

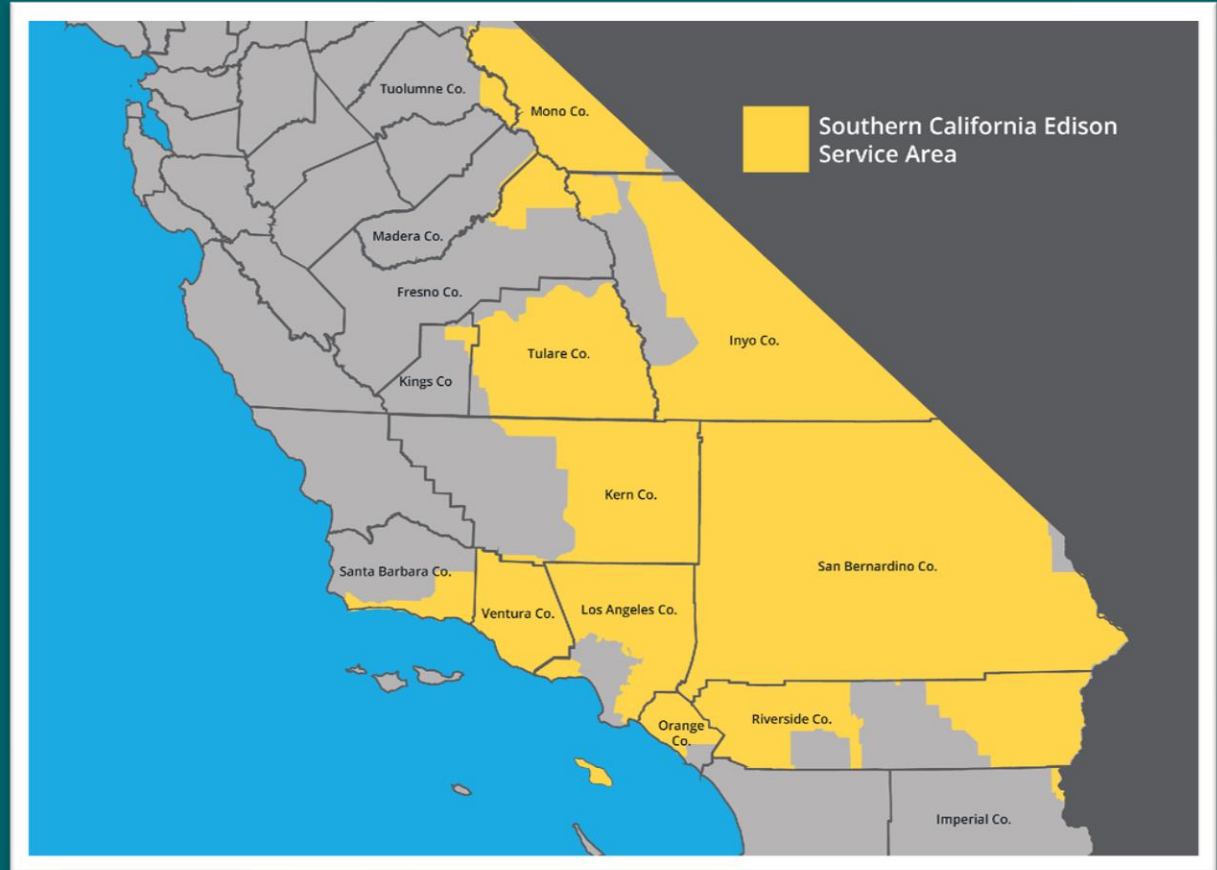
Circuit Reliability Review

Manhattan Beach

2024

Who We Are

- Southern California Edison (SCE) is an Edison International company
- One of the nation's largest electric utilities
- More than 130 years of history
- Headquartered in Rosemead, California
- Regulated by the California Public Utilities Commission (CPUC) and the Federal Energy Regulatory Commission (FERC)
- 50,000 square miles of SCE service area across Central, Coastal, and Southern California
- 15 million residents through 5 million customer accounts
- 15 counties, 185 cities and 13 Native American tribes



Our Grid

To deliver safe, reliable, and affordable power,
we monitor and maintain a vast electricity system

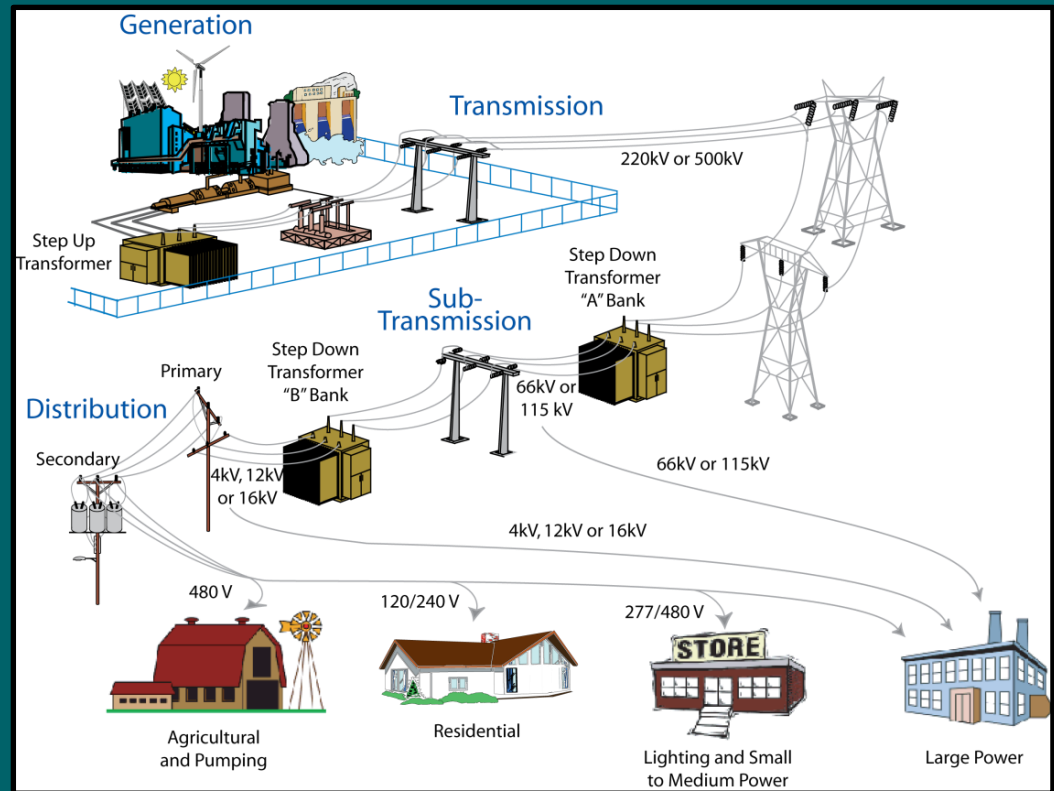
50,000 Square Miles

5,500 Circuits

1.7 Million Poles

126,000 Miles of Transmission
and Distribution Lines

753,000 Transformers



Strengthening and Modernizing the Grid

SCE plans to spend more than \$5B each year to maintain, improve, and harden its infrastructure

