

Michigan Office of Administrative Hearings and Rules

Administrative Rules Division (ARD)

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**REGULATORY IMPACT STATEMENT
and COST-BENEFIT ANALYSIS (RIS)**

Agency Information:

Department name:

Licensing and Regulatory Affairs

Bureau name:

Public Service Commission

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Rule Set Information:

ARD assigned rule set number:

2021-77 LR

Title of proposed rule set:

Technical Standards for Electric Service

Comparison of Rule(s) to Federal/State/Association Standard

1. Compare the proposed rules to parallel federal rules or standards set by a state or national licensing agency or accreditation association, if any exist.

There are no comparable federal rules or standards for the provision of electric utility service. The Technical Standards for Electric Service rules were adapted from the standards set forth by the American National Standards Institute (ANSI) and the Institute of Electrical and Electronics Engineers (IEEE) in order to promote safe and adequate service to the public and to provide standards for uniform and reasonable practices by utilities. In the absence of specific Public Service Commission (PSC) rules, the rules direct the utility to apply the ANSI and IEEE provisions.

A. Are these rules required by state law or federal mandate?

The rules are not required by state law or federal mandate.

B. If these rules exceed a federal standard, please identify the federal standard or citation, describe why it is necessary that the proposed rules exceed the federal standard or law, and specify the costs and benefits arising out of the deviation.

The rules do not exceed a federal standard. In addition, there are no comprehensive federal standards for the cybersecurity of electric distribution utilities. Federal requirements may apply to certain electric utility assets depending on the functions they perform. Examples include bulk electric system assets (North American Electric Reliability Corporation (NERC)/Federal Energy Regulatory Commission (FERC) standards), Nuclear generation assets (Nuclear Regulatory Commission standards), and hydroelectric assets (FERC standards). The proposed cybersecurity program rule is necessary as a stop-gap for piecemeal federal requirements.

2. Compare the proposed rules to standards in similarly situated states, based on geographic location, topography, natural resources, commonalities, or economic similarities.

Illinois, Indiana, Iowa, Ohio, and Wisconsin have similar rules governing electric metering, metering equipment inspections, and tests. Regarding the cybersecurity program rule, the PSC is unaware of any standards in similarly situated states that are directly comparable to the proposed cybersecurity program rule. However, the proposed rule combines several elements found in other states, such as cybersecurity self-certification (Pennsylvania) and following recognized security best practices (Oklahoma). Utility cybersecurity is an area of significant interest across states and public utility commissions (PUCs) nationally; at least 15 states/PUCs have already required utilities to take specific cybersecurity actions or are considering doing so.

A. If the rules exceed standards in those states, please explain why and specify the costs and benefits arising out of the deviation.

The proposed rules exceed the standards in a few states because the Michigan rules reflect more accurate modern technologies in the system. Electric utilities who supply service in Michigan are already complying with the existing Technical Standards for Electric Service rules, and many utilities have already purchased and are utilizing advanced metering infrastructure meters in their Michigan service territory. Thus, there are no additional costs. In addition, many of the proposed changes to metering standards, metering equipment inspections, and testing merely provide an update to the rules that the utilities are already complying with. The proposed changes also direct cooperatives to comply with these rules. It is impossible to estimate the statewide compliance costs associated with the compliance by cooperatives because they may or may not use solid-state meters and the number of customers varies from cooperative to cooperative. However, the benefit of the updated metering rules is more accurate metering technology in Michigan.

The PSC is unaware of any directly comparable cybersecurity program rules in other states.

3. Identify any laws, rules, and other legal requirements that may duplicate, overlap, or conflict with the proposed rules.

There are no laws, rules, or other legal requirements that duplicate, overlap, or conflict with the proposed updates to the metering rules and line clearance obligations.

Due to the piecemeal nature of existing federal cybersecurity requirements for electric distribution utilities, the PSC determined that a cybersecurity program rule could create some overlap with respect to scope.

A. Explain how the rules have been coordinated, to the extent practicable, with other federal, state, and local laws applicable to the same activity or subject matter. This section should include a discussion of the efforts undertaken by the agency to avoid or minimize duplication.

There are no federal, state, or local laws applicable to the same activity or subject matter of the metering rules and line clearance obligations.

Regarding the cybersecurity program rule, the PSC formed a workgroup and invited representatives from all utilities for whom the proposed cybersecurity program rule would apply. The workgroup met several times which resulted in numerous changes to avoid duplication or conflict with any existing, applicable cybersecurity requirements.

4. If MCL 24.232(8) applies and the proposed rules are more stringent than the applicable federally mandated standard, provide a statement of specific facts that establish the clear and convincing need to adopt the more stringent rules.

MCL 24.232(8) does not apply. There are no applicable federally mandated standards that apply to the proposed changes to the rules.

5. If MCL 24.232(9) applies and the proposed rules are more stringent than the applicable federal standard, provide either the Michigan statute that specifically authorizes the more stringent rules OR a statement of the specific facts that establish the clear and convincing need to adopt the more stringent rules.

MCL 24.232(9) does not apply. There are no applicable federally mandated standards that apply to the proposed changes to the rules.

