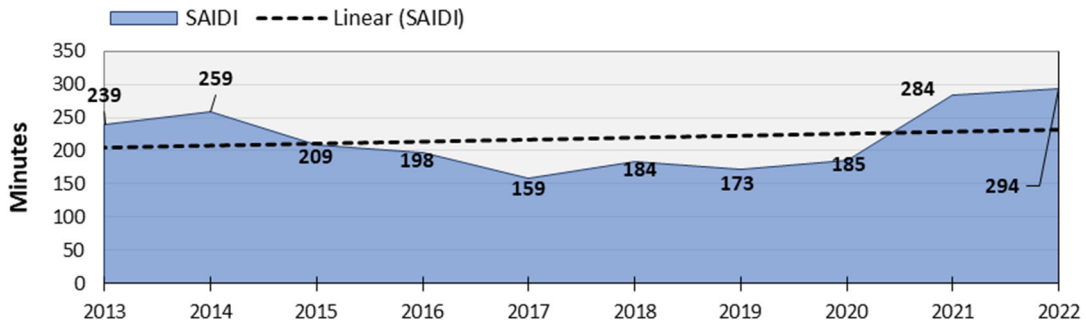
Notes:

1. Excludes outages that are customer requested, pre-arranged, extended a result of "Elevated Fire Risk" settings, or resulting from a failure of another company's system.
2. In 2016, D.16-01-008 approved Major Event designation process. 2015 Local events were reviewed and are excluded from the indices going -forward.
3. Momentary indices are reported within distribution system metrics and are inclusive of outages that occurred during major events.

State Reliability History - Including Major Events (includes customer notice given and customer requested)



State Reliability History - Excluding Major Events (includes customer notice given and customer requested)

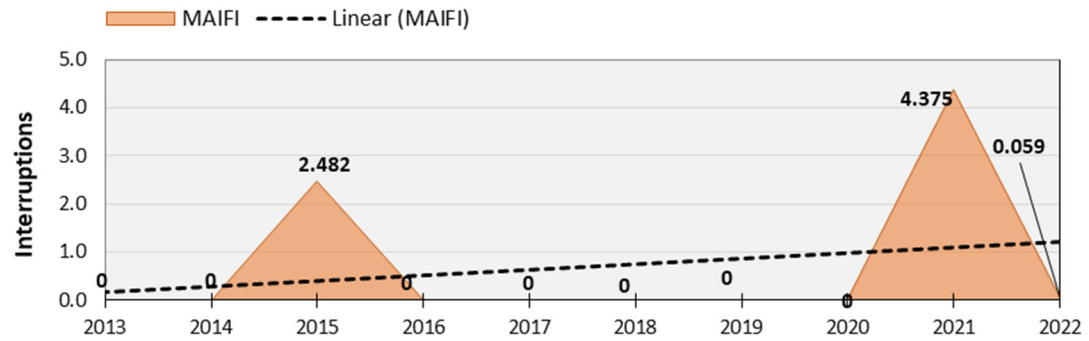
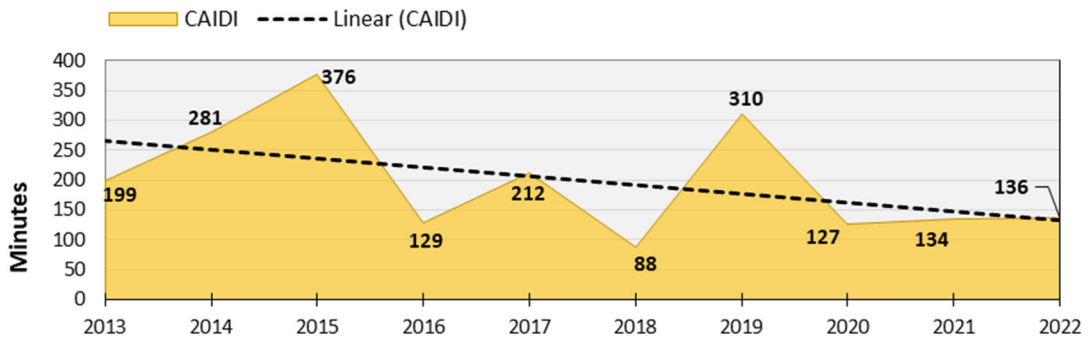
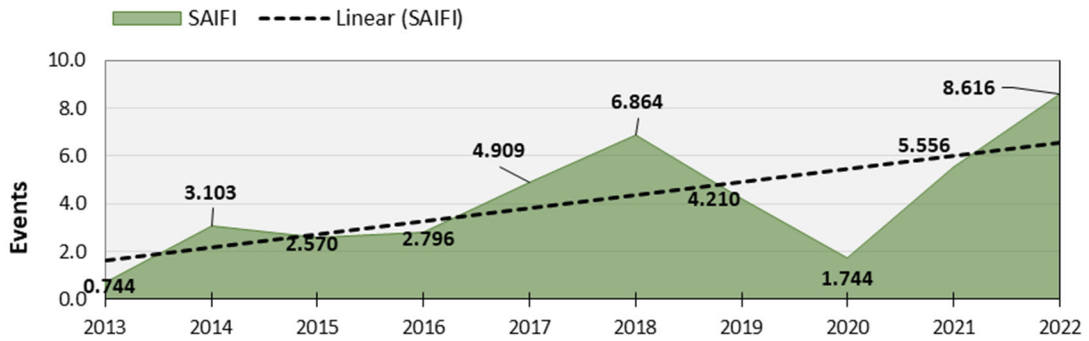
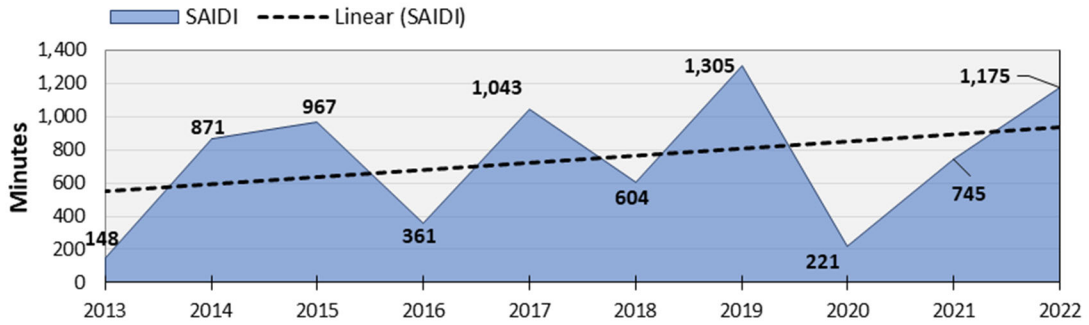


Crescent City - District System Indices								
Year	Major Events Included ¹				Major Events Excluded ² (2.5 & P1366)			
	SAIDI	SAIFI	CAIDI	MAIFI ³	SAIDI	SAIFI	CAIDI	MAIFI ³
2022	1175.1	8.616	136	0.059	486.2	5.335	91	0.028
2021	744.9	5.556	134	4.375	219.6	1.943	113	4.375
2020	221.1	1.744	127	0	136.8	1.311	104	0
2019	1304.9	4.210	310	0	110.2	0.985	112	0
2018	603.6	6.864	88	0	107.6	3.624	30	0
2017	1042.6	4.909	212	0	139.4	1.294	108	0
2016	361.4	2.796	129	0	179.2	1.583	113	0
2015	966.9	2.570	376	2.482	114.0	0.851	134	2.482
2014	871.1	3.103	281	0	342.6	1.728	198	0
2013	147.7	0.744	199	0	147.7	0.743	199	0
2012	457.4	4.142	110	0	395.8	3.797	104	0

