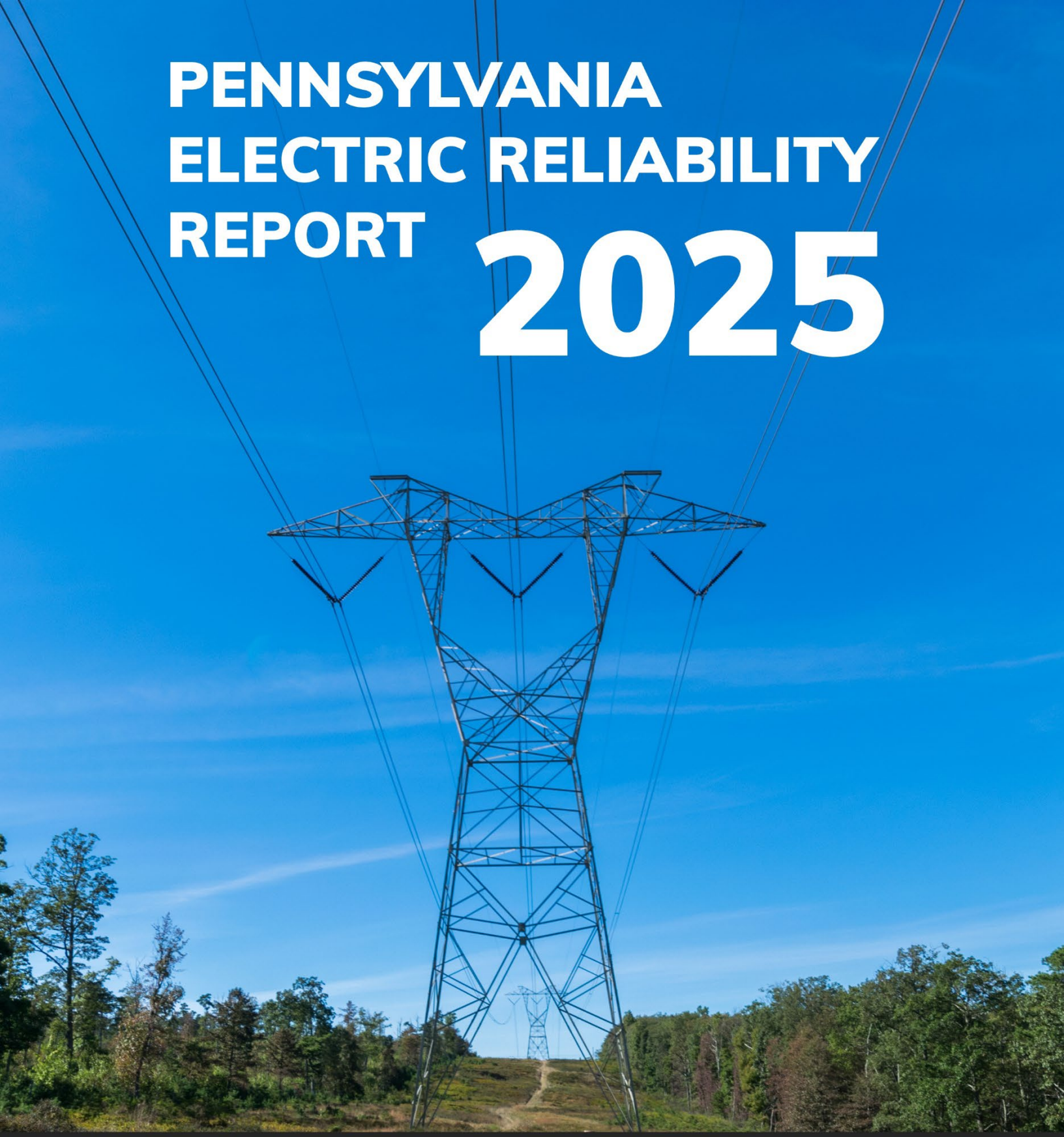
PENNSYLVANIA ELECTRIC RELIABILITY REPORT 2025



PAPUC
PENNSYLVANIA PUBLIC UTILITY COMMISSION

TECHNICAL UTILITY SERVICES
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Executive Summary

Reliable electric service is essential to the health, safety, and welfare of the citizens of this Commonwealth. The Electricity Generation Customer Choice and Competition Act mandates the Pennsylvania Public Utility Commission (PUC or Commission) ensures that the levels of reliability that existed prior to the restructuring of the electric utility industry continue in the new competitive markets.[1] In response to this mandate, the Commission adopted reporting requirements designed to ensure the continued safety, adequacy and reliability of the generation, transmission and distribution of electricity in the Commonwealth.[2] This report describes the reliability performance of jurisdictional electric distribution companies (EDCs) in 2025 compared to previous years and the benchmarks and standards established by the Commission.[3] Data presented in this report comes from the quarterly and annual reliability reports submitted by EDCs pursuant to the Commission's regulations.

EDCs are required to report reliability performance data including the Customer Average Interruption Duration Index (CAIDI), System Average Interruption Duration (SAIDI) and System Average Interruption Frequency Index (SAIFI). These indices are used to complete an assessment of electric service reliability for each EDC's service territory. Section 2 of this report describes these reliability indices, major events, and inspection and maintenance requirements. Section 3 provides a review of reportable outages that occurred in 2025 and Section 4 describes the reliability performance of each EDC individually.

For the rolling 12-months ending in December 2025, eight of the eleven EDCs improved CAIDI, however, only four of the eleven EDCs achieved the CAIDI Benchmark. Nine of the eleven EDCs improved SAIFI, however, only four achieved the SAIFI Benchmark. While eight of the eleven EDCs improved SAIDI, although only five achieved the SAIDI Benchmark. These results indicate that most EDCs improved over the 2024 reported results.

In 2025, EDCs reduced the overall number of customers interrupted and customer minutes interrupted. However, the general trend of these metrics has been increasing since 2015. The number of Reportable Outages, pursuant to Section 67.1 of Commission Regulations at 52 Pa. Code § 67.1, also decreased from 2024, but have generally increased in recent years for all EDCs, including those that have strong infrastructure improvement plans. All but three Reportable Outages in 2025 were caused by weather impacts on EDC distribution systems. Noting this fact highlights the importance of continuing to invest in reliability improvement and resiliency to weather events. EDCs are expected to provide service at a level equal to or better

[1] Act of Dec. 3, 1996, P.L. 802, No. 138, 66 Pa. C.S. §§ 2801 *et.seq.*
[2] Docket No. L-00970120; 52 Pa. Code §§ 57.191-57.197.
[3] *See, Amended Reliability Benchmarks and Standards for the Electric Distribution Companies*, Order entered May 11, 2004, at Docket No. M-00991220.

than that provided during the benchmark period, regardless of whether interruptions are increasing on an annual basis due to severe weather.

The Commission has established inspection and maintenance standards for electric transmission and distribution systems. Commission Regulations require EDCs to prepare and file every two years, by October 1, a biennial plan for periodic inspection, maintenance, repair, and replacement of facilities designed to meet reliability performance benchmarks and standards set forth in 52 Pa. Code § 57.191-57.197. In 2025, FirstEnergy Pennsylvania Electric Company[4] and UGI Utilities, Inc. – Electric Division filed the required biennial plans.

In addition to monitoring EDC reliability performance, the Commission continued the following notable initiatives:

Reliability Collaborative

On June 3, 2021, the Commission, via a Secretarial Letter, initiated an Electric Reliability Collaborative (ERC) to explore the challenges that EDCs believe are consistently preventing them from meeting reliability benchmarks, and invited the EDCs, the Energy Association of Pennsylvania (EAP), and statutory advocates to participate.[5]

The ERC focused on reviewing the electric distribution reliability regulations, with particular attention to the calculation of the reliability performance metrics and also discussed exploring whether options such as performance-based rates tied to reliability metrics may lead to improved reliability performance at a reasonable cost, developing an understanding of the customer experience with electric reliability in Pennsylvania, and exploring how the Commission, EDCs, and other stakeholders can work together to lessen the impact of Off-Right-of-Way (OROW) trees on electric reliability.

The first meeting of the ERC was held on July 21, 2021, and subsequent meetings occurred on Sept. 10, 2021, Feb. 11, 2022, April 8, 2022, April 20, 2023, and the latest being April 28, 2023. Meeting points of discussion included electric reliability in general, OROW trees, consideration of the Institute of Electrical and Electronics Engineers (IEEE) 2.5 beta method for calculation of the reliability statistics, approaches on the IEEE 2.5 beta in other states, and regulatory and procedural considerations of any proposed change to reliability statistical methodologies in Pennsylvania.[6] Pennsylvania EDCs have forwarded their positions about utilizing IEEE 2.5 beta methodology as it applies to improving the reliability of Pennsylvania's electric distribution system and TUS provided its recommendations to the Commission. The Commission

[4] This includes the four FirstEnergy Pennsylvania rate districts of Metropolitan Edison Company, Pennsylvania Electric Company, Pennsylvania Power Company, and West Penn Power Company.

[5] The Secretarial Letter was served on June 3, 2021, at Docket No. M-2021-3024513.

[6] The IEEE methodologies utilized by the EDCs are found at IEEE 1366-2012, *IEEE Guide for Electric Power Distribution Reliability Indices*.

subsequently concurred with TUS' recommendation to initiate a notice of proposed rulemaking. The Commission's Law Bureau, with assistance from TUS, will draft an order for consideration by the Commission that will initiate a Notice of Proposed Rulemaking to change the regulations at 52 Pa. Code §§ 57.191-198 to accommodate the adoption of the IEEE 2.5 beta method and the IEEE definition of a Major Event Day. It is anticipated that the draft order will be prepared for a public meeting in late 2026.

Resiliency Deep Dive Project

In 2024, TUS applied for and was awarded a Deep Dive technical assistance project sponsored by the Federal Department of Energy through the National Laboratories.[7] The National Renewable Energy Laboratory, now known as the National Laboratory of the Rockies (NRL) provided technical assistance to TUS in 2025 on resilience and threat-based planning for extreme events impacting electrical distribution systems. The project objective was to evaluate electric distribution system resilience to extreme weather and changing climate conditions, with considerations for the implications of increased reliance on the electric grid due to electrification for building heat and transportation, and to apply threat-based risk assessment to inform regional and state-level planning processes. The final deliverables were provided at the end of calendar year 2025 and included an internal presentation that outlined possible scenarios and considerations for the Commission and EDCs, and a public-facing executive summary.[8] The results identify actionable wind-speed thresholds at which outage rates and customer impacts increase nonlinearly. While the report does not include recommendations, the thresholds identified could provide empirical triggers for EDCs and the Commission to distinguish routine operating conditions from high impact wind regimes that drive disproportionate outage burden and restoration workload. With these findings in mind, the Commission will continue to develop policies and plans to address the resilience of EDCs in the face of increasing severe weather and climate change impacts.

[7] More information on the state technical assistance programs can be found here: https://emp.lbl.gov/deep-dive.
[8] Westfallen, Vincent, Wenqi Zhang, and Reiko Matsuda-Dunn. 2026. National Laboratory of the Rockies: Pennsylvania Public Utility Commission/ Technical Utility Services Bureau Distribution System Resilience Deep Dive 2025 Executive Summary. Golden, CO: National Laboratory of the Rockies. NLR/TP-6A40-98374. https://docs.nlr.gov/docs/fy26osti/98374.pdf.

Section 1 – Introduction

This report discusses the reliability performance of EDCs operating under the Commission's jurisdiction, specifically focusing on the reliability of the electric distribution system.[9]

The Electricity Generation Customer Choice and Competition Act mandates the Commission ensure the level of reliability that existed prior to the restructuring of the electric utility industry is maintained in the newly restructured markets.[10] In response to this mandate, the Commission adopted reporting requirements designed to monitor continuing safety, adequacy, and reliability of generation, transmission, and distribution of electricity in the Commonwealth.[11]

The Commission also established reliability benchmark and standard values to measure the performance of each EDC.[12] Given the uncertainty of weather and other events that can affect reliability performance, the Commission has stated that EDCs should set goals to achieve consistent benchmark performance in order to prepare for times when unforeseen circumstances occasionally and briefly cause performance to exceed the benchmark threshold.[13] As mandated, enforcement of the 3-year rolling average standard began with the utilities' filing of their 2006 annual reports. The 3-year performance standard only allows a deviation of 10% from the reliability index benchmark, as compared with the 20% or 35% deviations allowed by the 12-month performance standard.

The Commission set the performance standard as the occasional and brief maximum level an EDC can exceed the benchmark reliability performance value. Reliability performance values that are not considered in compliance require EDCs to provide an evaluation to the Commission that includes a Corrective Action Plan or a credible basis that would justify no corrective action is required. The inability of an EDC to achieve consistent compliance may result in an Order directing specific corrective actions.[14] Continuous noncompliance may trigger additional scrutiny and potential compliance enforcement actions by the Commission's prosecutorial staff in the Bureau of Investigation and Enforcement, including penalties and fines.[15]

Note that by the Order entered on Dec. 7, 2023, the Commission granted certain approvals and certificates of public convenience for the unification of the four FirstEnergy Company EDCs that operated in Pennsylvania (Metropolitan Edison Company, Pennsylvania Electric Company, Pennsylvania Power Company, and West Penn Power Company) into one EDC, FirstEnergy

[9] The high-voltage transmission system, nominally > 100 kV, is regulated by the Federal Energy Regulatory Commission (FERC). The electric distribution system is under the purview of the PUC.
[10] 66 Pa.C.S. § 2802(3).
[11] 52 Pa. Code § 57.195.
[12] 52 Pa. Code §§ 57.191-57.198.
[13] *See, Amended Reliability Benchmarks and Standards for the Electric Distribution Companies*, Order entered May 11, 2004, at Docket No. M-00991220, at 24.
[14] 52 Pa. Code § 57.197(a).
[15] 52 Pa. Code § 57.194(h)(1).

Pennsylvania Electric Company (FE PA).[16] The former EDCs are now rate districts of FE PA. FE PA assumed all responsibilities and requirements of the former EDCs, including, *inter alia*, for electric reliability (for reliability performance and the requirements of the former EDCs' Inspection and Maintenance Plans filed pursuant to 52 Pa. Code § 57.198).[17] FE PA reports as one EDC but reports data for each rate district. To avoid confusion and to allow comparison to previous electric reliability reports, the FE PA rate districts are referred to as EDCs throughout this report.

Section 2 – Reliability Performance Measures

Reliability Performance Indices

The Commission's benchmarks and standards are based on four reliability performance indices that have been adopted by the Institute of Electrical and Electronics Engineers (IEEE). The EDCs report the indices on a system-wide basis, rather than on a regional operating area basis. EDCs report the four-reliability indices on both a rolling 12-month average and a 3-year calendar year average. Note that the Commission has only established benchmarks and standards metrics for each EDC for the CAIDI, SAIDI and SAIFI indices. The indices are defined as:

CAIDI (Customer Average Interruption Duration Index): Measures average power restoration time (by minutes) for every customer who lost power during reporting period.

SAIDI (System Average Interruption Duration Index): Measures average outage duration time (by minutes) for every customer served during reporting period.

SAIFI (System Average Interruption Frequency Index): Measures average frequency of power interruptions for every customer served during reporting period.

MAIFI (Momentary Average Interruption Frequency Index): Measures average frequency of momentary (five minutes or less) interruptions for every customer served during reporting period.[18]

Additional information and data reported by EDCs:

- Average number of customers served.
- Number of sustained customer interruption minutes.

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[16] *See, Joint Application of Metropolitan Edison Company, Pennsylvania Electric Company, Pennsylvania Power Company, West Penn Power Company, Keystone Appalachian Transmission Company, Mid-Atlantic Interstate Transmission, LLC, and FirstEnergy Pennsylvania Electric Company*, at Docket Nos. A-2023-3038771, et al.

[17] *Id. See also,* at the same Docket Nos.*, Joint Petition for Approval of Settlement of All Issues*, filed Aug. 30, 2023, and *Recommended Decision of Administrative Law Judge Conrad A. Johnson and Administrative Law Judge Emily I. DeVoe*, dated Oct. 19, 2023.

[18] EDCs are required to report MAIFI data, provided the equipment capability is available to obtain relevant data. Only Met-Ed, PECO, Penelec, Penn Power and PPL report MAIFI.

- Number of customers affected by service interruptions.
- Analysis of outage causes such as equipment failure, animal contact and contact with trees.[19]
- Reliability performance on the 5% of worst performing circuits and a corrective action plan to increase the reliability of these circuits.

Major Events

To analyze and set measurable goals for electric service reliability performance, outage data is separated into either normal or abnormal periods. Only outages during normal event periods are used in calculating the reliability indices. The term "Major Event" is used to identify an abnormal event, such as a major storm, and is defined as either of the following:[20]

An interruption of electric service resulting from conditions beyond the control of the EDC which affects at least 10 % of the customers in the EDC's service territory during the course of the event for a duration of five minutes or greater; or

An unscheduled interruption of electric service resulting from an action taken by an EDC to maintain the adequacy and security of the electrical system.

Outage data relating to Major Events are to be excluded from the calculation of reliability indices. Prior to excluding major event data, an EDC is required to formally request to exclude those service interruptions for reporting purposes. The request must be accompanied by data that demonstrates why the service interruption qualifies as a major event exclusion. 2025 Major Events excluded from the reliability indices calculations are detailed in Section 3.

Definitions: benchmark, standard, 12-month average, & 3-year average

The **benchmark** performance value represents the statistical average of the EDC's annual, system-wide, reliability performance index values for the five years from 1994 through 1998. The benchmark value serves as an upper limit that EDCs should be consistently achieving to ensure reliability performance is considered satisfactory and acceptable.

The **standard** performance value represents an EDC's performance upper control limit established to allow EDCs to exceed the benchmark performance value occasionally and briefly. Both long-term (rolling 3-year) and short-term (rolling 12-month) performance standards have been established for each EDC based on individual EDC historical performance benchmarks. The performance standard limit allows an EDC to exceed a benchmark limit occasionally and briefly. However, consistently exceeding benchmark performance, or exceeding the standard

[19] This information is collected and trended by EDCs to reduce customer outages and improve system reliability.
[20] *See,* 52 Pa. Code § 57.192.

limit, is an indication that the EDC's performance is not satisfactory and requires additional scrutiny by the Commission.

The performance rolling **12-month average** is 120% of the benchmark for the large EDCs and 135% for the small EDCs.[21] A greater degree of short-term latitude for small EDCs recognizes that small EDCs have fewer customers and fewer circuits than large EDCs, potentially allowing a single event to have a more significant impact on the reliability performance of the small EDCs' distribution systems.

The performance rolling **3-year average** is 110% of the benchmark for all EDCs. This performance standard was set at 10% above the historical benchmark to ensure that the standard is no higher than the worst annual performance experienced during the years prior to the restructuring of the electric industry. The 3-year average performance is measured against the standard at the end of each calendar year. The rolling 3-year standard analysis contained in this report uses 2023, 2024, and 2025 calendar year data.

It is noted that a lower number for any index indicates better reliability performance, i.e., a lower frequency of outages or shorter outage duration. A higher number indicates worse performance.

Example: A large EDC's rolling 12-month **CAIDI benchmark** performance metric is 100 and associated **CAIDI standard** performance metric is 120 (which is 120% of benchmark). Evaluate an EDC's quarterly CAIDI score of 110, 90, and 140:

CAIDI of 110 evaluations: Performance is above **benchmark**, but below **standard**, and may require additional review and action if the EDC is chronically above **benchmark** score and trending toward exceeding **standard**. Upon Commission review, the EDC may be required to develop a Corrective Action Plan (CAP) and **additional PUC oversight will be taken to monitor effectiveness until performance is below benchmark**. In addition, this may result in a referral to the Bureau of Investigation & Enforcement (BIE) for further action.

CAIDI of 90 evaluations: Performance is considered excellent since CAIDI is below both **benchmark and standard**.

CAIDI of 140 evaluations: Performance is considered unacceptable since CAIDI is greater than both **benchmark and standard**. The EDC will be required to develop a Corrective Action Plan (CAP) and additional PUC oversight will be taken to monitor effectiveness until benchmark performance is achieved. In addition, may result in a referral to BIE for further action.

[21] The large EDCs are DLC, Met-Ed, Penelec, Penn Power, PECO, PPL and West Penn. The Small EDCs are UGI, Citizens', Pike County and Wellsboro.

If any EDC's reliability performance does not meet Commission regulations, the Commission may require a report discussing the reasons for not meeting the regulation and the corrective measures the company is taking to improve performance.[22] In addition, Commission staff may initiate an investigation to determine whether an EDC is providing reliable service.[23]

Benchmarks and standards for EDC reliability performance and actual reliability indices for 2025 are located in Appendix A.

Inspection and Maintenance

EDCs are required to have a plan for periodic inspection and maintenance of poles, overhead conductors and cables, wires, transformers, switching devices, protective devices, regulators, capacitors, substations, and other facilities critical to maintaining an acceptable level of reliability.[24] The time intervals for such inspections are detailed in Table 1 below. The regulation also sets forth minimum inspection and maintenance intervals for vegetation management, poles, overhead lines and substations.

Listed below are the most recently filed biennial inspection and maintenance (I&M) plans for the periodic inspection, maintenance, repair and replacement of facilities:

Filed in October 2024 (effective January 2026 through December 2027) for DLC, PECO, PPL, Citizens', Pike, and Wellsboro.

Filed in October 2025 (effective January 2027 through December 2028) for FE PA (Met-Ed, Penelec, Penn Power and West Penn) and UGI.

The plans are subject to acceptance or rejection by the Commission. Most EDCs proposed deviations to the standards for some programs or parts of programs. Appendix C describes the deviations that were requested by the EDCs and provides a summary of the explained justification for said deviations.[25]

[22] *See,* 52 Pa. Code § 57.195(g).
[23] *See,* 52 Pa. Code § 57.197(a).
[24] *See,* 52 Pa. Code § 57.198.
[25] *See,* 52 Pa. Code § 57.198(c).

Table 1 – Inspection and Maintenance Intervals

Program	Interval
Vegetation Management	**4-6 years**
Pole Inspections	**10-12 years**
Overhead Distribution Line Inspections	**1-2 years**
Overhead Transformer Inspections	**1-2 years**
Above-Ground Pad-Mounted Transformer Inspections	**5 years**
Below-Ground Transformer Inspections	**8 years**
Recloser Inspections	**8 years**
Substation Inspections	**5 weeks**

Section 3 – 2025 Outage Response Review

Reportable Outages

Tables 2 and 3, below, present a breakdown of reportable outage events (Reportable Outages)[26] summarized for 2025 (55 events) as compared to 2024 (71 events). The 71 Reportable Outages in 2024 were the most Reportable Outages in any year in the last 33 years (the first year that the Commission records date to is 1993).

Table 4 below details the number of Reportable Outages from 1994 through 2025. Note the number of Reportable Outages that occurred during the benchmark period from 1994 through 1998, as compared to the number that occurred in the period 2003 through 2012 and in each of the past 4 years. Some of the increase in Reportable Outages could be due to aging infrastructure that is impacted by weather, but Reportable Outages in recent years appear to be increasing in frequency for all EDCs, including those that have strong infrastructure improvement plans, as shown in Table 6 below. This information is highlighted to show that EDCs are expected to provide service at a level equal to or better than that provided during the benchmark period, regardless of whether Reportable Outages are increasing on an annual basis due to severe weather.

Table 5 below details the number of customers affected by Reportable Outages from 1994 through 2025. In 2025, a total of 2,884,067 customers were negatively affected by Reportable

[26] Service outages reports are required under 52 Pa. Code § 67.1. The reporting threshold for a 67.1 reportable outage event is five percent of total customers or 2,500 customers, whichever is less, for six or more consecutive hours. The reporting requirements are an initial phone call to the Commission when it is believed the threshold will be reached, followed by a written report 10 working days after the last customer is restored.

Outages, which is similar to the 2,882,795 customers affected in 2024. For reference 1,670,056 customers were impacted in 2023, 1,396,669 customers in 2022, 1,964,501 in 2021, and 2,431,842 in 2020.

Note: The high level of customers affected in 2011, 2012, 2014, and 2018 are primarily due to a few high-impact events, such as Irene in 2011, Sandy in 2012, Nika in 2014, and Riley/Quinn in 2018.

Table 6 below, details the cumulative number of Reportable Outages by EDC for the past 10 years (2015 through 2025).

Table 2 – 67.1 Reportable Outage Events Summary 2025

67.1 Reports 2025			
EDC	**Date**	**Customers Affected**	**Cause**
PPL	2/15/25	57,491	Winter Storm Jett (rain, snow, mix, winds)
Met-Ed	2/16/25	60,536	Winter Storm Jett (snow, mix, winds)
PECO	2/16/25	239,223	Winter Storm Jett (heavy rains, winds)
Penelec	2/16/25	12,392	Winter Storm Jett (snow, ice, winds)
West Penn	2/16/25	15,384	Winter Storm Jett (snow, ice, winds)
PECO	3/1/25	25,669	High winds & rain
Penelec	3/15/25	104,243	Severe thunderstorms
West Penn	3/15/25	68,081	Severe thunderstorms
PPL	3/16/25	30,974	Severe thunderstorms
PECO	4/4/25	13,416	Severe thunderstorms
Met-Ed	4/15/25	34,868	High winds
Penelec	4/15/25	23,935	High winds & rain
PPL	4/15/25	30,339	High winds
West Penn	4/15/25	30,479	High winds & rain
Penelec	4/19/25	21,031	Severe thunderstorms
West Penn	4/19/25	38,047	Severe thunderstorms
Penn Power	4/29/25	21,662	Severe thunderstorms
Penelec	4/29/25	150,192	Severe thunderstorms
PPL	4/29/25	13,845	Severe thunderstorms
DLC	4/29/25	265,305	Severe thunderstorms
West Penn	4/29/25	263,948	Severe thunderstorms
DLC	5/13/25	6,330	Broken pole - caused lockout
PPL	5/17/25	8,705	Severe thunderstorms
West Penn	5/17/25	18,995	Severe thunderstorms
PPL	5/30/25	26,530	Severe thunderstorms
Met-Ed	5/31/25	9,558	High winds & rain
PECO	6/19/25	368,786	High winds & rain
Met-Ed	6/22/25	18,974	Substation fire
PPL	6/22/25	13,461	Severe thunderstorms
West Penn	6/25/25	20,306	Severe thunderstorms
Met-Ed	6/30/25	39,273	Severe thunderstorms
PECO	6/30/25	54,005	Severe thunderstorms
PPL	6/30/25	25,587	Severe thunderstorms
PPL	7/2/25	6,477	Gas leak / forced outage
Penelec	7/3/25	33,210	Severe thunderstorms
PECO	7/8/25	53,732	Severe thunderstorms
Met-Ed	7/25/25	14,447	Severe thunderstorms
PPL	7/25/25	12,433	Severe thunderstorms
Met-Ed	10/30/25	26,070	High winds & rain
PPL	10/30/25	40,488	High winds
Met-Ed	11/5/25	29,430	High winds
Penelec	11/5/25	31,560	High winds
PPL	11/5/25	74,434	High winds
West Penn	11/5/25	12,268	High winds
Met-Ed	11/16/25	25,398	High winds
PPL	11/16/25	17,151	High winds
Met-Ed	12/19/25	57,048	High winds
PECO	12/19/25	74,667	High winds & rain
Penelec	12/19/25	16,459	High winds
PPL	12/19/25	84,878	High winds & rain
West Penn	12/19/25	19,302	High winds
Met-Ed	12/29/25	20,803	High winds
Penelec	12/29/25	43,325	High winds
PPL	12/29/25	29,501	High winds
West Penn	12/29/25	29,416	High winds
Totals	**55**	**2,884,067**	

Table 3 – 67.1 Reportable Outage Events Summary 2024

EDC	Date	Customers Affected	Cause
Met Ed	1/9/24	28,498	Heavy Rains & Winds
PECO	1/9/24	194,662	Heavy Rains & Winds
Penelec	1/9/24	112,452	Heavy Rains & Winds
PPL	1/9/24	56,953	Heavy Rains & Winds
Wellsboro	1/9/24	5,382	High Winds
West Penn	1/9/24	41,049	Heavy Rains & Winds
Met Ed	1/12/24	43,322	Heavy Rains & Winds
Penelec	1/12/24	52,463	Heavy Rains & Winds
PPL	1/12/24	93,638	Heavy Rains & Winds
West Penn	1/12/24	38,488	Heavy Rains & Winds
Met Ed	2/13/24	48,371	Winter Storm (Wet Snow)
PPL	2/13/24	128,308	Winter Storm (Wet Snow)
Met Ed	2/28/24	25,612	Heavy Rains & Winds
Penelec	2/28/24	29,785	Heavy Rains & Winds
PPL	2/28/24	34,325	Heavy Rains & Winds
Met Ed	3/10/24	44,822	Heavy Rains & Winds
PPL	3/10/24	46,040	Wind Event
PCL&P	3/11/24	2,500	Wind Event
Met Ed	3/23/24	7,827	Heavy Rains & Winds
PPL	3/23/24	13,365	Heavy Rains & Winds
Met Ed	4/2/24	26,768	Heavy Rains & Winds
PPL	4/2/24	71,718	Heavy Rains & Winds
PCL&P	4/3/24	390	Mixed Precipitation & Winds
PECO	4/3/24	30,259	Severe Tstorms
PPL	4/14/24	17,547	Heavy Rains & Winds
Penelec	4/16/24	20,326	Heavy Rains & Winds
West Penn	4/17/24	21,248	Severe Tstorms
DLC	4/17/24	18,244	Severe Tstorms
Met Ed	5/23/24	24,212	Severe Tstorms
PPL	5/23/24	23,718	Severe Tstorms
West Penn	5/26/24	10,740	Severe Tstorms
DLC	6/17/24	108,324	Microburst/Severe Tstorms
Penn Power	6/17/24	31,812	Severe Tstorms
West Penn	6/17/24	31,821	Severe Tstorms
PPL	6/21/24	51,217	Severe Tstorms
PECO	6/23/24	52,897	Heavy Rains & Winds
DLC	6/26/24	10,160	Tornadoes/Severe Tstorms
Met Ed	6/26/24	51,039	Severe Tstorms
PPL	6/26/24	114,581	Severe Tstorms
West Penn	6/26/24	21,649	Tornadoes/Severe Tstorms
DLC	7/10/24	12,240	Wind Event
West Penn	7/10/24	28,093	Wind Event
PECO	7/14/24	170,944	Severe Tstorms
PPL	7/15/24	78,561	Wind Event
UGI	7/15/24	4,709	Severe Tstorms
West Penn	7/15/24	16,283	Severe Tstorms & Winds
Met Ed	7/16/24	51,121	Severe Tstorms & Winds
Met Ed	8/3/24	10,780	Severe Tstorms & Heavy Rains
Met Ed	8/6/24	22,363	Severe Tstorms
Penn Power	8/6/24	23,951	Severe Tstorms

Table 3 (cont'd) – 67.1 Reportable Outage Events Summary 2024

EDC	Date	Customers Affected	Cause
PPL	8/6/24	21,577	Severe Tstorms
West Penn	8/6/24	19,232	Severe Tstorms
PECO	8/8/24	86,116	Severe Tstorms
Met Ed	8/9/24	34,750	Severe Tstorms
Penelec	8/9/24	22,265	TS Debby Remnants
PPL	8/9/24	61,180	TS Debby Remnants
DLC	9/6/24	9,201	Severe Tstorms
Met Ed	9/21/24	23,421	Severe Tstorms
West Penn	9/21/24	5,983	Heavy Rains & Winds
PPL	11/8/24	5,557	Wind Event
DLC	11/20/24	24,635	Severe Tstorms
West Penn	11/20/24	17,340	Severe Tstorms
Met Ed	11/21/24	16,654	Winter Storm (Snow)
Penelec	11/21/24	57,651	Winter Storm (Snow)
PPL	11/21/24	118,317	Winter Storm (Snow)
PECO	12/4/24	29,992	Heavy Rains & Winds
PPL	12/11/24	14,245	Heavy Rains, Winds, Snow
DLC	12/29/24	33,848	Severe Tstorms
Penelec	12/29/24	30,802	Heavy Rains & Winds
Penn Power	12/29/24	11,393	Heavy Rains & Winds
West Penn	12/29/24	33,059	Heavy Rains & Winds
Totals	**71**	**2,882,795**	

Table 4 – Total 67.1 Reportable Outages for EDCs 1994 through 2025

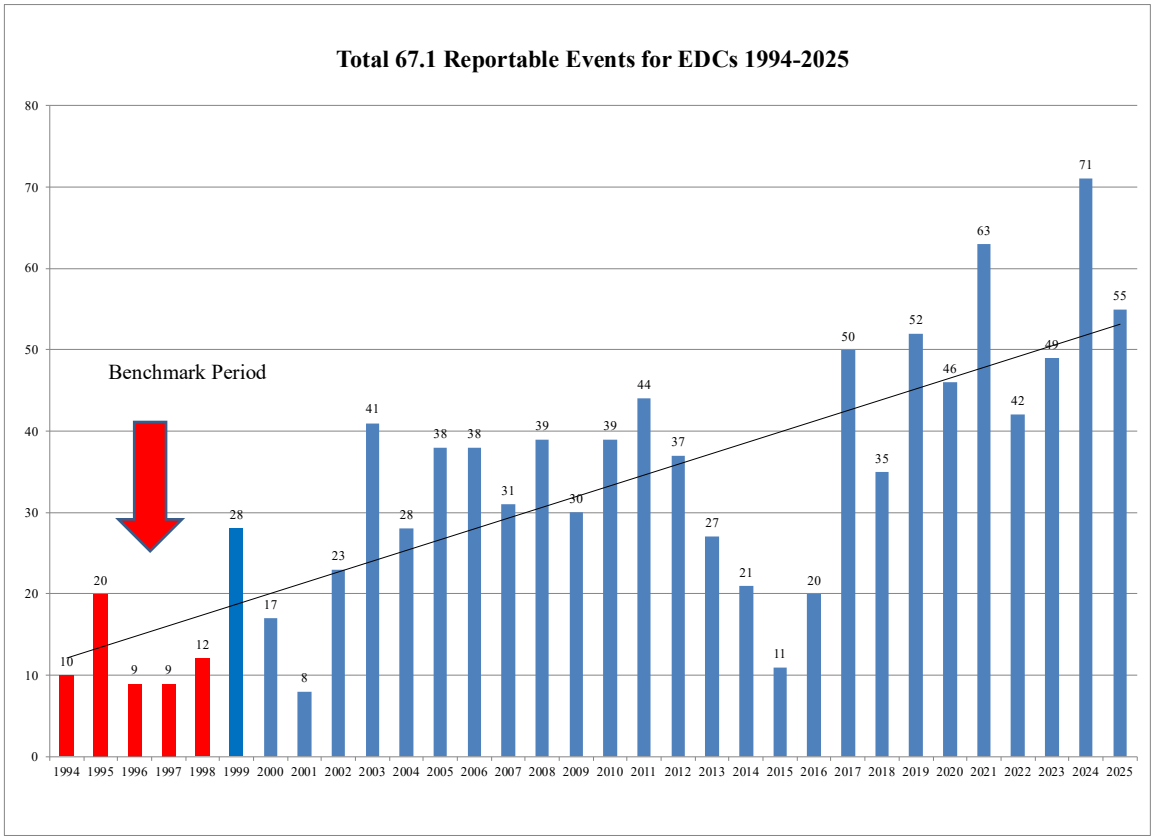


Table 5 – Total Customers Affected by 67.1 Reportable Outages 1994 through 2025

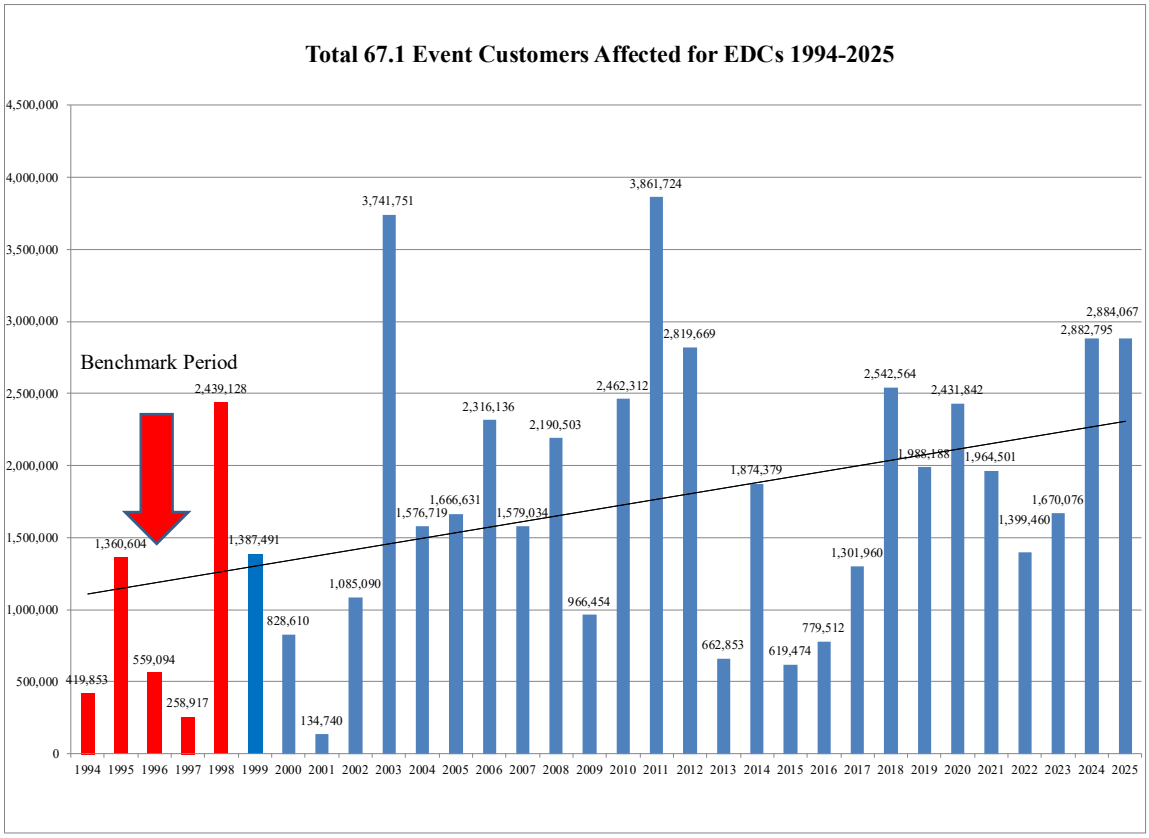
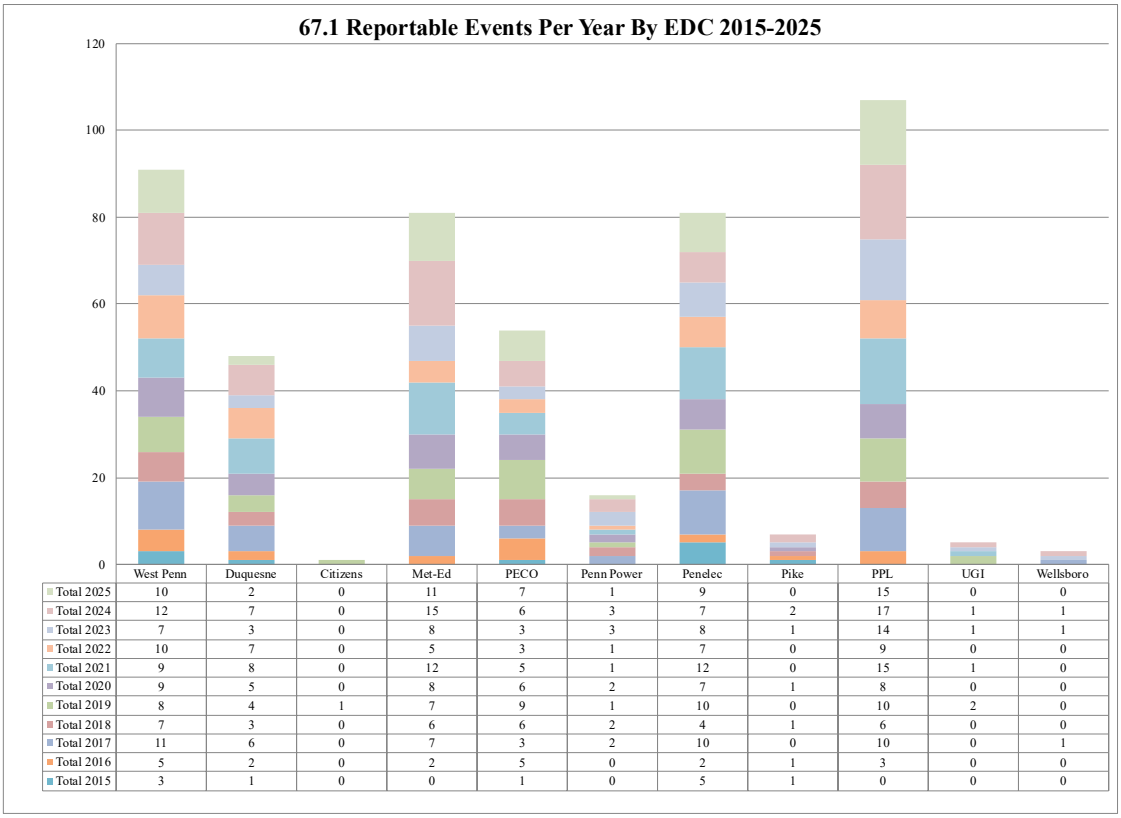


Table 6 – 67.1 Reportable Outages by EDC 2015 through 2025



	West Penn	Duquesne	Citizens	Met-Ed	PECO	Penn Power	Penelec	Pike	PPL	UGI	Wellsboro
Total 2025	10	2	0	11	7	1	9	0	15	0	0
Total 2024	12	7	0	15	6	3	7	2	17	1	1
Total 2023	7	3	0	8	3	3	8	1	14	1	1
Total 2022	10	7	0	5	3	1	7	0	9	0	0
Total 2021	9	8	0	12	5	1	12	0	15	1	0
Total 2020	9	5	0	8	6	2	7	1	8	0	0
Total 2019	8	4	1	7	9	1	10	0	10	2	0
Total 2018	7	3	0	6	6	2	4	1	6	0	0
Total 2017	11	6	0	7	3	2	10	0	10	0	1
Total 2016	5	2	0	2	5	0	2	1	3	0	0
Total 2015	3	1	0	0	1	0	5	1	0	0	0

Major Events

In 2025, the resilience of Pennsylvania's electrical system was again challenged with a substantial amount of storm activity as evidenced by the number of Reportable Outages. Although the number of Major Event Exclusion Requests approved decreased from 27 in 2024 to 20 in 2025, the number of customers affected rose to approximately 1.7 million in 2025 as compared to 696,295 in 2024, 601,122 in 2023, 114,539 customers in 2022, and 177,115 customers in 2021. Note that Major Events are excludable from an EDC's reliability indices and the additional customer outages and customer-minutes-interrupted are not added to the reliability indices.

Major Events for 2025 and 2024 are shown below in Tables 7 and 8, respectively.

Table 7 – Major Events for 2025

EDC	Date	Customers Affected	Cause	Total Customer Minutes Interrupted	Docket Number
Wellsboro	3/16/25	1,087	Tree	316,518	M-2025-3054031
PECO	2/16/25	239,223	High Wind and Trees	89,877,112	M-2025-3054158
Wellsboro	3/25/25	648	Equipment Failure	165,812	M-2025-3054194
FE PA (Met-Ed)	2/16/25	60,536	Winter Storm (Wind, Snow, Ice)	31,138,757	M-2025-3054308
FE PA (Penelec)	3/15/25	104,243	High Wind and Trees	51,222,063	M-2025-3054551
Wellsboro	4/15/25	1,674	High Winds and Trees	119,255	M-2025-3054606
FE PA (West Penn)	3/16/25	50,331	Tornadoes, High Winds	42,436,828	M-2025-3054845
PCLP	2/17/25	967	Trees	59,779	M-2025-3054874
PECO	1/9/25	194,662	High Winds, Lightning, and Rain	106,467,181	M-2025-3055030
DLC	4/29/25	265,305	Storms	*	M-2025-3055917
Wellsboro	7/6/25	1,294	Tree	181,160	M-2025-3056134
FE PA (Penn Power)	4/29/25	21,662	High Winds, Rain, and Trees	15,573,465	M-2025-3056625
FE PA (West Penn)	4/29/25	263,948	High Winds, Rain, and Trees	436,814,722	M-2025-3056626
FE PA (Penelec)	4/29/25	152,171	High Winds, Rain, and Trees	127,773,433	M-2025-3056624
PECO	6/19/25	377,090	High Winds, Rain, and Trees	329,497,583	M-2025-3056265
Wellsboro	8/4/25	2,120	Animal Contact and Equipment Failure	123,414	M-2025-3056669
PCLP	8/1/25	1,887	Tree	227,782	M-2025-3056764
Citizens;	8/4/25	1,492	Vehicle	126,286	M-2025-3057122
FE PA (Penelec)	7/3/25	7,755	Storms	11,266,652	M-2025-3058252
Wellsboro	11/5/25	1,100	High Winds	196,574	M-2025-3058363
Totals	**20**	**1,749,195**		**1,243,584,376**	

* DLC measures time of interuptions in kVA-Min and is not included in the total Customer Minutes Interupted.

Table 8 – Major Events for 2024

EDC	Date	Customers Affected	Cause	Total Customer Minutes Interrupted	Docket Number
Duquesne	6/17/24	108,324	Weather	481,738,959 kVA-Min.	M-2024-3050274
Citizen's	1/14/24	917	High Winds & Trees	120,342	M-2024-3045841
Citizen's	7/22/24	1,057	Animal Contact	72,356	M-2024-3050362
Citizen's	8/9/24	1,106	Heavy Rain	162,481	M-2024-3050667
Citizen's	8/25/24	771	Vehicle	83,268	M-2024-3051061
FE PA (Penelec)	1/9/24	112,452	Snow, Heavy Rain, and Strong Winds	42,905,779	M-2024-3047614
FE PA (Penn Power)	6/17/24	31,812	Storms with High Winds	16,111,637	M-2024-3050476
FE PA (Penn Power)	8/6/24	23,951	Thunderstorm	13,537,880	M-2024-3051416
PECO	1/9/24	194,662	High Winds, Lightning, and Rain	106,467,181	M-2025-3055030
PECO	7/16/24	170,944	High Winds	126,893,569	M-2024-3050784
Pike	1/7/24	765	Snow, Sleet and Rain	61,810	M-2024-3048740
Pike	2/16/24	2,138	High Winds & Tree	171,040	M-2024-3048773
Pike	3/11/24	2,506	High Winds	675,128	M-2024-3048774
Pike	11/25/24	1,926	Tree	362,495	M-2025-3053104
UGI	7/28/24	9,384	Transformer Failure	213,836	M-2024-3050881
UGI	7/15/24	8,302	Severe Storms	3,352,472	M-2024-3051257
UGI	6/21/24	6,373	Thunderstorm	1,097,330	M-2024-3050504
Wellsboro	1/9/24	5,382	High Winds & Trees	2,129,900	M-2024-3045442
Wellsboro	2/28/24	2,193	High Winds & Trees	185,742	M-2024-3047008
Wellsboro	5/2/24	1,735	Animal Contact	173,370	M-2024-3048843
Wellsboro	6/12/24	1,738	Equipment Failure	40,948	M-2024-3049542
Wellsboro	6/17/24	1,388	Animal Contact	199,183	M-2024-3049590
Wellsboro	6/20/24	1,738	Animal Contact	42,000	M-2024-3049705
Wellsboro	7/15/24	1,837	High Winds & Trees	1,223,750	M-2024-3050232
Wellsboro	10/13/24	1,078	High Winds & Tree	98,653	M-2024-3051624
Wellsboro	10/14/24	735	High Winds & Tree	62,340	M-2024-3051623
Wellsboro	11/28/24	1,078	High Winds & Tree	150,057	M-2024-3052366
Totals	**27**	**696,292**	**Totals - not including Duquesne**	**316,594,547**	

Review of Long-Duration Outage Events

Two weather events in 2025 led to long duration electric outages lasting six or more days for some customers.