Purpose and Objectives of the Rule(s)

6. Identify the behavior and frequency of behavior that the proposed rules are designed to alter.

These rules are intended to promote safe and adequate electric service to the public, to provide standards for uniform and reasonable electric practices by utilities, and to encourage efficiency and safety. As an initial matter, throughout most of the existing rule set, the word “electric” is being inserted in front of “utility” and the word “cooperative” is being added to clarify that the amended rules apply to electric utilities and cooperatives, only, and not alternative electric suppliers. In addition, language in several rules is being rescinded because it refers to obsolete technology. One rule is being rescinded so that it may be moved to another rule set where it is more appropriately included. Other rules are being amended to further define and specify the type of information that must be included in reports and to clarify how often reports must be filed. One rule is being amended to provide an incumbent electric utility or cooperative, a customer or group of customers, and the electric utility or cooperative from whom the customer is proposing to take service a better opportunity to discuss a change in electric service and resolve disputes. New obligations are being added to the requirements for an electric utility’s and cooperative’s line clearance program, and electric utilities and cooperatives will now be required to establish a cybersecurity program.

A. Estimate the change in the frequency of the targeted behavior expected from the proposed rules.

R 460.3101 is being amended to clarify that these rules apply to electric utilities as defined by MCL 460.562(e) and cooperative electric utilities as defined by MCL 460.32(c). Accordingly, multiple rules in the rule set are being amended to add “electric” before “utility” and “cooperative” so that these rules are consistent with the aforementioned statutory references.

The PSC is adding several new definitions to R 460.3102 to clarify terms in the rule set: “cooperative,” “electric utility,” “major interruption,” “meter creep,” “planned interruption,” “regional transmission organization,” “serious injury,” “service point,” and “sustained interruption.” Notably, the new definition for “Major interruption” clarifies that: (1) for an electric utility or cooperative with greater than 1 million customers, a major disruption is any weather condition that results in sustained service interruptions impacting 50,000 or more customers or an electrical system component failure that occurs under normal conditions, as defined in R 460.702, impacting 7,500 or more customers unless otherwise ordered by the commission; and (2) for an electric utility or cooperative with less than 1 million customers, a major disruption is any weather condition that results in sustained service interruptions impacting 5% or 2,000 or more customers, whichever is greater, or an electrical system component failure that occurs under normal conditions, as defined in R 460.702, impacting 3,000 or more customers unless otherwise ordered by the commission. “Sustained interruption” clarifies that an interruption of electrical service is not a momentary interruption; rather, it is an interruption that lasts more than 5 minutes. This proposed new definition provides better clarification of when and how often an electric utility or cooperative is obliged to keep records of an electrical interruption, as set forth in R 460.3705(2). The proposed new definition, “serious injury,” provides more clarity regarding the type of injury resulting from the operation of electric facilities that must be reported to the PSC.

R 460.3203(i) is being amended to require an electric utility or cooperative with greater than 100,000 customers to submit to the PSC a line clearing quarterly report, on forms suitable to the commission, that shows information concerning line clearing amounts spent, miles or units cleared, and progress toward achieving the targeted line clearing cycle.

R 460.3203(j) is being amended to require an electric utility or cooperative to submit, unless provided through other written reporting to the PSC, a solid-state meter annual report, on forms suitable to the commission.

R 460.3205(2) is being amended to require an electric utility or cooperative, as soon as reasonably practicable and before public notification, to orally report the confirmation of a cybersecurity incident to a designated member of the PSC staff and to the Michigan intelligence operations center, unless prohibited by law or court order or instructed otherwise by official law enforcement personnel, if a security breach has occurred, as defined by section 3(b) of the identity theft protection act, 2004 PA 452, MCL 445.63(b), before public and customer notification.

R 460.3303 is being amended to require that the meter reading data taken by an electric utility or cooperative include meter readings. If an electric utility or cooperative cannot obtain an actual meter reading, then the electric utility or cooperative shall maintain records of the efforts made to obtain a reading and its reasons for failing to obtain it.

R 460.3304 is being amended to exchange the term “collection” with “management” because “management” more accurately describes the software used by the metering system.

R 460.3305 is being amended to remove “the face of” because solid-state electric meters no longer have a dial or a “face.”

R 460.3308 is being amended to reflect the most up-to-date version of the American National Standards Institute (ANSI) standards for electricity meters and to update the prices for obtaining copies of the most current ANSI standards.

R 460.3309 is being rescinded and moved to the PSC’s “Consumer Standards and Billing Practices for Electrical and Gas Residential Service” rules because it involves billing adjustments and it is more appropriately included in that rule set.

R 460.3411 is being amended to add a requirement that an existing industrial customer that meets the criteria in subsection (a) of subrule (16) and that desires to change electric providers shall be entitled to a 1-hour meeting with the incumbent electric utility or cooperative as set forth in subsection (b) of subrule (16). The customer or group of customers are entitled to not less than 1 meeting in a 3-year period. Additional meeting requests during the 3-year period may be approved or denied by the incumbent electric utility or cooperative, the non-incumbent electric utility or cooperative, or both. An incumbent electric utility or cooperative may waive its right to serve a customer or group of customers pursuant to subrule (12) of this rule. The incumbent electric utility’s or cooperative’s decision shall be provided in writing to the customer within sixty days of the meeting described in subrule (16)(b) of this rule.

R 460.3505 is being amended to add additional requirements to the electric utility’s or cooperative’s line clearance program, which include the national electric safety code standards that are adopted by reference in R 460.811. These additional requirements ensure safety and reliability, include tree trimming, and require an electric utility or cooperative to notify customers and property owners not less than 3 days and no more than 90 days before planned maintenance tree trimming.