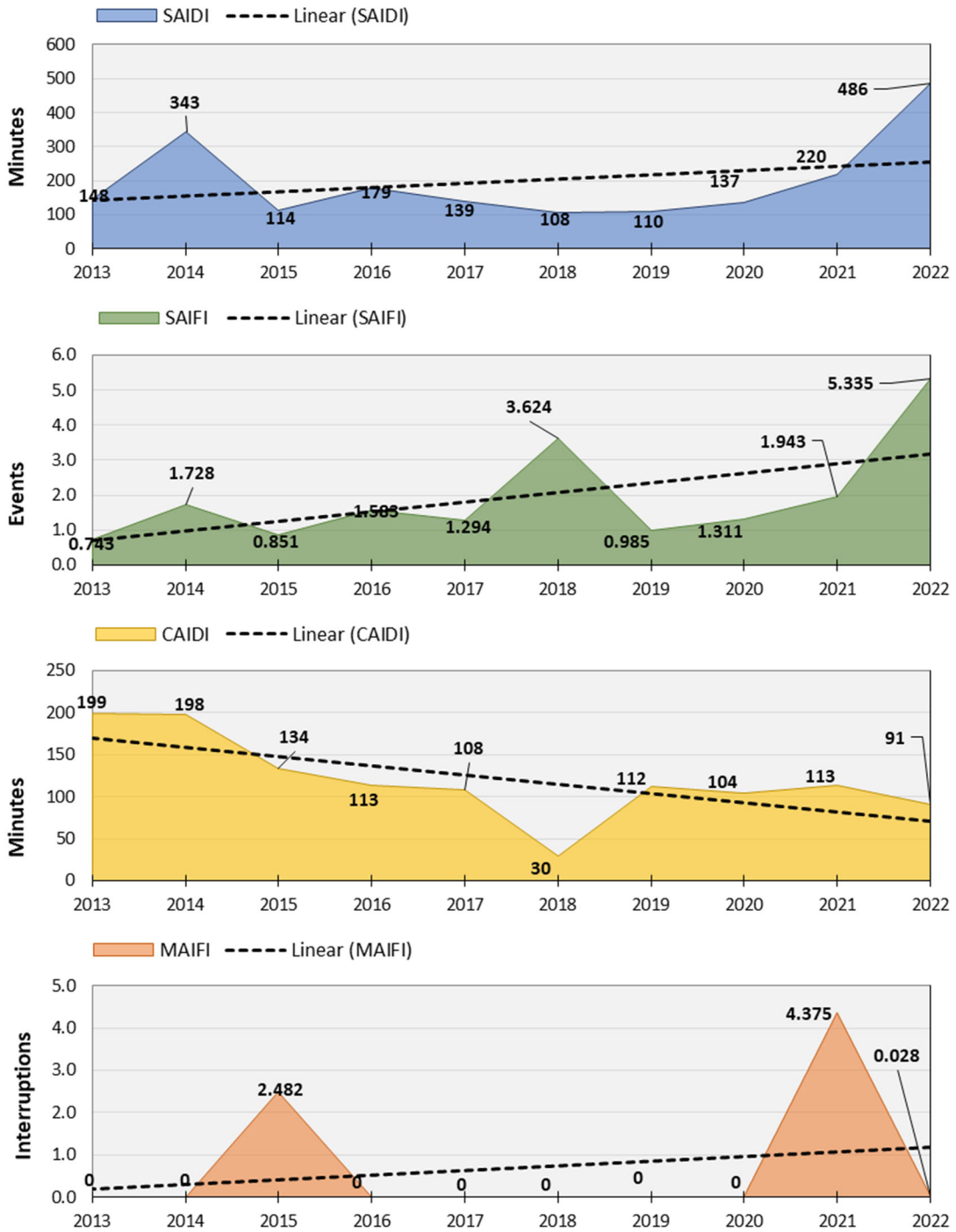
Notes:

1. Excludes outages that are customer requested, pre-arranged, extended a result of "Elevated Fire Risk" settings, or resulting from a failure of another company's system.
2. In 2016, D.16-01-008 approved Major Event designation process. 2015 Local events were reviewed and are excluded from the indices going -forward.
3. Momentary indices are reported within distribution system metrics and are inclusive of outages that occurred during major events.

Crescent City Reliability History - Including Major Events (includes customer notice given and customer requested)



Crescent City Reliability History - Excluding Major Events (includes customer notice given and customer requested)



