



Making the Most of Michigan's Energy Future

**Grid Security and Reliability
Standards Workgroup
Staff Final Report: Service Quality
and Reliability for Electric Service
U-20629**

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MPSC

Michigan Public Service Commission

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Statewide Energy Assessment, MI Power Grid, and Workgroup Formation

Following a series of energy events that occurred on January 29 through February 1, 2019, Governor Gretchen Whitmer requested the Michigan Public Service Commission (MPSC or Commission) review the state's energy supply and preparedness for emergency situations.¹ The review was subsequently ordered by the Commission on February 7, 2019, in Docket U-20464,² which, after an initial draft and a public comment period, resulted in the final Statewide Energy Assessment (SEA) issued September 11, 2019.³ The final assessment provided 37 MPSC jurisdictional and 15 non-MPSC jurisdictional recommendations for improving the safety and reliability of Michigan's energy infrastructure. In recognition of some key recommendations with potential for the most immediate and impactful improvements, the Commission provided direction for additional work, including the opening of dockets to establish workgroups charged with reviewing two existing rulesets: Service Quality and Reliability Standards for Electric Distribution Systems⁴ ("Service Quality," Docket U-20629); and Technical Standards for Electric Service⁵ ("Technical Standards," Docket U-20630).

Specifically, the Commission provided the following charge:

These workgroups will look to other states for best practices and optimal standards regarding the rule sets. In particular, the workgroups will consider current and probable future technological advances in electric distribution systems and electric service, and will recommend changes to the standards in keeping with those advances. While the workgroups will not engage in official rule-making activities, the Commission's goal is that input from the workgroups will provide a foundation for potential future rule changes that are flexible and responsive to changing technology and that ensure safe, reliable electric service.⁶

On October 17, 2019, approximately one month after the Commission created the Service Quality and Technical Standards workgroups, the Commission launched MI Power Grid in collaboration with Governor Whitmer.⁷ MI Power Grid is a focused, multi-year stakeholder initiative intended to ensure safe, reliable, affordable, and accessible energy resources for the state's clean energy

¹https://www.michigan.gov/documents/whitmer/Letter_to_the_Michigan_Public_Service_Commission_645317_7.pdf

² <https://mi-psc.force.com/sfc/servlet.shepherd/version/download/068t0000003iBJFAA2>

³ <https://mi-psc.force.com/sfc/servlet.shepherd/version/download/068t0000005XrEbAAK>

⁴ https://www.michigan.gov/documents/mpsc/Service_Quality_Standards_672262_7.pdf

⁵ https://www.michigan.gov/documents/mpsc/Technical_Standards_672264_7.pdf

⁶ <https://mi-psc.force.com/sfc/servlet.shepherd/version/download/068t0000005XvTUAA0>

⁷ <https://mi-psc.force.com/sfc/servlet.shepherd/version/download/068t00000077Gq4AAE>

future. The initiative is designed to maximize the benefits of the transition to clean, distributed energy resources for Michigan residents and businesses. MI Power Grid encompasses outreach, education, and changes to utility regulation by focusing on three core areas: customer engagement; integrating emerging technologies; and optimizing grid investments and performance.⁸

Upon the creation of MI Power Grid, the nascent Service Quality and Technical Standards workgroups were combined and rebranded as the Grid Security and Reliability Standards Workgroup (Workgroup)⁹ and incorporated into MI Power Grid under the initiative's Optimizing Grid Investments and Performance core area. MI Power Grid Workgroups, such as the Grid Security and Reliability Standards Workgroup, are formed and led by MPSC Staff (Staff), and they seek to engage a variety of stakeholders, including utilities, energy technology companies, customers, consumer advocates, state agencies, and others, in discussions about how Michigan should best adapt to the changing energy industry. This report highlights the Grid Security and Reliability Standards Workgroup's activities and initial findings pertaining to the Service Quality and Reliability Standards ruleset.¹⁰

Stakeholder Process

Staff launched a stakeholder process to leverage industry and other stakeholder expertise as the MPSC revises the Service Quality standards. Staff's initial focus was to encourage participation in the Grid Security and Reliability Standards Workgroup and encourage interested parties to sign up for the listserv. The listserv was used to keep interested parties informed of upcoming meetings, Workgroup-related decisions, and how to participate in future Workgroup activities. After a period of dedicated outreach to garner interest, stakeholder meetings were held each month from December 2019 to March 2020 to identify issues with the current rules and discuss proposals to resolve them in a transparent manner. Most Workgroup materials, including agendas, presentations, and recordings, are available on the Grid Security and Reliability Standards webpage.¹¹ After each of the meetings, stakeholders were asked to submit comments to the docket about any changes they would like to see made to the Service Quality standards or to respond to others' proposals, including those made by Staff. Stakeholders providing comments included Michigan's Attorney General Office, Michigan Municipal Association for Utility Issues (MI-MAUI), DTE Electric (DTE); Consumers Energy (Consumers); Michigan Electric Cooperative

⁸ The MPSC maintains a dedicated website for the initiative at www.michigan.gov/mipowergrid

⁹ In this report, "Workgroup" refers specifically to the Grid Security and Reliability Standards Workgroup, while "workgroup" refers to any predecessor or affiliated workgroup.

¹⁰ A separate report detailing the Workgroup's efforts and findings pertaining to the Technical Standards ruleset is provided contemporaneously in Docket U-20630.

¹¹ https://www.michigan.gov/mpsc/0,9535,7-395-93307_93312_93593_95590_95596_95597-508672--_00.html

Association (MECA); Michigan Electric and Gas Association (MEGA); State Representative Jeff Yaroch; New Energy Advisors; the Citizens Utility Board of Michigan (CUB); Fire Department representatives from Muskegon Charter Township Fire, Brandon Fire Department, Tawas City Fire, East Tawas Fire Department, City of East Tawas, Casnovia Township Fire, White Lake Fire Authority, Orion Township Fire, Texas Charter Township Fire Department, Franklin-Bingham Fire Department, Hart Area Fire Department, Iosco County Central Dispatch, Saugatuck Township Fire District, Allegan Fire Department, and Clyde Township Fire Department.

Stakeholder Meeting #1 - December 3, 2019: At the first stakeholder meeting, Staff presented an overview of the orders presented in MPSC Docket Nos. U-20464 and U-20629, the Service Quality standards, the Workgroup webpage and listserv, and Staff's initial proposal for areas of concentration within the rules. The meeting concluded with Staff asking stakeholders to provide feedback on Staff's initial proposals.

Stakeholder Meeting #2 - January 8, 2020: At the second stakeholder meeting, Staff summarized feedback from the first meeting and the findings of Staff's multi-state review. The meeting also featured a presentation from Public Sector Consultants outlining the findings of their multi-state research. (Further discussion on Staff and Public Sector Consultants' multi-state reviews is included below.) Staff concluded the meeting with a summary of Workgroup focus areas to help guide the Workgroup moving forward. At the close of the meeting, Staff requested stakeholder feedback regarding the inclusion of momentary outage reporting, the implementation of customer portals, and the feasibility of issuing outage credits automatically. Feedback on current utility practices regarding wire down response, emergency response and call answer time reporting was also requested.

Stakeholder Meeting #3 - February 12, 2020: MPSC Staff at the February meeting summarized stakeholder feedback from the second meeting, provided a brief update on Staff's proposed focus areas and reviewed the topics of discussion from the February 5, 2020 meetings of the Definitions and Standards as well as the Wire Down subgroups. Eric Pardini of Public Sector Consultants presented the findings of their multi-state review in comparison to Staff's multi-state review. At Staff's request, Joseph Eto from Lawrence Berkeley National Laboratory¹² provided a technical presentation on momentary outages as well as Reliability Definitions and Metrics considerations for the Service Quality and Reliability rule set. The meeting concluded with Staff asking utility stakeholders to provide information on their outage restoration processes and asking all stakeholders to provide feedback on the Joseph Eto and Eric Pardini presentations.

Stakeholder Meeting #4 - March 12, 2020: Prior to the fourth stakeholder meeting, and based on Staff and stakeholder feedback, the list of focus areas was pared down to eight distinct issues

¹² Lawrence Berkeley National Laboratory is a multi-program science lab supported by the U.S. Department of Energy and managed by the University of California.

the Workgroup sought to address in its recommended revisions to the Service Quality and Reliability Standards. Staff discussed proposals related to three of these issues – Definitions, Outage Credits and Outage Reporting – at the March Stakeholder meeting. The meeting concluded with Staff asking for feedback on the identified issues and proposals to address them.