- **Infrastructure reliability** – updating underground cables, poles, switches, and transformers
- **Wildfire mitigation** – hardening infrastructure, bolstering situational awareness capabilities, and enhancing operational practices
- **Transmission** – connecting renewables, installing new substations, and updating lines
- **Grid readiness** – updating the grid for impacts from new technologies
- **Long-term energy policy** – supporting energy storage, electric vehicles, and renewables

2023 Capital Investments

27.5 miles of underground cable replaced

112.5 miles of overhead conductor replaced for public safety

13.9k distribution poles replaced

2.5k transmission poles replaced

39 underground structure replacements

SCE's investments support safe, reliable, affordable, and clean energy for our customers

REDUCING WILDFIRE RISK & PSPS IMPACTS – BY THE NUMBERS

SCE has reduced the probability of catastrophic¹ wildfires associated with its equipment by about **85-88%** since 2018

5,580+ MILES
OF COVERED CONDUCTOR



2 MILLION+
TRIMS AND REMOVALS



1 MILLION+
HFRA INSPECTIONS



1,730+ WEATHER STATIONS **190+ HD CAMERAS**



Completed in high fire risk areas since 2018



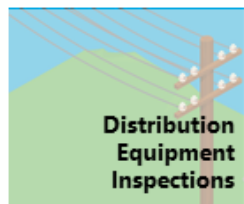
IMPROVED PSPS EXECUTION & CUSTOMER SUPPORT

- **90%** less PSPS outage time in 2023 compared to 2020²
- **63** Community Resource Centers and **8** Community Crew Vehicles available
- Deployed **14,300+** Critical Care Back-up batteries to Medical Baseline customers

1. A wildfire directly causing one or more deaths, damaging or destroying more than 500 structures, or burning more than 140,000 acres of land
2. ~22M customer minutes of interruption in 2023 compared to ~268M in 2020, not normalized for weather

Data as of 12/31/2023

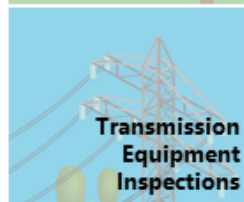
2023 YEAR-END PROGRESS UPDATE



2023
Completed/Target
204,167/187,000
inspections

✓
109%
completed

Completed
Since 2018
1,127,000+
inspections



2023
Completed/Target
28,908/28,000
inspections

✓
103%
completed

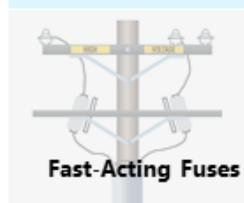
Completed
Since 2018
153,000+
inspections



2023
Completed/Target
1,202/1,100
circuit miles
installed

✓
109%
completed

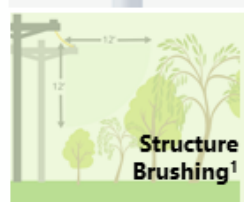
Completed
Since 2018
5,580+
circuit miles
installed



2023
Completed/Target
563/500
fuses installed or replaced

✓
112%
completed

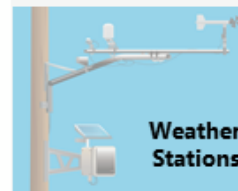
Completed
Since 2018
14,270+
fuses installed or
replaced



2023
Completed/Target
113,570/63,700
structures cleared

✓
178%
completed

Completed
Since 2018
775,500+
structures cleared



2023
Completed/Target
114/85
weather stations installed

✓
134%
completed

Completed
Since 2018
1,730+
weather stations
installed



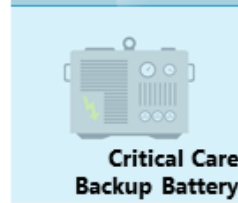
2023
Completed/Target
10/10
cameras installed

✓
100%
completed

Completed
Since 2018
190+
cameras installed



Expanded aerial fire suppression funding to year-round, continuing partnership with local fire agencies to support their firefighting capabilities



2023
Completed
4,140+
batteries provided
to eligible customers

Completed Since
July 2020
14,300+
batteries provided to
eligible customers



63
sites
available



8
vehicles
available

1. Does not include PRC 4292 compliance scope

Protecting Public Safety: Public Safety Power Shutoffs

- SCE implements **Public Safety Power Shutoffs (PSPS)** to temporarily shut off power to some communities when there is a high risk for wildfire to **prevent the electric system from becoming the source of ignition**
- PSPS is **used as a measure of last resort to protect public safety under dangerous fire weather conditions**, including high winds, low humidity, and dry vegetation
- Multiple methods are used to notify customers and stakeholders in impacted areas before, during and after a PSPS event
- SCE provides resources to support customers during PSPS and offers several **programs and rebates to help customers be prepared and more resilient** during emergencies
- SCE is working to **reduce the impact of PSPS** and is continuing to **strengthen the electric grid to become more resilient** in the face of extreme weather events
- To learn more, visit **sce.com/psps**



SCE's System Planning Process

- Southern California Edison (SCE) performs annual system evaluations to address the changing power needs throughout its service territory
- System capacity plans are developed on a 10-year forecast based on information provided by customers and load forecasting methodologies
- Accurate and timely customer information is crucial to system planning evaluations
- **Developers should contact SCE as early as possible to initiate discussions with planning on power service needs.**



SCE's Forecasting Process

- SCE's forecasting team is actively engaged with internal and external stakeholders to make sure that we build a forecast that reflects current program, policies, and development plans which impact the grid
- SCE's forecasting team uses different data sources for forecasting the future Distributed Energy Resource (DER) load such as:
 - Customer Data such as historical customer usage and DER adoption such as electric vehicles (EV)
 - Demographic and Socio-Economic Data
 - Customer program and survey participation results
 - Existing project development impact
 - Short and long-term customer plans on DER adoption such EV charging sites

When Should I Contact SCE Regarding Power Needs?

- *The Short Answer: As Soon As Possible.* For example, when you contact the city to initiate business permits, reach out to SCE as well to discuss your plans
- SCE will always provide the power our customers require to operate their business **but upgrades to our grid may be required.** Partnering with SCE early will help ensure that the level of power required is delivered in both a timely – and safe – manner
- Customers should contact SCE as early as possible, preferably 2 years, especially for large power requests
- Contact the appropriate planning department to discuss and review the scope of your project, including plans for phasing in power

Plan Ahead – Providing Energy Capacity

Did You Know? A new 12 kV circuit which provides about 10MW of power (roughly 12,000 amps @480 V) can take between 2 to 3 years to construct.

Did you Know? A new customer-owned substation can take between 3 to 5 years to construct.

The more project information a customer can provide and the earlier they can reach out to SCE concerning the energy requirements for a new building project (or for upgrading an existing building) the better.

