

ORDER NO. 90782

In the Matter of the Review of Annual	*	BEFORE THE
Performance Reports on Electric Service	*	PUBLIC SERVICE COMMISSION
Reliability Filed Pursuant to COMAR	*	OF MARYLAND
20.50.12.11	*	_____
	*	
	*	CASE NO. 9353
_____	*	_____

Issue Date: September 1, 2023

ORDER ON 2022 ELECTRIC RELIABILITY PERFORMANCE REPORTS

Pursuant to the Maryland Electricity Service Quality and Reliability Act¹ and the Code of Maryland Regulations (“COMAR”) 20.50.12 *et seq.*, the Commission accepts the annual reliability performance reports filed by Baltimore Gas and Electric Company (“BGE”), the Potomac Electric Power Company (“Pepco”), Delmarva Power & Light Company (“Delmarva”), The Potomac Edison Company (“Potomac Edison”), and Southern Maryland Electric Cooperative, Inc. (“SMECO”) (collectively the “Electric Companies”). The Commission also accepts the Corrective Action Plan filed by BGE in response to the violation of a certain performance standard described below.

I. INTRODUCTION AND PROCEDURAL HISTORY

The Maryland Electricity Service Quality and Reliability Act requires that “each electric company provide its customers with high levels of service quality and reliability in a cost-effective manner, as measured by objective and verifiable standards.”² In accordance with the Act, the Commission established service quality and reliability

¹ Chapter 168 of the Acts of 2011 (codified as Md. Ann. Code, Pub. Util. Art. § 7-213 (West 2019)).

² PUA § 7-213(b).

standards that are designed to improve reliability and ensure an objectively high level of performance tailored to each Electric Company. Specifically, the Commission enacted initial benchmark standards for service quality and reliability through Rule Making 43 (“RM43”). These standards are codified in COMAR 20.50.12 *et seq.*³

The Commission held a second rulemaking session on September 12, 2015, which set more stringent system-wide reliability standards for the Electric Companies to meet for years 2016 through 2019. On March 6, 2019, the Commission issued Order 89056 and docketed RM67 to accept utility proposed system-wide System Average Interruption Frequency Index (“SAIFI”) and System Average Interruption Duration Index (“SAIDI”) reliability targets for the years 2020 through 2023. The Final Rulemaking session concluded on November 6, 2019, with the Commission approving the proposed changes to COMAR. In Case No. 9361, Pepco and Delmarva agreed to further reduce their SAIDI and SAIFI scores below what COMAR would otherwise have required as a condition of Commission approval of the merger of their parent corporation, Pepco Holdings, Inc., with Exelon Corporation.⁴ In a subsequent proceeding, the Commission established next-cycle reliability metrics for the years 2024-2027, which are not the subject of the present Order.⁵

³ See RM43, *Revisions to COMAR 20.50 – Service Supplied by Electric Companies – Proposed Reliability and Service Quality Standards*. The regulations became effective on May 28, 2012.

⁴ See Order No. 86990 in Case No. 9361, *In the Matter of the Merger of Exelon Corporation and Pepco Holdings, Inc.*

⁵ On August 12, 2021, the Commission issued Order No. 89908, which established a workgroup on next-cycle reliability standards for the years 2024-2027, under the leadership of the Commission’s Technical Staff (“Staff”). On March 22, 2022, Staff submitted proposed revisions to COMAR regulations as recommended by the Workgroup. On December 2, 2022, Staff filed a petition for rulemaking to address the new targets and other proposed revisions to reliability regulations recommended by the RM43 workgroup, which was docketed as RM79. An initial rulemaking session was held in that docket on January 19, 2023, and a final rulemaking session was held on July 19, 2023, where the revisions were finally adopted. The next-cycle reliability metrics for 2024-2027 are not the subject of this Order, which addresses the annual performance reports of the electric companies for the year 2022.

The service quality and reliability standards address a wide range of performance categories, including system-wide reliability, poorest performing feeders, multiple device activation, service interruption, downed wire response, customer communication, and vegetation management. The 2022 reporting year, addressed herein, represents the 10th full year since these reliability standards were established in 2012.

COMAR 20.50.12.11 requires that each Electric Company serving 40,000 or more customers in Maryland submit an annual performance report by April 1 of each year that summarizes the electric service reliability results for the preceding year. Public Utilities Article (“PUA”), *Annotated Code of Maryland*, § 7-213(f) provides that the Commission shall determine whether each Electric Company has met the relevant service quality and reliability standards and authorizes the Commission to take appropriate corrective action where compliance is not met.⁶

On or about April 1, 2023,⁷ the Electric Companies filed their respective annual reports with the Commission, covering the period from January 1, 2022, through December 31, 2022.⁸ On May 10, 2023, the Commission issued a Notice of Hearing and Opportunity to Comment.⁹ The Notice scheduled a legislative-style hearing for Tuesday, July 25, 2023, for the purpose of reviewing the Electric Companies’ Annual Reliability Reports and to

⁶ For example, PUA §§ 7-213(f)(2)(ii) and 7-213(e)(1)(iii) authorize the Commission to require an Electric Company to file a Corrective Action Plan that delineates specific steps the company will take to meet the standards. PUA §§ 7-213(f)(2) and 13-201 authorize the Commission to impose appropriate civil penalties for noncompliance with the PUA or COMAR.

⁷ Potomac Edison and SMECO filed their annual reports on March 27 and March 31, 2023, respectively. BGE, Pepco, and Delmarva filed their annual reports on April 3, 2023. *See* Maillog No. 301983 (Potomac Edison); Maillog No. 302180 (SMECO); Maillog No. 302224 (BGE); Maillog No. 302221 (Pepco); and Maillog No. 302220 (Delmarva).

⁸ The data provided by the Electric Companies in their reports cover the period from January 1, 2022, through December 31, 2022, with the exception of the Poorest Performing Feeder and Multiple Device Activation standards, where outage data is submitted that covers the 12-month period ending on September 30, 2022.

⁹ Maillog No. 302844.

determine whether the Electric Companies met the service quality and reliability standards adopted by the Commission. The Notice also provided an opportunity for parties to file written comments.¹⁰

On May 5, 2023, Pepco and Delmarva each filed an errata to their Annual Reliability Reports.¹¹ Also on May 5, 2023, SMECO filed an update to its Annual Reliability Report.¹² Potomac Edison filed an errata to its Annual Reliability Report on May 8, 2023 and an additional correction on June 28, 2023.¹³ On July 17, 2023, Staff filed the Engineering Division’s Review of Annual Performance Reports on Electric Service Reliability (“Staff Annual Review”).¹⁴ On July 17, 2023, the Maryland Office of People’s Counsel (“OPC”) filed comments.¹⁵ On July 25, 2023, the Commission conducted a hearing to review the Electric Companies’ Annual Reliability Reports and to determine compliance with the service quality and reliability standards. Each party made a presentation to the Commission during the hearing and was available to answer Commission questions.¹⁶

¹⁰ Written comments were required to be filed with the Commission’s Executive Secretary by July 17, 2023.