R 460.3506 is being added to require an electric utility or cooperative to develop, implement, and maintain a cybersecurity program. The new rule provides: (1) minimum requirements for the electric utility’s or cooperative’s cybersecurity program; (2) requires that they conduct annual assessments of the cybersecurity program using the National Institute of Standards and Technology Cybersecurity Framework, the Department of Energy Cybersecurity Capability Maturity Model, or a similar tool; (3) requires that they conduct an annual exercise to test the procedures to ensure the effectiveness of the program; (4) requires that, at least quarterly, they conduct cyber threat simulations, such as phishing, to test employee awareness and responsiveness to cyber threats; (5) requires that, at least annually, they conduct cybersecurity awareness and procedure training; and (6) requires that, annually, by March 31, on forms suitable to the PSC, an electric utility or cooperative shall file with the PSC a written attestation, signed by an officer of the electric utility or cooperative who is authorized to manage the operations of the cybersecurity program, that the electric utility or cooperative maintains a cybersecurity program in compliance with this rule.

R 460.3603, 460.3606, 460.3607, 460.3609, 460.3610, 460.3611, 460.3612, and 460.3613 are being amended to remove language referring to obsolete equipment and testing requirements and to add language that conforms to current metering equipment and testing standards.

R 460.3608 is being rescinded because it pertains to obsolete equipment.

R 460.3613a is being added to establish electro-mechanical meter and metering equipment testing requirements. This new rule separates these requirements from the solid-state meter and metering equipment testing requirements in R 460.3613.

R 460.3615 is being amended to add “communications type” and “firmware” to the complete record of information that an electric utility or cooperative shall maintain for the most recent test of all metering equipment. In addition, the

rule is being modified to require an electric utility or cooperative to maintain records of the necessary calculations made pursuant to Example B-3 of ANSI/ASQ Z1.9 for each sample or resample drawn of its metering equipment.

R 460.3617 is being amended to change the date on which a meter test report is due, to rescind obsolete language, and to add additional requirements for the report. The rule now requires an electric utility or cooperative to provide a statement from an officer of the utility or from the vendor, supplier, or contractor who provides the metering equipment that certifies that the metering equipment complies with the requirements set forth in the rules relating to meter standardizing equipment.

In R 460.3701, the language stating that the frequency of an alternating current system shall be maintained within limits “that will permit the satisfactory operation of customers’ clocks which are connected to the system” will be rescinded. New language will be added so that the rule will now state that the frequency of an alternating current system shall be maintained within limits “as administered by the regional transmission organization.”

R 460.3702 is being amended to clarify how the voltage provided by an electric utility or cooperative must comply with standard nominal service voltages.

R 460.3703 is being amended to clarify the method by which an electric utility or cooperative shall take voltage measurements and the type of information that shall be included in the utility’s voltage measurement records.

B. Describe the difference between current behavior/practice and desired behavior/practice.

As previously mentioned, multiple rules are being amended to add “electric” before “utility” and “cooperative” so that they are consistent with MCL 460.562(e) and MCL 460.32(c).

New definitions are being added to R 460.3102 to clarify terms in the rule set that were not previously defined or were ambiguous. Of note, the difference between the current behavior and the desired behavior is that the new definitions for “major interruption” and “sustained interruption” will clarify when and how often an electric utility or cooperative is obliged to keep records of an electrical interruption, which was not clearly defined in the current rule set. The new definition for “serious injury” provides more clarity regarding the type of injury resulting from the operation of electric facilities that must be reported to the PSC.

Current rule R 460.3203 does not require an electric utility or cooperative with greater than 100,000 customers to submit a line clearing quarterly report or a solid-state meter annual report. The new requirement that an electric utility or cooperative with greater than 100,000 customers file a quarterly line clearing report will allow the PSC to monitor whether an electric utility or cooperative is sufficiently performing tree-trimming activities so that the utility may provide better electric service reliability.

The new requirement that an electric utility or cooperative file a solid-state meter annual report will allow the PSC to understand what type(s) of information an electric utility or cooperative is collecting from customers’ solid-state meters and the purpose(s) for which the information will be used.

The proposed amendment to R 460.3205(2) will require an electric utility or cooperative to notify the PSC of “unauthorized access and acquisition of data that compromises the security or confidentiality of personal information maintained by a person or agency as part of a database of personal information regarding multiple individuals” as defined by MCL 445.63(b). The amendment clarifies that an electric utility or cooperative shall notify the PSC of a security breach of their database(s) that contain personal information but provides exceptions if the database is accessed by employees or other individuals pursuant to specific criteria set forth in the statute.

Current rule R 460.3303 requires an electric utility or cooperative to include meter readings in their meter reading data; however, in the current rule, if the meter reading was not taken, the electric utility or cooperative was only required to note that the reading was not taken. The amendment to the rule expands an electric utility’s or cooperative’s obligation to keep records of the effort to obtain the meter reading and to provide an explanation as to why the meter reading could not be obtained.

The purpose of the amendment to R 460.3304 is to exchange the term “collection” with “management” because “management” more accurately describes the software used by the metering system.

The purpose of the amendment to R 460.3305 is to remove “the face of” because solid-state electric meters no longer have a dial or a “face.”

The purpose of the amendments to R 460.3308 is to provide a reference to the most up-to-date version of the American National Standards Institute (ANSI) standards for electricity meters and to update the prices for obtaining copies of the most current ANSI standards.