Countdown to 2045

- Builds on *Pathway 2045* analysis (released in 2019) to account for recent state policies, climate impacts, reliability modeling, and market/technology advancements
- Updated analysis indicates **deeper electrification** by 2045 (90+% of vehicles and space/water heating in buildings) drives greater load and new system peaks
- As a result, the **generation mix** in 2045 more than doubles; solar, wind, and storage make up the majority of capacity; retained gas generation and emerging technologies (e.g., offshore wind, clean firm baseload) serve important roles to ensure system reliability
- New **transmission and distribution** needed at unprecedented scale and speed (4-10x historical rates), requiring policy changes and increased operational efficiencies to plan, build, and operate; technology investment to optimize DERs at scale
- Clean power and electrification approach remains the **most feasible and cost-effective** way to meet state goals, despite a significant level of investments (~\$370B statewide); the average SCE household can expect to save ~40% on total energy costs

DECARBONIZE ELECTRICITY

100%
RETAIL SALES
100%*



ELECTRIFY TRANSPORTATION

90%
OF VEHICLES
75%*



ELECTRIFY BUILDINGS

95%
OF BUILDINGS
70%*



USE LOW-CARBON FUELS

48%
NON-ELECTRIC
ENERGY
43%*



SINK REMAINING CARBON

75
MMT
CARBON
SINK
108
MMT*



=
CARBON NEUTRALITY
BY 2045

*From *Pathway 2045*, for comparison

Keeping Bills Manageable

Our Commitment to Customers

SCE is continually seeking innovative ways to get more work done at less cost to customers, running our business to get the most productivity out of each dollar. That's the commitment SCE makes to the residents, businesses and communities in our service area who depend on us 24/7 to safely deliver, reliable, affordable and clean energy.



Here are ways SCE provides help to customers facing challenges with their energy bills



Discounted Rates

Our California Alternate Rates for Energy (CARE) and Family Electric Rate Assistance (FERA) financial assistance programs help qualifying families of all sizes lower their monthly energy bills when they need it most.



Assistance Options

Offering a range of options to support you, including payment extensions and monthly installment plans for past due balances, debt forgiveness and new energy-efficient appliances as low or no cost.



Demand Response

Energy-saving programs such as the Smart Energy Program, Power Saver Rewards and Summer Discount Program reward customers with bill credits for reducing electricity usage when the demand for energy is high.



Rebates and Incentives

Get discounts or money back when purchasing smart thermostats and other products that help reduce energy usage, which in turn helps lower monthly bills.

Reliability Overview

Energy for What's AheadSM



What is Reliability?

- In simplest terms:
 - Having dependable **electricity** when you need it
- Potential interruptions to dependable service include the following:
 - Maintenance outages (aka planned outages)
 - Repair outages (aka unplanned outages)
 - Sustained Outage = An outage lasting > **5 minutes**
 - Momentary Outage = An outage lasting $\leq$ **5 minutes**
 - Public Safety Power Shutoff (PSPS)
 - Major Event Day (MED)



Major Event Day (MED) : A day in which the daily system SAIDI exceeds a threshold value. For the purposes of calculating daily system SAIDI, any interruption that spans multiple calendar days is accrued to the day on which the interruption began. Statistically, days having a daily system SAIDI greater than a threshold value are days on which the energy delivery system experienced stresses beyond that normally expected (such as severe weather). MEDs are sometimes excluded in reporting; in those reports, the exclusions will be noted.

Public Safety Power Shutoff (PSPS) : An operational protocol that SCE implements under extreme weather conditions to minimize the threat of wildfires and keep communities safe from potentially dangerous situations. These types of sustained outages are temporary and usually involve situations where high-fire areas are experiencing adverse weather or public safety is at risk.

How Do We Measure Reliability?



What's the average amount of time my power service will be unexpectedly interrupted?

What's the average number of times my power service will be unexpectedly interrupted?

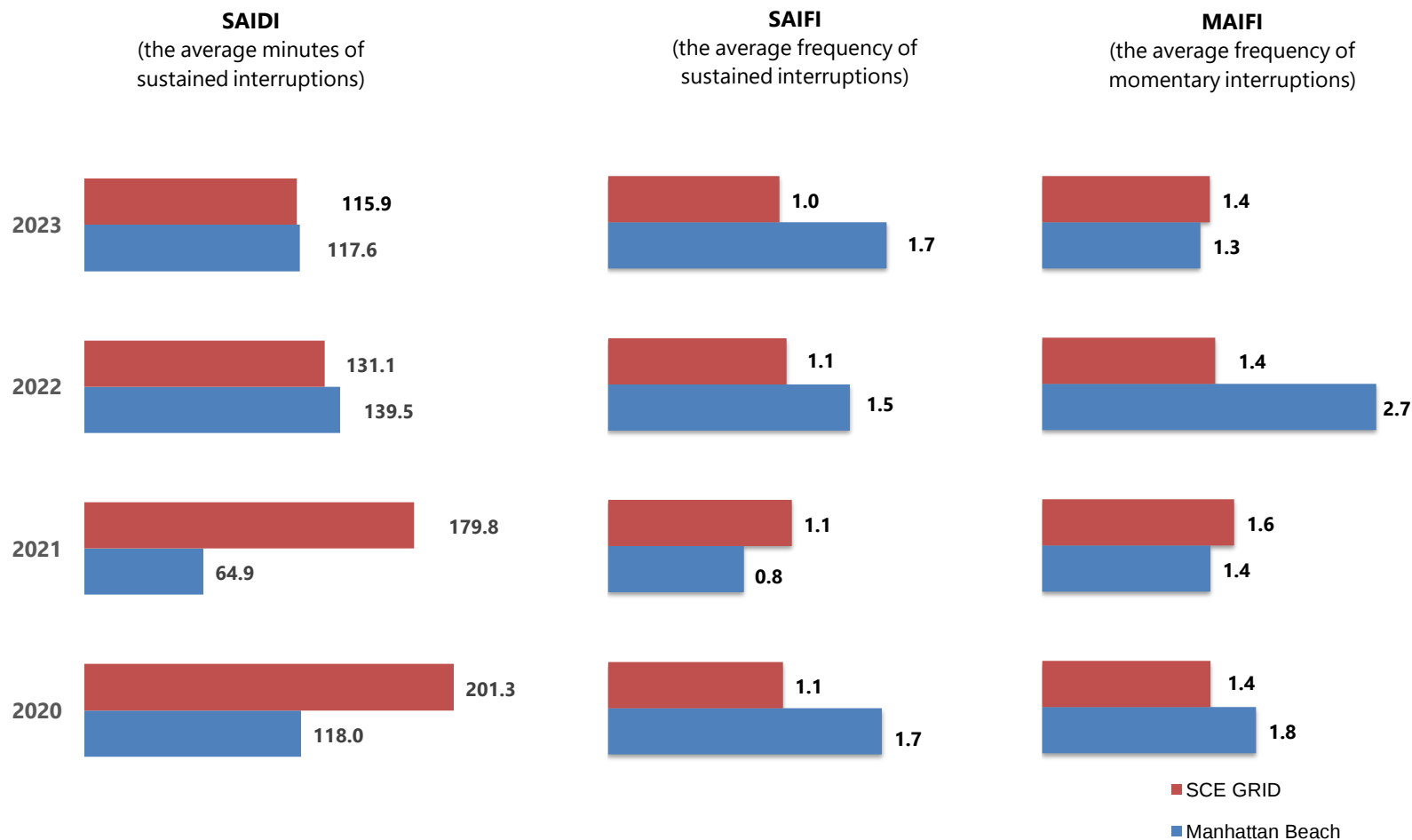
What's the average number of times my power service will be momentarily (< 5 minutes) interrupted?