On April 29, 2025, a powerful, long-duration line of thunderstorms moved across parts of the Midwest and Northeast United States causing widespread damage and extensive power outages (April Storm). The April Storm significantly impacted parts of Southwestern, Western, and Central PA and caused extensive damage to the service territories of the DLC and FE PA, specifically West Penn and Penelec. On Friday, May 2, 2025, thunderstorms in the late afternoon and early evening caused an additional 4,000 DLC customers to lose power. These additional storms complicated DLC's response, but the damage and customer outages were minimal compared to the original event. In terms of the peak outages caused by the April Storm, over 99% of FE PA customers and 93.9% of DLC customers were restored by 8:00 p.m. on May 4. The last West Penn customers were restored on May 6 at 9:10 a.m. and all DLC customers were restored by May 9 at 11:37 a.m. The April Storm warranted a TUS review of the EDCs' preparation and response. The Commissions' report based on this review contained 25 findings and 10 recommendations.[27] Key recommendations included that DLC engage a third party with expertise in electric utility storm response to review DLC's storm response process and that EDCs should re-establish the EDC Storm Response Best Practice Group to focus on deliverable outcomes for improving EDC storm response. It was also recommended that EDCs consult with experts on climate and weather and EDCs from storm-prone states with the goal of ensuring that the Pennsylvania EDCs are taking prudent steps to address storm hardening and resiliency. TUS is working with DLC and the other EDCs on the implementation of some of the recommendations.

On June 19, 2025, PECO reported 368,786 outages caused by heavy rain and winds that downed tree limbs onto power lines. Service was restored to the last affected customer at 2:04 p.m. on June 27, 2025. On July 7, 2025, PECO filed a request for Exclusion of a Major Outage for reliability reporting purposes and on Sept. 29, 2025, following a review of the events, TUS approved the request via Secretarial Letter.[28]

Section 4 – EDC Reliability Performance Data

Statewide Summary

Rolling 12-month Benchmark Performance Compliance

The 2025 end-of-year reliability data for 12-month CAIDI, SAIDI, and SAIFI Benchmark performance compliance submitted by the 11 EDCs is presented below. **Note that a zero or negative percentage indicates positive performance at or below the benchmark**. The data indicates that:

[27] The report is available at: https://www.puc.pa.gov/media/3768/25_tus_puc-april-2025-storm-report_final.pdf.
[28] *See,* Secretarial Letter served Sep. 29, 2025, at Docket No. M-2025-3056265.

Four EDCs achieved the **CAIDI Benchmark**, while seven of the EDCs failed to achieve the CAIDI benchmark (Figure 1 below).

Five EDCs achieved the **SAIDI Benchmark**, while six EDCs failed to achieve the SAIDI benchmark (Figure 2 below).

Four EDCs achieved the **SAIFI Benchmark**, while seven EDCs failed to achieve the SAIFI benchmark (Figure 3 below).

Figure 1 – 2024 CAIDI Comparison (percent above or below benchmark)

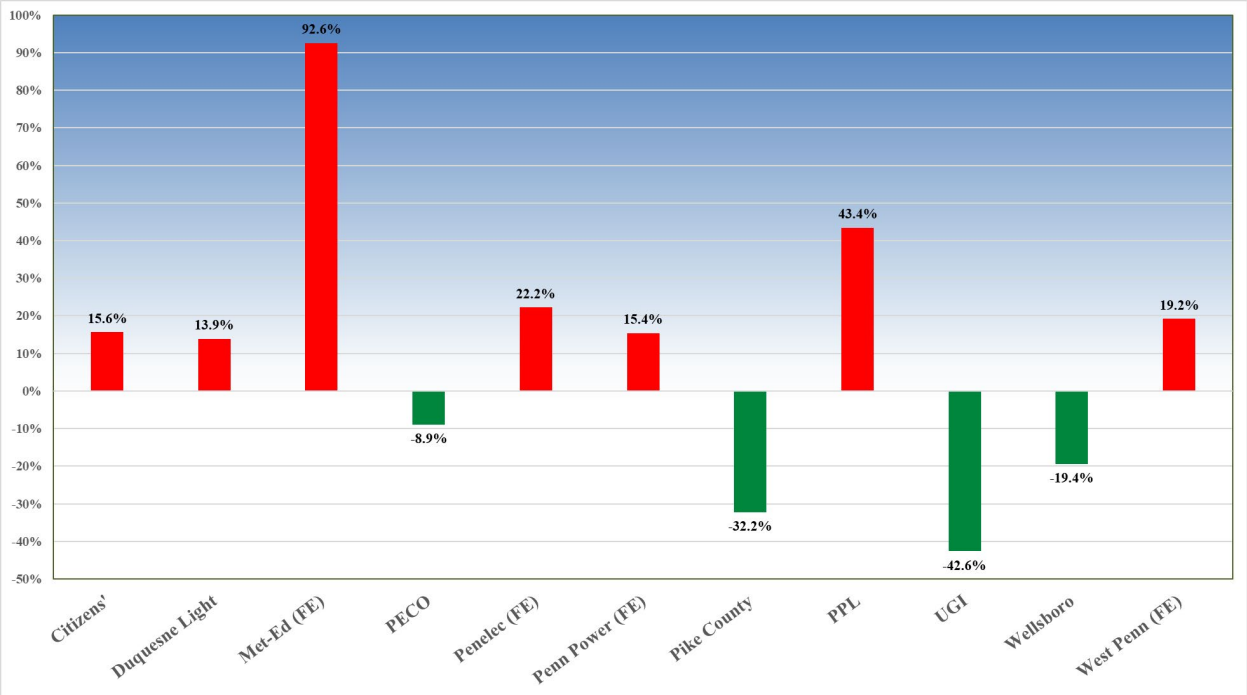


Figure 2 – 2025 SAIDI Comparison (percent above or below benchmark)

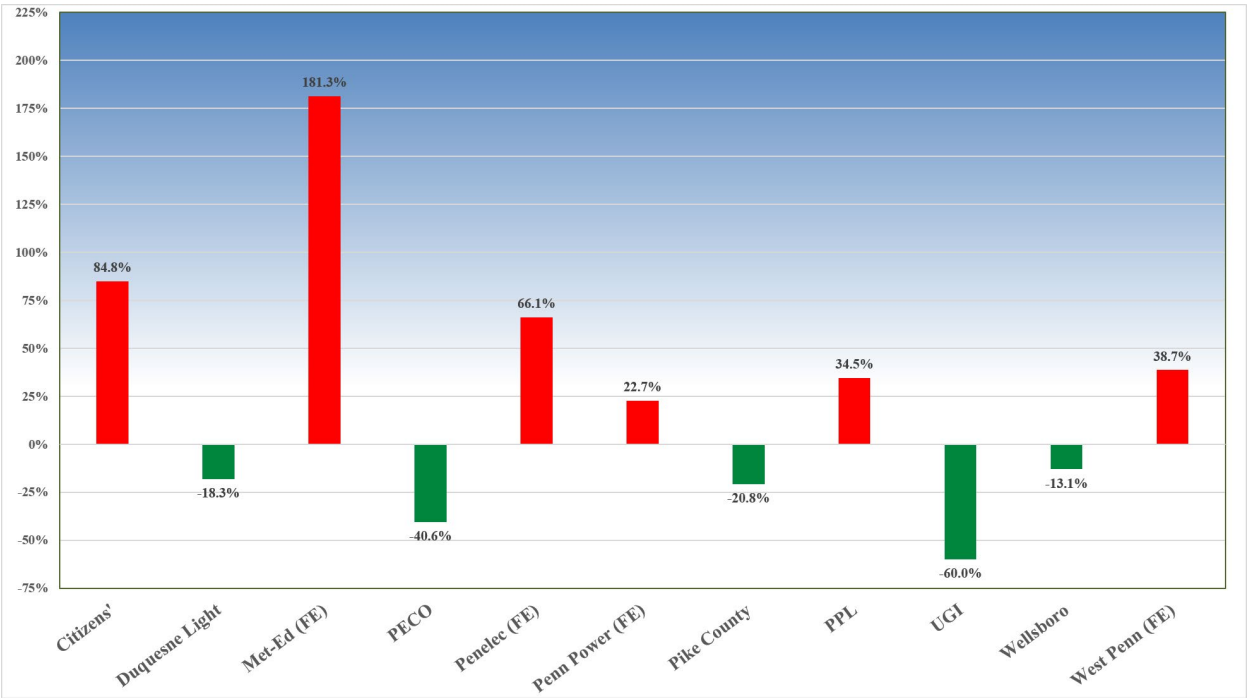
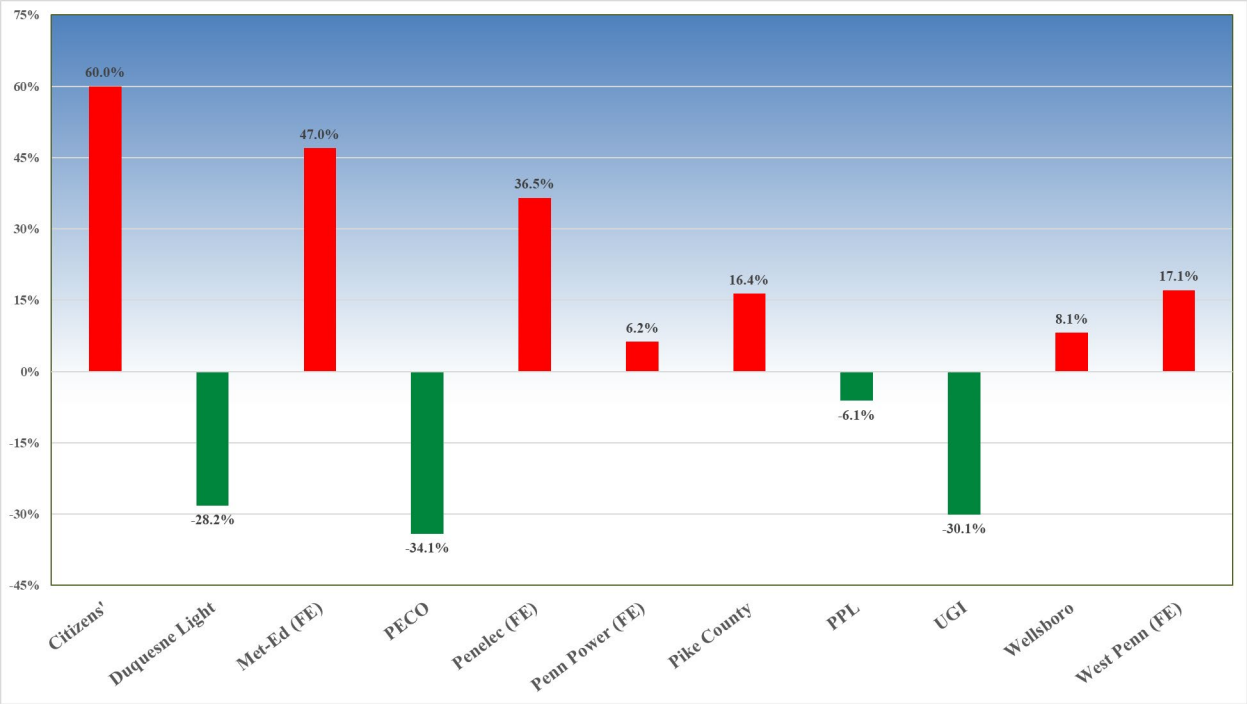


Figure 3 – 2025 SAIFI Comparison (percent above or below benchmark)



Rolling 3-year Average (2023 through 2025) Performance Compliance

Appendix A provides the 2025 results for the 12-month average and 3-year average reliability performance indices for individual EDCs.

Seven EDCs failed to meet the rolling 3-year **CAIDI performance standard** with only PECO, Pike County, UGI, and Wellsboro meeting the standard.

Five EDCs (Citizens', Met-Ed, Penelec, Pike County, and West Penn) failed to meet the rolling 3-year **SAIFI performance standard**.

Five EDCs (Citizens', Met-Ed, Penelec, PPL, and West Penn) failed to meet the rolling 3-year **SAIDI performance standard**.

Utility-Specific Performance Data

The Commission compares reliability indices on a quarterly basis, using data obtained for the preceding 12 months. This periodic assessment determines the status of electric service reliability on an ongoing basis and is instrumental in identifying negative trends. The 3-year average performance is measured at the end of each calendar year, using the average of the past three end-year indices, as indicated in Appendix A. The following sections provide a detailed description of the 11 EDCs' individual reliability performance on a rolling 12-month and 3-year average basis.

Citizens' Electric Company

Citizens' Electric Company (Citizens') has an operating service area of about 41 square miles with an average number of customers served in 2025 of 7,232. The electric system consists of one distribution substation and nine distribution feeder lines.

In 2025, Citizen's experienced 2,314 customer interruptions and 280,900 Customer Minutes Interrupted (CMI), as compared to 3,209 customer interruptions and 461,213 CMI in 2024.

Citizens' requested the exclusion of four Major Events for reliability reporting purposes in 2025. These Major Events impacted over 3,851 customers and are not reflected in the reliability indices described below.

CAIDI/SAIDI/SAIFI Evaluation

CAIDI

Rolling 12-month: Decreased from 144 minutes/customer in 2024 to 121 minutes/customer in 2025; failed to achieve benchmark by 15.6%.

3-year average: Decreased to 118 minutes/customer in 2025 but failed to meet its standard of 115 minutes/customer by 3.0%.

SAIDI

Rolling 12-month: Decreased from 64 minutes/customer in 2024 to 39 minutes/customer in 2025; failed to achieve benchmark by 84.8%.

3-year average: Increased from 40 minutes/customer in 2024 to 44 minutes/customer in 2025; failed to achieve standard by 76.1%.

SAIFI

Rolling 12-month: Decreased from 0.45 outages/customer in 2024 to 0.32 outages/customer in 2025; failed to achieve benchmark by 60%.

3-year average: Increased from 0.35 outages/customer in 2024 to 0.36 outages/customer in 2025; failed to achieve standard by 65.2%.

CAIDI and SAIFI Performance

Historical rolling 12-month CAIDI and SAIFI benchmark reliability performance trends are shown below in Figures 4 and 5. Beginning in 2004, Citizens' CAIDI performance has been

overall positive for most years, with improved performance in 2025.[29] However, additional management attention is needed to achieve CAIDI performance below the "green" benchmark performance upper-control-limit-line. Citizens' may consider looking at further sectionalizing of the system to lessen the impacts of outage events, in addition to reducing outage events from occurring through storm hardening and vegetation management.

Beginning in 2004, Citizens' SAIFI performance has been inconsistent. From the 4th quarter 2011 through the 4th quarter 2025, Citizens' SAIFI performance has frequently been above the "green" benchmark performance upper-control-limit-line. Citizens' SAIFI performance in 2020 was excellent and well below the benchmark. However, from 2022 through 2025, Citizens' has not met the SAIFI benchmark or 12-month standard. More management attention is needed to ensure consistent SAIFI performance is sustained below the "green" benchmark performance upper control-limit-line.

Outage Causes

Figure 6 below shows the top five reported 2025 outage-cause categories, as a percentage, for the following three distinct performance metrics: CMI, Customers Affected, and Number of Incidents.

Off rights-of-way (OROW) trees, Animal, and Equipment were the top causes for CMI and the top contributors to the number of incidents. Figure 7 below shows the historical trend of the top three main outage causes. OROW trees, Equipment, and Animals are the three most frequent outage causes that are significantly negatively affecting Citizens' distribution system reliability and resilience.

Citizens' noted that trees were again the most impactful cause of outages in 2025, accounting for 51% of total outages. All tree-related outages were attributed to OROW trees and accounted for 94% of the total CMI. Equipment failures were second-most in frequency and were mainly a result of failed porcelain cutouts and lightning arrestors. Citizens' indicated that it continues to emphasize hazard tree identification and removal with employees, tree contractors and customers. In 2026, Citizens' indicated that it would focus more effort on mowing and clearing of three-phase ROW to reduce the amount of clearing that will need to be done in future years. The system will continue to be built to standards that typically exceed the NESC. Also, the Company will continue to evaluate new equipment, techniques and trends to benefit reliability while monitoring industry best practices regarding storm hardening

[29] Smaller CAIDI, SAIFI, and SAIDI benchmark values are typical for companies with fewer customers. While Citizens' did not achieve benchmark for any of the three reliability indices in 2024, its indices values for 2025 are still much lower than that of all other EDCs.

General Reliability

Citizens' indicated that it was again recognized in 2025 as a "Tree Line USA" utility. This award from the National Arbor Day Foundation recognized Citizens' for the 23rd consecutive year for its use of nationally approved trimming techniques and procedures in its vegetation management program. The Company continues to partner with the Penn State Extension for its annual educational session. Citizens' also noted that it continues to participate in and gather information from various industry best practices groups. These groups include members from diverse utility groups such as the Pennsylvania Rural Electric Association, the Energy Association of Pennsylvania, and the National Rural Electric Cooperative Association. The Company will continue to implement best practices defined by these groups as appropriate.

Conclusion

Citizens' consistently achieved annual benchmark performance in CAIDI from 2018 through 2023. TUS expects Citizens' to attain benchmark performance again in the near future. Citizens' mowing and clearing of three-phase ROW, as described above, should help with both SAIFI and CAIDI and reduce the number of incidents due to trees. Citizens' SAIFI performance continues to show signs of erratic performance. SAIDI performance was significantly improved from 2024 but did not achieve standard for 2025. Citizens' should continue to refine its processes and methods to improve this performance.

The Commission recommends continued and increased efforts in vegetation management and an emphasis on improving response times. The Commission recognizes overall that Citizen's appears to be making improvements in CAIDI as witnessed by the data shown below. As can be seen in Figures 8 through 9 below, Citizens' will need to work to regain a positive trend for customers interrupted, CMI, and outages.

Figure 4 – Citizens' CAIDI (minutes)

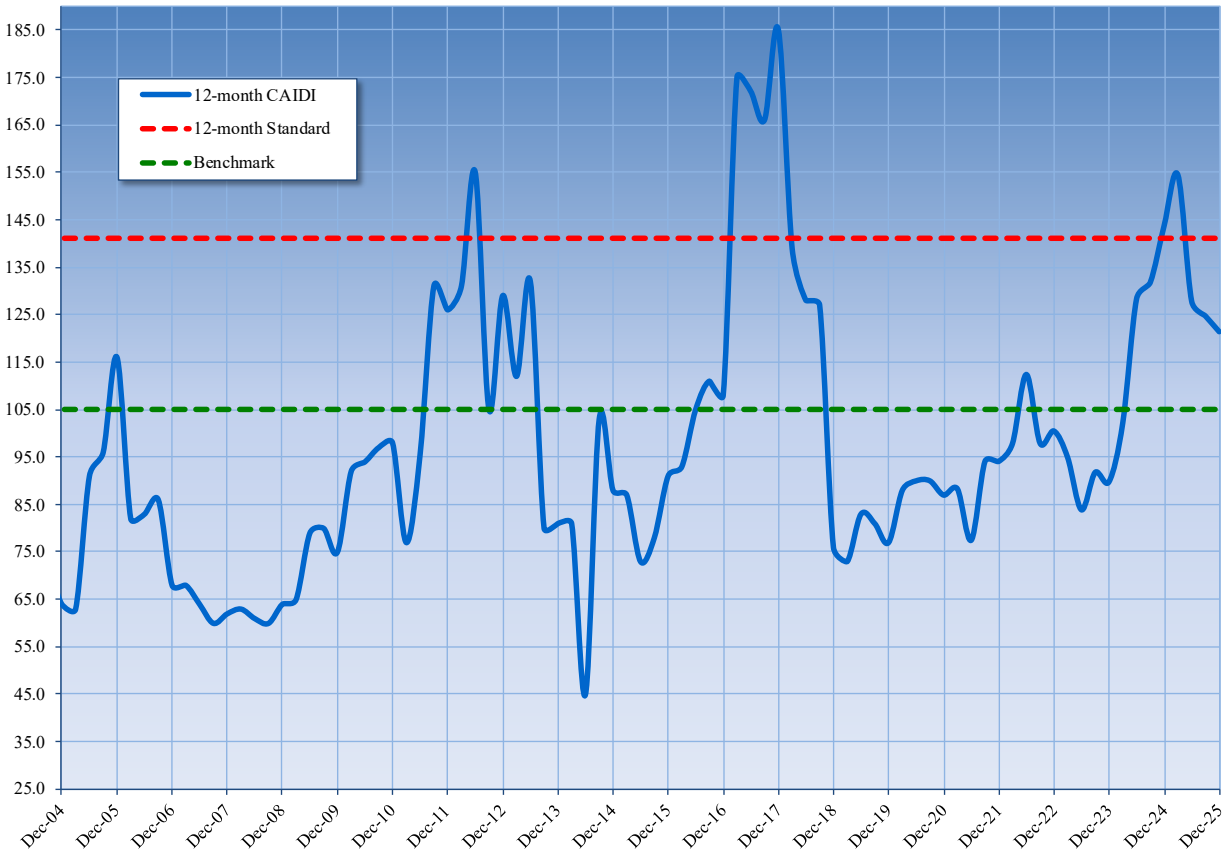


Figure 5 – Citizens' SAIFI (interruptions per customer)

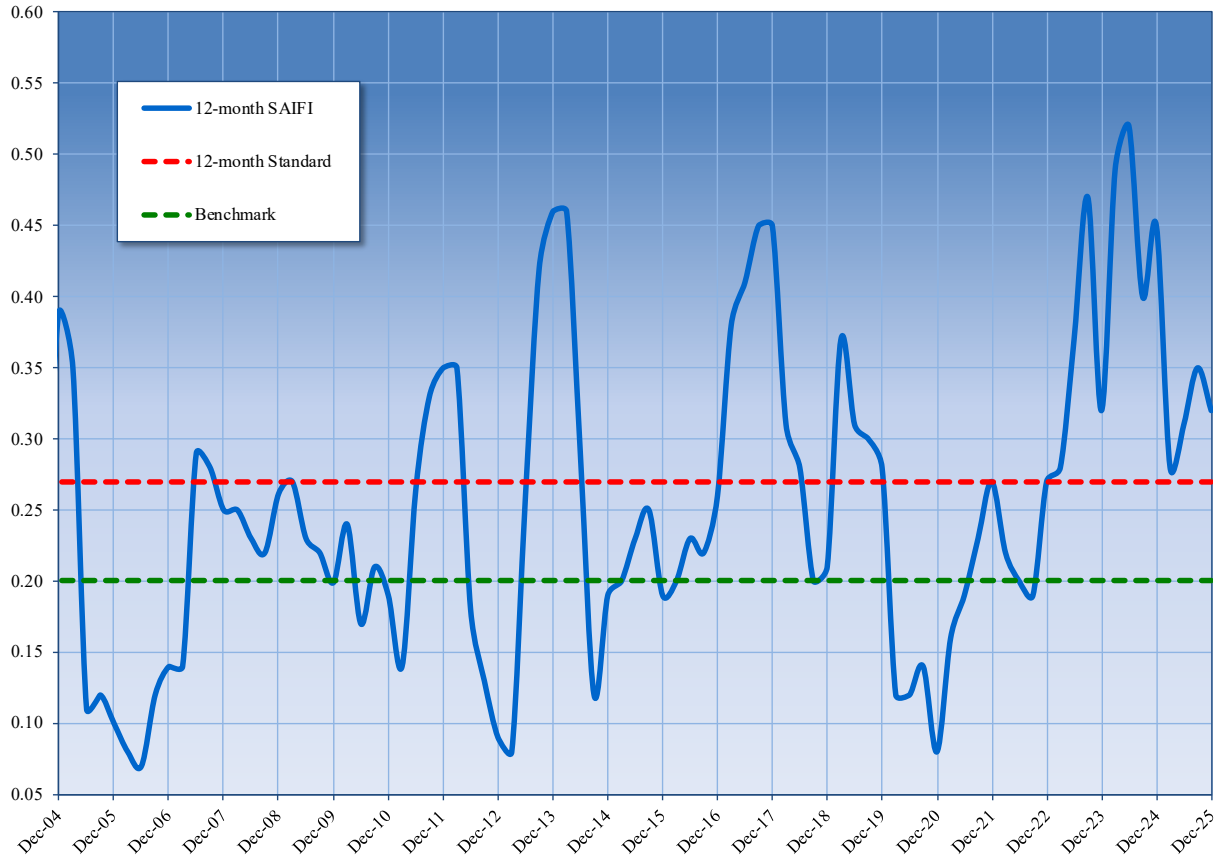


Figure 6 – Citizens' Outage Causes (percent of total outages)

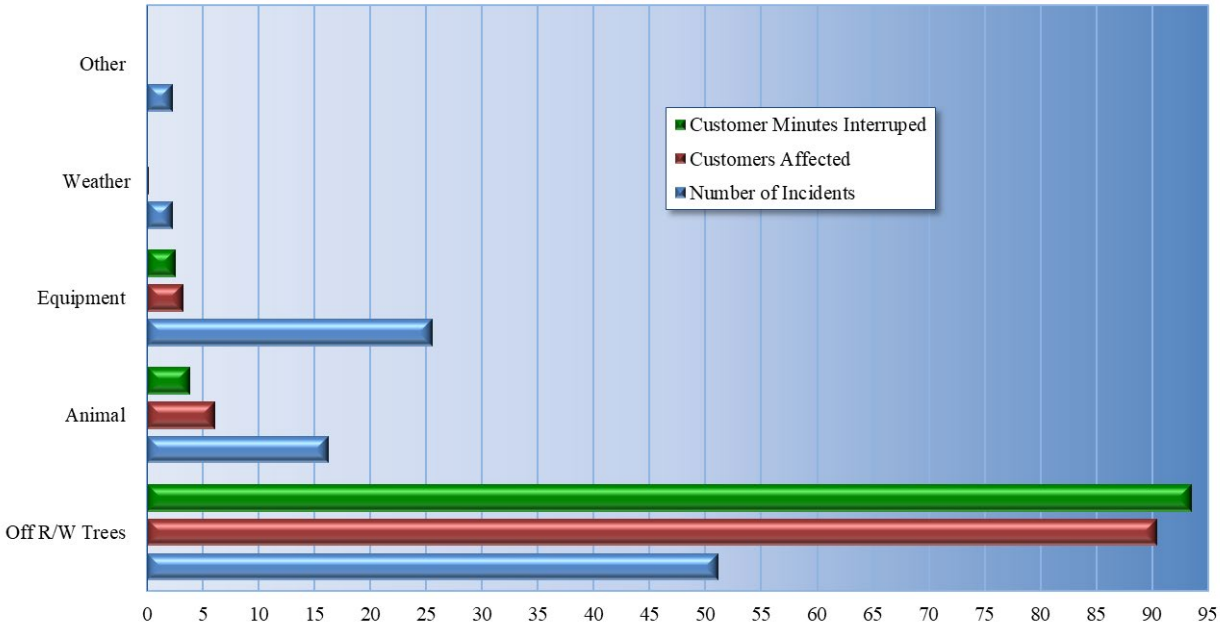


Figure 7 – Citizens' Outage Cause Tracking (number of incidents)

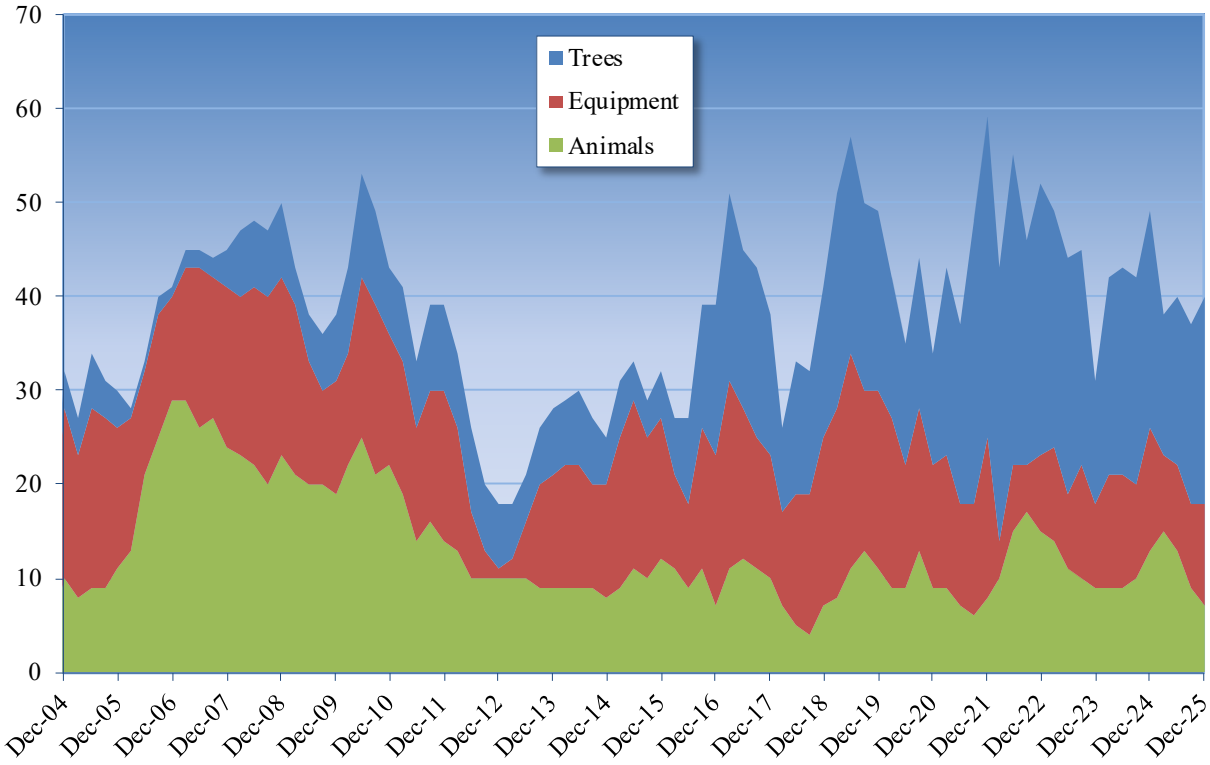


Figure 8 – Citizens' Outage Tracking (number of Customers Interrupted)

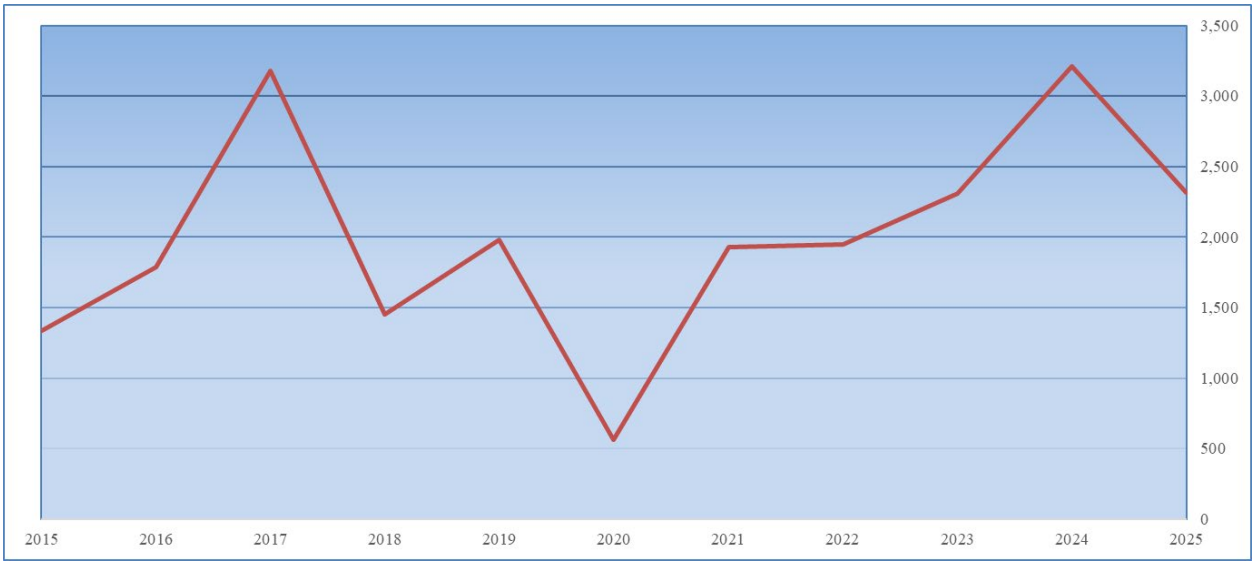


Figure 9 – Citizens' Outage Tracking (Customer-Minutes of Interruptions, or CMI)

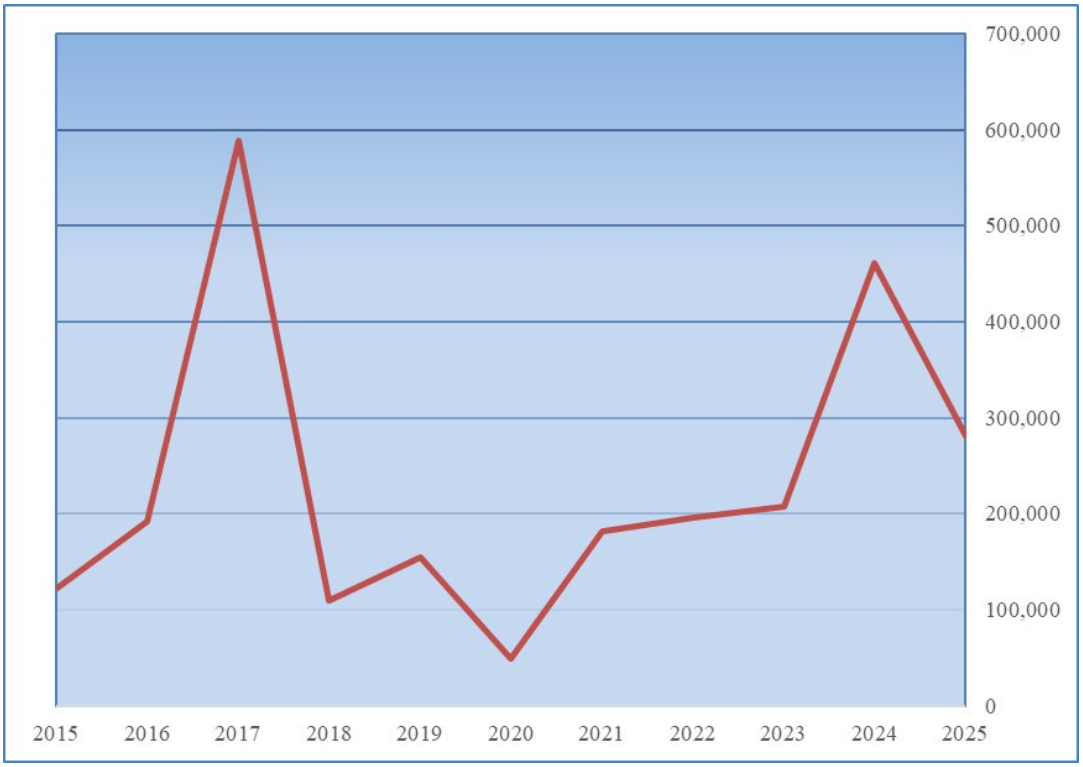
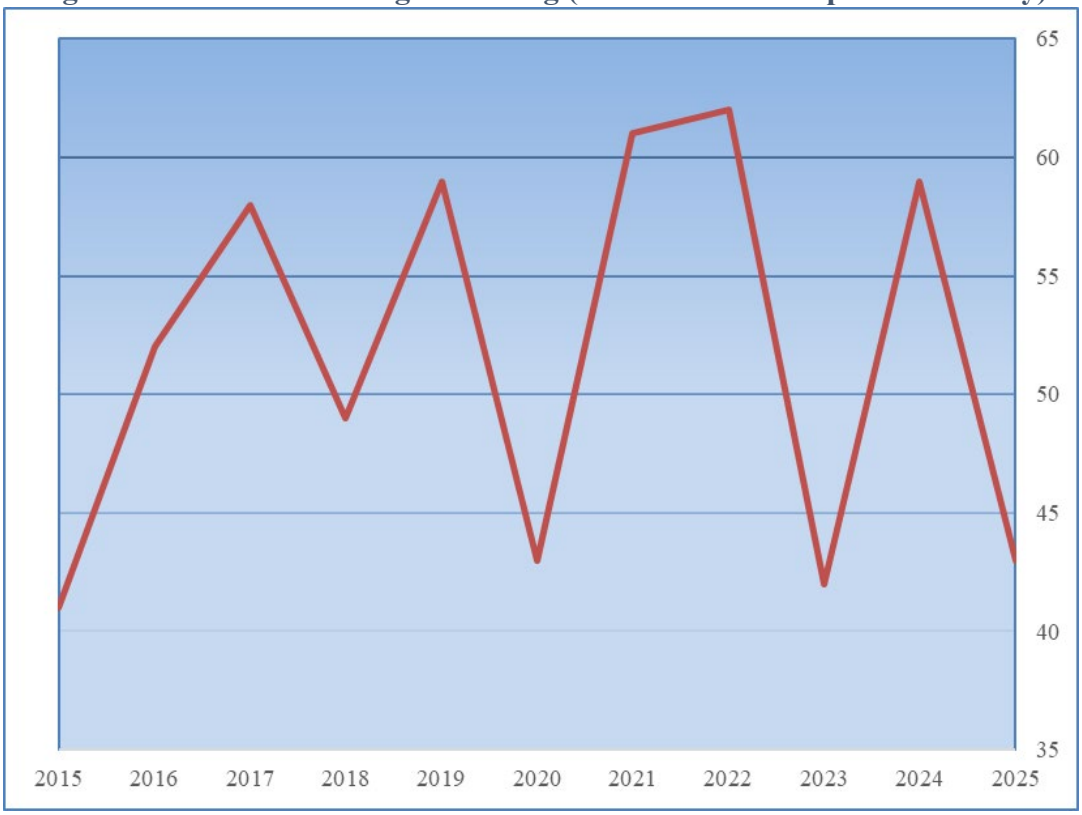


Figure 10 – Citizens' Outage Tracking (number of interruptions annually)



Duquesne Light Company

Duquesne Light Company (DLC) has a service territory of about 817 square miles with a well-developed distribution system serving approximately 612,752 customers.

In 2025, DLC experienced 6.63 million kilovolt-amps (kVA) of customer interruptions and 813.75 million kVA-minutes of CMI as compared to 6.4 million kilovolt-amps (kVA) of customer interruptions and 1,003 million kVA-minutes of CMI in 2024, and 4.5 million kVA of customer interruptions and 502 million kVA-minutes of CMI in 2023.

DLC requested the exclusion of one Major Event in 2025 for reliability reporting purposes as discussed above in Section 3. The Major Event impacted approximately 210,857 customers and is not reflected in the totals above.

CAIDI/SAIDI/SAIFI Evaluation

CAIDI

Rolling 12-month: Decreased from 156 minutes/customer in 2024 to 123 minutes/customer in 2025; failed to achieve benchmark by 13.9%.

3-year average: Decreased from 137 minutes/customer in 2024 to 130 minutes/customer in 2025; failed to achieve standard by 8.8%.

SAIDI

Rolling 12-month: Decreased from 127 minutes/customer in 2024 to 103 minutes/customer in 2025; achieved its benchmark by 18.3%.

3-year average: Decreased from 108 minutes/customer in 2024 to 98 minutes/customer in 2025; achieved standard by 36.2%.

SAIFI

Rolling 12-month: Increased from 0.82 outages in 2024 to 0.84 outages; achieved benchmark by 28.2%.

3-year average: Decreased from 0.77 outages in 2024 to 0.74 outages in 2025; achieved standard by 42.4%.

CAIDI and SAIFI Performance

Historical rolling 12-month CAIDI and SAIFI benchmark reliability performance trends are shown in Figures 11 and 12 below. DLC's CAIDI performance in 2025 improved from its performance in 2024, as seen in Figure 11, and achieved the standard but failed to meet the benchmark. Management should place significant emphasis upon achieving CAIDI results at or below the "green" benchmark performance upper-control-limit-line for CAIDI. CAIDI is an important factor in gauging an EDC's response times.

Beginning in 2004 and continuing through 2025, DLC's annual SAIFI performance trend has been positive, as shown in Figure 12. DLC is considered an excellent SAIFI performer. The Commission commends DLC for that accomplishment and encourages use of distribution system automation systems (smart grid systems).

Outage Causes

Figure 13 below shows the top five reported outage-cause categories reported by DLC in 2025, as a percentage, for the following three distinct performance metrics: kVA Minutes Interrupted, kVA Interrupted, and Number of Incidents. Trees OROW were the top cause of outages and Storms were the top cause of kVA minutes Interrupted.

Figure 14 below shows the historical trend of the top three main outage causes. Trees and equipment failures are the two most frequent outage causes that are negatively affecting DLC's distribution system reliability and resilience, as well as almost every EDC in Pennsylvania. DLC should continue to aggressively pursue cooperation with customers in removal of OROW vegetation that endangers distribution circuits. As noted by TUS in previous years' reports, the reported outage-cause category of "Storms" should be reconsidered and eliminated to spread

outages among more defined areas such as vegetation or equipment failures. It can be reasoned that the category of "Storms" only reveals other system deficiencies, such as equipment failure and vegetation trimming deficiencies.

General Reliability

In its Annual Reliability Report filed with the Commission, DLC noted that achieving outstanding performance in system reliability continues to be one of its most important long-term objectives. DLC's Asset Management and System Planning Groups perform ongoing analysis of reliability indices, root cause analysis of outages, and tracking and monitoring of other performance measures to identify improvement opportunities and optimize reliability. DLC stated that this long-term process includes making recommendations for capital projects such as circuit rehabilitation, new substations, and distribution circuits. This process also includes implementation of new advanced protection and coordination schemes on the distribution system that better localize customer outages and reduce momentary outages.

DLC stated that it continues its Emergent Work Process, which is used to identify problems, set priorities, and resolve reliability issues as quickly as possible. DLC field personnel perform daily field inspections, and any abnormalities are logged into a database. This database is reviewed regularly, and any high-priority problems are identified, and a course of action is determined. Analysis at the device level is used to identify small areas where customers have experienced multiple outages. Assessing only system-level or even circuit-level data may mask these isolated problems.

DLC indicated that its capital budget for 2025 included projects to meet customer service requests and projects targeting distribution reliability and resiliency, including pole replacement, vegetation management, circuit voltage conversions, Underground Residential Development (URD) rehabilitation, and construction of a new substation.

DLC noted the following specific programs, procedures, and ongoing maintenance activities supporting its reliability efforts:

A Distribution Overhead Line Inspection Program, which includes infrared inspections that systematically identifies circuit problems for remedial action in advance of failure.

Vegetation Management Maintenance Programs with the goal of reducing tree and branch failures through proactive pruning and removal to manage proper clearances. DLC finds that this program will help reduce the frequency of outages by addressing targeted tree failure conditions that typically result in physical damage to its facilities.

An all-pulse-reclosing protection technology has been implemented on some 23kV circuits. This technology eliminates traditional "hard reclosing," thereby making it easier and faster to conduct repairs and restore circuits to normal operation, which enables customers to be restored more quickly. This technology also reduces stress and damage to the entire circuit since the breaker is no longer required to trip, also contributing to the reduction in momentary outages to customers.

Line maintenance work of various types is regularly performed to maintain distribution plant. This work includes replacement of cross arms, arrestors, insulators, and other equipment on the overhead system as well as inspections and remedial work on the underground system.

Storm Preparedness Training is conducted each year, and Storm Review Meetings are held following major events. These meetings focus on the successes and challenges of the most recent emergency service restoration effort. Service restoration process improvements are made as needed to improve response time and effectiveness during the next restoration effort.

DLC also noted that it is implementing its second LTIIP to accelerate its infrastructure improvement program, which spans Jan. 1, 2023, through Dec. 31, 2028.[29]

Conclusion

DLC's 2025 SAIFI and SAIDI performance are below both the benchmark and standard, while CAIDI performance is above the benchmark but below the standard. DLC attributes this to unusually bad weather, including 5 non-excludable storm events in 2025.

Trees OROW and Equipment Failure are the top two outage causes that substantially negatively affect electrical reliability to DLC customers and contributed to over 51% of the total number of incidents and 60% of lost CMI (DLC uses kVA-minutes interrupted) in 2025.

Trees, especially OROW trees, continue to be a chronic problem for DLC, as well as every EDC in Pennsylvania. The Commission recommends continued and increased efforts in vegetation management and emphasis on response times.

As shown in Figures 15 through 17, for 2025, DLC experienced a reversal in its positive trend in its kVA interrupted, kVA minutes of interruption, and kVA interruptions. DLC should continue to implement its programs to ensure consistent reliability performance to return to its 2023 levels of performance.

Figure 18 below is included to indicate a growth in the number of customers served. Because DLC records their service indicators in kVA rather than customers individually, it is difficult to measure actual impact upon customers. However, the trends in kVA should relate to the impact on customers.

[29] *See, Petition of Duquesne Light Company for Approval of its Second Long-Term Infrastructure Improvement Plan*, Docket No. P-2022-3032805.