Current rule R 460.3309 is being rescinded and moved to the PSC’s “Consumer Standards and Billing Practices for Electrical and Gas Residential Service” rules because it involves customer billing adjustments. The content and requirements set forth in the rule are more appropriately included in “Consumer Standards and Billing Practices for Electrical and Gas Residential Service” rules.

Pursuant to subsection (9) of current rule R 460.3411, a specific type of industrial customer shall have its choice of service from any nearby utility that is willing to construct the necessary facilities. New language is being added that states that an existing industrial customer who meets the criteria in subdivision (a) of subrule (16) and who desires to change electric providers shall be entitled to a 1-hour meeting with the incumbent electric utility or cooperative as set forth in subdivision (b) of subrule (16). This new language is intended to provide a better opportunity for discussion between the incumbent electric utility or cooperative, the customer or group of customers, and the electric utility or cooperative from whom the customer proposes to take service, to provide transparency about the decision to serve, and to reduce litigation.

R 460.3505 is being amended to state that an electric utility or cooperative shall adopt “and implement” a line clearance program. Moreover, there are new requirements for the electric utility’s or cooperative’s line clearance program: the line clearance program must ensure safety and reliability and the electric utility or cooperative shall notify the customer and property owner not less than 3 days and no more than 90 days before planned maintenance tree trimming. In the current rule, there were no requirements for safety and reliability, for tree trimming to be included in the line clearance program, or for customer notification of tree trimming.

Regarding new rule R 460.3506: cybersecurity incidents are an emerging and continuing threat to the safety and reliability of the electric grid. In the current rule set, there is no rule requiring an electric utility or cooperative to implement and maintain a cybersecurity program—only that an electric utility or cooperative notify the PSC of a security breach. R 460.3506 is being added to require an electric utility or cooperative to develop, implement, and maintain a cybersecurity program. The PSC has worked with stakeholders to develop this new rule to provide better protection and reliability of the electric grid and utility systems, and utility and customer information.

R 460.3603, 460. 3605, 460.3606, 460.3607, 460.3608, 460.3609, 460.3610, 460.3611, 460.3612, and 460.3613 are being amended to rescind language referring to obsolete equipment and testing requirements and to add language that conforms to current metering equipment and testing standards.

Subrules (3)-(6) of current rule R 460.3613 are being rescinded, updated with current meter testing requirements, and moved to make new rule 460.3613a. This rule is being added to create a separate rule for electro-mechanical meter and metering equipment testing requirements. These testing requirements differ significantly from the solid-state meter and metering equipment testing requirements set forth in R 460.3613 and should have a separate rule.

R 460.3615 is being amended to add “communications type” and “firmware” to the complete record of information that an electric utility or cooperative shall maintain for the most recent test of all metering equipment. In addition, the rule is being amended to require an electric utility or cooperative to maintain records of the necessary calculations made pursuant to Example B-3 of ANSI/ASQ Z1.9 for each sample or resample drawn of its metering equipment. The current rule R 460.3615 does not contain these requirements.

R 460.3617 is being amended to change the date on which a meter test report is due, to rescind obsolete language, and to add additional requirements for the report. The amendments require an electric utility or cooperative to provide a statement from an officer of the utility or from the vendor, supplier, or contractor who provides the metering equipment that certifies that the metering equipment complies with the requirements set forth in the rules relating to meter standardizing equipment. In addition, the amendments require an electric utility or cooperative to file a meter test report summarizing all rejected lots tested as part of the sampling plan during the preceding calendar year and to include specific information about the rejected lots. Current rule R 460.3617 does not require a statement from the electric utility or cooperative that its metering equipment complies with the rules or a report summarizing the rejected lots and the reasons they were rejected. This information will assist the PSC in determining whether the electric utility or cooperative is using compliant equipment and the reasons the equipment may have failed.

In R 460.3701, the language stating that the frequency of an alternating current system shall be maintained within limits “that will permit the satisfactory operation of customers’ clocks which are connected to the system” will be rescinded. The rule will now state that the frequency of an alternating current system shall be maintained within limits “as administered by the regional transmission organization.” This amendment acknowledges that the electric distribution system maintains the same frequency as the transmission system.

R 460.3702 is being amended to clarify how the voltage provided by an electric utility or cooperative must comply with standard nominal service voltages.

R 460.3703 is being amended to clarify the method by which an electric utility or cooperative shall take voltage measurements and the type of information that shall be included in the utility’s voltage measurement records. In addition, subrule (3) states that the records obtained pursuant this rule must be retained by the electric utility or cooperative for not less than 2 years, must be available for inspection by the PSC’s representatives, and they must contain specific information. The amended rule adds a fourth item, “number of customers impacted,” to the information that must be contained the in records, which will assist the PSC in evaluating the voltage provided by the electric utility or cooperative.

C. What is the desired outcome?

As discussed in subsections A and B above, the desired outcome is to amend the rules to provide more clarity about the electric utility’s and cooperative’s obligation to provide safe, affordable, and reliable electric service, to update and/or rescind references to obsolete equipment and testing, and support modern equipment in the electric distribution system. In addition, the amendments will require an electric utility or cooperative to provide additional reports and information that will assist the PSC in ensuring that customers are receiving safe, affordable, and reliable service. Finally, the amendments require the implementation of a cybersecurity program. Cybersecurity is a continuing threat to the safety and security of the electrical grid, utility systems, and utility and customer information.