***Only for unplanned outages; maintenance outages are not included in SAIDI, SAIFI, and MAIFI**

SAIDI & SAIFI Cause Definitions

Equipment Failure	In-service failure of transformer, switch, or conductors
Vegetation/Animal	A tree branch, rodent, or bird causes a short circuit between conductors
Other	The circuit was patrolled but no cause was found
Operations	SCE performed urgent work due to findings in the field that resulted in the need for an outage
3rd Party	Outage caused by a balloon, a car hit pole, or dig-in
PSPS	Public Safety Power Shutoff sce.com/psps

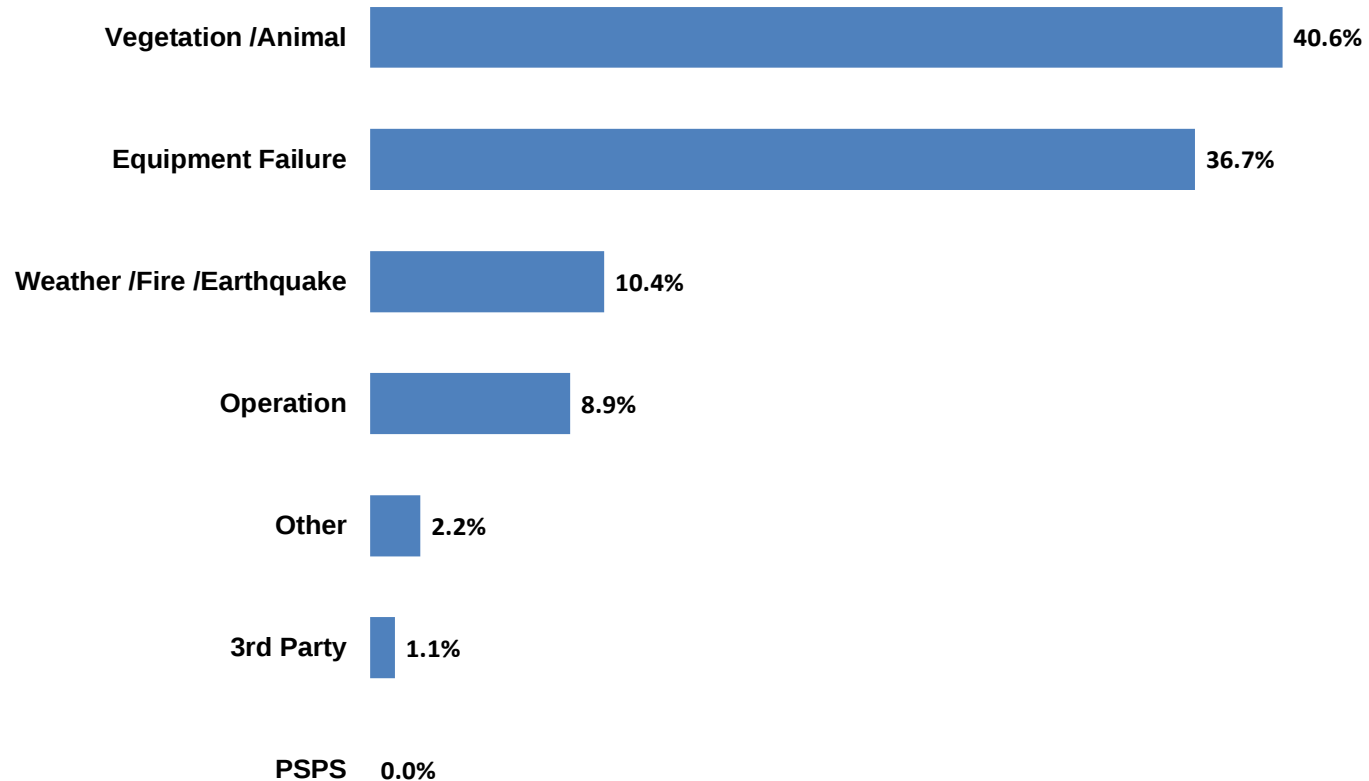
Historical Reliability of Circuits Serving Manhattan Beach



* NO EXCLUSIONS

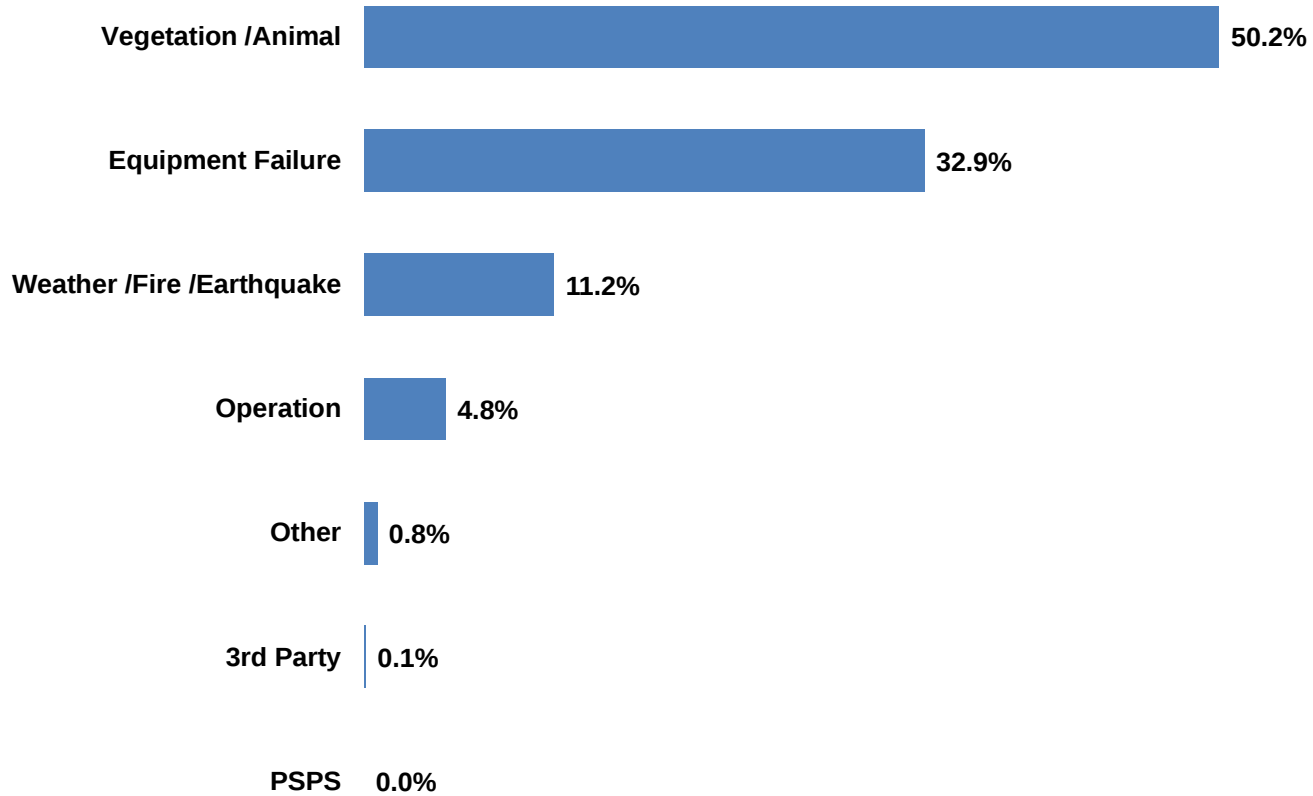
**Data is as of 03/21/2024, data can be slightly different due to outage data validation process

