Bear Valley
Electric Service, Inc.

Via Electronic Mail

July 15, 2025

Leuwam Tesfai
Deputy Executive Director, Energy and Climate Policy
California Public Utilities Commission
505 Van Ness Ave.
San Francisco, CA 94102
leuwam.tesfai@cpuc.ca.gov

Re: 2024 Annual Electric Distribution Reliability Report, D. 16-01-008

Dear Leuwam Tesfai:

Pursuant to the California Public Utilities Commission (Commission) Decision (D.) 16-01-008, "Updating the Annual Electric Reliability Reporting Requirements for California Electric Utilities," Bear Valley Electric Service, Inc. (BVES) submits herewith its 2024 Annual Electric Distribution Reliability Report (Report).

BVES provides electric service to approximately 24,746 customers in the mountain resort community of Big Bear Lake, California. BVES owns and operates 86.8 miles of overhead 34.5 kilovolt sub-transmission, 2.7 miles of 34.5 kilovolt underground sub-transmission, 488.6 miles of overhead distribution, 86.4 miles of underground distribution, 13 sub-stations and a natural gas-fueled 8.4 MW peaking generation facility. The BVES service area is rural and mountainous and is served predominantly from overhead facilities.

This Report follows the Reliability Reporting Template provided in Appendix B to D.16-01-008. BVES notes that due to the small size and geography its service territory, BVES does not sub-divide its distribution system and/or service territory into Divisions (or Districts); therefore, Division (or District) reliability indices are not reported separately. BVES does not operate and maintain any transmission systems; therefore, transmission system indices are not included in this Report. The BVES distribution system consists of three (3) sub-transmission circuits (34.5 kV) and twenty-three (23) distribution circuits (4.160 kV). These circuits are all included in the System reliability indices calculations.

Pursuant to D.16-01-008, information on the number, date, and location of planned outages is provided under seal in a separate report to the Directors of the Energy Division and the Safety and Enforcement Division.

Sincerely,

/s/ Jeff Linam
Jeff Linam
Manager Regulatory Affairs

Bear Valley Electric Service, Inc.
630 East Foothill Blvd.
San Dimas, CA 91773

c. Gabriel Petlin, Energy Division gabriel.petlin@cpuc.ca.gov
David K Lee, Energy Division david.lee@cpuc.ca.gov

Bear Valley Electric Service, Inc. (BVES)
2024 Annual Electric Reliability Report

(D.16-01-008, Updating the Annual Electric Reliability Reporting Requirements for California Electric Utilities)

July 15, 2025

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Sections correspond to Reliability Reporting Template provided in Appendix B to D.16-01-008.

GENERAL

Bear Valley Electric Service, Inc. (BVES) submits its 2024 Reliability Report in compliance with the Commission D.16-01-008, "Updating the Annual Electric Reliability Reporting Requirements for California Electric Utilities." Reliability indices reported herein are determined by following the methodology provided by the Institute of Electrical and Electronic Engineers (IEEE) Standard 1366-2012.

The report consists of the following sections:

Section	Description
1	System Indices (2015-2024)
2	Division (or District) Reliability Indices (2015-2024)
3	System Indices Including Planned Outages
4	Service Territory Map
5	Top 1% of Worst Performing Circuits (WPC)
6	Top 10 Major Unplanned Power Outage Events (2024)
7	Summary List of Major Event Day (2024)
8	Historical Ten Largest Unplanned Outage Events (2015-2024)
9	Customer Inquiries

BVES does not operate and maintain any transmission systems; therefore, transmission system indices are not included in this report. The BVES distribution system consists of three (3) sub-transmission circuits (34.5 kV) and twenty-three (23) distribution circuits (4.160 kV). These circuits are all included in the System reliability indices calculations.

Due to the small size and geography of the BVES Service Territory, BVES does not sub-divide its distribution system into Divisions (or Districts); therefore, Division (or District) reliability indices are not reported separately. BVES records reliability indices at the System and Circuit level only.

SECTION 1

System Indices (2015-2024) [1]

Table 1 lists Distribution System Indices (MED Excluded): BVES includes in its distribution system sub-transmission circuits (3) that operate at 34.5 kV and distribution circuits (23) that operate at 4.160 kV.

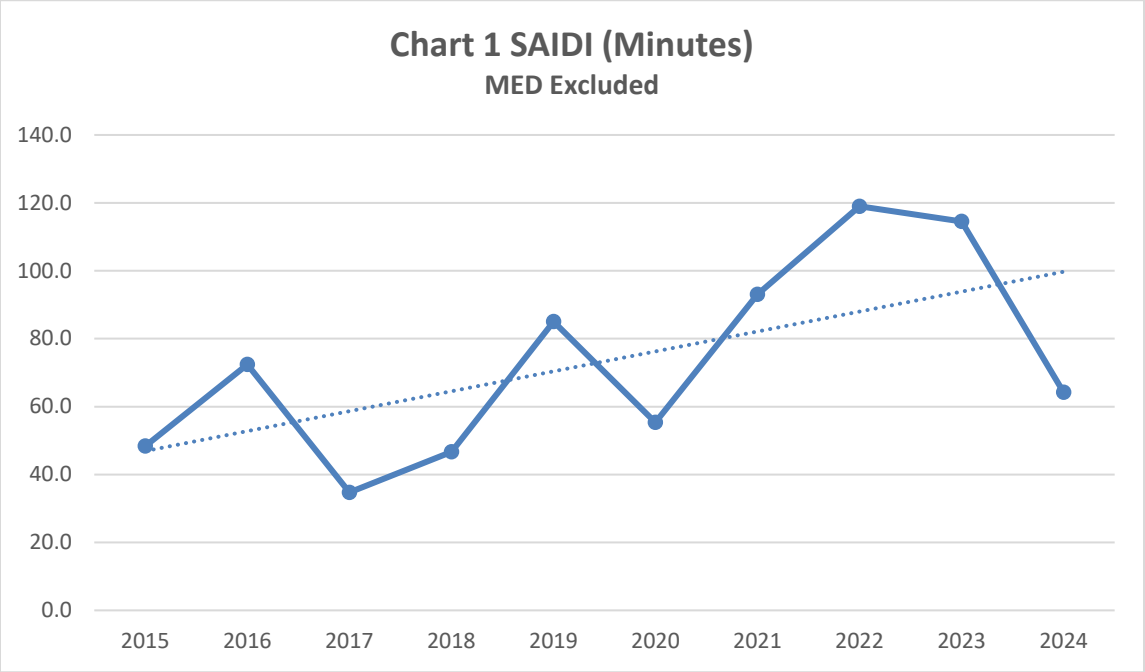
Table 1: MED Excluded				
Year	**SAIDI (Minutes)**	**SAIFI**	**MAIFI**	**CAIDI (Minutes)**
2015	48.4	0.8	0.3	61.2
2016	72.4	0.8	0.0	91.7
2017	34.7	0.6	0.1	57.9
2018	46.7	0.4	0.1	103.7
2019	85.0	0.7	0.0	127.4
2020	55.3	0.6	0.0	94.5
2021	93.1	1.5	0.0	61.5
2022	119.0	3.8	0.1	31.1
2023	114.5	1.9	0.0	60.9
2024	64.2	0.8	0.0	84.1

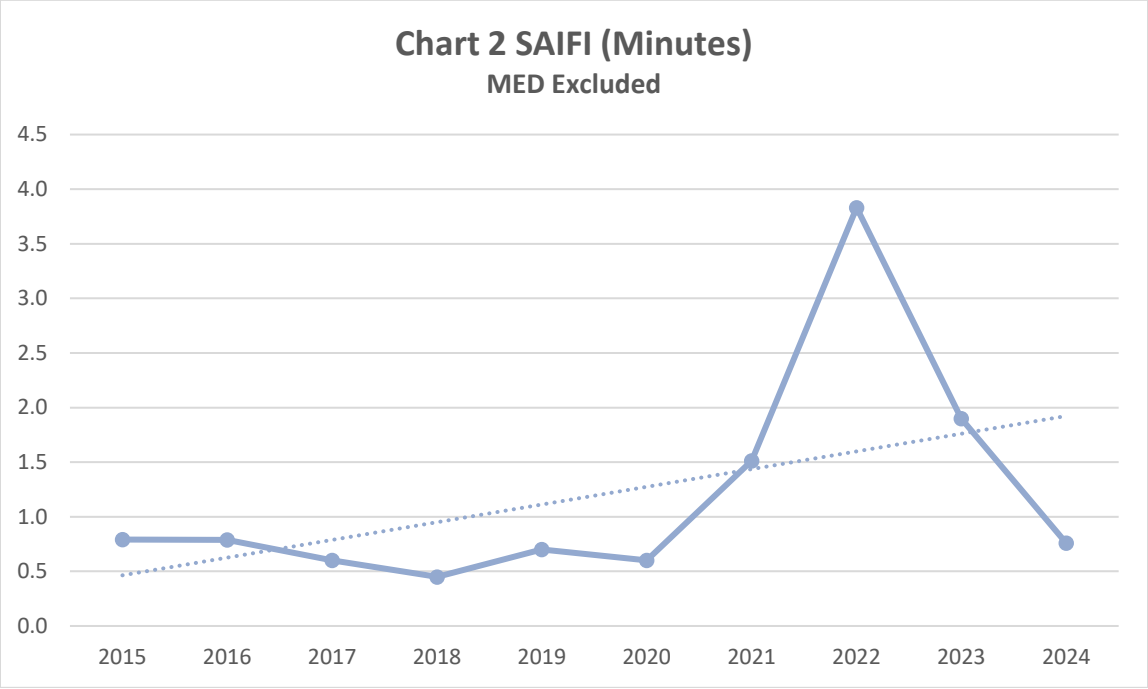
Table 2 lists Distribution System Indices (MED Included).

Table 2: MED Included				
Year	**SAIDI (Minutes)**	**SAIFI**	**MAIFI**	**CAIDI (Minutes)**
2015	198.2	2.8	0.3	71.6
2016	323.6	2.5	1.3	129.0
2017	80.1	1.1	2.7	73.7
2018	181.8	2.1	1.1	84.9
2019	258.8	1.9	0.0	127.4
2020	425.4	4.6	0.0	94.5
2021	398.3	5.7	0.0	70.4
2022	1075.6	16.6	0.1	64.6
2023	271.6	3.3	0.0	82.0
2024	101.0	1.0	0.0	106.6

[1] Calculations based on the IEEE 1366-2012 method.