¹¹ Maillog Nos. 302792 and 302791, respectively.

¹² Maillog No. 302814.

¹³ Maillog Nos. 302823 and 303752.

¹⁴ Maillog No. 304105. Staff filed an errata to this report on July 26, 2023. Maillog No. 304288.

¹⁵ Maillog No. 304111.

¹⁶ In addition to the parties discussed above, CPV Maryland, LLC, the Power Plant Research Program of the Department of Natural Resources, and the Maryland Energy Administration appeared at the hearing.

II. DISCUSSION

A. System-Wide Reliability Standards

COMAR 20.50.12.02D(1) sets forth the minimum standards with which each Electric Company must comply regarding system-wide reliability. Specifically, those regulations set targets for each Electric Company's SAIFI¹⁷ and SAIDI.¹⁸

The system-wide reliability data reported by the Electric Companies has historically excluded Major Outage Events, pursuant to COMAR 20.50.12.02D.¹⁹ In 2022, BGE reported three Major Outage Events, while Potomac Edison and SMECO each reported experiencing one.²⁰ Pepco and Delmarva did not experience any Major Outage Events in 2022. Electric Companies are also required to calculate SAIFI and SAIDI performance using the Institute of Electric and Electronic Engineers ("IEEE") 2.5 Beta Method, which excludes Major Event Days.²¹ In 2022, all five Electric Companies

¹⁷ SAIFI represents how often customers on average experience an interruption in a given year. Mathematically, it is equal to the number of customer interruptions divided by the total number of customers serviced on the electric system.

¹⁸ SAIDI measures the total time that customers on average face interrupted service in a given year. It is equal to the number of customer interruption minutes divided by the total number of customers serviced on the electric system.

¹⁹ COMAR currently defines Major Outage Event as an event where: (i) "More than 10 percent or 100,000, whichever is less, of the electric utility's Maryland customers experience a sustained interruption of electric service; and (ii) Restoration of electric service to any of these customers takes more than 24 hours. COMAR 20.50.01.03B(27). Prior to January 1, 2020, a Major Outage Event also included the declaration of a state of emergency by the federal, State, or local government in the utility's service territory if the emergency involved interruption of electric service.

²⁰ Staff Annual Review at 16, 69-70 (Table 15).

²¹ The 2.5 Beta Method was developed by IEEE with the intent of providing a mechanism to remove extraordinary events, known as "outliers," by defining a Major Event Day with respect to distribution reliability performance. The method is known as the 2.5 Beta Method because, based on daily SAIDI, the statistical formula uses events greater than 2.5 standard deviations to define Major Event Days. Staff Annual Review at 1 n. 3. The year 2021 marks the second year that Electric Companies were required to calculate SAIFI/SAIDI performance using the IEEE 2.5 Beta Method.

reported experiencing IEEE Major Event Days.²² Specifically, BGE experienced 10, Pepco six, SMECO five, and Potomac Edison six Major Event Days in 2022.²³

The Commission finds that in 2022, all five Electric Companies fully met their SAIFI and SAIDI targets.²⁴ Pepco posted the lowest SAIFI, reporting 0.68 interruptions per customer, which is below its COMAR standard of 0.90. Pepco also posted the lowest SAIDI, reporting a duration of 56 minutes, which is below its COMAR standard of 86.0. The Electric Companies reported SAIDI and SAIFI numbers and targets are provided below:

Table 1: 2022 SAIFI and SAIDI Scores

Utility	SAIFI		SAIDI	
	Reported	COMAR Standard	Reported (Minutes)	COMAR Standard (Minutes)
BGE	0.82	0.86	82.9	106.0
Delmarva	0.84	1.09	74.0	88.0
Potomac Edison	0.92	1.06	133.8	142.0
Pepco	0.68	0.90	56.0	86.0
SMECO	1.29	1.29	116.5	133.8

Staff examined the relative performance of Maryland’s investor-owned utilities regarding SAIFI and SAIDI based on a national benchmarking of investor-owned utilities. Staff determined that BGE, Pepco, and Delmarva each performed in the top quartile of

²² Staff Annual Review at 16, 18 (Table 2).

²³ Staff observed that the Electric Companies experienced more than the statistically expected number of IEEE Major Event Days. However, Staff observed that most of the reported IEEE Major Event Days were the result of severe weather throughout Maryland that caused Major Outage Events for most of the Electric Companies. *Id.* at 16-17. Staff stated that it will continue to monitor MED trends in the future.

²⁴ SMECO provided Staff with its SAIFI to three decimal places, which for 2022 was 1.287. SMECO therefore met its COMAR standard of 1.29. *Id.* at 19.

their peers for SAIFI and SAIDI, while Potomac Edison placed in the second quartile of its peers.²⁵

Staff conducted several trend analyses for the reporting year to measure how the Electric Companies' system-wide reliability has changed over time, including a three-year trend analysis. Staff indicated that its three-year trend analysis for SAIFI indicated that only Delmarva's three-year average SAIFI improved each year between 2020, 2021, and 2022.²⁶ Staff further found that the Electric Companies' SAIFI performance was "relatively constant" for the years 2020 through 2022.²⁷ Regarding SAIDI, Staff found that all five Electric Companies showed "some degradation in SAIDI since 2020, with all Electric Companies posting a three-year SAIDI in 2022 that was above their three-year average."²⁸ Nevertheless, all of the Electric Companies met their 2022 requirements.

Staff also evaluated the Electric Companies using the Customer Average Interruption Duration Index ("CAIDI"). CAIDI measures the average time required to restore service to customers per interruption.²⁹ For 2022, Pepco and SMECO performed better than their three-year average CAIDI, while BGE, Delmarva, and Potomac Edison performed worse than their three-year average.³⁰

Staff also performed a rolling two-year trend analysis, which averaged data over two-year increments from 2014/2015 to the present, in order to reduce the effects of an

²⁵ *Id.* at 20.

²⁶ Hr'g. Tr. at 8 (Borkoski); *Id.* at 21, Table 5.

²⁷ Hr'g. Tr. at 9 (Borkoski). Staff noted that SMECO was an exception, with a SAIFI of 1.01 in 2020 reaching 1.29 in 2022.

