

# Welcome

**Liberty Utilities Reliability  
Reporting Workshop for  
2025 Calendar Year**

**December 10, 2025**



# Agenda

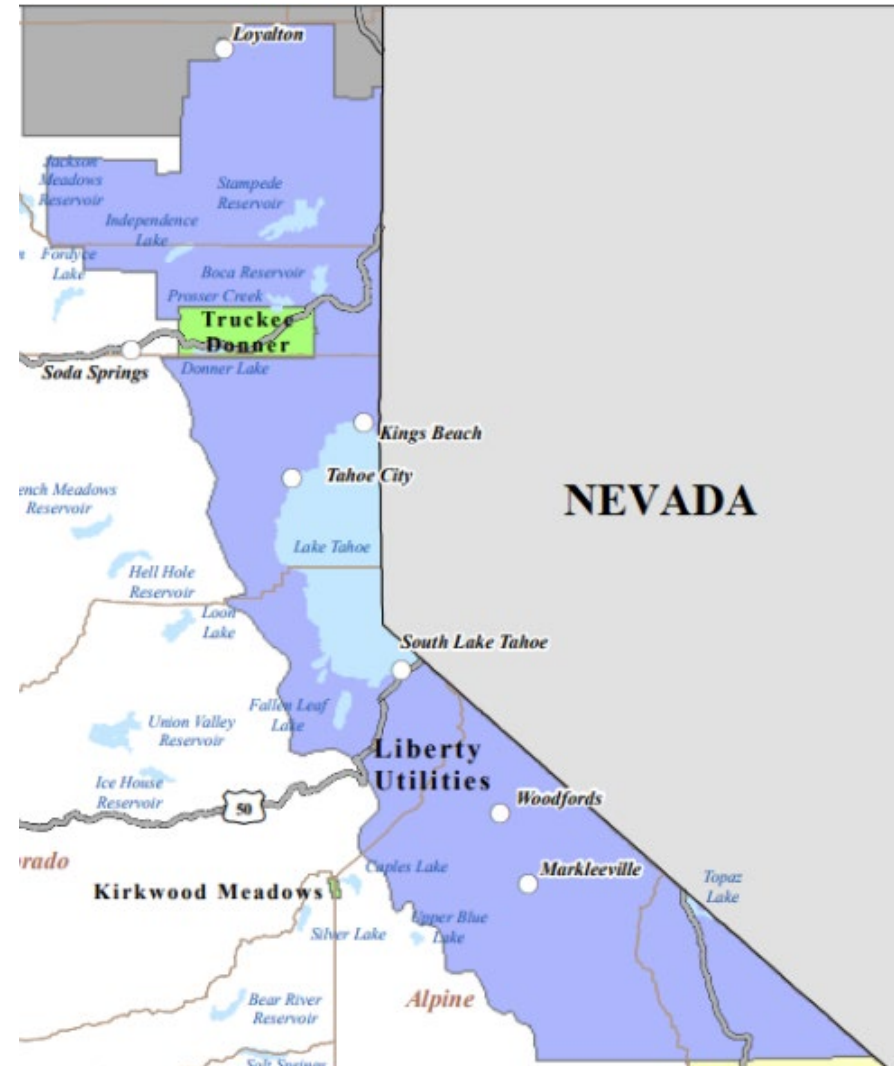
- System Overview
- Key Utility Initiatives
- Reliability Performance
- Questions





# Service Territory Overview

- Purchased NV Energy's (SPPCo) California service territory in 2011
- 1,476 square miles; 49,165 customers
- Two office locations: South Lake Tahoe and Tahoe Vista
- Pay \$2.8 million in annual property taxes and franchise fees in 7 counties
- Approximately 130 employees currently
- Regulated by the California Public Utilities Commission (CPUC)
- Winter Peaking Utility





# Service Territory Overview

- 1,880 miles Distribution lines
  - 1,400 Overhead (O/H)
  - 480 Underground (U/G)
- 12 Substations
- 2 Solar Farms
  - Luning: 50 MW generation
  - Turquoise: 10 MW generation
- Max System Load: 144.5 MW
- 97% Residential, 3% Commercial