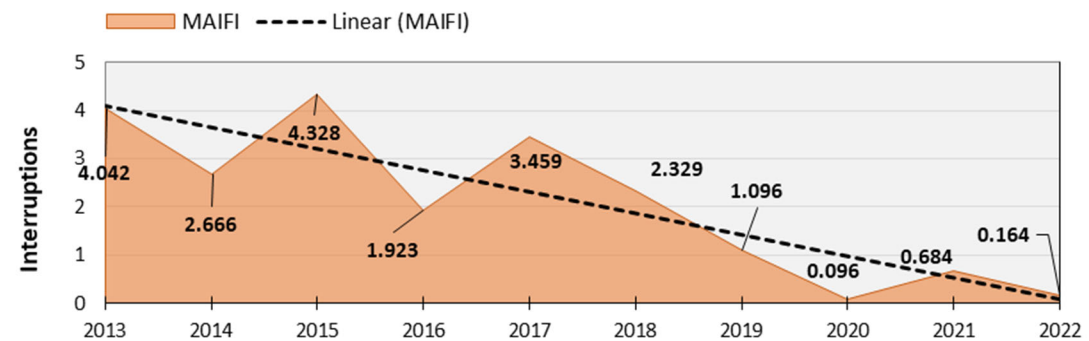
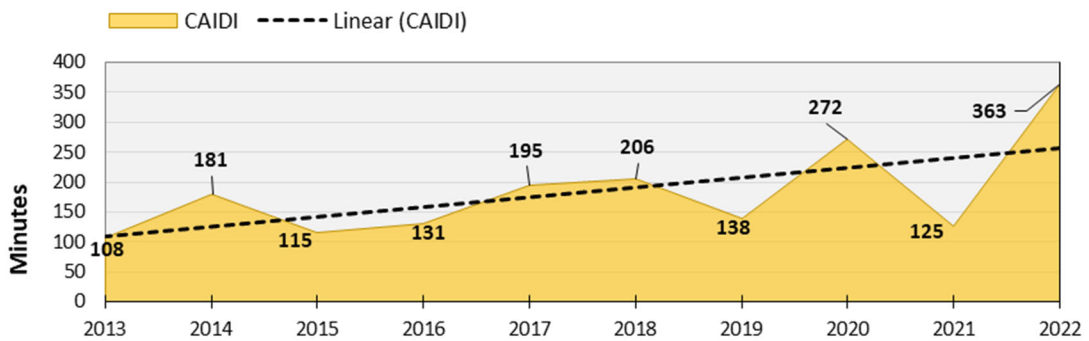
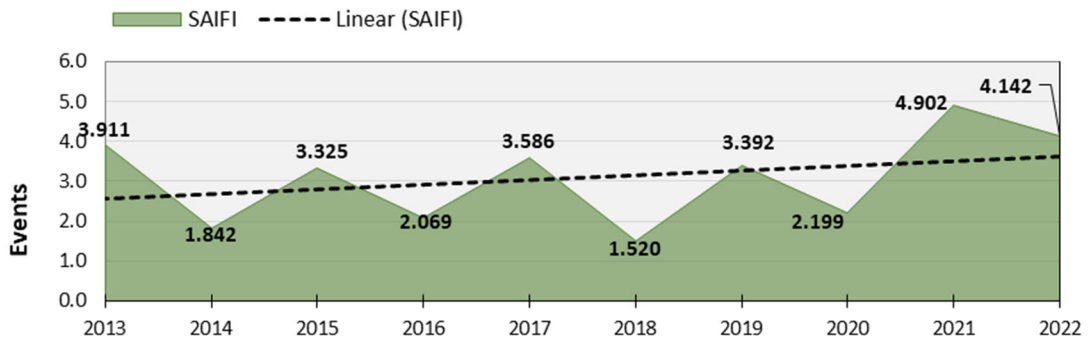
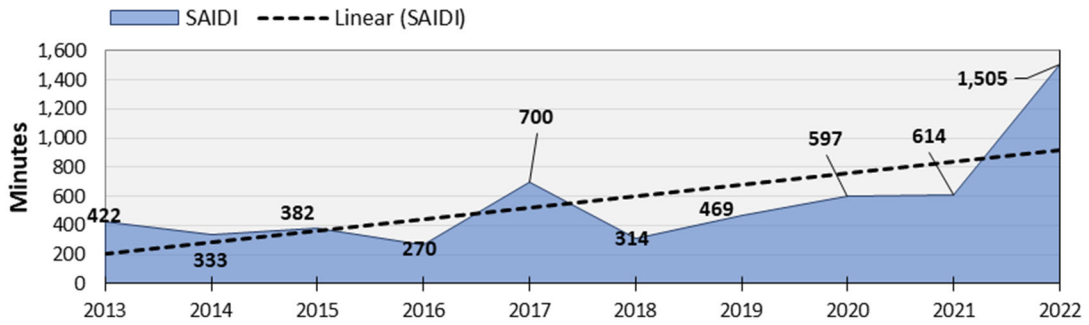
Yreka/Mt. Shasta - District System Indices								
Year	Major Events Included ¹				Major Events Excluded ² (2.5 & P1366)			
	SAIDI	SAIFI	CAIDI	MAIFI ³	SAIDI	SAIFI	CAIDI	MAIFI ³
2022	1504.8	4.142	363	0.164	271.7	2.815	97	0.120
2021	614.0	4.902	125	0.684	325.2	2.995	109	0.684
2020	597.5	2.199	272	0.096	216.2	1.409	153	0.096
2019	469.2	3.392	138	1.096	206.2	1.131	182	1.096
2018	313.5	1.520	206	2.329	229.5	1.514	152	2.329
2017	699.9	3.586	195	3.459	173.5	2.231	78	3.459
2016	270.3	2.069	131	1.923	232.2	1.836	126	1.923
2015	382.2	3.325	115	4.328	263.2	2.427	108	4.328
2014	332.6	1.842	181	2.666	251.7	1.540	163	2.666
2013	422.0	3.911	108	4.042	243.5	2.885	84	4.042
2012	633.1	3.048	208	7.268	244.9	1.919	128	7.268

Notes:

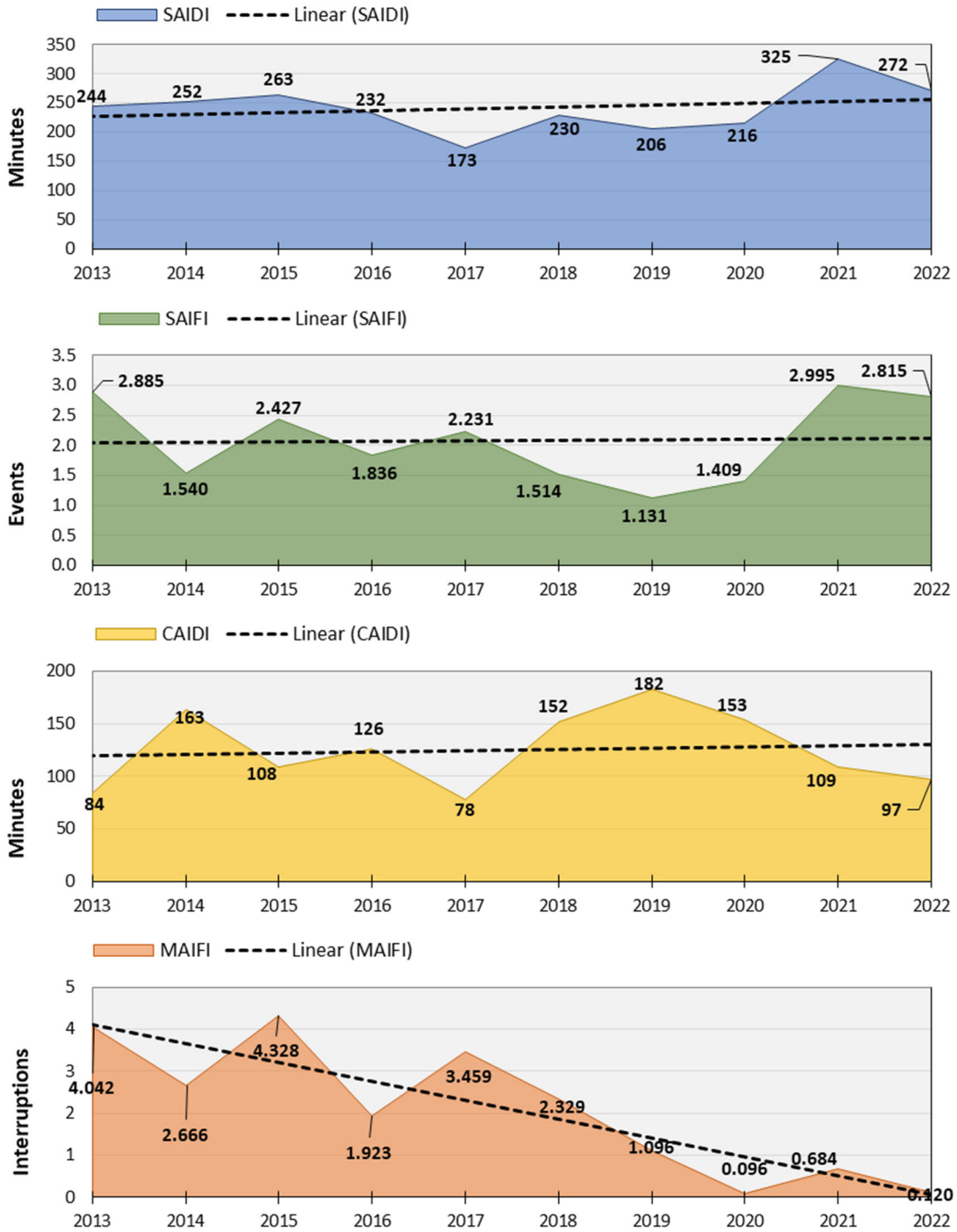
1. Excludes outages that are customer requested, pre-arranged, extended a result of "Elevated Fire Risk" settings, or resulting from a failure of another company's system.
2. In 2016, D.16-01-008 approved Major Event designation process. 2015 Local events were reviewed and are excluded from the indices going forward.
3. Momentary indices are reported within distribution system metrics and are inclusive of outages that occurred during major events.