Charts 1 through 4 provide line graphs of SAIDI, SAIFI, MAIFI and CAIDI for the past 10 years with linear trend line (MED Excluded).





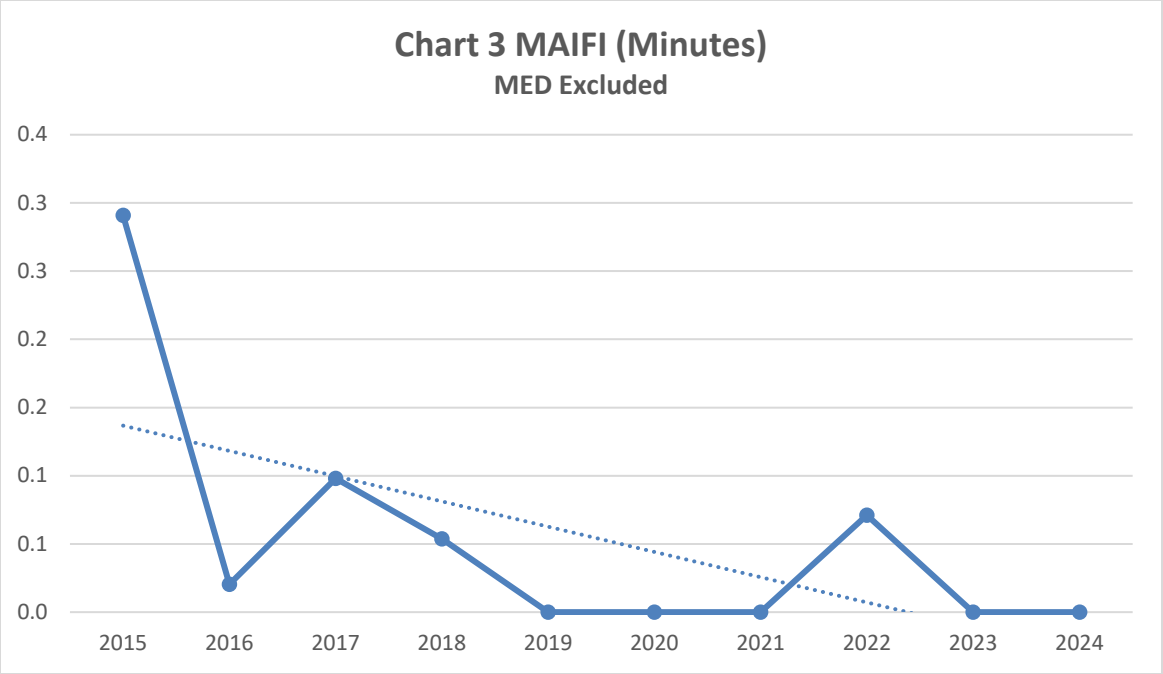


Chart 3 MAIFI (Minutes)
MED Excluded
0.4
0.3
0.3
0.2
0.2
0.1
0.1
0.0
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024

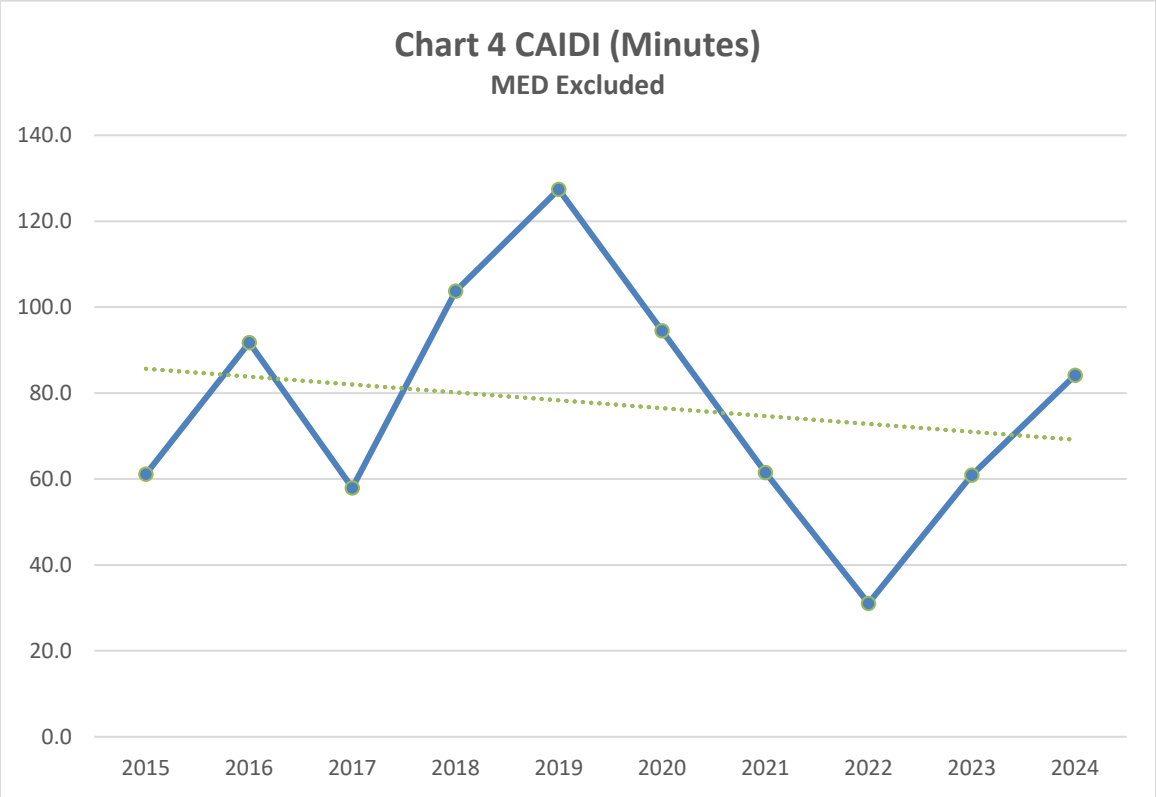
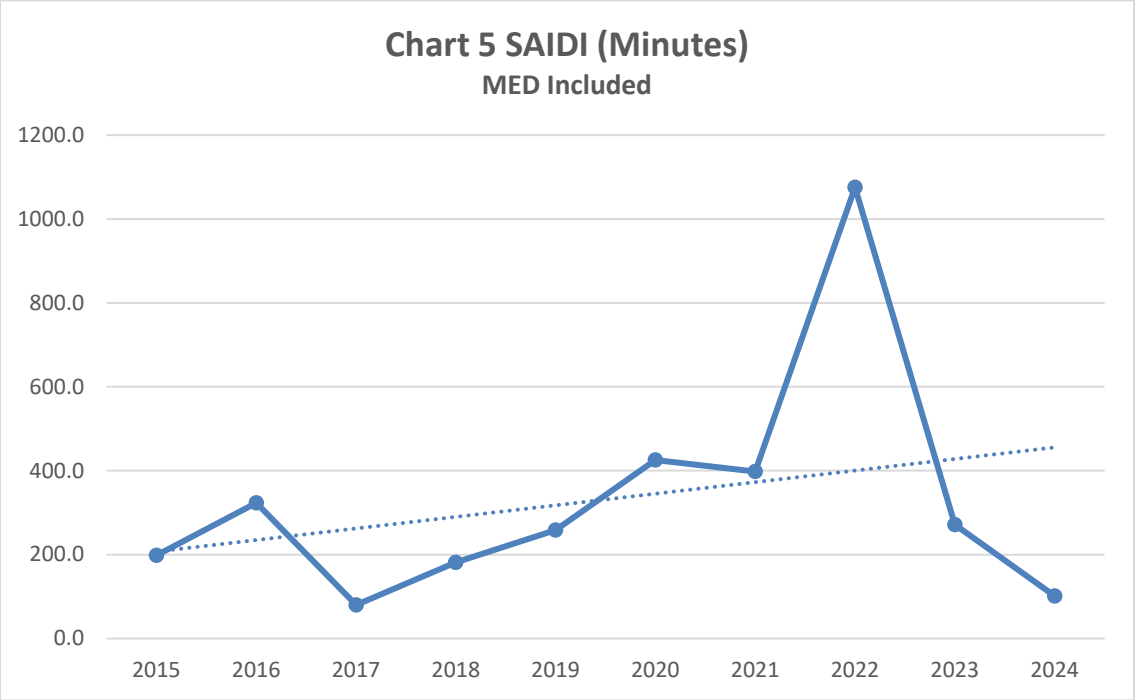
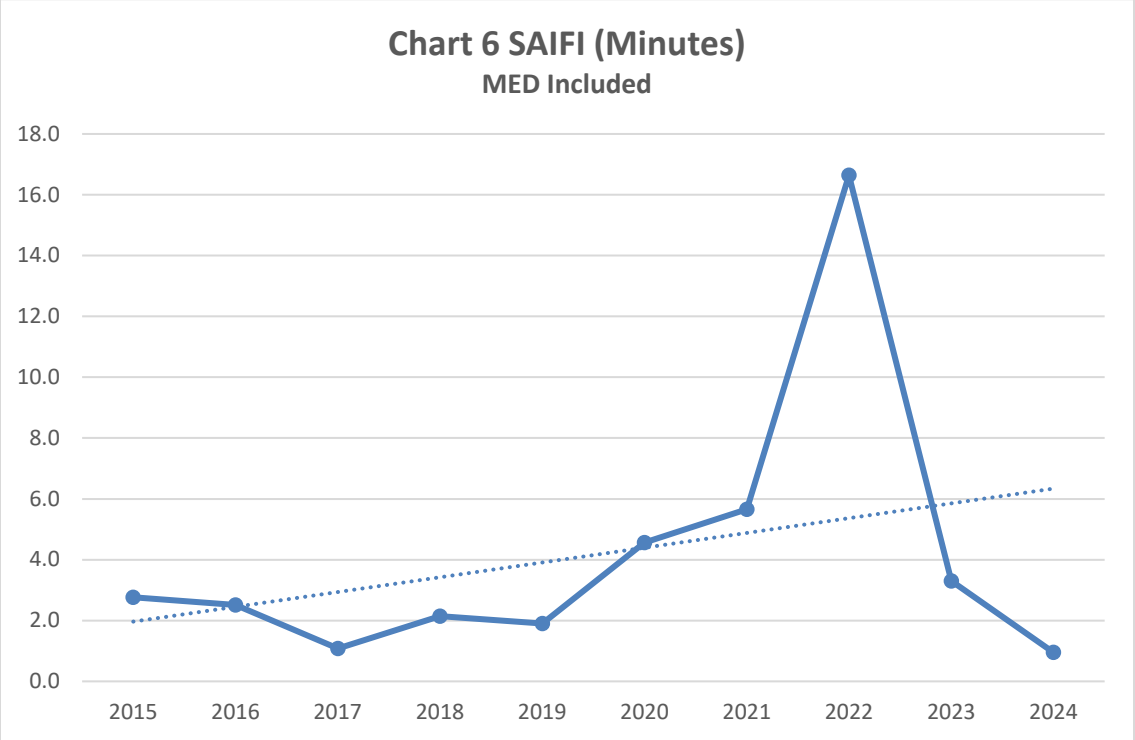