# Where Does The Power Come From

2024 POWER CONTENT LABEL		
Liberty Utilities (CalPeco Electric) LLC		
	General System Mix	CA Utility Average
<b>Greenhouse Gas Emissions Intensity</b> (lbs of CO <sub>2</sub> e emitted per megawatt hour)	<b>602</b>	<b>359</b>
<b>Electricity Sources</b> ■ Renewables and Zero-Carbon Resources ■ Fossil Fuels and Unspecified Power		
<b>RPS Eligible Renewables</b>	<b>36%</b>	<b>45%</b>
Biomass & Biogas	0%	2%
Geothermal	17%	5%
Eligible Hydroelectric	0%	2%
Solar	19%	23%
Wind	0%	14%
<b>Large Hydroelectric</b>	<b>0%</b>	<b>10%</b>
<b>Nuclear</b>	<b>0%</b>	<b>11%</b>
<b>Emerging Technologies</b>	<b>0%</b>	<b>0%</b>
<b>Other</b>	<b>0%</b>	<b>0%</b>
<b>Natural Gas</b>	<b>0%</b>	<b>10%</b>
<b>Coal &amp; Petroleum</b>	<b>0%</b>	<b>2%</b>
<b>Unspecified Power (primarily fossil fuels)</b>	<b>64%</b>	<b>22%</b>
<b>Total</b>	<b>100%</b>	<b>100%</b>
Retail sales covered by retired unbundled RECs	3%	
<p>■ This label does not reflect compliance with the Renewables Portfolio Standard (RPS), which measures the use of tracking instruments called Renewable Energy Credits (RECs) over the course of multi-year compliance periods. RECs that are purchased separately from the renewable energy ("Unbundled RECs") can be used for RPS compliance, but they do not factor into the power mixes or GHG emissions intensities above.</p> <p>■ GHG intensity figures exclude biogenic CO<sub>2</sub> and emissions from geothermal sources and grandfathered imports of firm-and-shaped energy. For detailed information about all GHG emissions from California's retail electricity suppliers, visit the CEC webpage at the link below.</p> <p>■ Unspecified power is electricity purchased from a genericized pool on the open market.</p>		
<a href="https://california.libertyutilities.com/">https://california.libertyutilities.com/</a>	<p><b>Want to learn more? Visit</b>  <a href="https://www.energy.ca.gov/programs-and-topics/programs/power-source-disclosure-program">https://www.energy.ca.gov/programs-and-topics/programs/power-source-disclosure-program</a></p>	





# Factors for Customer Satisfaction

- Reliability
- Safe Service
- Outage Notifications

The screenshot shows the Liberty Energy website's 'Outage Center' page. The header includes the Liberty logo, navigation links (Community, Search, Contact us, Emergencies, My Account, Español), and a secondary menu (Energy Efficiency, Sustainability, Safety, Emergencies & Outages, Rates, Customer Service). A central navigation bar features icons for 'Pay my bill', 'Moving', 'Water Quality', 'Outage Center', and 'Programs & Rebates'. The main content area is titled 'Home / Residential / Emergencies / Outage Center' and contains a paragraph about service reliability and outage reporting. Below this, there are three main sections: 'View Outage Map' with a map of the Lake Tahoe area and instructions on how to use the map; 'Report an Outage Online' with a laptop icon and a link to report an outage; and 'Report an Outage by Phone' with a phone icon and the contact number 1-844-245-6868.

**Liberty**  
Community Search Contact us Emergencies My Account Español

Energy Efficiency Sustainability Safety Emergencies & Outages Rates Customer Service

Pay my bill Moving Water Quality Outage Center Programs & Rebates

Home / Residential / Emergencies / Outage Center

We work hard to provide our customers with safe and reliable service. However, outages may still occur due to various reasons, such as storms or strong wind conditions. Use the links below to view our outage map, report an outage in your area, and more.

**View Outage Map**  
Visit My Account to view our outage map. Check the status of a power outage, see how many individuals are affected, and obtain the estimated restoration time.  
**You do not need to log in to My Account to access and use our outage map.**  
[View outage map](#)

**Report an Outage Online**  
Visit Liberty My Account to report an outage.  
[Report online](#)

**Report an Outage by Phone**  
Even if you are sure others in your area have notified us, the more information we have, the faster we can assess the situation and get the necessary crews on site.  
**Call 1-844-245-6868**