Yreka/Mt. Shasta Reliability History - Including Major Events

(includes customer notice given and customer requested)



Yreka/Mt. Shasta Reliability History - Excluding Major Events (includes customer notice given and customer requested)



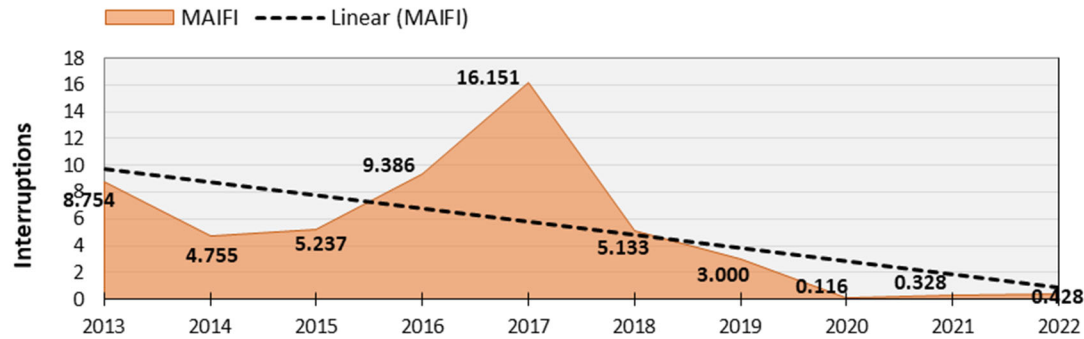
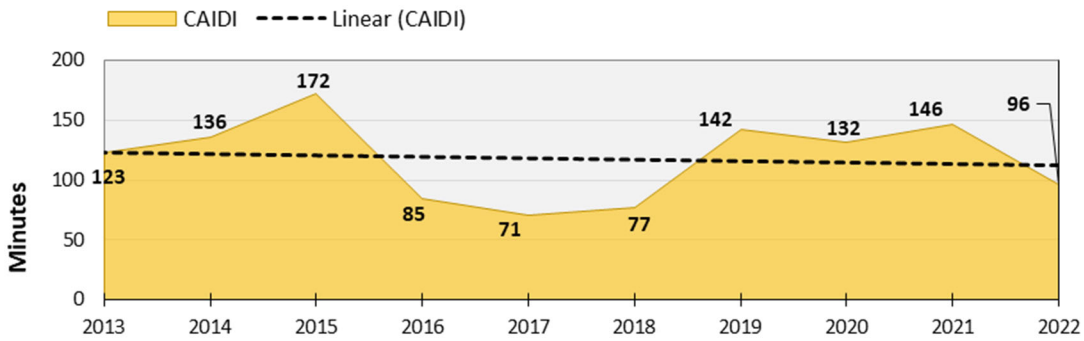
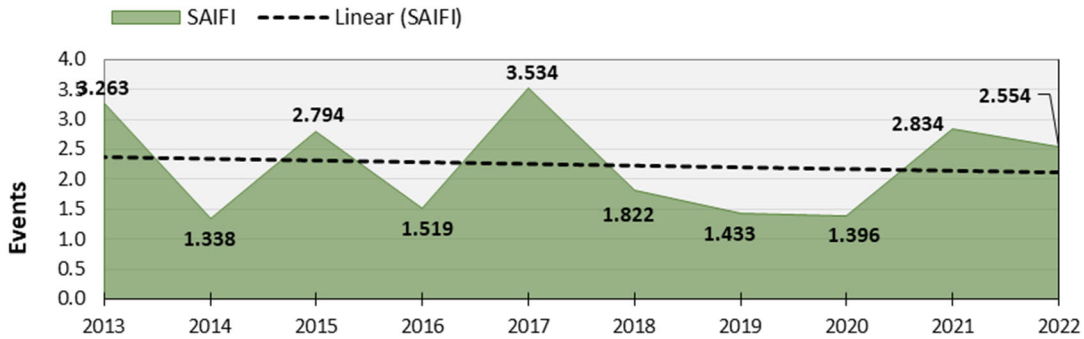
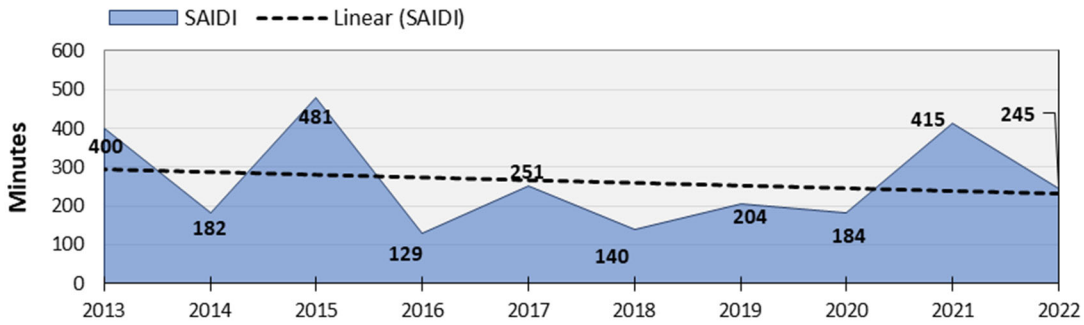
Tulelake/Alturas - District System Indices								
Year	Major Events Included ¹				Major Events Excluded ² (2.5 & P1366)			
	SAIDI	SAIFI	CAIDI	MAIFI ³	SAIDI	SAIFI	CAIDI	MAIFI ³
2022	244.7	2.554	96	0.428	223.9	2.458	91	0.428
2021	415.0	2.834	146	0.328	239.7	1.640	146	0.328
2020	184.0	1.396	132	0.116	152.2	1.202	127	0.116
2019	204.2	1.433	142	3.000	153.2	1.313	117	3.000
2018	140.0	1.822	77	5.133	138.7	1.813	76	5.133
2017	251.0	3.534	71	16.151	158.7	2.014	79	16.151
2016	128.9	1.519	85	9.386	95.5	1.390	69	9.386
2015	481.1	2.794	172	5.237	165.9	1.033	161	5.237
2014	182.3	1.338	136	4.755	136.0	1.295	105	4.755
2013	399.7	3.263	123	8.754	388.1	3.123	124	8.754
2012	143.1	1.035	138	10.761	143.0	1.034	138	10.761

Notes:

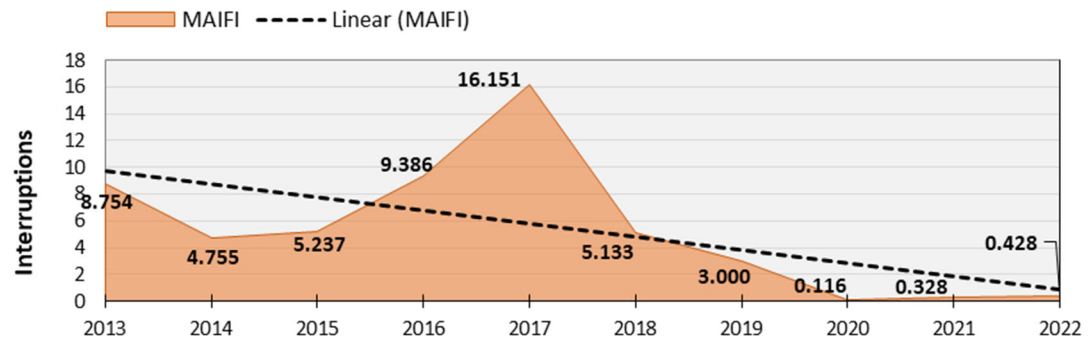
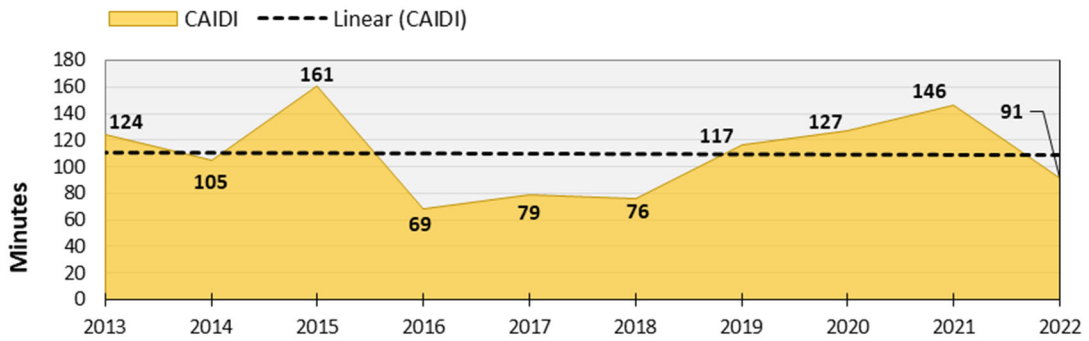
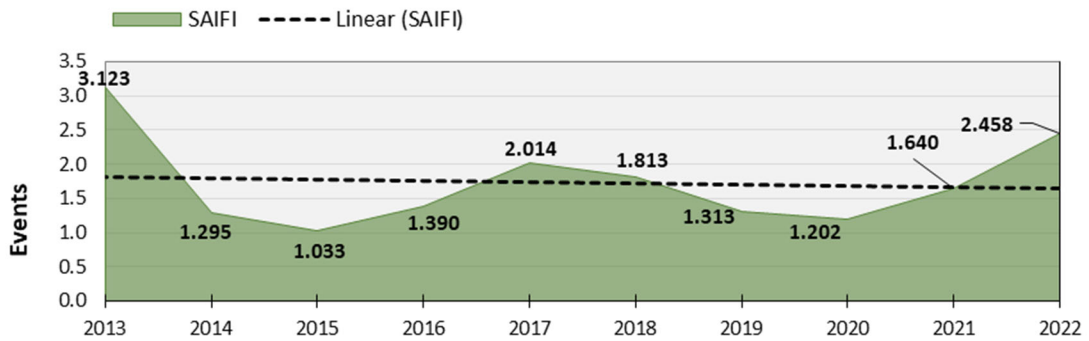
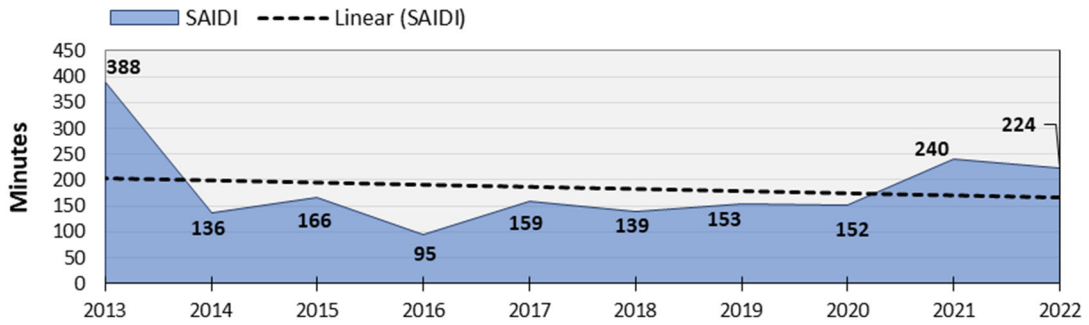
1. Excludes outages that are customer requested, pre-arranged, extended a result of "Elevated Fire Risk" settings, or resulting from a failure of another company's system.
2. In 2016, D.16-01-008 approved Major Event designation process. 2015 Local events were reviewed and are excluded from the indices going forward.
3. Momentary indices are reported within distribution system metrics and are inclusive of outages that occurred during major events.

Tulelake/Alturas Reliability History - Including Major Events

(includes customer notice given and customer requested)



Tulelake/Alturas Reliability History - Excluding Major Events (includes customer notice given and customer requested)



Planned Outage by District

The below table shows planned outage events which occurred annually, by district and month.

Planned Outages ¹				
Year	Month	Crescent City	Tulelake/ Alturas	Yreka/ Mt. Shasta
2022	January			
	February			
	March			
	April			
	May			
	June			
	July			
	August			
	September			
	October			
	November			
	December			
2021	January			
	February			
	March			
	April			
	May			
	June			
	July			
	August			
	September			
	October			
	November			
	December			
2020	January			
	February			
	March			
	April			
	May			
	June			
	July			
	August			
	September			
	October			
	November			
	December			
2019	January			
	February			
	March			
	April			
	May			
	June			

Planned Outages ¹				
Year	Month	Crescent City	Tulelake/ Alturas	Yreka/ Mt. Shasta
	July			
	August			
	September			
	October			
	November			
	December			
2018	January			
	February			
	March			
	April			
	May			
	June			
	July			
	August			
	September			
	October			
	November			
	December			
2017	January			
	February			
	March			
	April			
	May			
	June			
	July			
	August			
	September			
	October			
	November			
	December			
2016	January			
	February			
	March			
	April			
	May			
	June			
	July			
	August			
	September			
	October			
	November			
	December			
2015	January			
	February			
	March			
	April			
	May			
	June			

Planned Outages ¹				
Year	Month	Crescent City	Tulelake/ Alturas	Yreka/ Mt. Shasta
	July August September October November December			
2014	January February March April May June July August September October November December			
2013	January February March April May June July August September October November December			
2012	January February March April May June July August September October November December			

Notes:

1. Includes outages that are customer requested, pre-arranged (which can include short notice emergency prearranged outages), forced outages mandated by public authority, or resulting from a failure of another company's system.

Top Ten Unplanned Power Outage Events for 2022

The table below displays the top 10 unplanned outages in 2022 based on the total customer minutes lost.

Top 10 Unplanned Outage Events – 2022					
Date	District	Description	Major Event?	Total Customer Minutes Lost	Total Customers in Incident
9/2/2022	Yreka/Mt. Shasta	Environment - Fire/Smoke (Not due to faults)	Y	11,350,786	1,908
7/29/2022	Yreka/Mt. Shasta	Environment - Fire/Smoke (Not due to faults)	Y	5,684,103	342
9/2/2022	Yreka/Mt. Shasta	Loss of Transmission Line	Y	3,698,859	650
9/2/2022	Yreka/Mt. Shasta	Loss of Transmission Line	Y	3,151,717	2,458
9/2/2022	Yreka/Mt. Shasta	Loss of Transmission Line	Y	2,603,179	1,903
9/2/2022	Yreka/Mt. Shasta	Environment - Fire/Smoke (Not due to faults)	Y	816,017	686
8/8/2022	Yreka/Mt. Shasta	Loss of Transmission Line	Y	732,606	1,415
12/10/2022	Yreka/Mt. Shasta	Loss of Transmission Line	Y	691,746	1,034
12/27/2022	Yreka/Mt. Shasta	Loss of Transmission Line	Y	588,913	1,160
3/12/2022	Crescent City	Loss of Transmission Line	Y	576,219	1,649

Major Event Summary

PacifiCorp’s service territory in California consists of the three operating areas: Crescent City, Yreka/Mt. Shasta, and Tulelake/Alturas. Each operating area has been designated as a reliability reporting region in accordance with the Order. Each year the major event threshold for the state is determined using the T_{MED} methodology, as defined in IEEE P1366 and known as the “2.5 beta” method. The state T_{MED} is then applied to each operating area⁸. The table below depicts the major events that occurred during 2022.