Figure 11 – DLC CAIDI (minutes)

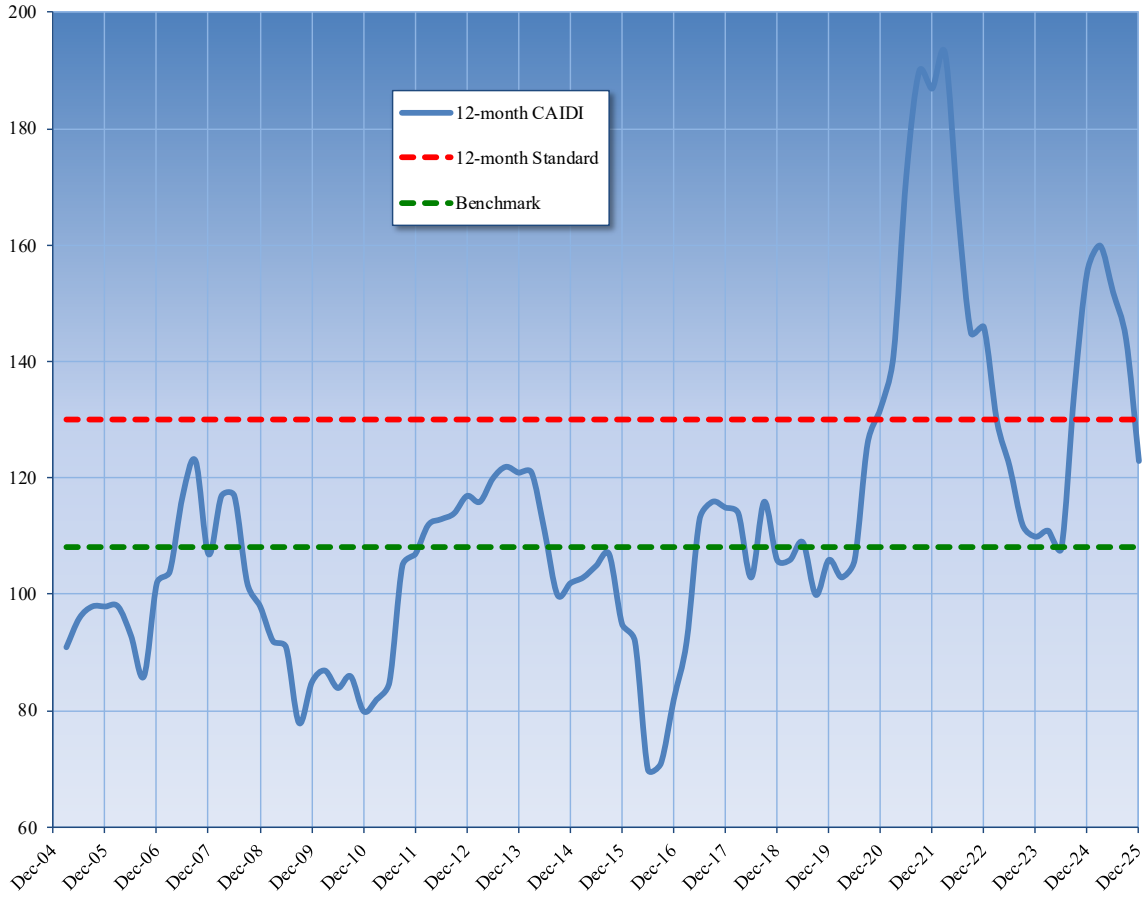


Figure 12 – DLC SAIFI (interruptions per customer)

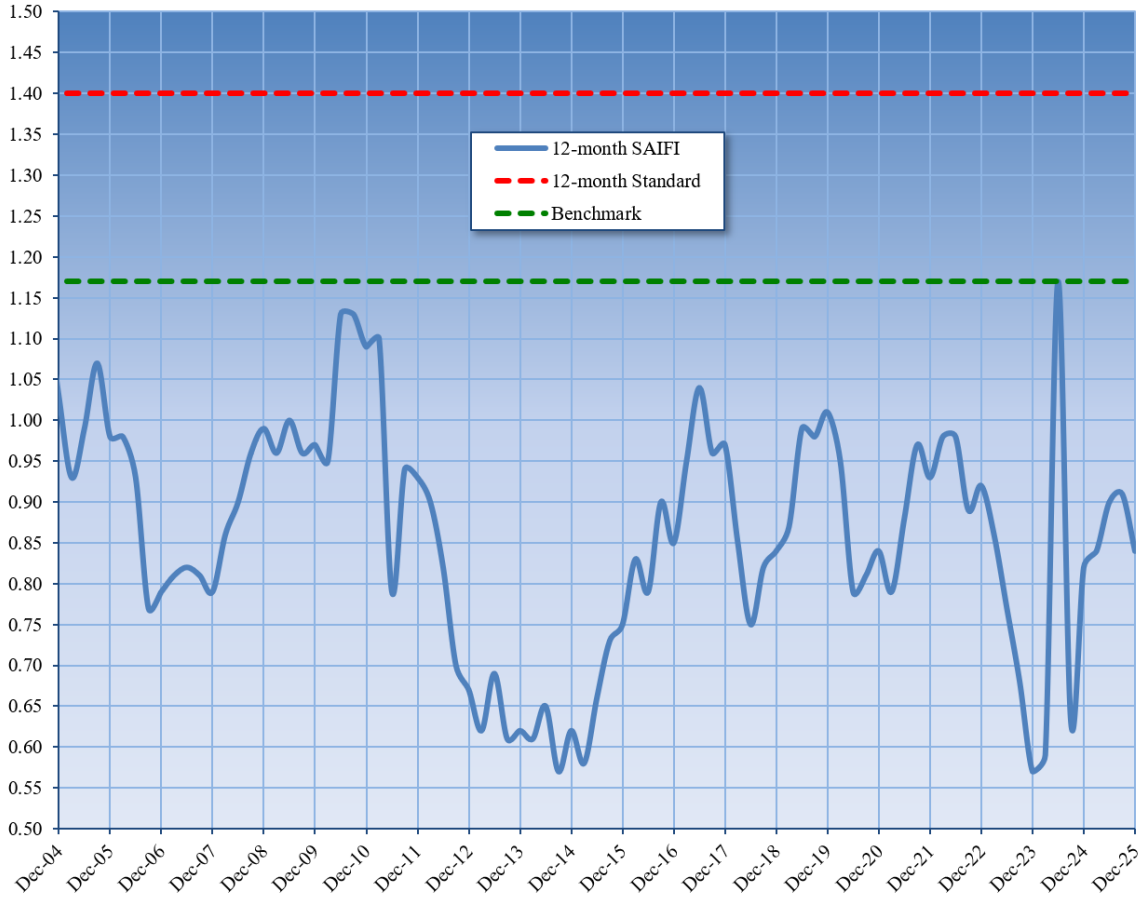


Figure 13 – DLC Outage Causes (percent of total outages)

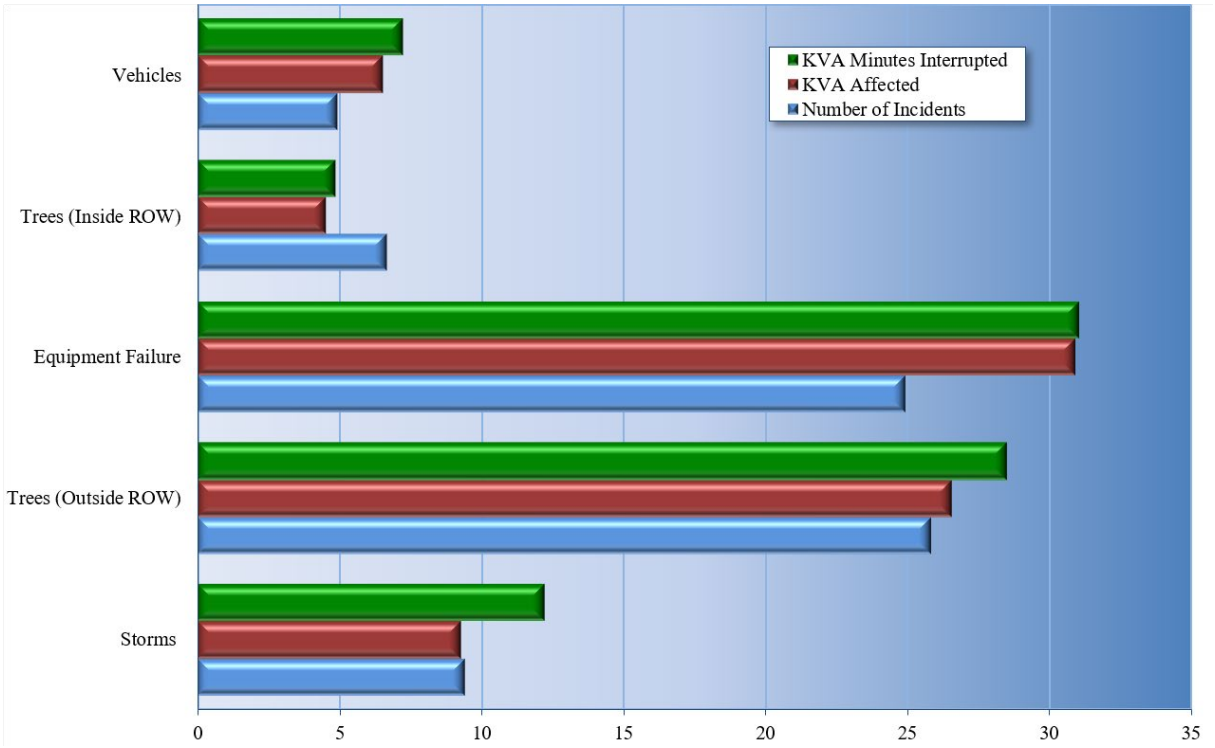


Figure 14 – DLC Outage Tracking (number of incidents)

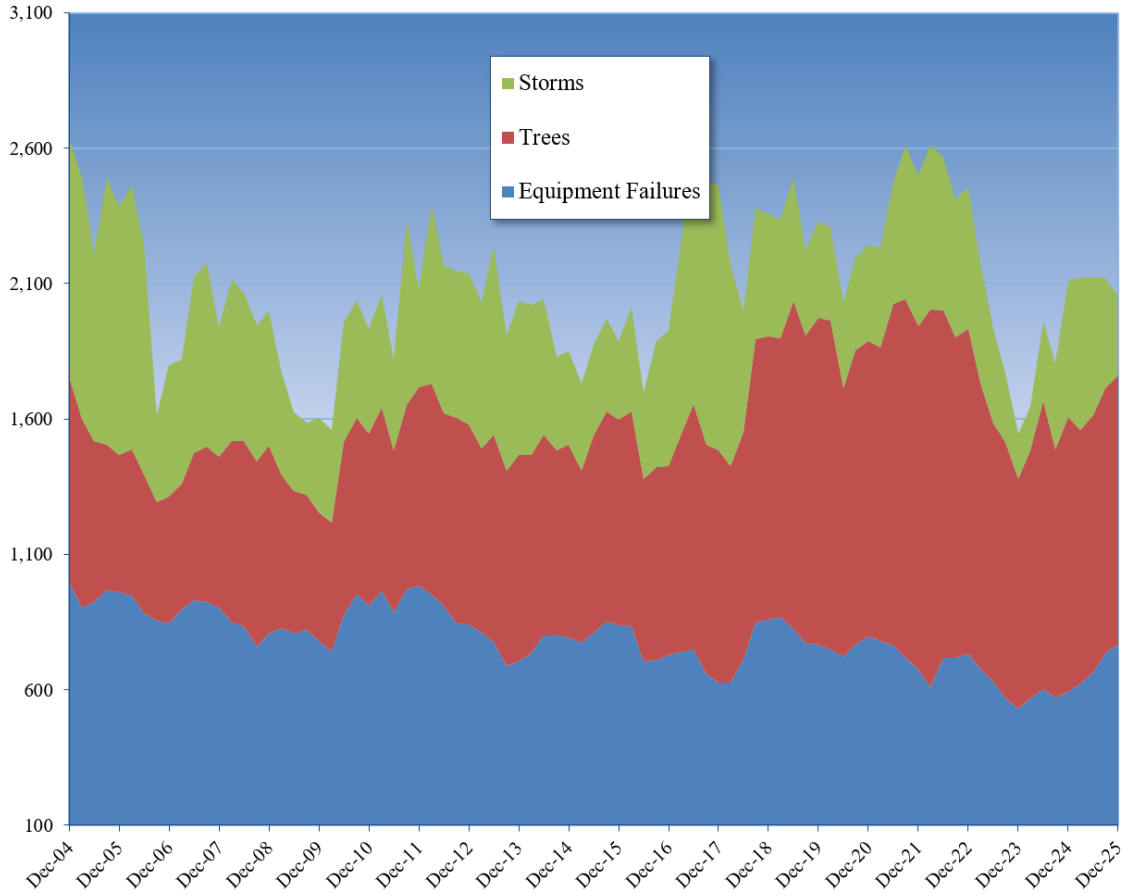


Figure 15 – DLC Outage Tracking (number of kVA Interrupted)

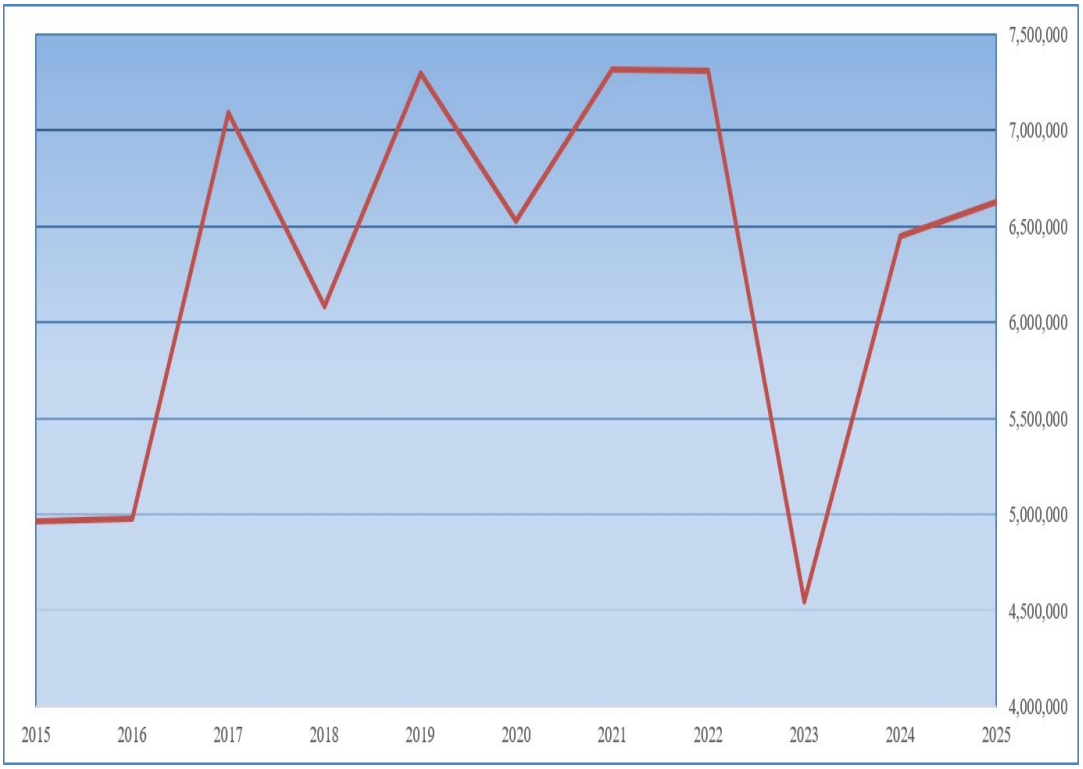


Figure 16 – DLC Outage Tracking (kVA-Minutes of Interruptions, or CMI)

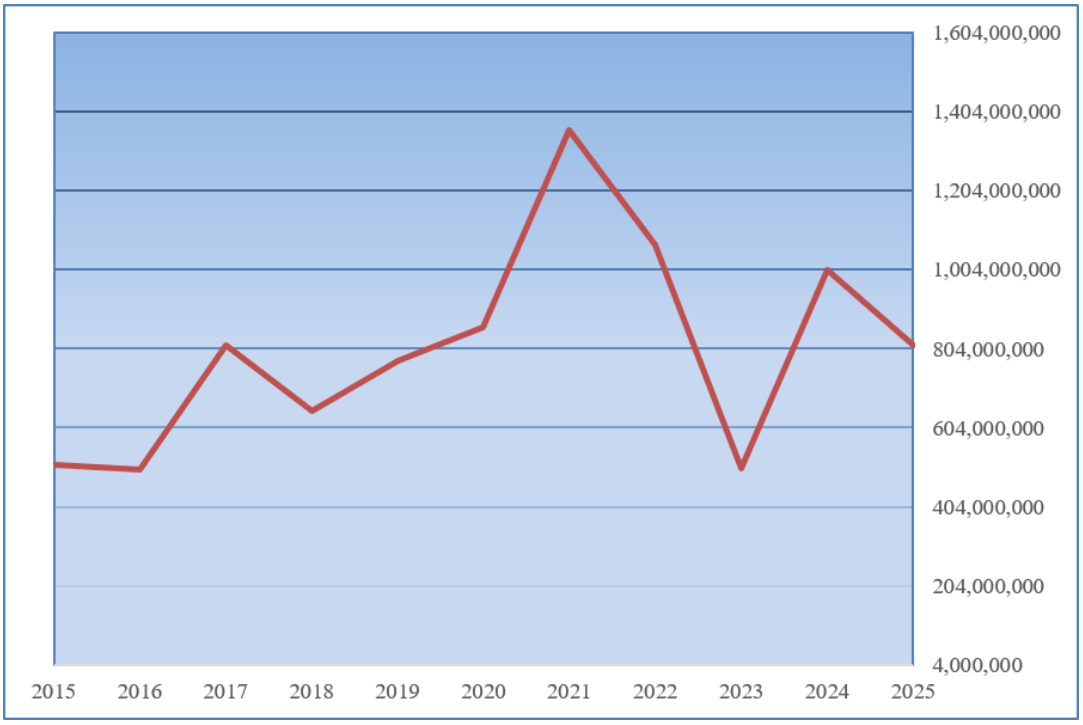


Figure 17 – DLC Outage Tracking (number of interruptions annually)

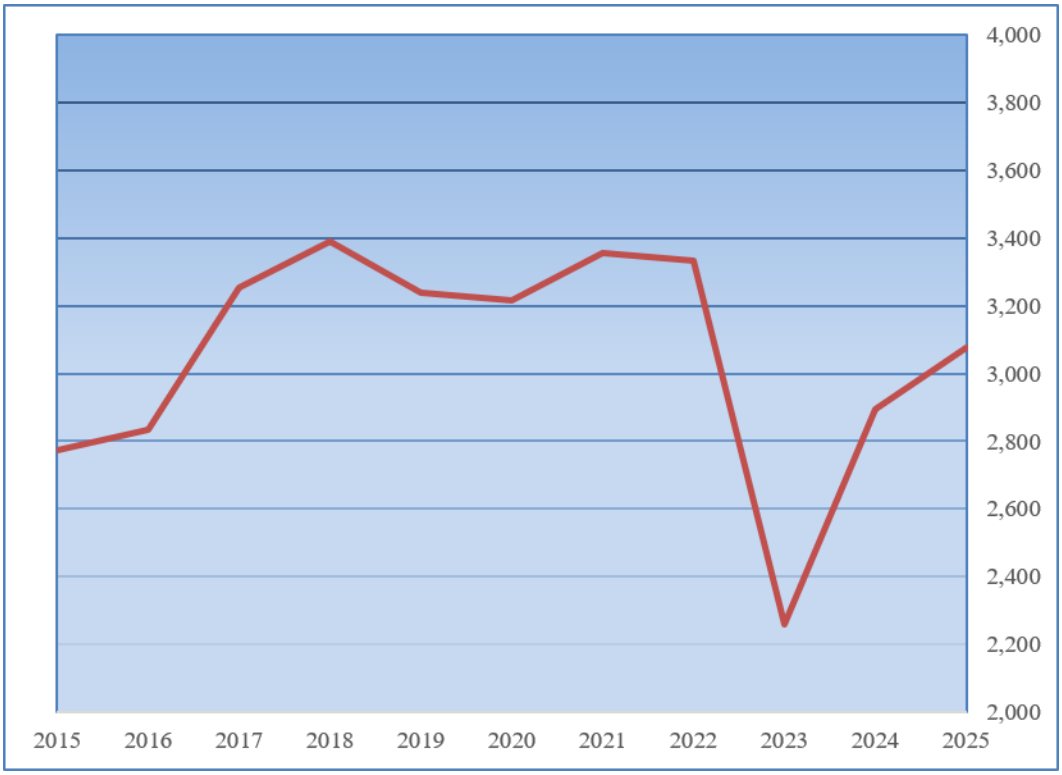
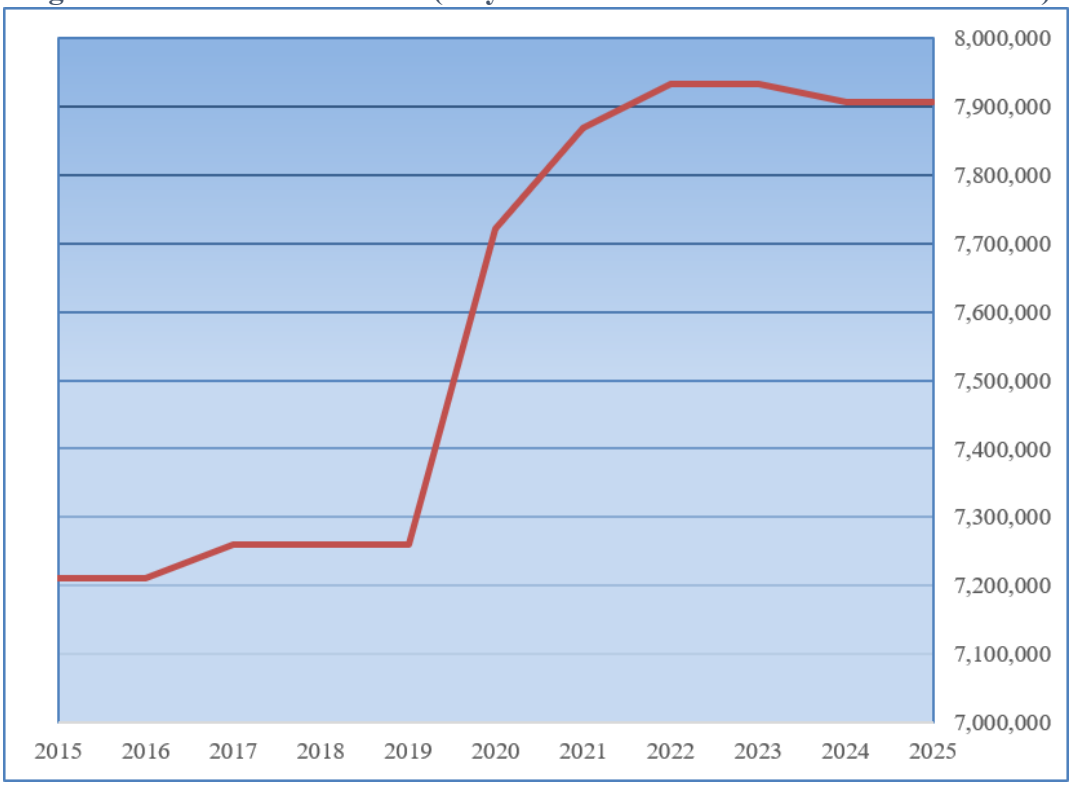


Figure 18 – DLC kVA Served (may reflect the number of customers served)



FE PA Companies

FE PA serves more than two million Pennsylvania customers, with a service territory covering more than 20,000 square miles. At the FE PA level, all three-reliability metrics improved over the 2024 performance. However, the FE PA Rate Districts experienced mixed results in reliability performance. While Penelec, Penn Power, and West Penn showed improvement in CAIDI, all three still fell short of their benchmarks and saw decreases in SAIFI performance, although Penn Power and West Penn performed within the SAIFI 12-month standard. Met-Ed slightly improved in CAIDI and SAIFI from 2024 but failed to meet its benchmarks and 12-month standard.

FE PA is currently executing its third LTIIP. Pursuant to the Commission Order approving FE PA's second LTIIP,[30] in April 2025 FE PA provided a cost effectiveness report (FE Report) that reported on its achieved LTIIP goals for its second LTIIP.[31] The FE Report indicated that FE PA fell short of their projected SAIDI and SAIFI benefit goals, but found that the LTIIP still provided reductions in SAIDI and SAIFI. Table 9 below details the projected SAIDI and SAIFI benefits for FE PA's second LTIIP by rate district.[32] Note that the totals are weighted averages of the four rate districts based on the number of customers. FE PA is required to provide a similar report upon the completion of its third LTIIP.

Table 9: FE PA Second LTIIP Benefits

Rate District	Approved Capital Investment ($M)	Projected SAIDI Benefit	Projected SAIFI Benefit	Actual Capital Investment ($M)	Actual SAIDI Benefit	Actual SAIFI Benefit
Met-Ed	$152.60	78.89	0.55	$178.38	43.63	0.225
Penelec	$199.75	47.26	0.66	$239.69	24.71	0.201
Penn Power	$72.38	36.60	0.17	$86.59	11.29	0.051
West Penn	$146.97	64.12	0.38	$176.32	23.74	0.163
FE PA Total	**$571.70**	**61.12**	**0.49**	**$680.98**	**32.41**	**0.189**

Table 10 below details FE PA's projected SAIDI and SAIFI benefits for its third LTIIP by rate district and in total, which is also a weighted average based on the number of customers.[33]

[30] *See, Petition of Metropolitan Edison Company, et al., for Approval of its Long-Term Infrastructure Improvement Plan*, at Docket Nos. P-2019-3012618, *et al.*, Order entered Jan. 16, 2020.
[31] *See, FirstEnergy Pennsylvania Electric Company Cost Effectiveness Report*, filed Apr. 30, 2025, at Docket Nos. P-2019-3012618, *et al.*
[32] *Id.*, at 7.
[33] *See, Petition of FirstEnergy Pennsylvania Electric Company for Approval of its Third Long-Term Infrastructure Improvement Plan*, at Docket No. P-2024-3050269, Order entered Dec. 19, 2024, page 29.

Table 10: FE PA Projected Third LTIIP Benefits

Rate District	Projected SAIFI Benefit	Projected SAIDI Benefit	Customers Served
Met-Ed	0.108	17.07	574,433
Penn Power	0.020	0.67	173,936
Penelec	0.204	33.75	576,176
West Penn	0.170	43.58	723,023
Total	**0.144**	**29.72**	**2,047,568**

FE PA has also committed to certain reliability improvements through the Joint Petition for Approval of Settlement of All Issues (Settlement) for FE PA's base rate case at Docket No. R-2024-3047068. The Settlement, *inter alia*, included a commitment by FE PA to a cumulative improvement in reliability that results in a reduction of the weighted average SAIDI by 3.5% and SAIFI by 2.5% by Jan. 1, 2028, three years following the effective date of rates on Jan. 1, 2025. Again, the percentages are a weighted average of the four rate districts by customer count. As further clarification, the improvements are to be measured using the actual year-ended Dec. 31, 2027, performance results as compared to the three-year averages as published in the 2023 PUC Electric Reliability Report, assuming similar weather for that three-year average time period. FE PA also clarified that the reliability performance goals of the Settlement were primarily based on an increased vegetation management budget and not necessarily the benefits of the third LTIIP.[34]

FE PA utilizes core programs in its four rate districts to support cost-effective and reliable service. These programs include, but are not limited to:

- Inspection and Maintenance (I&M): FE PA's I&M practices are designed to assist in determining the need for, and prioritization of, the repair or replacement of distribution system components and facilities. Poles showing incipient decay or poles that are thirty-five years old or older will be manually bored or inspected by the use of a Resistograph. The Resistograph is a sophisticated electronically controlled drill that provides increased accuracy, when compared to manual drilling, in measuring the relative density of wood in timber structures. Driven by a drill motor, a long, thin needle is inserted into the wood pole in order to assess its density, structural integrity, and shell thickness.

- Vegetation Management: FE PA performs vegetation management on its distribution circuits in order to promote the continued safe and reliable operation of its distribution system. The vegetation management program specification is designed to support line reliability, maintain access, make repairs, or restore service and to support safe and reliable service. The vegetation management program specification prunes vegetation to achieve required cycle clearance, with all circuits on four to five years of cycle clearance, which includes: removing selected incompatible trees within the clearing zone corridor;

[34] *Id*., page 27.

removing certain defective limbs that are overhanging primary conductors; controlling selected incompatible brush mechanically or using herbicide, or both; relieving limbs causing mechanical strain on secondary/service lines; and removing targeted OROW priority trees that are dead, dying, diseased, and leaning or significantly encroaching the corridor. FE PA noted that it is limited in its ability to legally address OROW vegetation management. However, FE PA identifies OROW priority trees for removal that are dead, dying, diseased, leaning, and significantly encroaching the corridor when customer consent is obtained or easement rights permit.

  - Portions of a circuit that experience high customer interruption minutes due to vegetation-caused outages may be targeted to include the removal of certain healthy limbs which overhang primary conductors based on tree species and condition.
  - In response to damage caused by the Emerald Ash Borer, a program to proactively remove OROW Ash Trees has been implemented.
  - Post-storm circuit patrols target the areas with high tree-related outages. Circuit patrols identify trees damaged in a storm that may eventually lead to a future outage. Once identified, the tree is removed. In addition, damaged equipment identified as part of the circuit patrol is repaired or replaced.

- Customers Experiencing Multiple Interruptions (CEMI): FE PA noted that the CEMI program is aimed to reduce frequent or repeated outages for affected clusters of customers or frequently operated devices.

- Load Forecasting and Distribution Planning: FE PA noted that the load forecasting application is used to estimate future substation and circuit loading based upon historical load data and the planning criteria guidelines are then used to provide a consistent approach for planning the safe, reliable, orderly, and economic expansion of the distribution system.

- Circuit Protection: FE PA circuit protection practices are aimed at achieving safety and security for the public and employees, maximizing service reliability to customers, minimizing damage to distribution equipment, and establishing a consistent process and set of application standards for distribution circuit protection.

FE PA noted that in addition to the reliability programs above, it also utilizes various strategies to efficiently respond to customer and equipment outages. These include, but are not limited to:

- Minimizing Outage Impact: FE PA noted that it incorporates design philosophies that support grid operation resulting in maximized reliability. These philosophies include instantaneous breaker tripping on select circuits, circuit sectionalizing devices, and remote device operation (such as supervisory control and data acquisition) to minimize the impact of an outage when possible.

- Storm Exercises: Each FE PA rate district performs an annual storm exercise. FE PA noted that a well-designed exercise provides a low-risk environment to test and validate capabilities, familiarize personnel with plans, procedures, roles and responsibilities, and foster meaningful interaction and communication across internal and external organizations.

- Summer Readiness: FE PA noted that summer is the time when most electric utilities experience the highest system loads and most damaging storms. In order to prepare for this period of the year, FE PA performed summer readiness activities such as capacitor inspections, substation inspections, transmission system reliability and capability review, and post-storm reviews to identify and disseminate lessons learned after significant events.

- Smart Meters: FE PA has completed mass deployment of smart meters to customers across Pennsylvania. FE PA noted that smart meter installation is a step toward a more modernized electric system that will enable automated meter readings. Smart meters also assist during outage restoration periods, especially when there are a significant number of single customer outages, by allowing the FE PA to ping the meter to determine if a customer's service has been restored.

- Incident Command System (ICS): FE PA has been utilizing a more formalized ICS structure, which is designed to enable effective and efficient incident management by integrating a combination of facilities, equipment, personnel, procedures, and communications operating within a common organization. By expanding the use of ICS, FE PA notes that its incident response ability is improved, and reliability is enhanced by utilizing a common system for incident response personnel (both intrastate and interstate).

FE PA indicated that to support best industry practices, it participates in various external organizations such as the Electric Power Research Institute, the IEEE, and the EAP, which focus on topics like reliability, power quality, regulatory issues, distribution planning, vegetation management, risk mitigation, distributed energy resources and more. To ensure continuous improvement, FE PA noted that it has a team comprised of reliability engineers to perform an internal review of reliability projects, expenditures, and performance, and to develop an overarching strategy for long-term reliability maintenance and improvements.

Metropolitan Edison Company

Metropolitan Edison Company (Met-Ed) has a service territory of about 3,300 square miles that serves about 586,267 customers.

In 2025, Met-Ed experienced 987,886 customer interruptions and 222.6 million CMI as compared to: 1,199,572 customer interruptions and 289.7 million CMI in 2024, and 739,898 customer interruptions and 149.2 million CMI in 2023.

Met-Ed experienced one Major Event in 2025 as discussed above in Section 3. The Major Event impacted approximately 60,536 customers, which is not reflected in the following.

CAIDI/SAIDI/SAIFI Evaluation

CAIDI

Rolling 12-month: Decreased from 242 minutes/customer in 2024 to 225 minutes/customer in 2025; failed to achieve benchmark by 92.6%.

3-year average: Increased from 201 minutes/customer in 2024 to 223 minutes/customer in 2025; failed to achieve standard by 72.7%.

SAIDI

Rolling 12-month: Decreased from 498 minutes/customer in 2024 to 380 minutes/customer in 2025; failed to achieve benchmark by 181.3%.

3-year average: Increased from 322 minutes/customer in 2024 to 378 minutes/customer in 2025; failed to achieve standard by 132.1%.

SAIFI

Rolling 12-month: Decreased from 2.06 outages in 2024 to 1.69 outages; failed to achieve benchmark by 47.0%.

3-year average: Increased from 1.55 outages in 2024 to 1.67 outages in 2025; failed to achieve standard by 31.8%.

CAIDI and SAIFI Performance

Historical rolling 12-month CAIDI and SAIFI benchmark reliability performance trends are shown in Figures 19 and 20 below. Met-Ed reported a MAIFI of 0.535 for 2025. Beginning in 2008, Met-Ed's CAIDI performance trend has been worsening, and from 2013 to present has been trending significantly upward. Met-Ed's 2025 rolling 12-month CAIDI is above both the benchmark and standard upper-control-limit-lines. More management attention is needed to address the recent poor CAIDI performance and return the trend line below the "green" benchmark performance upper-control-limit-line. Vegetation control may improve repair times by reducing larger and more damaging foliage contacts and overhanging canopy trees and limbs including off right of way trees. Staffing levels must also be carefully managed to ensure timely response to events.

Beginning in 2004, Met-Ed 's SAIFI performance, as seen in Figure 20 below, has been erratic and frequently above the benchmark. From 2007 onward, the overall trend has been continually above benchmark, except for a brief period in 2013 through 2014 when Met-Ed's performance was positive and below the "green" benchmark performance upper-control-limit-line. As of

December 2024, SAIFI was well above the "red" standard performance upper-control limit-line. By all measures this shows the continuation of unacceptable performance.

Outage Causes

Figure 21 below shows the top five reported outage cause categories in 2025, as a percentage, for the following three distinct performance metrics: CMI, Customers Affected, and Number of Incidents. OROW Trees and equipment failure were the top causes of outages and CMI. Approximately 60% of CMI was caused by OROW Trees and Equipment Failure.

Figure 22 below shows the historical trend of the top three outage causes. Trees and Equipment Failure are the two most frequent causes of power outages that are significantly negatively affecting Met-Ed's distribution system reliability and resilience, as well as every EDC in Pennsylvania.

Conclusion

The Commission recommends that increased management attention is needed to bring Met-Ed's failing reliability performance back into control and to sustain the trend line below the "green" benchmark performance upper-control-limit-line. The Commission expects to see improvement in reliability for FE PA as it executes its third LTIIP over the next five years, especially as it relates to CAIDI.

The Commission recommends increased efforts in vegetation management and emphasis on response times. As noted in the FE PA Companies section above, TUS expects that the combined impact of the additional vegetation management budget and third LTIIP to improve FE PA's reliability performance as a whole. However, attention is clearly needed on the Met-Ed rate district's territory to improve the customer experience.

The Commission recognizes that, overall, Met-Ed's reliability performance is declining as witnessed by the data shown below. As can be seen in Figures 23 through 25 below, there is a significant increase in the number of customers interrupted, CMI and outages since 2015.

Figure 19 – Met-Ed CAIDI (minutes)

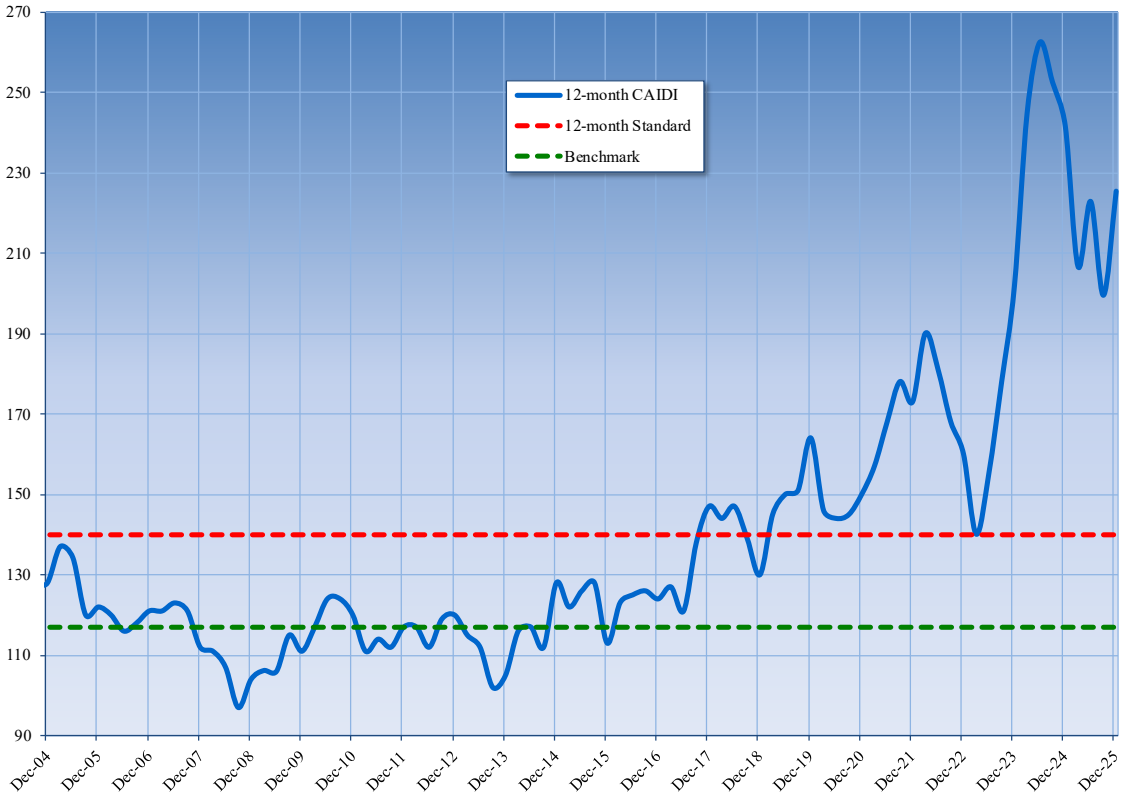


Figure 20 – Met-Ed SAIFI (interruptions per customer)

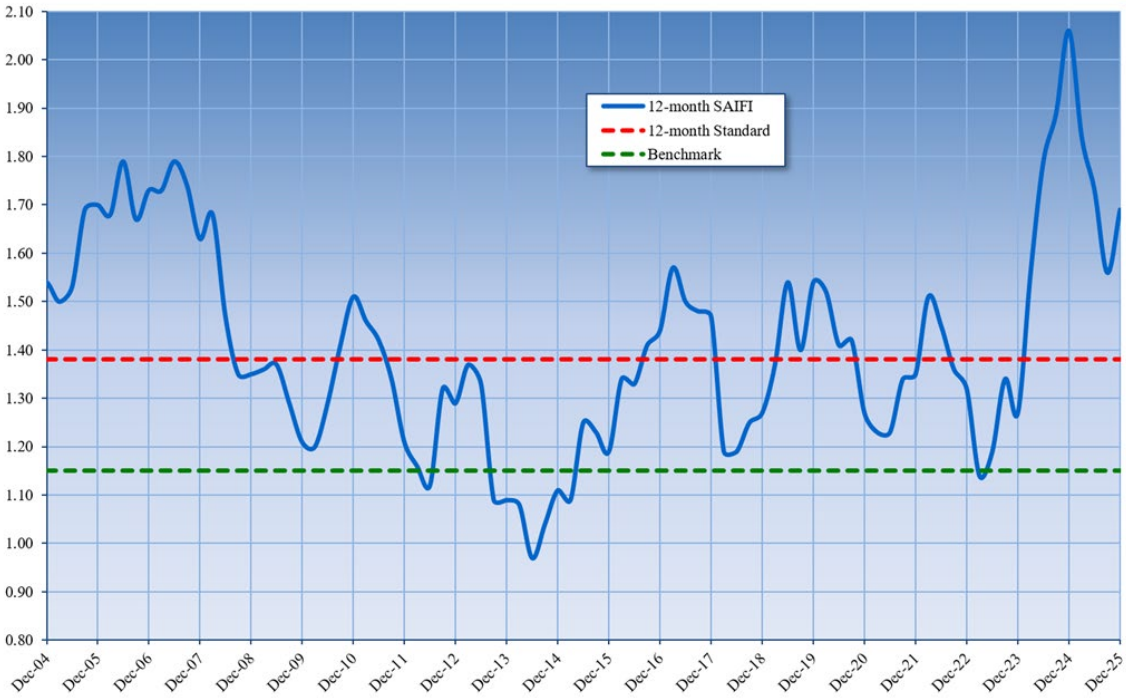


Figure 21 – Met-Ed Causes (percent of total outages)

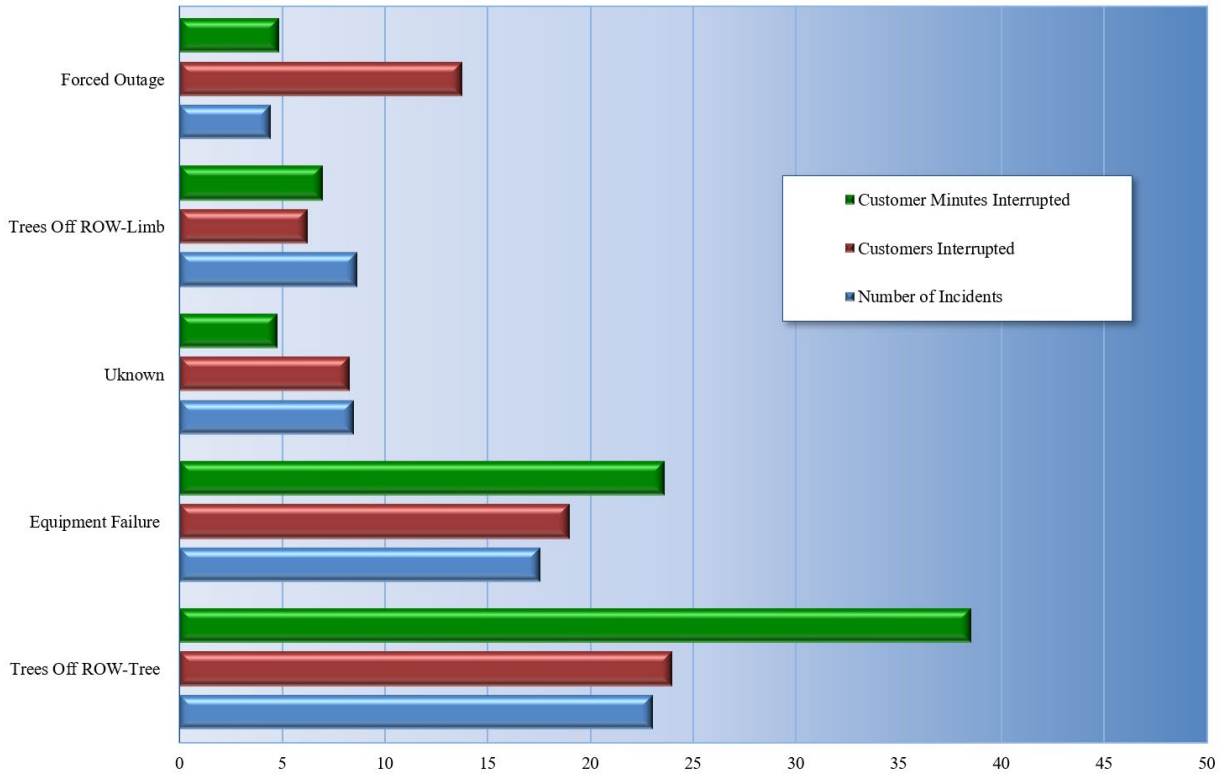


Figure 22 – Met-Ed Outage Tracking (number of incidents)

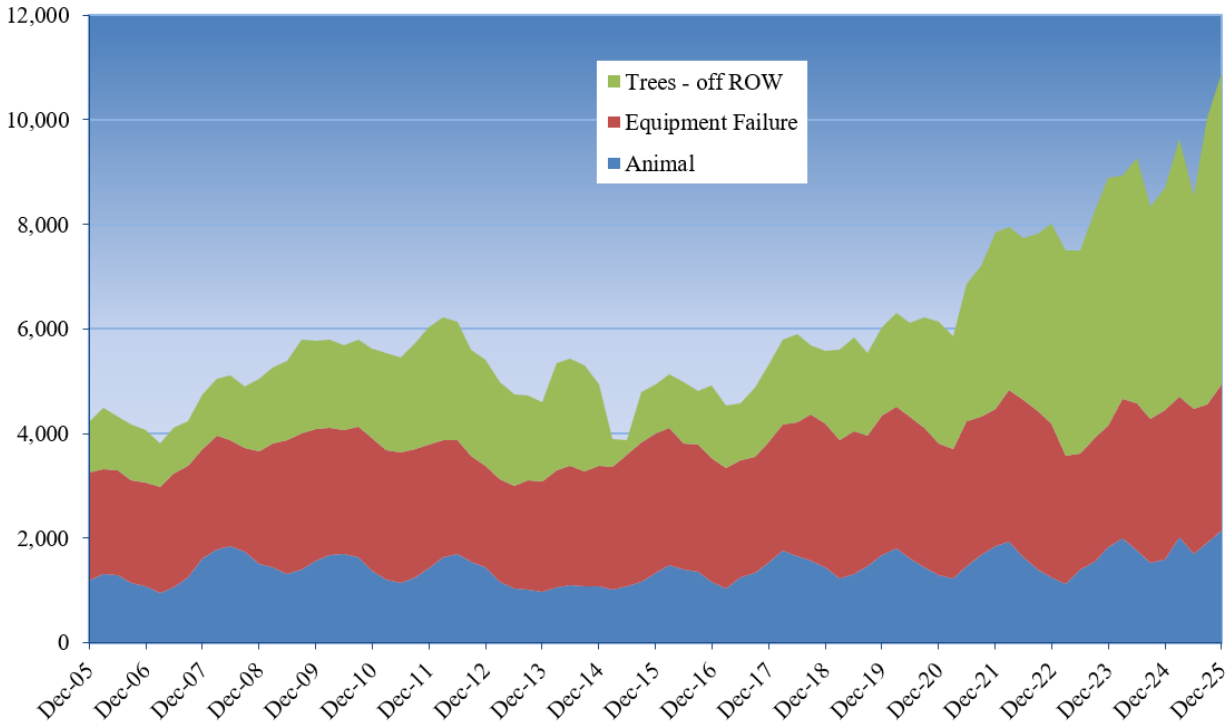


Figure 23 – Met-Ed Outage Tracking (number of customers interrupted)

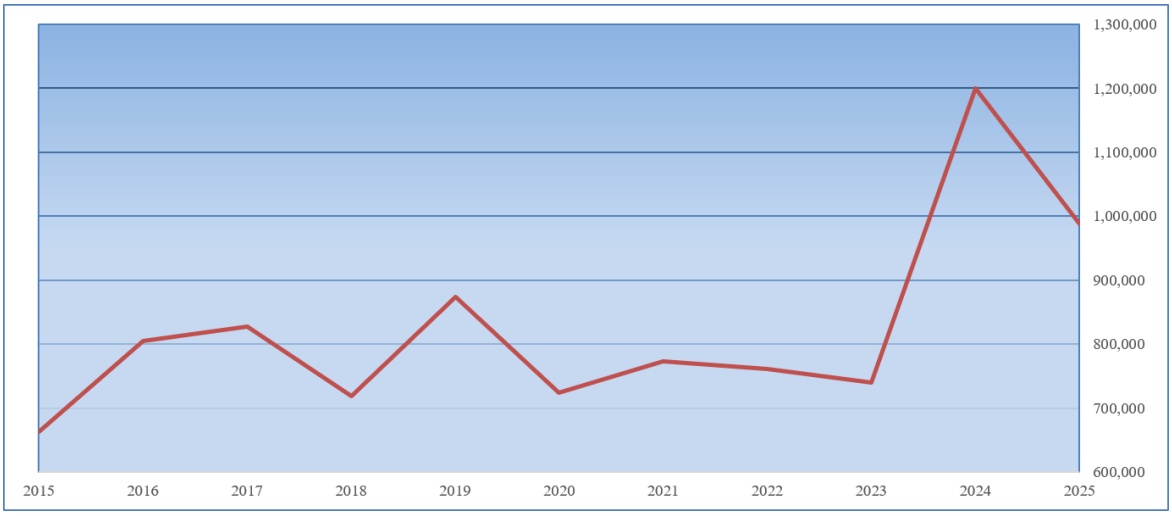


Figure 24 – Met-Ed Outage Tracking (Customer-Minutes of Interruptions, or CMI)

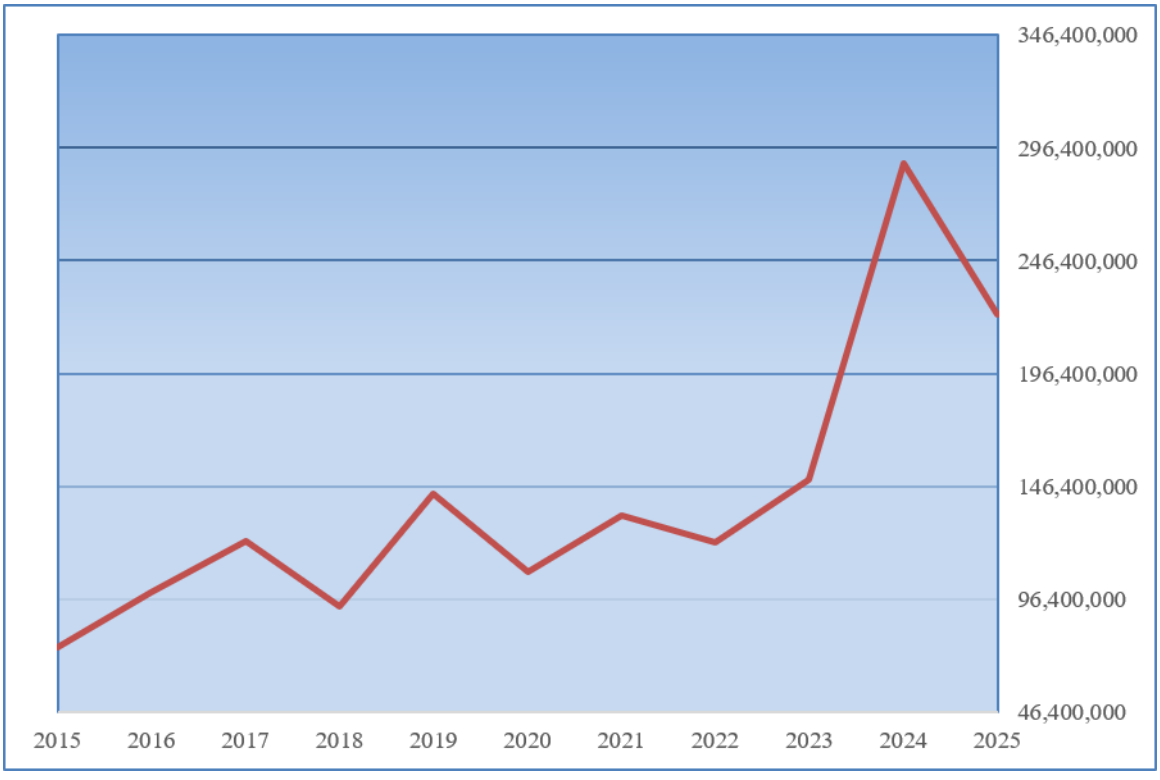
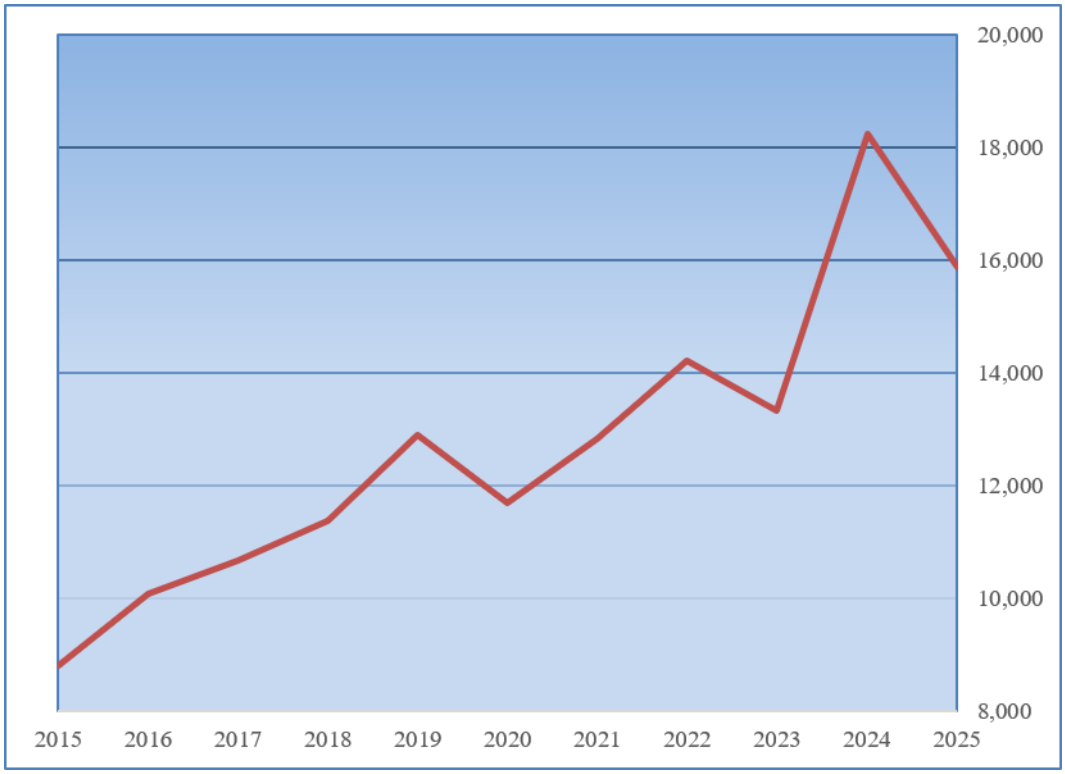


Figure 25 – Met-Ed Outage Tracking (number of interruptions annually)



Pennsylvania Electric Company

Pennsylvania Electric Company (Penelec) has a service territory of about 17,600 square miles serving approximately 592,418 customers.