# Outage Reporting and Tracking

Please Call 1-800-782-2506



1 Outages

11 Approximate Customers Affected

MAP Legend

Electricity

Gas

Water

Multiple Outages

REPORT AN ELECTRIC OUTAGE

Updated Tue, 12/09/2025, 10:49 AM

Map Satellite

Steelhead Ave Steelhead Ave Steelhead Ave Steelhead Ave Steelhead Ave

Fox St Fox St Fox St

Google

Outage Detail

Start date and time  
Tue, 12/09/2025, 8:39 am

Estimated restoration time  
Tue, 12/09/2025, 12:00 pm

Outage Status  
Dispatched

Customers Affected  
11

Cause of Outage  
Planned

Commodity Type  
Electricity

Outage Type  
Planned

Privacy Policy Term and Condition

Version 10.0

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# Customer Notifications



Website  
[libertyutilites.com](http://libertyutilites.com)



Twitter  
[@LibertyUtil\\_CA](https://twitter.com/LibertyUtil_CA)

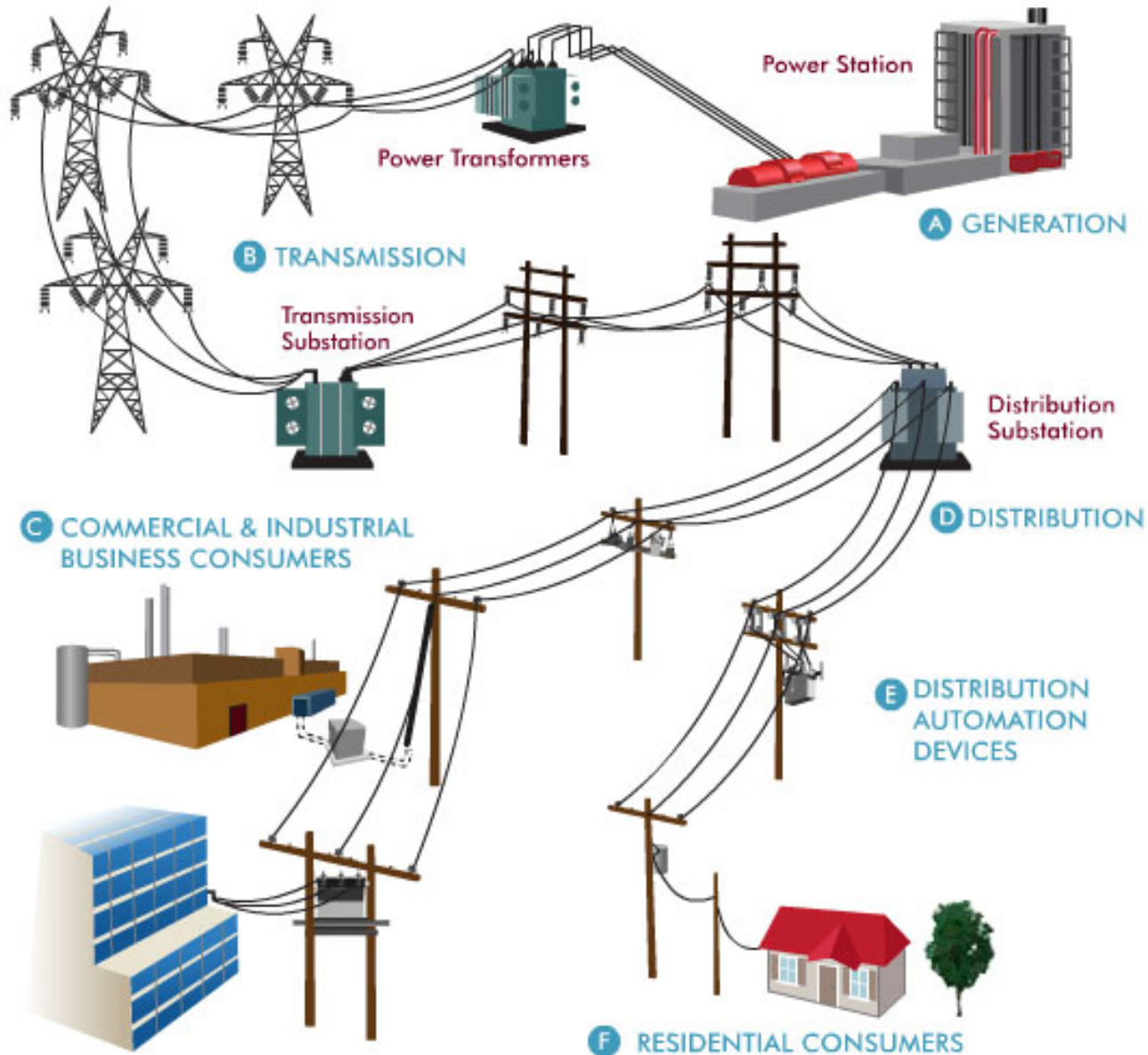


Facebook  
Liberty Utilities - Tahoe





# Power System Overview





# Power Outage Causes

- ❖ Weather (wind, snow, ice build up, lightning)
- ❖ Animals (birds, squirrels, snakes)
- ❖ Third Party Damage (motor vehicle accident)
- ❖ Equipment Failure (cable faults, transformer)
- ❖ Vegetation (trees, wildfire)
- ❖ Loss of Source Power from transmission provider







