

ORDER NO. 89908

In The Matter of the Review of Annual
Performance Reports on Electric Service
Reliability Filed Pursuant to COMAR
20.50.12.11

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BEFORE THE
PUBLIC SERVICE COMMISSION
OF MARYLAND

CASE NO. 9353

Issue Date: August 12, 2021

ORDER ON 2020 ELECTRIC RELIABILITY PERFORMANCE REPORTS

1. Pursuant to the Maryland Electricity Service Quality and Reliability Act¹ and the Code of Maryland Regulations (“COMAR”) 20.50.12 *et seq.*, the Maryland Public Service Commission (“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”), Choptank Electric Cooperative, Inc. (“Choptank”),² and Southern Maryland Electric Cooperative, Inc. (“SMECO”) (collectively the “Electric Companies”). The Commission also accepts the Corrective

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

² Choptank stated in its 2020 Annual Reliability Report filing that this would be its final Annual Reliability Report because it became a Member-Regulated entity in August of 2020. Choptank further stated that it elected to submit a full 2020 annual performance filing because it was subject to the COMAR 20.50.12 requirement for the majority of the year. Choptank Annual Reliability Report, Transmittal Letter at 1. Nevertheless, in its June 24, 2020 response to the Commission’s Bench Data Request, Choptank acknowledged that it would continue to be subject to Md. Ann. Code, Pub. Util. Art. § 5-303, which requires utilities (including Member-Regulated Cooperatives), to “furnish equipment, services, and facilities that are safe, adequate, just, reasonable, economical, and efficient, considering the conservation of natural resources and quality of the environment.” Choptank June 24, 2020 response, Maillog No. 230851, at 2.

Action Plans filed in response to violations of certain performance standards and directs the additional actions described below.

I. INTRODUCTION AND PROCEDURAL HISTORY

2. 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.”³ In accordance with the Act, the Commission established service quality and reliability standards that are designed to improve reliability and ensure an objectively high level of performance tailored to each Electric Company. Specifically, the Commission enacted benchmark standards for service quality and reliability through Rule Making 43 (“RM43”). These standards are codified in COMAR 20.50.12 *et seq.*⁴ The Commission held a second rulemaking session on September 1-2, 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 No. 89056 and docketed RM67 to accept utility proposed system-wide SAIFI and SAIDI reliability targets for the years 2020 through 2023. Additionally, in Case No. 9361, Pepco and Delmarva agreed to further reduce their System Average Interruption Duration Index (“SAIDI”) and System Average Interruption Frequency Index (“SAIFI”) scores below COMAR requirements, as

³ See PUA § 7-213(b).

⁴ 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.

a condition of Commission approval of the merger of their parent corporation, Pepco Holdings, Inc., with Exelon Corporation.⁵

3. 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 2020 reporting year, addressed herein, represents the eighth full year since these reliability standards were established in 2012.

4. 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. *Annotated Code of Maryland*, Public Utilities Article (“PUA”) § 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

5. On or about April 1, 2021,⁷ the Electric Companies filed their respective annual reports with the Commission, covering the period from January 1, 2020, through December 31, 2020.⁸ On April 2, 2021, the Commission issued a Notice of Annual

⁵ See Order No. 86990 in Case No. 9361, *In the Matter of the Merger of Exelon Corporation and Pepco Holdings, Inc.*

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 filed its 2020 Annual Performance Report on March 24, 2021. Maillog No. 234336.

⁸ The data provided by the Electric Companies in their reports cover the reporting period from January 1, 2020, through December 31, 2020, 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, 2020.

Reliability Hearing and Opportunity to Comment.⁹ The Notice scheduled a virtual,¹⁰ legislative-style hearing to commence at 10:00 a.m. on Tuesday, June 15, 2021, for the purpose of reviewing the Electric Companies' Annual Reliability Reports and to determine compliance with the Commission's service quality and reliability standards for 2020. The Notice also provided an opportunity for parties to file written comments.¹¹

6. On February 9, 2021, the Commission's Technical Staff ("Staff") filed with the Commission the Vegetation Management Cost Workgroup Final Report, which outlines all of the vegetation management activities to be included in "all-in" vegetation management reporting.¹² On May 25, 2021, Staff filed with the Commission the Final Report of the Customer Perception Survey Workgroup, which provides survey questions developed through Workgroup participant consensus, including a core set of survey question themes and uniform rating scales.¹³ On June 4, 2021, several intervening parties filed comments with the Commission. Those parties include Montgomery County, the Maryland Office of People's Counsel ("OPC"), and Staff.¹⁴ On June 15, 2021, the Commission conducted the hearing to consider the performance reports filed by the Electric Companies and the comments filed by the intervening parties. Each party made a presentation to the Commission during the hearing and was available to answer Commission questions.

⁹ Maillog No. 234635.

¹⁰ The Commission held the virtual hearing through WebEx at the following link: <https://marylandpsc.my.webex.com/meet/virtualhearingroom>, and the hearing became available for subsequent viewing at the Commission's YouTube Channel located at <https://www.youtube.com/c/MarylandPSC>.

¹¹ Written comments were required to be filed with the Commission's Executive Secretary by June 4, 2021.

¹² Maillog No. 233700.

¹³ Maillog No. 235419.

¹⁴ On June 4, 2021, Staff filed its Engineering Division Review of 2020 Annual Performance Reports on Electric Service Reliability ("Staff Review"). Maillog No. 235646.

II. DISCUSSION

A. System-Wide Reliability Standards

7. 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 SAIFI¹⁵ and SAIDI.¹⁶ In the case of Pepco and Delmarva, their merger-commitment targets supersede their COMAR goals.¹⁷

8. The system-wide reliability data reported by the Electric Companies have historically excluded Major Outage Events ("MOEs"), pursuant to COMAR 20.50.12.02D.¹⁸ In 2020, Delmarva, SMECO, and Choptank experienced one MOE, which involved Tropical Storm Isaias. The year 2020 also marks the first time that the Electric Companies were 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.¹⁹ All Electric Companies reported experiencing an IEEE Major Event Day.²⁰

¹⁵ 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.

¹⁶ 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.

¹⁷ See Case No. 9361, Order No. 86990 (May 15, 2015), Appendix A, Condition 8.