In 2025, Penelec experienced 1,018,234 interruptions and 145.6 million CMI as compared to: 1,058,034 interruptions and 210.7 million CMI in 2024, and 938,093 interruptions and 177.5 million CMI in 2023

Penelec requested the exclusion of three Major Events for reliability reporting purposes in 2025 as discussed in Section 3. These Major Events impacted 624,169 customers in total and are not reflected in the reliability indices identified below.

CAIDI/SAIDI/SAIFI Evaluation

CAIDI

Rolling 12-month: Decreased from 199 minutes/customer in 2024 to 143 minutes/customer in 2025; failed to achieve benchmark by 22.2%.

3-year average: Decreased from 196 minutes/customer in 2024 to 177 minutes/customer in 2025; failed to achieve standard by 37.3%.

SAIDI

Rolling 12-month: Decreased from 356 minutes/customer in 2024 to 246 minutes/customer in 2025; failed to achieve benchmark by 66.1%.

3-year average: Decreased from 341 minutes/customer in 2024 to 302 minutes/customer in 2025; failed to achieve standard by 68.5%.

SAIFI

Rolling 12-month: Decreased from 1.79 outages in 2024 to 1.72 outages; failed to achieve benchmark by 36.5%.

3-year average: Decreased from 1.74 outages in 2024 to 1.67 outages in 2025; failed to achieve standard by 22.5 %.

CAIDI and SAIFI Performance

Historical rolling 12-month CAIDI and SAIFI benchmark reliability performance trends are shown below in Figures 26 and 27. Penelec reported a MAIFI of 0.631 for 2025. Penelec's CAIDI performance since 2004 has been inconsistent. Although Penelec's rolling 12-month CAIDI showed significant improvement from 2024 to 2025, it failed to achieve standard performance. Given its erratic CAIDI performance, Penelec is encouraged to focus on improved response times and shortened repair times to achieve CAIDI at or below the benchmark level.

Beginning in 2004, Penelec's SAIFI performance trend has been inconsistent and frequently outside of acceptable tolerances. From 2016 to present, the overall trend has been continually negative with slight improvement in 2023. Penelec's 2025 SAIFI is again well above standard. Penelec's overall SAIFI performance trend is outside of acceptable limits, even with its improved SAIFI performance in 2023. Management must direct more attention to the poor SAIFI performance and work to move the trend line to a point below the "green" benchmark performance upper-control-limit-line. Focus on automatic sectionalizing, auto transfer and smart grid may move and maintain SAIFI below the benchmark. Improved vegetation management is also a key to improving service reliability.

Outage Causes

Figure 28 below shows the top five reported outage-cause categories in 2025, as a percentage, for the following three distinct performance metrics: CMI, Customers Affected, and Number of Incidents. Trees OROW, Line Failure, and Equipment Failure were the leading causes of CMI. Trees OROW and Equipment Failure were the leading causes of the number of outage incidents.

Figure 29 below shows the historical trend of the top three outage causes. Equipment failure and trees are the two most frequent outage causes that are significantly negatively affecting Penelec's distribution system reliability and resilience, as well as almost every EDC in Pennsylvania.

Conclusion

Trees and Equipment Failure are the top two outage causes that negatively affect electrical reliability to Penelec customers. In 2025, trees and equipment failure outages contributed to over 64% of the total number of interruptions and over 59% of CMI.

The Commission recommends increased efforts in vegetation management, increased utilization of LTIIP processes, and emphasis on improving response times.

Penelec improved all three primary reliability indices in 2025 compared to 2024. However, Penelec is still experiencing a high number of outage events and CMI as shown in Figures 30 through 32 below.

Figure 26 – Penelec CAIDI (minutes)

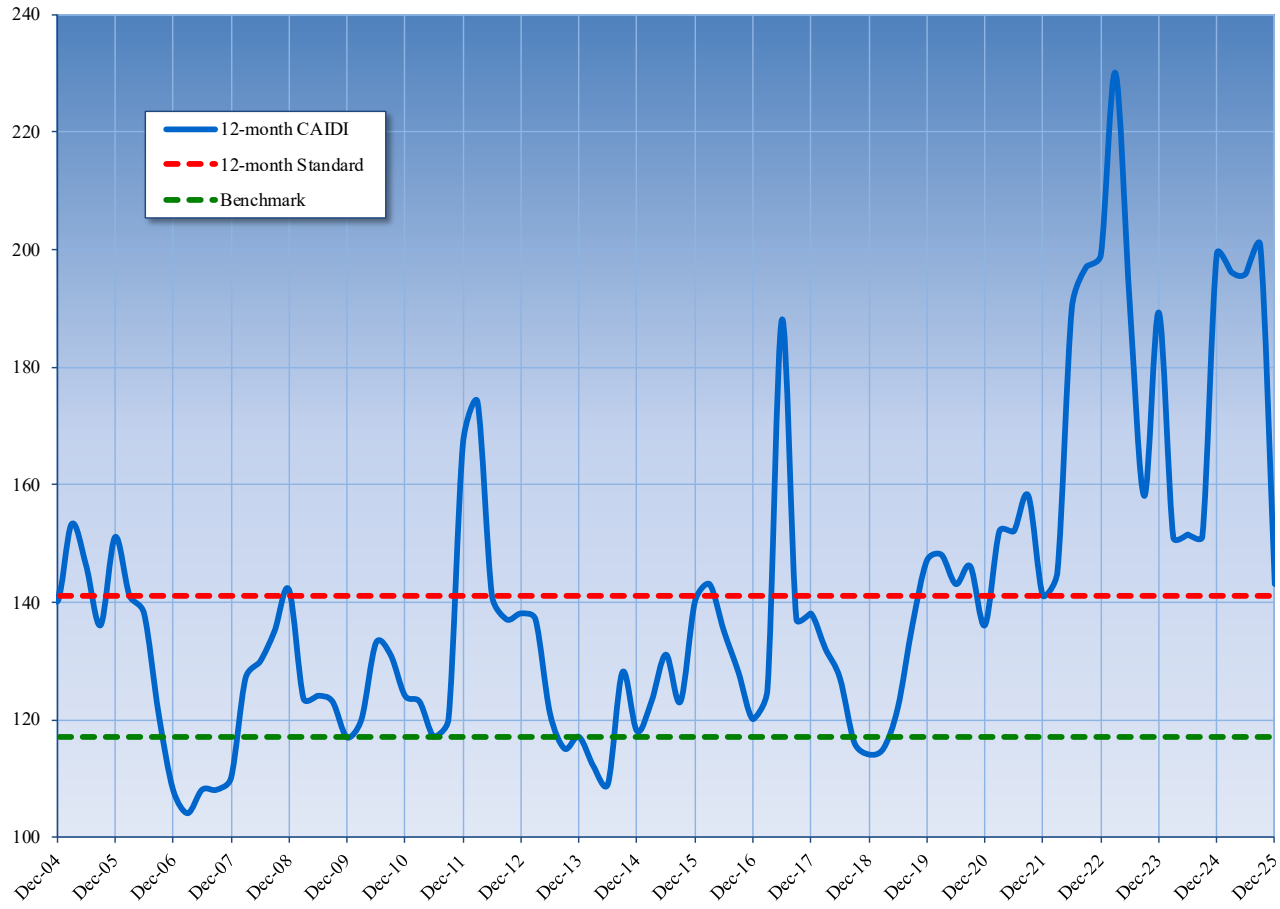


Figure 27 – Penelec SAIFI (interruptions per customer)

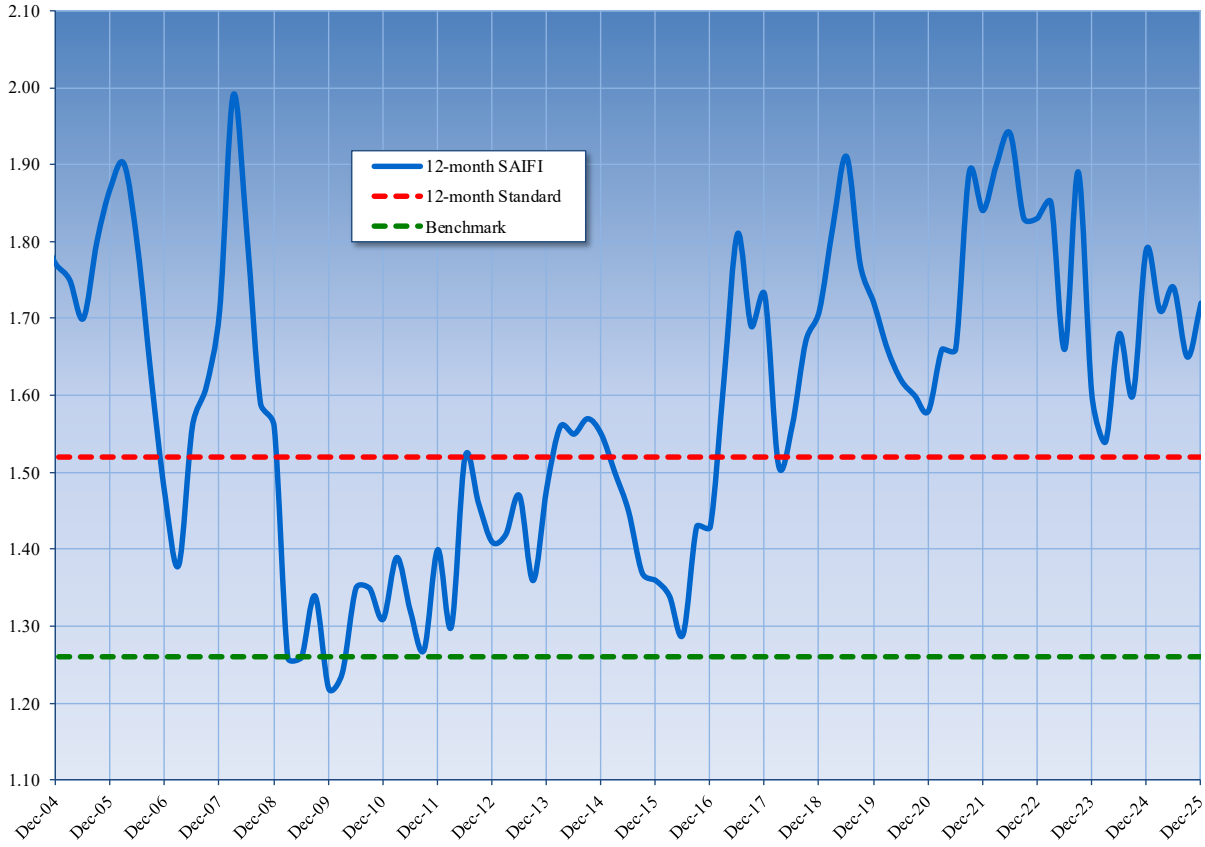


Figure 28 – Penelec Outage Causes (percent of total outages)

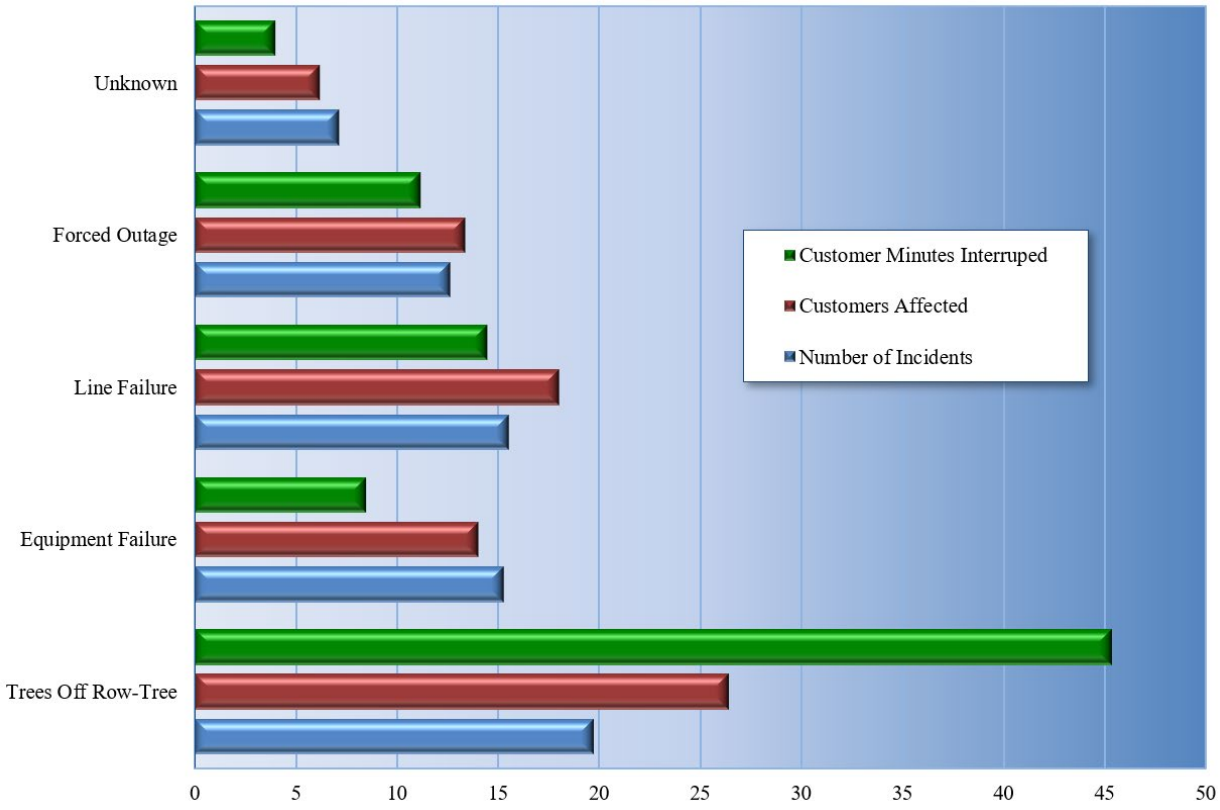


Figure 29 – Penelec Outage Tracking (number of incidents)

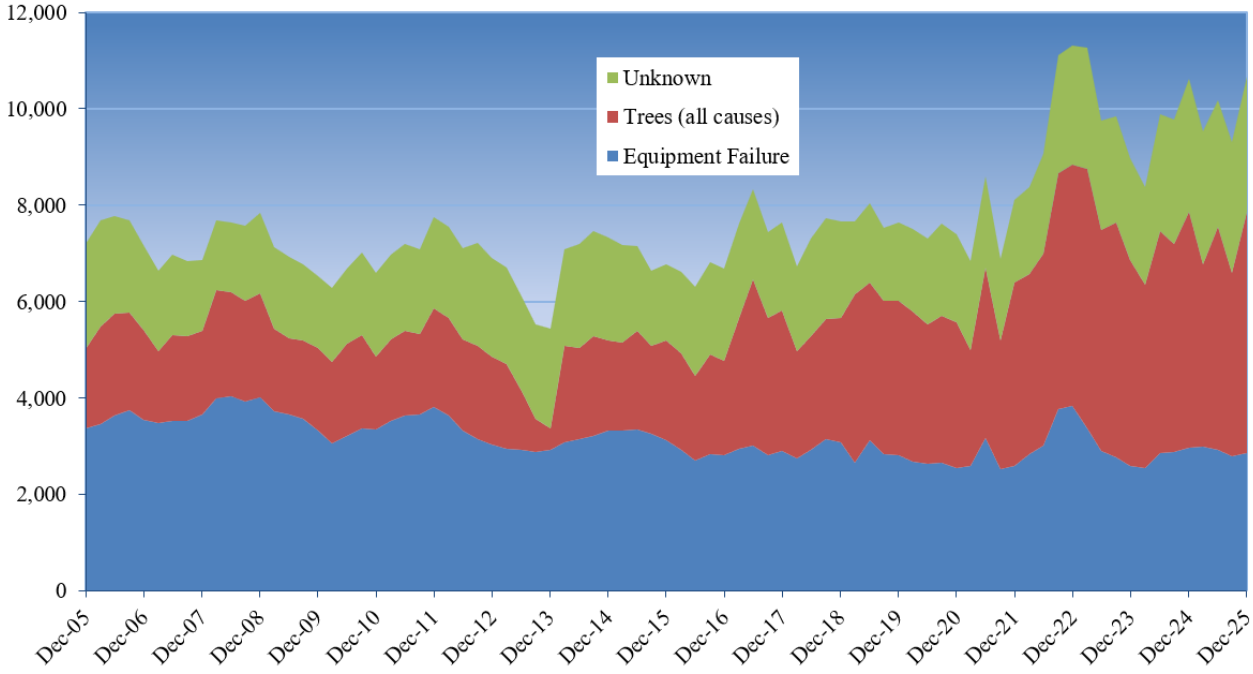


Figure 30 – Penelec Outage Tracking (number of Customers Interrupted)

Figure 31 – Penelec Outage Tracking (Customer-Minutes of Interruptions, or CMI)

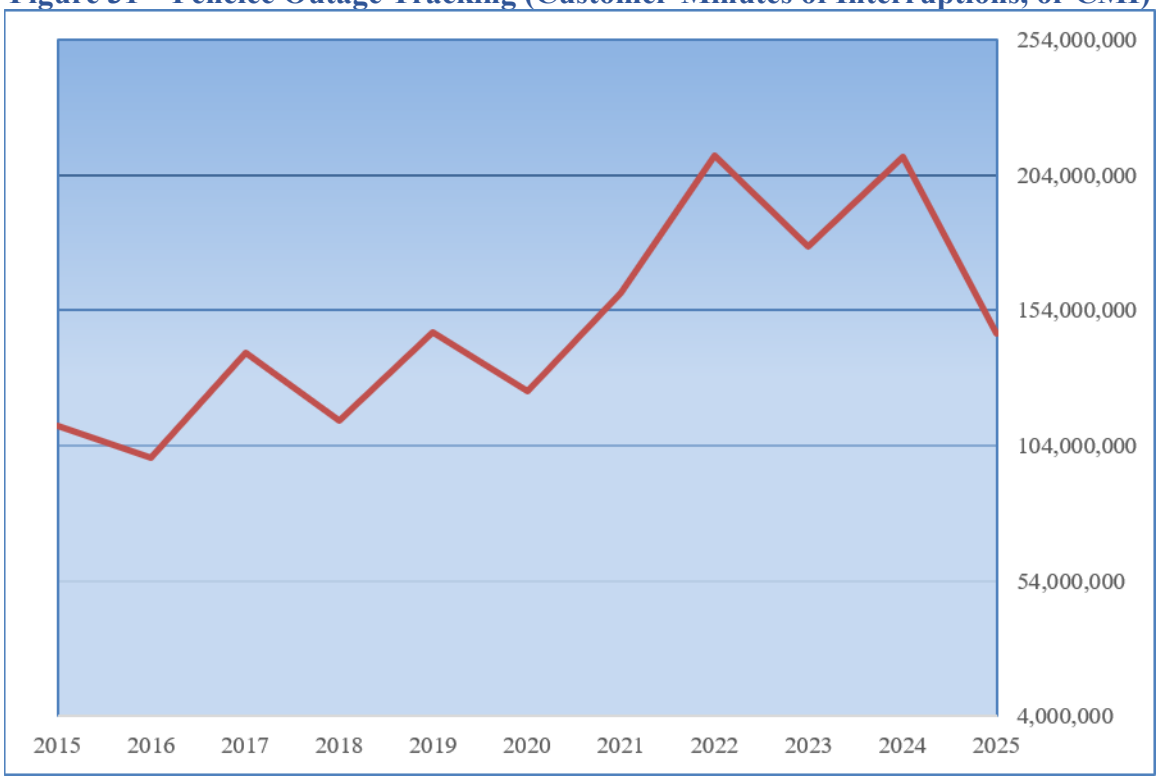
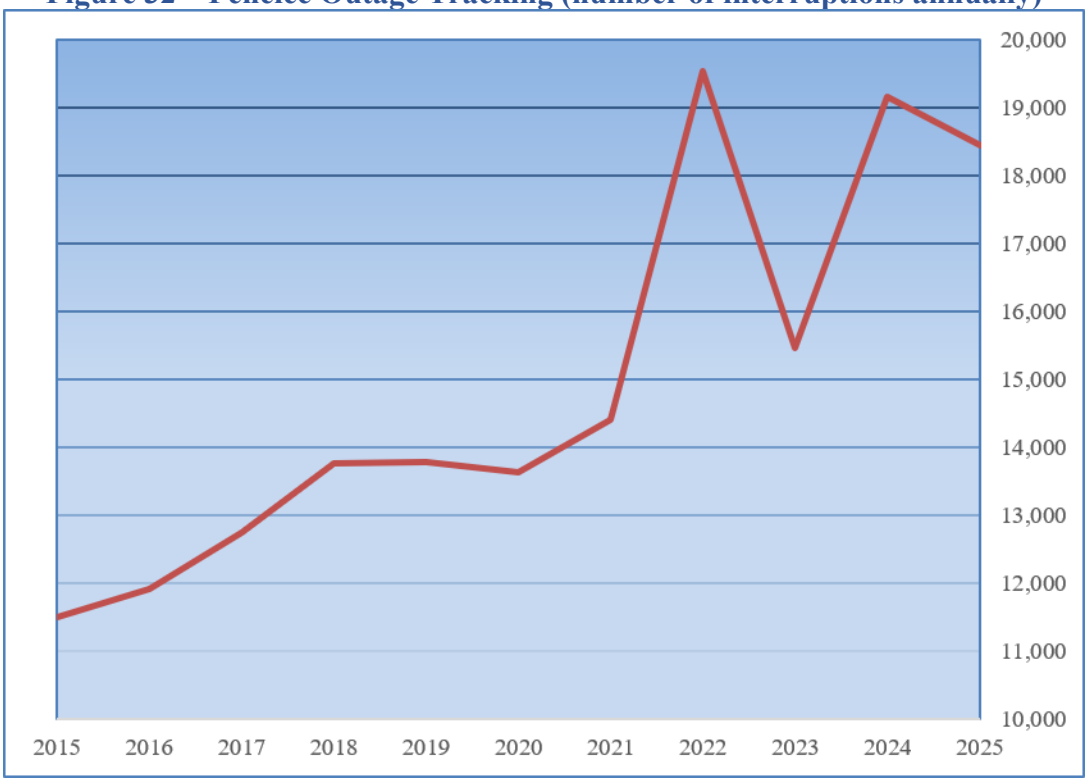


Figure 32 – Penelec Outage Tracking (number of interruptions annually)



Pennsylvania Power Company

Pennsylvania Power Company (Penn Power) has a service territory of about 1,100 square miles that serves approximately 175,356 customers.

In 2025, Penn Power experienced 208,947 customer interruptions and approximately 24.4 million CMI, as compared to: 176,436 customer interruptions and 25.9 million CMI in 2024, and 132,740 customer interruptions and 20.8 million CMI in 2023.

Penn Power requested the exclusion of one Major Event for reliability reporting purposes in 2025. The Major Event impacted 21,662 customers and is not reflected in the totals below.

CAIDI/SAIDI/SAIFI Evaluation

CAIDI

Rolling 12-month: Decreased from 147 minutes/customer in 2024 to 117 minutes/customer in 2025; failed to achieve benchmark by 15.4%.

3-year average: Decreased from 146 minutes/customer in 2024 to 140 minutes/customer in 2025; failed to achieve standard by 26%.

SAIDI

Rolling 12-month: Decreased from 147 minutes/customer in 2024 to 139 minutes/customer in 2025; failed to achieve benchmark by 22.7%.

3-year average: Increased from 134 minutes/customer in 2024 to 136 minutes/customers in 2025; achieved standard of 136.

SAIFI

Rolling 12-month: Increased from 1.01 outages in 2024 to 1.19 outages in 2025; failed benchmark by 6.2%.

3-year average: Increased from 0.93 outages in 2024 to .99 outages in 2025; achieved standard by 19.2%.

CAIDI and SAIFI Performance

Historical rolling 12-month CAIDI and SAIFI benchmark reliability performance trends are shown below in Figures 33 and 34. Penn Power reported a MAIFI of 0.229 for 2025. Beginning in 2016, Penn Power's rolling 12-month CAIDI has been trending higher and frequently exceeding the "red" standard performance upper-control-limit-line. The Commission expects more management attention to address the inconsistent performance and sustain the trend line

below the "green" benchmark performance upper-control-limit-line. Improved response times and shortened repair times may well prove essential to maintaining CAIDI at or below the benchmark level.

Since 2023 Penn Power's SAIFI performance has worsened. However, SAIFI remains at a level below the "red" standard performance upper control limit line. FE PA management should continue to focus attention to ensure consistent SAIFI performance is returned to below the "green" benchmark performance upper-control-limit-line.

Outage Causes

Figure 35 below shows the top five outage cause categories in 2025, as a percentage, for the following three distinct performance metrics: CMI, Customers Affected, and Number of Incidents. Trees OROW, Line Failure, and Equipment Failure were the leading cause of CMI and customers affected. Approximately 36% of CMI was caused by Trees OROW and Trees OROW-Limb. That percentage is down from 56.2% in 2024.

Figure 36 below shows the historical trend of the top three outage causes. Trees, Line Failure, and Equipment Failure were the three most frequent causes of power outages for Penn Power.

Conclusion

The Commission recognizes that, overall, Penn Power's reliability performance struggles most with the duration of outages. Penn Power is also experiencing an increase in the number of customers being interrupted annually, while customers are out of service longer (CMI) as shown in Figures 37 through 39 below. With the recent exception of 2023, Figure 39 indicates an overall and steady increase in interruption events from 2015 through 2024.

Figure 33 – Penn Power CAIDI (minutes)

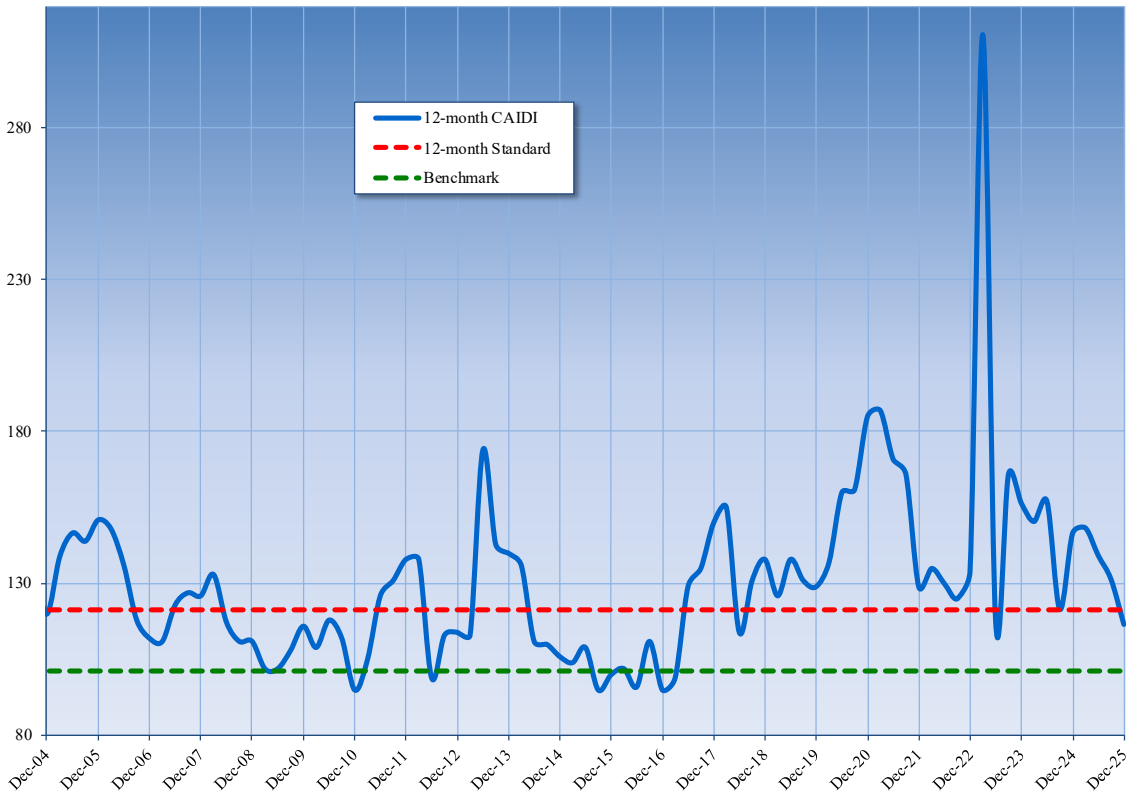


Figure 34 – Penn Power SAIFI (interruptions per customer)

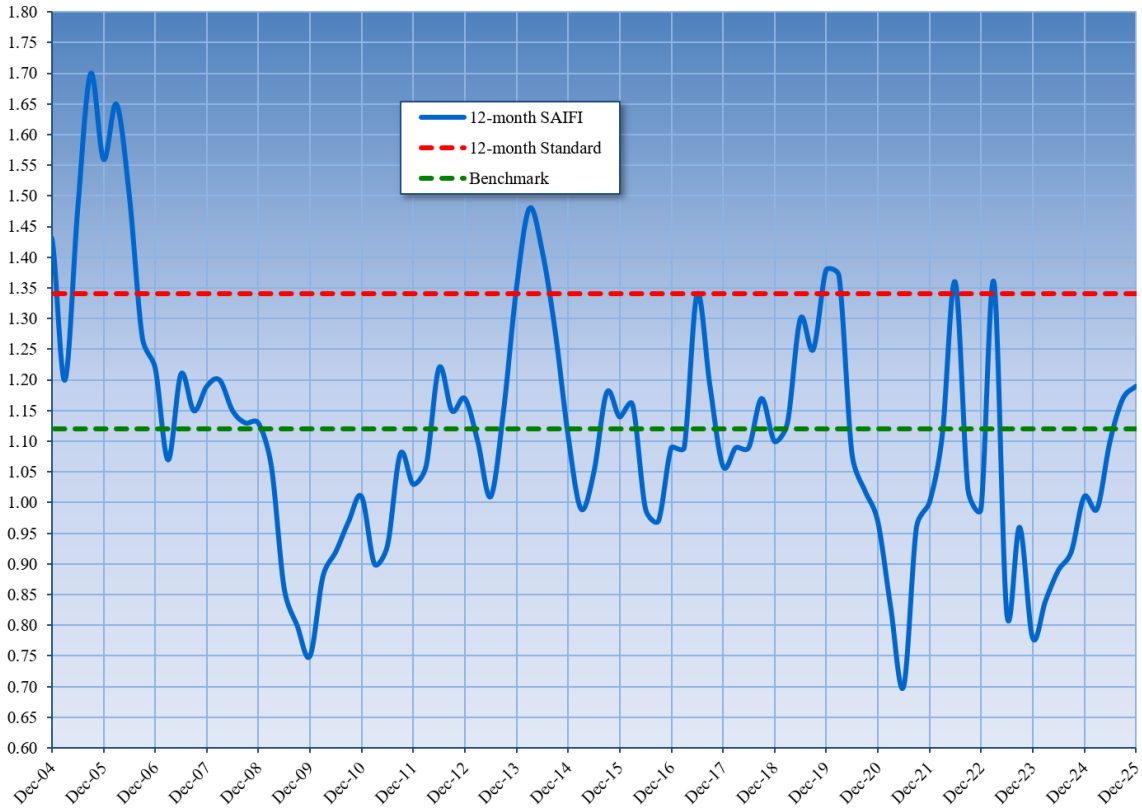


Figure 35 – Penn Power Outage Causes (percent of total outages)

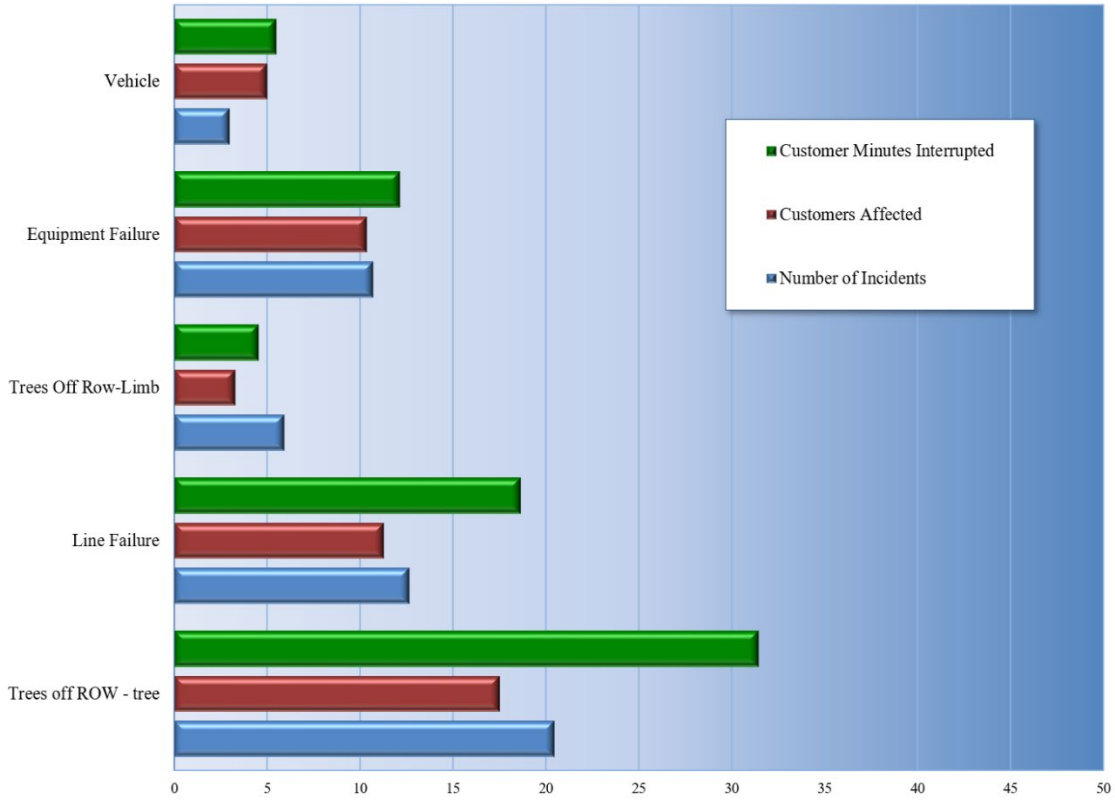


Figure 36 – Penn Power Outage Tracking (number of incidents)

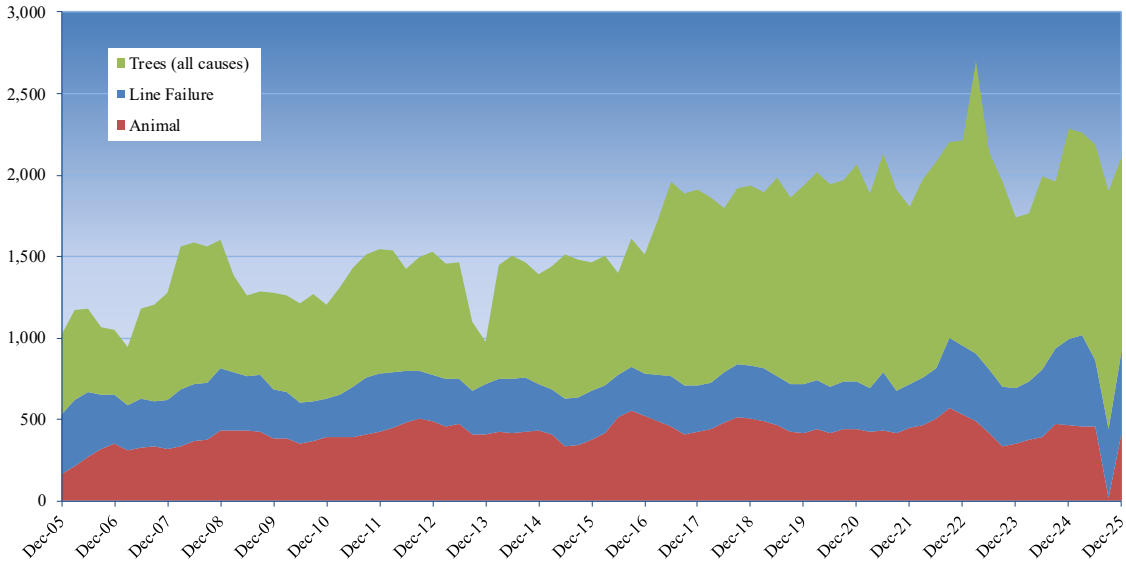


Figure 37 – Penn Power Outage Tracking (number of Customers Interrupted)

Figure 38 – Penn Power Outage Tracking (Customer-Minutes of Interruptions CMI)

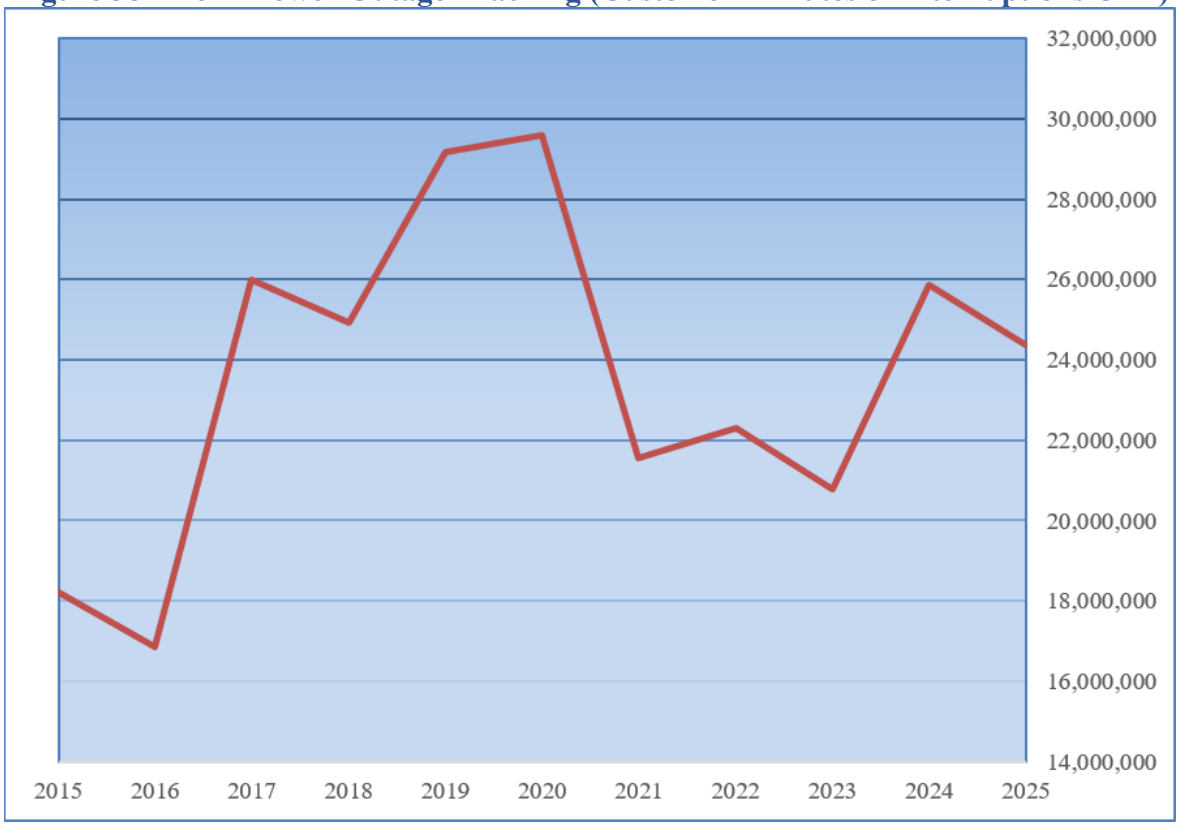
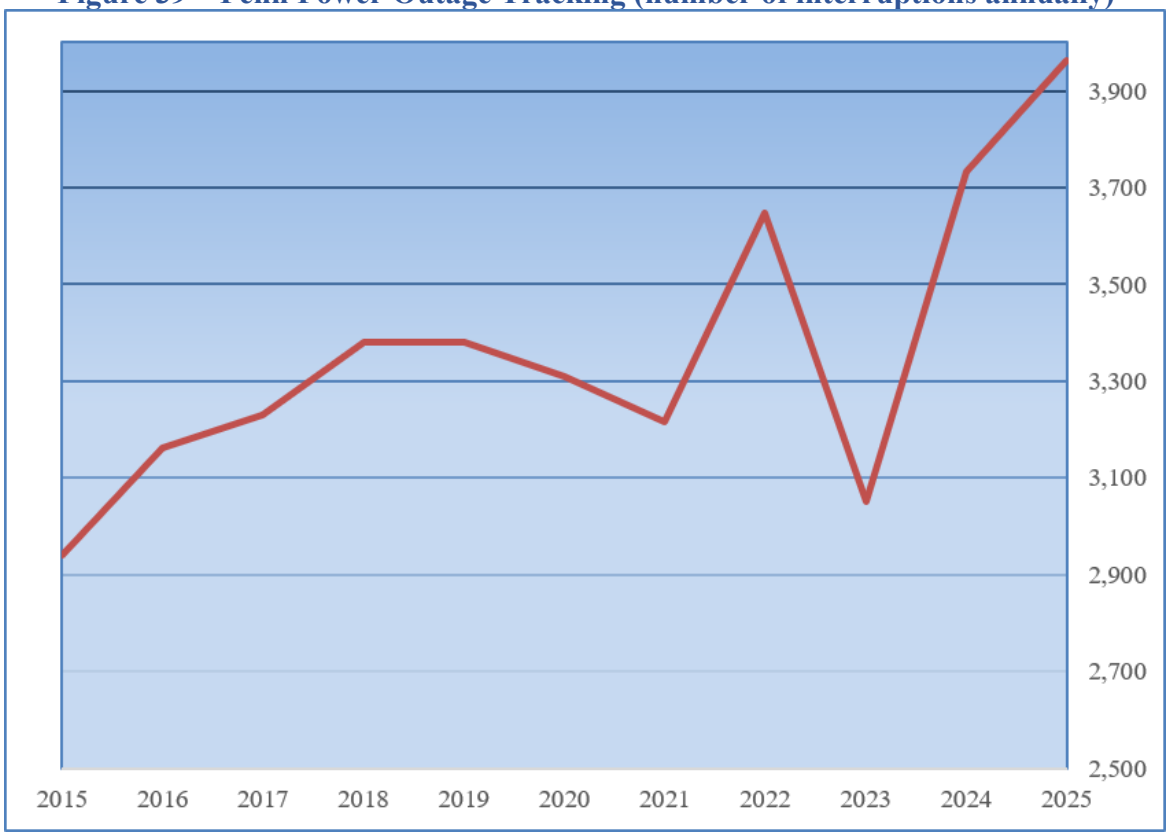


Figure 39 – Penn Power Outage Tracking (number of interruptions annually)



West Penn Power Company

West Penn Power Company (West Penn) has a service territory of about 10,400 square miles and serves about 730,586 customers.