# Momentary vs. Sustained



## Momentary

Outages that are less than or equal to 5 minutes in duration

Ex: Tree branches contact a power line, burns the branch clear, and the circuit recloses automatically

## Sustained

Outages that are greater than 5 minutes in duration

Ex: Tree falls through the power line and must be removed before re-energizing the line



# Planned vs Major Outages

## Planned Outage

- Outages where a customer or public official has made a request, or Liberty has provided notification
- These are excluded from reliability metrics

## Major Event

- Institute of Electrical and Electronic Engineers (IEEE) standard 1366-2012, a set of outages that exceed the historically expected outage duration (SAIDI) for at least one day





# Measuring Reliability

Every outage is analyzed to determine the following metrics:

$$\text{SAIDI} = \frac{\text{Total of Customer Interruption Durations}}{\text{Total number of customers served}}$$

$$\text{SAIFI} = \frac{\text{Total Number of Customers Interrupted}}{\text{Total number of customers served}}$$

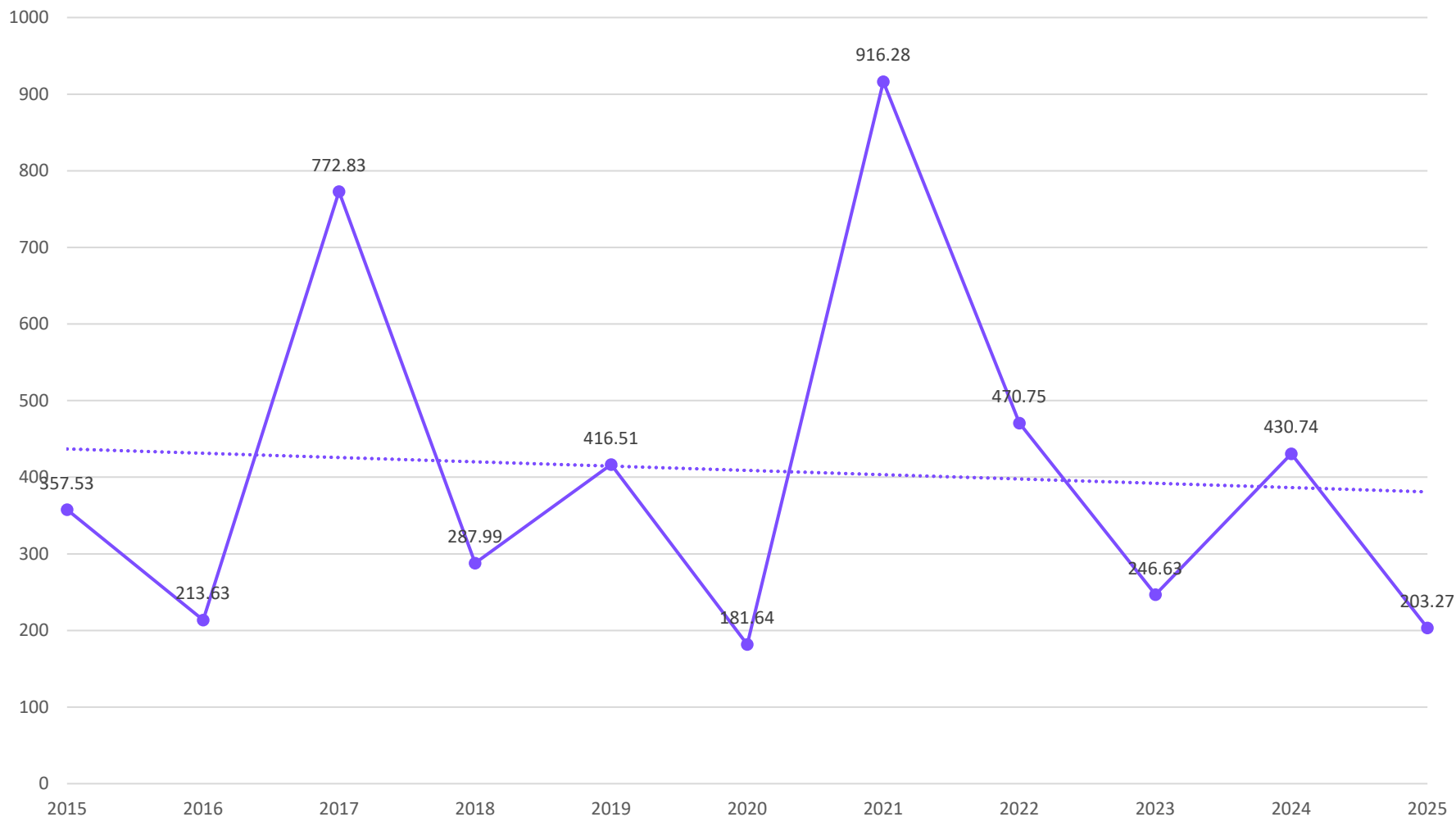
$$\text{CAIDI} = \frac{\text{Total Customer Interruption Durations}}{\text{Total Number of Customer Interruptions}}$$