Multi-State Reviews

The Commission order in U-20629 directed the Workgroup “to look to other states for best practices and optimal standards” to improve the Service Quality rules. In response, two such reviews were conducted; one by Staff and another by Public Sector Consultants on behalf of a group of Michigan utilities. What follows is a synopsis of those two efforts.

Staff Review

Staff performed benchmarking research on the 10 states shown in Table 1 below, and provided observations to help guide the Workgroup efforts and provide benchmarking to show how Michigan requirements compare to other states. With an abundance of information available in each of the states, Staff decided to limit the information gathered to the Staff areas of interest at the time: the main elements of “Service Quality”, the existence of similar customer outage credits imposed for poor utility restoration performance, annual reporting requirements, how technological advancements are being incorporated into standards and recent changes to the reliability metrics reported.

Table 1: Staff Benchmarking States – Service Quality

California	New Jersey
Illinois	New York
Indiana	Ohio
Massachusetts	Washington
Minnesota	Wisconsin

The state selection methodology considered those states that are either precedent setting, located in the Midwest, or experience extreme weather events. States experiencing extreme weather events - even though such events may not be similar to what Michigan experiences - serve to inform the Workgroup of how states implement reliability and resiliency requirements given extreme weather events. The findings were shared in Staff’s presentation to the Workgroup during the January 8, 2020 meeting and highlighted various conclusions, including:

- Overall, Michigan’s Service Quality and Reliability ruleset is more detailed than other states
- Michigan has specific metrics for what constitutes “normal” and “catastrophic” conditions whereas other states do not
- Michigan’s wire down response performance standard is unique to Michigan

- Other states use IEEE¹³ metrics for establishing reliability performance guidelines

Public Sector Consultants Review

Public Sector Consultants was hired by DTE Electric, Consumers Energy, and MEGA to perform an extensive benchmarking research project to review service quality, reliability, and Technical Standards for 25 states in the country, including each of the 10 states included in Staff's research. The study was performed to help guide the MPSC's efforts in updating the Service Quality Standards. The full report and its key findings can be found on the Grid Security and Reliability Standards webpage under "Related Topics". Some of the key findings of the report¹⁴ include, but are not limited to:

- Michigan's approach to performance standards is unique from other benchmarked states,
- Michigan's standard sets a prescriptive approach to wire down response and maintains different response requirements depending on location,
- Michigan was one of only five states with a standard for average customer call answer time and one of three states with a call blockage standard, and
- Michigan's service quality and reliability standards do not prioritize emergency response planning and preparation to the extent found in most benchmarked states.

Identified Issues

Staff used the Workgroup meetings, its own benchmarking, and the Public Sector Consultants benchmarking efforts to identify issues that would help organize and guide the Workgroup and subgroup efforts in updating the Service Quality rules. Staff's Initial Recommendations as presented in the December 3, 2019 stakeholder meeting contained a number of provisions to strengthen our Service Quality and Reliability rules, including:

1. Expanding the annual reliability report to include all utilities, not just Consumers Energy and DTE Electric (currently, Docket Nos. U-16065 and U-16066, respectively).
2. Reduce the length of time for acceptable customer call answer time from 90 seconds to 45 or 30 seconds.
3. Require annual reporting of reliability metrics SAIFI, SAIDI, CAIDI and CEMI for all utilities.
4. Reduce annual same circuit repetitive interruption factor from 5 outages to 4 outages and require utilities to pay the service credit if a customer experiences more than 5 outages instead of 7 outages.

¹³ Institute of Electrical and Electronics Engineers

¹⁴https://www.michigan.gov/documents/mpsc/PSC_Standards_Benchmarking_Report_02142020_681539_7.pdf

5. Require customers to receive automatic service credits if they qualify and eliminating the requirement for customers to apply for the credit.
6. Increase service credits to \$50.00 from \$25.00.
7. Consider mandating that fines go directly to customers instead of to the State.
8. Consider mandating that utilities submit Annual Safety reports of OSHA incidents, and injuries requiring medical attention or involving property damage
9. Consider requiring the utilities to file their Emergency response plan every 5 years.
10. Consider requiring a report from each utility after each major service interruption.
11. Require that utilities send customer credit approval/denial to letters customers within 30 days of application.

In the Stakeholder process some of Staff's initial recommendations were identified as beyond the scope of the Service Quality ruleset (e.g. Recommendation 9 and 10 were moved to the Technical Standards Workgroup since the actual reporting mandate for reporting major service interruptions originate there and utility emergency response plans were already under review; Recommendation #7 was eliminated for further consideration because it is a state mandate that fines go to the State). From this, the resulting preliminary list of eight issues were identified¹⁵ and presented in the March 12, 2020 Workgroup meeting. Below is an outline of each issue, an initial staff proposal and the issue's status. These can be reviewed on the Grid Security and Reliability Standards webpage under "Related Documents".

1. Wire Down Response

Wire down relief times for first responders are too long. This creates unnecessary risk to health and human safety and shifts staffing expense from utility to the units of local government.

Staff Proposal

Reduce acceptable response time to 2 hours in metropolitan areas and 3 hours in rural areas. In order to facilitate statewide uniform guidelines for first responders, Staff recommends that Michigan's utilities work with their local first responders to develop a similar "Train the Trainer" training module created by DTE, which was demonstrated in the wire down subgroup, for their service territory. Incorporate due diligence language to ensure performance expectations are clarified.

Principal points of disagreement

Utility stakeholders argued that the new due diligence language would slow down the wire down response process by necessitating the repair of the wire at the expense of responding to the wire.

¹⁵ The preliminary list included expanding reporting, improving customer experience metrics, revise design of service credits, etc.

Consequently, it would likely result in more resources being directed to wire down response and fewer resources, initially, to damage assessment and response planning.

It was recommended to amend the rule to state “responded to and secured” instead of “repair” to better reflect the intent of the rule without extending the outage restoration process. In addition, “first responder” should be substituted for “non-utility employee”.

Status

Complete. The recommended revision to the language is included in redline version of rules in Appendix A

2. Definitions

Definitions are needed to provide consistency between all utilities to describe the new term “gray sky conditions” and “normal conditions”.

Staff Proposal

The Definitions subgroup explored the implementation of capturing information regarding “gray sky” outages that are not considered catastrophic, but are not considered normal operations either. The thresholds within each utility regarding when they consider themselves in “storm mode” or “restoration mode” varied, but ranged between when 1% and 3% of their customers were out of power. In light of this, Staff created a spreadsheet based off of the customer data information contained in the SEA Report. This information was compared to storm restoration notifications Staff had received from all Michigan utilities in the past two years.

Staff ultimately decided to keep “normal conditions” defined as less than 1% of customers without power and “catastrophic conditions” defined as greater than 10% of customers without power. For “gray sky conditions”, it is defined as greater than 1%, but less than 10% of customers out of power. By requesting notification during outages that put the utility outside of normal operations, Staff is able to track trends and identify issues that may not be captured in annual reporting.

There were additional definitions reviewed and revised which are discussed later in the report in the “Definitions and Reporting Subgroup” section.

Principal points of disagreement

None

Status

Complete. The revised criteria for reporting is included in the redline version of rules in Appendix A and in the table below for each cooperative and electric utility:

Table 2. Reporting thresholds by cooperative and electric utility:

IOU	Number of Customers	1%	2%	2.50%	5%	7.50%	10%
Alpena	17,691	177	354	442	885	1,327	1,769
AEP/I&M	128,637	1,286	2,573	3,216	6,432	9,648	12,864
Consumers Energy	1,816,439	18,164	36,329	45,411	90,822	136,233	181,644
DTE Electric	2,181,941	21,819	43,639	54,549	109,097	163,646	218,194
UMERC	36,727	367	735	918	1,836	2,755	3,673
UPPCO	52,166	522	1,043	1,304	2,608	3,912	5,217
Wisconsin Electric	5	0	0	0	0	0	1
Xcel Energy	8,962	90	179	224	448	672	896
Cooperative	Number of Customers	1%	2%	2.50%	5%	7.50%	10%
Alger Delta	9,982	100	200	250	499	749	998
Cherryland	35,145	351	703	879	1,757	2,636	3,515
Cloverland	42,591	426	852	1,065	2,130	3,194	4,259
Great Lakes	14,622	146	292	366	731	1,097	1,462
Midwest Energy	35,960	360	719	899	1,798	2,697	3,596
Ontonagon REA	4,873	49	97	122	244	365	487
Presque Isle	33,390	334	668	835	1,670	2,504	3,339
Thumb	12,212	122	244	305	611	916	1,221
Tri-County	25,879	259	518	647	1,294	1,941	2,588

3. Service Performance

Performance metrics related to call response times, call blockage factors, and complaint response factors should be moved to Consumer Billing Rules.