¹⁸ COMAR currently defines MOE 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 MOE 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.

¹⁹ 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 Review at 2 n. 5.

²⁰ Staff Review at 17.

9. In 2020, all six Electric Companies fully met their SAIFI and SAIDI targets. Pepco posted the lowest SAIFI, reporting 0.65 interruptions, well below its COMAR standard of 0.90. Pepco also posted the lowest SAIDI, reporting a duration of 53 minutes, below its COMAR standard of 86.0. The Electric Companies’ reported SAIDI and SAIFI numbers and targets are provided below:

Table 1: 2020 SAIFI and SAIDI Scores

| Utility | SAIFI | | SAIDI | |
|----------------|----------|------------------------------|--------------------|--------------------------|
| | Reported | COMAR Standard ²¹ | Reported (Minutes) | COMAR Standard (Minutes) |
| BGE | 0.77 | 0.95 | 77.1 | 118.0 |
| Choptank | 0.82 | 1.30 | 83.5 | 134.0 |
| Delmarva | 0.87 | 1.10 | 70.0 | 88.0 |
| Potomac Edison | 0.90 | 1.06 | 117.8 | 142.0 |
| Pepco | 0.65 | 0.90 | 53.0 | 86.0 |
| SMECO | 1.01 | 1.31 | 99.6 | 135.0 |

10. 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 found that for 2020, all six electric companies performed better than their three-year average SAIFI. BGE, Pepco, Delmarva, and SMECO showed continuous improvement in SAIFI performance for the past three years.²² Regarding SAIDI, Staff likewise found that all six electric companies performed better than their

²¹ The SAIDI and SAIFI targets listed for Pepco and Delmarva reflect their more stringent merger commitments rather than their original COMAR goals. Case No. 9361, Order No. 86990 (May 15, 2015), Appendix A, Condition 8.

²² Staff Review at 21.

three-year average SAIDI. BGE, Pepco, Delmarva, and SMECO also showed continuous SAIDI performance improvement over the past three years.²³

11. 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.²⁴ For 2020, Delmarva, Potomac Edison, and Choptank performed better than their three-year average CAIDI, while BGE, Pepco, and SMECO performed worse than their three-year average.²⁵

12. Staff also performed a rolling two-year trend analysis, which averaged data over two years from 2014/2015 to the present, in order to reduce the effects of an atypical single-year performance. The two-year SAIFI analysis shows generally improving reliability for Pepco, Delmarva, BGE, and SMECO, with Potomac Edison and Choptank showing a generally declining SAIFI performance.²⁶ Regarding SAIDI, Staff’s two-year trend analysis demonstrates generally improving performance for Pepco, Delmarva, BGE, and SMECO. Choptank and Potomac Edison’s performance shows a generally declining trend from 2014-2015 to 2019-2020, indicating increased duration of sustained outages for their electric customers.²⁷

13. Staff’s rolling two-year CAIDI trend analysis for the period 2014/2015 through 2019/2020 shows continued improvement in service restoration times for Pepco. BGE, SMECO, and Delmarva demonstrated steady performance. Potomac Edison’s and

²³ *Id.* at 22.

²⁴ CAIDI is calculated by dividing the number of customer interruption minutes by the number of customer interruptions. Staff Review at 8.

²⁵ Staff Review at 23.

²⁶ *Id.* at 24.

²⁷ *Id.* at 24-25.

Choptank’s rolling two-year CAIDI trend generally showed a declining performance during this timeframe.²⁸

14. Staff further noted that based on its review of investor-owned utility benchmarking, BGE and Pepco are in the top quartile of their peers for SAIDI and SAIFI, while Delmarva and Potomac Edison are in the second quartile of their peers.²⁹ SMECO and Choptank did not participate in such benchmarking surveys in 2020.

B. Poorest Performing Feeder Standards

15. 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[.]”³⁰ 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.”³¹

16. In 2020, BGE, Pepco, Delmarva, Potomac Edison, and SMECO reported at least one PPF. Choptank, however, reported none. The Electric Companies collectively recorded 34 PPFs, which is roughly 1.3 percent of the total number of feeders (2,685) in

²⁸ *Id.* at 26.

²⁹ *Id.* at 19-20.

³⁰ COMAR 20.50.12.03A(1) and A(3).

³¹ COMAR 20.50.12.03A(4). The newly adopted PPF standard is in its third 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.

Maryland.³² In all, approximately 32,000 customers are served by these PPFs. Remedial actions taken by the Electric Companies to improve these PPFs include tree trimming, reconductoring, pole replacement, and installing additional equipment, such as animal guards, lightning arresters, sectionalizing devices, and trips savers.

17. Only Potomac Edison reported a *repeat* PPF, pursuant to COMAR 20.50.12.03A(4).³³ Specifically, Potomac Edison identified the Little Orleans circuit as the repeat from 2018 and 2019 with 21 outage incidents and a total of 1,038,270 Customer Minutes Interrupted (“CMI”) in 2018. Potomac Edison stated that the outage incidents in 2018 were primarily caused by trees, which accounted for more than 99 percent of the total CMI on the circuit. As a corrective action, Potomac Edison completed a scheduled full circuit tree trimming in 2019, which included the removal of danger trees, and also completed the scheduled overhead circuit inspection. Despite the remediation work, however, the Little Orleans circuit was ranked as a PPF again in the 2019 reporting period with 18 outage incidents and a total of 1,248,007 CMI. Potomac Edison states that the outages were primarily caused by seven large incidents, involving more than 300 customers, caused by off-right of way (“ROW”) trees.³⁴ In 2020, Potomac Edison completed a danger tree patrol and removed identified trees from a 4,500 foot section of the circuit that had been susceptible to incidents caused by off-ROW trees.

18. As required by COMAR 20.50.12.02E, Potomac Edison filed a Corrective Action Plan. Specifically, after reviewing and discarding other traditional remediation

³² Staff Review at 29-30.

³³ Potomac Edison 2020 Annual Performance Report at 11.

³⁴ *Id.*

measures,³⁵ Potomac Edison has proposed to underground two segments of the Little Orleans circuit, with a total length of approximately 5,000 feet, in Washington and Allegany Counties.³⁶ Potomac Edison plans to complete these projects by December 31, 2021.