$$\text{MAIFI} = \frac{\text{Tot.No.of Customer Momentary Interruptions}}{\text{Total number of customers served}}$$



# SAIDI System Performance

Distribution System Indices MED Excluded (SAIDI)

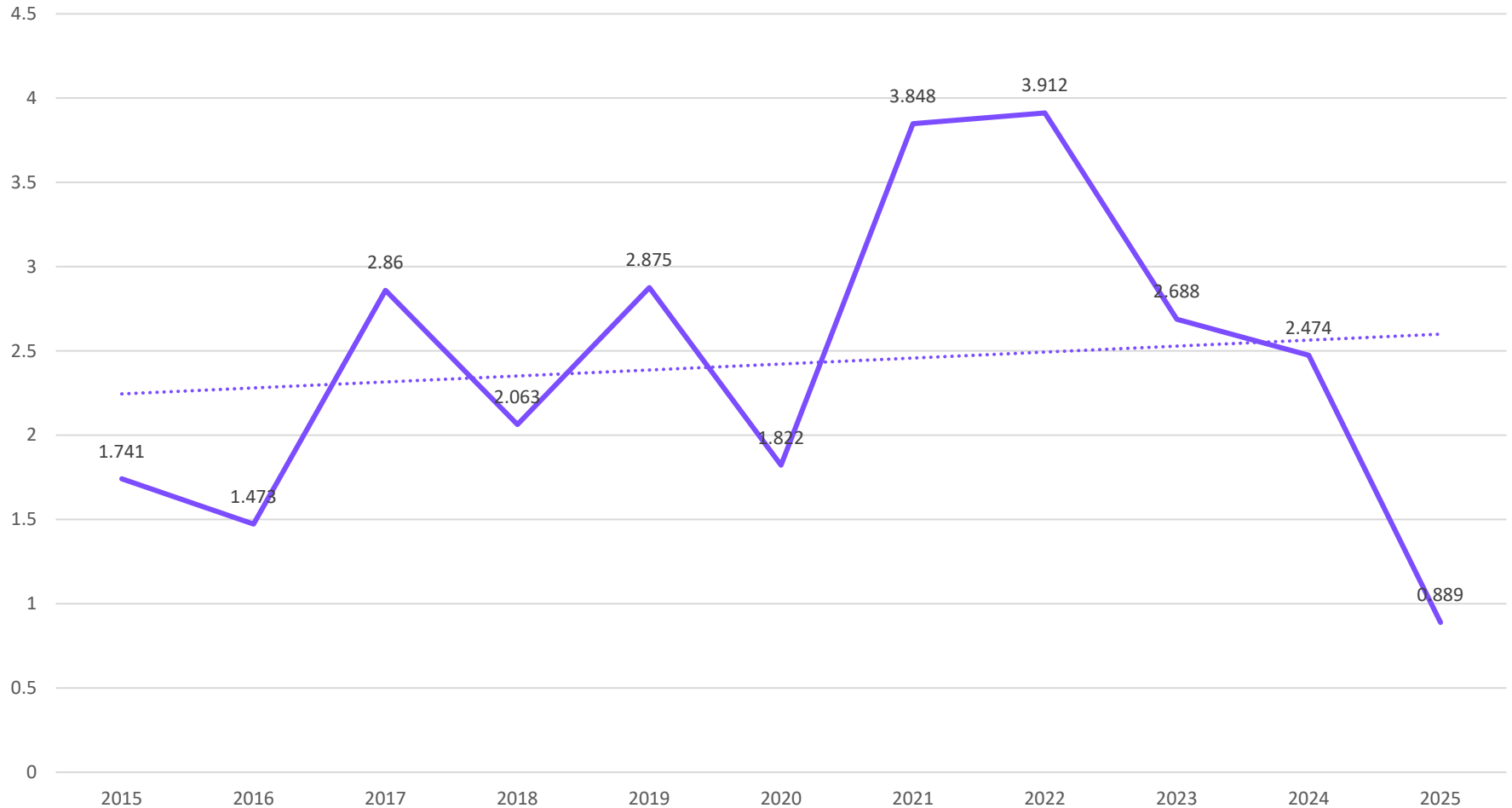






# SAIFI System Performance

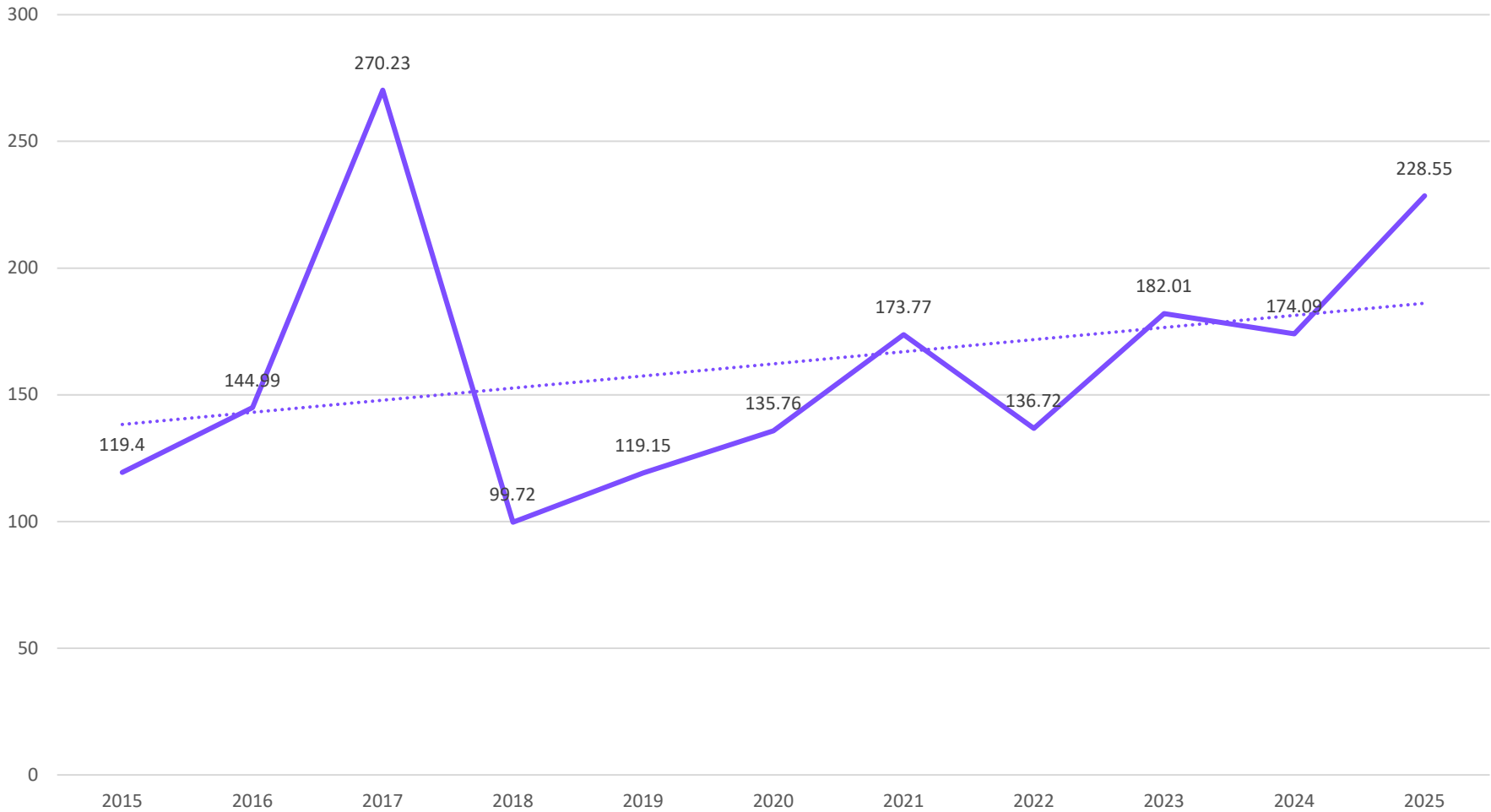
Distribution System Indices MED Excluded (SAIFI)