²⁸ Hr'g. Tr. at 9 (Borkoski).

²⁹ CAIDI is calculated by dividing the number of customer interruption minutes by the number of customer interruptions. Staff Annual Review at 7.

³⁰ *Id.* at 23, Table 6.

atypical single year performance. Staff’s two-year SAIFI analysis shows generally improving reliability for Pepco, Delmarva, BGE, and Potomac Edison, while SMECO shows a decrease in SAIFI performance for the most recent two-year average, “due primarily to a decline in performance in 2021.”³¹ Regarding SAIDI, Staff’s analysis demonstrated a generally improving performance for Pepco, Delmarva, and BGE, while Potomac Edison and SMECO showed a performance decline in the most recent two-year averages.³²

Additionally, Staff’s rolling two-year CAIDI trend analysis for the period 2014/2015 through 2020/2021 showed continued improvement in service restoration times for SMECO, while BGE and Pepco maintained a steady performance.³³ Staff stated that the two-year CAIDI trend for Delmarva and Potomac Edison showed a slightly declining performance from 2020/2021 to the most recent two-year average.

Finally, in last year’s annual performance review, Staff provided a new metric for measuring resilience – SAIDI^{MED} – which is the SAIDI that a system experiences during Major Event Days, and which “can be a useful measure of that system’s resiliency.”³⁴ Staff stated that SAIDI^{MED} represents the total time customers on average did not have service during Major Event Days in a given year. The lower the Electric Company’s SAIDI^{MED}, the more resilient is its electrical distribution system to the major events that affected it during a given time period.³⁵

³¹ *Id.* at 25.

³² *Id.*

³³ *Id.* at 26-27.

³⁴ *Id.* at 75.

³⁵ Staff defined resilience as “a measure of the ability of a system to withstand major unplanned service disruptions that are triggered by extraordinary events.” *Id.* at 74.

Using this metric, Staff found that Pepco, Delmarva and Potomac Edison were the most resilient electric utilities in Maryland in 2022, while BGE and SMECO were the least resilient.³⁶ Analyzing each Electric Company’s five-year average SAIDI^{MED}, Staff found that Pepco and Delmarva were the most resilient utilities, while BGE, Potomac Edison and SMECO were the least resilient. Nevertheless, given the newness of the metric, Staff made no conclusions regarding the need for resilience programs at any utility absent more data and evaluation.

B. Additional Reliability Indices

In addition to reporting SAIDI, SAIFI, and CAIDI, COMAR 20.50.12.05 requires that the Electric Companies calculate and report to the Commission two additional reliability indices. Specifically, Electric Companies must report Customers Experiencing Multiple Interruptions (“CEMI_n”)³⁷ and Momentary Average Interruption Frequency Index (“MAIFI_E”).³⁸ CEMI_n measures the ratio of customers experiencing multiple sustained interruptions against the total number of customers served on the system³⁹ and MAIFI_E measures the ratio of the total number of momentary interruption events against the total number of customers served on the system. MAIFI_E records multiple circuit operations that occur close to each other in time as a single event. It is helpful in indicating whether companies that report lower SAIFI are doing so at the expense of increased momentary

³⁶ *Id.* at 76-77.

³⁷ CEMI_n is calculated as the ratio of the total number of customers experiencing sustained interruptions equal to or greater than “n,” where n is the number of interruptions, divided by the total number of customers served.

³⁸ MAIFI_E is calculated as the ratio of the total number of customer momentary interruption events divided by the total number of customers served, where E is equal to the number of interruption events.

³⁹ This number includes customers experiencing three or more, five or more, seven or more, or nine or more interruptions.

outages.⁴⁰ If an Electric Company is unable to provide either of these calculations, it must present to the Commission a reason why, as well as an estimate of the cost to provide the information in the future.⁴¹

In 2022, BGE, Pepco, SMECO,⁴² and Delmarva reported MAIFI_E performance. Potomac Edison reported MAIFI performance data instead of MAIFI_E data.⁴³ Pursuant to COMAR 20.50.12.05C, Potomac Edison provided an explanation for why it does not have the capability to perform these MAIFI_E calculations.⁴⁴ Although Potomac Edison currently lacks the tools to calculate MAIFI_E, Staff observed that compared to 2021, Potomac Edison's MAIFI performance improved in 2022.⁴⁵

Staff provided an analysis of available MAIFI_E data since the installation of distribution automation began in Maryland service territories (beginning in 2013). Staff states that BGE's MAIFI_E performance has made a slight improvement from 2021 to 2022, while Pepco's performance declined by 23 percent during that same time.⁴⁶ Pepco asserts

⁴⁰ Staff Annual Review at 35. Staff asserts "it is important that Electric Companies reduce all outages and not simply substitute sustained outages with momentary outages." *Id.* at 35.

⁴¹ See COMAR 20.50.12.05B; see also COMAR 20.50.12.05C.

⁴² 2020 is the first year that SMECO provided MAIFI_E data. SMECO stated that it calculated 2022 system MAIFI_E using available SCADA substation breaker momentary operation data. The company decided not to include line recloser operational data in the MAIFI_E calculation because the data did not provide sufficient detail to accurately exclude interruptions that occurred prior to a sustained interruption event. SMECO 2021 Annual Performance Report at 18, n. 2.

⁴³ Potomac Edison reported a MAIFI of 5.62 for review year 2022. Potomac Edison 2022 Annual Performance Report at 3. MAIFI alone does not differentiate between the number of interruption events - it simply records every individual circuit operation. For that reason, Staff argues that MAIFI_E is a superior metric to assess the customer experience than MAIFI. Staff states that "often electric utility system protection schemes may operate circuit devices several times to clear an electrical fault as part of one event," which MAIFI_E would recognize, but MAIFI would not. Staff Annual Review at 34.

⁴⁴ Potomac Edison stated that it is able to report MAIFI, but not MAIFI_E data because it "does not have smart meters and must rely on gathering data by manually reading counters from line reclosers annually." Potomac Edison 2022 Annual Reliability Report at 3, n. 2. For the same reason, Potomac Edison is unable to calculate MAIFI excluding major event data. The company further stated that "Operations during major events cannot be differentiated. The ability to calculate this excluding major event data would require a multimillion-dollar investment in smart meters." Potomac Edison 2022 Annual Reliability Report at 3, n. 3.

⁴⁵ Staff Annual Review at 36.