2023 SAIDI Outage Causes for Manhattan Beach



SAIDI = the cumulative amount of time the average customer is interrupted by “sustained” outages each year.

2023 SAIFI Outage Causes for Manhattan Beach



SAIFI = the number of times the average customer is interrupted by “sustained” outages each year.

Overview of Manhattan Beach

Note: The number of customers listed represents the total number of customers on each circuit (not the local jurisdiction).

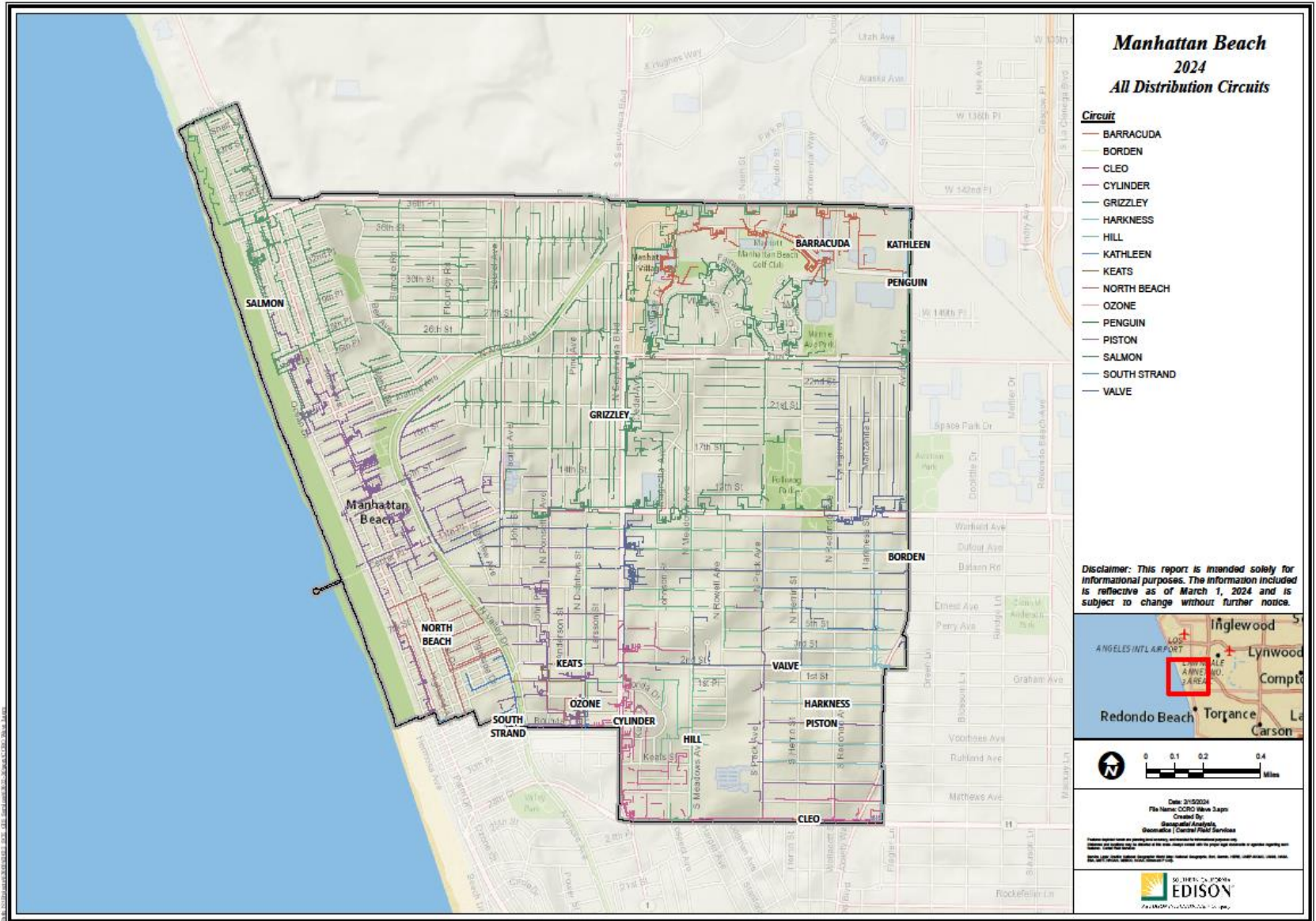
There are 16 circuits that serve Manhattan Beach

1

Circuit Type	Customers	Circuit Type	Customers	Circuit Type	Customers	Circuit Type	Customers
BARRACUDA(16KV)	229						
BORDEN(4KV)	1,024						
CLEO(4KV)	1,084						
CYLINDER(16KV)	1,339						
GRIZZLEY(16KV)	3,803						
HARKNESS(4KV)	846						
HILL(4KV)	758						
KATHLEEN(16KV)	702						
KEATS(4KV)	95						
OZONE(4KV)	644						
PENGUIN(16KV)	445						
PISTON(16KV)	4,372						
SALMON(16KV)	4,136						
VALVE(16KV)	3,449						
NORTH BEACH(4KV)	826						
SOUTH STRAND(4KV)	652						