Staff Proposal

Lowering the acceptable call answer response time was explored due to technology advances that have improved the capacity and responsiveness of utility phone systems. It was discussed in conjunction with other communication options such as mobile apps and interactive webpages that are available to customers to report outages, downed wires, or other customer concerns. Staff believed it was reasonable to lower the call answer time because other states had more stringent standards and this ruleset had not been modified in almost 20 years.

Call Answer reporting was reviewed since stakeholders reported discrepancies in how this metric is tracked and reported. Some utilities classified "answer" as when a customer is connected to the automated Interactive Voice Response system and some classified "answer" as when the customer is connected with a customer service agent. Staff wanted to review this discrepancy to ensure that the data received was accurate.

Within the subgroup it was shown that most utilities do not have an issue meeting this standard. The costs and benefits of lowering this standard were explored and it was decided that the customer benefits of lowering this standard would not improve the customer experience enough to offset the cost to implement. Utility stakeholders reported that many of their customers utilize alternative communication options prior to making an actual phone call so the net benefit was not there to recommend modifying this metric.

Staff recommends that these metrics be moved to the Customer Standards and Billing Practices for Electric and Natural Gas Service ruleset (Billing Rules) as Customer Assistance Division Staff reviews this metric with Michigan's utilities on a quarterly basis. Any formal modifications to these metrics within the ruleset may be explored by the Customer Assistance Division.

Staff reviewed the Attorney General's recommendation for Staff to explore creating new rules to protect customers in the event of a major disaster, which was based on the National Association of State Utility Consumer Advocates' Resolution 2019-01 urging commissions and utilities to implement disaster relief measures regarding electricity and gas services. Although the Service Quality and Reliability ruleset outlines requirements for new service installations, the Billing Rules outline more detailed customer metrics such as billing frequency, shut off protections, and customer deposits, among other requirements, that may necessitate special accommodations in a major disaster.

Principal points of disagreement

Stakeholders expressed support of the transfer of these rules. However, they did not believe that opening the rules required an additional lengthy stakeholder process.

In light of the current circumstances surrounding the COVID-19 pandemic, Staff sees value in exploring the information found within Resolution 2019-01 in conjunction with the current Billing Rules in order to ascertain whether language updates would be necessary.

Status

Currently, Staff is conferring internally about the possibility of opening the Billing Rules for the purpose of transferring rules and a potential limited collaborative for the purposes of updating this ruleset.

4. Momentary Interruptions (new)

Momentary outages and power quality issues cause economic hardship to industrial customers. The MPSC does not have data on the breadth or depth of momentary outages to gauge the scope or scale of these type of outages.

Staff Proposal

Utilities should track momentary outages and report to MPSC quarterly utilizing the definition in IEEE Standard 1366-2012 and in a format approved by the commission.

Principal point of disagreement

DTE argues that the IEEE Standard 1366-2012 narrowly defines momentary interruption as brief loss of power delivery caused by the opening and closing operation of an interrupting device. However, from customer perspective, momentary interruptions have the same impacts regardless of the cause. Therefore, DTE recommends the removal of the cause description from the IEEE definition.

Regardless, Staff is interested in receiving information regarding momentary interruptions from interrupting devices as a measure of avoided sustained interruptions and electric reliability. Staff would like to collect momentary interruption data in a limited trial to identify power quality and reliability trends from the utilities that are capable of capturing this data.

Status

Completed. Recommended language included in redline version of rules in Appendix A.

5. Outage Credits

Outage credits/refunds are too difficult to obtain and too small. Rules surrounding credit eligibility are confusing and inconsistently applied, and credits are inconsistently delivered.

Staff Proposal

Utilities should implement a system to automatically track and refund residential outage credits when applicable. The outage credit should be increased from \$25 to \$35 to include inflation since the original rule was established.

Principal points of disagreement

Outage credit amount Currently, the outage credit is \$25.00 and Staff's initial recommendation was to raise this amount to \$50.00. Discussion regarding the correct amount was heavily debated. Many stakeholders held the opinion that \$50.00 is too much and Citizens Utility Board (CUB) advocated for a revamp of the credit entirely.

CUB proposed a credit determined by a unique calculation of the service quality credit in lieu of advocating for a certain credit amount. Essentially the CUB credit is calculated by taking the duration of the outage in hours and multiplying it by \$2.00 to find the credit amount due to the customer. The utility would be eligible to recover a certain amount of these credits through rates. The amount eligible for recovery would be calculated by multiplying \$2.00 by the national average SAIDI metric, converted from minutes to hours, multiplied by the number of utility customers. The

idea is that the calculation would establish an hourly cost of an outage for customers and encourage the utility to avoid interruptions or avoid long term outages.

As a hybrid approach, Staff ultimately recommends that the residential outage credit be increased to \$35.00 and adjusted for inflation annually thereafter. The \$35.00 was calculated by simply adding inflation to the current outage credit amount. In addition, Staff recommends that these credits would be triggered based on certain outage thresholds which differ for normal, gray sky, and catastrophic conditions, but are in each case double the “unacceptable” performance thresholds. Finally, Staff recommends that an additional \$2.00 per hour credit be granted for every hour a customer remains without power beyond the individual credit thresholds.

This methodology for calculating the credit is new, but Staff believes it is an appropriate update due to the vast amount of funding that has been approved for improving service restoration performance in rate cases since this ruleset was established in 2002. From accelerated vegetation management programs to additional capital investments for improving infrastructure and upgrading technologies, money has been approved through rates in order for utilities to quickly respond to outages and restore customers. It is reasonable to raise performance expectations such that they are commensurate with the level of investment that has been approved for improving outage response.

Staff’s recommendation is a compromise of the two approaches, as it automatically adjusts the amount for inflation and adds an additional incentive of \$2.00 per hour of outage for the utility to limit outages well beyond the established “unacceptable” thresholds. It will also work in conjunction with the outage credit automation that was agreed upon in the subgroup. Most electric utility customers will no longer have to track their outages or apply and wait for the utility to inform them if they qualify.

Outage Credit Automation. Staff suggested automatic credits in order to remove the requirement for customers to track their outages and apply for the service credit. The creation of a customer portal was suggested as a means for customers to be able to track and see their outage history. The majority of stakeholders supported automation, but the group varied on how best implement it. Utility Stakeholders were unable to give a precise estimate of the research, development and implementation costs within the time constraints of this initiative. However, utility stakeholders expressed the desire to “right fit” automation within their companies. There was concern about creating customer confusion by automation without customer education since many customers have no knowledge of the credit.

Staff recommends that utilities develop an implementation plan so that automation would be complete prior to the new ruleset being finalized. To the extent it may take longer than 30 days after the effective date of the new rules for a utility to update its billing system for credit automation, Staff recommends the Commission consider granting waiver requests for a limited amount of time which would reasonably allow a utility to achieve compliance. In the meantime, Staff recommends that utilities automatically give the credit to customers that qualify and, for

those customers who inquire about their credit eligibility, provide notification within 45 days of their approval or denial of the credit.

Is it an Outage Credit or Outage Penalty for Small Business? The legal classification of the service quality credit was discussed during the Workgroup process. Staff initially classified the outage credit as a penalty in order to better explain to stakeholders that the outage credit was never intended to act as a reimbursement mechanism or to make any one party financially whole due to an outage. Rather, it was intended to act as a mechanism to incentivize utilities to avoid long outages by levying a small financial accommodation for customers experiencing extended outages.

In the Workgroup process, the outage credit was discussed in conjunction with increasing it such that it assisted small businesses, commercial businesses, and industrial customers as a means of recouping financial losses from power interruptions. To better understand outage information available to utilities, Staff asked utilities in the Workgroup to provide the number of AMI meters in operation and the number they planned to install in the near future.

Some stakeholders argued that Staff's initial recommendation of \$35.00 is too small for residential customers and fails to address the reliability concerns raised by small business, commercial, and industrial customers. Within the stakeholder process, some utilities confirmed collecting AMI data and some utilities indicated that they did not have any immediate plans to install these meters to capture the momentary outages and power quality data.