Chart 4 CAIDI (Minutes)
MED Excluded
140.0
120.0
100.0
80.0
60.0
40.0
20.0
0.0
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024

Charts 5 through 8 provide line graphs of SAIDI, SAIFI, MAIFI and CAIDI for the past 10 years with linear trend line (MED Included).





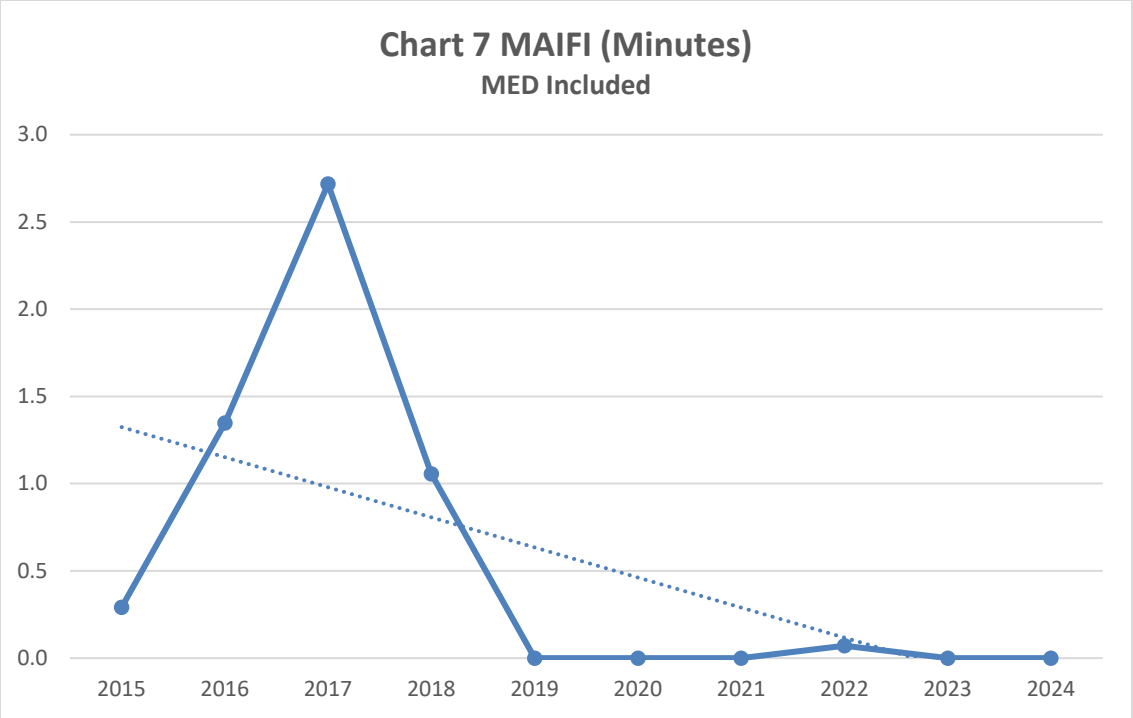


Chart 7 MAIFI (Minutes)
MED Included
3.0
2.5
2.0
1.5
1.0
0.5
0.0
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024

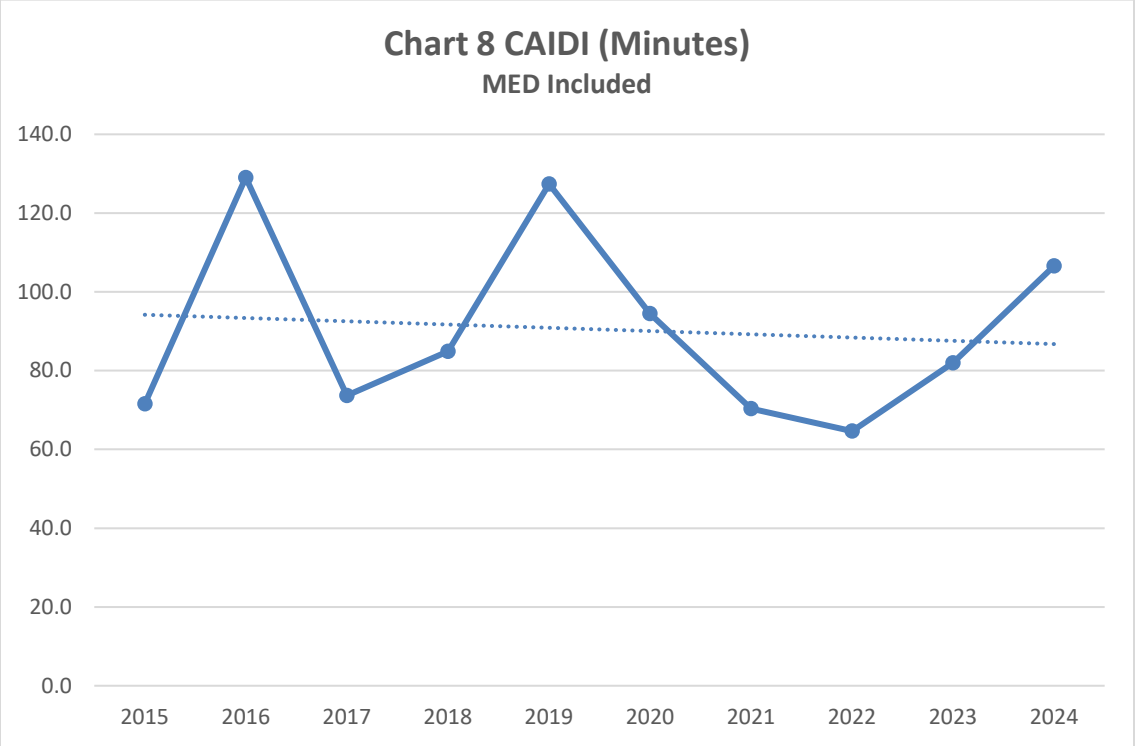


Chart 8 CAIDI (Minutes)
MED Included
140.0
120.0
100.0
80.0
60.0
40.0
20.0
0.0
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024

SECTION 2

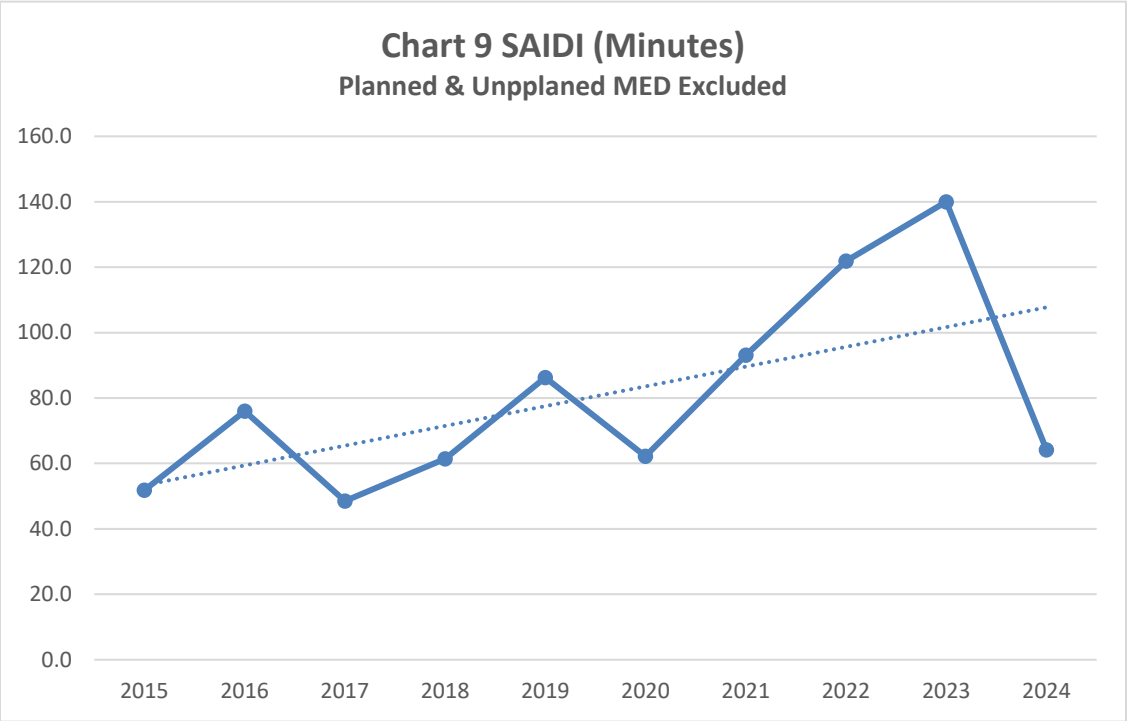
Division (or District) Reliability Indices (2015-2024)