7. Identify the harm resulting from the behavior that the proposed rules are designed to alter and the likelihood that the harm will occur in the absence of the rule.

The rules need to be amended to clarify that they apply to electric utilities, as defined by MCL 460.562(e), and cooperative electric utilities, as defined by MCL 460.32(c), to ensure that electric utilities and cooperatives are providing similar and consistent electric service and that it is safe, affordable, and reliable. Without the amendments, electric utilities and cooperatives may provide dissimilar service to customers. In addition, the statutory reference in R 460.3205(2)(d) is being updated to clarify when a cybersecurity incident must be reported to the PSC. This amendment is necessary so that the PSC is aware if customer's personal information has been compromised.

There are new definitions being added to provide clarity to the rules. Specifically, the definitions for "major interruption" and "sustained interruption" provide more clarity and direction to the electric utilities and cooperatives as to who must notify the PSC of a major interruption of electric service and when. In addition, the electric utilities and cooperatives must keep records of an interruption. Without this information, the PSC cannot determine whether the electric utilities and cooperatives are providing safe, affordable, and reliable service to customers. The definition for "serious injury" provides more clarity regarding the type of injury resulting from the operation of electric facilities that must be reported to the PSC.

Several rules are being amended to require reports or additional data to be included in reports that are already required pursuant to the rules. Without these reports and additional information, the PSC is unable to ensure that the electric utilities and cooperatives are adequately trimming trees to ensure reliable electric service. In addition, without these reports and additional information, the PSC is unable to determine whether the meters installed on customer premises comply with quality standards. And, without the meter reports, the PSC is unaware of the type of information being collected by solid-state meters and how the customer's information is being used by the utility.

In addition, electric utilities and cooperatives in Michigan have replaced many mechanical meters with solid-state meters. The current rules contain obsolete language that does not adequately address the metering, metering equipment inspections, and testing of solid-state meters and the current rules need new language to address these issues.

An amendment to R 460.3411 is necessary to provide an electric utility or cooperative and certain industrial customers an opportunity to have a meeting discuss switching electric providers. This new provision may help avoid unnecessary litigation between the incumbent electric provider and a customer because it provides them an opportunity to resolve issues in a more informal manner.

An amendment to R 460.3505 is necessary because the electric utilities and cooperatives should be implementing a line clearance program that will ensure better electric reliability and customers need to be properly notified of tree trimming events.

Proposed cybersecurity rule, R 460.3506, is necessary to address emerging cybersecurity threats to utilities and the electric grid. Recently, a ransomware attack was launched against Colonial Pipeline, which caused the pipeline operators to shut down the entire network for 5 days. The hackers were able to gain access to the utility's networks through a compromised password and a virtual private network.

A. What is the rationale for changing the rules instead of leaving them as currently written?

The proposed amendments to the rules provide more clarity and specifically identify the obligations of electric utilities and cooperatives. The additional reports and data requested for the required reports will assist the PSC in understanding the electric utilities' and cooperatives' line clearing activities, their security and cybersecurity programs, whether the electric utility's and cooperative's meters comply with quality standards, the type and use of the data collected by solid-state meters, and whether a security breach of customer personal information has occurred.

In addition, the rules contain obsolete and outdated language regarding meter reading data, standards of good practice, extension of electric service, metering equipment, and meter testing. The amendments will address the electric system and metering equipment currently used by the electric utilities and cooperatives.

An amendment to R 460.3411 is necessary to provide an electric utility or cooperative and certain industrial customers an opportunity to have a meeting discuss switching electric providers. This language allows the incumbent utility and the customer an opportunity to resolve service issues without intervention from the PSC.

Currently, there is no provision, rule, or law that address cybersecurity programs for electric utilities in Michigan. Proposed rule R 460.3506 requires electric utilities and cooperatives to develop, implement, and maintain a cybersecurity program to protect against the unauthorized acquisition, access, use, or disclosure of customer, electric utility, or cooperative information. Such a program will help protect the utility or cooperative, its information or communication systems, networks or infrastructure from a cybersecurity attack.

8. Describe how the proposed rules protect the health, safety, and welfare of Michigan citizens while promoting a regulatory environment in Michigan that is the least burdensome alternative for those required to comply.

Electric service affects almost every aspect of citizen's lives and businesses in Michigan. The amendments to the rules remove obsolete language and requirements and add new definitions, new reporting requirements, new equipment and testing requirements, new program requirements, and new obligations, which will help to ensure that electric utilities and cooperatives provide similar and consistent electric service and that it is safe, reliable, and affordable.

The amended rules also require the electric utility or cooperative to establish a line clearance program that includes tree trimming, a customer notification program, and a line clearance quarterly report. These requirements are necessary so that electric utilities and cooperatives implement line clearance programs that will ensure safe, affordable, and reliable electric service. Most electric utilities and cooperatives already utilize line clearing activities and these amendments clarify the utilities' obligations and add to existing programs.

Advanced metering infrastructure and solid-state metering technology provide more accurate and efficient metering of electricity. Solid-state meters nearly eliminate mechanical metering errors, which are costly to utility customers. In addition, advanced metering infrastructure allows electronic meter reading, which significantly reduces, if not eliminates, the need for a person to be physically present on the customer's property to read the meter. Because the meter reader does not need to be physically present to read the meter, there are fewer injuries to the meter reader resulting from inclement weather, traffic accidents, dog bites, and physical altercations with disgruntled customers. The amendments remove language that applies to obsolete meters and meter testing and adds language that addresses advanced metering infrastructure and solid-state metering technology and testing.