Staff understands and recognizes the concerns raised regarding the lack of communication between some utilities and their small business, commercial and industrial customers after outages occur. Some utilities indicated that they have dedicated customer service representatives for their small business and C&I customers to better assist them in troubleshooting power issues. Therefore, Staff recommends that Michigan utilities provide their non-residential customers, at a minimum, with an outage cause analysis, reliability metrics, power quality data and AMI data information when requested by the customer.

Streetlighting The Michigan Municipal Association for Utility Issues (MI-MAUI or MAUI) provided comments after the final workgroup meeting in March 2020 regarding the reliability issues that their members have endured with having to track streetlight outages and the lack of credits they have received for long outages. MAUI argued that the current ruleset does not clearly identify luminaries as part of the distribution system and suggested a number of language changes to better convey that streetlighting customers should have the same protections as other customers. In addition, MAUI participated in Consumers Energy's recent rate case (Docket U-20697) as an intervenor and voiced similar concerns in that forum as well.

Additional discussions between MAUI and Staff revealed that the majority of MAUI members receive their streetlighting through Consumers Energy and DTE Electric. Staff gathered information from these utilities regarding their current streetlighting programs, technology updates, and plans for improving the program to address MAUI's concerns. Unfortunately, due to

the timing of their comment submission as well as the time constraints of this workgroup, MAUI's concerns and draft rule language could not receive an extensive review from stakeholders.

Staff believes that these concerns should be addressed instead via a small technical collaborative between Consumers Energy, DTE Electric, MAUI, and any other interested party. This collaborative should be held in the first quarter of 2021. The goal of this collaborative would be to develop strategies to improve the streetlighting programs of utilities to address streetlight outage duration and reliability concerns.

Recovery of Outage Credits in Rates There was also discussion about the cost recovery of the customer outage credits as raised in DTE Electric's comments that were submitted after the final March 12, 2020 Workgroup meeting. Consideration regarding cost recovery was raised since outage credits are often paid as the result of catastrophic storms that are outside of the control of the utility.

It was widely recognized among the participants that \$25 or \$35 is not going to compensate customers for spoiled food or overnight accommodations. Staff recognizes the utility argument that customer outage credits serve the purpose of improving the customer experience. Conversely, the comments from the Attorney General argue that customers should not be required to pay for these outage credits through their rates since they experienced the harm in the process. Inserting firm cost recovery language into the ruleset that would require customers to pay themselves back on top of paying for unexpected expenses caused by the outage is not supported by Staff.

Regarding cost recovery, Staff opines that any requests for rate recovery should be analyzed within rate proceedings.

Staff does not believe a change in the credit structure should be adopted beyond the inflation update for the \$35.00 base amount and the \$2.00 per hour credit for unacceptable performance.

Status

Complete. Included in redline version of rules in Appendix A. The language was amended to "customer accommodation" to better reflect the intent of this rule.

6. Outage Credit Thresholds: Normal, Gray Sky, and Catastrophic Conditions

Outage credit thresholds should be lowered to reflect the significant capital investments approved for improving outage restoration and response.

Staff Proposal

Staff initial recommendation was to incorporate a “gray sky” classification to capture the outages that push the utility out of “normal” operations and into an active restoration response. After the workgroup concluded in March, Staff developed new thresholds for this category that were presented in the initial draft of this report.

Principal points of disagreement

Stakeholders argued that the “gray sky” conditions and “catastrophic” storms that require mutual assistance from nearby utilities necessitate incorporating travel time into the restoration timeframe. In addition, the restoration process is complex and many timing aspects rely on weather conditions, OSHA safety parameters, and staff availability, among other considerations.

While Staff understands the position of the utilities, the current performance thresholds reflect a time when the utility did not know that a customer was without power until the customer called the company. Now, nearly 20 years later, many Michigan utilities have upgraded their distribution systems with AMI technology that enables the company to remotely start or stop service, view exactly when an outage began, and gain more precise detail on outage locations. Customers are able to report and track their outages via smartphone apps and on the utility’s website. Finally, additional funds have been approved for specialized storm mobile response vehicles, additional inventory to ensure spare parts are readily available, and service centers to reduce the travel time required to get to an outage location.

Staff has a duty to ensure that the distribution system capital expenditures and expenses that were approved result in benefits to ratepayers. Staff recommends that the revised “unacceptable” thresholds be adopted.

Status

Complete. Included in redline version of rules in Appendix A and here:

Table 3. Revised thresholds for cooperatives and electric utilities:

Unacceptable	Current	Revised	Current	Revised
Normal	0-10%	8 hrs	0-1%	8 hrs
Gray Sky			1-10%	24 hrs
Catastrophic	10%+	60 hrs	10%+	48 hrs
All Conditions		36 hrs		36 hrs
Outage Credit	Current	Revised	Current	Revised
Normal	0-10%	16 hrs	0-1%	16 hrs
Gray Sky			1-10%	48 hrs
Catastrophic	10%+	120 hrs	10%+	96 hrs

7. Outage Credit Thresholds: Same Circuit Interruptions and Repetitive Interruptions

Outage credit thresholds should be lowered to reflect the significant capital investments approved for upgrading infrastructure.

Staff Proposal

Staff's initial recommendation was to reduce the annual same circuit repetitive interruption factor from 5 outages to 4 outages and to require utilities to pay the service credit if a customer experiences more than 5 outages instead of more than 7. By lowering this threshold, utilities are held accountable for ensuring that ratepayers see a return on the investments that they pay for in rates.

Principal points of disagreement

Same Circuit Repetitive Interruption Factor: DTEE recommended eliminating same circuit repetitive interruption factor in its entirety from the standards. They argued that calculations for same circuit repetitive interruption are complex and subject to each utilities' own interpretations. This metric is unique to Michigan and not used by any utilities, states, or jurisdictions outside of Michigan.

Streamlining reporting metrics with IEEE standards whenever possible is supported by Staff to ensure that the data collected is the same from each utility, therefore "same circuit interruption factor" has been replaced with IEEE definition "CEMI4".

Repetitive Interruptions: Utility stakeholders argued that the infrastructure investments they have made are part of a multi-year initiative to improve their distribution systems. These five year workplans promised an improved customer experience after all system upgrades were completed, so lowering this threshold now would make it an impossible standard to achieve.

Staff disagrees with the utilities' position regarding repetitive interruptions. Staff has a duty to ensure that the infrastructure improvements that were approved on behalf of ratepayers result in the promised benefits. Therefore, Staff recommends that : 1) four or more repetitive interruptions in a 12-month period experienced by more than 5% of its customers shall be considered an unacceptable level of performance for an electric utility in Michigan; and 2) a customer of an electric utility that experiences more than 5 interruptions in a 12-month period shall be entitled to a billing credit.

Status

Completed. Included in redline version of rules in Appendix A

7. Outage Reporting Requirements

Staff does not receive the same outage information from each utility during storm/event restoration. Consistent information is necessary to relay to the State's emergency team.

Staff Proposal

To promote reporting consistency, utilities should report outage information using a MPSC generated report form to ensure consistent communication. In addition, a higher reporting threshold should be utilized for smaller utilities to ensure that significant outages with longer restoration times are reported. Staff recognizes the time and effort expended from utilities to notify the Commission of outages and wants to ensure that it is done to report substantial events.

Principal point of disagreement

Staff expressed concerns regarding the varied information that is received from utilities during an outage event. In light of this, Staff solicited stakeholders regarding the development of a standardized reporting form. This was discussed in conjunction with implementation of "gray sky" reporting that would capture events that are significant but not considered catastrophic under the current rules. Staff also expressed an interest in receiving post event reports that detail the learnings and improvements that utilities identified to improve restoration efforts.

Staff recognizes the vast difference in customer base size from utility to utility and the corresponding storm response guidelines held by each company. Considering this, Staff believes it would be beneficial to develop more customized outage notification protocols for each utility. Once developed, these notification agreements would be reviewed annually with utilities that have 1 million customers or more and biennially for smaller utilities and cooperatives.

Staff proposes that Consumers Energy and DTE Electric continue to provide notification as outlined in their respective notification agreements. Similarly, for all other utilities, Staff proposes developing a notification agreement to receive notification when 5% or more customers are without power.

Status

To be developed with each utility and cooperative by April 2021.