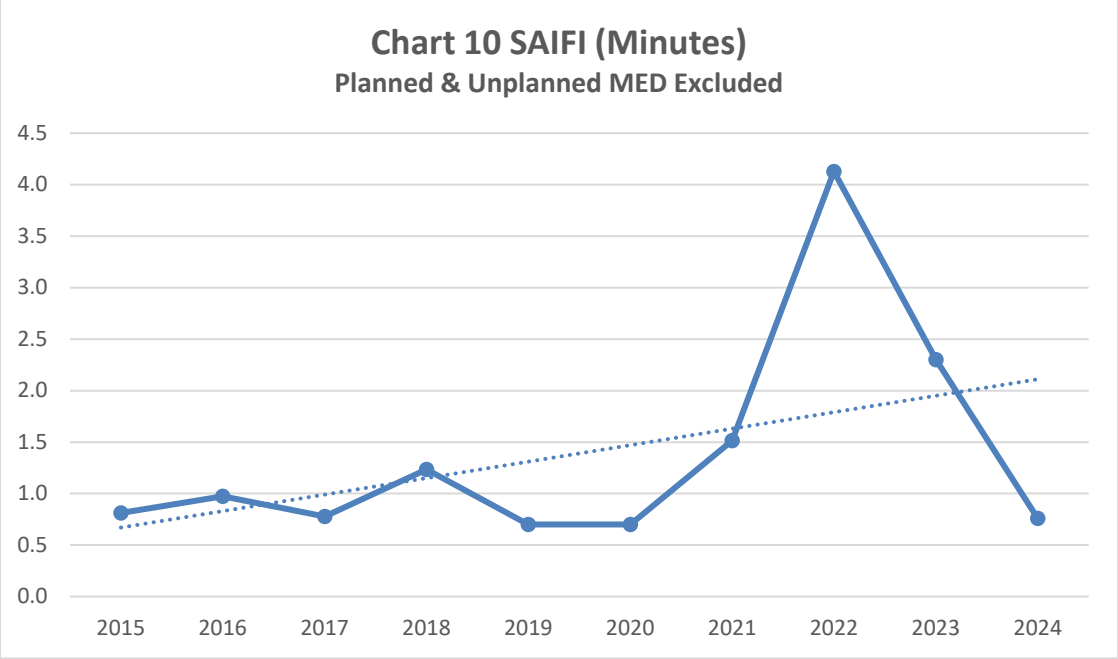
Due to the relatively small size and geography of the BVES Service Territory, BVES does not sub-divide its system into Divisions (or Districts); therefore, Division (or District) Reliability Indices are not reported separately in this report. Section 1 of this report provides BVES System reliability indices in tabular and chart format (MED Included and Excluded).

SECTION 3

System Indices Including Planned Outages

Charts 9 through 12 provide line graphs of SAIDI, SAIFI, MAIFI and CAIDI for the past 10 years with linear trend line for planned and unplanned outages (MED Excluded).





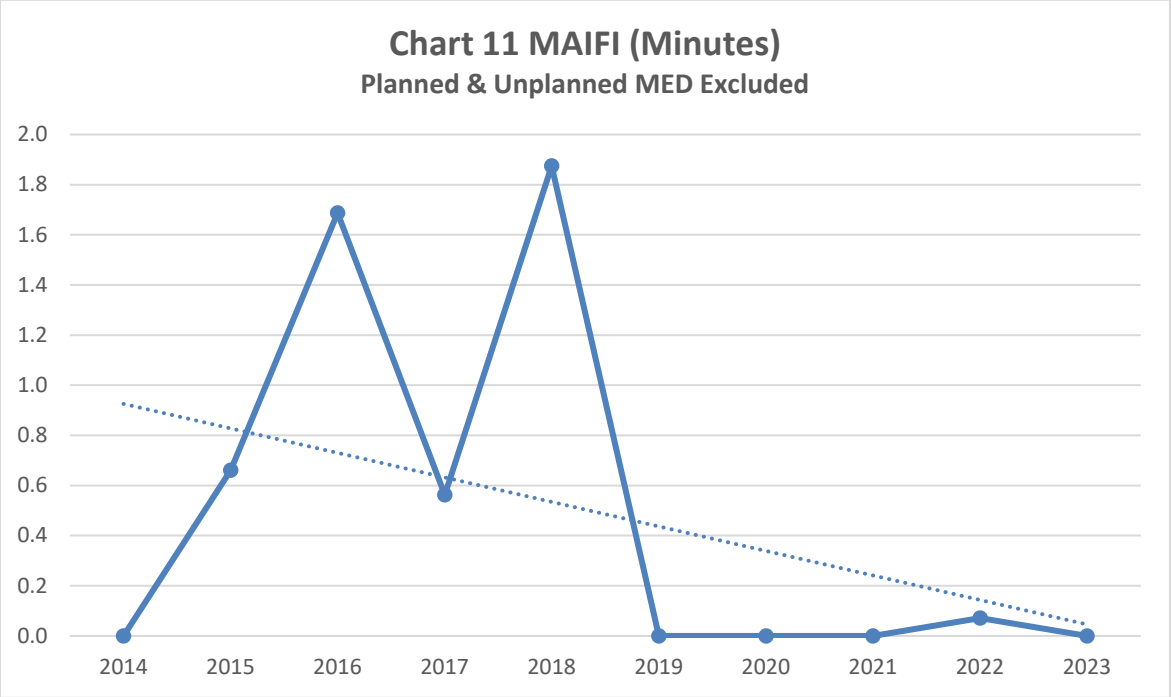


Chart 11 MAIFI (Minutes)
Planned & Unplanned MED Excluded
2.0
1.8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

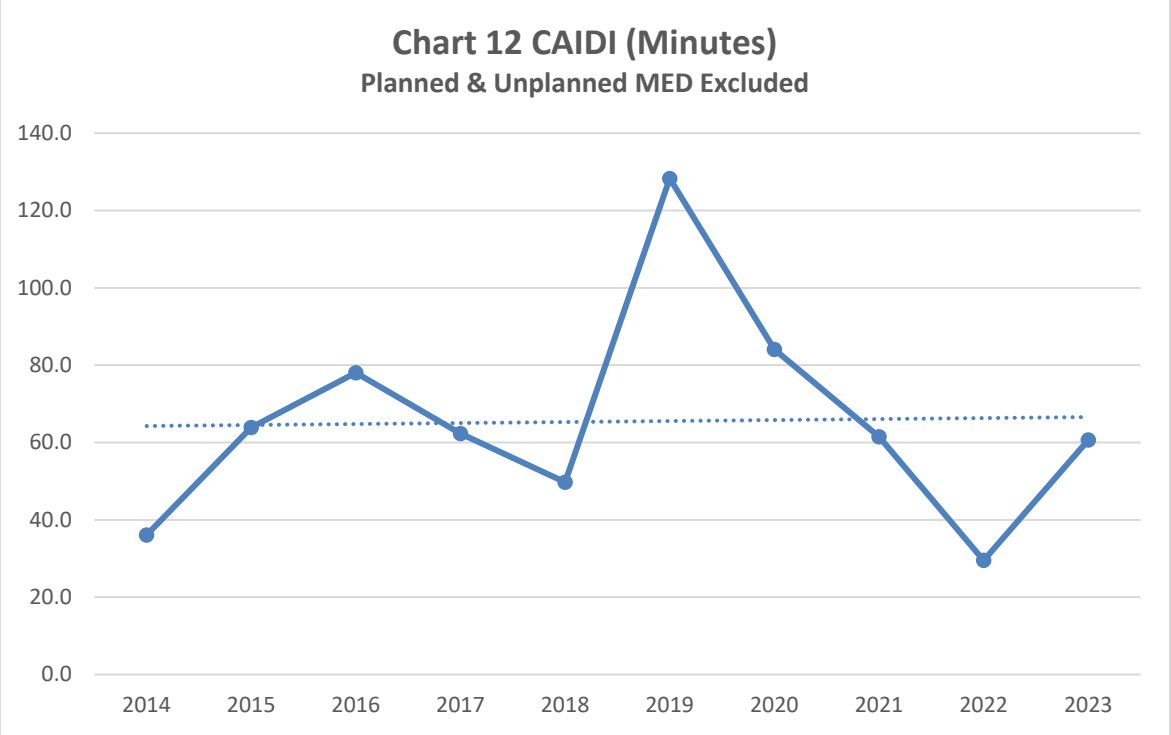
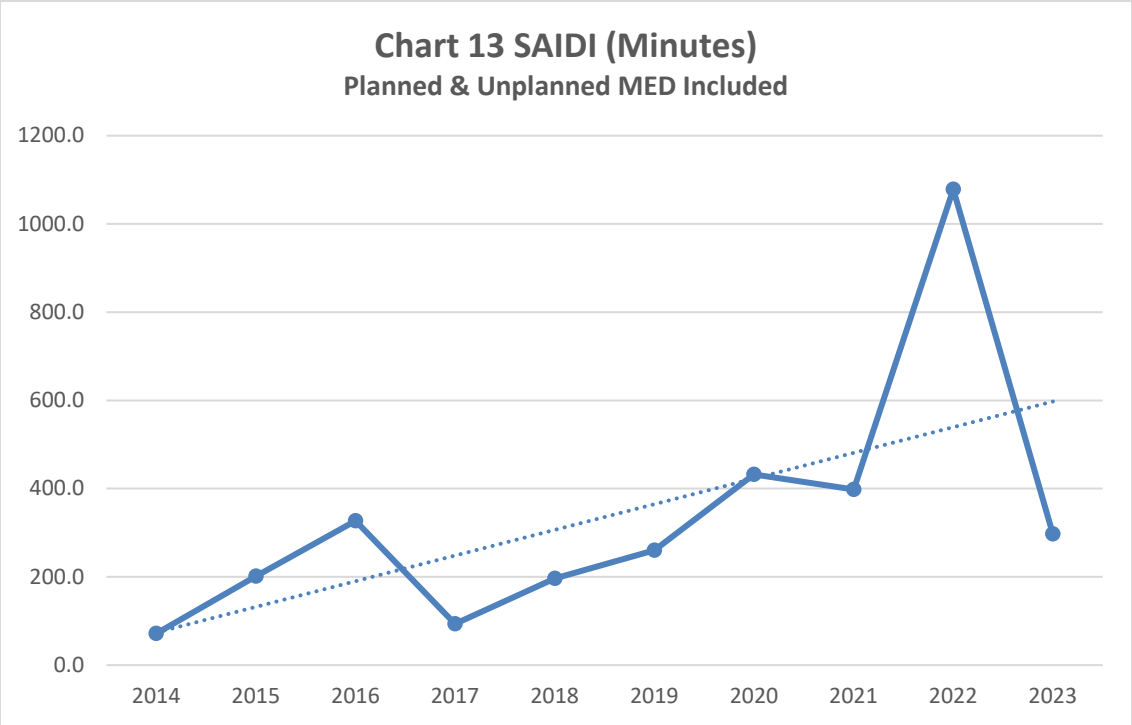
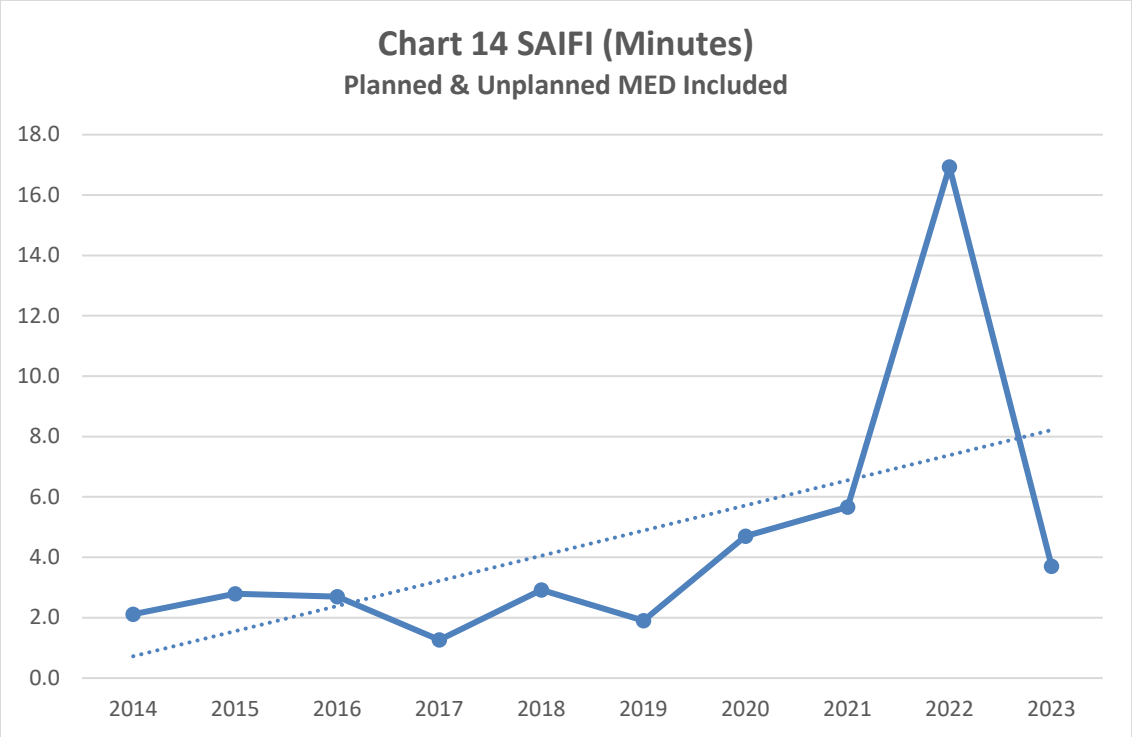