19. Staff stated that it met with Potomac Edison on April 13, 2021 and reviewed its remediation plan. Staff asserted that Potomac Edison's remediation plan is "reasonable since there appear to be no other less costly options that would be similarly effective."³⁷

20. The Commission finds Potomac Edison's Corrective Action Plan appropriate and approves it. The Commission additionally finds that, pursuant to COMAR 20.50.12.03A(4), the company has undertaken reasonable remediation measures to improve the performance of the circuit and that no penalty is warranted for the Company's current violation.

C. Multiple Device Activation Standards

21. 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 MOEs, to more than 10 Maryland customers.³⁸ 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

³⁵ Potomac Edison evaluated plans to install SCADA-controlled reclosers at strategic locations, and also considered proposing the Little Orleans circuit as an Energy Storage Device candidate under the Maryland Energy Storage Pilot Program; however, Potomac Edison found that these potential solutions were not viable. Potomac Edison 2020 Annual Performance Report at 12-13.

³⁶ Potomac Edison 2020 Annual Performance Report at 12-13.

³⁷ Staff Review at 29. *See also* Hr'g. Tr. at 18 (Borkoski).

³⁸ COMAR 20.50.01.03B(43) provides that protective devices include substation breakers and reclosers, line reclosers, line sectionalizing equipment, and line fuses.

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.

22. A total of 38 multiple device activations (“MDAs”) were reported in 2020. Line or tap fuse activations represented the largest number of MDAs (31), with BGE reporting 16.³⁹ The Electric Companies also reported seven recloser activations, but zero circuit breaker activations, transformer activations, or substation activations.⁴⁰ Staff reported that compared to 2019, Electric Companies in Maryland reported fewer MDAs caused by reclosers and lines/taps/fuses. Each of the Electric Companies has investigated their respective MDAs in the field and implemented remediation measures. Staff asserts that the remediation actions taken by the Electric Companies are “reasonable.”⁴¹

23. In 2020, Pepco, Delmarva, Potomac Edison, SMECO, and Choptank reported that they experienced no *repeat* multiple device activations. Only BGE reported experiencing a repeat MDA.

24. BGE reported one device that is a repeat MDA, and, as required by COMAR, it provided a Corrective Action Plan. Specifically, BGE identified a fuse on Feeder 7274 from the Ellicott City Substation as the repeat device from 2018.⁴² BGE asserted that it identified vegetation as one of the causes of the MDA in 2018, and that it performed

³⁹ Staff Review at 32.

⁴⁰ *Id.* at 37.

⁴¹ *Id.* at 32.

⁴² BGE 2020 Annual Performance Report, Attachment H, Multiple Device Activations Corrective Action Plan at 2.

focused hotspot trimming in early 2019 to address the issue. BGE also installed an enhanced reclosing-capable sectionalizing device in 2018. Nevertheless, BGE observed that even after the implementation of these actions, multiple device activations continued to occur during 2019, which led to BGE implementing selective undergrounding. In particular, BGE stated that it undergrounded the beginning portion of the tap where this fuse is located and removed the existing overhead equipment. BGE stated that since the completion of the selective undergrounding project, only one outage has been recorded in the area, which impacted 13 out of 73 customers benefiting from the project. BGE stated that it will continually monitor customers in this area to ensure the success of its Corrective Action Plan.

25. After reviewing BGE's Corrective Action Plan, Staff concluded that BGE's plan was reasonable. Staff witness Borkoski testified that preliminary results of BGE's undergrounding "indicate that BGE's CAP has also been effective."⁴³

26. The Commission finds BGE's Corrective Action Plan appropriate and approves it. The Commission additionally finds that no penalty is appropriate for BGE's current violation. BGE took prudent steps to address Feeder 7274 in 2018, when the feeder was first reported as having activated five or more times. In particular, BGE installed an enhanced reclosing capable sectionalizing device in 2018 and performed focused hotspot trimming in early 2019. During the remediation period in 2019, BGE found that activations continued to occur, and it determined that additional, more costly, steps were necessary to remedy the problem. Specifically, BGE developed a selective undergrounding project to underground the beginning portion of the tap where the fuse is

⁴³ Hr'g. Tr. at 19 (Borkoski).

located and to remove the existing overhead equipment, including the fuse.⁴⁴ Since that time, Feeder 7274 has experienced only one outage, which impacted 13 customers, indicating that BGE's enhanced remediation actions have been effective. Staff's analysis also indicates that BGE's Corrective Action Plan to selectively underground sections of the feeder has been effective.⁴⁵ Accordingly, the Commission determines that no penalty is appropriate for BGE's repeat MDA violation in 2020.

D. Additional Reliability Indices

27. 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")⁴⁶ and Momentary Average Interruption Frequency Index ("MAIFI_E").⁴⁷ CEMI_n measures the ratio of customers experiencing multiple sustained interruptions against the total number of customers served on the system⁴⁸ 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

⁴⁴ BGE 2020 Annual Performance Report at Attachment H, page 2.

⁴⁵ Hr'g. Tr. at 19 (Borkoski).

⁴⁶ 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.

⁴⁷ 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.

⁴⁸ This number includes customers experiencing three or more, five or more, seven or more, or nine or more interruptions.

increased momentary outages.⁴⁹ 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.⁵⁰

28. In 2020, BGE, Pepco, Choptank, SMECO,⁵¹ and Delmarva reported MAIFI_E performance. Potomac Edison reported MAIFI performance data instead of MAIFI_E data.⁵² 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.⁵³

29. Staff stated that since the installation of distribution automation in the Maryland service territories began (in 2013), there has been a decrease in momentary outages in the Pepco service territory, “which seems to indicate that the lower SAIFI experienced in [this] service territory during that time period has not come at the expense of increased momentary outages.”⁵⁴ Staff found that BGE’s trend demonstrates an increase in momentary outages since 2013, although it has improved since 2018. Delmarva

⁴⁹ Staff Review at 35. Staff asserts “it is important that Electric Companies reduce all outages and not simply substitute sustained outages with momentary outages.” *Id.*

⁵⁰ See COMAR 20.50.12.05B; see also COMAR 20.50.12.05C.