8. Annual Reporting Requirements

Current annual reporting requirements for all utilities are housed in Docket U-12270. Consumers Energy and DTE Electric have additional reporting requirements housed in the power quality and reliability Dockets U-16065 and U-16066. Staff would like to see this information streamlined in annual reporting.

Staff Proposal

Staff expressed an interest in streamlining the annual reporting process and requesting the same information for all utilities and electric cooperatives.

Principal points of disagreement

Technological Capabilities: Cooperatives indicated that their systems do not have the capability to capture the same types of data since many have declined to incorporate AMI technology within their systems. Regardless of technology implementation, Staff finds it prudent to track the outage performance for all Michigan utilities to ensure they are aware of issues that may not be captured in their annual reliability reporting in Docket U-12270.

Staff proposes to incorporate the additional power quality and reliability reporting requirements from U-16065 and U-16066, as well as MAIFI¹⁶ where possible, into the Docket U-12270 annual reporting requirements. Utilities and cooperatives that are unable to meet the updated reporting requirements are still permitted to request a waiver for reporting requirements

Same Circuit Repetitive Interruption Factor: DTEE recommended eliminating same circuit repetitive interruption factor in its entirety from the standards as a reporting requirement. They argued that calculations for same circuit repetitive interruption are complex and subject to each utilities' own interpretations. This metric is unique to Michigan and not used by any utilities, states, or jurisdictions outside of Michigan. Streamlining reporting metrics with IEEE standards whenever possible is supported by Staff, therefore "same circuit interruption factor" has been replaced with IEEE definition "CEMI4".

Status

Complete. Revised language included in redline version of rules in Appendix A

Service Quality Subgroups

To facilitate focused discussions with subject matter experts (SMEs), Staff assembled topic-specific subgroups and conducted subgroup meetings in addition to the larger Workgroup meetings. Two Service Quality subgroups were established to update the Service Quality ruleset: The Definitions and Reporting Standards Subgroup and the Wire Down Subgroup.

¹⁶ MAIFI = Momentary Average Interruption Frequency Index is the average number of momentary interruptions that a customer would experience during a given period (typically a year).

Definitions and Reporting Standards Subgroup

The Definitions and Reporting Standards Subgroup met on February 5, 2020 and February 25, 2020 to discuss the definitions updates that Staff and stakeholders suggested for the ruleset. Specifically, the subgroup looked at updating the definitions of:

- “Electric Utility”, to include cooperatives
 - By modifying this definition, cooperatives are included in the annual reporting requirement that currently only applies to investor-owned utilities.
- “Momentary Interruption” (Reporting Standards)
 - With the approval of funding for AMI installation, Staff is interested in collecting data on momentary outages that can be tracked by this technology.
- “Call Answer” (first contact with Interactive Voice Response vs. Live Agent)
 - This definition was reviewed in light of Staff’s initial recommendation that the current standard be lowered to 45 seconds.
- “Sustained Interruption”
 - With the addition of momentary interruption as a definition, delineation between “momentary” and “sustained” is necessary.
- “Normal Conditions”
 - This definition was reviewed in light of adding a third category, “gray sky conditions”, to capture events that are not severe enough to be considered catastrophic, but are not considered “normal” operations either.
- “Interruption”
 - With the introduction of momentary outages within the definitions, a clearer definition of an interruption is necessary.
- “Unacceptable Performance”
 - This definition was reviewed in terms of annual reporting thresholds.
- “Major Outage”—Gray Sky Outages
 - This definition was reviewed in terms of major outage reporting.

The Workgroup proposed language to revise the definitions and they are included in the redline copy of the Service Quality rules in Appendix A.

Wire Down Relief Subgroup

On December 4, 2019, the wire down Workgroup that was initiated as a result of the Order issued in Docket No. U-20169¹⁷ that was incorporated into the Service Quality Workgroup. Staff requested initial comments from stakeholders regarding the adequacy of the wire down standard.

¹⁷ In this docket, DTE’s restoration and wire down performance was reviewed after a 2018 windstorm. The January 18, 2019 settlement [agreement](#) ordered Staff to lead an initiative with Michigan’s utilities “to jointly improve the overall downed wire response process.”

The general consensus from the fire departments that responded was that the current standard requiring first responders to guard downed wires for up to six hours was too long and it was not feasible given their other responsibilities for ensuring public health and safety. It was noted that the current gas standard required utilities to respond to a gas leak within one hour. Due to this difference in stringency, the first responders suggested that the standard be reduced to one hour in both metropolitan and rural areas. The Wire Down Subgroup explored the feasibility of this suggestion during meetings held on February 5, 2020, February 25, 2020 and June 3, 2020.

Meeting #1 - February 5, 2020. Representatives from Brandon Fire, Iosco 911, Muskegon Fire, Consumers Energy, DTE Electric, Indiana Michigan Power Company, Homeworks Tri County, MECA, MEGA and UPPCO attended. Staff reviewed the current language in the ruleset and suggested modifying the standard to be more flexible in terms of the metropolitan and non-metropolitan areas identified on the map released by the Federal Census Bureau. Participants discussed the progress made since the last wire down Workgroup meeting on December 2, 2019. Communication between utilities and the local first responders was established, but there was still disagreement regarding how long and how often first responders guarded utility wires. It was determined that each utility would gather their wire down data from the previous five years so that the feasibility of a one hour standard could be discussed at the second meeting.

Meeting #2 - February 25, 2020. State Representative Jeff Yaroch, representatives from Brandon Fire, Iosco 911, Muskegon Fire, Consumers Energy, DTE Electric, Indiana Michigan Power Company, Homeworks Tri County, MECA, MEGA and UPPCO attended. In this meeting, utility wire down data was presented by the companies that submitted the information. Each utility presented how their company responds to wire down calls from receiving the notification to dispatching a relief worker. It was determined that first responders guarded roughly 10%-20% of a utility's total wire downs in an event. In addition, companies' wire down relief data had some inaccuracies due to when their contractors closed out tickets. For example, if a company had a subcontractor repair a downed wire, instead of closing out the ticket immediately after they relieved the first responder, the subcontractor would close the wire down work ticket after the wire was completely repaired, which skewed the response time data. Another problem that was raised was that some first responders were guarding non-utility wires or other low hazard wires that could be secured with caution tape instead of with a person. First responders stated that they had difficulty receiving an estimated response times from utilities and they were frustrated with a perceived lack of urgency in relieving them. DTE responded that they had developed a training module that they have had great success with. It educated their local responders as to how DTE handled downed wire calls and how they trained wire guards (i.e., utility staff that are not linemen) to tape and secure a wire down. The group determined that this training module would be reviewed in the next subgroup meeting.

Meeting #3 - June 3, 2020. The third meeting of this wire down subgroup was rescheduled due to the onset of COVID-19 and a second time due to the Midland-area dam failures. On June 3, 2020, the subgroup met via teleconference where DTE and Michigan's State Fire Marshall Kevin

Sehlmeyer presented the “Train the Trainer” module to the group. Participants went through this training as if they were first responders learning about DTE’s wire down process. The “Train the Trainer” module was determined to be a great resource for the participants since it closed the communication gap between first responders and the utility. First responders had a better idea of how DTE handled the incoming wire down calls, what wires can be secured and what wires are necessary to guard. Staff presented their original proposal to reduce the wire down relief standard from 4-6 hours to 2-3 hours and participants agreed that with more training like the “Train the Trainer” module, reducing the standard would not be a problem.

Staff recommends that Michigan’s utilities work with their local first responders to develop a territory specific “Train the Trainer” training module for their territory. Stakeholders reported that the training firefighters receive in the academy does not adequately train firefighters on electrical hazard identification and mitigation that they are faced with when guarding utility wires. By undergoing this additional training, firefighters will be more adequately prepared to safely guard themselves and the general public from an energized downed wire. In addition, the training adds a level of transparency between the utility and the first responder so that both parties understand how wire down relief is handled. Firefighters have a direct contact number with the utility to check on an ETA and are able to better report the downed wire location if there are details that are not contained in the utility’s initial wire down report.

Staff is satisfied with the progress made on this initiative and does not foresee the need for additional meetings at this time. In the future, it may be beneficial to explore the suggestion raised in the subgroup to utilize the current 811/MISSDIG infrastructure to better assist utilities and first responders to promptly locate reported downed wires.