In addition, cybersecurity incidents threaten the reliability, resiliency, and safety of the electric grid. If proposed rule R 460.3506 is not adopted, there is no other provision, rule, or law requiring electric utilities and cooperatives to develop, implement, and maintain a cybersecurity program. This new rule will help protect against the unauthorized acquisition, access, use, or disclosure of customer, electric utility, or cooperative information, which, in turn, helps to protect public health, safety, and welfare.

9. Describe any rules in the affected rule set that are obsolete or unnecessary and can be rescinded.

R 460.3205(3)(a) and (b); R 460.3309; 460.3607(3) and (4); R 460.3608; R 460.3609(2), (3), and (5); R 460.3613(2)(b)(x) and (xi), (2)(c), (2)(d), (2)(e), (2)(f), (2)(g), (3), (4), (5), (6), and (7); R 460.3617(2), (3) are obsolete or unnecessary.

Fiscal Impact on the Agency

Fiscal impact is an increase or decrease in expenditures from the current level of expenditures, i.e. hiring additional staff, higher contract costs, programming costs, changes in reimbursements rates, etc. over and above what is currently expended for that function. It does not include more intangible costs for benefits, such as opportunity costs, the value of time saved or lost, etc., unless those issues result in a measurable impact on expenditures.

10. Please provide the fiscal impact on the agency (an estimate of the cost of rule imposition or potential savings for the agency promulgating the rule).

The PSC spends approximately \$4000 on publication of notices for rulemaking and holding a public hearing.

Otherwise, there is no fiscal impact on the PSC. The PSC already provides and enforces these rules as one of its many duties, and the proposed changes and rules do not alter the PSC's duties.

11. Describe whether or not an agency appropriation has been made or a funding source provided for any expenditures associated with the proposed rules.

No additional funds are required for implementation of the proposed rules.

12. Describe how the proposed rules are necessary and suitable to accomplish their purpose, in relationship to the burden(s) the rules place on individuals. Burdens may include fiscal or administrative burdens, or duplicative acts.

The current technical standards for electric service rules must be updated to reflect technological advancements in the area of metering, metering equipment inspections and tests, metering reports, and emerging security threats. Some electric utilities have already replaced old mechanical electric meters with solid-state meters, and the current rules do not adequately address this technology. Concomitantly, references to obsolete equipment need to be removed from the current rules. Updating the rules to reflect technological advancements that have already been substantially implemented by Michigan electric utilities does not place any burden on individuals.

The amended rules also require the electric utility or cooperative to establish a line clearance program that includes tree trimming, a customer notification program, and a line clearance quarterly report. These requirements are necessary so that electric utilities and cooperatives implement line clearance programs that will ensure safe and reliable electric service. These line-clearance program requirements and reporting obligations complement and add to existing, similar obligations.

The amendment to R 460.3411 is necessary to provide an electric utility or cooperative and certain industrial customers an opportunity to have a meeting discuss switching electric providers. This language allows the incumbent utility and the customer an opportunity to resolve service issues without intervention from the PSC.

Cybersecurity programs are necessary because cybersecurity threats have recently emerged and they challenge the reliability, resiliency, and safety of the electric grid. Michigan citizens and businesses depend on safe, reliable, and affordable electric service. Utility spending to address cybersecurity vulnerabilities can impact the bills that customers pay. The proposed cybersecurity program rule require the electric utility or cooperative to develop, implement, and maintain a cybersecurity program.

A. Despite the identified burden(s), identify how the requirements in the rules are still needed and reasonable compared to the burdens.

The current rules contain requirements for a line clearance program, but do not specifically identify tree trimming as an activity that must be employed by the electric utility or cooperative. Most electric utilities and cooperatives already employ tree trimming in their line clearance program, so it should not significantly increase the burden on the utilities. However, if there is additional burden, the amendments are reasonable and necessary because adequate line clearance helps to ensure that customers receive safe and reliable electric service.

In addition, the current rules do not contain provisions for a customer notification program for line clearance activities. Most electric utilities and cooperatives already have some type of customer notification for line clearance activities, so there may not be any additional burden. However, if there is additional burden, the amendment is reasonable and necessary because it will ensure that the customer notification programs for electric utilities and cooperatives are analogous and that customers receive proper notification.

Currently, there are no provisions, rules, or laws that require an electric utility or cooperative to develop, implement, and maintain a cybersecurity program. If the proposed rule is not adopted, there is no other provision, rule, or law requiring electric utilities to develop, implement, and maintain a cybersecurity program. As a result, an electric utility or cooperative may not have a sufficient cybersecurity program to protect against the unauthorized acquisition, access, use, or disclosure of customer, electric utility, or cooperative information.

Impact on Other State or Local Governmental Units

13. Estimate any increase or decrease in revenues to other state or local governmental units (i.e. cities, counties, school districts) as a result of the rule. Estimate the cost increases or reductions for other state or local governmental units (i.e. cities, counties, school districts) as a result of the rule. Include the cost of equipment, supplies, labor, and increased administrative costs in both the initial imposition of the rule and any ongoing monitoring.

There will be no increase or decrease in revenues or costs to other state or local governmental units as a result of the amendments to the rule set.