⁴⁶ *Id.*

that this decline in MAIFI_E performance is attributable to Pepco's investment in grid automation and an increase in reclosers on the system. The company argues that outages that would have otherwise been sustained are becoming momentary interruptions, as a result of investment in grid automation. Staff observes that Delmarva's performance also declined by 16 percent from 2021 to 2022, which Delmarva also attributes to its investment in grid automation and an increased installation of reclosers on the system.⁴⁷ OPC comments that though it supports investment in grid automation and advanced grid technologies, Electric Companies should "consider the nuisance of momentary outages on Maryland customers ... and take proactive steps to reduce MAIFI_E."⁴⁸ Because SMECO was not able to calculate either MAIFI or MAIFI_E prior to 2020, Staff did not analyze the company's trends for review year 2022. However, Staff observed that SMECO reported a MAIFI_E of 1.16 for 2021 and 0.81 for 2022.⁴⁹

All Electric Companies reported CEMI_n data for 2022. SMECO had the highest percentage of customers experiencing three or more interruptions in all customer categories except CEMI₈, where Potomac Edison showed the highest percentage.⁵⁰ Potomac Edison demonstrated the second highest score for CEMI₂, CEMI₄, and CEMI₆. Delmarva performed best (with the lowest average CEMI_n) in CEMI₂, CEMI₄, and CEMI₆, followed by Pepco. Pepco performed best in CEMI₈, followed by Delmarva.

Staff reported that from the first full year since the implementation of RM43 in 2013, the number of customers experiencing multiple interruptions has generally

⁴⁷ *Id.* See also, Delmarva's response to Staff Data Request 2-2.

⁴⁸ OPC Comments at 7-8.

⁴⁹ See Staff Annual Review at 37, Table 12.

⁵⁰ *Id.*, Table 13.

decreased.⁵¹ All Electric Companies are currently in compliance with MAIFI_E and CEMI_n reporting requirements.

C. Poorest Performing Feeder Standards

The Poorest Performing Feeder (“PPF”) Standard requires that Electric Companies report to the Commission SAIDI, SAIFI, and CAIDI indices for all feeders assigned to Maryland that are identified by the utility as having the poorest feeder reliability, defined as “all feeders having circuit reliability performance 250 percent or more above the utility’s System-Wide SAIFI and SAIDI[.]”⁵² The PPF Standard further provides that “no feeder shall appear in a utility’s list of poorest performing feeders during three consecutive 12-month reporting periods, unless the utility has undertaken reasonable remediation measures to improve the performance of the feeder.”⁵³

In 2022, the five Electric Companies recorded 47 PPFs, which is roughly 1.7 percent of the total number of feeders in Maryland. The Electric Companies proposed and implemented remedial action to address these PPFs that includes tree trimming, pole and cross arm replacement, undergrounding, and installing additional equipment such as animal guards, lightning arresters, sectionalizing devices, and trips savers. Staff reviewed the Electric Companies’ remedial actions to address PPFs and concluded that they are acceptable.⁵⁴

⁵¹ *Id.* at 38.

⁵² COMAR 20.50.12.03A(1) and A(3). The PPF Standard was most recently updated in RM63, in a final rulemaking session held on September 18, 2018. *See* RM63, *Revisions to COMAR 20.50.12.03 – Service Supplied by Electric Companies – Poorest Performing Feeder Standard*.

⁵³ COMAR 20.50.12.03A(4). The current PPF standard is in its fifth year since the Commission adopted COMAR revisions in RM63, *Service Supplied by Electric Companies – Service Quality and Reliability Standards – Poorest Performing Feeder Standard*. (*See* COMAR 20.50.12.03, revision October 2018.) The new standard is designed to better identify feeders that are significant outliers in performance.

⁵⁴ Staff Annual Review at 30-31.

No Electric Company reported a *repeat* PPF in 2022. Therefore, all Electric Companies are in compliance with the Poorest Performing Feeder Standard for 2022.

D. Multiple Device Activation Standard

COMAR 20.50.12.04 requires each Electric Company to report the number of protective devices that activated five or more times during the applicable reporting period which caused sustained interruptions in electric service, including during Major Outage Events, to more than 10 Maryland customers.⁵⁵ The Electric Companies are required to implement reasonable remediation measures to reduce the number of activations and describe these measures in their annual performance reports. COMAR 20.50.12.04D provides that the protective devices reported under this standard shall not exceed the standard during either of the two subsequent 12-month reporting periods, after allowing one 12-month reporting period for remediation measures. Any Electric Company that fails to meet this standard is required to file with the Commission a remediation plan setting forth its proposed corrective actions.

A total of 50 multiple device activations (“MDAs”) were reported in 2022.⁵⁶ BGE reported the largest number of MDAs among Electric Companies, with 28 MDAs across all categories, representing 56% of the 50 total MDAs. Line or tap fuse activations represented the largest number of MDAs (32), with BGE reporting 15 such activations.⁵⁷ The Electric Companies also reported 12 recloser activations in total, with BGE reporting

⁵⁵ COMAR 20.50.01.03B(43) provides that protective devices include substation breakers and reclosers, line reclosers, line sectionalizing equipment, and line fuses.

⁵⁶ Staff Annual Report at 32, Table 11.

⁵⁷ *Id.*

10. Circuit breakers were activated six times, with BGE reporting three. No Electric Company reported substation or transformer device activations in 2022.

Each of the Electric Companies investigated its respective MDAs in the field and implemented remediation measures. Remedial actions taken to address MDAs included cable replacement, transformer replacement, switch replacements, selective undergrounding, and vegetation management. Staff reviewed the Electric Company remedial actions to address MDAs and concluded that they are acceptable.⁵⁸

In 2022, Pepco, Delmarva, Potomac Edison, and SMECO, reported that they experienced no *repeat* MDAs. Only BGE reported experiencing a repeat MDA. In particular, BGE failed the MDA standard in the 2022 reporting period by experiencing multiple activations of a line fuse in 2022 that was a repeat MDA from 2020.⁵⁹ The line fuse exists on Feeder 8663 out of the Mt. Wilson Substation, and experienced five activations resulting in sustained customer interruptions during the October 2019 to September 2020 period.⁶⁰ In 2020, BGE conducted tree trimming and increased monitoring to remediate the problem. Nevertheless, during the reporting period covering October 2021 to September 2022, the device activated five times impacting 16 customers. BGE states that two of those activations occurred during Major Event Day storms and were caused by vegetation and lightning.⁶¹ BGE asserts that the remaining three activations were caused by vegetation and overhead conductor deterioration.

⁵⁸ *Id.* at 33.

⁵⁹ BGE's line fuse is identified as Device Number 10907302501.

⁶⁰ Staff Annual Review at 31-32.