Staff Recommendations

For the reasons discussed in this Final Report, Staff recommends:

1. The Commission consider the suitability of the proposed redlines in Appendix A, which reflect the Workgroup and subgroups’ work to date, for future inclusion in the Service Quality Standards.
2. The Commission consider opening the Billing Rules when the Service Quality Standards are opened for revision to facilitate the changes identified as a result of the Workgroup. This will allow the Service Quality Standards and Billing Rules to progress through the rulemaking process at the same time.

Conclusion and Next Steps

Staff appreciates the Workgroup members’ efforts and contributions to the substance of this report. Their participation and input through presentations and comments were essential in identifying issues and ultimately, working to offer resolution to issues. Staff was fortunate to

receive assistance from technical experts at the Lawrence Berkeley National Laboratory (LBNL), which was funded by a state grant administered through U.S. Department of Energy (DOE).

The Workgroup has been responsive to the Commission's orders in Dockets U-20464 and U-20629 and its efforts have resulted in many proposed changes to the Service Quality Standards, most of which have a consensus.

Appendix A

DEPARTMENT OF LABOR AND ECONOMIC GROWTH
PUBLIC SERVICE COMMISSION
SERVICE QUALITY AND RELIABILITY STANDARDS
FOR ELECTRIC DISTRIBUTION SYSTEMS

(By authority conferred on the public service commission by section 10p of 2000 PA 141, section 7 of 1909 PA 106, section 5 of 1919 PA 419, sections 4 and 6 of 1939 PA 3, and sections 3, 9, and 231 of 1965 PA 380, MCL 460.10p, 460.557, 460.55, 460.4, 460.6, 16.103, 16.109, and 16.331)

PART 1. GENERAL PROVISIONS

R 460.701 Application of rules.

Rule 1. (1) These rules apply to electric utilities as defined by MCL 460.562(e) and cooperative electric utilities that are member regulated as provided in 2008 PA 167.

(2) These rules do not relieve an electric utility that is subject to the jurisdiction of the public service commission from any of its duties under the laws of this state, including all of the requirements of R 460.3101 to R 460.3908.

History: 2004 AACs.

R 460.702 Definitions.

Rule 2. As used in these rules:

(a) "All conditions" means conditions reflected by data derived through the amalgamation of data from normal conditions, gray sky conditions and catastrophic conditions. "All conditions" does not mean only normal conditions or only gray sky conditions or only catastrophic conditions.

~~(b) "Answer" means that a utility representative, voice response unit, or automated operator system is ready to render assistance or ready to accept information necessary to process the call. An acknowledgment that the customer is waiting on the line does not constitute an answer.~~

~~(c) "Call" means a measurable effort by a customer to obtain a telephone connection whether the connection is completed or not.~~

~~(d) "Call blockage factor" means the percentage of calls that do not get answered. The call blockage factor is calculated by multiplying the remainder obtained by~~

~~subtracting the number of answers from the number of calls, multiplying by 100, and then dividing that value by the total number of calls.~~

(e) "Approved by the commission" means that a favorable commission order has been obtained.

(f) "Catastrophic conditions" means either of the following:

(i) Severe weather conditions that result in sustained interruptions for 10% or more of an electric utility's or electric cooperative's customers.

(ii) Events of sufficient magnitude that result in issuance of an official state of emergency declaration by the local, state, or federal government.

(g) "CELID" or "Customers Experiencing Long Interruption Durations" or "CELID" means the ratio of the number of customers experiencing one or more sustained interruptions longer than an indicated duration to the total number of customers served. For purposes of these rules, the interruption duration is denoted as an number and unit of time immediately following the term CELID, for example CELID8hours.

(h) "CEMIn" or "Customers Experiencing Multiple Interruptions" means the ratio of individual customers experiencing n or more sustained interruptions to the total number of customers served.

~~(i) "Complaint response" or "response" means a communication between the utility and the customer that identifies the problem and a solution to the complaint.~~

~~(j) "Complaint response factor" means the annual percentage of the complaints forwarded to a utility by the commission that are responded to within the time period prescribed by these rules.~~

(k) "Commission" means the Michigan public service commission.

(l) "Completion date" means the day on which service at a new installation is permanently energized. The provision of construction power does not affect a determination of the completion date.

(m) "Electric Cooperative" means cooperative electric utilities that are member regulated as provided in 2008 PA 167.

(n) "Electric utility" or "utility" means that term as defined in section 2(e) of 1995 PA 30, MCL 460.562(e).

(o) "Gray sky conditions: means conditions that result in sustained interruptions for greater than 1% but less than 10% of an electric utility's or electric cooperative's customers.

(p) "Meter reading factor" means the percentage of meters read within an approved billing period. An approved billing period is a "billing month" within the meaning of R 460.2102(b) of not less than 26 days, nor more than 35 days, or some other time period approved by the commission.

(q) "Metropolitan statistical area" means an area within the state of Michigan identified by the federal office of management and budget on June 30, 1999. A map of the metropolitan statistical areas was attached to the July 11, 2001, order in Case No. U-12270 as exhibit C and appears on the website of the United States department of commerce, economics and statistics administration, bureau of the census. at <http://www.census.gov/geo/www/mapGallery/stma99.pdf>.

(r) "Minimum bill prorated on a daily basis" means the amount that results from

dividing the customer's minimum bill amount by the number of days in the billing period and then by multiplying that quotient by the number of days during which the customer remained out of service.

(s) "MISS DIG activities" means the requirements imposed pursuant to 1974 PA 53, as amended, MCL 460.701 et seq.

(t) "Momentary Interruption" means the full or partial loss of service to 1 or more customers for less than or equal to five minutes. Such switching operations must be completed within a specified time of less than or equal to five minutes. This definition includes all reclosing operations that occur within five minutes of the first interruption .

(u) "New service installation factor" means the percent of new service hookups that are completed within the time period prescribed by these rules, from start date to completion date. New service hookups dependent on the construction of a line extension other than the service line shall be excluded from the calculation of this factor.

(v) "Normal conditions" means conditions that result in sustained interruptions for one percent or less of an electric utility's or electric cooperative's customers,

(w) "Service restoration" means that the interruption condition has been corrected and that the interrupted customer or customers have regained the full use of their electric service.

(x) "Sustained interruption" means any interruption not classified as part of a momentary event – that is any interruption that lasts more than five minutes. The duration of a customer's interruption shall be measured from the time that the electric utility or electric cooperative is notified or otherwise becomes aware of the full or partial loss of service to one or more customers for longer than five minutes.

(y) "Start date for new installations" means the first business day after all of the following events have occurred:

(i) All rights of way, easements, licenses, and consents have been obtained and are and remain physically unencumbered.

(ii) All permits have been received.

(iii) All joint use requirements have been met.

(iv) All required inspections have been completed.

(v) All commission-approved tariff payments have been received.

(vi) All MISS DIG activities have been completed.

(v) "Wire-down relief factor" means the annual percentage of the ~~non-utility~~ ~~employee~~ first responder guarded downed wires that are relieved by a utility representative within the time period specified in Rule 23.

History: 2004 AACCS.

R 460.703 Revision of tariff provisions.

Rule 3. Not more than 30 days after the effective date of these rules, an electric utility subject to the commission's jurisdiction shall file any revisions of its tariff provisions necessary to conform with these rules.

History: 2004 AACCS.

PART 2. UNACCEPTABLE LEVELS OF PERFORMANCE

R 460.721 Duty to plan to avoid unacceptable levels of performance.

Rule 21. An electric utility or electric cooperative shall plan to operate and maintain its distribution system in a manner that will permit it to provide service to its customers without experiencing an unacceptable level of performance as defined by these rules.

History: 2004 AACS.

R 460.722 Unacceptable levels of performance during sustained interruptions.

Rule 22. It is an unacceptable level of performance for an electric utility or electric cooperative to fail to meet any of the following sustained interruption standards:

- (a) Considering data derived through the amalgamation of data from normal, gray sky and catastrophic conditions, an electric utility or electric cooperative shall restore service within 36 hours to not less than 90% of its customers experiencing sustained interruptions.
- (b) Considering data including only catastrophic conditions, an electric utility or electric cooperative shall restore service within 60-48 hours to not less than 90% of its customers experiencing sustained interruptions.
- (c) Considering data including only gray sky conditions, an electric utility or electric cooperative shall restore service within 24 hours to not less than 90% of its customers experiencing sustained interruptions.
- (d) Considering data including only normal conditions, an electric utility or electric cooperative shall restore service within 8 hours to not less than 90% of its customers experiencing sustained interruptions.
- (e) Considering data derived through the amalgamation of data from normal, gray sky and catastrophic conditions, an electric utility shall not experience 4 or more repetitive sustained interruptions in a 12-month period for more than 5% of its customers.”