In 2025, West Penn experienced 895,071 customer interruptions and 181.4 million CMI as compared to 930,429 customer interruptions and 185.9 million CMI in 2024, and 779,396 customer interruptions and 207.5 million CMI in 2023.

West Penn requested the exclusion of two Major Events for reliability reporting purposes in 2025 as discussed in Section 3. These Major Events impacted over 314,279 customers and are not reflected in the reliability indices described below.

CAIDI/SAIDI/SAIFI Evaluation

CAIDI

Rolling 12-month: Increased from 200 minutes/customer in 2024 to 203 minutes/customer in 2025; failed to achieve benchmark by 19.2%.

3-year average: Decreased from 247 minutes/customer in 2024 to 223 minutes/customer in 2025; failed to achieve standard by 19.2%.

SAIDI

Rolling 12-month: Decreased from 255 minutes/customer in 2024 to 248 minutes/customer in 2025; failed to achieve benchmark by 38.7%.

3-year average: Decreased from 301 minutes/customer in 2024 to 263 minutes/customer in 2025; failed to achieve standard by 21.2%.

SAIFI

Rolling 12-month: Decreased from 1.28 outages in 2024 to 1.23 outages in 2025; failed to achieve benchmark by 17.1%.

3-year average: Decreased from 1.22 outages in 2024 to 1.19 outages in 2025; failed to achieve standard by 5.5%.

CAIDI and SAIFI Performance

Historical rolling 12-month CAIDI and SAIFI benchmark reliability performance trends are shown in Figures 40 and 41 below. West Penn's CAIDI performance has historically been erratic. However, from 2014 through part of 2019, CAIDI had been positively below the "green" benchmark performance upper-control-limit-line. West Penn's CAIDI in 2025 achieved the standard but did not achieve benchmark. FE PA management attention is required to return West

Penn to the positive CAIDI trend it has previously exhibited between 2014 and 2019. Improved response times and shortened repair times may well prove essential to maintaining CAIDI at or below the benchmark level. The Commission recognizes that with the introduction of more system automation the CAIDI index becomes more representative of actual customer interruption duration.

Beginning in 2004, West Penn's SAIFI performance trend has been erratic. From 2017 through 2020, West Penn's SAIFI performance had been moving toward benchmark level. West Penn's SAIFI did show improvement in 2023, but FE PA needs to apply a significant effort to ensure SAIFI performance at or below the benchmark level, as evidenced by West Penn's rolling 12-month 2025 SAIFI, which did not achieve standard performance.

Outage Causes

Figure 42 below shows West Penn's top five reported outage cause categories for 2025, as a percentage, for the following three distinct performance metrics: CMI, Customers Affected, and Number of Incidents. Trees OROW and Equipment Failure were the leading causes of CMI. Approximately 46.4% of CMI was caused by Trees OROW, slightly down from 2024.

Figure 43 below shows historical trends of the top three main outage causes. Trees and Equipment Failure are the two most impactful outage causes that are significantly negatively affecting West Penn's distribution system reliability and resilience, as well as most every EDC in Pennsylvania.

Conclusion

West Penn's CAIDI and SAIFI and SAIDI performance continue to need management effort to establish a trend line heading downward to a point below the "green" benchmark performance upper-control-limit-line, although improvement from the previous year has been demonstrated. It is recommended that West Penn continue to increase efforts in vegetation management and on improving outage response times. FE PA's acceleration of its third LTIIP spending should improve its reliability in the future.

As can be seen in Figures 44 through 46, West Penn exhibited some improvement in CMI, but experienced setbacks in number of customers impacted by outages and in the number of interruption events.

Figure 40 – West Penn CAIDI (minutes)

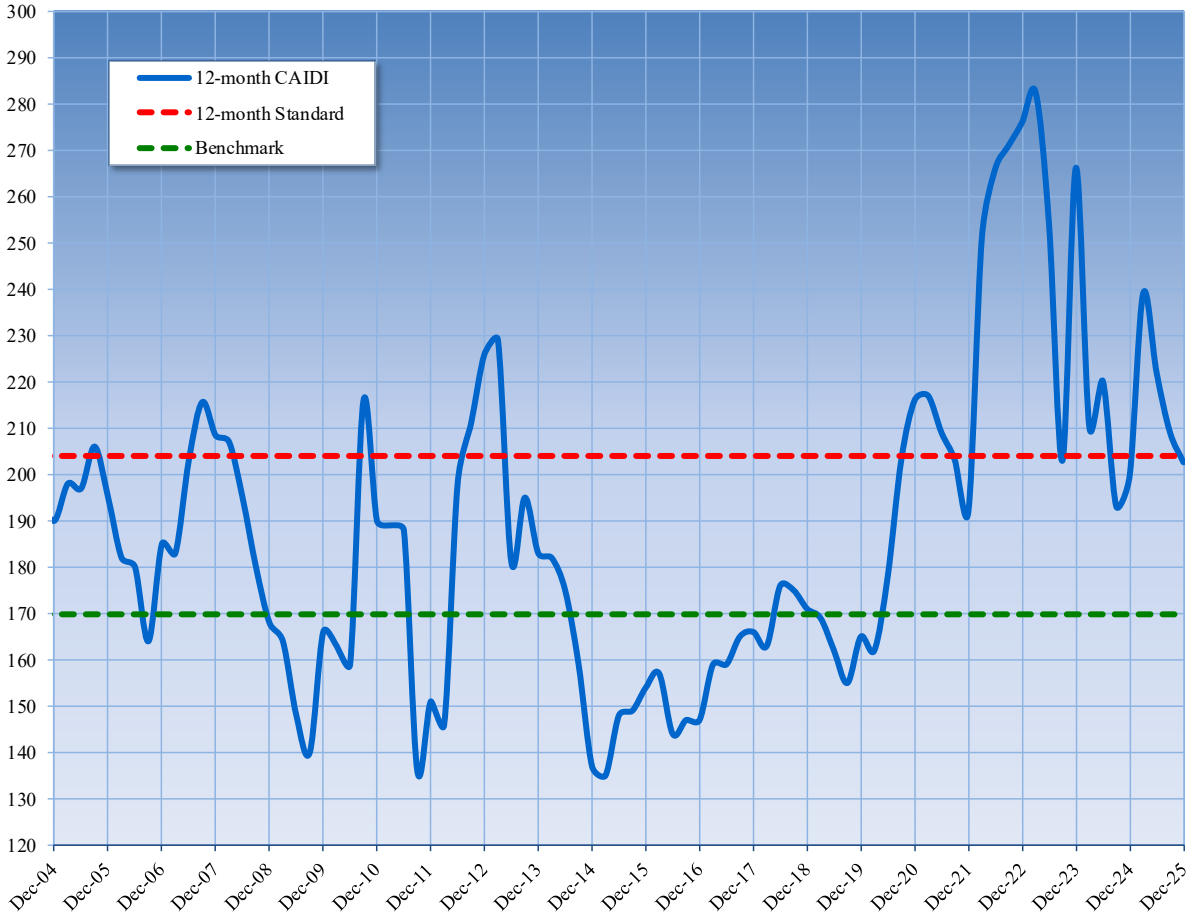


Figure 41 – West Penn SAIFI (interruptions per customer)

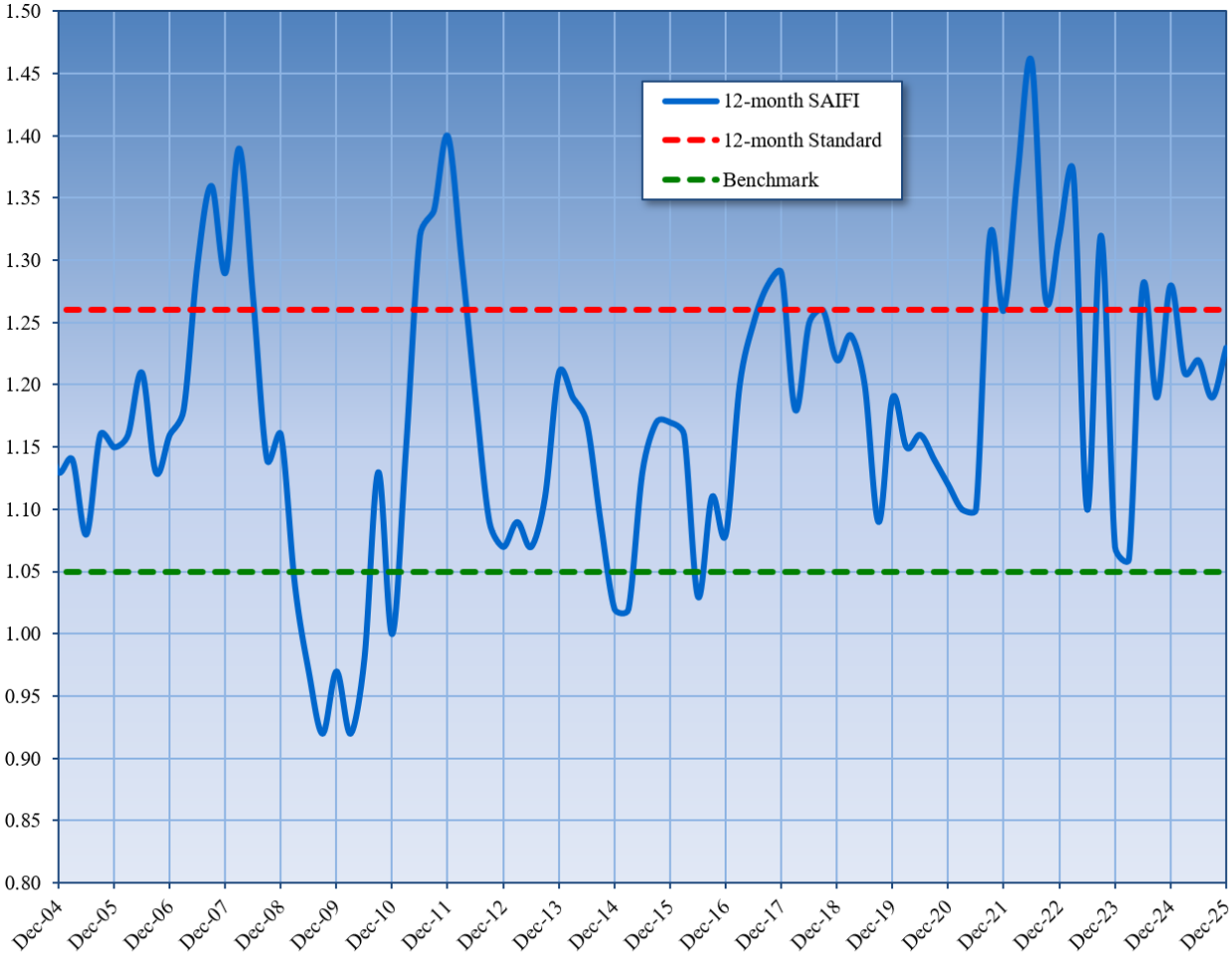


Figure 42 – West Penn Outage Causes (percent of total outages)

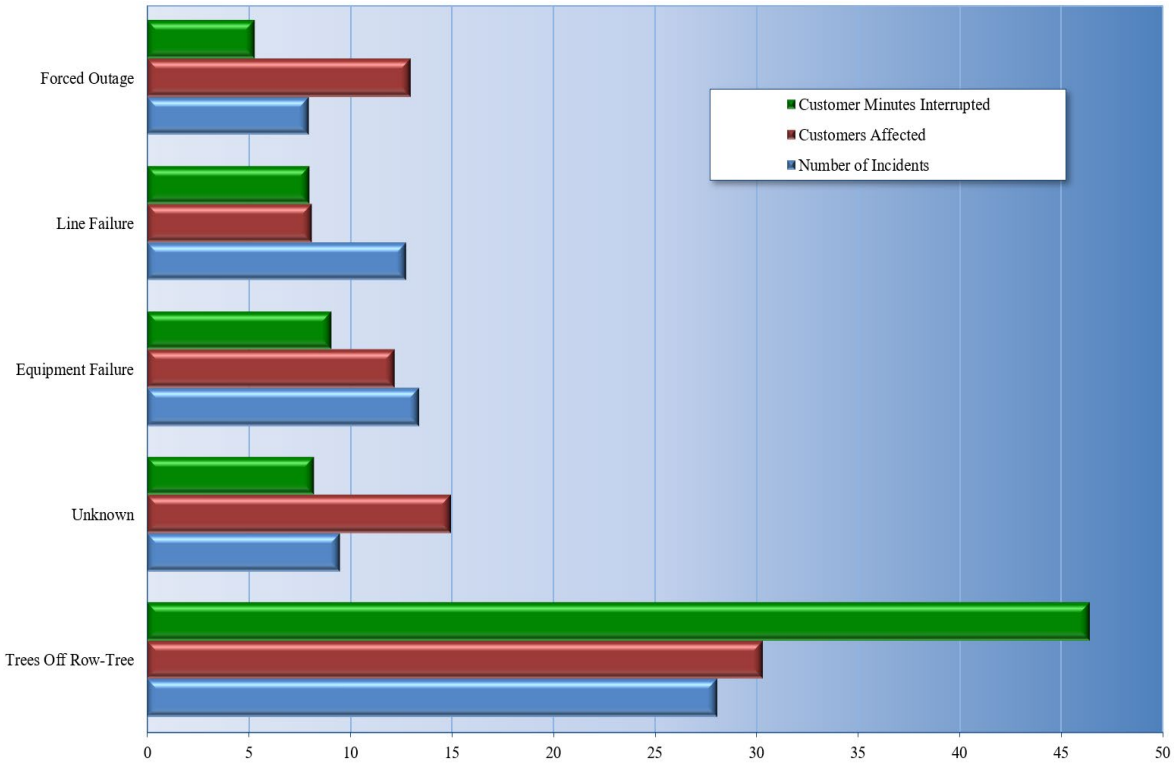


Figure 43 – West Penn Outage Tracking (number of incidents)

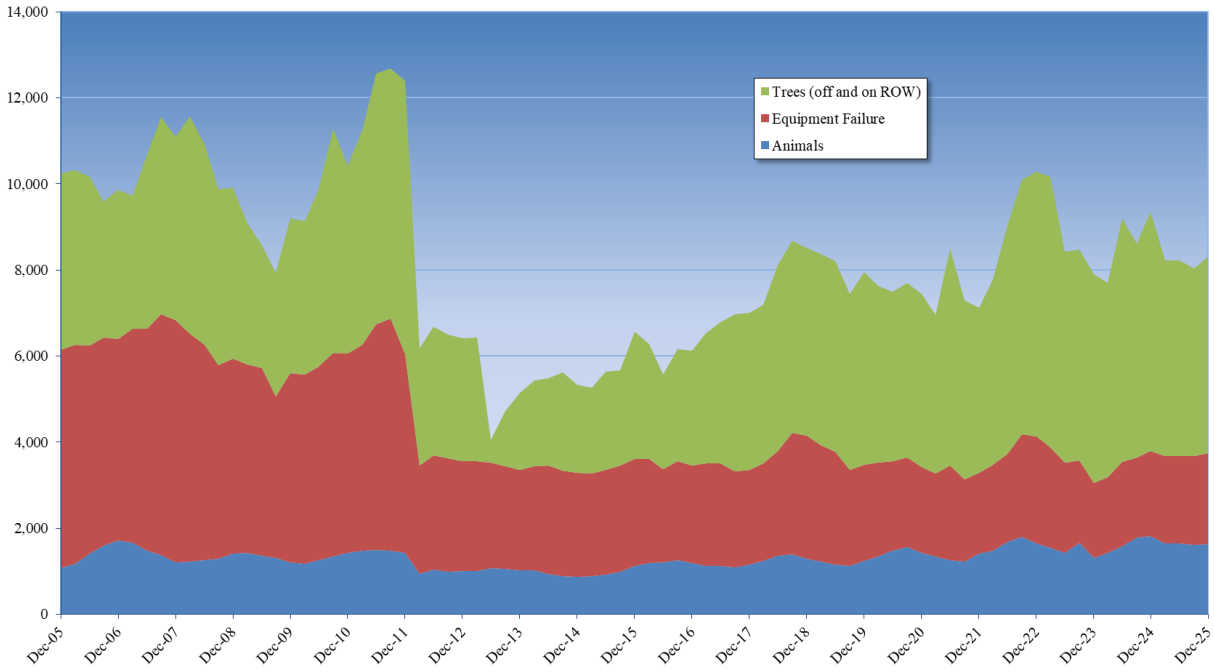


Figure 44 – West Penn Outage Tracking (number of Customers Interrupted)

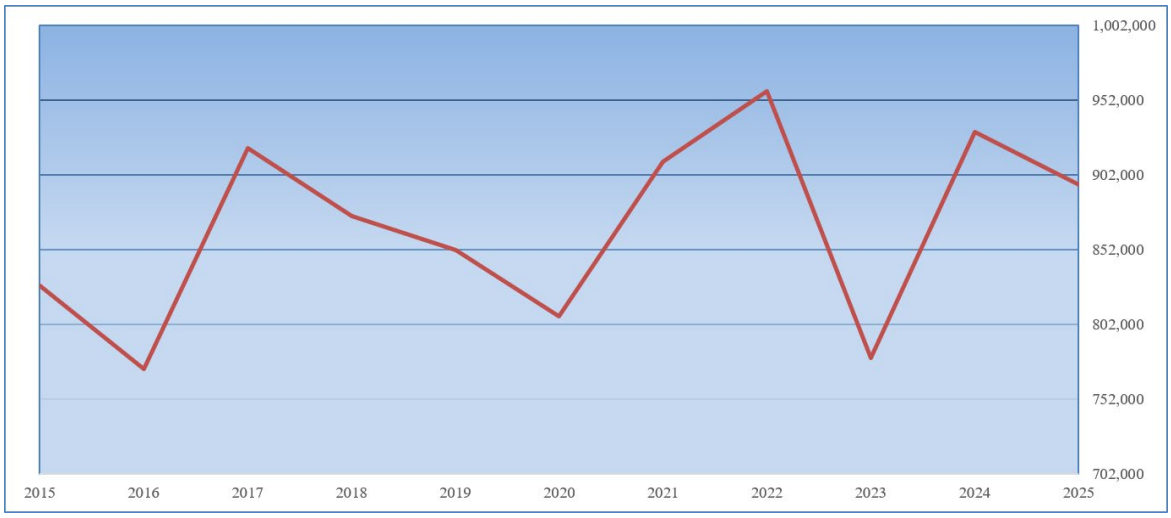


Figure 45 – West Penn Outage Tracking (Customer-Minutes of Interruptions CMI)

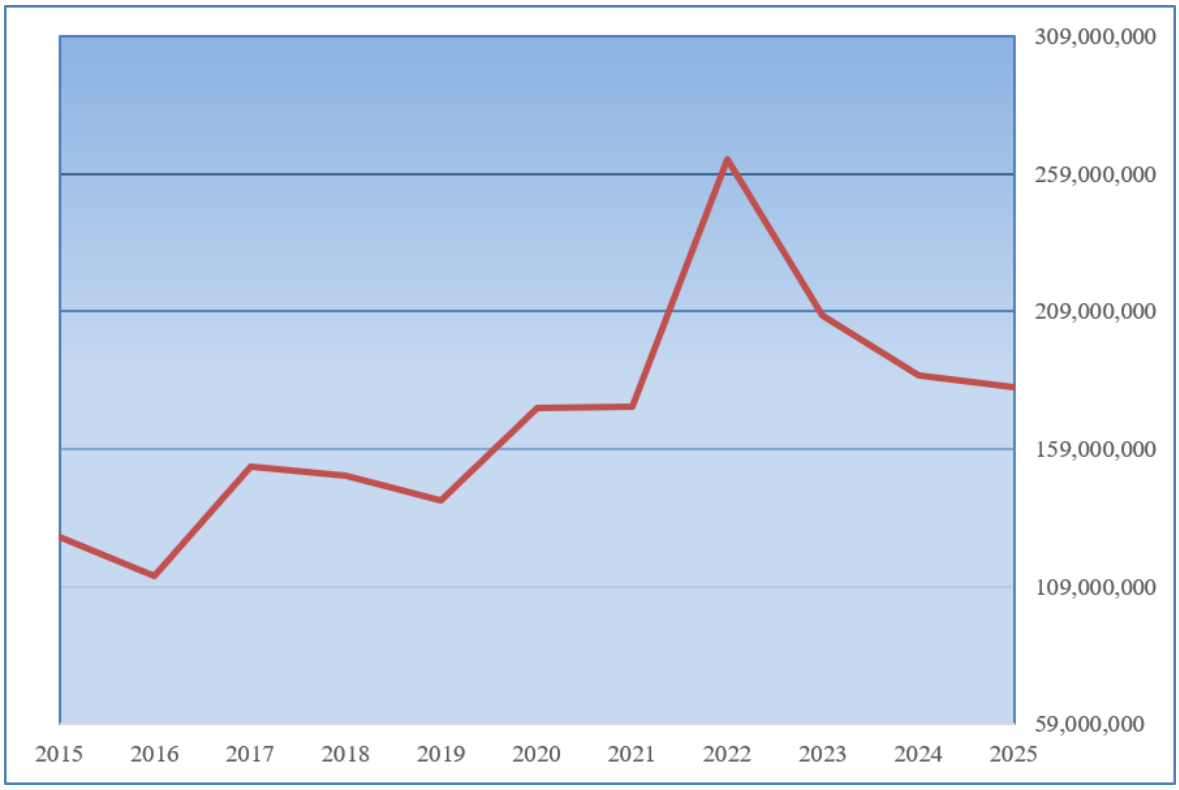
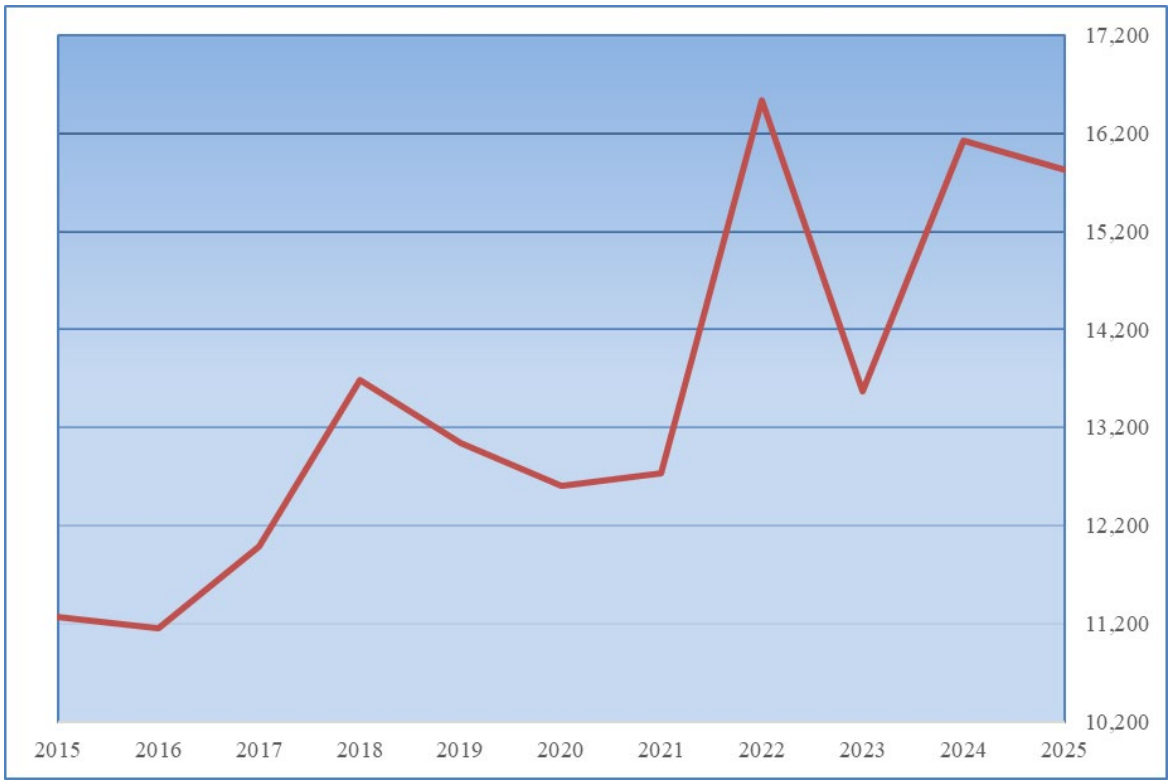


Figure 46 – West Penn Outage Tracking (number of interruptions annually)



PECO Energy Company

PECO Energy Company (PECO) has a service territory of about 2,000 square miles that serves a well-developed distribution system serving approximately 1.69 million customers.

In 2025, PECO experienced 1.35 million customer interruptions and 137.5 million CMI compared to 1.3 million customer interruptions and 125 million CMI in 2024 and 1.3 million customer interruptions and 174 million CMI in 2023.

PECO requested the exclusion of three Major Events for reliability reporting purposes in 2025 as described in Section 3. These Major Events impacted over 810,000 total customers and are not reflected in the reliability indices described below.

CAIDI/SAIDI/SAIFI Evaluation

CAIDI

Rolling 12-month: Increased from 96 minutes/customer in 2024 to 102 minutes/customer in 2025; achieved benchmark by 8.9%.

3-year average: Increased from 111 minutes/customer in 2024 to 112 minutes/customer in 2025; achieved standard by 8.9%.

SAIDI

Rolling 12-month: Increased from 75 minutes/customer in 2024 to 82 minutes/customer in 2025; achieved benchmark by 40.6%.

3-year average: Increased from 83 minutes/customer in 2024 to 87 minutes/customer in 2025; achieved standard by 48.1%.

SAIFI

Rolling 12-month: Increased from 0.78 outages in 2024 to 0.81 outages in 2025; achieved benchmark by 34.1%.

3-year average: Increased from 0.74 outages in 2024 to 0.78 outages in 2025; achieved standard by 42.5%.

CAIDI and SAIFI Performance

Historical rolling 12-month CAIDI and SAIFI benchmark reliability performance trends are shown in Figures 47 and 48 below. PECO reported a MAIFI of 0.91 for 2025. PECO achieved benchmark performance for CAIDI in 2024 and 2025. Management should continue to work on improving PECO's CAIDI performance in 2026 to maintain performance levels.

Beginning in December 2012, PECO's SAIFI benchmark performance has been consistently below the benchmark performance upper-control-limit-line as shown below on Figure 48.

Outage Causes

Figure 49 below shows the reported 2025 outage-cause categories, as a percentage, for the following three distinct performance metrics: CMI, Customers Affected, and Number of Incidents. Vegetation-Broken/Uprooted was the top cause of CMI and Equipment Failure had the highest number of incidents, and customers affected.

Figure 50 below shows the historical trends of the top three main outage causes. Equipment failure and Vegetation (all categories) are the two most frequent outage causes that significantly affect PECO's distribution system reliability and resilience, as well as nearly every EDC in Pennsylvania.

General Reliability

In its 2025 Annual Reliability Report filed with the Commission, PECO noted that it ensures reliable electric service through a comprehensive approach involving a transmission and distribution system designed and built to standards. PECO stated that it deploys an all-encompassing equipment and vegetation maintenance program across the entire territory. PECO noted that its second LTIIP ran through 2025 and that its third LTIIP is designed to construct reliability-related improvements for the period 2026 through 2030.[35]

PECO noted that when a storm or other emergency occurs, an appropriate emergency response team is assembled via cell phone, email, and Microsoft Teams notification and performs a thorough, documented, tested emergency response procedure, quickly escalating the magnitude of the response when required, and communicating with the public and government agencies. If necessary, PECO noted that pre-established agreements with local contractors and neighboring utilities are exercised to augment PECO Energy's workforce. Access to further supplemental resources has been maintained with the North Atlantic Mutual Assistance Group and the Bureau of Safety and Environmental Enforcement.

PECO stated that outages due to equipment and trees are being addressed through its LTIIP and other reliability programs. PECO explained that equipment is replaced based on observed trends under reliability programs and obsolescence. PECO noted that most customer interruptions caused by trees came from broken branches and tree trunks or uprooted trees (33.2% of all customer interruptions), as opposed to ingrowth (6.5% of all outage customer interruptions). PECO continues to address vegetation-related outages accelerating several vegetation management initiatives, such as Blue-Sky Trimming and improved prioritization of additional vegetation work.

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[35] *See, Petition of PECO Energy Company (PECO) for Approval of its Third Long-Term Infrastructure Improvement Plan (Third LTIIP) for its Electric Operations*. Order Entered December 18, 2025, at Docket No. P-2025-3056987

Conclusion

In 2025, SAIFI, CAIDI, and SAIDI were below their respective benchmarks and standards. PECO has sustained SAIFI benchmark performance and is considered an excellent SAIFI benchmark performer. TUS finds that PECO, like many of the Pennsylvania EDCs, should re-examine and potentially increase efforts to manage vegetation and review staffing and response times to ensure CAIDI issues are addressed.

As can be seen in Figure 51 below, the number of PECO customers interrupted annually is generally trending downward. Figure 52, below, shows CMI is also trending downward, despite the uptick in 2023, and has improved over the past four years. Figure 53 below shows a general positive trend in actual interruption events since 2019, even with the uptick in 2024 and 2025. The Commission recognizes this as a positive achievement and recommends that PECO's efforts continue.

Figure 47 – PECO CAIDI (minutes)

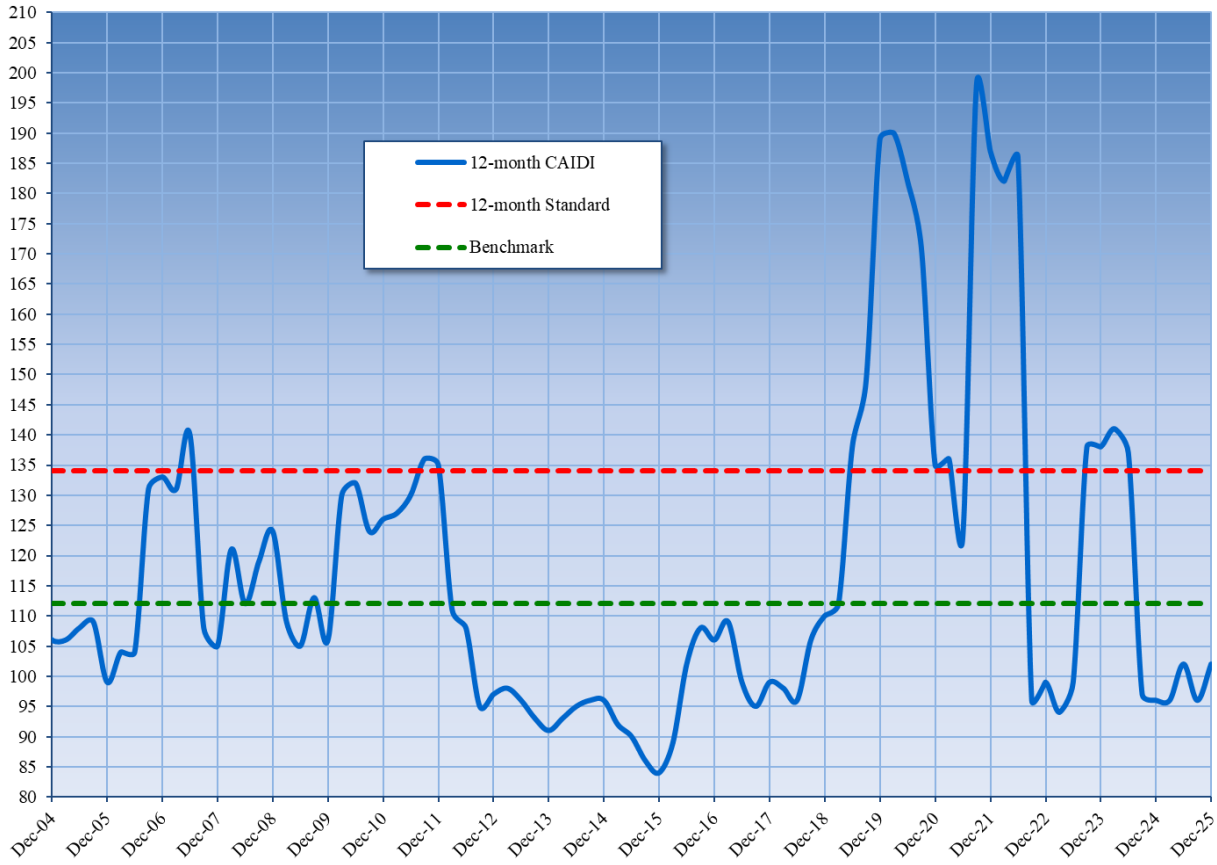


Figure 48 – PECO SAIFI (interruptions per customer)

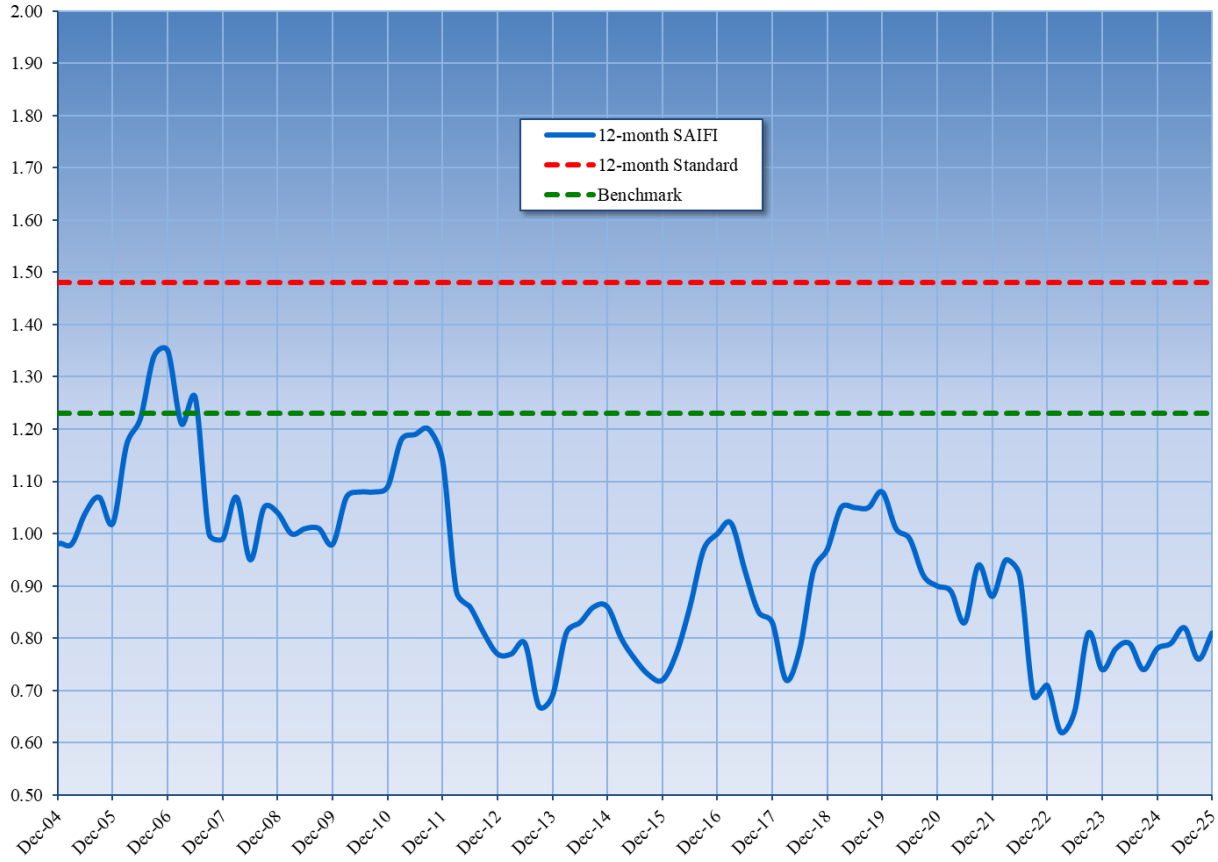


Figure 49 – PECO Outage Causes (percent of total outages)

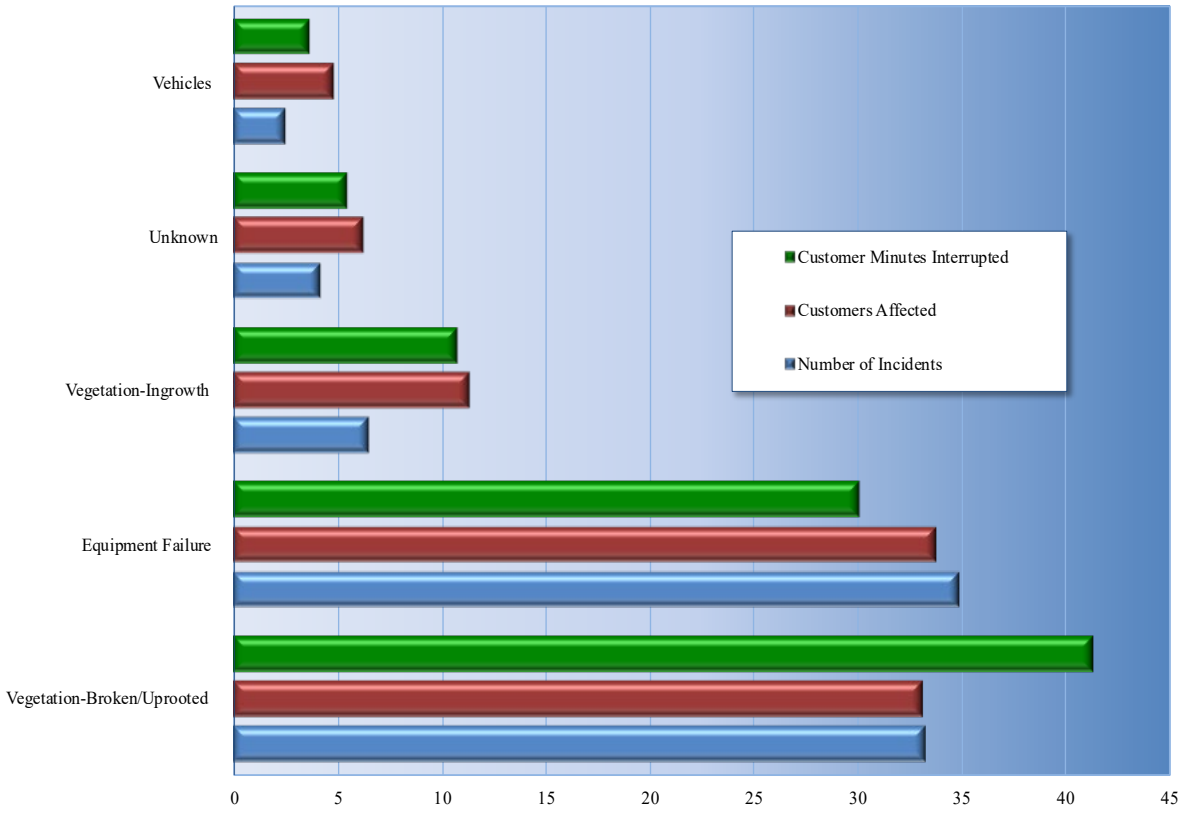


Figure 50 – PECO Outage Tracking (number of incidents)

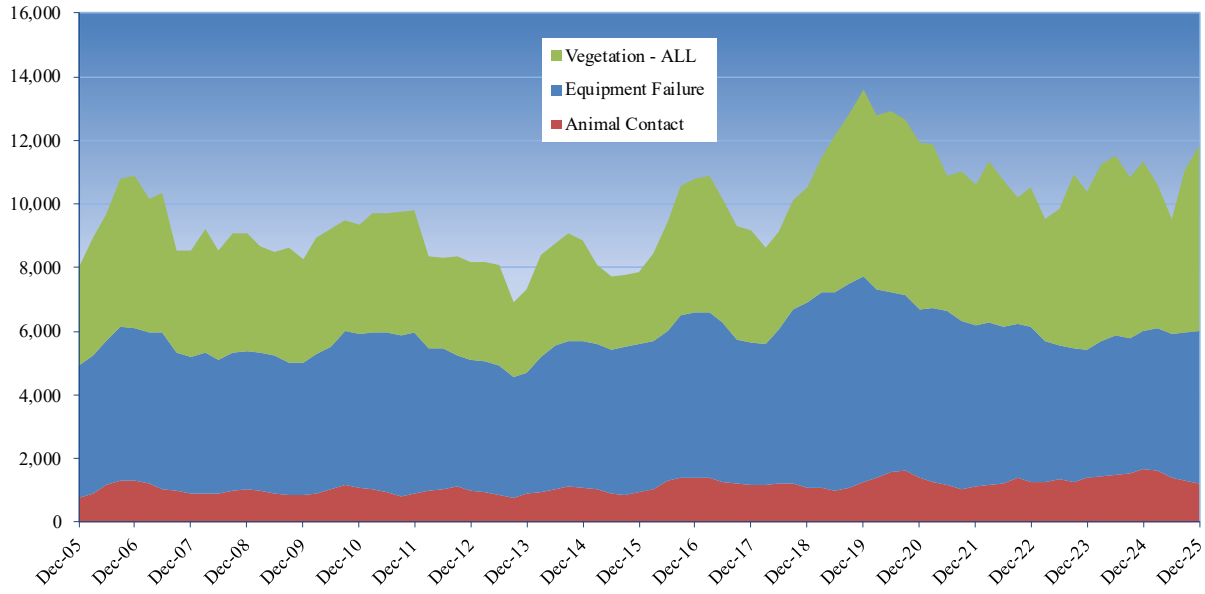


Figure 51 – PECO Outage Tracking (Number Of Customers Interrupted)

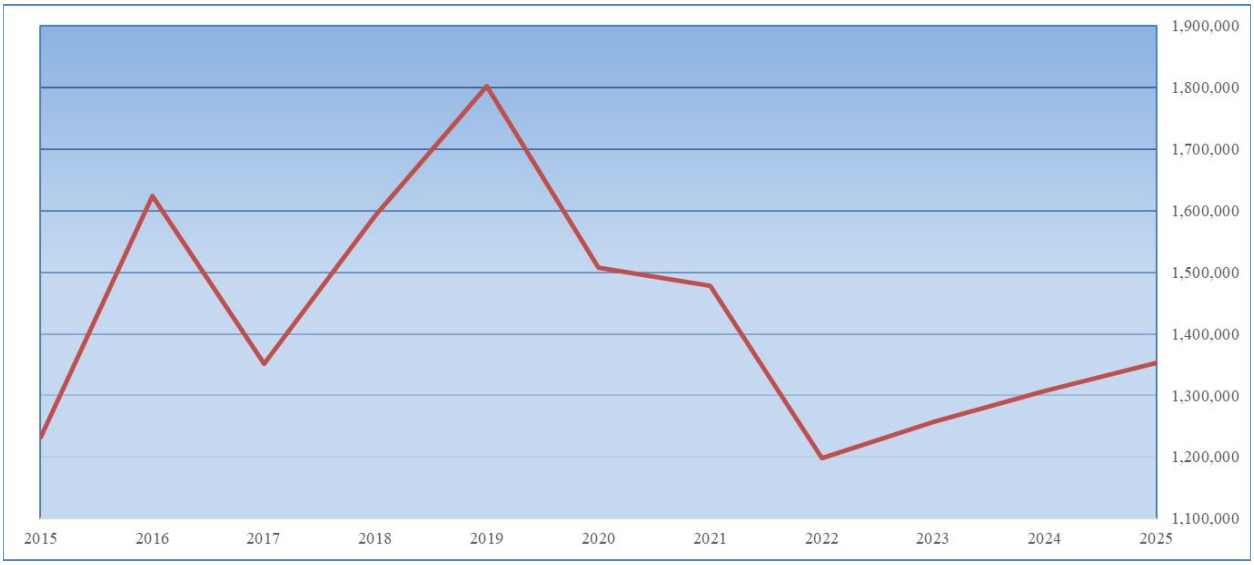


Figure 52 – PECO Outage Tracking (Customer-Minutes Of Interruptions, Or CMI)

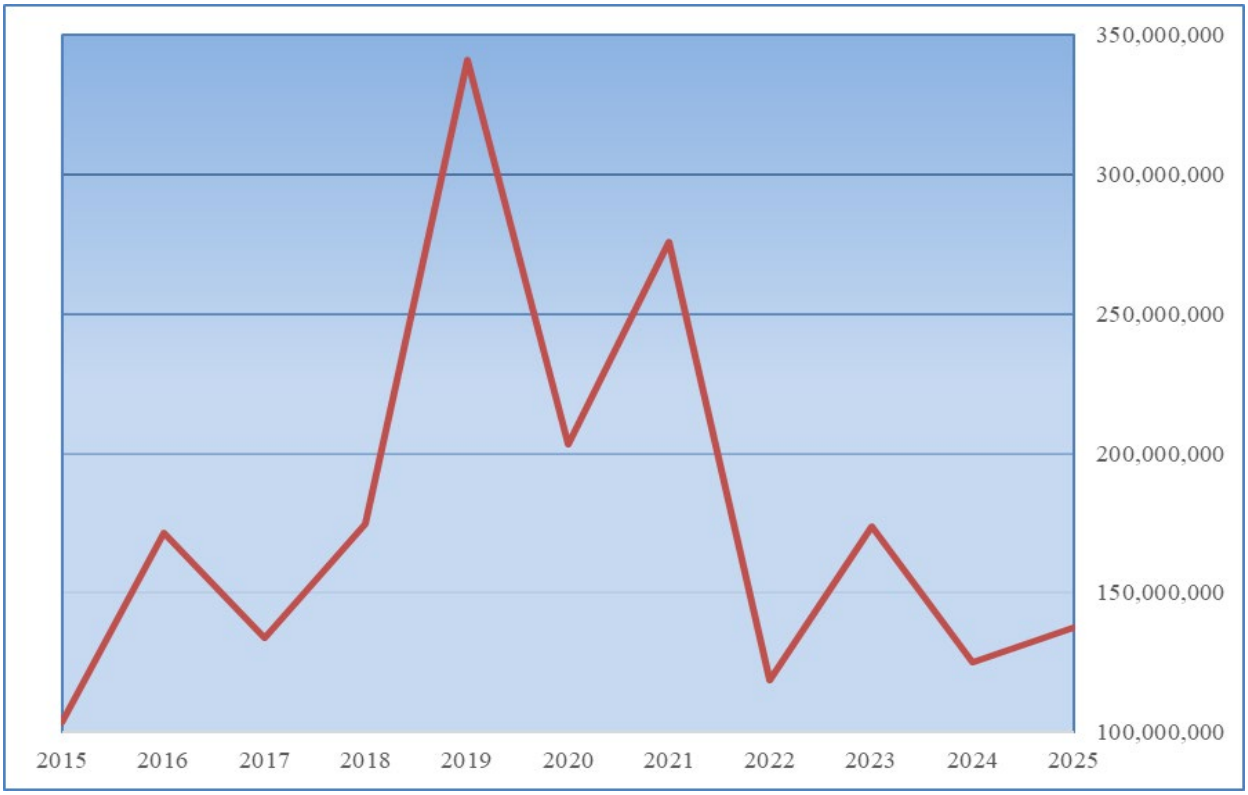
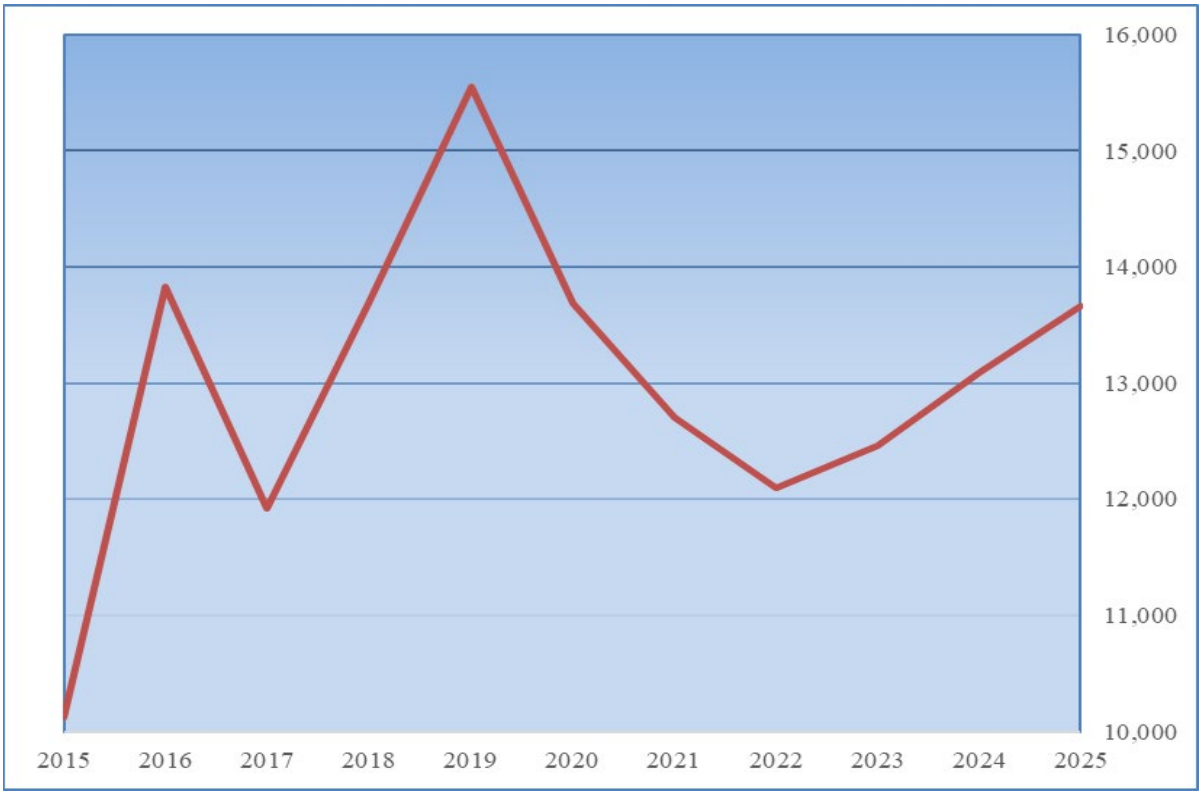


Figure 53 – PECO Outage Tracking (Number Of Interruptions Annually)



Pike County Light & Power Company

Pike County Light & Power Company (Pike) has a relatively small operating service area of approximately 44 square miles with about 5,318 customers. The Pike service territory is primarily fed from two 34.5 kV feeders that originate from Orange and Rockland Utilities (ORU). The Borough of Matamoras is served by two 13.2 kV feeders from a substation with backup tie capability to distribution circuitry from ORU. The substation is normally fed by a 34.5 kV feed from ORU circuit 116-2-34, with backup service being provided by ORU 34.5 kV circuit 116-434 through an automatic transfer scheme at the substation. The western portion of the Pike service territory is supplied by a radial feed from the ORU circuit 116-4-34.