14. Discuss any program, service, duty, or responsibility imposed upon any city, county, town, village, or school district by the rules.

There will not be any program, service, duty, or responsibility imposed upon any city, county, town, village, or school district by the amendments to the rules.

A. Describe any actions that governmental units must take to be in compliance with the rules. This section should include items such as record keeping and reporting requirements or changing operational practices.

The proposed changes to the rules will not materially affect the actions that the governmental units or the PSC must take to be in compliance with the rules.

The PSC is obligated to review the line clearance report detailing the electric utility's or cooperative's line clearance program and will determine whether it needs to discuss with the electric utility or cooperative its line clearance program.

The PSC is also obligated to review the annual report detailing the utility's cybersecurity program, a summary of any unauthorized actions that resulted in a loss of service, financial harm, or breach of sensitive business or customer data, and the actions taken to address these cybersecurity incidents. Following the review of the annual report, the PSC will determine whether it needs to work with the utilities to ensure that the public health, safety, and welfare is sufficiently protected.

15. Describe whether or not an appropriation to state or local governmental units has been made or a funding source provided for any additional expenditures associated with the proposed rules.

No appropriation has been made and no funding source has been provided, and neither is necessary.

Rural Impact

16. In general, what impact will the rules have on rural areas?

The current technical standards for electric service rules must be updated to reflect technological advancements in the area of metering, metering equipment inspections and tests, metering reports. Advanced metering infrastructure and solid-state metering technology allow a utility to electronically read customer meters without the need for a meter reader to be physically present on the customer's property. This reduces, if not eliminates, the expense associated with sending a person to read an electric meter, especially in rural areas. As a result, total meter reading costs for utilities may be reduced, which in turn, reduces business and customer costs.

The amendments to the rules require an electric utility or cooperative to adopt a program of maintaining adequate line clearance through the use of industry-recognized guidelines; that the program shall include tree trimming; and the line clearance program must ensure safety and reliability. This is particularly important in rural areas where there may be more vegetation that needs to be monitored and maintained to ensure safety and reliability of the electric grid.

The proposed cybersecurity program rule requires electric utilities and cooperatives to develop, implement, and maintain a cybersecurity program, which should help prevent cybersecurity attacks. The rule also allows the PSC to work with the electric utilities and cooperatives to address and prevent these threats in both highly populated and rural areas. Reduced cybersecurity incidents lead to reduced costs for the utilities and customers.

A. Describe the types of public or private interests in rural areas that will be affected by the rules.

Both public and private interests are affected by these rules. Advanced metering infrastructure and solid-state metering technology allow a utility to electronically read customer meters without the need for a meter reader to be physically present on the customer's property. This will reduce, if not eliminate, the expense associated with sending a person to read an electric meter, especially in rural areas. As a result, total meter reading costs for utilities may be reduced, which in turn, reduces business and customer costs.

The required line clearance program and reporting obligations help to ensure a safe and reliable electric grid, which benefits both public and private interests in rural areas.

The new cybersecurity program rule will help electric utilities and cooperatives to prevent cybersecurity attacks to the utilities' information or communication systems, networks or infrastructure, which affects both highly populated and rural areas. Reduced cybersecurity incidents lead to reduced costs for the utilities and customers.

Environmental Impact

17. Do the proposed rules have any impact on the environment? If yes, please explain.

Installation of solid-state meters results in a reduced need for physical meter reading on the customer's property. Therefore, the utility may use less fuel because it is sending fewer meter reading agents into the field. The use of less fuel results in a lower demand for fuel and lower emissions, which benefits the environment.

Small Business Impact Statement

18. Describe whether and how the agency considered exempting small businesses from the proposed rules.

These rules only apply to electric utilities. Because these rules concern health, safety, and welfare of the public, the PSC cannot exempt electric utilities that are considered small businesses.

19. If small businesses are not exempt, describe (a) the manner in which the agency reduced the economic impact of the proposed rules on small businesses, including a detailed recitation of the efforts of the agency to comply with the mandate to reduce the disproportionate impact of the rules upon small businesses as described below (in accordance with MCL 24.240(1)(a-d)), or (b) the reasons such a reduction was not lawful or feasible.

Because these rules concern health, safety, and welfare of the public, the rules are applied uniformly across all businesses engaged in the provision of electric service, regardless of whether they are considered a small business.

A. Identify and estimate the number of small businesses affected by the proposed rules and the probable effect on small businesses.

Nine Michigan electric utilities, or approximately 53%, qualify as small businesses. The proposed changes will have little to no effect on these utilities because they are already complying with the current Technical Standards for Electric Service rules. The proposed changes do not require these utilities to adopt the newest technology in metering, metering equipment inspections, and tests; rather, if the utility has already installed solid-state meters, the proposed changes provide uniform standards for metering, metering equipment inspections, and tests of solid-state meters and set forth standard reporting requirements.

The proposed amendments to R 460.3505 clarify the electric utility's or cooperative's obligations for a line clearance program and establishes a customer notification system. Most electric utilities and cooperatives already utilize line clearance activities, such as tree trimming, in their line clearance program. The amendments should not significantly or disproportionately affect small electric utilities or cooperatives.

The proposed cybersecurity program rule, R 460.3506, requires all electric utilities and cooperatives, regardless of business size, to develop, implement, and maintain a cybersecurity program that has minimum requirements. The cybersecurity needs of a large utility will be different and more extensive than the cybersecurity needs of a small utility or cooperative. The proposed rule permits the electric utility or cooperative to develop, implement, and maintain a cybersecurity program commensurate with its needs, which should not create a significant burden for a small electric utility or cooperative.