⁵¹ 2020 is the first year that SMECO has provided MAIFI_E data. SMECO stated that it calculated 2020 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 2020 Annual Performance Report at 19.

⁵² 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 compared to 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 Review at 34.

⁵³ 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 2020 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 2020 Annual Reliability Report at 3, n. 3.

⁵⁴ Staff Review at 35.

demonstrated a significant increase in momentary outages in 2019, with reductions in momentary outages in 2020.⁵⁵ Although Potomac Edison lacks the tools to calculate MAIFI_E, Staff observed that compared to 2019, Potomac Edison's MAIFI performance declined in 2020. Potomac Edison attributed that decline to a higher number of storms than the average.⁵⁶

30. All Electric Companies reported CEMI_n data for 2019. Among customers experiencing three or more interruptions during the year, Choptank and SMECO had the highest percentage of customers affected, reporting 22.9% and 22.1% respectively, followed by Delmarva, Potomac Edison, BGE, and Pepco. Pepco posted the lowest rate at 4.95%.⁵⁷ Among customers experiencing five or more interruptions during the year, Choptank showed the highest percentage of customers affected (4.85%), followed by SMECO, Potomac Edison, Delmarva, BGE, and Pepco. Pepco posted the lowest rate at 0.56%.

31. Staff reported that from 2013 to 2017, the number of customers experiencing multiple interruptions generally has decreased. Although the Electric Companies reported elevated numbers in 2018, they decreased again continuously through 2020 for most CEMI categories.⁵⁸ All Electric Companies are currently in compliance with MAIFI_E and CEMI_n reporting requirements.

E. Service Interruption Standards

32. 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

⁵⁵ *Id.* at 35-36.

⁵⁶ Potomac Edison's Response to Staff DR No. 1-9.

⁵⁷ Staff Review at 37.

⁵⁸ *Id.* at 38.

least 92 percent of their customers that experienced sustained interruptions during normal conditions. Additionally, 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 MOEs, 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.⁵⁹

33. In 2020, all Electric Companies met the requirements for normal conditions. Delmarva posted the highest restoration rate, restoring 100% of customers who experienced sustained interruptions during normal conditions.⁶⁰ Of the Electric Companies that experienced MOEs (Choptank, Delmarva, and SMECO), all met the requirements for restoring at least 95 percent of customers experiencing sustained interruptions during MOEs. Each Electric Company restored 100% of customers experiencing sustained interruptions during an MOE in 2020.⁶¹

F. Downed Wire Response Standard

34. 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

⁵⁹ COMAR 20.50.12.06D.

⁶⁰ Staff Review at 40.

⁶¹ *Id.*

least 90 percent of the time.⁶² This standard was revised in 2019 to become more stringent, with 2020 representing the first full year of implementation of the new standard.⁶³ COMAR 20.50.12.07D provides that each 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.

35. All six Electric Companies met the Downed Wire Response Standard for 2020. Each Company responded to at least 90 percent of government emergency responder-guarded downed electric wires within three hours.⁶⁴ Choptank and SMECO posted the highest response rates, responding to 100 percent of government emergency responder-guarded downed wires within the time frames required by this standard.⁶⁵

G. Customer Communications Standards

36. 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 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 2020.⁶⁶ Pepco posted the highest answered-call rate this year, answering 95.7 percent of calls placed to it for customer

⁶² 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.

⁶³ 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.

⁶⁴ Staff Review at 48.

⁶⁵ *Id.* at 42.

⁶⁶ *Id.*

service or outage reporting purposes within 30 seconds.⁶⁷ Delmarva reported the next highest rate at 93.8 percent.

37. COMAR 20.50.12.08 provides that each Electric Company must achieve an annual average abandoned call rate of five percent or less. In 2020, all six Electric Companies satisfied this standard. Pepco reported the lowest abandoned call rate at 0.49 percent. Delmarva reported the next lowest abandoned call rate at 0.91 percent.⁶⁸

38. 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.”⁶⁹ 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.

39. Staff convened the Customer Communication Workgroup (“CCWG”)⁷⁰ on September 26, 2019, and on June 1, 2020, Staff filed a CCWG Final Report with the Commission, which included consensus recommendations for best practices⁷¹ 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

⁶⁷ *Id.* at 43.

⁶⁸ *Id.*

⁶⁹ Case No. 9353, Order No 89260 at 17.

⁷⁰ The CCWG consisted of the six Electric Companies, OPC, and Staff.

⁷¹ 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.

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 ("VI") customer is notified in advance of storms.⁷²

40. 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.⁷³ In particular, the Commission found that (i) the first call resolution metric will represent a key performance indicator for the customer experience and reflect the customer service representative's performance and efficiency; (ii) the customer service representative average handling time metric will provide valuable insight into how productive the support and service interactions are for customers and potentially highlight problems with customers waiting too long for issues to be resolved; and (iii) the metric for the percentage of time VI customers are notified in advance of storm will provide important insight into how Electric Companies communicate with special medical needs customers before and during a storm event.⁷⁴ 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

⁷² Customer Communication Final Report, Maillog No. 230543.

⁷³ Case No. 9353, Order No 89260 at 22.

⁷⁴ Order No. 89629 at 22.

“supplemental customer communication information,” and that the metrics would not be adopted as performance standards at this time.⁷⁵

41. For 2020, the Electric Companies reported an average 75% first call resolution—indicating that these customers perceived that their inquiry was resolved to their satisfaction in a single interaction.⁷⁶ Pepco posted the highest first call resolution rate of 79.68%.⁷⁷ The Electric Companies reported an average 5.8 minute customer service representative handling time.⁷⁸ Staff advised that although shorter calls do not always indicate better service, longer handling time can highlight a problem with customers waiting too long or customer service representatives taking too much time to resolve issues.⁷⁹ In 2020, customer service representative handling time ranged from Choptank’s 190.8 seconds to BGE’s 436 seconds.