In 2025, Pike experienced 3,760 customer interruptions and 444,071 CMI as compared to: 4,490 customer interruptions and 826,239 CMI in 2024 and 4,584 customer interruptions and 437,709 CMI in 2023.

Pike requested the exclusion of two Major Events for reliability reporting purposes in 2025 as discussed in Section 3. These Major Events impacted 2,854 customers and are not reflected in reliability indices described below.

CAIDI/SAIDI/SAIFI Evaluation

CAIDI

Rolling 12-month: Decreased from 184 minutes/customer in 2024 to 118 minutes/customer; achieved benchmark by 32.2%.

3-year average: Decreased from 146 minutes/customer in 2024 to 132 minutes/customer in 2025, achieved standard by 31.1%.

SAIDI

Rolling 12-month: Decreased from 155 minutes/customer in 2024 to 84 minutes/customer in 2025; achieved benchmark by 20.8%.

3-year average: Increased from 105 minutes/customer in 2024 to 107 minutes/customer in 2025; achieved standard by 17.1%.

SAIFI

Rolling 12-month: Decreased from 0.84 outages in 2024 to 0.71 outages in 2025; failed to achieve benchmark by 16.4%.

3-year average: Increased from 0.73 outages in 2024 to 0.80 outages in 2025; failed to achieve standard by 19.9%.

CAIDI/SAIDI/SAIFI Performance

Historical rolling 12-month CAIDI and SAIFI benchmark reliability performance trends are shown in Figures 54 and 55 below. From 2004 through 2019, Pike's CAIDI performance had

been erratic and frequently above the "green" benchmark performance upper-control-limit-line and "red" 12-month standard. Pike's CAIDI performance improved during late 2019 and it returned to benchmark levels from 2020 through 2024. While Pike exceeded its benchmark early in 2025 it was able to finish 2025 well below the benchmark. Additional management attention is needed to ensure consistent CAIDI performance below the "green" benchmark performance upper-control-limit-line. The Commission views CAIDI as an important indication of an EDCs ability to respond to, repair and return to service customers that are experiencing an electric service outage.

Pike's SAIFI performance trend was positive, overall, during the years 2015 through 2020. However, since 2020 Pike's SAIFI has regularly exceeded the benchmark. Significant management attention is needed to maintain SAIFI performance below the "green" benchmark performance upper-control-limit-line. The Commission generally views SAIFI performance as an indicator of an EDC's system hardening and outage resistance. Coupled with the weather conditions experienced, it demonstrates the ability to withstand outages.

Outage Causes

Figure 56 below shows the top five reported outage cause categories in 2025, as a percentage, for the following three distinct performance metrics: CMI, Customers Affected, and Number of Incidents. Contact and Equipment Failure created the greatest number of incidents causing the most CMI. Approximately 53% of incidents are caused by Tree Contact.

Figure 57 below shows the historical trend of the top three main outage causes. Tree Contact is the most frequent outage causes that negatively affects Pike's distribution system reliability and resilience, as well as most every EDC in Pennsylvania.

General Reliability

In its Annual Reliability Report filed with the Commission, Pike noted that it has been effective in removing danger trees. However, in recent years, external environmental factors such as the emerald ash borer have increased the risk associated with tree contact outages to the Company's distribution system. Pike noted that it prioritizes and aggressively removes danger trees within utility ROW zones and works with individual customers and municipalities to remove those that that exist outside of the Company's ROW areas. Pike also noted that it works with the Milford and Matamoras Boroughs' Shade Tree Commissions as well as Penn DOT to address danger trees that represent a hazard to the public as well as the Company's electrical system located within and outside of ROW areas.

To address Loss of Feed Pike indicated that it has increased its communications with impacted customers, keeping them informed of the conditions and expectations. In addition, Pike noted that it communicates hourly during the outages with the adjoining utility for updated estimated restore times and status.

Finally, Pike noted that during its 2025 pole inspection program approximately 325 poles were inspected, and the 42 poles that failed inspection were replaced.

Conclusion

From 2019 through 2023, Pike had improved CAIDI performance. However, Pike did exceed the 12-month standard level for SAIFI in 2021, 2023, and 2024. It is expected that Pike will direct more management attention to SAIFI and maintain levels below the "green" benchmark performance upper-control-limit-line. Consistent management attention is needed in the future to sustain the CAIDI trend line below the "green" benchmark performance upper control-limit-line. The Commission recommends continued and increased efforts in vegetation management and use of LTIIP funding to improve system hardening and resiliency.

The Commission recognizes that, overall, Pike appears to have stabilized its reliability performance, as witnessed by the data shown above and below. Pike should continue to strive to achieve consistency in its reliability performance.

As can be seen in Figure 58 below, the number of Pike's customers interrupted annually is on a very slight upward trend but has shown improvement in 2024 and 2025. Figures 59 and 60 below depict Pike's historical CMI and interruption events.

Figure 54 – Pike County CAIDI (minutes)

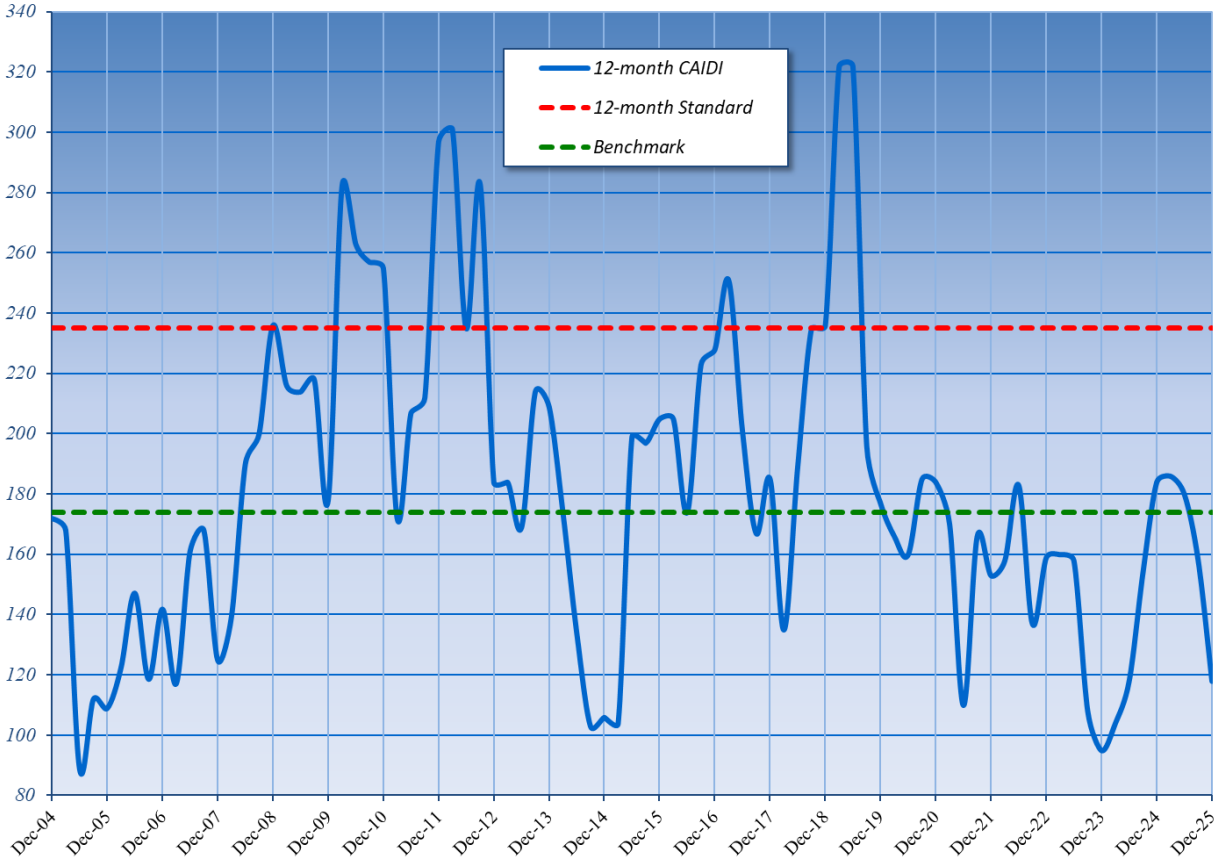


Figure 55 – Pike County SAIFI (interruptions per customer)

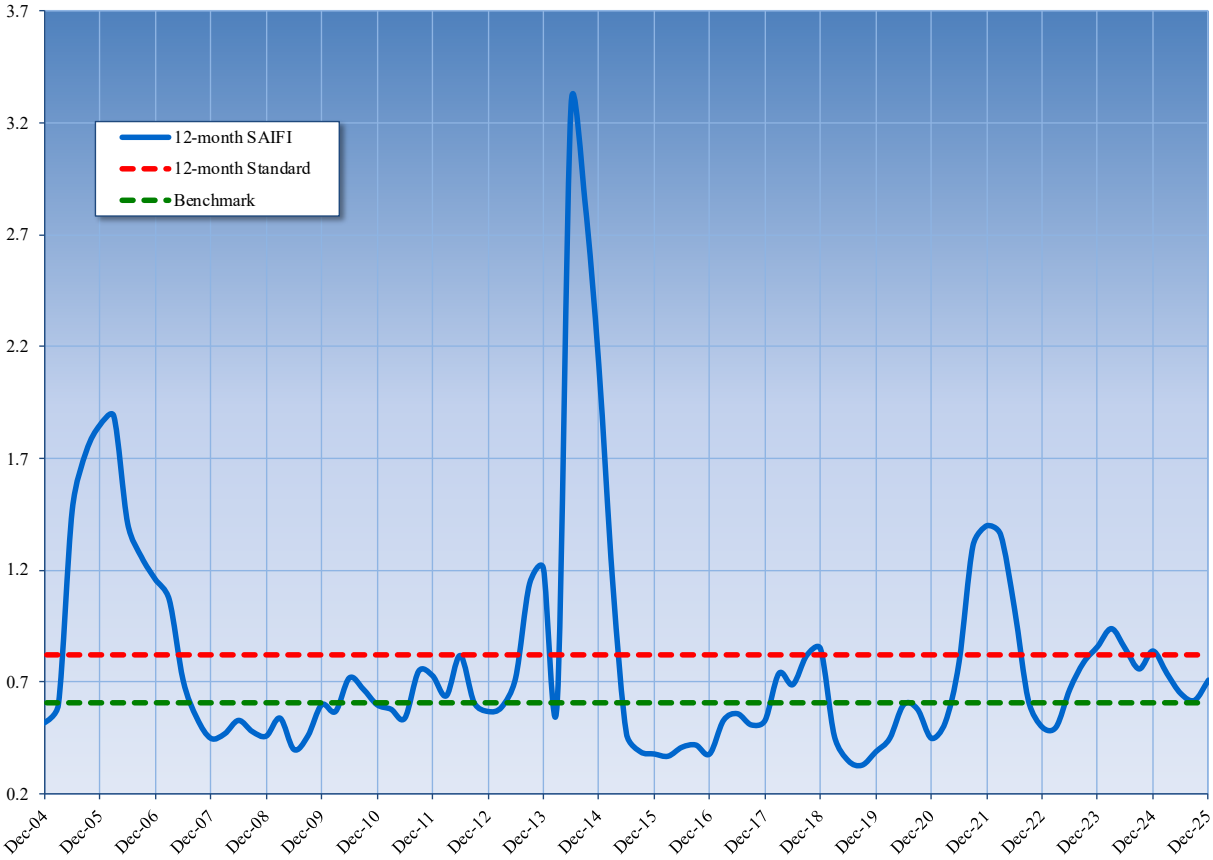


Figure 56 – Pike County Outage Causes (percent of total outages)

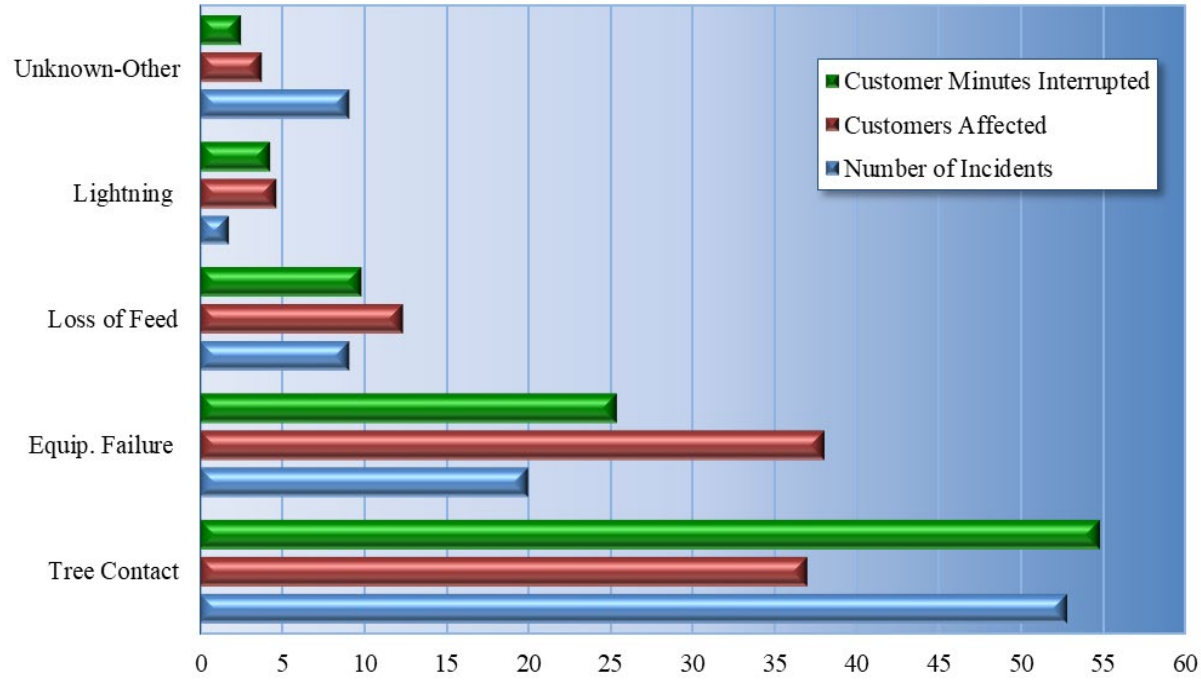


Figure 57 – Pike County Outage Tracking (number of incidents)

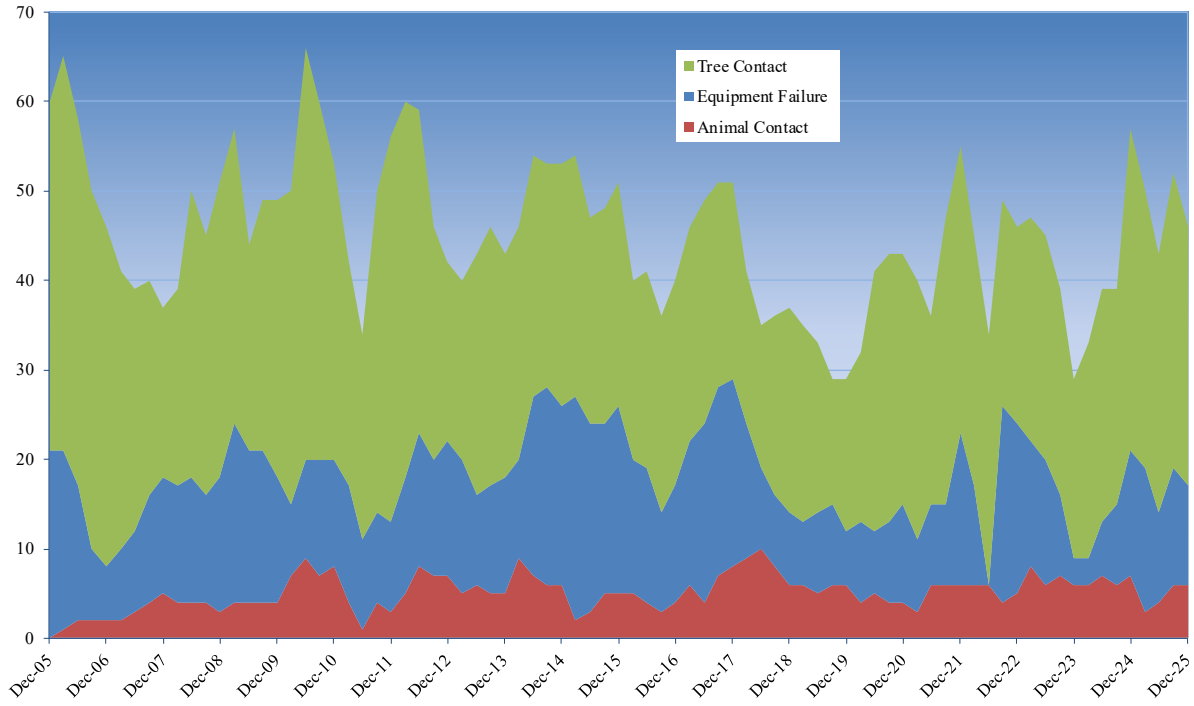


Figure 58 – Pike County Outage Tracking (number of Customers Interrupted)

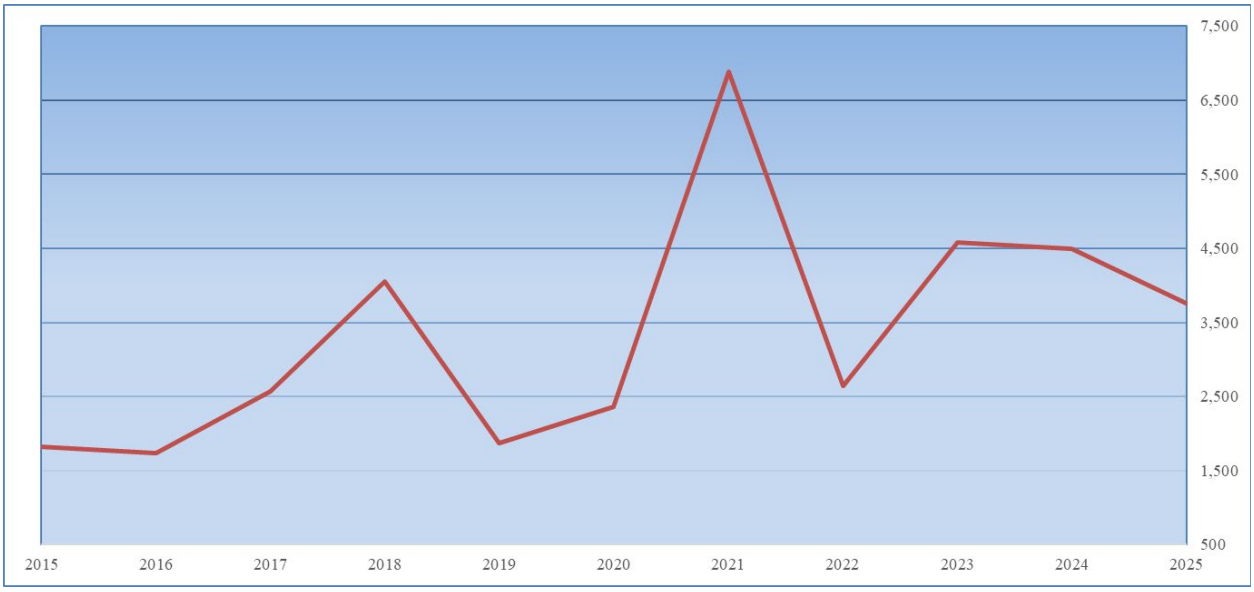


Figure 59 – Pike County Outage Tracking (Customer-Minutes of Interruptions CMI)

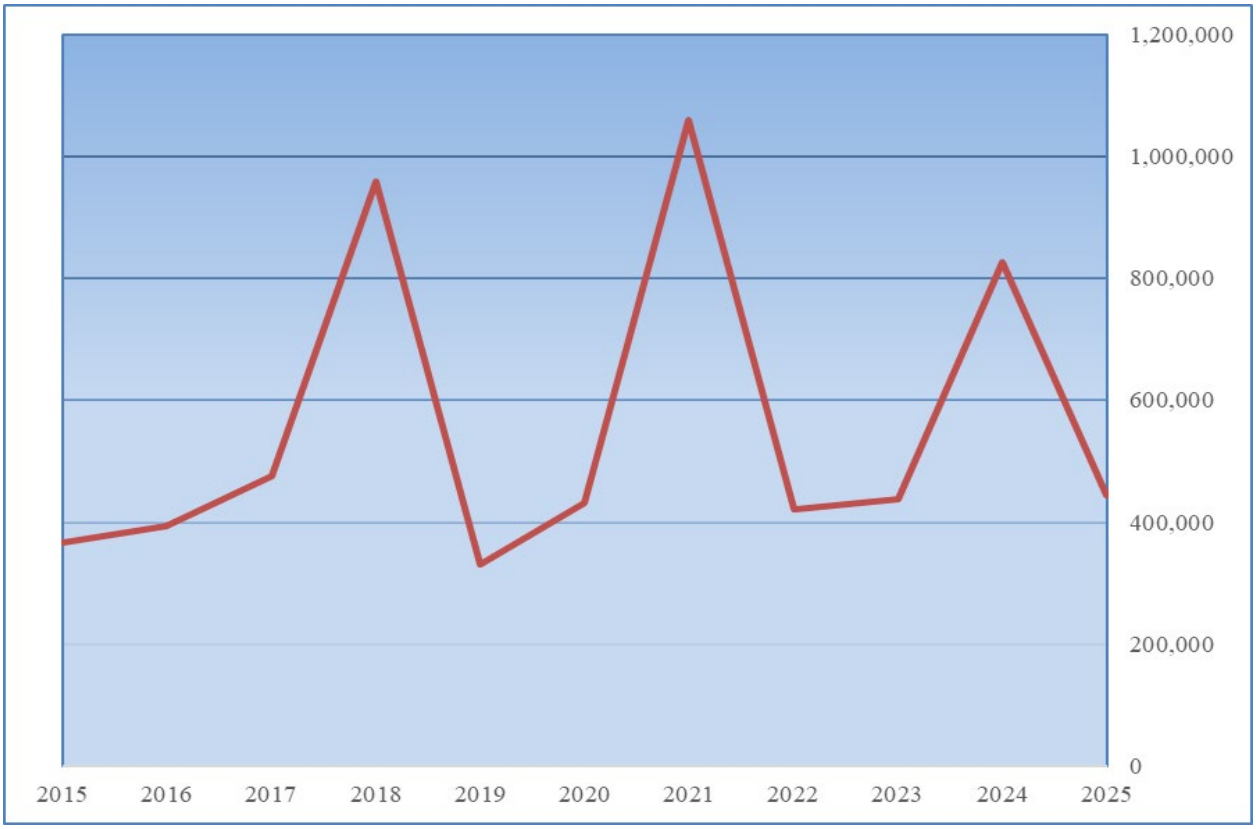


Figure 60 – Pike County Outage Tracking (number of interruptions annually)

PPL Electric Utilities Corporation

PPL Electric Utilities Corporation (PPL) has a service territory of approximately 10,000 square miles and serves approximately 1.47 million customers.

In 2025, PPL experienced approximately1.4 million customer interruptions and 282.3 million CMI as compared to 1.8 million customer interruptions and 663.8 million CMI in 2024 and 1.1 million customer interruptions and 214.4 million CMI in 2023.

PPL did not request an exclusion of a Major Event in 2025.

CAIDI/SAIDI/SAIFI Evaluation

CAIDI

Rolling 12-month: Decreased from 371 minutes/customer in 2024 to 208 minutes/customer in 2025; failed to achieve benchmark by 43.4%.

3-year average: Increased from 241 minutes/customer in 2024 to 256 minutes/customer in 2025; failed achieve standard by 60%.

SAIDI

Rolling 12-month: Decreased from 451 minutes/customer in 2024 to 191 minutes/customer in 2025; failed to achieve benchmark by 34.5%.

3-year average: Decreased from 247 minutes/customer in 2024 to 263 minutes/customer in 2025; failed to achieve standard by 52.9%.

SAIFI

Rolling 12-month: Decreased from 1.22 outages in 2024 to 0.92 outages in 2025; achieved benchmark by 22%.

3-year average: Increased from 0.96 outages in 2024 to 0.97 outages in 2025; achieved standard by 9.9%.

CAIDI and SAIFI Performance

Historical rolling 12-month CAIDI and SAIFI benchmark reliability performance trends are shown in Figures 61 and 62 below. PPL reported a MAIFI of 11.7 for 2025. Between 2004 and 2020, PPL generally achieved standard and benchmark performance for CAIDI. However, since 2020, PPL has failed to achieve its CAIDI benchmark and has consistently exceeded its standard. Management should intensify its efforts to improve CAIDI performance and return performance to levels consistently below the “green” benchmark performance upper-control-limit line. The Commission views CAIDI as an indicator of an EDC’s ability to respond to, repair and return to

service customers following an outage. It is understood that with the improved system automation that the CAIDI index will show increases. However, the use of system automation by an EDC tends to make CAIDI a more valuable indicator of customer outage times and hence actual response to customer interruptions.

From December 2013 to December 2023, PPL's SAIFI performance trend had been positive, as shown in Figure 62 below. PPL failed to achieve the standard in 2024 but has returned to below its SAIFI benchmark in 2025. TUS notes that the assumption that 2024 was an aberration for PPL's reliability due to a record number of Reportable Outages in 2024 with no Major Events excluded from its reliability indices appears accurate. PPL experienced 14 Reportable Outages in 2025 with no Major Events excluded and was able to return its SAIFI performance to below its benchmark.

Outage Causes

Figure 63 below shows the top five reported outage cause categories in 2025, as a percentage, for the following three distinct performance metrics: CMI, Customers Affected, and Number of Incidents. Trees were the top cause of outages and customer minutes interrupted. Approximately 71% of CMI and 53% of incidents are caused by trees.

Figure 64 below shows the historical trend of the top five main outage causes. Tree Related and Equipment Failures are the two most frequent outage causes that are significantly negatively affecting PPL's distribution system reliability and resilience, as well as almost every EDC in Pennsylvania.

General Reliability

PPL noted that in 2025, it was able to improve SAIFI to within-benchmark performance during a challenging storm year with 53 storm events, including 14 Reportable Outages. Over the last five years, PPL noted that it has averaged 13.8 Reportable Outages per year and has avoided over 3.3 million customer interruptions since the inception of its Fault Location Isolation and System Restoration (FLISR) system.

PPL stated that it continues to drive high levels of reliability performance through:

- A commitment to providing safe, reliable, affordable service to our customers.
- A focus on storm hardening.
- Strategic vegetation management.
- Implementation of proactive fault sensing.
- Continued strategic investment in distribution automation technology such as:
- Multi and single-phase Smart Grid Initiatives.
- Increased leverage of PPL's Automated Distribution Management System (ADMS).
- Full implementation of FLISR technology, which has automatically restored more than 3.3 million customers since 2015.
- Strategic data-driven reliability investments including asset replacement, and system improvements that include storm hardening standards.

- An increased focus on remediating momentary outages before they become permanent outages.
- Continued focus on outage response improvements.
- Moving to data-driven, condition-based maintenance programs.

In terms of CAIDI, PPL noted several initiatives it continues to evaluate to improve CAIDI performance. Some of these strategic areas include:

- Optimizing resource planning and scheduling.
- Setting Restore vs. Repair strategy early on in storm response.
- Resource Strategy/Optimization.
- Resource scheduling and prearranging resource availability.
- Leveraging data technology to isolate impact and dispatching of resources needed to address outages.

Conclusion

Tree Related and Equipment Failures are the top two outage causes that negatively affect electrical reliability to PPL customers. As noted above, although improved, PPL's CAIDI performance in 2025 was above both benchmark and standard. Management attention is required to continue to move CAIDI performance below the "green" benchmark performance upper-control-limit line. CAIDI is a measure of customer restoration that in terms of the duration of the experienced outage and can be improved by decreased response and repair times.

PPL is commended for its SAIFI performance in 2025.

The Commission recommends continued and increased efforts in vegetation management, equipment replacement and upgrades through the LTIIP, and a continuing emphasis on improving response times.

As can be seen in Figures 65 through 67 below, PPL was able to improve its reliability performance in 2025.

FIGURE 61 – PPL CAIDI (MINUTES)

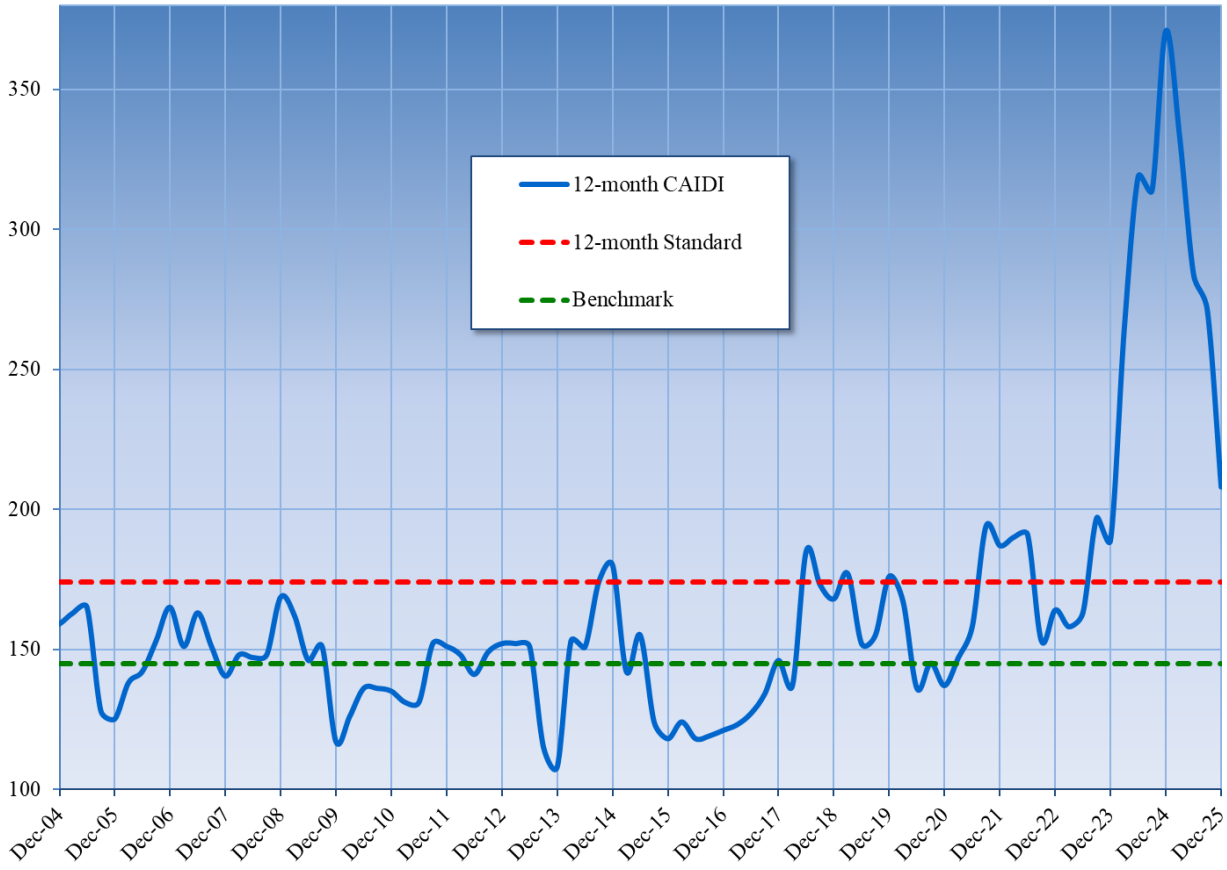


Figure 62 – PPL SAIFI (interruptions per customer)

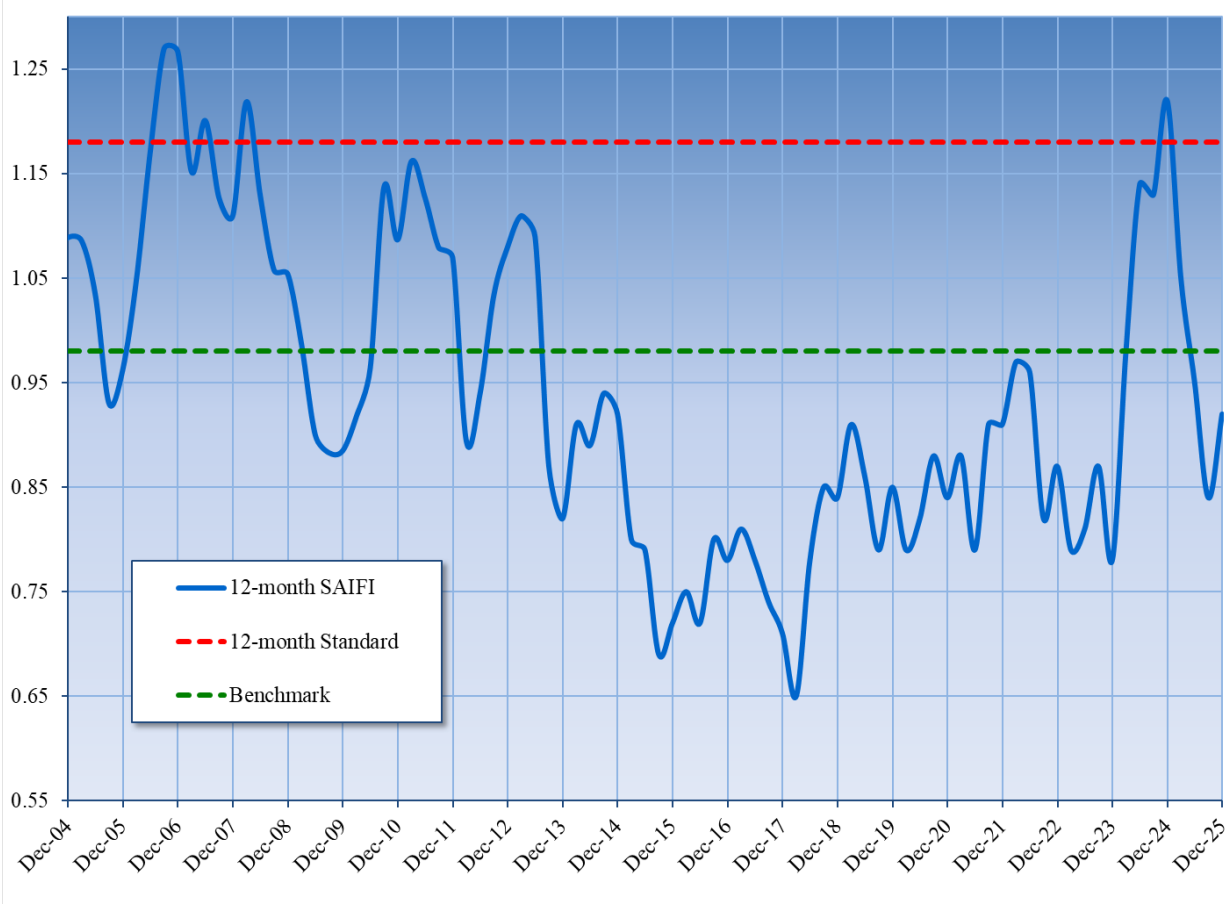


Figure 63 – PPL Outage Causes (percent of total outages)

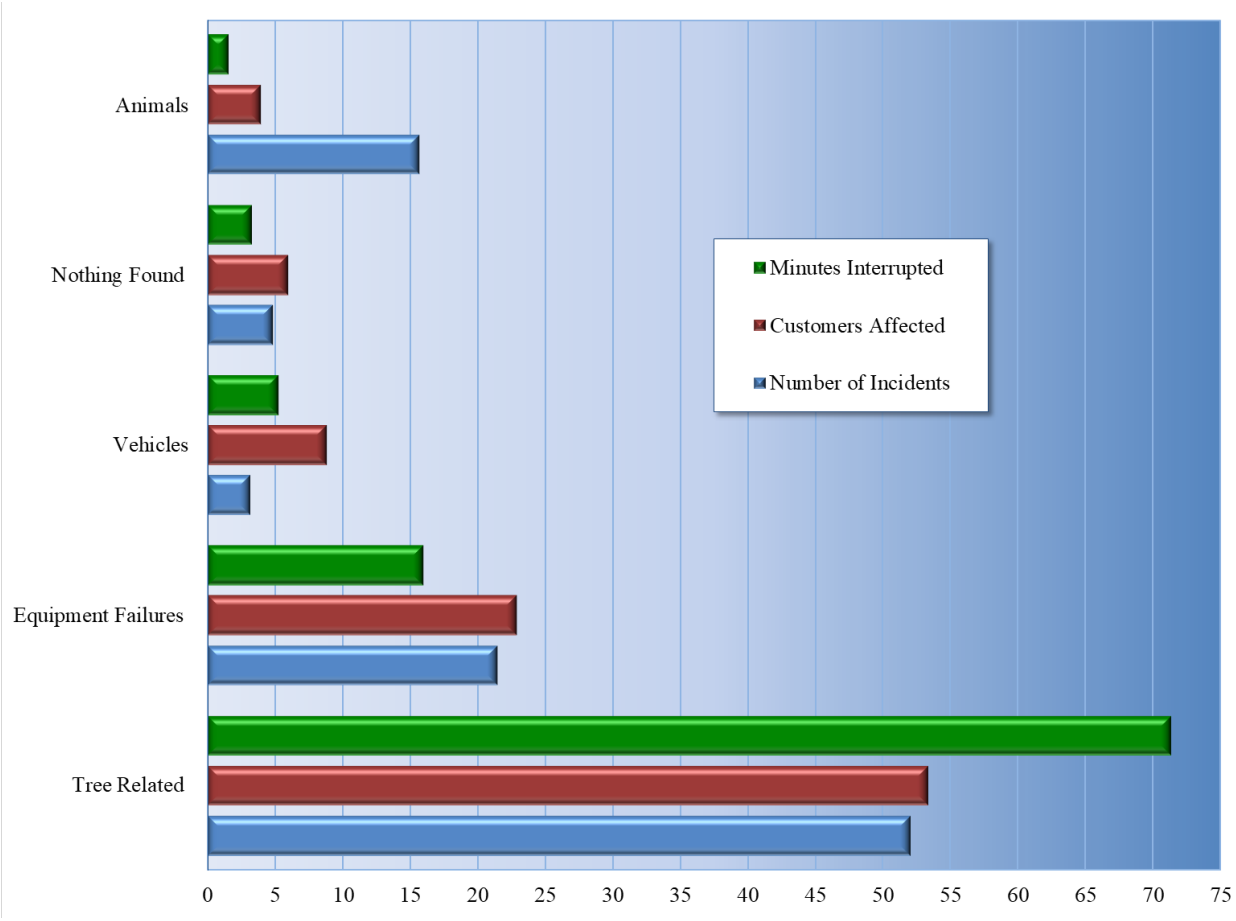


Figure 64 – PPL Outage Tracking (number of incidents)

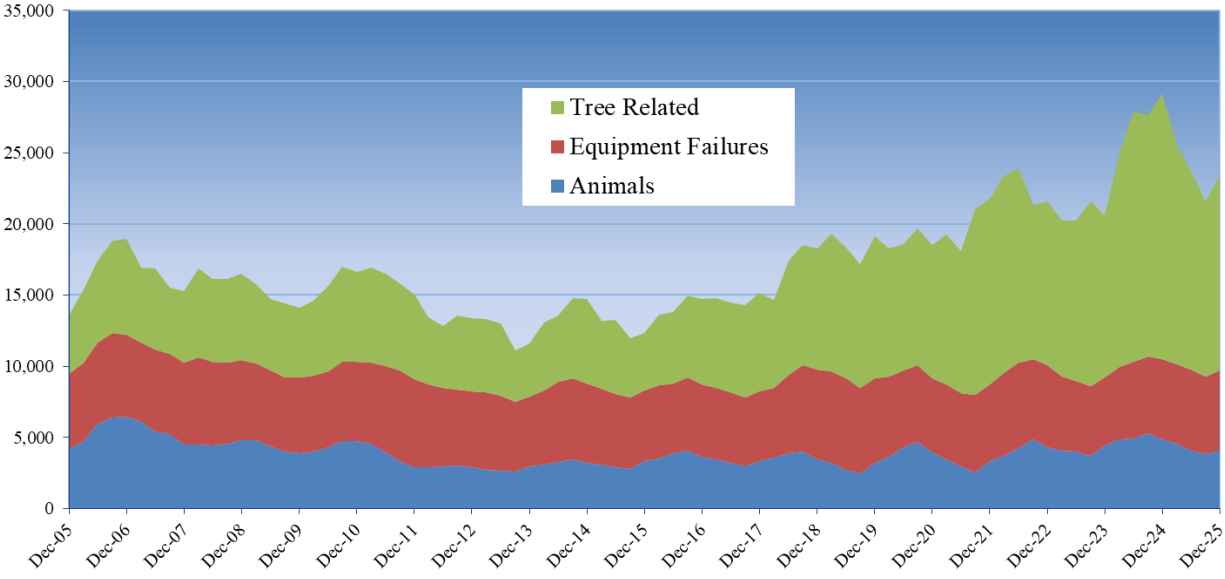


Figure 65 – PPL Outage Tracking (number of Customers Interrupted)

Figure 66 - PPL Outage Tracking (Customer-Minutes of Interruptions CMI)

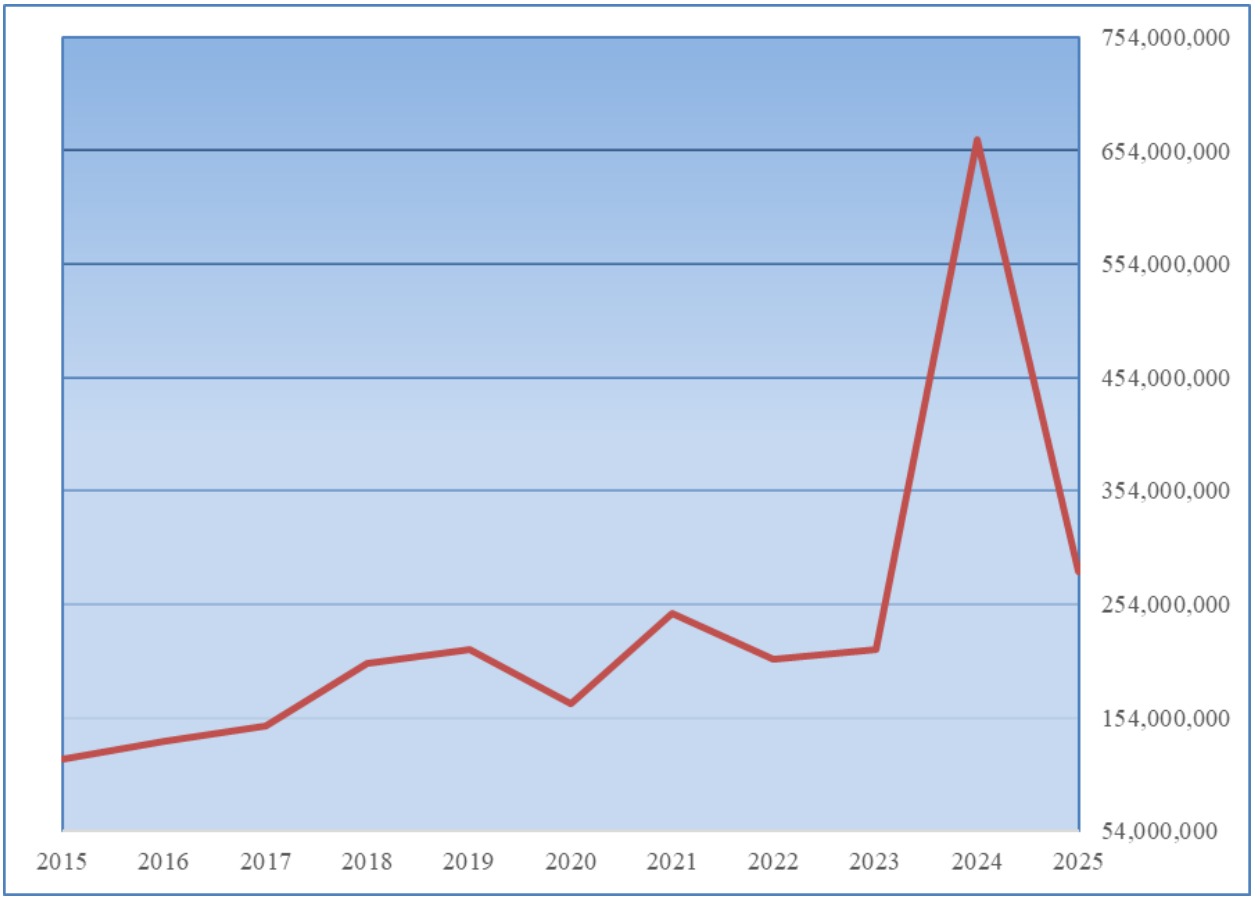
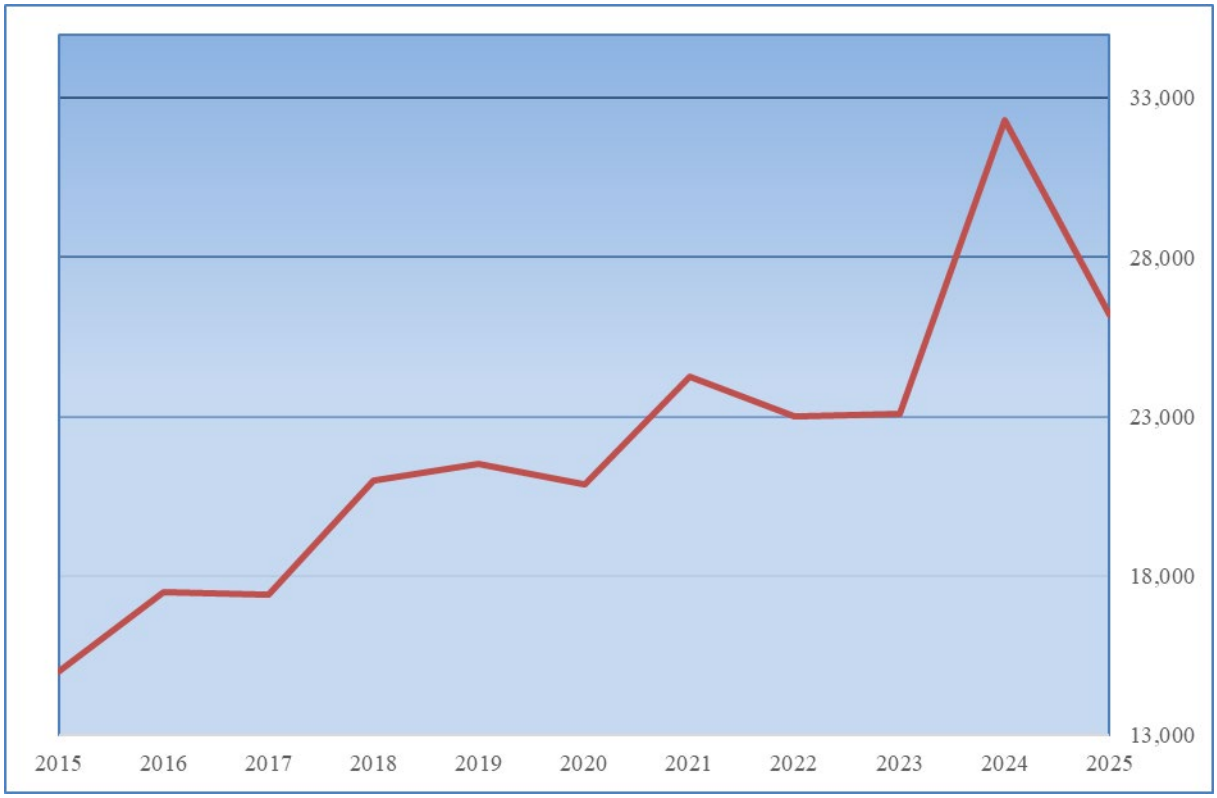


Figure 67 – PPL Outage Tracking (number of interruptions annually)



UGI Utilities Inc. – Electric Division

UGI Utilities, Inc. – Electric Division, (UGI) has a service territory of about 410 square miles and serves about 62,634 customers.