2022 Major Event Summary								
Date	District	Cause	Customers out for a duration of:					
			5 min - 3 hrs.	3 - 24 hrs.	24 - 48 hrs.	48 - 72 hrs.	72 - 96 hrs.	96 + hrs.
March 12, 2022	California (State)	Loss of Transmission Line	14,150	10,870	-	-	-	-
April 10-11 2022	Crescent City	Loss of Transmission Line	10,455	-	-	-	-	-
July 29, 2022	Yreka/Mt Shasta	Environment - Fire/Smoke (Not due to faults)	413	352	342	342	342	342
August 8, 2022	Yreka/Mt Shasta	Loss of Transmission Line	3,567	2,127	-	-	-	-
September 2, 2022	Yreka/Mt Shasta	Environment - Fire/Smoke (Not due to faults)	9,795	9,786	2,884	2,684	2,588	1,912
October 20, 2022	Crescent City	Loss of Substation	12,851	-	-	-	-	-
December 10, 2022	California (State)	Loss of Transmission line and Damaged Equipment	22,102	4,554	14	-	-	-

⁸ Due to the size and irregularity of outage occurrences by district, it was deemed appropriate to apply the state T_{MED} to each district, to better adhere to major event standards throughout the operating areas and state.

Historical Top Ten Unplanned Power Outage Events – 2021 through 2011

Historical Top Ten Unplanned Outage Events by Year						
Year	Date	District	Description	Excluded Major Event?	Total Customer Minutes Lost	Total Customers in Incident
2021	12/15/2021	Yreka/Mt. Shasta	Loss of Transmission Line	Y	1,867,049	1,037
	1/12/2021	Crescent City	Loss of Transmission Line	Y	632,979	422
	11/8/2021	Crescent City	Loss of Transmission Line	Y	606,242	420
	8/23/2021	Yreka/Mt. Shasta	Loss of Transmission Line	Y	511,264	2,458
	8/17/2021	Yreka/Mt. Shasta	Unknown trip	N	504,876	1,901
	1/12/2021	Crescent City	Loss of Transmission Line	Y	496,483	331
	12/13/2021	Crescent City	Loss of Transmission Line	Y	488,632	421
	11/8/2021	Crescent City	Loss of Transmission Line	Y	480,663	333
	12/25/2021	Yreka/Mt. Shasta	Loss of Transmission Line	N	436,161	579
12/15/2021	Yreka/Mt. Shasta	Loss of Transmission Line	Y	428,131	2,766	
2020	9/8/2020	Yreka/Mt. Shasta	Wildfire	Y	5,561,782	767
	1/16/2020	Yreka/Mt. Shasta	Loss of Transmission Line	Y	789,985	1,849
	9/15/2020	Yreka/Mt. Shasta	Loss of Generation	Y	601,739	548
	11/7/2020	Yreka/Mt. Shasta	Loss of Transmission Line	N	461,489	1,039
	1/16/2020	Yreka/Mt. Shasta	Loss of Transmission Line	Y	436,087	753
	1/25/2020	Crescent City	Loss of Transmission Line	N	212,370	761
	8/15/2020	Yreka/Mt. Shasta	Loss of Transmission Line	Y	197,690	1,419
	11/17/2020	Yreka/Mt. Shasta	Damaged Equipment	N	195,925	1,186
	1/16/2020	Yreka/Mt. Shasta	Wind Blown Tree	Y	177,667	48
5/21/2020	Crescent City	Damaged Equipment	N	174,198	2,294	
2019	11/26/2019	Crescent City	Wildfire	Y	1,135,268	1,447
	11/26/2019	Crescent City	Loss of Substation	Y	870,310	1,342
	1/17/2019	Crescent City	Loss of Substation	Y	767,461	424
	11/26/2019	Crescent City	Wildfire	Y	759,630	1,277
	11/26/2019	Crescent City	Wildfire	Y	692,294	1,011
	11/26/2019	Crescent City	Loss of Substation	Y	601,838	513
	2/25/2019	Yreka/Mt Shasta	Loss of Substation	Y	527,481	2,458
	11/26/2019	Crescent City	Loss of Substation	Y	451,861	1,185
	2/9/2019	Crescent City	Loss of Transmission Line	Y	442,539	472
	11/26/2019	Crescent City	Loss of Transmission Line	Y	420,843	862
2018	9/5/2018	Yreka/Mt Shasta	Wildfire	Y	1,317,536	140
	11/23/2018	Crescent City	Loss of Substation	Y	604,033	2,230
	11/22/2018	Crescent City	Loss of Substation	Y	589,598	3,723
	9/5/2018	Yreka/Mt Shasta	Wildfire	Y	516,658	290
	9/5/2018	Yreka/Mt Shasta	Wildfire	Y	464,656	76
	11/23/2018	Crescent City	Loss of Substation	Y	453,669	1,672
	11/23/2018	Crescent City	Loss of Substation	Y	392,788	1,447
	11/23/2018	Crescent City	Loss of Substation	Y	364,652	1,345
	11/23/2018	Crescent City	Loss of Transmission Line	Y	276,210	1,023
12/14/2018	Crescent City	Loss of Transmission Line	Y	271,134	424	