42. BGE, Choptank, Delmarva, Pepco and SMECO have fully implemented a system to notify VI customers who enrolled in their special needs program to prepare for the possibility of an extended outage prior to a storm event. These Electric Companies have the ability to track the percentage of successful notifications to VI customers. For 2020, BGE, Pepco, Delmarva, and Choptank notified their VI customers prior to the possibility of a storm event 100% of the time.⁸⁰ SMECO notified VI customers 99% of the time. As authorized by Order No. 89629, Potomac Edison provides advance notifications to

⁷⁵ *Id.*

⁷⁶ Staff Review at 44. Staff further noted that BGE, Delmarva, Potomac Edison, and Pepco have fully implemented an internal measurement system for determining first call resolution. Choptank has started a customer communication service platform that it expected to complete in May 2021. SMECO tracks first call resolution performance by reviewing call quality monitoring, speech analytics and customer satisfaction surveys, but did not have a formal metric in place for 2020. *Id.*

⁷⁷ *Id.* at 46.

⁷⁸ *Id.* at 45.

⁷⁹ *Id.*

⁸⁰ *Id.* at 46.

customers, including VI customers, who request such communications.⁸¹ However, Potomac Edison does not provide advance notifications to customers who have not affirmatively requested the service. Potomac Edison provided such notification to VI customers who requested it 100% of the time.

H. Vegetation Management Standards

43. 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.⁸²

44. 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 electric distribution system each year. BGE, Delmarva, Pepco, and SMECO adopted a four-year trim cycle, while Choptank and Potomac Edison⁸³ elected a five-year trim cycle.

45. In 2020, all of the Electric Companies met or exceeded their minimum vegetation management requirements to combine for a total of 7,814 circuit miles of vegetation

⁸¹ In Order No. 89629 at 23, the Commission held that "Potomac Edison presented a valid concern that VI notification in advance of a storm event could disturb some customers who have not requested such advance notification. Therefore, Potomac Edison will not be required to adopt that best practice." Other Electric Companies were granted the right to opt out as well.

⁸² COMAR 20.50.12.09B(2).

⁸³ Potomac Edison began transitioning to a four-year trim cycle in January 2021.

management trimming across the State of Maryland.⁸⁴ 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.

46. In past orders, the Commission has expressed concern about the relatively high per-mile cost of Pepco's vegetation management program.⁸⁵ In 2020, Pepco reported that the cost per mile of its vegetation management program is \$13,855, which is the highest among the Electric Companies, and is above the average Electric Company cost per mile of \$10,419.⁸⁶ Nevertheless, the Commission observes that Pepco's vegetation management costs have decreased appreciably over the last two years, with its 2020 per-mile costs 15% less than 2019 and 25% below 2018 levels. BGE reported the next highest per-mile vegetation management costs at \$13,072, an increase of 7% compared to BGE's 2019 average.⁸⁷

I. Vegetation Management Cost Workgroup

47. During last year's review of the Electric Companies' annual performance reports, Staff observed that the accuracy of the statistics regarding the cost per mile of vegetation management was being obscured because the Electric Companies did not share a uniform

⁸⁴ Staff Review at 50. In 2020, Choptank submitted a request for a Stay of Enforcement of the company's required annual vegetation management routine trimming because of COVID-19's impact on its contractual labor resources. Choptank's request was approved on June 3, 2020. The company revised and reassigned its vegetation management routine work, secured additional special equipment, and restricted its contractual crews to avoid future impacts. Staff confirmed that Choptank completed its remaining routine vegetation management work on May 15, 2021. *Id.* at 52. Because Choptank has completed its annual vegetation management routine work, the Stay of Enforcement is no longer required and is ended.

⁸⁵ See Order No. 89629 at 24.

⁸⁶ Staff Review at 50-52.

⁸⁷ *Id.* at 52.

definition of “all-in” costs, which prevented an “apples-to-apples comparison” of vegetation management costs between companies.⁸⁸

48. In Order No. 89629, the Commission agreed with Staff that the Electric Companies should report all-in vegetation management costs in order to facilitate accurate comparisons between Electric Companies of vegetation management costs.⁸⁹

The Commission directed the Electric Companies to meet with Staff and other stakeholders to discuss Staff’s definition and file with the Commission a consensus definition of all-in costs. On February 9, 2021, the Vegetation Management Cost Workgroup filed a final report, which provided a consensus definition of all-in costs, including capital and O&M vegetation management costs.⁹⁰

49. Having achieved a consensus definition of all-in vegetation management costs, the Electric Companies filed their 2020 Annual Reliability Performance Reports using this new reporting method. In reviewing the Electric Companies’ 2020 vegetation management costs, Staff noted that more than half of the total COMAR required all-in vegetation management costs accrued in 2020 (approximately \$53 million) was attributed to tree pruning and tree removal, with BGE reporting the largest amount accrued at approximately \$16 million.⁹¹ Staff further observed that more than half of the total non-COMAR required all-in vegetation management costs accrued in 2020 (approximately \$16 million) was attributed to Scheduled Outages, Customer Tickets, Priority/Worst

⁸⁸ See 2020 Staff Review at 58; June 18, 2020 Hr’g. Tr. at 27, 33-34 (Borkoski).

⁸⁹ Order No. 89629 at 25.

⁹⁰ See February 9, 2021 Vegetation Management Cost Workgroup Final Report, Maillog No. 233700.

⁹¹ Staff Review at 55.

Performing/Critical 33 kV Feeders, and Hot Spot/Reliability Oversight Team, with BGE reporting the largest amount spent at approximately \$4.3 million.⁹²

50. The Commission observes that the Vegetation Management Cost Workgroup's efforts have facilitated a more meaningful, apples-to-apples comparison of vegetation management costs incurred by Electric Companies. Having achieved its objectives, the Commission orders that the Workgroup disband.

J. Periodic Equipment Inspections

51. COMAR 20.50.12.10A requires that each utility 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.⁹³ In 2020, both BGE and Potomac Edison filed revised O&M program manuals for changes that will take effect during the 2021 calendar year.⁹⁴

⁹² *Id.* at 56.

⁹³ If exigent circumstances exist, the Electric Company must file the changes with the Commission no later than 30 days after implementation.

⁹⁴ See Maillog Nos. 232407 and 229467.