In 2025, UGI experienced 36,111 customer interruptions and 3.5 million CMI compared to: 48,640 customer interruptions and 6.7 million CMI in 2024 and 33,872 customer interruptions and 3.8 million CMI in 2023.

UGI did not request the exclusion of a Major Event in 2025.

CAIDI/SAIDI/SAIFI Evaluation

CAIDI

Rolling 12-month: Decreased from 138 minutes/customer in 2024 to 97 minutes/customer in 2025; achieved benchmark by 42.6%.

3-year average: Decreased from 135 minutes/customer in 2024 to 116 minutes/customer in 2025; achieved standard by 37.8%.

SAIDI

Rolling 12-month: Decreased from 107 minutes/customer in 2024 to 56 minutes/customer in 2025; achieved benchmark by 60%.

3-year average: Decreased from 101 minutes/customer in 2024 to 75 minutes/customer in 2025; achieved standard by 56.1%.

SAIFI

Rolling 12-month: Decreased from 0.78 outages in 2024 to 0.58 outages in 2025; achieved benchmark by 30.1%.

3-year average: Decreased from 0.73 outages in 2024 to 0.63 outages in 2025; achieved standard by 30.4%.

CAIDI and SAIFI Performance

Historical rolling 12-month CAIDI and SAIFI performance trends are shown below in Figures 68 and 69. UGI has consistently achieved its benchmarks for all three reliability indices since 2020.

Continued management attention is needed to maintain CAIDI and SAIFI performance below the “green” benchmark performance upper-control-limit-line.

Outage Causes

Figure 70 below shows UGI's top five reported outage cause categories in 2025, as a percentage, for the following three distinct performance metrics: CMI, Customers Affected, and Number of Incidents. Trees, Motor Vehicle, and Equipment Failure were the leading causes of CMI and number of incidents. Over 67% of CMI and 47% of incidents were caused by Trees.

Figure 71 below shows the historical trend of the top three main outage causes. Trees, Equipment Failure, and Motor Vehicles are the three most frequent outage causes that significantly affect UGI's distribution system reliability and resilience. As noted previously in this report, trees and equipment failures are the prominent causes of outages experienced by almost every EDC in Pennsylvania.

General Reliability

Overall, UGI continued its benchmark performance from 2020. UGI noted that it has identified opportunities to reduce the duration and extent of outages originating from all outage causes using technology-based solutions and additional circuit sectionalizing. UGI noted that it continues to increase sectionalizing capabilities and prepare the distribution network to accommodate a future FLISR system that can self-heal by isolating faulted line sections and restoring the undamaged portions, leading to fewer customer interruptions.

In the beginning of fiscal year 2024, UGI acquired a FLISR controller and began to integrate it into three-phase reclosers for a small-scale pilot to test the technology. UGI's work on its FLISR pilot continued in 2025 and is ongoing. UGI also noted that remote control capability continues being integrated into existing transmission motor-operated air-breaks to allow expedited sectionalizing and recovery of the transmission system following disturbances. UGI stated that it continues to expand the number of devices available in the distribution SCADA system which allows system operators to monitor and control an expanding number of devices across the UGI system.

Conclusion

As shown by Figures 68 through 69 below, UGI achieved its benchmarks for all three reliability indices in 2025. Management focus should be on sustaining the CAIDI and SAIFI trend lines below the "green" benchmark performance upper-control-limit-lines. The Commission recommends continued and increased efforts in vegetation management and an increased emphasis on response times. UGI should continue to utilize its LTIIP and vegetation management programs to ensure it continues to improve.

Figure 68 – UGI CAIDI (minutes)

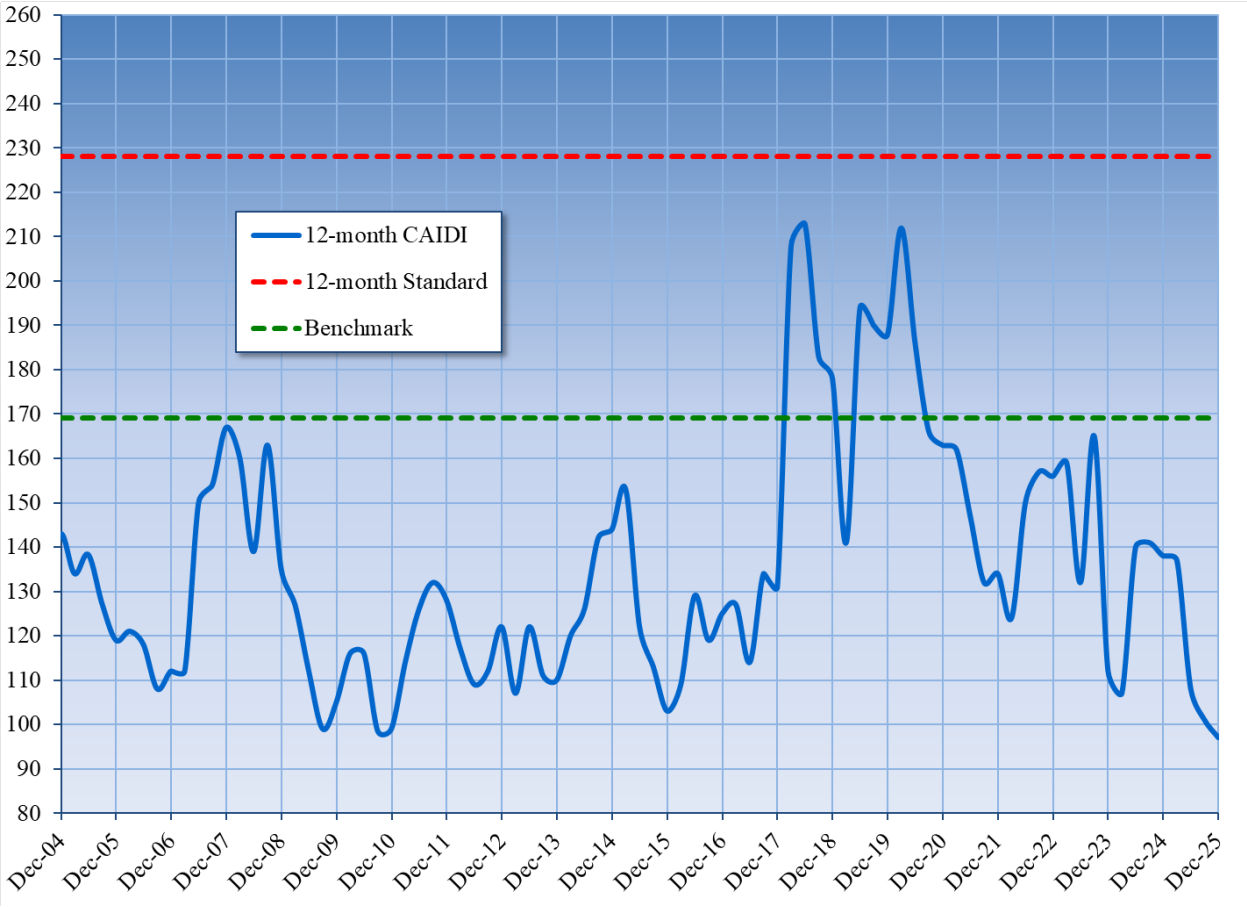


Figure 69 – UGI SAIFI (interruptions per customer)

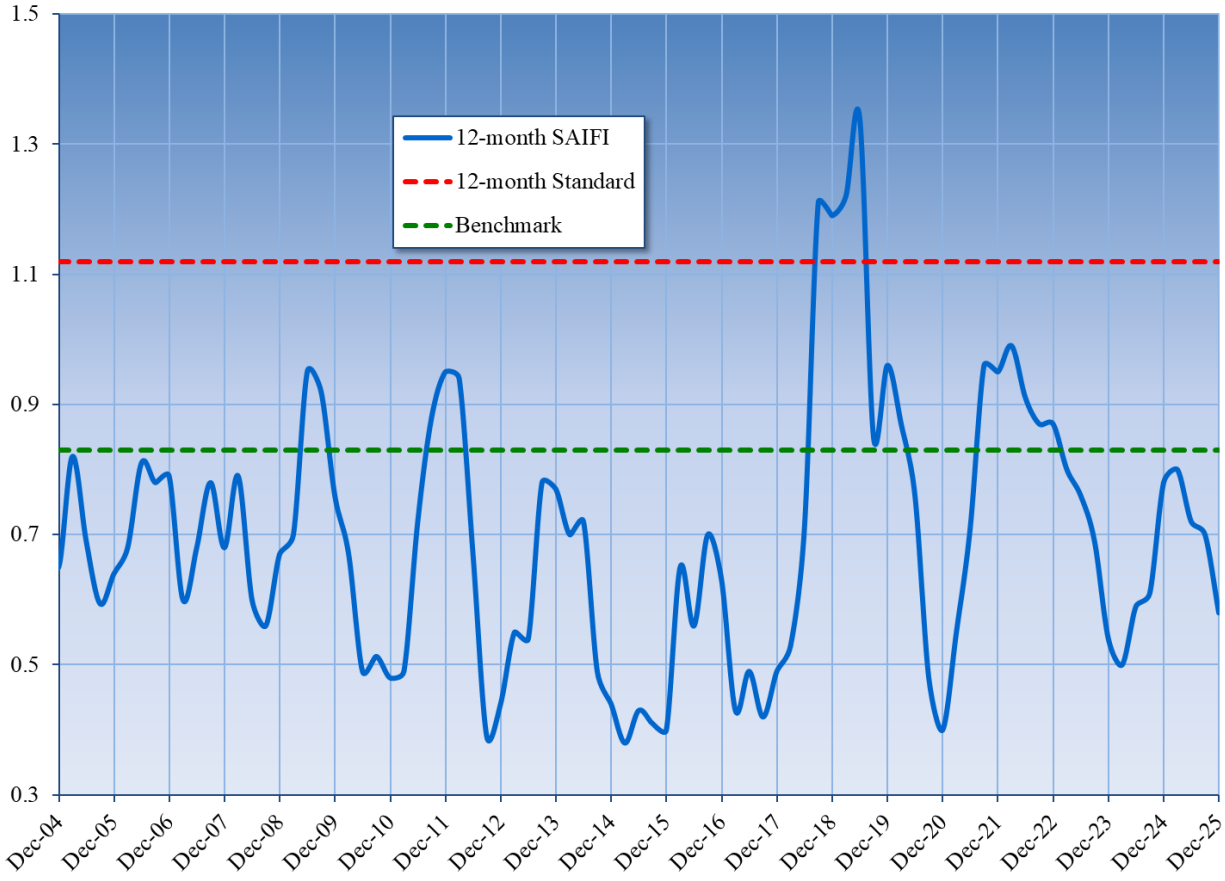


Figure 70 – UGI Outage Causes (percent of total outages)

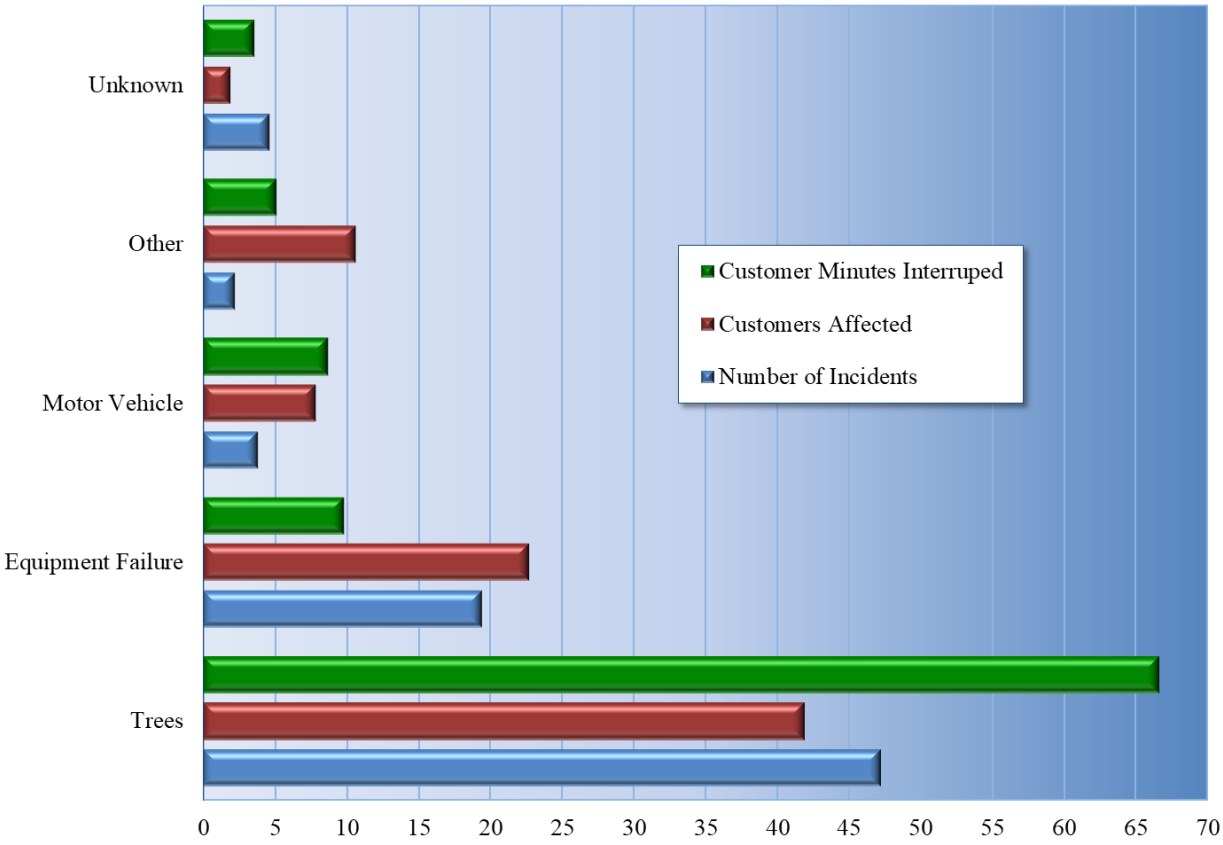


Figure 71 – UGI Outage Tracking (number of incidents)

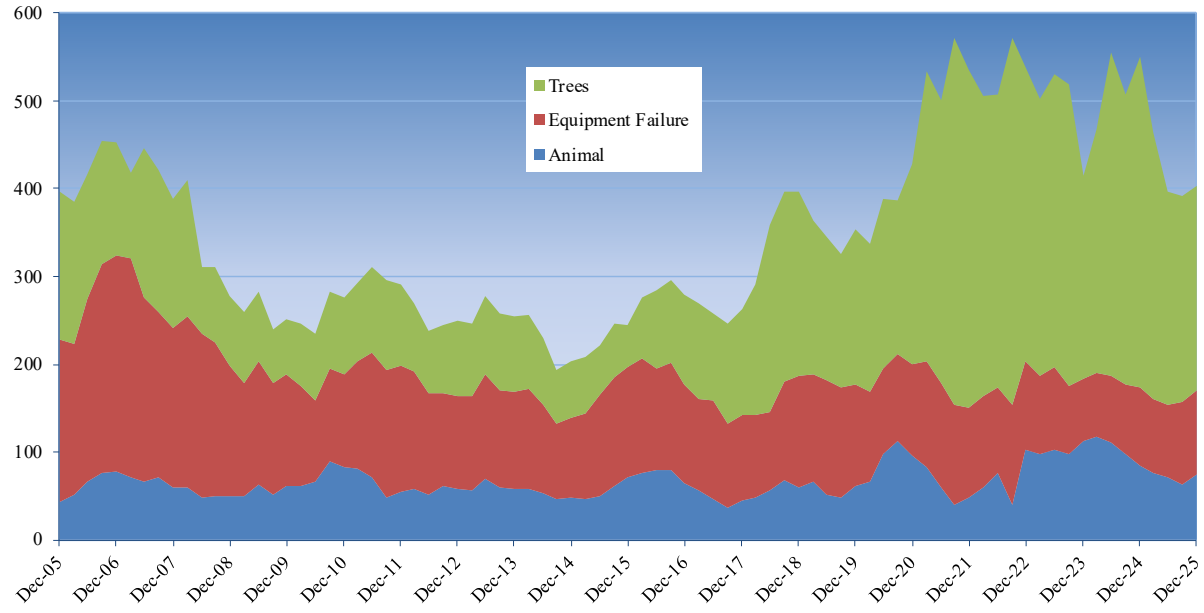


Figure 72 – UGI Outage Tracking (number of Customers Interrupted)

Figure 73 – UGI Outage Tracking (Customer-Minutes of Interruptions, or CMI)

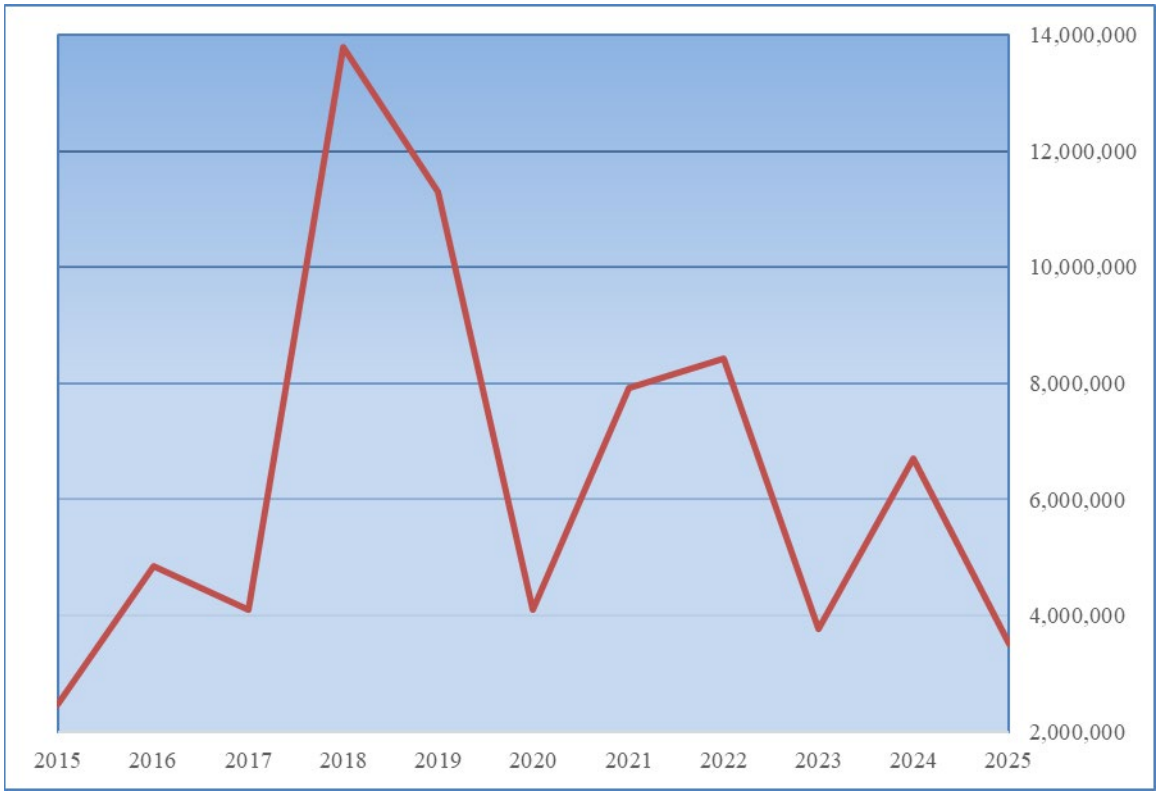
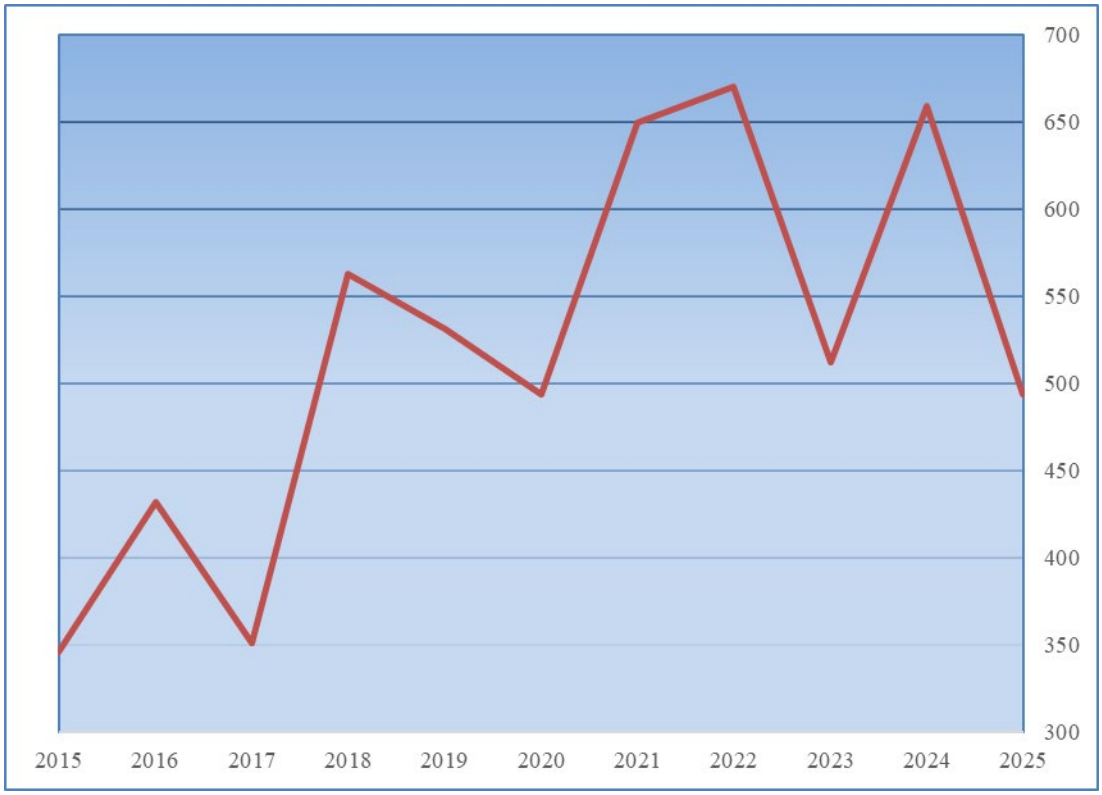


Figure 74 – UGI Outage Tracking (number of interruptions annually)



Wellsboro Electric Company

Wellsboro Electric Company (Wellsboro) has a service territory of approximately 178 square miles and serves about 6,496 customers.

In 2024, Wellsboro experienced 6,432 customer interruptions and 0.66 million CMI as compared to: 8,822 customer interruptions and 1 million CMI in 2023.

Wellsboro requested the exclusion of six Major Events for reliability reporting purposes in 2025 as described in Section 3. In total these Major Events impacted 9,923 customers and are not reflected in the reliability indices described below.

CAIDI/SAIDI/SAIFI Evaluation

CAIDI

Rolling 12-month: Decreased from 102 minutes/customer in 2024 to 100 minutes/customer in 2025; achieved benchmark by 19.4%

3-year average: Decreased from 115 minutes in 2024 to 105 minutes/customer in 2025; achieved standard by 22.5%.

SAIDI

Rolling 12-month: Increased from 102 minutes/customer in 2024 to 133 minutes/customer in 2025; achieved benchmark by 13.1%.

3-year average: Decreased from 133 minutes in 2024 to 130 minutes/customer in 2025; achieved standard by 29.8%.

SAIFI

Rolling 12-month: Increased from 0.99 outages in 2024 to 1.33 outages in 2025; failed to achieve benchmark by 8.1%.

3-year average: Increased from 1.15 outages in 2024 to 1.23 outages in 2025; achieved standard by 8.9%.

CAIDI and SAIFI Performance

Historical rolling 12-month CAIDI and SAIFI reliability performance trends are shown in Figures 75 and Figure 76 below. Wellsboro's CAIDI performance decreased slightly from 2024 but remained below the "green" benchmark performance upper-control-limit-line. SAIFI performance also declined from 2024 and failed to meet Wellsboro's benchmark but remained below its 12-month standard. Increased management attention is needed to ensure CAIDI and SAIFI performance are consistently at or below benchmark.

Outage Causes

Figure 77 below shows Wellsboro's top five reported outage cause categories for 2025, as a percentage, for the following three distinct performance metrics: CMI, Customers Affected, and Number of Incidents. Wellsboro indicated that OROW Trees were the top cause of interruptions in 2025, accounting for over 55% of the total.

Figure 78 below shows the historical trend of the leading three main outage causes. Trees (all causes) and Animals are the two most frequent outage causes.

General Reliability

Wellsboro noted that it will continue tree trimming 70 to 75 miles of conductor per year which amounts to a circuit or a portion of a circuit each year. Wellsboro noted that it maintains a tree-trimming cycle of approximately five years. Wellsboro stated that it identified hot spot trimming on the downtown three phase portion of its system. Danger trees were identified for both ROW and OROW during the year and urgent removals were dealt with immediately. Wellsboro noted that other danger trees are prioritized and removed as funding is available.

Wellsboro stated that it reconductored two miles of line in 2025 and installed a new bank of regulators. Wellsboro noted that it plans to reconductor another one - two miles of line, work to build another tie point to provide an alternate feed, and install two new 3-phase breakers in 2026.

Wellsboro also noted that it continues to participate in and gather information from various industry best practice groups. These groups include members from diverse utility groups such as the Pennsylvania Rural Electric Association, the Energy Association of Pennsylvania, and the National Rural Electric Cooperative Association. Wellsboro noted that it will continue to implement best practices defined by these groups as appropriate.

Graphs depicting Wellsboro's historic data for customers interrupted, CMI, and outages are shown in Figures 79 through 81 below.

Conclusion

Wellsboro achieved benchmark performance for CAIDI and met its 12-month standard for SAIFI in 2025. However, Wellsboro also experienced six Major Events and the impacts of those events were excluded from these reliability indices. Wellsboro should continue to implement its reliability improvement plans to reduce the impact of severe weather to avoid Major Events and large customer disruption events. Management attention is also needed to sustain SAIFI below the "green" benchmark performance level.

Wellsboro should continue to examine and install locations for sectionalizing circuits to lessen the number of customers impacted by events. However, while sectionalizing may reduce the number of customers impacted by an outage, Wellsboro should be cognizant that it could possibly lead to increased CAIDI as the outages may be of longer duration.

Figure 75 – Wellsboro CAIDI (minutes)

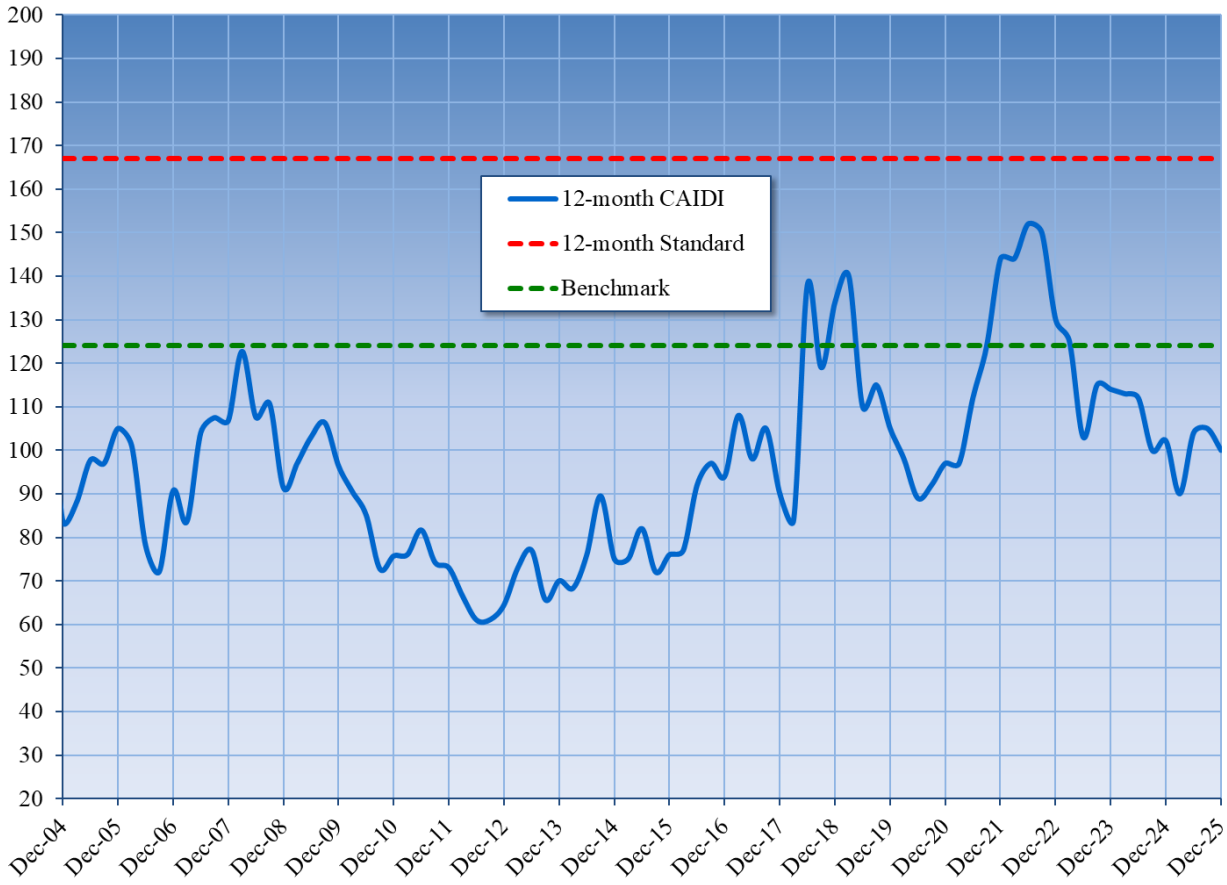


Figure 76 – Wellsboro SAIFI (interruptions per customer)

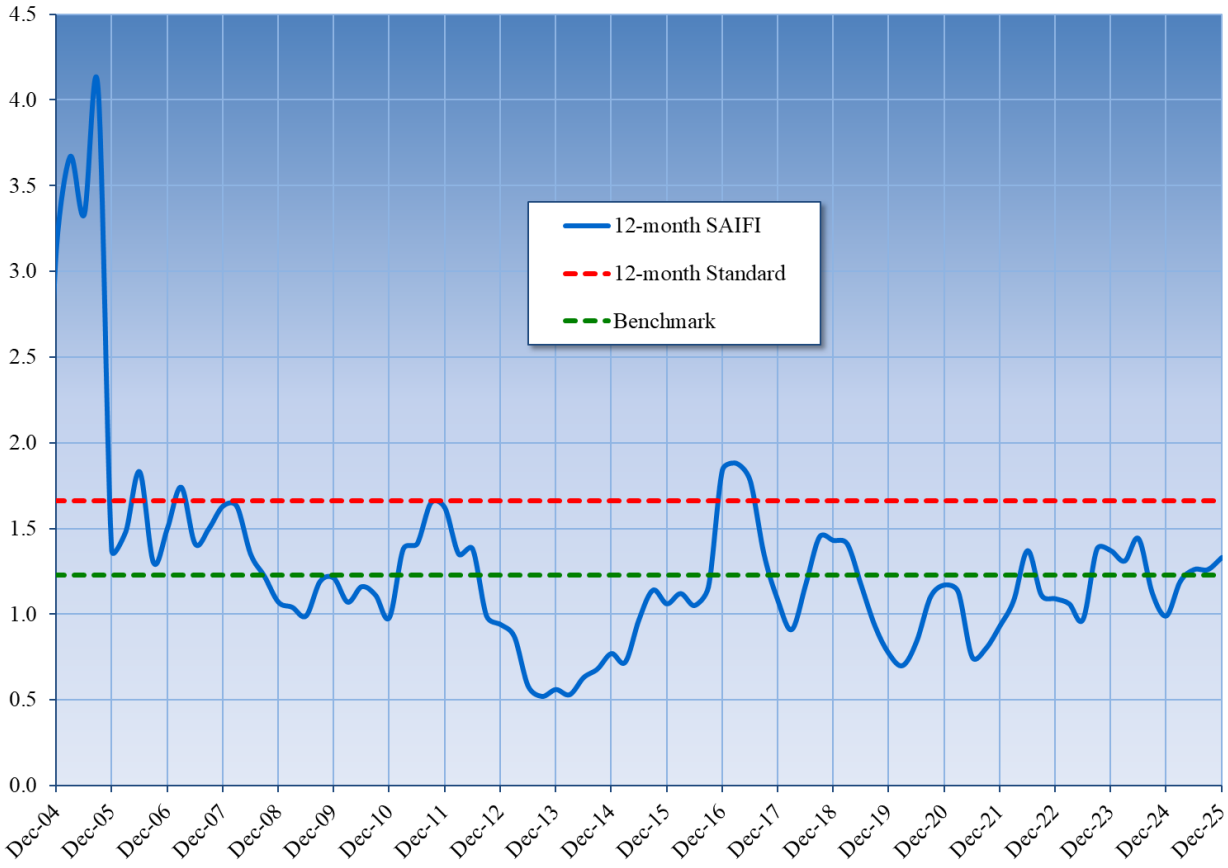


Figure 77 – Wellsboro Outage Causes (percent of total outages)

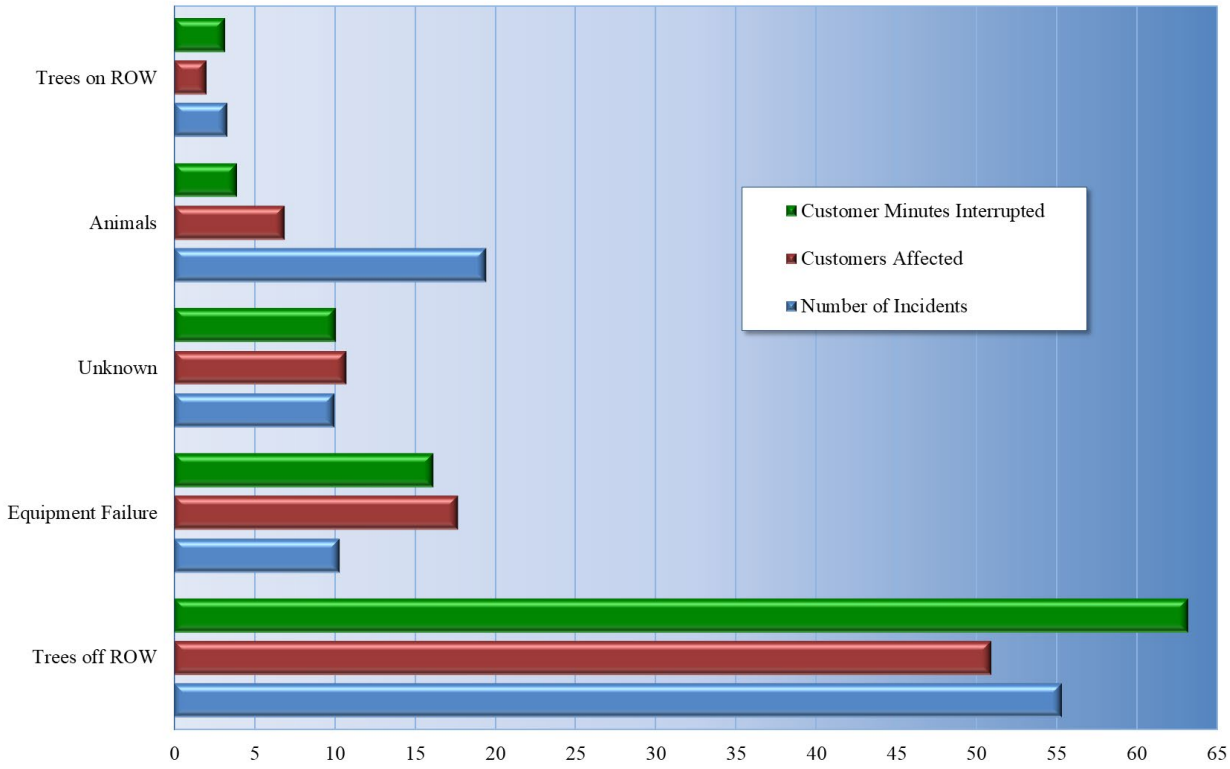


Figure 78 – Wellsboro Outage Tracking (number of incidents)

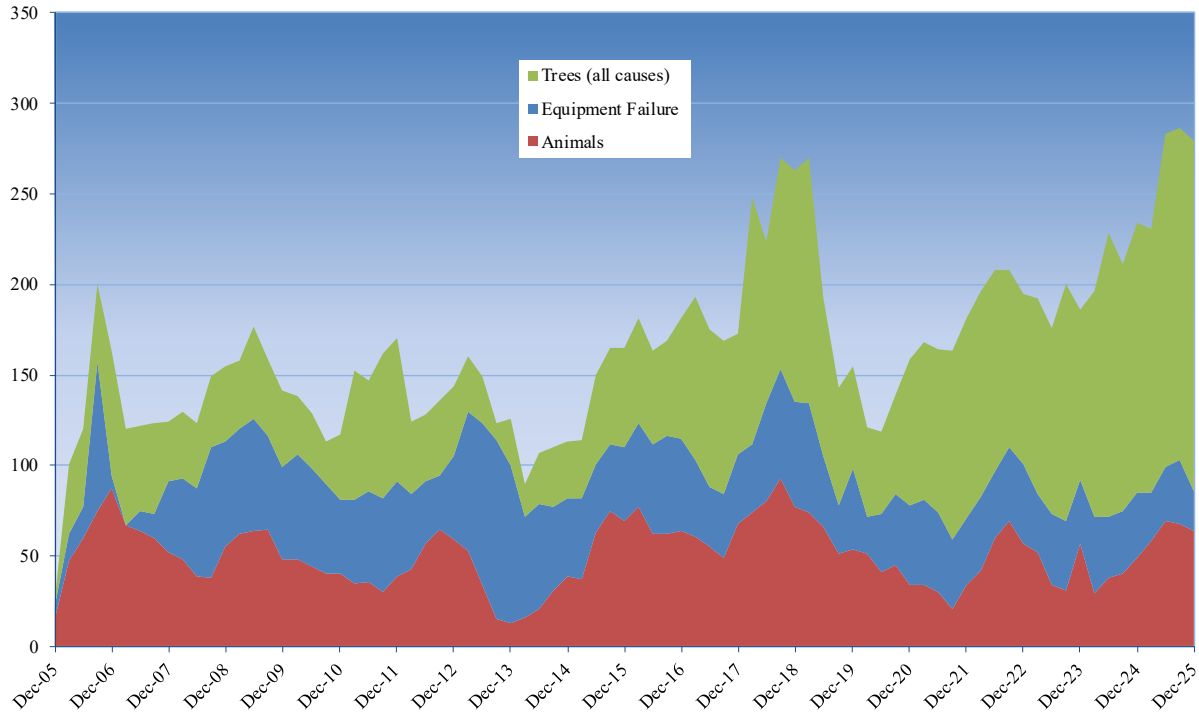


Figure 79 – Wellsboro Outage Tracking (number of Customers Interrupted)

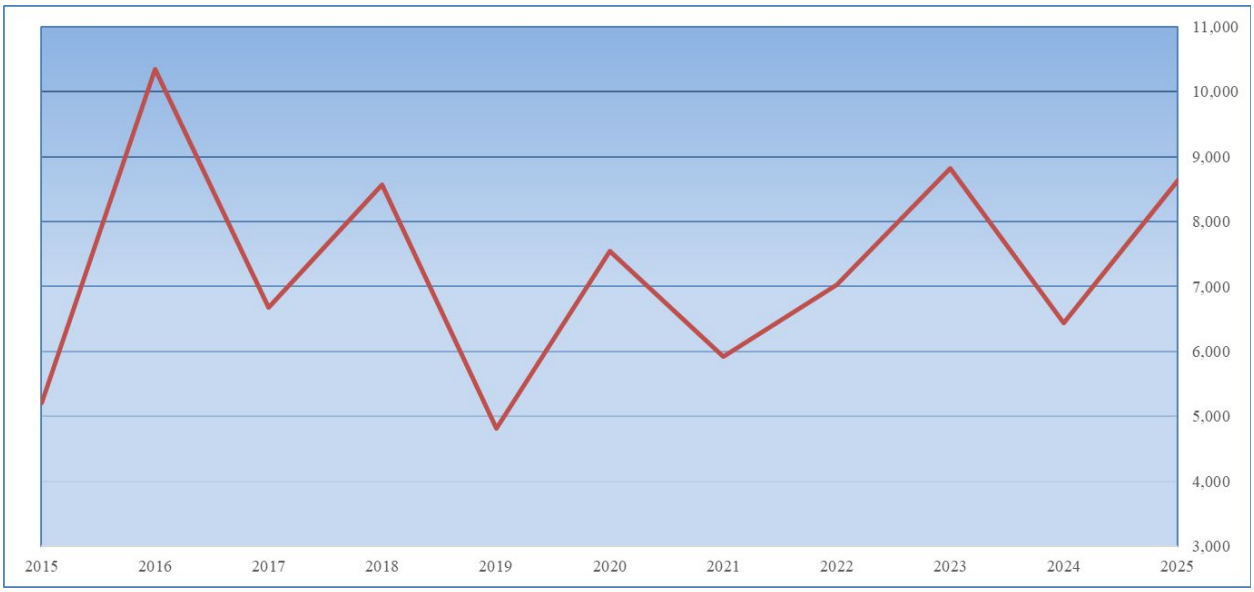


Figure 80 – Wellsboro Outage Tracking (Customer-Minutes of Interruptions CMI)