# CAIDI System Performance

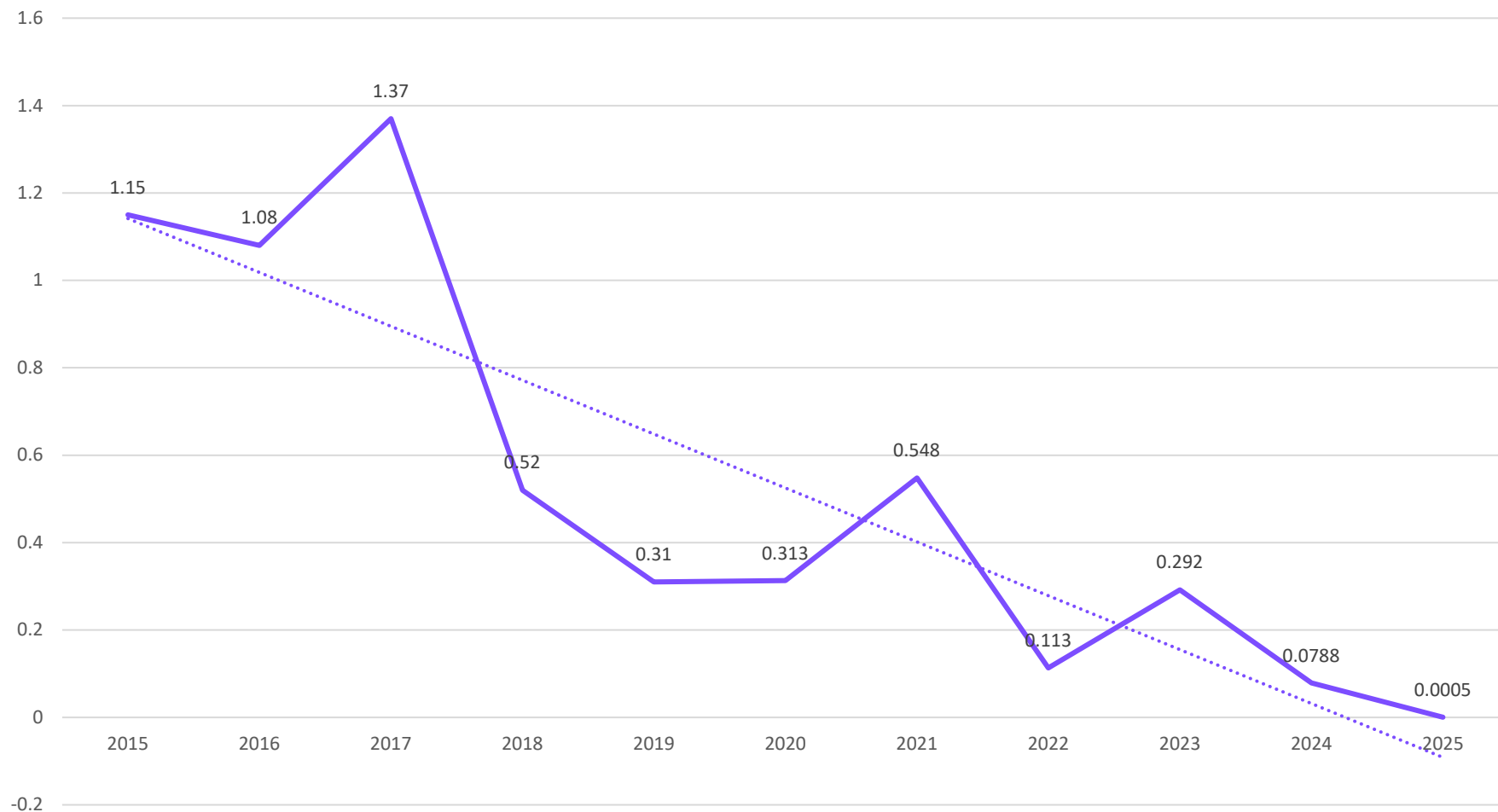
Distribution System Indices MED Excluded (CAIDI)





# MAIFI System Performance

Distribution System Indices MED Excluded (MAIFI)





# Worst Performing Circuits

Circuit	Customers	Substation	Circuit Miles	OH	UG	Circuit Outages	Circuit SAIDI	Circuit SAIFI
7201	743	Squaw Valley	18.1	66%	34%	7	914.7	1.67
7202	151	Truckee	13.04	93%	7%	6	639.8	1.15

Analysis of worst performing circuits excludes planned and Major Event outages.