⁶¹ BGE 2022 Annual Report, Attach. H, Corrective Action Plan ("CAP") at 1.

After the 2022 activations, BGE submitted a Corrective Action Plan that includes expanding an existing strategic undergrounding project to include the MDA device.⁶² In accordance with that plan, BGE undergrounded 1,220 feet of overhead wire, installed one VL recloser, one Tripsaver recloser, and three 100 S2 fuses. BGE stated that the new sectionalizing fuses and reclosers “reduce customer interruptions by automatically clearing transient events.”⁶³ BGE completed the work associated with its Corrective Action Plan on January 26, 2023. The company asserted that it will continue to monitor the safety and reliability of its distribution system and take necessary actions to prevent future outages, including trimming and removing trees in the surrounding area as appropriate. Staff commented that BGE’s Corrective Action Plan is acceptable.⁶⁴ Staff has not recommended any civil penalty associated with the MDA violation.

The Commission finds BGE’s Corrective Action Plan related to MDAs appropriate and approves it. The Commission additionally finds that no penalty is appropriate for BGE’s MDA violation. The company took appropriate steps to address the additional activations in 2022 after the device was first placed on the MDA list in the 2020 review period.

E. Service Interruption Standards

COMAR 20.50.12.06A requires that Electric Companies restore service within eight hours, from the time when the utility knew or should have known of an outage, to at least 92 percent of their customers that experienced sustained interruptions during normal conditions. Additionally, COMAR 20.50.12.06B provides that Electric Companies must

⁶² BGE 2022 Annual Report, Attach. H, CAP at 2.

⁶³ *Id.*

⁶⁴ Staff Annual Review at 33, 79; Hr'g. Tr. at 15 (Borkoski).

restore service within 50 hours to at least 95 percent of their customers experiencing sustained interruptions during Major Outage Events, where the total number of sustained interruptions is less than or equal to 400,000 or 40 percent of the Electric Company's total number of customers, whichever is less. An Electric Company is required to restore service as quickly and safely as permitted to its customers experiencing sustained interruptions during each Major Outage Event in which the total number of sustained interruptions is greater than 400,000 or 40 percent of the utility's total number of customers, whichever is less.⁶⁵

In 2022, all Electric Companies met the requirements for normal conditions.⁶⁶ SMECO posted the highest restoration rate, restoring 99.30% of customers who experienced sustained interruptions during normal conditions, followed by Pepco and Delmarva, which each posted restoration rates of 99%.⁶⁷

In 2022, all Electric Companies who experienced Major Outage Events met the requirement to restore service within 50 hours to at least 95 percent of their customers experiencing sustained interruptions during Major Outage Events. Potomac Edison posted the highest restoration rate at 99.60%, followed by SMECO at 97% and BGE at 95.19%.⁶⁸ Pepco and Delmarva did not experience any Major Outage Events, making the standard inapplicable to them for this reporting year.

⁶⁵ COMAR 20.50.12.06D.

⁶⁶ Staff Annual Review at 40.

⁶⁷ *Id.*

⁶⁸ *Id.*, Table 14.

F. Downed Wire Response Standard

COMAR 20.50.12.07A requires that each Electric Company respond to a government emergency responder-guarded downed electric utility wire within three hours after notification by a fire department, police department, or 911 emergency dispatcher at least 90 percent of the time.⁶⁹ This Standard was revised in 2019 to become more stringent, with 2020 representing the first full year of implementation of the new standard.⁷⁰ COMAR 20.50.12.07D provides that each Electric Company shall exercise reasonable care to reduce the potential hazard caused by a downed electric wire to which its employees, its customers, and the general public may be subjected.

All five Electric Companies met the Downed Wire Response Standard for 2022. Each Company responded to at least 90 percent of government emergency responder-guarded downed electric wires within three hours.⁷¹ SMECO posted the highest response rates, responding to 100% of government emergency responder-guarded downed wires within the time frames required by this Standard, followed by BGE and Delmarva, which each reported a response rate of 97%.⁷²

G. Customer Communications Standards

COMAR 20.50.12.08 sets standards for customer communications metrics, which include standards for the percentage of calls answered within 30 seconds, and for the

⁶⁹ The Commission has previously observed: “Given the potentially life-threatening nature of downed wires, compliance with this standard is imperative.” Order No. 89056, *In the Matter of the Review of Annual Performance Reports of Electric Service Reliability Filed Pursuant to COMAR 20.50.12.11*, Case No 9353, (March 6, 2019) at 26.

⁷⁰ On November 6, 2019, pursuant to RM 67, the Commission adopted the new three-hour downed wire response standard, which requires Electric Companies to report their downed wire response information under the enhanced standard beginning December 2, 2019. Maillog No. 227390. Prior to RM 67, the regulation required a response within four hours.

⁷¹ Staff Annual Review at 40-41.

⁷² *Id.* at 41, Table 15.

percentage of calls abandoned by the customer. COMAR 20.50.12.08A requires that each Electric Company answer within 30 seconds, on an annual basis, at least 75 percent of all calls placed to the Electric Company for customer service or outage reporting purposes. All Electric Companies met this standard in 2022.⁷³ Pepco and Delmarva posted the highest answered-call rates this year, answering 92.20% and 91.90%, respectively, of calls placed to them for customer service or outage reporting purposes within 30 seconds.⁷⁴ Potomac Edison posted the lowest answered-call rate at 80.80%, which the company attributed to lingering recruiting and retention issues resulting from the COVID-19 pandemic.

COMAR 20.50.12.08 provides that each Electric Company must achieve an annual average abandoned call rate of 5% or less. In 2022, all five Electric Companies satisfied this Standard. Delmarva reported the lowest abandoned call rate at 1.09%. Pepco reported the next lowest abandoned call rate at 1.31%.⁷⁵

In Order No. 89260, the Commission found that the current Customer Communication metrics “do not fully demonstrate whether a customer’s concerns are being resolved during the communication process.... [and that] it is important to prevent backsliding regarding the Customer Communication standards.”⁷⁶ The Commission therefore directed Staff to convene a workgroup to address the Customer Communication Standards, and tasked the workgroup with proposing “shared best practices” for Electric Companies when handling customer communications.

⁷³ *Id.* at 42, Table 16.

⁷⁴ *Id.* at 42.

⁷⁵ *Id.* at 42, Table 16.

⁷⁶ Case No. 9353, *In the Matter of the Review of Annual Performance Reports on Electric Service Reliability*, Order No 89260 (Sept. 6, 2019) at 17.