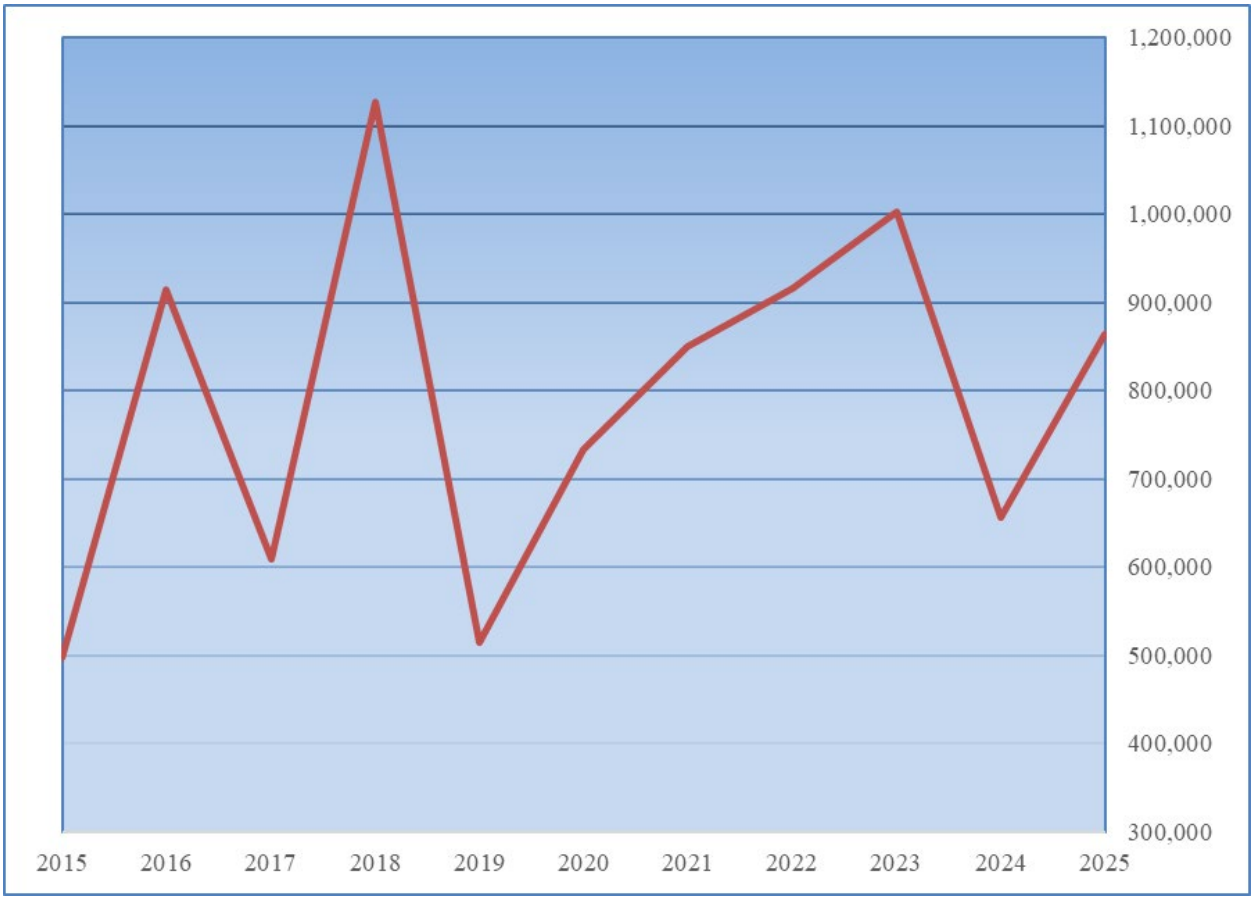
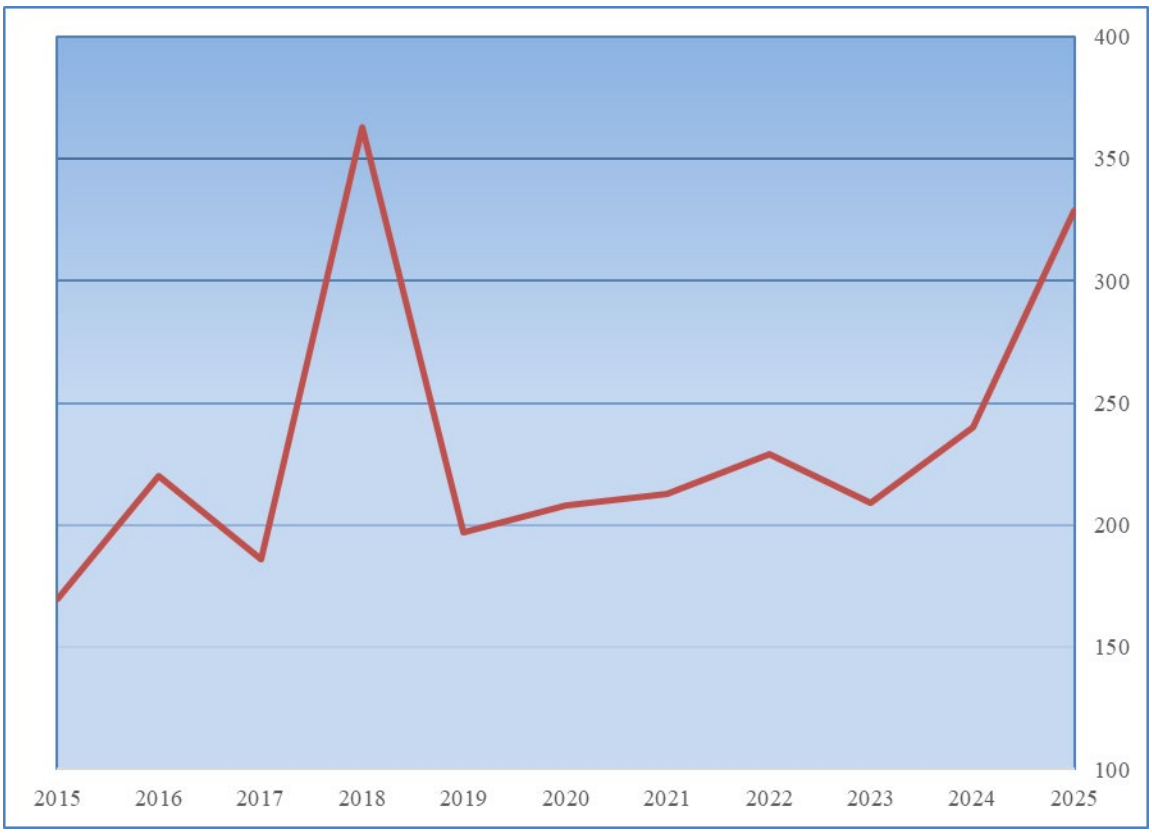


Figure 81 – Wellsboro Outage Tracking (number of interruptions annually)



Section 5 – Conclusion

As noted in the Executive Summary, the Electricity Generation Customer Choice and Competition Act of 1996 mandates that the Commission ensure that the levels of reliability that existed prior to the restructuring of the electric utility industry continue in the new competitive markets. With that goal, the Commission adopted reporting requirements designed to ensure the continuing safety, adequacy and reliability of the generation, transmission and distribution of electricity in the Commonwealth. The Commission also established reliability benchmarks and standards with which to measure the performance of each EDC, and standards for the inspection and maintenance of electric distribution facilities.

The Commission has also taken on several special initiatives aimed at keeping pace with evolving electric reliability issues including the ongoing Reliability Collaborative and the Resiliency Deep Dive completed in 2025.

For the rolling 12-months ending in December 2025, of the seven large EDCs, only PECO achieved CAIDI benchmark performance, as shown in Appendix B. Apart from PECO, the large EDCs have demonstrated worsening CAIDI performance since the Commission began monitoring the indices. Of the four small EDCs, Pike, UGI, and Wellsboro achieved CAIDI benchmark in all four quarters of 2025, and all four small EDCs have improved CAIDI performance since the Commission began monitoring this index.

CAIDI is an important measure as it relates to the average duration of a service outage. TUS views CAIDI as a measure of resiliency and thus a good measure of an EDC's customer service. TUS notes that CAIDI is highly dependent upon the EDCs ability to respond to outages and restoration times. As the EDCs install more sectionalizing devices (reclosers, etc.) that reduce the number of customers impacted by a sustained outage, CAIDI could possibly increase as the outages may be of longer duration but affect fewer customers. TUS notes that the CAIDI index is becoming more realistic of the customer's experienced interruption duration, rather than a general average as determined by aggregate data. EDCs should review skilled staffing levels and staff and contractor response times to ensure service outages are restored as quickly and safely as possible.

As seen in Appendix B, three of the 11 EDCs achieved benchmark for SAIFI in all four rolling 12-month quarters in 2025, which was the same as2024. However, eight of the 11 achieved the standard upper limit performance value in all four rolling 12-month quarters as compared to five in 2024.

SAIFI is an important index to focus on improving as it relates directly to the number of service outages experienced by a customer. Reducing service outages from occurring in the first place is crucial to improving reliability performance.

In 2025, the EDCs were able to improve the number of customers interrupted and the CMI from 2024 reported data. However, the general trend of these metrics has been increasing since 2015.

Reportable Outages decreased from 2024 but have generally increased in recent years for all EDCs, including those that have strong infrastructure improvement plans. All but three of the Reportable Outages in 2025 were caused by weather impacts on the EDC distribution systems. Noting this fact is not to excuse a slip in reliability performance of the EDCs, but rather to reiterate the importance of EDCs continuing to invest in reliability improvement and resiliency to weather events. EDCs are expected to provide service at a level equal to or better than that provided during the benchmark period, regardless of whether Reportable Outages are increasing on an annual basis due to severe weather.

As shown in Figure 86, below, EDCs have been experiencing a significant increase in vegetation-caused outages since 2015. In December 2015 there were 14,462 outages attributed to vegetation issues. By December 2025 the annual figure had risen to 37,204 outages, although, this number is down from the 2024 total of 42,120 outages. TUS continues to recommend that EDCs review their vegetation management programs to ensure that expenditures and procedures are most efficiently and effectively directed at the main cause of service outages. EDCs should also collaborate through associations like the Energy Association of Pennsylvania and discuss emerging technologies and methodologies for vegetation management, such as artificial intelligence, satellite-based data, and other creative "outside-the-box" thinking beyond just trimming vegetation on a set periodicity.

TUS reiterates that EDCs can address OROW vegetation issues by working to improve the reliability and resilience of their facilities within the ROW. EDCs should consider utilizing methodologies to protect conductors within the ROW from hazards that may come from OROW, such as targeted undergrounding, covered overhead conductors, and hybrid undergrounding. EDCs could utilize LTIIPs and fully projected future test years in base rate cases to propose such initiatives, even as pilot programs, and receive feedback from stakeholders on costs versus expected benefits.

TUS further recommends that EDCs evaluate the impact of increasingly severe weather on their systems and look to increase resiliency to such events. TUS suggests that EDCs may utilize academic and climate resources already in Pennsylvania for such evaluation and in planning mitigation methodologies. EDCs may want to partner with universities and/or climate modeling entities to better understand vulnerabilities at the regional and local level and to better target mitigation and resiliency investments.

EDCs should maximize the use of the LTIIP and the fully projected future test year in base rate cases to propose resilience and storm hardening investments in their systems while balancing the potential cost to ratepayers.

Figure 82 – ALL EDCs (except DLC) Customers Interrupted

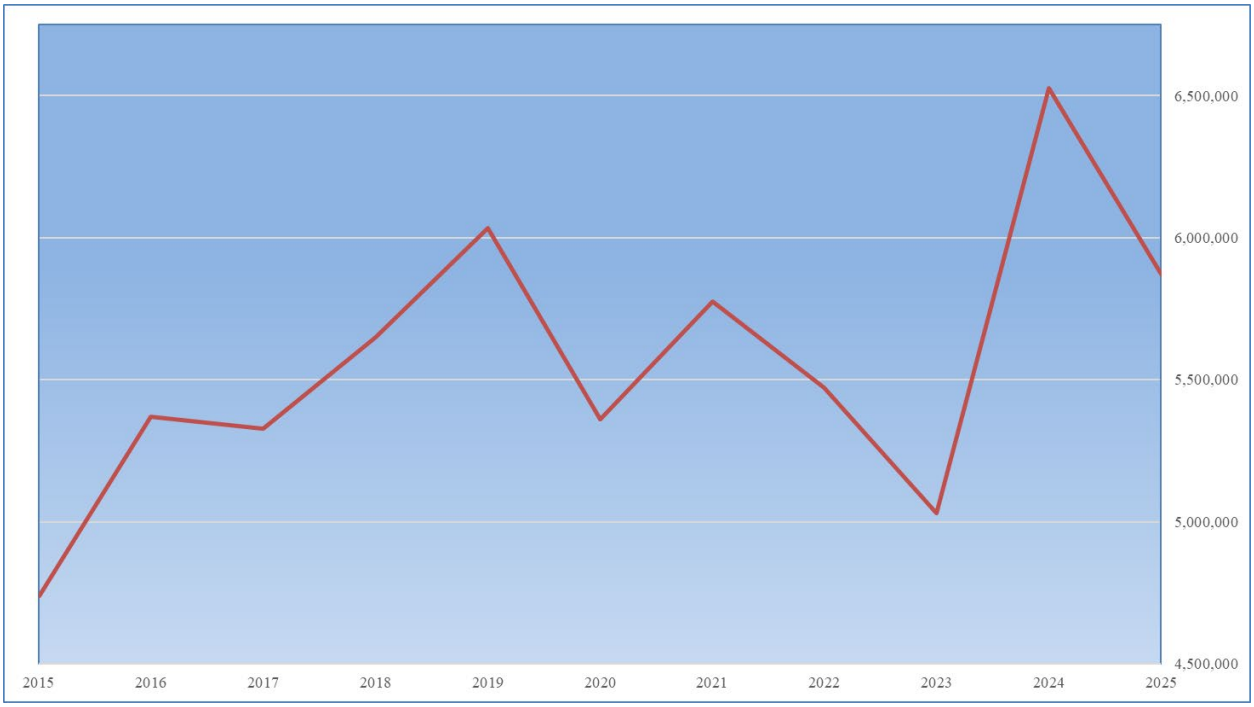


Figure 83 – ALL EDCs (except DLC) Customer-Minutes of Interruptions, or CMI

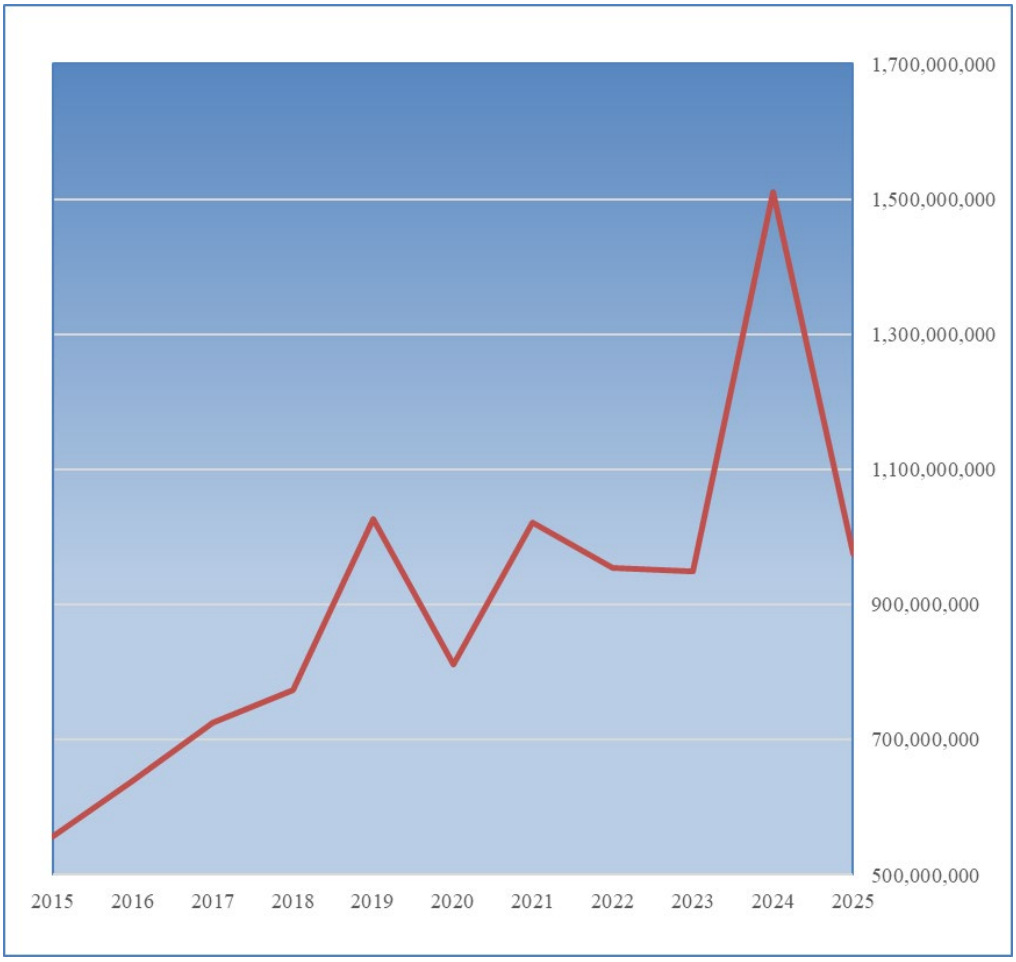
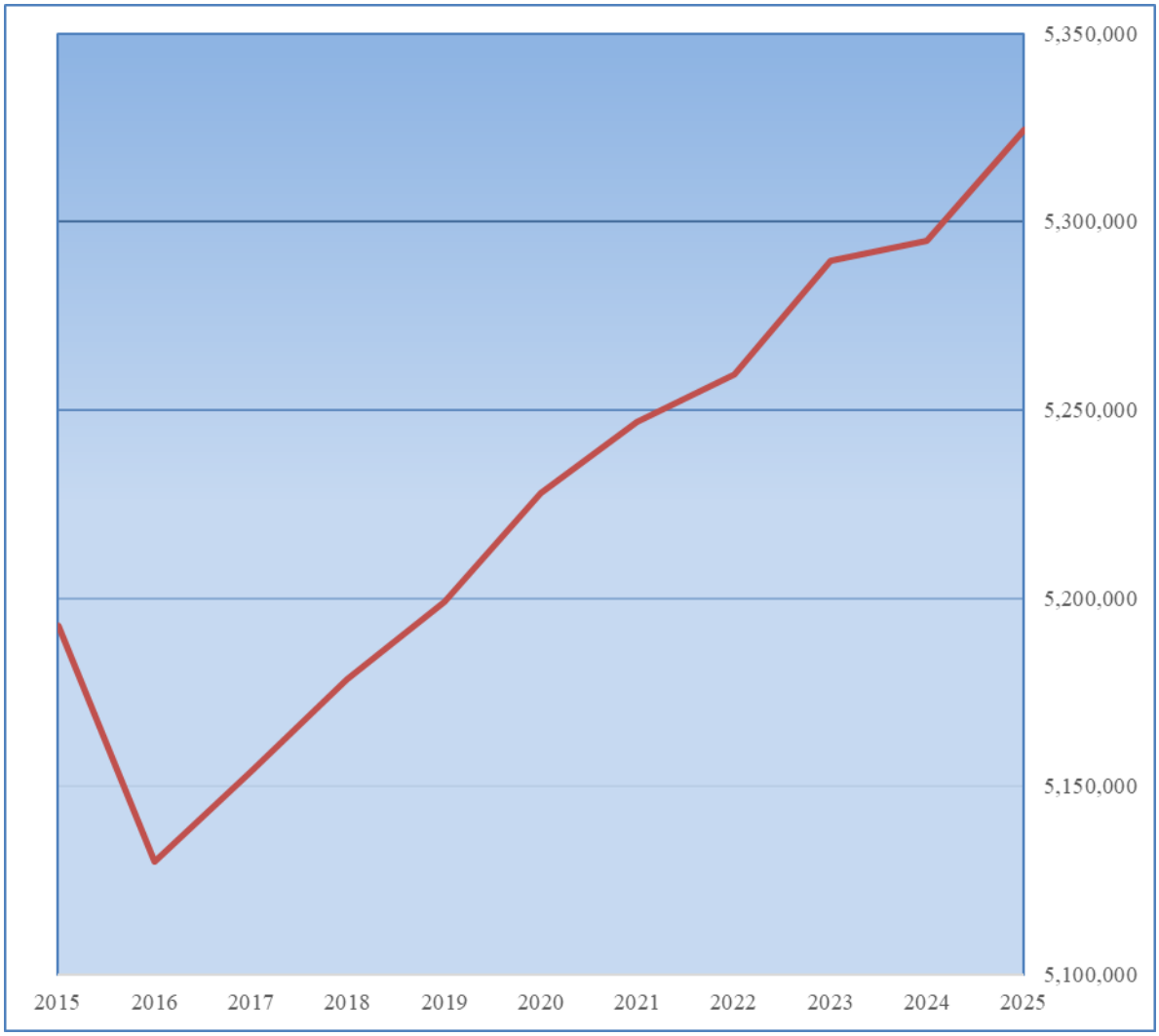


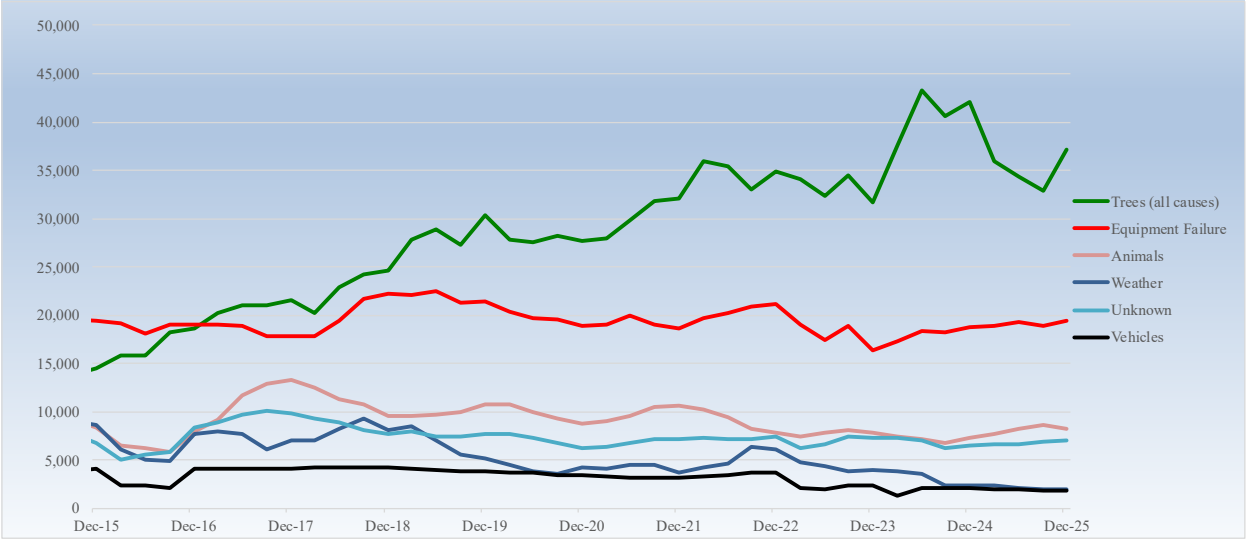
Figure 84 – ALL EDCs (except DLC) Number of Interruptions Annually

Figure 85 – ALL EDCs (except DLC) Number of Customers Served[36]



[36] The drop in customers in 2016 was primarily due to PECO's effort to remove inactive accounts with their GIS update.

Figure 86 – Outage Causes ALL EDCs as Reported by EDCs for 2015-2025



Appendix A – Electric Reliability Indices

12-Month Average Electric Reliability Indices for 2025

Customer Average Interruption Duration Index (CAIDI)- min/yr/cust				*% Above (+) or*	*% Above (+) or*
EDC	*Dec-25*	*Benchmark*	*Standard*	*Below (-) Benchmark*	*Below (-) Standard*
Citizens'	*121*	*105*	*141*	*15.6%*	*-13.9%*
Duquesne Light	*123*	*108*	*130*	*13.9%*	*-5.4%*
Met-Ed (FE)	*225*	*117*	*140*	*92.6%*	*61.0%*
PECO	*102*	*112*	*134*	*-8.9%*	*-23.9%*
Penelec (FE)	*143*	*117*	*141*	*22.2%*	*1.4%*
Penn Power (FE)	*117*	*101*	*121*	*15.4%*	*-3.6%*
Pike County	*118*	*174*	*235*	*-32.2%*	*-49.8%*
PPL	*208*	*145*	*174*	*43.4%*	*19.5%*
UGI	*97*	*169*	*228*	*-42.6%*	*-57.5%*
Wellsboro	*100*	*124*	*167*	*-19.4%*	*-40.1%*
West Penn (FE)	*203*	*170*	*204*	*19.2%*	*-0.7%*
System Average Interruption Frequency Index (SAIFI)- outages/yr/cust				*% Above (+) or*	*% Above (+) or*
EDC	*Dec-25*	*Benchmark*	*Standard*	*Below (-) Benchmark*	*Below (-) Standard*
Citizens'	*0.32*	*0.20*	*0.27*	*60.0%*	*18.5%*
Duquesne Light	*0.84*	*1.17*	*1.40*	*-28.2%*	*-40.0%*
Met-Ed (FE)	*1.69*	*1.15*	*1.38*	*47.0%*	*22.5%*
PECO	*0.81*	*1.23*	*1.48*	*-34.1%*	*-45.3%*
Penelec (FE)	*1.72*	*1.26*	*1.52*	*36.5%*	*13.2%*
Penn Power (FE)	*1.19*	*1.12*	*1.34*	*6.2%*	*-11.2%*
Pike County	*0.71*	*0.61*	*0.82*	*16.4%*	*-13.4%*
PPL	*0.92*	*0.98*	*1.18*	*-6.1%*	*-22.0%*
UGI	*0.58*	*0.83*	*1.12*	*-30.1%*	*-48.2%*
Wellsboro	*1.33*	*1.23*	*1.66*	*8.1%*	*-19.9%*
West Penn (FE)	*1.23*	*1.05*	*1.26*	*17.1%*	*-2.4%*
System Average Interruption Duration Index (SAIDI)- min/yr/cust				*% Above (+) or*	*% Above (+) or*
EDC	*Dec-25*	*Benchmark*	*Standard*	*Below (-) Benchmark*	*Below (-) Standard*
Citizens'	*39*	*21*	*38*	*84.8%*	*2.1%*
Duquesne Light	*103*	*126*	*182*	*-18.3%*	*-43.4%*
Met-Ed (FE)	*380*	*135*	*194*	*181.3%*	*95.7%*
PECO	*82*	*138*	*198*	*-40.6%*	*-58.6%*
Penelec (FE)	*246*	*148*	*213*	*66.1%*	*15.4%*
Penn Power (FE)	*139*	*113*	*162*	*22.7%*	*-14.4%*
Pike County	*84*	*106*	*194*	*-20.8%*	*-56.7%*
PPL	*191*	*142*	*205*	*34.5%*	*-6.8%*
UGI	*56*	*140*	*256*	*-60.0%*	*-78.1%*
Wellsboro	*133*	*153*	*278*	*-13.1%*	*-52.2%*
West Penn (FE)	*248*	*179*	*257*	*38.7%*	*-3.4%*

*Note: **GREEN** = better than benchmark; **RED** = worse than standard; **BLACK** = between benchmark and standard.*

Performance Benchmark. An EDC's performance benchmark is calculated by averaging the EDC's annual, system-wide reliability performance indices over the five-year period directly prior to the implementation of electric restructuring (1994 to 1998). The benchmark is the level of performance that the EDC should strive to achieve and maintain.

Three-Year Average Electric Reliability Indices for 2023-2025

Customer Average Interruption Duration Index (CAIDI)-min/yr/cust				*3-Year*	*3-Year*	*% Above (+) or*
EDC	*2023*	*2024*	*2025*	*Average*	*Standard*	*Below (-) Standard*
Citizens'	*90*	*144*	*121*	*118*	*115*	*2.9%*
Duquesne Light	*110*	*156*	*123*	*130*	*119*	*8.8%*
Met-Ed (FE)	*202*	*242*	*225*	*223*	*129*	*72.7%*
PECO	*138*	*96*	*102*	*112*	*123*	*-8.9%*
Penelec (FE)	*189*	*199*	*143*	*177*	*129*	*37.3%*
Penn Power (FE)	*157*	*147*	*117*	*140*	*111*	*26.0%*
Pike County	*95*	*184*	*118*	*132*	*192*	*-31.1%*
PPL	*189*	*371*	*208*	*256*	*160*	*60.0%*
UGI	*112*	*138*	*97*	*116*	*186*	*-37.8%*
Wellsboro	*114*	*102*	*100*	*105*	*136*	*-22.5%*
West Penn (FE)	*266*	*200*	*203*	*223*	*187*	*19.2%*
System Average Interruption Frequency Index (SAIFI)-outages/yr/cust				*3-Year*	*3-Year*	*% Above (+) or*
EDC	*2023*	*2024*	*2025*	*Average*	*Standard*	*Below (-) Standard*
Citizens'	*0.32*	*0.45*	*0.32*	*0.36*	*0.22*	*65.2%*
Duquesne Light	*0.57*	*0.82*	*0.84*	*0.74*	*1.29*	*-42.4%*
Met-Ed (FE)	*1.27*	*2.06*	*1.69*	*1.67*	*1.27*	*31.8%*
PECO	*0.74*	*0.78*	*0.81*	*0.78*	*1.35*	*-42.5%*
Penelec (FE)	*1.60*	*1.79*	*1.72*	*1.70*	*1.39*	*22.5%*
Penn Power (FE)	*0.78*	*1.01*	*1.19*	*0.99*	*1.23*	*-19.2%*
Pike County	*0.86*	*0.84*	*0.71*	*0.80*	*0.67*	*19.9%*
PPL	*0.78*	*1.22*	*0.92*	*0.97*	*1.08*	*-9.9%*
UGI	*0.54*	*0.78*	*0.58*	*0.63*	*0.91*	*-30.4%*
Wellsboro	*1.37*	*0.99*	*1.33*	*1.23*	*1.35*	*-8.9%*
West Penn (FE)	*1.07*	*1.28*	*1.23*	*1.19*	*1.16*	*2.9%*
System Average Interruption Duration Index (SAIDI)-min/yr/cust				*3-Year*	*3-Year*	*% Above (+) or*
EDC	*2023*	*2024*	*2025*	*Average*	*Standard*	*Below (-) Standard*
Citizens'	*29*	*64*	*39*	*44*	*25*	*76.1%*
Duquesne Light	*63*	*127*	*103*	*98*	*153*	*-36.2%*
Met-Ed (FE)	*257*	*498*	*380*	*378*	*163*	*132.1%*
PECO	*103*	*75*	*82*	*87*	*167*	*-48.1%*
Penelec (FE)	*303*	*356*	*246*	*302*	*179*	*68.5%*
Penn Power (FE)	*121*	*147*	*139*	*136*	*136*	*-0.1%*
Pike County	*82*	*155*	*84*	*107*	*129*	*-17.1%*
PPL	*147*	*451*	*191*	*263*	*172*	*52.9%*
UGI	*61*	*107*	*56*	*75*	*170*	*-56.1%*
Wellsboro	*155*	*102*	*133*	*130*	*185*	*-29.8%*
West Penn (FE)	*285*	*255*	*248*	*263*	*217*	*21.2%*

*Note: **GREEN** = better than standard; **RED** = worse than standard.*

Performance Standard. An EDC's performance standard is a numerical value that represents the minimal performance allowed for each reliability index for a given EDC. Performance standards are based on a percentage of each EDC's historical performance benchmarks.

Appendix B – Reliability Performance Scorecard Results 2023-2025

2025 EDC Performance Scorecard											
Metrics achieved	GREEN	Benchmark Metrics not achieved				YELLOW	Standard Metrics not achieved				RED
		Rolling 12-Month									
		Benchmark Score					Standard Score				
EDCs	[1]Metrics	[2]BM	Q1	Q2	Q3	Q4	[3]STD	Q1	Q2	Q3	Q4
Large EDCs											
Duquesne Light	CAIDI	108	160	152	144	123	130	160	152	144	123
	SAIDI	126	135	136	131	103	182	135	136	131	103
	SAIFI	1.17	0.84	0.90	0.91	0.84	1.40	0.84	0.90	0.91	0.84
PECO	CAIDI	112	96	102	96	102	134	96	102	96	102
	SAIDI	138	76	84	73.00	82	198	76	84	73	82
	SAIFI	1.23	0.79	0.82	0.76	0.81	1.48	0.79	0.82	0.76	0.81
PPL	CAIDI	145	333	284	271	208	174	333	284	271	208
	SAIDI	142	350	271	228	191	205	350	271	228	191
	SAIFI	0.98	1.05	0.95	0.84	0.92	1.18	1.05	0.95	0.84	0.92
Met-Ed (FirstEnergy)	CAIDI	117	207	223	199	225	140	207	223	199	225
	SAIDI	135	380	386	312	380	194	380	386	312	380
	SAIFI	1.15	1.84	1.73	1.56	1.69	1.38	1.84	1.73	1.56	1.69
Penelec (FirstEnergy)	CAIDI	117	196	196	201	143	141	196	196	201	143
	SAIDI	148	334	341	332	246	213	334	341	332	246
	SAIFI	1.26	1.71	1.74	1.65	1.72	1.52	1.71	1.74	1.65	1.72
Penn Power (FirstEnergy)	CAIDI	101	148	139	131	117	121	148	139	131	117
	SAIDI	113	334	341	332	139	162	334	341	332	139
	SAIFI	1.12	0.99	1.10	1.17	1.19	1.34	0.99	1.10	1.17	1.19
West Penn (FirstEnergy)	CAIDI	170	239	222	209	203	204	239	222	209	203
	SAIDI	179	290	270	209	248	257	290	270	209	248
	SAIFI	1.05	1.21	1.22	1.19	1.23	1.26	1.21	1.22	1.19	1.23
Small EDCs											
Citizens'	CAIDI	105	154	127.80	125	121	141	154	127.80	125	121
	SAIDI	21	44	40	43	39	38	44	40	43	39
	SAIFI	0.20	0.28	0.31	0.35	0.32	0.27	0.28	0.31	0.35	0.32
Pike County	CAIDI	174	186	180	158	118	235	186	180	158	118
	SAIDI	106	138	116	99	84	194	138	116	99	84
	SAIFI	0.61	0.74	0.65	0.62	0.71	0.82	0.74	0.65	0.62	0.71
UGI	CAIDI	169	137	108	101	97	228	137	108	101	97
	SAIDI	140	110	78	71	56	256	110	78	71	56
	SAIFI	0.83	0.80	0.72	0.70	0.58	1.12	0.80	0.72	0.70	0.58
Wellsboro	CAIDI	124	90	104	105	100	167	90	104	105	100
	SAIDI	153	108	131	132	133	278	108	131	132	133
	SAIFI	1.23	1.19	1.26	1.26	1.33	1.66	1.19	1.26	1.26	1.33

[1]CAIDI	(Customer Average Interruption Duration Index) - Measures average power restoration time (minutes) for every customer who lost power during this year.
SAIDI	(System Average Interruption Duration Index) - Measures average outage duration time (minutes) for every customer served during this year.
SAIFI	(System Average Interruption Frequency Index) - Measures average frequency of power interruptions for every customer served during this year.
[2]BM	(Benchmark) - EDC's attained performance baseline score prior to electric restructuring. Calculated by averaging historical performance metrics over the five-year period directly prior to electric restructuring (1994 to 1998).
[3]STD	(Standard) - EDC's upper limit performance value. CAIDI STD & SAIFI STD is calculated by multipling BM by 120% for large EDCs and 135% for small EDCs. SAIDI STD is calculated by multiplying CAIDI STD x SAIFI STD.

2024 EDC Performance Scorecard

Metrics achieved	GREEN	Benchmark Metrics not achieved	YELLOW	Standard Metrics not achieved	RED

		Rolling 12-Month									
		Benchmark Score					Standard Score				
EDCs	[1]Metrics	[2]BM	Q1	Q2	Q3	Q4	[3]STD	Q1	Q2	Q3	Q4
Large EDCs											
Duquesne Light	CAIDI	108	111	108	135	156	130	111	108	135	156
	SAIDI	126	66	126	85	127	182	66	126	85	127
	SAIFI	1.17	0.59	1.17	0.63	0.82	1.40	0.59	1.17	0.63	0.82
PECO	CAIDI	112	141	137	97	96	134	141	137	97	96
	SAIDI	138	110	109	72	75	198	110	109	72	75
	SAIFI	1.23	0.78	0.79	0.74	0.78	1.48	0.78	0.79	0.74	0.78
PPL	CAIDI	145	265	319	314	371	174	265	319	314	371
	SAIDI	142	260	364	355	451	205	260	364	355	451
	SAIFI	0.98	0.98	1.14	1.13	1.22	1.18	0.98	1.14	1.13	1.22
Met-Ed (FirstEnergy)	CAIDI	117	245	262	252	242	140	245	262	252	242
	SAIDI	135	383	408	478	498	194	383	408	478	498
	SAIFI	1.15	1.56	1.79	1.89	2.06	1.38	1.56	1.79	1.89	2.06
Penelec (FirstEnergy)	CAIDI	117	151	151	151	199	141	151	151	151	199
	SAIDI	148	233	254	241	356	213	233	254	241	356
	SAIFI	1.26	1.54	1.68	1.60	1.79	1.52	1.54	1.68	1.60	1.79
Penn Power (FirstEnergy)	CAIDI	101	150	157	122	147	121	150	157	122	147
	SAIDI	113	127	141	112	147	162	127	141	112	147
	SAIFI	1.12	0.84	0.89	0.92	1.01	1.34	0.84	0.89	0.92	1.01
West Penn (FirstEnergy)	CAIDI	170	210	220	193	200	204	210	220	193	200
	SAIDI	179	224	282	229	255	257	224	282	229	255
	SAIFI	1.05	1.06	1.28	1.19	1.28	1.26	1.06	1.28	1.19	1.28
Small EDCs											
Citizens'	CAIDI	105	102	128	132	144	141	102	128	132	144
	SAIDI	21	50	66	53	64	38	50	66	53	64
	SAIFI	0.20	0.49	0.52	0.40	0.45	0.27	0.49	0.52	0.40	0.45
Pike County	CAIDI	174	104	118	154	184	235	104	118	154	184
	SAIDI	106	99	100	116	155	194	99	100	116	155
	SAIFI	0.61	0.94	0.85	0.76	0.84	0.82	0.94	0.85	0.76	0.84
UGI	CAIDI	169	107	140	141	138	228	107	140	141	138
	SAIDI	140	54	83	86	107	256	54	83	86	107
	SAIFI	0.83	0.50	0.59	0.61	0.78	1.12	0.50	0.59	0.61	0.78
Wellsboro	CAIDI	124	113	112	100	102	167	113	112	100	102
	SAIDI	153	147	161	112	102	278	147	161	112	102
	SAIFI	1.23	1.31	1.44	1.12	0.99	1.66	1.31	1.44	1.12	0.99

[1]CAIDI	(Customer Average Interruption Duration Index) - Measures average power restoration time (minutes) for every customer who lost power during this year.
SAIDI	(System Average Interruption Duration Index) - Measures average outage duration time (minutes) for every customer served during this year.
SAIFI	(System Average Interruption Frequency Index) - Measures average frequency of power interruptions for every customer served during this year.
[2]BM	(Benchmark) - EDC's attained performance baseline score prior to electric restructuring. Calculated by averaging historical performance metrics over the five-year period directly prior to electric restructuring (1994 to 1998).
[3]STD	(Standard) - EDC's upper limit performance value. CAIDI STD & SAIFI STD is calculated by multipling BM by 120% for large EDCs and 135% for small EDCs. SAIDI STD is calculated by multiplying CAIDI STD x SAIFI STD.

2023 EDC Performance Scorecard

Metrics achieved	GREEN	Benchmark Metrics not achieved	YELLOW	Standard Metrics not achieved	RED

		Rolling 12-Month									
		Benchmark Score					Standard Score				
EDCs	[1]Metrics	[2]BM	Q1	Q2	Q3	Q4	[3]STD	Q1	Q2	Q3	Q4
Large EDCs											
Duquesne Light	CAIDI	108	130	122	112	110	130	130	122	112	110
	SAIDI	126	111	95	76	63	182	111	95	76	63
	SAIFI	1.17	0.86	0.77	0.68	0.57	1.40	0.86	0.77	0.68	0.57
PECO	CAIDI	112	94	99	138	138	134	94	99	138	138
	SAIDI	138	59	65	112	103	198	59	65	112	103
	SAIFI	1.23	0.62	0.66	0.81	0.74	1.48	0.62	0.66	0.81	0.74
PPL	CAIDI	145	158	163	197	189	174	158	163	197	189
	SAIDI	142	125	132	172	147	205	125	132	172	147
	SAIFI	0.98	0.79	0.81	0.87	0.78	1.18	0.79	0.81	0.87	0.78
Met-Ed (FirstEnergy)	CAIDI	117	140	155	178	202	140	140	155	178	202
	SAIDI	135	160	185	237	257	194	160	185	237	257
	SAIFI	1.15	1.14	1.19	1.34	1.27	1.38	1.14	1.19	1.34	1.27
Penelec (FirstEnergy)	CAIDI	117	230	190	158	189	141	230	190	158	189
	SAIDI	148	425	317	299	303	213	425	317	299	303
	SAIFI	1.26	1.85	1.66	1.89	1.60	1.52	1.85	1.66	1.89	1.60
Penn Power (FirstEnergy)	CAIDI	101	311	117	166	157	121	311	117	166	157
	SAIDI	113	422	96	159	121	162	422	96	159	121
	SAIFI	1.12	1.36	0.82	0.96	0.78	1.34	1.36	0.82	0.96	0.78
West Penn (FirstEnergy)	CAIDI	170	282	254	203	266	204	282	254	203	266
	SAIDI	179	386	280	268	285	257	386	280	268	285
	SAIFI	1.05	1.37	1.10	1.32	1.07	1.26	1.37	1.10	1.32	1.07
Small EDCs											
Citizens'	CAIDI	105	95	84	92	90	141	95	84	92	90
	SAIDI	21	27	31	43	29	38	27	31	43	29
	SAIFI	0.20	0.28	0.37	0.47	0.32	0.27	0.28	0.37	0.47	0.32
Pike County	CAIDI	174	160	158	108	95	235	160	158	108	95
	SAIDI	106	81	107	85	82	194	81	107	85	82
	SAIFI	0.61	0.50	0.67	0.79	0.86	0.82	0.50	0.67	0.79	0.86
UGI	CAIDI	169	159	132	165	112	228	159	132	165	112
	SAIDI	140	127	100	113	61	256	127	100	113	61
	SAIFI	0.83	0.80	0.76	0.69	0.54	1.12	0.80	0.76	0.69	0.54
Wellsboro	CAIDI	124	125	103	115	114	167	125	103	115	114
	SAIDI	153	133	100	158	155	278	133	100	158	155
	SAIFI	1.23	1.06	0.97	1.38	1.37	1.66	1.06	0.97	1.38	1.37

[1]CAIDI	(Customer Average Interruption Duration Index) - Measures average power restoration time (minutes) for every customer who lost power during this year.
SAIDI	(System Average Interruption Duration Index) - Measures average outage duration time (minutes) for every customer served during this year.
SAIFI	(System Average Interruption Frequency Index) - Measures average frequency of power interruptions for every customer served during this year.
[2]BM	(Benchmark) - EDC's attained performance baseline score prior to electric restructuring. Calculated by averaging historical performance metrics over the five-year period directly prior to electric restructuring (1994 to 1998).
[3]STD	(Standard) - EDC's upper limit performance value. CAIDI STD & SAIFI STD is calculated by multipling BM by 120% for large EDCs and 135% for small EDCs. SAIDI STD is calculated by multiplying CAIDI STD x SAIFI STD.

Appendix C – Deviations to Inspection and Maintenance Intervals

Deviations to Inspection and Maintenance Intervals (Group 2) Submitted October 2024, effective Jan. 1, 2026 – Dec. 31, 2027

Company	Deviation Requested	Justification
Citizens'	Pole loading calculations	Approved previously in the Jan. 1, 2012- Dec. 31, 2013, I&M Plan.
DLC	Pole loading calculations	Approved previously in the Jan. 1, 2012- Dec. 31, 2013, I&M Plan
DLC	Overhead line inspections	Approved previously in the Jan. 1, 2012- Dec. 31, 2013, I&M Plan
DLC	Overhead transformer inspections	Approved previously in the Jan. 1, 2012- Dec. 31, 2013, I&M Plan
DLC	Above-ground pad-mounted transformers	Approved previously in the Jan. 1, 2012- Dec. 31, 2013, I&M Plan
PECO	Pole loading calculations	Approved previously in the Jan. 1, 2012- Dec. 31, 2013, I&M Plan
PECO	Above-ground pad-mounted transformers	Approved previously in the Jan. 1, 2020- Dec. 31, 2021, I&M Plan
Pike County	Pole loading calculations	Approved previously in the Jan. 1, 2012- Dec. 31, 2013, I&M Plan
Pike County	Overhead line inspections	Approved in the Jan. 1. 2026-Dec. 31, 2027, I&M Plan
PPL	Pole loading calculations	Approved previously in the Jan. 1, 2012- Dec. 31, 2013, I&M Plan
PPL	Overhead line inspections	Approved previously in the Jan. 1, 2012- Dec. 31, 2013, I&M Plan and modified in the Jan. 1, 2026- Dec. 31, 2027, I&M Plan
PPL	Overhead transformer inspections	Approved previously in the Jan. 1, 2012- Dec. 31, 2013, I&M Plan and modified in the Jan. 1, 2026- Dec. 31, 2027, I&M Plan
PPL	Pad mounted and belowground transformer inspections	Approved previously in the Jan. 1, 2012- Dec. 31, 2013, I&M Plan and modified in the Jan. 1, 2026- Dec. 31, 2027, I&M Plan

PPL	Recloser inspections	Approved previously in the Jan. 1, 2014- Dec. 31, 2015, I&M Plan
PPL	Substation inspections	Provisional approved in the Jan. 1, 2017- Dec. 31, 2018, I&M Plan (docket M-2009-2094773)
Wellsboro	Pole loading calculations	Approved previously in the Jan. 1, 2012- Dec. 31, 2013, I&M Plan
Wellsboro	Overhead line inspections	Approved in the Jan. 1. 2026-Dec. 31, 2027, I&M Plan

Deviations to Inspection and Maintenance (I&M) Intervals (Group 1) Submitted October 2025, effective Jan. 1, 2027 – Dec. 31, 2028

Company	Deviation Requested	Justification
FE PA: Penelec, Penn Power, Met-Ed, and West Penn Power	**Pole loading calculations**	**Approved previously in the Jan. 1, 2013-Dec. 31, 2014, I&M Plan.**
UGI Electric	**Pole loading calculations**	**Approved previously in the Jan. 1, 2021-Dec. 31, 2022, I&M Plan.**

PAPUC

PENNSYLVANIA PUBLIC UTILITY COMMISSION

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