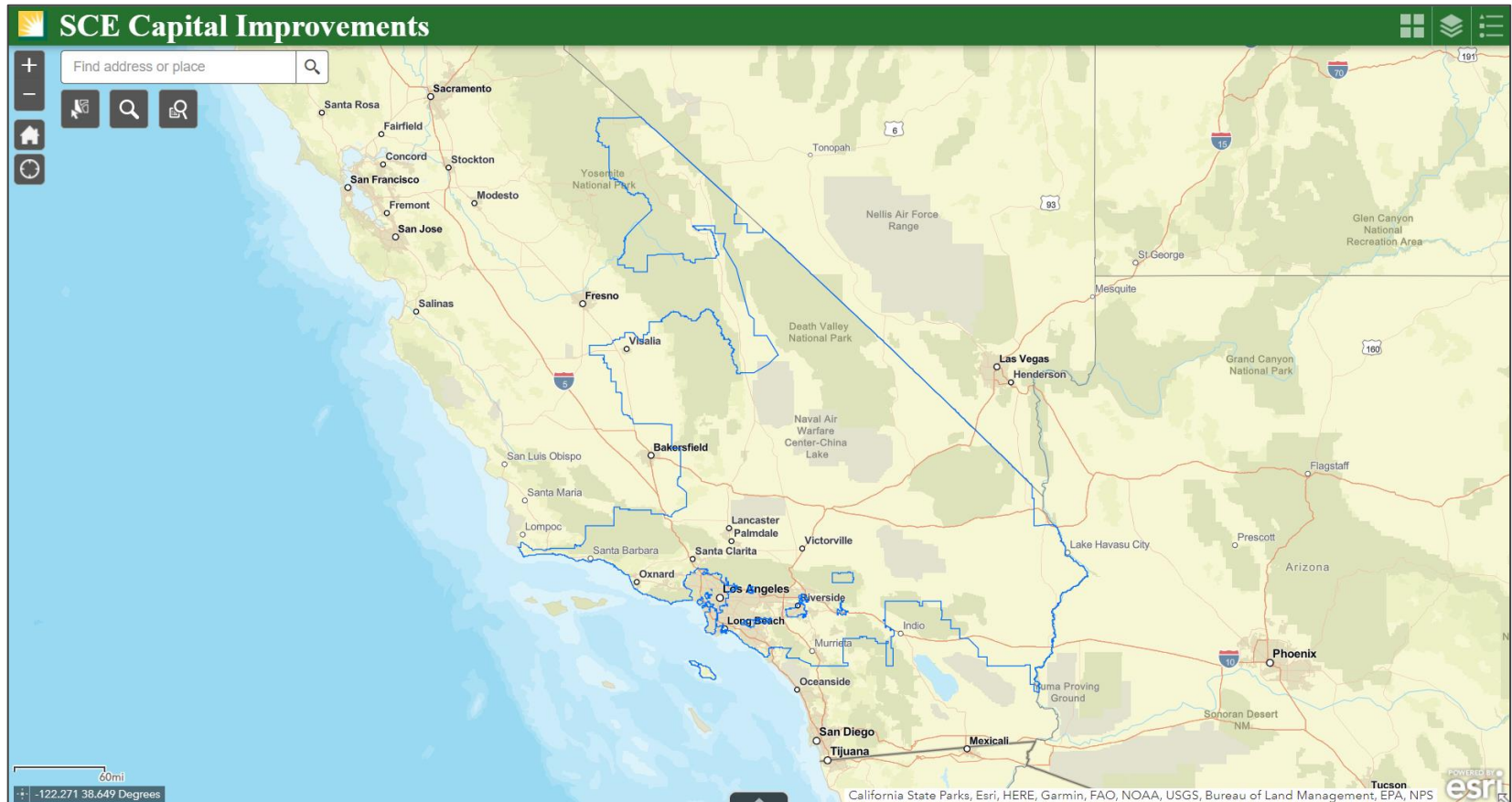
Grand Total 24,402

*Circuits with zero customers will not appear on this list. The reliability results for all the years provided in this report only reflects the circuits listed above.



Capital Improvement Map

The capital improvement map has transitioned to a virtual format via [SCE Capital Improvements](https://sce.com/CapitalImprovements) and can be accessed using the link provided or sce.com/CapitalImprovements.



Back-up Slides

Reliability Histories of Circuits Serving Manhattan Beach

Updated through Dec 2023

Average Reliability of 16 Circuits Serving Manhattan Beach

	2020			2021			2022			1st Qtr 2023			2nd Qtr 2023			3rd Qtr 2023			4th Qtr 2023			2023		
	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI
16 Circuits Serving Manhattan Beach -- Total																								
Customers: 24,402	118.0	1.7	1.8	64.9	0.8	1.4	139.5	1.5	2.7	84.9	1.1	0.5	1.3	0.0	0.3	14.0	0.1	0.1	17.5	0.5	0.4	117.6	1.7	1.3
3rd Party	24%	3%	24%	23%	7%	6%	3%	2%	-	2%	0%	15%	-	-	-	-	-	-	-	-	-	1%	0%	6%
Equipment Failure	62%	52%	54%	65%	85%	54%	66%	49%	13%	40%	34%	23%	82%	71%	32%	4%	35%	-	43%	30%	5%	37%	33%	17%
Operation	5%	13%	0%	10%	8%	0%	2%	1%	-	0%	0%	-	18%	29%	-	62%	17%	0%	8%	11%	1%	9%	5%	0%
Other	6%	23%	15%	0%	0%	25%	1%	11%	8%	3%	1%	28%	-	-	68%	-	-	22%	-	-	-	2%	1%	27%
Vegetation/Animal	-	-	-	1%	0%	-	14%	23%	60%	55%	65%	34%	-	-	-	-	-	-	6%	29%	89%	41%	50%	39%
Weather/Fire/Earthquake	2%	10%	8%	0%	0%	14%	14%	13%	19%	-	-	-	-	-	-	34%	47%	78%	43%	29%	5%	10%	11%	9%
PSPS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SCE SYSTEMWIDE	201.3	1.1	1.4	179.8	1.1	1.6	131.1	1.1	1.4	38.5	0.3	0.4	20.5	0.2	0.4	31.8	0.3	0.3	25.1	0.2	0.3	115.9	1.0	1.4

Notes:

No outages are excluded from the metrics.

Outage Causes:

Other: e.g., patrolled but no cause could be found

Operations: e.g., urgent maintenance w/o 3-day notice to customers

3rd Party: e.g., balloons, car hit pole, dig-in

Vegetation/Animal: e.g., tree branch, rodent, or bird causing short circuit across conductors

PSPS: e.g., Public Safety Power Shutoff

SAIDI (minutes) = the cumulative amount of time the average customer is interrupted by “sustained” (longer than 5 minutes) outages.

SAIFI (interruptions) = the number of times the average customer is interrupted by “sustained” outages.

MAIFI (interruptions) = the number of times the average customer is interrupted by “momentary” (lasting 5 minutes or less) outages.