Staff convened the Customer Communication Workgroup (“CCWG”)⁷⁷ on September 26, 2019, and on June 1, 2020, Staff filed a CCWG Final Report with the Commission, which included consensus recommendations for best practices⁷⁸ and metrics that are best suited for measuring a Company’s performance with regard to customer communications. The CCWG proposed three metrics for measuring call center performance and quality of service provided related to customer communications. Those metrics are: (i) First Call Resolution (whether, from the customers’ perspective, their inquiry was resolved to their satisfaction in a single interaction); (ii) Customer Service Representative average handling time (the average amount of time needed to resolve a customer’s request); and (iii) percentage of time a vulnerable individual customer is notified in advance of storms.⁷⁹

In Order No. 89629, the Commission approved the recommendations of the CCWG, finding that the three recommended metrics will further help measure call center performance and quality of service related to customer communications beyond the metrics contained in the existing Customer Communications Standard.⁸⁰ Nevertheless, given the variability across the electric industry in practice and definitions, the Commission determined that the three metrics would be tracked and reported in each Electric Company’s annual reliability report as “supplemental customer communication

⁷⁷ The CCWG consisted of the six Electric Companies (including Choptank), OPC, and Staff.

⁷⁸ The 16 best practices generally relate to call center capabilities, customer service representative performance, staffing protocols, and backup call center plans. Most of the Electric Companies have either implemented or are planning to implement these best practices.

⁷⁹ Customer Communication Final Report, Maillog No. 230543.

⁸⁰ Case No. 9353, *In the Matter of the Review of Annual Performance Reports on Electric Service Reliability*, Order No 89629 (Sept. 1, 2020) at 22.

information,” and that the metrics would not be adopted as performance standards at this time.⁸¹

For 2022, the Electric Companies reported an average 75.6% First Call Resolution (“FCR”), indicating that this percentage of customers perceived that their inquiry was resolved to their satisfaction in a single interaction. This 2022 metric marks a slight decrease from last year’s 76.5% FCR.⁸² SMECO reported the highest percentage FCR at 89.2%, followed by Pepco at 76.13%.⁸³ Potomac Edison reported the lowest FCR at 62.7%. Nevertheless, Staff observed that the Electric Companies do not share a uniform FCR metric, so it is difficult to compare rates with precision from one Electric Company to another.⁸⁴

Staff reports that all Electric Companies have had a customer service representative (“CSR”) average handling time metric in place for years. For review year 2022, the Electric Companies reported an average seven-minute CSR handling time. Potomac Edison reported the shortest average CSR handling time at 359 seconds (or 5.9 minutes), followed by SMECO at 379 seconds (6.3 minutes).

Staff reported that all Electric Companies have an internal system that notifies their vulnerable individual (“VI”) customers who enrolled in the special needs program to prepare for the possibility of an extended outage prior to a storm event.⁸⁵ These companies

⁸¹ Order No. 89629 at 22. Staff observed, for example, that a major challenge to developing a uniform FCR metric is that it varies across the industry and no utility has the same definition. Staff Annual Review at 43.

⁸² *Id.*

⁸³ *Id.* at 45, Table 17.

⁸⁴ BGE, Delmarva, Potomac Edison and Pepco have an internal measurement system for determining FCR, while SMECO tracks FCR performance by reviewing call quality monitoring, speech analytics, and customer satisfaction surveys. SMECO did not have a formal FCR metric in place for review year 2020; however, it developed this metric for review years 2021 and beyond. *Id.* at 43-44.

⁸⁵ *Id.* at 44.

also have the capability to track the percentage of successful notifications to VI customers. For 2022, the Electric Companies notified their VI customers in advance of storms an average of 91% of the time.⁸⁶ BGE and Potomac Edison posted the highest notification rate, each reporting that their VI customers were notified 100% of the time in advance of a storm.⁸⁷ SMECO reported that 95.3% of the time, VI customers were notified prior to storms in 2022. The notification rates for Pepco and Delmarva were 76.37% and 82.37%, respectively.⁸⁸

H. Vegetation Management Standards

COMAR 20.50.12.09 addresses vegetation management standards and requires that each Electric Company trim vegetation on a certain percentage of the Electric Company's total distribution miles each year. The regulation requires that each Electric Company develop its own vegetation management program to address tree pruning and removal; vegetation management around poles, substations, and overhead electric plant; vegetation management along rights-of-way; inspections; and public education regarding vegetation management practices, among other requirements.⁸⁹

Pursuant to COMAR 20.50.12.09F, each Electric Company must adopt either a four-year or five-year trim cycle. Based on the Company's chosen trim cycle, it is then required to perform no less than a specified amount of vegetation management to its

⁸⁶ *Id.*

⁸⁷ As authorized by Order No. 89629, Potomac Edison provides advance notifications to customers, including VI customers, who request such communications. However, Potomac Edison does not provide advance notifications to customers who have not affirmatively requested the service.

⁸⁸ Staff Annual Review at 45, Table 17.

⁸⁹ COMAR 20.50.12.09B(2).

electric distribution system each year. All of the Electric Companies utilized four-year trim cycles in 2022.⁹⁰

In 2022, all of the Electric Companies exceeded their minimum vegetation management requirements to combine for a total of 6,560 circuit miles of vegetation management trimming across the State of Maryland.⁹¹ The Commission therefore notes that all of the Electric Companies have met their vegetation management targets. The Electric Companies should continue to place priority on vegetation management, on communicating effectively with customers, and on addressing customer concerns as they carry out their vegetation management programs.

In past orders, the Commission has also focused on the per-mile cost of the Electric Companies vegetation management programs.⁹² Staff reported that in 2022, the average vegetation management cost per mile was \$11,480, representing a decrease of approximately 1.3% compared to an average \$11,631 per mile reported in 2021.⁹³ Among the Electric Companies, Pepco reported the highest average cost per mile of \$15,606, a decrease of 2.97% compared to the company's expenditures in 2021. BGE reported the second largest average cost per mile in 2022 at \$13,319 per mile.⁹⁴

⁹⁰ Potomac Edison transitioned from a five to a four-year trim cycle beginning in January 2021.

⁹¹ Staff Annual Review at 48.

⁹² In this proceeding, OPC voiced concern generally about the capital and O&M expenditures of Electric Companies in support of reliability projects, and the impact of those expenditures on reliability indices. OPC Comments at 1-2. In particular, OPC highlighted capital budgets that significantly exceeded what was budgeted for in 2022, as well as higher-than-normal inflation in labor rates and overheads. During the hearing, OPC reiterated its concern that there is an important tradeoff between affordability and reliability, and that the Commission should strike an appropriate balance with regard to the 2024–2027 reliability standards. Hr'g. Tr. at 91-92 (Sammartino).