Chart 12 CAIDI (Minutes)
Planned & Unplanned MED Excluded
140.0
120.0
100.0
80.0
60.0
40.0
20.0
0.0
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

Charts 13 through 16 provide line graphs of SAIDI, SAIFI, MAIFI and CAIDI for the past 10 years with linear trend line for planned and unplanned outages (MED Included).





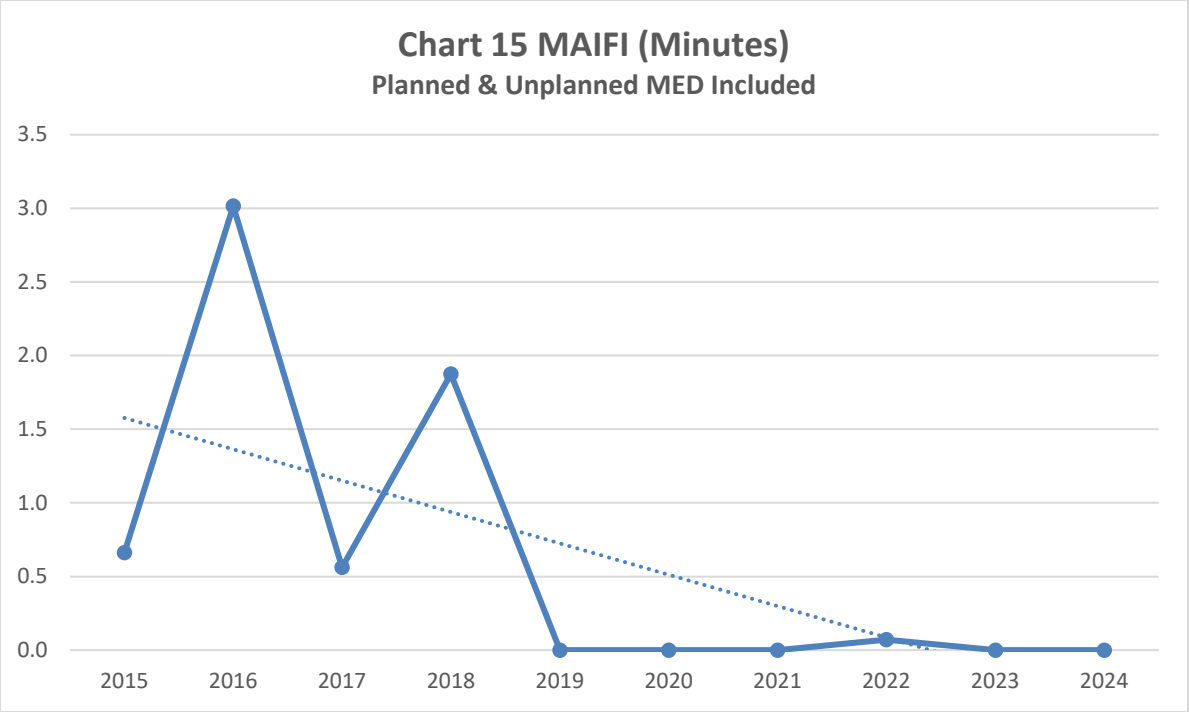


Chart 15 MAIFI (Minutes)
Planned & Unplanned MED Included
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024