History: 2004 AACS.

R 460.723 Wire down relief requests.

Rule 23. (1) It is an unacceptable level of performance for an electric utility or electric cooperative to fail to respond to a request for relief of a first responder ~~non-utility-employee~~ guarded downed wire at a location in a metropolitan statistical area within 120 ~~240~~ minutes after notification at least 90% of the time under all conditions.

(2) It is an unacceptable level of performance for an electric utility or electric cooperative to fail to respond to a request for relief of a first responder ~~non-utility-employee~~ guarded downed wire at a location in a non-metropolitan statistical area within 180 ~~360~~ minutes after notification at least 90% of the time under all conditions.

(3) It is an unacceptable level of performance for an electric utility or electric cooperative to fail to exercise due diligence and care to ensure that first responders are relieved from guarding downed wires in the quickest manner possible.

(4) It is an unacceptable level of performance for an electric utility or electric cooperative to fail to exercise due diligence and care to ensure downed wires are ~~repaired~~ responded to and secured in the quickest manner possible.

History: 2004 AACS.

R 460.724 Unacceptable service quality levels of performance.

Rule 24. It is an unacceptable level of performance for an electric utility or electric cooperative to fail to meet any of the following service quality standards:

(a) ~~An electric utility shall have an average customer call answer time of less than 90 seconds.~~

(b) ~~An electric utility shall have a call blockage factor of 5% or less.~~

(c) ~~An electric utility shall have a complaint response factor of 90% or more within 3 business days.~~

(d) An electric utility shall have a meter reading factor of 95% ~~85%~~ or more within the approved period, including customer reads.

(e) An electric utility shall complete 90% or more of its new service installations within 15 business days.

History: 2004 AACS.

PART 3. RECORDS AND REPORTS

R 460.731 Deadline for filing annual reports.

Rule 31. Not more than 120 days after the end of the calendar year in which these rules became effective, an electric utility or electric cooperative shall file an annual report with the commission regarding the previous calendar year. For subsequent calendar years, an electric utility or electric cooperative shall file its annual report not more than 75 days after the end of the year. The annual report shall be filed on a form prescribed by the Commission.

History: 2004 AACCS.

R 460.732 Annual report contents.

Rule 32. The annual report of an electric utility or electric cooperative made pursuant to these rules shall contain all of the following information:

~~(a) The call blockage factor. If the call blockage factor is more than 5%, then the annual report shall contain a detailed explanation of the steps that the electric utility is taking to bring its performance to an acceptable level.~~

~~(b) The complaint response factor. If the complaint response factor is less than 90% within 3 business days, then the annual report shall contain a detailed explanation of the steps that the electric utility is taking to bring its performance to an acceptable level.~~

~~(c) The average customer call answer time. If the average customer call answer time is 90 seconds or more, then the report shall contain a detailed explanation of the steps that the electric utility is taking to bring its performance to an acceptable level.~~

(d) The meter reading factor. If the meter reading factor is less than 95% 85%, then the report shall contain a detailed explanation of the steps that the electric utility or electric cooperative is taking to bring its performance to an acceptable level.

(e) The new service installation factor. If the new service installation factor is less than 90% completed within 15 business days, then the report shall contain a detailed explanation of the steps that the electric utility or electric cooperative is taking to bring its performance to an acceptable level.

(f) The wire-down relief factor. If the wire-down relief factor is less than 90% within 120 240minutes within metropolitan statistical areas or less than 90% within 180 360minutes in non-metropolitan statistical areas, then the report shall contain a detailed explanation of the steps that the electric utility or electric cooperative is taking to bring its performance to an acceptable level.

(g) The service restoration factor for all conditions. If the service restoration factor for all conditions is less than 90% of customers restored within 36 hours or less, then the report shall contain a detailed explanation of the steps that the electric utility or electric cooperative is taking to bring its performance to an acceptable level.

(h) The service restoration factor for normal conditions. If the service restoration factor for normal conditions is less than 90% of customers restored within 8 hours or less, then the report shall contain a detailed explanation of the steps that the electric utility or electric cooperative is taking to bring its performance to an acceptable level.

(i) The service restoration factor for gray sky conditions. If the service restoration factor for gray sky conditions is less than 90% of customers restored within 24 hours or less, then the report shall contain a detailed explanation of the steps that the electric utility or electric cooperative is taking to bring its performance to an acceptable level.

(j) The service restoration factor for catastrophic conditions. If the service restoration factor for catastrophic conditions is less than 90% of customers restored within 48 ~~60~~ hours or less, then the report shall contain a detailed explanation of the steps that the electric utility or electric cooperative is taking to bring its performance to an acceptable level.

(k) CEMI4: The number of customers experiencing four or more sustained interruptions, excluding those interruptions that occurred on major event days.

(l) Repetitive Circuit Interruptions. If more than 5% of circuits experience 4 or more repetitive sustained interruptions within a 12 month period, then the report shall contain a detailed explanation of the steps that the electric utility or electric cooperative is taking to bring its performance to an acceptable level.

(m) A description of all catastrophic conditions experienced during the year.

(n) The number and total dollar amount of all customer credits the electric utility or electric cooperative provided during the year, broken down by customer class, for its failure to restore service to customers within 96 hours of a sustained interruption that occurred during the course of catastrophic conditions.

(o) **The** number and total dollar amount of all customer credits the electric utility or electric cooperative provided during the year, broken down by customer class, for its failure to restore service to customers within 48 hours of a sustained interruption that occurred during the course of gray sky conditions.

(p) The number and total dollar amount of all customer credits the electric utility or electric cooperative provided during the year, broken down by customer class, for its failure to restore service to customers within 16 hours of a sustained interruption that occurred during normal conditions.

(q) The number and total dollar amount of all customer credits the electric utility or electric cooperative provided during the year, broken down by customer class, for repetitive sustained interruptions.

(r) **For** each electric utility with 1 million or more customers, a list of their ten worst performing circuits for the prior year, excluding major event days. "Worst performing" shall be in terms of SAIDI, excluding major event days, and the calculation of SAIDI minutes for each circuit shall only consider the customers being served by the circuit itself.

(s) For each electric utility or electric cooperative with less than 1 million customers, a list of the worst performing 1% of circuits for the prior year. "Worst performing" shall be in terms of SAIDI, excluding major event days, and the calculation of SAIDI minutes for each circuit shall only consider the customers being served by the circuit itself.

(t) For each of the ten worst performing circuits listed in parts (r) or (s), the electric utility or electric cooperative shall provide the following information: (i) SAIDI and SAIFI excluding major event days for the year; (ii) circuit name, number and location; (iii) length of circuit (miles); (iv) number of customers served; (v) substation name; (vi) last circuit trim; (vii) list of outages and causes; and (viii) corrective action to improve

performance.

(u) Number of Customers Experiencing Multiple Interruptions (“CEMI”) reporting for indices CEMI0 hours through CEMI10+ hours excluding those interruptions that occurred on major event days.

(v) Number of Customers Experiencing Long Interruption Durations (“CELID”) reporting for indices CELID8hours, CELID24hours, CELID 48hours excluding those interruptions that occurred on major event days.

(w) Number of Commercial and Industrial customers experiencing Momentary Interruptions.

(x) A summary table indicating whether the electric utility or electric cooperative complied or failed to comply with each of the standards established by these rules.

History: 2004 AACCS



R 460.733 Availability of records.

Rule 33. (1) An electric utility or electric cooperative shall make available to the commission or its staff, upon request, all records, reports, and other information required to determine compliance with these rules and to permit the commission and its staff to investigate and resolve service quality and reliability issues related to electric distribution service.

(2) An electric utility or electric cooperative shall make records, reports, and other information available to the commission or its staff within 5 business days, preferably in an electronic format available through the internet, accessible with standard browser software, identification, and password or as soon thereafter as feasible.

History: 2004 AACCS.

R 460.734 Retention of records.

Rule 34. An electric utility shall preserve, in detail, all records required by these rules for the previous 24 months and shall preserve, in summary form, all records for not less than 4 years, unless otherwise ordered by the commission.

History: 2004 AACCS.