The preferred metric for this analysis is the 3 year average circuit level SAIDI in order to account for population discrepancies between urban and rural circuits.



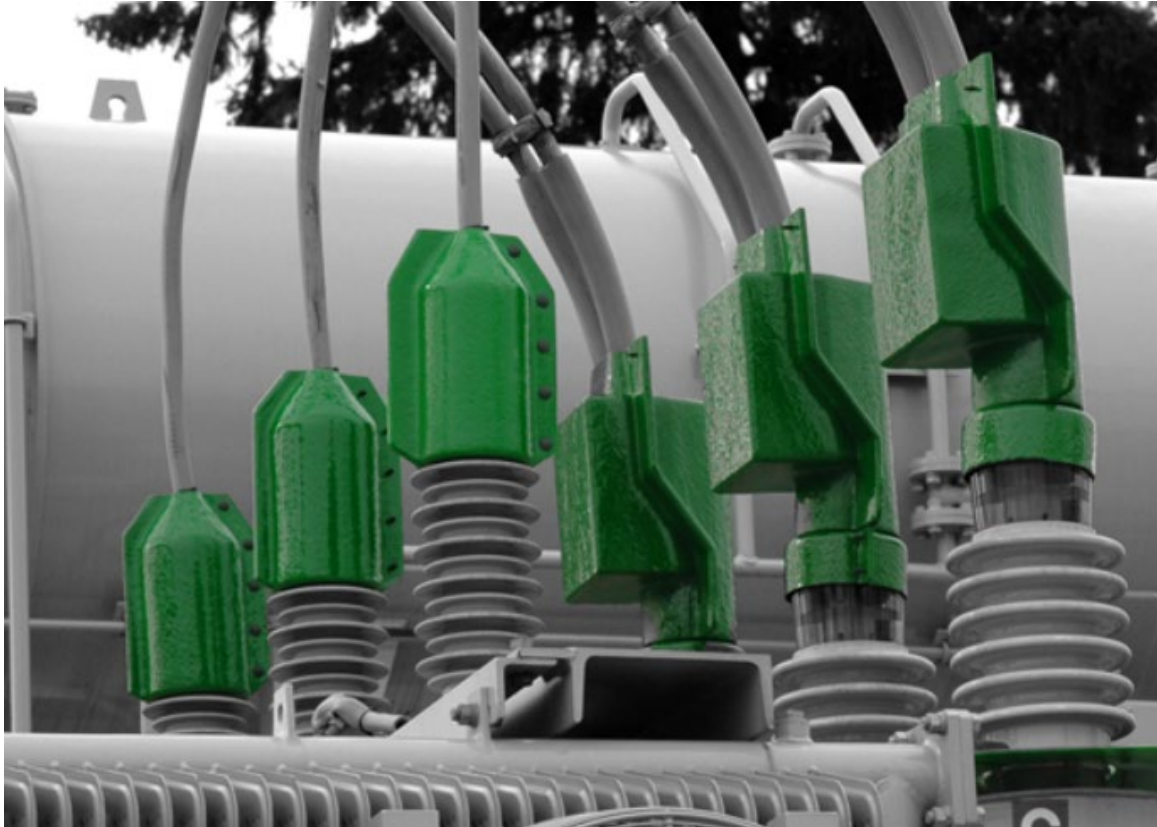
# Reliability Improvements



Vegetation Management program: ~\$10 million per year  
Pole replacements: ~1000 poles in 2025



# Improved Animal Protection



Precision fit animal guards have been installed into our substations to prevent wildlife outages.





# Wildfire Mitigation Plans

Several projects are underway to reduce fire risk



## **Some Projects include:**

- Advanced weather monitoring
- Covered Conductor
- Expulsion fuse replacement
- Additional recloser and fault indicator installations

# Thank you

Email: [PowerQuality@libertyutilities.com](mailto:PowerQuality@libertyutilities.com)

Or call Customer Service at  
1-800-782-2506