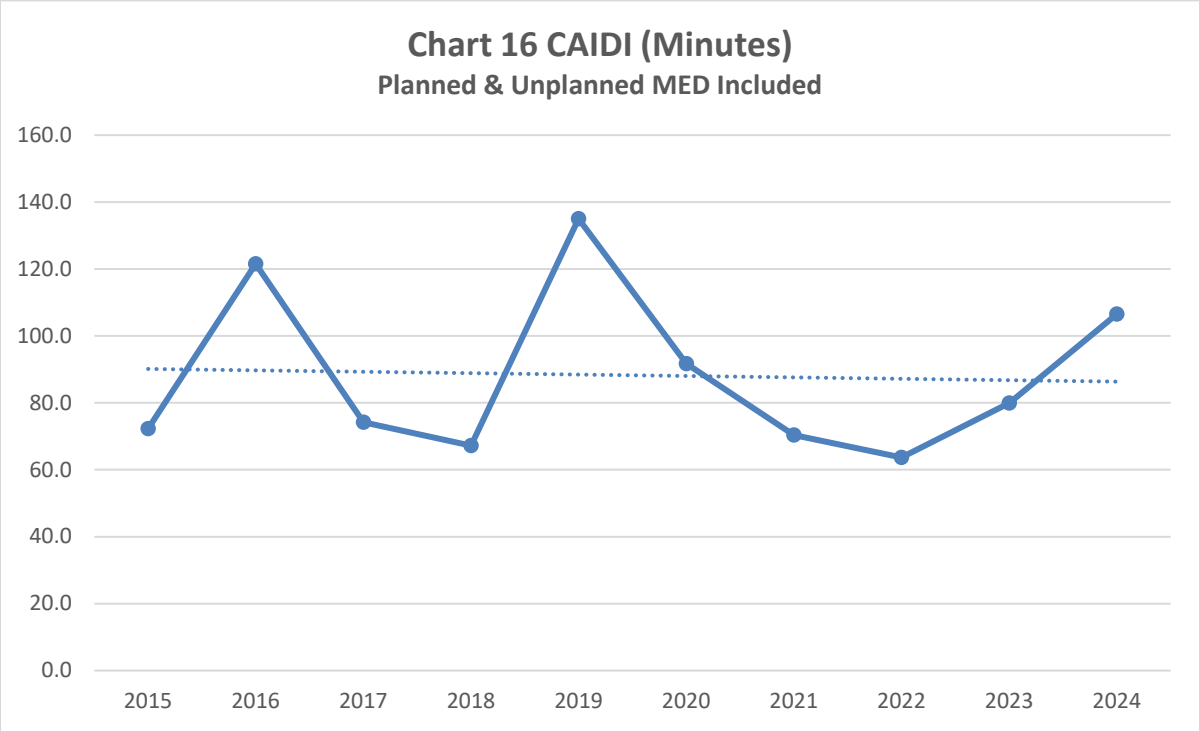


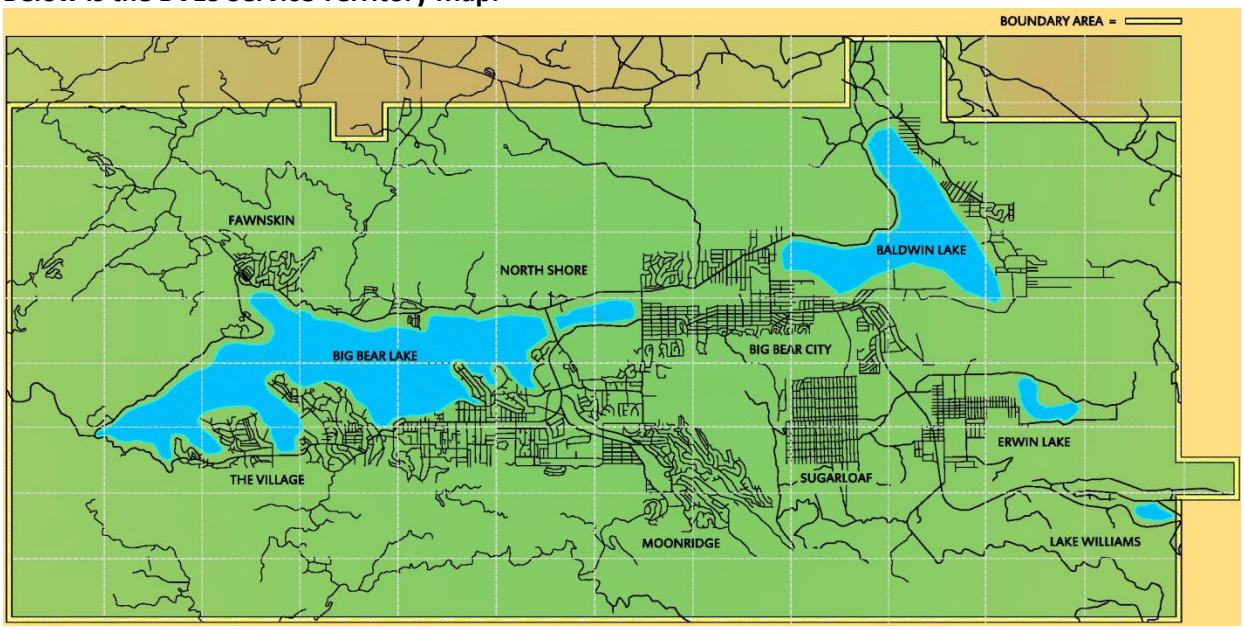
Chart 16 CAIDI (Minutes)
Planned & Unplanned MED Included
160.0
140.0
120.0
100.0
80.0
60.0
40.0
20.0
0.0
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024

SECTION 4

Service Territory Map

BVES provides electric service to approximately 24,753 customers in the mountain resort community of Big Bear Lake, California. BVES owns and operates 86.8 miles of overhead 34.5 kilovolt sub-transmission, 2.7 miles of 34.5 kilovolt underground sub-transmission, 488.6 miles of overhead distribution, 86.4 miles of underground distribution, 13 sub-stations and a natural gas-fueled 8.4 MW peaking generation facility. The BVES service area is rural and mountainous and is located in the San Bernardino Mountains of Southern California, 80 miles east of Los Angeles. The BVES Main Office is located at 42020 Garstin Dr., Big Bear Lake, CA 92315.

Below is the BVES Service Territory Map:



SECTION 5

Top 1% of Worst Performing Circuits (WPC)

Table 3 lists the Top 1% of WPCs, which for BVES is 1 circuit.

Table 3: Top 1% of Worst Performing Circuits (WPC)

Reporting Year	Circuit	Customer Count	Substation	Circuit-miles	% UG	% OH	Number of Mainline Sustained	Number of Mainline Momentary	Preferred Reliability Metrics SAIDI-3YR	SAIDI 1YR Period	SAIFI-3YR Period	SAIFI-1YR Period
2024	Baldwin	11620	SCE Goldhill Ute Lines	9.44	5.5	94.5	0	0	689.2	0	11.2	0

The Baldwin Circuit (34.5 kV) made the WPC list due to it having the highest 3-year SAIDI, which is the preferred metric for evaluating circuit reliability. This circuit improved on both SAIDI and SAIFI in 2024. The circuit did not have any outages in 2024 but it still has the highest 3-year SAIDI because of multiple large outages in previous years.

To improve Baldwin Circuit reliability, BVES has been working on converting bare wire to covered wire and changing wood poles for steel poles to help harden the circuit.

The Preferred Metric for evaluating WPC is to evaluate the circuit SAIDI over a 3-year period (SAIDI-3YR Period), which is reported in Table 3. This method involves the summation of sustained outages (>5 minutes) over the previous 3 years divided by the customer count on the circuit for that period. BVES also evaluates circuit SAIFI calculated over a 3-year period SAIFI-3YR as well as circuit SAIDI and SAIFI calculated over a 1-year period. These values are also reported in Table 3.

WPC Process Evaluation

BVES's WPC program uses a top-down, system-wide approach to assess reliability trends and requirements of its 26 circuits. This approach employs a long-term and short-term analysis process. The WPCs are determined based upon at least the past three years of average duration of outages and average frequency of outages reliability statistics. BVES reviews these reliability performance metrics (SAIDI, SAIFI, MAIFI, and CAIDI) for each circuit using the following quantitative and qualitative analysis process:

- Reliability performance metrics for each circuit are calculated over a 3-year period (e.g., metrics reported for 2024 include outage data from 2022-2024, metrics reported for 2024 include outage data from 2022-2024, etc.). Four basic comparisons are then made with the results and the top 3 WPCs are selected:

    - The circuit reliability metrics based on a 3-year period are compared to the 10-year reliability metrics based on 3-year period averages for each circuit.
    - The circuit reliability metrics based on a 3-year period are compared to the service area reliability metrics for the reported year.
    - The circuit reliability metrics based on a 3-year period are compared to reliability metrics for the other circuits in the reported year.

- Trends for each circuit are analyzed looking at the last 10 years of circuit reliability metrics based on a 3-year period.

- Reliability performance metrics for each circuit are calculated over a 1-year period. Four basic comparisons are then made with the results and the top 3 WPCs are selected:

  - The circuit reliability metrics based on a 1-year period are compared to the 10-year reliability metrics based on 1-year period averages for each circuit.
  - The circuit reliability metrics based on a 1-year period are compared to the service area reliability metrics for the reported year.
  - The circuit reliability metrics based on a 1-year period are compared to reliability metrics for the other circuits in the reported year.
  - Trends for each circuit are analyzed looking at the last 10 years of circuit reliability metrics based on a 1-year period.

- The results are then reviewed and a detailed analysis is performed for each circuit to determine the driver(s) of the results. The results using the 3-year periods are given more weight but the results using the 1-year period are also checked to determine if there is an emerging reliability issue that may be addressed sooner than waiting 3 years for the data to collect. Based on this analysis, the WPC for the reported year is selected.
- BVES management also reviews the outage log monthly so that any emergent issues at the circuit level may be detected and more urgent action taken if warranted.

Once a WPC is designated for the reporting year, the BVES Planning Group reviews the mitigation projects and/or maintenance actions necessary to bring the WPC's reliability performance to at least the 10-year system average and determines the cost of mitigation measures. Further analysis is performed to take into consideration impact on rates and budgets (capital and operations and maintenance (O&M)), the number of customers affected, the benefit to the affected customers, the benefit to the customer base, and the safety and reliability risks and consequences of not taking any action. This process takes about a year and generally work orders are developed to be executed in the following year. Hence, for a WPC identified in 2024, it might take BVES until 2026 to execute the improvement project. It should be noted that reliability projects that require substantial investment such as substation reconstruction may require more time to garner California Public Utilities Commission (CPUC) approval through the General Rate Case (GRC) process or Advice Letter process depending on when the project must be executed.

The BVES service area is rural and mountainous and is served predominantly from overhead facilities. Therefore, circuit hardening projects, projects to install monitoring instrumentation, and projects to install automatic circuit sectionalizing equipment generally will produce increased reliability.

Despite the top-down approach, BVES is also sensitive to its customer service requirements. Thus, BVES maintains the flexibility to take action on recurring customer reliability issues. BVES frequently reviews the outage logs and looks for repeated outages to an individual customer or small groups of customers.

Such occurrences are then referred to the BVES Planning Group to determine if and what mitigation action is necessary.

SECTION 6

Top 10 Major Unplanned Power Outage Events (2024)

Table 4 lists the Top 10 major unplanned power outage events within the reporting year (2024) including (a) the cause of each outage event and (b) the location of each outage event.

Table 4: Top 10 Major Unplanned Power Outages (2024)

Date	Affected Circuit	Location	Number of Customers	Outage Duration (minutes)	Customer Minutes Out (minutes)	Event SAIDI (minutes)	Cause
3/9/24	SCE Goldhill Ute Lines	Baldwin	24753	149	3645988	149.3	Loss of Supply - SCE
3/16/24	Boulder	40191 Big Bear Bl x Talmadge	2046	1336	812800	33.3	Third Party - Car Hit Pole/Guy
2/6/2024	Goldmine	Moonridge x Sheephorn	2051	556	621551	25.4	Contact - Vegetation Weather
2/7/24	Boulder	39372 Big Bear Bl	1500	307	460500	18.9	Contact - Vegetation Weather
2/6/2024	Sunset	Sugarloaf	1905	122	232410	9.5	Equipment Failure - Conuctor Failure
2/6/2024	Radford	Converse Flats	3455	38	131290	5.4	33kV Bear Valley Line relayed and did not test.
10/31/2024	Shay	34kV Switzerland PS3469IR	3801	21	79821	3.3	Equipment Failure - Other
4/29/04	North Shore	4kV NorthShore, Fawnskin Su	1521	48	73008	3	Unknown
7/8/24	Garstin	Summit x Switzerland	1069	87	48607	2	Contact - Wire to wire slap
2/6/2024	North Shore	North Shore Dr west of west	250	192	48000	2	Equipment Failure - Conuctor Failure

The BVES Service Area did not have any outages due to any wildfires during 2024. No Public Safety Power Shutoffs were conducted by BVES during 2024.

SECTION 7

Summary List of Major Event Days (2024)

Table 5 provides a summary list of Major Event Days (MED per IEEE 1366) and includes (a) the average number of customers without service for each MED; (b) the cause of each ME (Major Event); and (c) the location of each MED.

Table 5: Summary List of Major Event Days (MED) (2024)

Date	Affected Circuit	Location	Average Number of Customers	Event SAIDI	Cause
3/9/24	Baldwin	Service Area Wide	24753	149.3	**Loss of supply- SCE**-Fault occurred in SCE's Goldhill Substation
2/6/2024	Shay	Moonridge x Shee	6000	42.8	**Third Party - Car Hit Pole/Guy-** Car hit guy wire and cracked the pole. Additionally broke a 34kv crossarm two spans away.