Reliability Histories for Individual Circuits Serving Manhattan Beach - 1 of 4

	2020			2021			2022			1st Qtr 2023			2nd Qtr 2023			3rd Qtr 2023			4th Qtr 2023			2023		
	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI
BARRACUDA(16KV) - Customers: 229	90.5	1.1	-	6.6	0.2	-	-	-	1.0	-	-	-	-	-	-	1.0	0.0	-	-	-	-	1.0	0.0	-
3rd Party	-	-	-	13%	39%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Equipment Failure	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100%	100%	-	-	-	-	100%	100%	-
Operation	100%	100%	-	87%	61%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vegetation/Animal	-	-	-	-	-	-	-	-	100%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Weather/Fire/Earthquake	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PSPS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BORDEN(4KV) - Customers: 1,024	0.3	0.0	1.3	281.0	1.0	5.2	1.8	0.0	1.0	92.8	1.0	1.9	2.2	0.0	-	-	-	-	15.3	1.0	-	110.3	2.1	1.9
3rd Party	-	-	100%	99%	99%	20%	-	-	-	33%	4%	100%	-	-	-	-	-	-	-	-	-	28%	2%	100%
Equipment Failure	-	-	-	1%	1%	20%	100%	100%	-	1%	1%	-	100%	100%	-	-	-	-	-	-	-	3%	1%	-
Operation	100%	100%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100%	100%	-	14%	49%	-
Other	-	-	-	-	-	40%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vegetation/Animal	-	-	-	-	-	-	-	-	100%	66%	95%	-	-	-	-	-	-	-	-	-	-	55%	48%	-
Weather/Fire/Earthquake	-	-	-	-	-	20%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PSPS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CLEO(4KV) - Customers: 1,084	6.6	0.0	-	-	-	2.0	1.1	0.0	2.0	61.5	1.0	-	-	-	-	0.2	0.0	0.0	-	-	1.0	61.6	1.0	1.0
3rd Party	-	-	-	-	-	50%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Equipment Failure	15%	58%	-	-	-	50%	100%	100%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Operation	85%	42%	-	-	-	-	-	-	-	0%	2%	-	-	-	-	100%	100%	100%	-	-	-	0%	3%	1%
Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vegetation/Animal	-	-	-	-	-	-	-	-	100%	100%	98%	-	-	-	-	-	-	-	-	100%	-	100%	97%	99%
Weather/Fire/Earthquake	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PSPS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CYLINDER(16KV) - Customers: 1,339	4.3	0.0	-	66.5	1.1	2.0	104.4	0.7	2.3	144.2	2.1	-	0.3	0.0	-	0.8	0.0	-	-	-	-	145.4	2.1	-
3rd Party	-	-	-	68%	6%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Equipment Failure	24%	22%	-	32%	94%	50%	100%	100%	14%	-	-	-	-	-	-	100%	100%	-	-	-	-	1%	0%	-
Operation	76%	78%	-	-	-	-	-	-	-	-	-	-	100%	100%	-	-	-	-	-	-	-	0%	0%	-
Other	-	-	-	-	-	50%	-	-	-	11%	10%	-	-	-	-	-	-	-	-	-	-	11%	10%	-
Vegetation/Animal	-	-	-	-	-	-	-	-	86%	89%	90%	-	-	-	-	-	-	-	-	-	-	89%	89%	-
Weather/Fire/Earthquake	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PSPS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Reliability Histories for Individual Circuits Serving Manhattan Beach - 2 of 4

	2020			2021			2022			1st Qtr 2023			2nd Qtr 2023			3rd Qtr 2023			4th Qtr 2023			2023		
	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI
GRIZZLEY(16KV) - Customers: 3,803	30.6	1.9	0.0	7.6	0.0	1.0	239.3	3.4	2.9	-	-	1.0	0.1	0.0	-	-	-	-	0.1	0.0	1.0	0.2	0.0	2.0
3rd Party	-	-	-	19%	13%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Equipment Failure	2%	0%	-	39%	34%	2%	45%	30%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Operation	45%	51%	100%	42%	54%	-	0%	0%	-	-	-	-	100%	100%	-	-	-	-	100%	100%	0%	100%	100%	0%
Other	53%	49%	-	-	-	-	3%	29%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vegetation/Animal	-	-	-	-	-	-	37%	29%	34%	-	-	100%	-	-	-	-	-	-	-	-	100%	-	-	100%
Weather/Fire/Earthquake	-	-	-	-	-	98%	15%	11%	66%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PSPS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HARKNESS(4KV) - Customers: 846	839.4	1.2	-	6.3	0.0	2.0	117.8	0.2	2.0	61.3	1.0	-	-	-	-	-	-	-	-	-	1.0	61.3	1.0	1.0
3rd Party	98%	93%	-	-	-	-	11%	15%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Equipment Failure	2%	3%	-	100%	100%	100%	85%	82%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Operation	0%	4%	-	-	-	-	4%	2%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vegetation/Animal	-	-	-	-	-	-	-	-	100%	100%	100%	-	-	-	-	-	-	-	-	-	100%	100%	100%	100%
Weather/Fire/Earthquake	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PSPS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HILL(4KV) - Customers: 758	2.2	0.0	1.5	14.5	1.0	1.0	164.4	1.0	2.0	61.1	1.0	2.0	-	-	-	3.4	0.0	-	7.6	0.1	-	72.1	1.1	2.0
3rd Party	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Equipment Failure	74%	32%	100%	100%	100%	100%	100%	100%	-	-	-	50%	-	-	-	100%	100%	-	82%	28%	-	13%	4%	50%
Operation	26%	68%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18%	72%	-	2%	3%	-
Other	-	-	-	-	-	-	-	-	-	-	-	50%	-	-	-	-	-	-	-	-	-	-	-	50%
Vegetation/Animal	-	-	-	-	-	-	-	-	100%	100%	100%	-	-	-	-	-	-	-	-	-	-	85%	93%	-
Weather/Fire/Earthquake	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PSPS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
KATHLEEN(16KV) - Customers: 702	8.4	0.0	-	1.2	0.0	1.0	301.8	2.4	12.0	71.3	0.1	1.0	-	-	-	13.4	1.0	1.0	-	-	2.0	84.8	1.1	4.0
3rd Party	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Equipment Failure	-	-	-	-	-	-	48%	83%	59%	12%	41%	-	-	-	-	100%	100%	-	-	-	-	26%	95%	-
Operation	100%	100%	-	100%	100%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	100%	-	-	8%	88%	59%	100%	-	-	-	-	-	100%	-	-	-	74%	5%	50%
Vegetation/Animal	-	-	-	-	-	-	-	-	33%	-	-	-	-	-	-	-	-	-	-	-	100%	-	-	50%
Weather/Fire/Earthquake	-	-	-	-	-	-	52%	17%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PSPS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Reliability Histories for Individual Circuits Serving Manhattan Beach - 3 of 4