⁹³ Staff Annual Report at 48.

⁹⁴ *Id.* at 48-49.

I. Periodic Equipment Inspections

COMAR 20.50.12.10A requires that each Electric Company adopt and follow written operation and maintenance (“O&M”) procedures for its electric plant in order to maintain safe and reliable service. The programs should be designed to achieve, at a minimum, the level of reliability established by the Commission’s regulations. In accordance with those requirements, each of the Electric Companies filed O&M plans with the Commission in August 2012, detailing their procedures for the inspection and maintenance of wood poles, overhead circuits and equipment, pad-mounted transformers and underground equipment, line capacitors, and substations. COMAR 20.50.12.10 provides that if any Electric Company elects to make material changes to its O&M programs, a revised O&M program manual must be filed with the Commission no later than 60 days prior to the implementation of the changes, absent exigent circumstances.⁹⁵

In 2022, BGE and SMECO submitted revised O&M program manuals for changes that took effect during 2023.⁹⁶ Specifically, SMECO revised its O&M program by changing the frequency of its Station Circuit Breakers program and its AMI Equipment program. BGE revised the interval frequency and the inspection tasks of its Overhead Automated Distribution Reclosers program and its Pad-Mounted Automated Distribution Reclosers program.

Staff reported that in 2023 it conducted virtual annual records inspections and held virtual meetings with each of the Electric Companies for the 2022 calendar year. Staff completed its final inspection of the O&M records for 2022 on June 30, 2023, and found

⁹⁵ If exigent circumstances exist, the Electric Company must file the changes with the Commission no later than 30 days after implementation.

⁹⁶ See Maillog No. 242882 (BGE) and Maillog No. 240797 (SMECO).

no violations by any of the Electric Companies related to the Periodic Equipment Inspections Standard.⁹⁷ Accordingly, the Commission finds that each of the Electric Companies satisfied this standard for review year 2022.

J. Major Outage Event Reports

As a result of the multiple Major Outage Events experienced in 2022, BGE, Potomac Edison, and SMECO filed Major Outage Event Reports, as required by COMAR 20.50.12.13. In particular, BGE filed a Major Outage Event Report for the July 12–19, 2022 storm and for the August 4–7, 2022 storm.⁹⁸ In response to those reports, the Commission issued an order on January 12, 2023, directing BGE to “provide a corrective action plan to address use of the ‘other direct causes’ category for outage causes, improve damage assessment processes where severe storm impacts are underestimated in weather forecasts, and improve the availability of qualified line employees.”⁹⁹

In response to the Commission’s order, BGE submitted a plan that focuses on providing annual training to crews about selecting the most appropriate cause code for outages, including during Major Outage Events.¹⁰⁰ Additionally, BGE proposed training to individuals who may be involved with closing out outages as part of their storm duties, but who do not have that responsibility during their normal jobs. BGE also suggested utilizing a more proactive approach to damage assessment, as well as developing a methodology to improve the accuracy of estimated times of restoration when there is significant storm damage that has yet to be uncovered.

⁹⁷ Staff Annual Review at 51.

⁹⁸ See Maillog Nos. 241892 and 242093, respectively.

⁹⁹ Maillog No. 300838 at 1.

¹⁰⁰ Staff Annual Review at 70-71.

Staff reviewed BGE’s plans related to these Major Outage Events and found them acceptable.¹⁰¹ Staff also concluded that BGE complied with the Commission’s January 12, 2023, letter order. Nevertheless, Staff asserts that both BGE and Potomac Edison “have some improvement opportunities” resulting from their performance during Winter Storm Elliott.¹⁰² In particular, Staff observes that BGE did not meet a 90 percent downed wire response performance to guarded wires level during two of its three Major Outage Events in 2022, and recommends that BGE provide a corrective action plan to improve its downed wire response performance to guarded wires during Major Outage Events.¹⁰³ Similarly, with regard to Potomac Edison, Staff recommends that the Commission require the utility to provide a corrective action plan addressing (i) avoiding the overuse of the “unknown” outage cause category in its outage reporting, (ii) implementing improvements in the availability of Potomac Edison qualified line employees, and (iii) improving its downed wire response performance to guarded wires during Major Outage Events.

Neither Electric Company objects to providing the information requested by Staff, however Potomac Edison requests clarification that this information should not be labeled a corrective action plan.¹⁰⁴ As discussed during the hearing, there is currently no COMAR standard for how an Electric Company defines its outage causes, and there is considerable

¹⁰¹ *Id.* at 71. Given that BGE was not in violation of the Service Interruption Standard or the Downed Wire Response Standard, Staff concluded that a civil penalty was “not applicable.” *Id.*

¹⁰² *Id.* at 71, 80.

¹⁰³ *Id.* at 70-71. As discussed, Staff acknowledges that BGE met the applicable standard regarding downed wire response. *Id.* at 80.

¹⁰⁴ During the hearing, Potomac Edison argued that the term “corrective action plan” is inappropriate for the company, given that it met all applicable reliability regulations in 2022. Nevertheless, Potomac Edison voluntarily committed to address each of the requests made by Staff with regard to Major Outage Events. *See* Hr’g. Tr. at 53-54, 58 (Trout). The Commission agrees that the term corrective action plan is ill-fitted in the present context, and accepts Potomac Edison’s commitment to provide the requested information to Staff. Nevertheless, nothing in this discussion regarding appropriate terminology should be construed as a relinquishment of the Commission’s general regulatory authority over Electric Companies.

variation in, and potentially overuse of, the term “other.”¹⁰⁵ Nevertheless, for Major Outage Events and for blue sky days, it is important to have as accurate an outage cause as possible.¹⁰⁶ Reasons for the apparent overuse of the term include that work crews may leave the cause of the outage blank, in order to prioritize reconnection, and oversight by employees who fail later to accurately update the information. In any event, a process should be established for after-action review of the reports to update the specific cause of the outage. Regardless of the cause, the Commission supports Staff’s request for BGE and Potomac Edison to submit a plan to improve the accuracy of the outage cause and to significantly reduce, or even eliminate, use of the ‘other’ category. As discussed more fully in Section II(K) below, the Commission also supports Staff’s request for Potomac Edison to submit a plan to implement improvements in the availability of qualified line employees and improve its downed wire response performance to guarded wires during Major Outage Events. Those are issues that will be addressed in the workgroup discussed below.