SECTION 8

Historical Ten Largest Unplanned Outage Events (2015-2024)

Table 6 provides a summary list of the historical ten largest unplanned outage events for each of the past 10 years (2015-2024).

Table 6: Top 10 Major Unplanned Outages Last 10 Years (2015-2024)

2024							
Date	Affected Circuit	Location	Number of Customers	Outage Duration (minutes)	Customer Minutes Out (minutes)	Event SAIDI (minutes)	Cause
3/9/24	SCE Goldhill Ute Lines	Baldwin	24753	149	3645988	149.3	Loss of Supply - SCE
3/16/24	Boulder	40191 Big Bear Bl x Talmadge	2046	1336	812800	33.3	Third Party - Car Hit Pole/Guy
2/6/2024	Goldmine	Moonridge x Sheephorn	2051	556	621551	25.4	Contact - Vegetation Weather
2/7/24	Boulder	39372 Big Bear Bl	1500	307	460500	18.9	Contact - Vegetation Weather
2/6/2024	Sunset	Sugarloaf	1905	122	232410	9.5	Equipment Failure - Conuctor Failure
2/6/2024	Radford	Converse Flats	3455	38	131290	5.4	33kV Bear Valley Line relayed and did not test.
10/31/2024	Shay	34kV Switzerland PS3469IR	3801	21	79821	3.3	Equipment Failure - Other
4/29/04	North Shore	4kV NorthShore, Fawnskin Su	1521	48	73008	3	Unknown
7/8/24	Garstin	Summit x Switzerland	1069	87	48607	2	Contact - Wire to wire slap
2/6/2024	North Shore	North Shore Dr west of west	250	192	48000	2	Equipment Failure - Conuctor Failure

2023							
Date	Affected Circuit	Location	Number of Customers	Outage Duration (minutes)	Customer Minutes Out (minutes)	Event SAIDI (minutes)	Cause
6/19/23	Baldwin	Service Area Wide	24257	230	3099526	126.9	**Loss of supply- SCE**-Fault occurred in SCE's Goldhill Substation
7/9/23	Shay	896 Clubview Dr	15000	61	2408400	98.6	**Third Party - Car Hit Pole/Guy-** Car hit guy wire and cracked the pole. Additionally broke a 34kv crossarm two spans away.
7/22/23	Shay	Service Area Wide	16599	89	1477311	60.5	**Equipment Failure -** Sensing equipment failed causing an imbalance.
11/19/23	Baldwin	2 spans e/o Bear Loop	1212	1140	922212	37.8	**Third Party-** Car Hit Pole
9/16/23	Baldwin	Fawnskin Substation	8700	79	546915	22.4	**Contact - Animal-** Hawk contacted Baldwin 34kv line at Fawnskin Substation.
2/21/23	Sunset	600 block of Orange s/o Bart	1629	180	293220	12.0054	**Contact - Wire to wire slap-** Wind event caused primary wire to slap.
12/22/23	Boulder	Village Substation	3437	81	235276	9.6	**Equipment Failure - Other-** 34kv Radford opened for unknown reason. Switch failed to put load over to Shay line.
8/30/23	Interlaken	Club View Dr	3014	81	186854	7.6	**Third Party - Other-** Contracted crews contacted phases on Interlaken circuit.
12/25/23	Erwin Lake	1208 Big Bear Blvd	1000	121	121000	7.506732	**Equipment Failure - Connector-** Bad connector in transformer located near Big Bear Blvd and Barranca.
2/21/23	North Shore	Rim of the World 1/4 mile beyond pavement	1353	687	169164	6.9	**Overload- Lightning**-Lightning strike

2022							
Date	**Affected Circuit**	**Location**	**Number of Customers**	**Outage Duration** (minutes)	**Customer Minutes Out** (minutes)	**Event SAIDI** (minutes)	**Cause**
11/8/22	Baldwin	Service Area Wide	24257	211	16373115	663.01	**Loss of supply- SCE**-Large winter storm took down many trees on lines which cause SCE to drop BVES because of mulitple interuptions.
9/11/22	Baldwin	Bear Mtn. Substation	12152	89	1570748	63.61	**Animal-**Rats in Bear Mtn. substation chewed throuhg lines in transformer
7/22/22	Baldwin	Service Area Wide	20296	59	1537166	62.9367	**Loss of supply-SCE** substation opened and reclosed causeing Baldwin IR to trip due to overcurrent
10/22/22	Baldwin	Moonridge Rd x Cedar	10964	78	1364592	55.26	**Third Party- Car Hit Pole:** car hit pole caused wire to slap together
8/25/22	Baldwin	Service Area Wide	15263	46	760726	34.51	**Unknown**-possible animal contact: FLISR PS3435IR Hwy 18 x Hugo opened 1300A ground fault
7/31/22	Baldwin	North Shore & Hugo	16509	47	817923	33.49	**Contact- animal**, Bird into lines (Baldwin 34KV out from IR3435 North Shore & Hugo)
9/9/22	Baldwin	Service Area Wide	20296	31	782634	31.69	**Uknown-**(suspected wind)
2/2/22	Eagle	210 N. Eureka	959	45	328190	13.44	**Contact-Vegetation Weather**:Large tree (on line) / due to windy conditions
6/22/22	Goldmine	Moonridge Substation	2660	92	244720	10.01965	**Overload- Lightning**-Lightning strike
11/21/22	Erwin Lake	Lake Williams area	2015	92	185380	7.506732	**Contact-Other**: Contracted crew caused outage. Pulling in rope, rope got caught on truck and caused circuit to open beyond Willow st. AR1128

2021							
Date	Affected Circuit	Location	Number of Customers	Outage Duration (minutes)	Customer Minutes Out (minutes)	Event SAIDI (minutes)	Cause
12/14/2021	Baldwin	BVES System	19409	67	1300403	124.7	**Loss of supply- SCE:** Loss of power supply from Southern California Edison.
6/2/2021	Shay	BVES System	15467	76	1175492	50.04	**Unknown**: Suspected animal contact, 2 patrols were inconclusive and cause is unkown.
3/5/2021	Shay	1033 Clubview	9627	123	1184121	48.12098	**Animal**: A Blue Heron flew into the 34kV Line making a phase to phase contact causing an AR to trip.
7/30/2021	Baldwin	BVES System	9698	83	804934	46.25	**Overload- Lightning:** Lightning strike on the 34kv Line causing an AR/Switch to trip.
10/28/2021	Baldwin	BVES System	11305	85	960925	39.05062	**Unknown:** No cause found. 34 kV Baldwin AR tripped. Line was patrolled and found no apparent cause.
10/27/2021	Clubview	Elm/La Celena	1698	101	171498	15.52	**Contact-Vegetation Weather:** Tree branch fell on cicuit and made phase to phase contact causing an AR to trip.
7/18/2021	Sunrise	329 Pine Ln	2706	85	230010	15.16	**Overload- Lightning:** Lightning strike on the 34kv Line causing an AR/Switch to trip.
10/25/2021	Baldwin	200' n/o Meadow on Michael	11305	32	361760	14.70141	**Contact-Vegetation Weather:** Tree branch fell on 34kv lines and made phase to phase contact causing an AR to trip.
9/8/2021	North Shore	Fawnskin Sub, North Shore circuit	1523	136	207128	13.06	**Unknown:** No cause found. 4kv North Shore AR tripped. Line was patrolled and found no apparent cause.
12/14/2021	North Shore	Fawnskin Substation	800	268	214400	8.778251	**Contact-Vegetation Weather:** Tree branch fell on cicuit due to heavy snowload causing the AR to trip.

2020							
Date	Affected Circuit	Location	Number of Customers	Outage Duration (minutes)	Customer Minutes Out (minutes)	Event SAIDI (minutes)	Cause
11/9/20	Baldwin	BVES System	20932	117	2449044	116.3	**Contact:** Remote Control Plane was caught in 34 kV Lines on Cougar Rd. 34 kV Baldwin AR tripped.
9/14/20	Baldwin	BVES System	9512	33	313896	103.0	**Equipment Failure:** 34 kV Line riser connector failed.
11/4/20	Baldwin	BVES System	24335	96	2336160	95.4	**Unknown:** No cause found. 34 kV Baldwin AR tripped. Patrolled twice and found no apparent cause.
12/27/20	Shay	Fox Farm Road & Big Bear Boulevard, Big Bear Lake, CA	11420	115	1313300	53.6	**Equipment Failure:** UG to OH connector failed.
5/25/20	Paradise	520 East Big Bear Boulvard, Big Bear city, CA	1085	85	92225	5.2	**Third Party:** Car hit pole damaged pole and caused wires to slap, which resulted in AR@Maltby Substation to trip.
10/24/20	Lagonita	39582 Forest Road, Big Bear Lake, Ca	1000	59	59000	3.5	**Animal:** An owl flew into the 4 kV making phase to phase contact causing AR145 to open.
9/26/20	Boulder	714 Talmage Road, Big Bear Lake, Ca	2000	28	56000	2.3	**Contact:** Primary phase to phase was was made - cause unknown.
11/16/20	Country Club	West Country Club Boulevard, Big Bear City, CA	825	41	33825	2.2	**Unknown:** Unknown cause. Country Club OCB at Division Substation tripped. Flashing fault indicator at P.S.923 one Ø only. Panel indicated phase to ground fault. Patrolled circuit and found no cause. Re-energized OCB and it held on test.
9/8/20	Clubview	562 South Lucerne Drive & Villa Grove Avenue, Big Bear Lake, CA	1140	46	52440	2.1	**Third Party:** Mylar Balloons in Primary Wire
12/5/20	Pioneer	Boron Lane & Baldwin Lake Road, Big Bear Lake, CA	400	126	50400	2.1	**Overload:** Overloaded fuse TripSaver.