	2020			2021			2022			1st Qtr 2023			2nd Qtr 2023			3rd Qtr 2023			4th Qtr 2023			2023		
	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI
KEATS(4KV) - Customers: 95	-	-	1.0	14.1	1.0	0.9	554.7	1.3	1.9	60.8	1.0	2.0	-	-	-	-	-	-	-	-	-	60.8	1.0	2.0
3rd Party	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Equipment Failure	-	-	100%	100%	100%	100%	100%	100%	-	-	-	50%	-	-	-	-	-	-	-	-	-	-	-	50%
Operation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	50%	-	-	-	-	-	-	-	-	-	-	-	50%
Vegetation/Animal	-	-	-	-	-	-	-	-	100%	100%	100%	-	-	-	-	-	-	-	-	-	-	100%	100%	-
Weather/Fire/Earthquake	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PSPS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NORTH BEACH(4KV) - Customers: 826	1.0	0.1	4.4	49.4	2.1	1.0	440.7	1.0	2.0	65.6	1.0	2.0	1.8	0.1	-	0.6	0.0	-	-	-	-	68.0	1.1	2.0
3rd Party	-	-	29%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Equipment Failure	-	-	29%	30%	50%	100%	100%	98%	-	-	-	50%	16%	57%	-	100%	100%	-	-	-	-	1%	4%	50%
Operation	100%	100%	-	70%	50%	-	0%	2%	-	5%	4%	-	84%	43%	-	-	-	-	-	-	-	7%	7%	-
Other	-	-	43%	-	-	-	-	-	-	-	-	50%	-	-	-	-	-	-	-	-	-	-	-	50%
Vegetation/Animal	-	-	-	-	-	-	-	-	100%	95%	96%	-	-	-	-	-	-	-	-	-	-	92%	89%	-
Weather/Fire/Earthquake	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PSPS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OZONE(4KV) - Customers: 644	2.9	0.0	1.4	38.5	2.6	1.1	239.1	1.1	2.0	59.8	1.0	1.9	-	-	-	-	-	-	0.6	0.0	-	60.5	1.0	1.9
3rd Party	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Equipment Failure	100%	100%	100%	100%	100%	98%	100%	98%	-	-	-	50%	-	-	-	-	-	-	-	-	-	-	-	50%
Operation	-	-	-	-	-	2%	0%	2%	-	-	-	-	-	-	-	-	-	-	100%	100%	-	1%	2%	-
Other	-	-	-	-	-	-	-	-	-	-	-	50%	-	-	-	-	-	-	-	-	-	-	-	50%
Vegetation/Animal	-	-	-	-	-	-	-	-	100%	100%	100%	-	-	-	-	-	-	-	-	-	-	99%	98%	-
Weather/Fire/Earthquake	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PSPS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PENGUIN(16KV) - Customers: 445	15.0	1.1	-	-	-	-	33.7	1.0	1.0	-	-	-	-	-	-	-	-	-	-	-	1.0	-	-	1.0
3rd Party	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Equipment Failure	-	-	-	-	-	-	35%	3%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Operation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other	100%	100%	-	-	-	-	-	-	100%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vegetation/Animal	-	-	-	-	-	-	65%	97%	-	-	-	-	-	-	-	-	-	-	-	100%	-	-	-	100%
Weather/Fire/Earthquake	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PSPS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Reliability Histories for Individual Circuits Serving Manhattan Beach - 4 of 4

	2020			2021			2022			1st Qtr 2023			2nd Qtr 2023			3rd Qtr 2023			4th Qtr 2023			2023		
	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI
PISTON(16KV) - Customers: 4,372	7.2	0.0	4.8	85.3	1.1	1.3	125.0	1.5	4.1	130.4	1.7	-	3.0	0.0	1.5	47.6	0.1	-	-	-	-	181.0	1.8	1.5
3rd Party	22%	9%	34%	-	-	-	12%	4%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Equipment Failure	20%	46%	44%	85%	93%	100%	46%	48%	18%	25%	19%	-	100%	100%	32%	-	-	-	-	-	-	20%	20%	32%
Operation	47%	26%	-	13%	5%	-	0%	1%	-	-	-	-	-	-	-	100%	100%	-	-	-	-	26%	4%	-
Other	12%	18%	22%	2%	2%	-	-	-	-	-	-	-	-	-	68%	-	-	-	-	-	-	-	-	68%
Vegetation/Animal	-	-	-	-	-	-	0%	1%	74%	75%	81%	-	-	-	-	-	-	-	-	-	-	54%	77%	-
Weather/Fire/Earthquake	-	-	-	-	-	-	41%	46%	8%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PSPS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SALMON(16KV) - Customers: 4,136	539.7	7.4	1.7	150.8	1.8	1.2	125.0	2.3	2.0	157.1	1.7	-	2.4	0.0	-	0.2	0.0	-	93.5	2.6	0.4	253.3	4.4	0.4
3rd Party	-	-	-	2%	2%	-	3%	2%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Equipment Failure	95%	81%	99%	97%	97%	10%	65%	52%	-	100%	100%	-	100%	100%	-	44%	11%	-	46%	34%	32%	80%	60%	32%
Operation	0%	0%	1%	1%	1%	-	5%	3%	-	-	-	-	-	-	-	56%	89%	-	-	-	4%	0%	0%	4%
Other	4%	18%	-	-	-	90%	-	-	50%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vegetation/Animal	-	-	-	-	-	-	27%	43%	-	-	-	-	-	-	-	-	-	-	7%	33%	32%	2%	20%	32%
Weather/Fire/Earthquake	-	-	-	-	-	-	-	-	50%	-	-	-	-	-	-	-	-	-	47%	33%	32%	17%	20%	32%
PSPS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SOUTH STRAND(4KV) - Customers: 652	12.4	0.5	1.8	14.8	1.0	1.0	290.1	1.3	2.0	-	-	3.0	5.3	0.0	-	-	-	-	-	-	-	5.3	0.0	3.0
3rd Party	97%	92%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Equipment Failure	-	-	100%	100%	100%	100%	85%	77%	-	-	-	33%	-	-	-	-	-	-	-	-	-	-	-	33%
Operation	3%	8%	-	-	-	-	9%	7%	-	-	-	-	100%	100%	-	-	-	-	-	-	-	100%	100%	-
Other	-	-	-	-	-	-	5%	16%	-	-	-	33%	-	-	-	-	-	-	-	-	-	-	-	33%
Vegetation/Animal	-	-	-	-	-	-	-	-	100%	-	-	34%	-	-	-	-	-	-	-	-	-	-	-	34%
Weather/Fire/Earthquake	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PSPS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
VALVE(16KV) - Customers: 3,449	30.0	1.2	2.2	24.9	0.1	1.0	20.2	0.1	2.0	72.7	1.1	-	-	-	-	34.1	0.3	0.7	4.9	0.1	-	111.7	1.5	0.7
3rd Party	-	-	-	-	-	-	25%	42%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Equipment Failure	8%	1%	54%	10%	15%	100%	45%	43%	-	11%	9%	-	-	-	-	-	-	-	-	-	-	7%	7%	-
Operation	28%	4%	-	63%	74%	-	21%	3%	-	1%	1%	-	-	-	-	1%	3%	-	100%	100%	-	6%	7%	-
Other	-	-	-	-	-	-	9%	12%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vegetation/Animal	-	-	-	20%	7%	-	-	-	100%	87%	90%	-	-	-	-	-	-	-	-	-	-	57%	67%	-
Weather/Fire/Earthquake	63%	96%	46%	7%	4%	-	-	-	-	-	-	-	-	-	-	99%	97%	100%	-	-	-	30%	19%	100%
PSPS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-