52. For 2020, BGE, Pepco, Delmarva, Potomac Edison, and Choptank met the Periodic Equipment Inspections Standard.⁹⁵

53. On October 21, 2020, BGE requested a Stay of Enforcement of its periodic equipment inspections requirements due to COVID-19.⁹⁶ BGE projected that the pandemic would prevent its completion of seven preventative maintenance inspections associated with its air and vacuum circuit breaker programs.⁹⁷ The Commission's Engineering Division approved BGE's request on October 23, 2020.⁹⁸ In January 2021, BGE completed these periodic equipment inspections and its Stay of Enforcement request is no longer active.

54. SMECO did not comply with its 2020 periodic equipment inspection requirements, having missed the inspection of 44 hydraulic reclosers last year. SMECO stated that it began to replace the reclosers as a part of a multi-year plan to upgrade its hydraulic line recloser units with new electronic vacuum interrupter line reclosers.⁹⁹ At the end of 2019, SMECO detected a battery performance issue with the newly installed reclosers and determined that a firmware upgrade was needed to improve battery power management and prolong battery life. As a backup plan, SMECO implemented a pilot project with an alternate recloser vendor, and installed several electronic vacuum reclosers into the field. However, SMECO detected a similar software issue with the

⁹⁵ Staff Review at 4.

⁹⁶ *Id.* at 59.

⁹⁷ BGE stated that it was impacted by COVID-related employee quarantines and that the execution of these inspections required indoor employee co-location in extremely narrow space. BGE 2020 Annual Performance Report at 25.

⁹⁸ The Commission granted authority to the Engineering Division to issue stays of enforcement following the request of a utility that is unable, due to the COVID-19 pandemic, to perform certain vegetation management and periodic inspection and maintenance work on its electric distribution systems as required by COMAR regulations.

⁹⁹ SMECO 2020 Annual Performance Report at 17.

second vendor.¹⁰⁰ As a consequence, SMECO suspended its replacement program while it continued to evaluate firmware improvements, and the company rescheduled the 44 hydraulic reclosers for testing in the second quarter of 2021.

55. During the hearing, SMECO stated that it ultimately elected to return to the old-style hydraulic reclosers. SMECO asserted that it made the replacements as quickly as it could, but was further delayed by COVID-related constraints and distribution delays.¹⁰¹ As of the date of the hearing, 30 of the 44 units had been completed, with the remaining 14 units to be completed by the end of June 2021.¹⁰² SMECO claimed that the risk of significant consequences resulting from the missed inspections was mitigated because “there is some inherent safety margin built in to our conservative test cycle so that we were confident that within a reasonable amount of time we would have been able to replace those remaining units.”¹⁰³

56. SMECO did not file a formal Corrective Action Plan regarding its failure to meet the Periodic Inspections Standard. Staff argued that its oral communication with SMECO, in addition to the information contained in the company’s 2020 Annual Performance Report, constituted a Corrective Action Plan, and that Staff “accepted it” as such.¹⁰⁴ Staff further argued that SMECO should not be penalized for missing its cycle

¹⁰⁰ Hr’g. Tr. at 71 (Reigel).

¹⁰¹ *Id.* at 72.

¹⁰² Hr’g. Tr. at 67 (Norton).

¹⁰³ Hr’g. Tr. at 72 (Reigel).

¹⁰⁴ *See* Hr’g. Tr. at 28-29 (Borkoski) (“although they did not use the exact wording, you know, posturing this, it’s a Corrective Action Plan for all intent. Staff accepted it as a Corrective Action Plan.”) SMECO also contended that its oral communication to Staff constituted a Corrective Action Plan. *See* Hr’g. Tr. at 76 (McDougall) (“My understanding was that SMECO staff, engineering staff, was in contact with the Commission Engineering Staff and in fact, communication would constitute, I guess a Verbal [Corrective] Action Plan.”)

maintenance inspections “because the Company’s noncompliance was due to a manufacturer issue and the Company took prudent action to correct the problems.”¹⁰⁵

57. The Commission considers any violation of the Periodic Inspections Standard to be a significant failure by the Electric Company.¹⁰⁶ The Commission created the Periodic Equipment Inspection standard in part because equipment failure is a leading cause of outages¹⁰⁷ and because missing scheduled equipment inspections poses a potentially serious risk to distribution system reliability. However, the Commission has also emphasized that “equipment failure can pose significant risks to the health of the public and to Electric Company personnel.”¹⁰⁸ For those reasons, the Commission has previously issued significant civil penalties for noncompliance with the Periodic Inspections Standard.¹⁰⁹

58. The Commission is concerned that SMECO knew in 2019 that its recloser replacement schedule was in jeopardy, and yet the company was not able to take steps to prevent missing scheduled inspections.¹¹⁰ Although there was commentary at the hearing that the reclosers were being replaced anyway, the fact that the old reclosers were at the end of their useful life made the inspections more important, rather than less important.¹¹¹ Even with a significant notice in 2019 that its inspection schedule was in jeopardy, SMECO did not develop a sufficiently robust contingency plan to ensure that it met its

¹⁰⁵ Staff Review at 60.

¹⁰⁶ See, Case No. 9353, Order No 88814 at 23 (“The Commission ... takes seriously violations of the Periodic Equipment Inspection standard.”)

¹⁰⁷ Order No. 88814 at 23.

¹⁰⁸ *Id.*

¹⁰⁹ See, Case No. 9353, Order No 89260 at 22-23 (Imposing a civil penalty of \$210,000 for missing 21 preventative maintenance inspections).

¹¹⁰ Hr'g. Tr. at 68 (Norton).

¹¹¹ See Hr'g. Tr. at 69-70 (O'Donnell) (“But when you knew that your replacement schedule was in jeopardy, doesn't the periodic inspection become more important to complete?... [B]ecause you're at the end of life. You're replacing these things for a reason because they're suspect in their ability to operate...”)

2020 schedule. Notwithstanding whatever safety margin that may have been built into the life of the reclosers, SMECO failed to meet the COMAR standard.¹¹²

59. The Commission does not consider oral communication between Staff and SMECO to constitute a Corrective Action Plan.¹¹³ Therefore, SMECO is directed to file a written Corrective Action Plan detailing the problems that led to its violation of the Periodic Inspections Standard, and how it will correct (or has already corrected) them. Additionally, the plan should describe how SMECO will avoid any such error in the future. The Commission will consider the potential imposition of sanctions if further violations of this standard occur.