**PART 4. FINANCIAL INCENTIVES AND ~~PENALTIES~~
CUSTOMER ACCOMODATIONS**

R 460.741 Approval of incentives by the commission.

Rule 41. (1) The commission may authorize an electric utility to receive a financial incentive if it exceeds all of the service quality and reliability standards adopted by these rules.

(2) A request for approval of an incentive mechanism shall be made in either of the following proceedings and shall be conducted as a contested case under chapter 4 of 1969 PA 306, MCL 24.271 et seq.

(a) A rate case proceeding.

(b) A single-issue proceeding filed specifically to address adoption of an incentive program.

(3) An electric utility shall not file an application seeking approval of an incentive mechanism until it has exceeded all of the service quality and reliability standards adopted by these rules continuously for a period of not less than 12 months.

History: 2004 AACCS.

R 460.742 Criteria for receipt of an incentive.

Rule 42. (1) If an electric utility qualifies for implementation of a previously approved incentive mechanism, it shall file an application seeking authority to implement the incentive mechanism at the same time that it submits the annual report required by R 460.732.

(2) An electric utility shall not apply for a financial incentive approved by the commission unless all of the following criteria were met during the previous 12 months:

(a) All required reports have been filed in a timely manner.

(b) All required reports fully comply with the requirements as determined by the commission.

(c) The electric utility's performance shall have exceeded all of the individual service quality and reliability standards.

(d) The electric utility shall have fully responded to any inquiries about the content of the reports made by the commission or its staff in a timely manner.

History: 2004 AACCS.

R 460.743 Disqualification.

Rule 43. An electric utility shall be disqualified from receiving an incentive if the commission issues an order finding that the electric utility engaged in any type of anticompetitive behavior within the 12-month period preceding the filing of an application pursuant to R 460.742(1).

History: 2004 AACCS.

R 460.744 ~~Penalty~~ Customer Accommodation for failure to restore service after a sustained interruption due to gray sky and catastrophic conditions.

Rule 44. (1) Unless an electric utility requests a waiver pursuant to part 5 of these rules, an electric utility that fails to restore service to a customer within 96 hours after a sustained interruption that occurred during the course of catastrophic conditions shall provide any affected customer with a bill credit on the customer's bill within 90 days. The amount of the credit provided to a residential customer shall be the greater of a base rate \$35.00 plus \$2.00 for every hour of outage over 96 hours or the customer's monthly customer charge. The amount of the credit provided to any other distribution customer shall be the customer's minimum bill prorated on a daily basis.

(2) Unless an electric utility requests a waiver pursuant to part 5 of these rules, an electric utility that fails to restore service to a customer within 48 hours after a sustained interruption that occurred during the course of gray sky conditions shall provide any affected customer with a bill credit on the customer's bill within 90 days. The amount of the credit provided to a residential customer shall be the greater of a base rate of \$35.00 plus \$2.00 for every hour of outage over 48 hours or the customer's monthly customer charge. The amount of the credit provided to any other distribution customer shall be the customer's minimum bill prorated on a daily basis.

(3) No sooner than September 1, 2022, and by October 1 every year thereafter, the

Commission shall issue an order adjusting the customer accommodations base rate under subsection (1) and subsection (2) of these rules. The Commission shall adjust these customer accommodations by multiplying these accommodations by the difference between the Consumer Price Index for the month of October immediately preceding the commission's order implementing the inflation adjustment and the Consumer Price Index for the previous October. The commission shall round up each adjustment made under this subsection to the nearest multiple of \$1.00.

History: 2004 AACS.

R 460.745 ~~Penalty~~ Customer Accommodation for failure to restore service during normal conditions.

Rule 45. (1) Unless an electric utility requests a waiver pursuant to part 5 of these rules, an electric utility that fails to restore service to a customer within 16 hours after a sustained interruption that occurred during normal conditions shall provide any affected customer a bill credit on the customer's bill within 90 days. The amount of the credit provided to a residential customer shall be the greater of a base rate of \$35.00 plus \$2.00 for every hour of outage over 16 hours or the customer's monthly customer charge. The amount of the credit provided to any other distribution customer shall be the customer's minimum bill prorated on a daily basis.

(2) No sooner than September 1, 2022, and by October 1 every year thereafter, the Commission shall issue an order adjusting the customer accommodation base rate under this rule. The Commission shall adjust these customer accommodations by multiplying these accommodations by the difference between the Consumer Price Index for the month of October immediately preceding the commission's order implementing the inflation adjustment and the Consumer Price Index for the previous October. The commission shall round up each adjustment made under this subsection to the nearest multiple of \$1.00.

History: 2004 AACS.

R 460.746 ~~Penalty~~ Customer Accommodation for repetitive sustained interruptions of the same circuit.

Rule 46. (1) Unless an electric utility requests a waiver pursuant to part 5 of these rules, a customer of an electric utility that experiences more than 5 sustained interruptions in a 12-month period shall be entitled to a billing credit on the customer's bill within 90 days. The amount of the credit provided to a residential customer shall be the greater of a base rate of \$35.00 or the customer's monthly customer charge. The amount of the credit provided to any other distribution customer shall be the customer's minimum bill prorated on a daily basis.

(2) Following provision of the billing credit to a customer experiencing more than 5 sustained interruptions in a 12-month period the electric utility's interruption counter shall be reset to zero to ensure that another credit to the customer will be processed only after the occurrence of another 6 interruptions in a 12 month period.

(3) No sooner than September 1, 2022, and by October 1 every year thereafter, the Commission shall issue an order adjusting the customer accommodations base rate under subsection (1) of these rules. The Commission shall adjust these customer accommodations by

multiplying these accommodations by the difference between the Consumer Price Index for the month of October immediately preceding the commission's order implementing the inflation adjustment and the Consumer Price Index for the previous October. The commission shall round up each adjustment made under this subsection to the nearest multiple of \$1.00.

History: 2004 AACCS.

R 460.747 Multiple billing credits allowed.

Rule 47. An electric utility's obligation to provide a customer with a billing credit for one reason does not excuse the obligation to provide an additional billing credit in the same month for another reason.

History: 2004 AACCS.

R 460.748 Effect in other proceedings.

Rule 48. (1) The payment or nonpayment of a customer credit or an incentive award shall not affect the rights of a customer or an electric utility in any proceeding before the commission or in any action in a court of law.

(2) The finding of a violation of a service quality or reliability standard adopted in these rules shall not affect the rights of a customer or an electric utility in any proceeding before the commission or in any action in a court of law.

History: 2004 AACCS.

PART 5. WAIVERS AND EXCEPTIONS

R 460.751 Waivers and exceptions by electric utilities and electric cooperatives.

Rule 51. (1) An electric utility or electric cooperative may petition the commission for a permanent or temporary waiver or exception from these rules when specific circumstances beyond the control of the utility render compliance impossible or when compliance would be unduly economically burdensome or technologically infeasible.

(2) An electric utility or electric cooperative may request a temporary waiver in order to have sufficient time to implement procedures and systems to comply with these rules.

(3) An electric utility or electric cooperative need not meet the standards or grant the credits required by parts 2 and 4 of these rules under any of the following circumstances:

(a) The problem was caused by the customer.

(b) There was a work stoppage or other work action by the electric utility's or electric cooperative's employees, beyond the control of the utility, that caused a significant reduction in employee hours worked.

(c) The problem was caused by an "act of God." The term "act of God" means an event due to extraordinary natural causes so exceptionally unanticipated and devoid of human agency that reasonable care would not avoid the consequences and includes any of the following:

(i) Flood.

- (ii) Tornado.
- (iii) Earthquake.
- (iv) Fire.
- (d) The problem was due to a major system failure attributable to any of the following, but is not limited to:
 - (i) An accident.
 - (ii) A man-made disaster.
 - (iii) A terrorist attack.
 - (iv) An act of war.
 - (v) A pandemic

History: 2004 AACS.

R 460.752 Proceedings for waivers and exceptions.

Rule 52. (1) A petition for a waiver of a customer credit provision filed by an electric utility or electric cooperative shall be handled as a contested case proceeding. The burden of going forward with a request for a waiver shall be on the electric utility or electric cooperative. To be timely, a petition for a waiver of a customer credit provision of these rules shall be filed not more than 14 calendar days after conclusion of the outage giving rise to application of the customer credit provision.

(2) A petition for any other waiver or exception may be granted by the commission without notice or hearing.

History: 2004 AACS.