K. Workgroup to Address Staff Recommendations for Future Regulations

In its Annual Review, Staff identified three electric reliability categories that it asserts should be addressed by a workgroup with the goal of proposing revised regulations. In particular, Staff targets the existing Service Interruption Standard, the existing Downed Wire Response Standard, and the lack of any COMAR regulation addressing the availability of qualified line personnel.¹⁰⁷

¹⁰⁵ Hr’g. Tr. at 29 (Borkoski).

¹⁰⁶ *Id.* at 32.

¹⁰⁷ Staff Annual Review at 71.

With regard to the existing Service Interruption Standard, COMAR 20.50.12.06B provides that Electric Companies must restore service within 50 hours to at least 95 percent of their customers experiencing sustained interruptions during Major Outage Events. As discussed above, all Electric Companies met this standard for 2022. However, Staff observes that the standard is measured on a calendar year basis, where the Electric Company's performance over multiple Major Outage Events is averaged. Staff asserts that this averaging can mask the poor performance of the Electric Company in any one Major Outage Event.¹⁰⁸ Staff also contends that the existing standard is problematic because it delays consideration of a corrective action plan and determination of a possible civil penalty for poor performance during a Major Outage Event until after the calendar year is complete. During the hearing, Staff testified that "each storm is unique, and we should be measuring [compliance] for each storm..."¹⁰⁹ Accordingly, Staff recommends that the existing regulation be revised to ensure that Electric Companies are held accountable for meeting the service restoration standards for each individual Major Outage Event, rather than an annual average.¹¹⁰

Staff's position with regard to the Downed Wire Response Standard is similar. That standard requires that each Electric Company respond to a government emergency responder-guarded downed electric utility wire within three hours after notification by the emergency responders at least 90 percent of the time.¹¹¹ As discussed above, all Electric Companies met this standard in 2022. Staff observed, however, that Electric Companies failed to achieve the standard in half of the six Major Outage Events that occurred in

¹⁰⁸ *Id.* at 72 Hr'g. Tr. at 17, 21 (Borkoski).

¹⁰⁹ *Hr'g. Tr.* at 17 (Borkoski).

¹¹⁰ Staff Annual Review, Appendix B – Revisions to COMAR 20.50 at 8-11.

¹¹¹ COMAR 20.50.12.07A.

2022.¹¹² Because the standard averages the Electric Company's response over all Major Outage Events within the calendar year, poor performance in a particular Major Outage Event can be masked. Staff has therefore proposed that the Downed Wire Response standard be applied both annually and for each Major Outage Event.¹¹³

Finally, Staff states that it is concerned that the number of qualified line employees involved in Major Outage Event restoration in 2022 was lower than it should have been.¹¹⁴ Staff observes, for example, that during the 2022 Major Outage Events, the unavailability of qualified line personnel exceeded 20% for each Major Outage Event for BGE and Potomac Edison. Staff argues that the availability of qualified line employees is important for efficient and effective service restoration because they will have superior familiarity of the system, safety practices, permit and tagging qualifications, and ability to accept dispatch work efficiently using company mobile systems. Staff notes that there is no standard regarding availability of qualified line employees now.¹¹⁵ Accordingly, Staff proposes to require that during each Major Outage Event, an Electric Company have at least 80 percent of qualified line personnel available for storm restoration for each day of the Major Outage Event.¹¹⁶

No party objected to the formation of a workgroup to examine the issues raised by Staff. However, Potomac Edison argued that Staff's recommendation to create a regulation that would require that at least 80% of qualified line personnel be available for storm restoration each day of a Major Outage Event could conflict with the company's existing

¹¹² Staff Annual Review at 73.

¹¹³ *Id.*, Appendix B – Revisions to COMAR 20.50 at 11-13.

¹¹⁴ *Id.* at 73-74; Hr'g. Tr. at 25 (Borkoski).

¹¹⁵ Hr'g. Tr. at 23 (Borkoski).

¹¹⁶ Staff Annual Review, Appendix B – Revisions to COMAR 20.50 at 8-11.

collective bargaining agreement.¹¹⁷ Potomac Edison therefore contends that it would like to consider other options in the workgroup for resolving the issue raised by Staff related to qualified line personnel.

The Commission finds that Staff has raised important issues related to existing reliability regulations, and that stakeholders should have the opportunity to consider Staff's proposed revisions. Accordingly, the Commission directs Staff to lead a workgroup to propose revisions to the existing COMAR Service Restoration Standard and Downed Wire Response Standard related to applying the standards to each Major Outage Event, rather than using an average on a calendar year basis. Additionally, the Commission is concerned about the lack of qualified line personnel that have been available for storm restoration during Major Outage Events. The Commission therefore directs the workgroup to consider this issue and to propose a new COMAR standard related to the availability of qualified line personnel.¹¹⁸

While storm events occur without consideration of the personnel schedules of Electric Companies, the increased availability of sophisticated weather analysis and information should allow for the companies to prepare adequate responses by their employees. In a manner similar to first responders employed by state and local government, the Electric Companies' personnel provide a critical role in the response to and recovery from Major Outage Events. Restoration of essential utility services is a primary responsibility of the companies supervised by this Commission.

¹¹⁷ Hr'g. Tr. at 60-61 (Moss).

¹¹⁸ The workgroup may also address other revisions proposed in Staff's Annual Review, Appendix B, such as the proposed definition of Catastrophic Major Outage Event.

IT IS, THEREFORE, this 1st day of September, in the year Two Thousand Twenty-Three, by the Public Service Commission of Maryland, **ORDERED:**

(1) that the service quality and reliability annual reports of Baltimore Gas and Electric Company (“BGE”), the Potomac Electric Power Company (“Pepco”), Delmarva Power & Light Company (“Delmarva”), The Potomac Edison Company (“Potomac Edison”), and Southern Maryland Electric Cooperative, Inc. (“SMECO”) are accepted;

(2) that BGE’s Corrective Actions Plan related to the Multiple Device Activation Standard is hereby accepted;

(3) that BGE provide a plan to improve the company’s downed wire response performance to guarded wires during Major Outage Events;

(4) that Potomac Edison provide a plan to address (i) avoiding the overuse of the “unknown” outage cause category in its outage reporting, (ii) implementing improvements in the availability of Potomac Edison qualified line employees, and (iii) improving the company’s downed wire response performance to guarded wires during Major Outage Events; and

(5) that Staff lead a workgroup to propose revisions to the existing COMAR reliability regulations as discussed in the body of this Order.

/s/ Frederick H. Hoover, Jr. _____

/s/ Michael T. Richard _____

/s/ Anthony J. O’Donnell _____

/s/ Kumar P. Barve _____

/s/ Bonnie A. Suchman _____

Commissioners