Historical Top Ten Unplanned Outage Events by Year						
Year	Date	District	Description	Excluded Major Event?	Total Customer Minutes Lost	Total Customers in Incident
2017	1/18/2017	Yreka/Mt Shasta	Damaged Equipment	Y	1,957,567	1,604
	4/7/2017	Crescent City	Wind Blown Tree	Y	1,119,257	1,474
	4/7/2017	Crescent City	Wind Blown Tree	Y	987,987	3,396
	1/9/2017	Yreka/Mt Shasta	Heavy Snow Storm	Y	985,255	1,776
	4/7/2017	Crescent City	Wind Blown Tree	Y	947,025	5,175
	1/19/2017	Yreka/Mt Shasta	Loss of Transmission Line	Y	886,326	763
	1/3/2017	Yreka/Mt Shasta	Loss of Transmission Line	Y	869,891	1,524
	1/19/2017	Yreka/Mt Shasta	Damaged Equipment	Y	714,873	561
	1/18/2017	Yreka/Mt Shasta	Heavy Snow Storm	Y	689,554	2,298
1/18/2017	Yreka/Mt Shasta	Loss of Transmission Line	Y	674,919	352	
2016	10/17/2016	Crescent City	Loss of Transmission Line	Y	926,778	10,972
	6/5/2016	Yreka/Mt Shasta	Loss of Transmission Line	Y	853,260	4,736
	6/17/2016	Yreka/Mt Shasta	Loss of Transmission Line	N	478,225	6,248
	12/21/2016	Crescent City	Wind Blown Tree	Y	388,500	420
	8/28/2016	Yreka/Mt Shasta	Forest Fire	N	363,287	1,404
	12/21/2016	Crescent City	Wind Blown Tree	Y	311,097	336
	2/5/2016	Yreka/Mt Shasta	Loss of Transmission Line	N	302,123	8,349
	4/13/2016	Yreka/Mt Shasta	Wind Storm	N	291,507	6,016
	1/13/2016	Crescent City	Pole Fire	N	278,218	8,577
2/5/2016	Yreka/Mt Shasta	Loss of Transmission Line	N	274,030	3,724	
2015	2/5/2015	Crescent City	Loss of Transmission Line	Y	1,852,631	3,150
	2/7/2015	Crescent City	Wind Blown Tree	Y	1,036,585	1,222
	2/6/2015	Crescent City	Wind Blown Tree	Y	922,607	1,047
	2/7/2015	Crescent City	Wind Blown Tree	Y	922,282	1,884
	2/7/2015	Crescent City	Wind Blown Tree	Y	713,868	380
	2/5/2015	Crescent City	Loss of Transmission Line	Y	649,753	2,100
	2/7/2015	Crescent City	Loss of Transmission Line	Y	636,947	1,719
	7/7/2015	Yreka/Mt. Shasta	Loss of Transmission Line	Y	538,624	3,156
	4/25/2015	Yreka/Mt. Shasta	Tree	N	528,711	9,320
2/7/2015	Crescent City	Emergency Damage Repair	Y	455,081	3,024	
2014	10/25/2014	Crescent City	Loss of Transmission Line	Y	2,424,849	7,448
	10/25/2014	Crescent City	Loss of Transmission Line	Y	1,084,725	1,533
	9/15/2014	Yreka/Mt. Shasta	Loss of Transmission Line	Y	890,396	13,280
	9/15/2014	Yreka/Mt. Shasta	Loss of Transmission Line	Y	802,134	5,660
	10/25/2014	Crescent City	Loss of Transmission Line	Y	517,764	453
	9/15/2014	Yreka/Mt. Shasta	Intentional to Clear Trouble	Y	498,809	1,205
	3/24/2014	Crescent City	Loss of Transmission Line	N	484,466	798
	10/25/2014	Crescent City	Loss of Transmission Line	Y	478,808	1,176
	5/5/2014	Yreka/Mt. Shasta	Pole fire	N	472,976	1,875
8/17/2014	Yreka/Mt. Shasta	Loss of Transmission Line	N	471,399	3,070	
2013	8/25/2013	Yreka/Mt. Shasta	Loss of Transmission Line	Y	2,210,746	14,259
	8/25/2013	Yreka/Mt. Shasta	Loss of Transmission Line	Y	2,087,998	10,500
	9/5/2013	Yreka/Mt. Shasta	Loss of Substation	N	731,594	1,451
	10/27/2013	Yreka/Mt. Shasta	Loss of Transmission Line	N	466,576	1,452

Historical Top Ten Unplanned Outage Events by Year						
Year	Date	District	Description	Excluded Major Event?	Total Customer Minutes Lost	Total Customers in Incident
	5/11/2013	Yreka/Mt. Shasta	Loss of Transmission Line	N	398,507	2,093
	8/22/2013	Tulelake/Alturas	Loss of Transmission Line	N	361,772	2,407
	7/9/2013	Tulelake/Alturas	Emergency Damage Repair	N	301,141	970
	9/30/2013	Crescent City	Tree	N	299,295	458
	5/20/2013	Yreka/Mt. Shasta	Loss of Substation	N	297,838	1,042
	12/9/2013	Yreka/Mt. Shasta	Loss of Substation	N	297,317	1,663
2012	12/20/2012	Yreka/Mt. Shasta	Weather	Y	1,789,753	3,108
	12/20/2012	Yreka/Mt. Shasta	Emergency Damage Repair	Y	1,691,153	11,788
	11/29/2012	Yreka/Mt. Shasta	Tree	N	876,375	12,070
	9/30/2012	Yreka/Mt. Shasta	Loss of Transmission Line	Y	807,000	3,078
	12/23/2012	Yreka/Mt. Shasta	Loss of Transmission Line	Y	697,305	373
	12/22/2012	Yreka/Mt. Shasta	Intentional to Clear Trouble	Y	681,990	508
	9/30/2012	Yreka/Mt. Shasta	Loss of Transmission Line	Y	568,353	6,469
	12/21/2012	Yreka/Mt. Shasta	Weather	Y	560,115	414
	12/24/2012	Yreka/Mt. Shasta	Tree	Y	509,765	438
	12/13/2012	Yreka/Mt. Shasta	Loss of Transmission Line	N	389,226	1,653
2011	10/10/2011	Yreka/Mt. Shasta	Loss of Transmission Line	N	870,734	3,612
	7/31/2011	Yreka/Mt. Shasta	Loss of Transmission Line	N	664,757	7,652
	3/24/2011	Yreka/Mt. Shasta	Loss of Transmission Line	N	550,141	1,042
	9/15/2011	Yreka/Mt. Shasta	Emergency Damage Repair	N	516,786	3,608
	7/31/2011	Yreka/Mt. Shasta	Loss of Transmission Line	N	501,237	6,308
	7/31/2011	Yreka/Mt. Shasta	Loss of Transmission Line	N	449,576	5,189
	12/10/2011	Yreka/Mt. Shasta	Loss of Transmission Line	N	430,949	546
	2/17/2011	Yreka/Mt. Shasta	Loss of Transmission Line	N	383,111	1,043
	3/18/2011	Yreka/Mt. Shasta	Weather	N	354,489	9,340
12/23/2011	Crescent City	Loss of Transmission Line	N	332,817	839	