K. COMAR Versus IEEE 2.5 Beta Method

60. In Order No. 89056, the Commission accepted the recommendation of the Reliability Targets Work Group to utilize the 2.5 Beta Method for setting future reliability standards, as well as for measuring annual compliance with those reliability standards. That change began January 1, 2020. Prior to that date, SAIFI and SAIDI performance was calculated using the COMAR method, which excluded MOEs instead of Major Event Days. In approving use of the 2.5 Beta Method, the Commission found that the 2.5 Beta Method “is an industry best practice, it provides an effective means of normalizing reliability data, and it reduces variation from year to year.”¹¹⁴ Overall, it more effectively removes outlier events to measure system reliability under normal conditions. In its review, Staff found that using the IEEE 2.5 Beta Method provides more favorable SAIFI/SAIDI performance than the COMAR MOE method, “because several

¹¹² Hr'g. Tr. at 73.

¹¹³ Hr'g. Tr. at 76-77 (O'Donnell”) (“Staff is recommending we approve the Corrective Action Plan but we don't have one before us.”)

¹¹⁴ Order No. 89056, Case No. 9353, at 9-10.

weather events that would not have qualified as MOEs may be excluded as MEDs in the IEEE 2.5 Beta Method.”¹¹⁵

61. Nevertheless, in Order No. 89056, the Commission also required that the Electric Companies continue to report performance using the COMAR method that excludes MOEs. The Commission found that this parallel reporting requirement would “help parties to identify any degradation of electric service reliability over time.”¹¹⁶ *See also* Order No. 88573: “The utilities shall file next cycle reliability reports using both the 2.5 Beta Method as well as the COMAR method (utilizing Major Outage Events) used in previous next cycle reliability reports.”¹¹⁷

62. In its review, Staff states that it “does not see a need for the utilities to file next cycle reliability reports using both the 2.5 Beta Method as well as the COMAR method.”¹¹⁸ Staff recommends instead that the Electric Companies be required to file using only the 2.5 Beta Method. Several other parties agreed with that recommendation.¹¹⁹

63. Nevertheless, the Commission declines to accept Staff’s recommendation at this time, and will continue to require that the Electric Companies file next cycle reliability reports using both the 2.5 Beta Method as well as the COMAR method (utilizing MOEs). The Commission notes that only one year of parallel information exists where Electric Companies filed using both the COMAR and the 2.5 Beta Method. Additionally, no

¹¹⁵ Staff Review at 27.

¹¹⁶ Order No. 89056 at 10. The Commission made clear that the Electric Companies’ annual reliability performance would be reviewed for compliance exclusively based on their ability to meet SAIFI and SAIDI standards adjusted using the 2.5 Beta Method. *Id.* at 11.

¹¹⁷ Order 88573 at 4.

¹¹⁸ Staff Review at 87.

¹¹⁹ *See, e.g.*, Hr’g. Tr. at 40 (Summerson); and Hr’g. Tr. at 58 (McGettigan).

parties argued that the parallel reporting imposed an undue burden. In order to prevent degradation of electric service reliability over time, the Commission finds that the obligation to provide parallel reporting should continue at this time.¹²⁰

L. Customer Perception Survey Workgroup

64. COMAR 20.50.12.14 requires that the Electric Companies conduct customer perception surveys every four years, at the same time that they file their proposed annual next cycle reliability filings. The regulation requires that the surveys address customer perception of the utilities' reliability performance, vegetation management activities, the effectiveness of customer communications, and service quality performance. The Electric Companies expect to commence their next customer perception survey no later than October 2021.

65. In Order No. 89056, the Commission observed that comparing customer perception results between utilities is difficult because the methodology and rating systems used to measure the level of customer satisfaction varies for each utility. The Commission therefore directed Staff to assemble a workgroup "to address customer perception surveys, with the goal of developing consistency of methodology for asking questions and reporting data, such as by creating a core set of questions and obtaining a minimum level of statistical validity."¹²¹

¹²⁰ As the Commission made clear in Order No. 89056 (at 10), the Electric Companies' annual reliability performance will be reviewed for compliance exclusively based on their ability to meet SAIFI and SAIDI standards adjusted using the 2.5 Beta Method.

¹²¹ Case No. 9353, Order No. 89056, at 25-26.

66. In compliance with Order No. 89056, Staff assembled the Customer Perception Survey Workgroup (“CPSW”) on September 25, 2020, which consisted of Maryland’s four investor-owned utilities, SMECO, OPC, and Montgomery County, Maryland.¹²²

67. The CPSW agreed to a number of key survey questions and a uniform rating system to address consistency among various customer perception surveys and to better reflect the level of customer satisfaction related to the Electric Utilities’ performance. Specifically, the CPSW provided a consensus recommendation on question categories for Overall Company Perception, Electric Service Reliability, Customer Communications, and Customer Service, and 30 total survey question themes and sub-themes, in addition to the standardized rating scale for the survey. The CPSW agreed that although the utilities will use consistent question themes, subthemes and rating systems, the questions themselves will not be exactly the same among all the Electric Companies.¹²³

68. The CPSW noted that the next cycle customer perception surveys should be filed with the Commission by April 1, 2022, at the same time that the Electric Utilities file their proposed reliability standards for the period of 2024-2027. Therefore, the CPSW has recommended that the proposed survey questionnaires and rating scales be included in the next cycle of customer perception surveys, in accordance with the COMAR 20.50.12.14 filing requirement.

69. The Commission finds that the CPSW has accomplished its goal of developing a core set of survey question themes and sub-themes and uniform rating scales, as required

¹²² See Maillog No. 235419. Choptank declined to participate because it became member-regulated in August 2020.

¹²³ CPSW Final Report at 3, 9. See also Hr’g. Tr. at 14 (Lo) (“the utilities may make some editorial changes to the questions....as long as their approach with each question proposed by the Work Group, is consistent with the intent of the question, and utilizes a common rating scale.”)

by Order No. 89056. The CPSW has assured the Commission that although the survey questions developed in the stakeholder process may not be verbatim as used by each Electric Company, there will be consistency in question themes, subthemes, and rating systems.¹²⁴ Nevertheless, if the Commission finds that subsequent surveys do not achieve the goal articulated by Order No. 89056 of developing consistency of methodology for asking questions and reporting data and obtaining a minimum level of statistical validity, the CPSW will be reformed to achieve that objective.