2019

Date	Affected Circuit	Location	Number of Customers	Outage Duration (minutes)	Customer Minutes Out (minutes)	Event SAIDI (minutes)	Cause
2/14/19	SCE Bear Valley Line, Clubview, North Shore, Paradise, & Garstin	Various	9,574	Various	2,657,850	109.08	**Weather:** Major snow storm caused multiple outages.
6/28/19	Shay, Boulder, Lagonita, & Harnish	Village Dr/Pennsylvania	13,068	Various	1,976,520	81.12	**Equipment Failure:** Failure connection at riser (OH to UG)
12/17/2019	North Shore, Garstin, Castle Glen, Erwin Lake, Holcomb, and Paradise	Various	9,781	Various	502,530	20.62	**Equipment Failure:** Baldwin AR tripped due to failed UG cable feeding Division Substation.
2/4/2019	Boulder	Big Bear Blvd/Lark Rd	1,457	Various	462,840	19.00	**Weather:** Major snow storm caused tree to fall across span causing a large outage.
10/29/19	Erwin Lake	Unknown	2,533	180	455,940	18.71	**Unknown:** No cause found after two thorough patrols
11/27/19	SCE Bear Valley Line	SCE side of AR 3470	3,403	123	418,569	17.18	**Loss of Supply:** Damage to SCE lines due to snow storm
1/19/2019	Boulder		3,000	Various	342,000	14.04	**Equipment Failure:** Failed voltage regulator
9/20/19	Sunrise	Baldwin Ln/Hwy 38	1,506	180	271,080	11.13	**Equipment Failure:** Failed underground transformer
11/14/2019	Interlaken & Baldwin		2,403	Various	181,750	7.46	**Animal:** Crow contacted 34 kv outside of Fawnskin substation
2/2/2019	Holcomb	Mound/ North Shore	1,587	60	95,220	3.91	**Weather:** Primary wire wrapped together due to storm

2018

Date	Affected Circuit	Location	Number of Customers	Outage Duration (minutes)	Customer Minutes Out (minutes)	Event SAIDI (minutes)	Cause
9/19/18	Shay	Various	12,381	Various	1,448,607	59.62	**Equipment Failure:** Termination on pole dip to underground failed.
8/27/18	Shay	Various	13,030	89	1,159,670	47.73	**Equipment Failure:** Termination on pole dip to underground failed.
3/22/2018	Shay	584 Elm St., Big Bear Lake	9,627	93	673,890	27.74	**Weather:** Winter storm high winds caused tree branch fall across 34.5kV lines.
1/30/2018	Erwin Lake	217 Greenspot Blvd., Big Bear City	482	Various	342,451	14.09	**Third Party:** Car hit pole.
12/31/18	Eagle Georgia	Pineknot Substation	622	Various	298,380	12.28/	**Equipment Failure:** Substation voltage regulator failed and required replacement.
12/6/18	Eagle	Big Bear Blvd & Eureka Dr., Big Bear Lake	900	203	182,700	7.52	**Weather:** Winter storm heavy snow storm caused tree branch to fall across 4kV lines.
2/9/2018	Bear City	Michael Ave. & W. Meadow Lane, Big Bear City	1,587	88	139,656	5.75	**Unknown:** Possible over current - cause investigated but not determined.
11/25/18	North Shore	YMCA Camp Whittle, Fawnskin	93	Various	61,600	2.54	**Third Party:** Car hit pole.
12/29/2018	Goldmine	Moonridge Substation, Big Bear Lake	300	180	54,000	2.22	**Other:** Over current requiring refusing at substation.
7/19/2018	SCE Goldhill Ute Lines	Service Area Wide	24,335	1	24,335	1.00	**Supply:** SCE's 115 kV line to Lugo Substation relayed causing the SCE Goldhill Switch Station to open and reclose for one cycle resulting in short loss of supplies.

2017

Date	Affected Circuit	Location	Number of Customers	Outage Duration (minutes)	Customer Minutes Out (minutes)	Event SAIDI (minutes)	Cause
6/19/2017 to 6/24/2017	Various	Various	Various	Various	11,952,822	498.56	**Supply:** Loss of Southern California Supply sub-transmission line (34.5 kV) from Lucerne Valley due to **Holcomb Fire**.
1/20/17	Baldwin	Meadow, Division, Bear City, Maltby, Fawnskin, and Lake Substations	11,305	90	1,017,450	42.44	**Weather:** High winds caused Baldwin sub-transmission line to open.
8/7/2017	Garstin	42134 Big Bear Boulevard, Big Bear Lake	2,255	93	209,715	8.75	**Weather:** PMS 3407 opened due to lightening strike.
2/18/17	Clubview	987 Clubview Drive (at Pole 8105BV), big Bear Lake	1,698	120	203,760	8.50	**Weather:** High winds caused tree branch fall across 34.5kV and 4kV lines.
4/21/2017	SCE Goldhill Ute Lines	Southern California Edison's Cottonwood Substation	20,932	3	62,796	2.62	**Supply:** Fault at Southern California Edison Cottonwood Substation.
11/8/2017	Radford	Knickerbocker Road (P.S. 3459), Big Bear Lake	3,600	15	54,000	2.25	**Equipment Failure:** Pole Switch rod failed during field switching operations.
1/22/17	Goldmine	43607 Sand Canyon road, Big Bear Lake	100	500	50,000	2.09	**Weather:** High winds caused tree branch fall across primary and secondary lines.
1/20/17	Maple	555 Spruce Lane, Big Bear City	100	405	40,500	1.69	**Weather:** High winds caused tree branch fall across primary and secondary lines.
12/14/2017	Clubview	Moonridge Substation, Big Bear Lake	1,120	30	33,600	1.40	**Other:** Contractor inadvertently de-energized 4 kV switch position at Moonridge Sub-station while performing equipment testing for maintenance.
7/21/2017	Boulder	Big Bear Boulevard (West of Skyline Trail), Big Bear Lake	200	164	32,800	1.37	**Weather:** High winds caused tree to fall across primary lines.

2016

Date	Affected Circuit	Location	Number of Customers	Outage Duration (minutes)	Customer Minutes Out (minutes)	Event SAIDI (minutes)	Cause
1/7/2016	Shay	Southern rim of Bear Valley	9,711	100	971,100	40.7	**Weather:** Major winter snow storm.
3/11/2016	Shay	Southeastern rim of Bear Valley	9,711	100	971,100	40.7	**Weather:** Extremely high winds blew broken branch into 34kV Line.
1/31/2016	Lagonita	40174 Lakeview Dr., Big Bear Lake, CA	800	1,030	824,000	34.5	**Third Party:** Car Hit pole shearing pole.
1/7/2016	Clubview	Moonridge area, Big Bear Lake, CA	1,140	435	495,900	20.8	**Weather:** Major winter snow storm.
3/28/2016	Shay	Elm St. & Peregrine Ave, Big Bear Lake, CA	9,711	47	456,417	19.1	**Weather:** Wind storm caused tree branch to fall across two line phased causing short-circuit relay.
1/13/2016	Shay	Southern rim of Bear Valley	7,781	57	443,517	18.6	**Equipment Failure:** Transformer at Pineknot Substation faulted and failed.
1/6/2016	Clubview	Moonridge area, Big Bear Lake, CA	1,900	228	433,200	18.1	**Weather:** Major winter snow storm.
1/6/2016	Boulder	Central Big Bear Lake area, Big Bear Lake, CA	2,000	164	328,000	13.7	**Weather:** Major winter snow storm.
1/13/2016	Georgia	Pineknot Substation, Big Bear Lake, CA	965	311	300,115	12.6	**Equipment Failure:** Transformer at Pineknot Substation faulted and failed.
12/16/2016	Paradise	304 Big Bear Blvd., Big Bear Lake, CA	542	490	265,580	11.1	**Weather:** Tree top broke of and fell into overhead circuit lines taking down wire and crossarm.

2015

Date	Affected Circuit	Location	Number of Customers	Outage Duration (minutes)	Customer Minutes Out (minutes)	Event SAIDI (minutes)	Cause
6/12/2015	Baldwin	Baldwin connected load - exact location unknown. Big Bear Lake, CA	9,678	182	1,761,396	74.2	Weather: Lightning storm moving through the service area.
6/12/2015	Shay	Shay connected load - exact location unknown. Big Bear Lake, CA	13,311	81	1,078,191	45.4	Weather: Lightning storm moving through the service area.
6/13/2015	Shay & Baldwin	System-wide connected load - - exact location unknown. Big Bear Lake, CA	22,989	29	666,681	28.1	Weather: Lightning storm moving through the service area.
10/13/2015	Baldwin	929 Michael Ave., Big Bear City, CA 92314	6,533	49	320,117	13.5	Vegetation: Large tree limb fell onto 33KV and then contacted 4kV.
10/13/2015	Garstin	929 Michael Ave., Big Bear City, CA 92314	2,900	76	220,400	9.3	Vegetation: Garstin tripped when Baldwin tripped due to large tree limb falling onto 33KV and then contacted 4kV.
4/7/2015	Boulder	SCE's Bear Valley 33kV supply line (Radford Line)	2,000	80	160,000	6.7	Weather: SCE experienced an outage on the Bear Valley 33kV supply line (Radford Line) due to high winds.
4/7/2015	Lagonita	SCE's Bear Valley 33kV supply line (Radford Line)	1,400	80	112,000	4.7	Weather: SCE experienced an outage on the Bear Valley 33kV supply line (Radford Line) due to high winds.
10/13/2015	Bear City	929 Michael Ave., Big Bear City, CA 92314	1,320	76	100,320	4.2	Vegetation: Bear City tripped when Baldwin tripped due to large tree limb falling onto 33KV and then contacted 4kV.
10/13/2015	Division	929 Michael Ave., Big Bear City, CA 92314	825	90	74,250	3.1	Vegetation: Division tripped when Baldwin tripped due to large tree limb falling onto 33KV and then contacted 4kV.
6/12/2015	Erwin	Maltby Substation, S/E Corner of Maltby Blvd. and Shore Dr., Big Bear City, CA 92314	1,000	53	53,000	2.2	Weather: Lightning storm moving through the service area.
12/31/2015	Goldmine	Intersection of Wolf Rd. and Alameda Rd., Big Bear Lake, CA 92315	150	228	34,200	1.4	Equipment Failure: Overloaded line segment.

SECTION 9
Customer Inquiries

Table 7 provides a summary list of customer inquiries on reliability data and the number of days per response (average response time) for the reporting year (2024).

Table 7: Summary of Customer Inquiries 2024	
Number of Customer Inquiries	**Average Response Time (days)**
0	NA