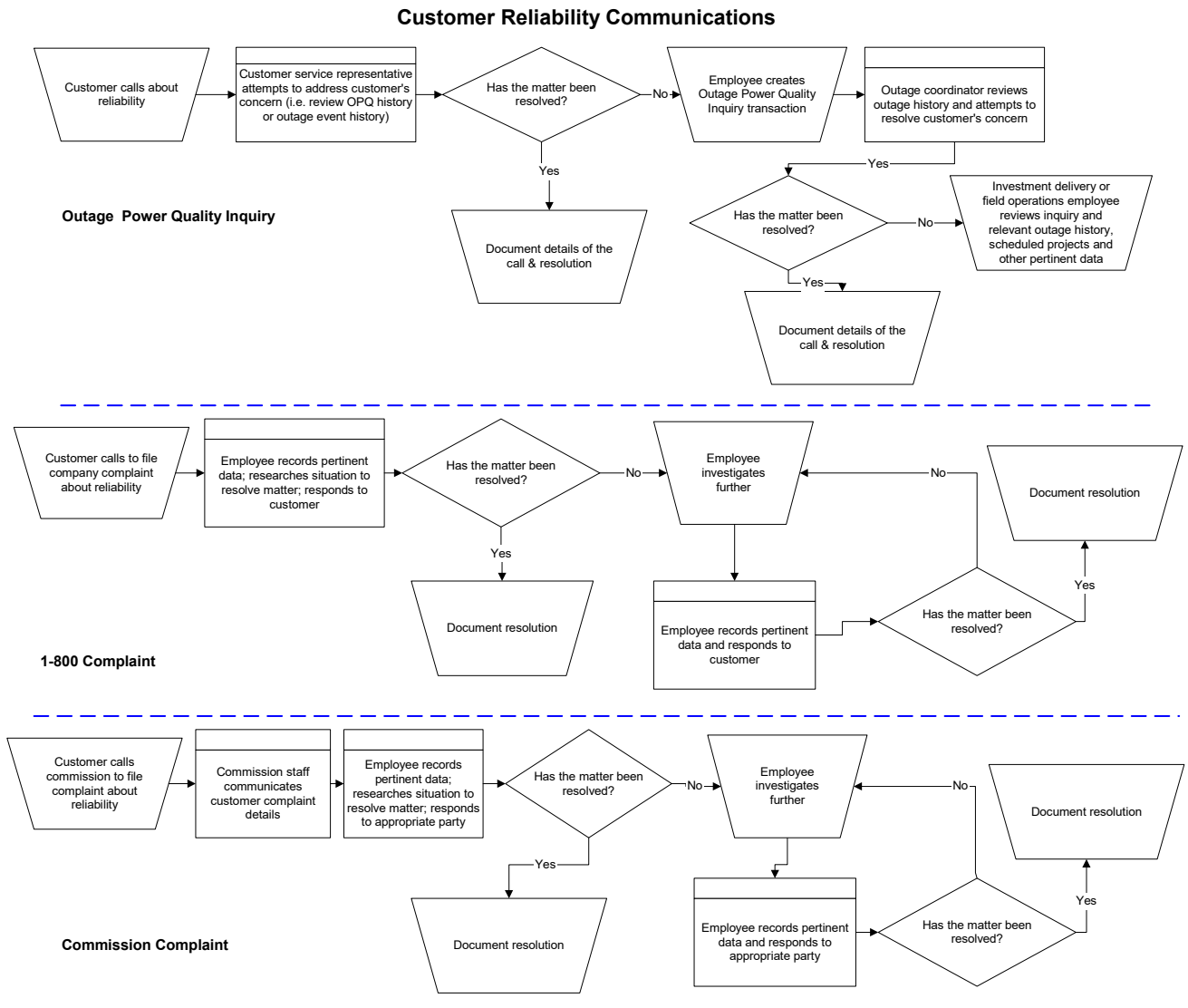
Customer Inquiries and Response

Customer Reliability Communications

PacifiCorp has internet addresses to provide customer guidance on how to request reliability information as well as to view reliability overview metrics and the year’s reliability report. The metric information is located at <https://www.pacificpower.net/ca-report> while the link to request reliability information for a specific customer is located at <https://www.pacificpower.net/reliability>. Further, in compliance with the rules, PacifiCorp will be scheduling its annual meeting in the fall to review these results in the ordered public meeting.

Reliability Inquiry and Complaint Process Overview

The Company’s process for managing customers’ concerns about reliability are to provide opportunities to hear customer concerns, respond to those concerns, and where necessary, provide customers an opportunity to elevate those concerns.



Customer Reliability Inquiry/Complaint Tracking

Listed below are the various avenues available to a customer to resolve concerns about reliability performance.

- Customer Reliability Inquiry**
 The company records customer inquiries about reliability as Outage Power Quality transactions in its customer service system, referred to as “OPQ” transactions.
- Customer Complaint**
 If a customer’s reliability concerns are not met through the process associated with the OPQ transaction, a customer can register a 1-800 complaint with the company. This is recorded in a complaint repository from which regular reports are prepared and circulated for resolution.
- Commission Complaint**
 If a customer’s reliability concerns are not met through the process associated with a 1-800 complaint, a customer can register a complaint with the Commission. This is recorded by the Commission staff and also by the company in a complaint repository. Regular reports are prepared and circulated for resolution of these items.

2022 Customer Reliability Inquiry Responses

The table below illustrates PacifiCorp’s response periods for each customer reliability inquiry received in 2022. The response time for each inquiry reports calendar days from the date of the initial inquiry to the date on which the company contacts the customer to discuss the specific circumstances associated with the inquiry. Certain outlier records report the duration until investigation was completed because of incomplete customer contact records.

Response Time (Days)	Customer Inquiries (non-outage Related)	Customer Outage Inquiries	Response Time (Days)	Customer Inquiries (non-outage Related)	Customer Outage Inquiries
1	20	16	17	0	0
2	6	4	18	0	0
3	3	6	19	0	0
4	1	2	20	0	0
5	2	0	21	0	0
6	2	2	22	0	0
7	2	0	23	0	0
8	0	0	24	0	0
9	0	0	25	0	0
10	0	0	26	0	0
11	0	0	27	0	0
12	2	0	28	0	0
13	0	0	29	0	0
14	2	1	30	0	0
15	0	0	31+	2	0
16	0	0			

**DECLARATION OF
AMY McCLUSKEY (PACIFICORP)**

1. My name is Amy McCluskey. My business address is 825 NE Multnomah Street, Suite 1700, Portland, Oregon 97232.

2. I am the Vice President, Wildfire Safety and Asset Management for PacifiCorp d/b/a Pacific Power (PacifiCorp or the Company). PacifiCorp is a multi-jurisdictional utility providing electric retail service to customers in California, Idaho, Oregon, Utah, Washington, and Wyoming. PacifiCorp serves approximately 47,000 customers in portions of Del Norte, Modoc, Shasta, and Siskiyou Counties in northern California.

3. This declaration is based on my information and belief and is submitted for the purpose of requesting confidential treatment of portions of PacifiCorp's annual reliability report submitted to the Commission on July 14, 2023,¹ in accordance with General Order (GO) 66-D of the California Public Utilities Commission (Commission). PacifiCorp submitted both confidential and public versions of the report. Planned outage data is redacted from the public version.

4. Section 3.2 of GO 66-D provides that when a utility submits to the Commission or Commission staff documents for which the utility seeks confidential treatment outside of a formal proceeding, the utility must mark the document or applicable portions thereof confidential and provide a specific citation to the California Public Records Act that authorizes confidential treatment. Additionally, any such request must be accompanied by a declaration signed by an officer of the requesting entity.

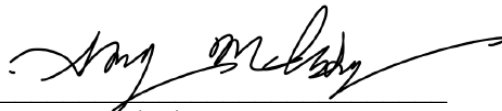
¹ PacifiCorp is concurrently submitting a copy of this report to the Energy Division Central Files and Mr. Lee Palmer with the same claim of confidentiality.

5. PacifiCorp requests confidential treatment of the planned outage data in the confidential version under Decision (D.) 16-01-008, as explained below, and Government Code Sections 6254(e) and (k). The pages of the confidential version of the report with planned outage data for which confidential treatment is requested have been marked in compliance with Section 3.2(a) of GO 66-D.

6. Under D. 16-01-008, the Commission updated the electric reliability reporting requirements for California electric utilities. D.16-01-008 requires utilities to submit annual information about planned outages to the Energy Division and the Safety and Enforcement Division on a confidential basis.² As noted in D.16-01-008, “making planned outage data public poses a potential risk as the data could expose grid vulnerabilities. Therefore, planned outage data should be confidential to protect the public from potential harmful activities that could damage the grid and electric reliability.” See D.16-01-008 at p.19.

I declare under penalty of perjury of the laws of the state of California that the foregoing is true and correct.

Executed in Portland, Oregon, July 14, 2023.



Amy McCluskey
Vice President, Wildfire Safety and Asset Management
PacifiCorp

² D.16-01-008, at p.18.