70. The Commission therefore directs that the CPSW's proposed survey questionnaires and rating scales be included in the next cycle of customer perception surveys, in accordance with COMAR 20.50.12.14. Having achieved its purpose, the Commission orders that the CPSW be disbanded.

M. Workgroup on Next Cycle Reliability Standards

71. Three parties have requested that the Commission establish a workgroup to address the next cycle reliability standards (2024-2027). BGE asserted that “the Company continues to believe that other RM43 standards, including those pertaining to equipment inspections and multiple device activations could benefit from a thorough review to determine if there are better measures of a utility's performance.”¹²⁵ In particular, BGE asked for review of the Periodic Inspections Standard and the Multiple Device Activation Standard, arguing that further consistency between Electric Companies could be achieved, as occurred with the Vegetation Management Cost Workgroup.¹²⁶

¹²⁴ CPSW Final Report at 9; Staff Review at 81.

¹²⁵ BGE 2020 Annual Performance Report Transmittal Letter at 1. *See also* Hr'g. Tr. at 45-47 (Summerson).

¹²⁶ Hr'g. Tr. at 48 (Sikora).

72. As it did in last year’s Annual Performance Review, OPC argued that Electric Companies are now operating at levels at or above investor-owned utility average reliability as measured by SAIDI, SAIFI, and CAIDI, casting doubt on the prudence of continually increasing reliability spending.¹²⁷ OPC expressed concern that some electric companies “are investing too much capital in the name of reliability without an adequate understanding by stakeholders of the benefits, value, costs, alternatives, and risks of those investments, or the impacts associated with a failure to make them.”¹²⁸ OPC therefore recommended that the Commission establish a working group to develop a transparent distribution planning and capital budgeting process featuring stakeholder participation. Additionally, OPC recommended that the Commission direct the workgroup to address two data points regarding the value of reliability. First, OPC argued that data is needed to understand the amounts customers are willing to pay for various levels of reliability improvement. Second, OPC contended that data is needed to understand the costs to Maryland communities of service outages of various extents and durations. Finally, OPC asked that the Commission direct all Maryland utilities to stress test their control center processes and outage management data.

73. Staff also recommended that a workgroup be convened in the fourth quarter of 2021 “to consider RM43 standard changes proposed by Staff, utilities or other Case No. 9353 stakeholders.” Staff stated that this schedule should allow sufficient time for the workgroup to develop a proposal for Commission consideration during the same

¹²⁷ See OPC Comments at 18-19, stating “Maryland utility reliability performance reached new heights in 2020. Not only did all utilities exceed compliance on all standards; 2020 performance represented an improvement over historical performance by all utilities on all standard metrics.”

¹²⁸ OPC Comments at 19.

rulemaking proceedings needed to codify any new 2024-2027 SAIDI and SAIFI reliability standards before January 1, 2024.

74. The Commission directs that a workgroup on next-cycle reliability standards be established, under the leadership of Staff, to consider RM43 standard changes proposed by Staff, the Electric Companies, OPC, or other Case No. 9353 stakeholders. The workgroup may address the concerns raised by BGE related to consistency among utilities in meeting the Periodic Inspections Standard and the Multiple Device Activation Standard. Additionally, the workgroup should review any ongoing work around the country related to outage valuation and the feasibility of determining the costs to Maryland communities of service outages of various extents and durations and report back to the Commission by December 1, 2021 the results of its work.

75. While the Commission agrees that better data regarding the value of reliability could inform subsequent grid investment decisions, the Commission does not find that the creation of a ratepayer-funded focus group—to ascertain how much customers are willing to pay for varying levels of reliability—would yield statistically meaningful results or accurately reflect the views of Maryland ratepayers. As such, OPC’s request to conduct a focus group is denied.¹²⁹ Workgroup participants, however, may consider the emerging concept of differentiated reliability, *i.e.*, that customers may value their level of service reliability differently based on individual preferences. While the Commission takes no position on the merits of this relatively novel concept, the workgroup may choose to explore this proposition. Finally, the Commission denies OPC’s request to

¹²⁹ Commissioner Richard dissents on this decision, and supports conducting a “Willingness to Pay” study to give Maryland electric customers a chance to provide input on future investments in the distribution system. Such an analysis could provide rigorous and independent data to inform future grid investment decisions, and ensure these costly grid projects are truly in the public interest.

direct all Maryland utilities to stress test their control center processes and outage management data. The Electric Companies testified during the hearing that they already conduct stress testing as part of their normal operations, making a directive unnecessary.¹³⁰

IT IS, THEREFORE, this 12th day of August, in the year Two Thousand Twenty-One,

ORDERED: (1) That the service quality and reliability annual reports of BGE, Pepco, Delmarva, Potomac Edison, Choptank, and SMECO are accepted;

(2) That the Corrective Actions Plans submitted are hereby noted;

(3) That SMECO is directed to file a written Corrective Action Plan detailing the problems that led to its violation of the Periodic Inspections Standard;

(4) That BGE's and Choptank's Request for Stay of Enforcement previously approved by the Engineering Division are no longer necessary and the Stays are hereby lifted;

(5) That having achieved its objectives, the Vegetation Management Cost Workgroup be disbanded;

(6) That the Customer Perception Survey Workgroup's proposed survey questionnaires and rating scales be included in the next cycle of customer perception surveys, in accordance with COMAR 20.50.12.14;

(7) That having achieved its objectives, the Customer Perception Survey Workgroup be disbanded;

¹³⁰ Hr'g. Tr. at 58 (McGettigan).

(8) That the utilities shall file next cycle reliability reports using the 2.5 Beta Method and the COMAR method (using Major Outage Events) used in previous next cycle reliability reports; and

(9) That a workgroup on next-cycle reliability standards be established, under the leadership of Staff, to consider RM43 standard changes proposed by Staff, the Electric Companies, OPC, or other Case No. 9353 stakeholders.

/s/ Jason M. Stanek _____

/s/ Michael T. Richard _____

/s/ Anthony J. O'Donnell _____

/s/ Odogwu Obi Linton _____

/s/ Mindy L. Herman _____

Commissioners