B. Describe how the agency established differing compliance or reporting requirements or timetables for small businesses under the rules after projecting the required reporting, record-keeping, and other administrative costs.

The rules are applied uniformly across all businesses engaged in the provision of electric service. The proposed changes do not require utilities to adopt the newest technology in metering, metering equipment inspections, and tests; rather, if the utility has already installed solid-state meters, the proposed changes provide uniform standards for metering, metering equipment inspections, and tests of solid-state meters and set forth reporting standards. Utilities considered to be small businesses will not experience an additional burden due to the proposed update to the rules regarding solid-state meters. Therefore, it is not necessary to establish differing compliance or reporting requirements or timetables.

The proposed amendments to R 460.3505 clarify the electric utility's or cooperative's obligations for a line clearance program and establishes a customer notification system. Most electric utilities and cooperatives already utilize line clearance activities, such as tree trimming, in their line clearance program. The amendments should not significantly or disproportionately affect small electric utilities or cooperatives.

In order to protect the health, safety, and welfare of Michigan citizens and businesses, the cybersecurity program rule is also applied uniformly across all businesses engaged in the provision of electric service. The proposed rule permits the electric utility or cooperative to develop, implement, and maintain a cybersecurity program commensurate with its needs.

C. Describe how the agency consolidated or simplified the compliance and reporting requirements for small businesses and identify the skills necessary to comply with the reporting requirements.

In order to protect the health, safety, and welfare of Michigan citizens and businesses, the rules are applied uniformly across all businesses engaged in the provision of electric service. The Commission believes that compliance with these rules will not be burdensome on utilities who qualify as small businesses.

D. Describe how the agency established performance standards to replace design or operation standards required by the proposed rules.

These rules do not contain design or operation standards.

20. Identify any disproportionate impact the proposed rules may have on small businesses because of their size or geographic location.

The update to the rules regarding meter standards, meter testing, and meter reporting does not have any disproportionate impact on small businesses because of their size or geographic location.

The proposed amendments to R 460.3505 clarify the electric utility's or cooperative's obligations for a line clearance program and establishes a customer notification system. Most electric utilities and cooperatives already utilize line clearance activities, such as tree trimming, in their line clearance program. The amendments should not significantly or disproportionately affect small businesses because of their size or geographic location.

In order to protect the health, safety, and welfare of Michigan citizens and businesses, the cybersecurity program rule is also applied uniformly across all businesses engaged in the provision of electric service. The proposed rule permits the electric utility or cooperative to develop, implement, and maintain a cybersecurity program commensurate with its needs. Therefore, the proposed rule does not have a disproportionate impact on small businesses because of their size or geographic location.

21. Identify the nature of any report and the estimated cost of its preparation by small businesses required to comply with the proposed rules.

R 460.3203 requires an electric utility with greater than 100,000 customers to file a line clearing quarterly report that shows information concerning line clearing amounts spent, miles or units cleared, and progress toward achieving the targeted line clearing cycle. It is not likely that this rule will apply to a small utility or cooperative because most of these utilities have less than 100,000 customers. It is impossible to estimate the cost associated with the preparation of this report because the quantity of information included in the report may vary significantly from year to year due to the amount of money spent and miles or units cleared.

R 460.3617 requires an electric utility or cooperative to file with the PSC (1) a statement that the metering equipment used by the utility complies with the requirements in the rules relating to meter standardizing equipment and (2) a report that summarizes all rejected lots tested as part of the sampling plan and lots rejected not tested as part of the sampling plan. It is impossible to estimate the cost associated with the preparation of this report because the type and quantity of information included in the report may vary significantly from year to year due to the number of rejected lots. However, the PSC does not expect the preparation of this report to be expensive or burdensome.

22. Analyze the costs of compliance for all small businesses affected by the proposed rules, including costs of equipment, supplies, labor, and increased administrative costs.

It is impossible to estimate the cost associated with the preparation of the reports required by R 460.3203 and 460.3617 because the type and quantity of information included in the reports may vary significantly from year to year. However, the line clearing report is only required for utilities with greater than 100,000, which should not apply to most small utilities or cooperatives. The cost of compliance with R 460.3617 should be minimal because, if the small utility or cooperative is already performing the sampling plan, tracking the information of rejected lots and preparing a report should not be overly burdensome.

23. Identify the nature and estimated cost of any legal, consulting, or accounting services that small businesses would incur in complying with the proposed rules.

It is impossible to estimate the cost of any legal, consulting, or accounting services that are associated with complying with the proposed rules because the type and quantity of information associated with meter testing and reporting, line clearance activities, and cybersecurity program activities may vary significantly from year to year.

24. Estimate the ability of small businesses to absorb the costs without suffering economic harm and without adversely affecting competition in the marketplace.

The proposed changes do not require these utilities to adopt the newest technology in metering, metering equipment inspections, and tests; rather, if the utility has already installed solid-state meters, the proposed changes provide uniform standards for metering, metering equipment inspections, and tests of solid-state meters and set forth reporting standards.

The proposed amendments to R 460.3505 clarify the electric utility's or cooperative's obligations for a line clearance program and establishes a customer notification system. Most electric utilities and cooperatives already utilize line clearance activities, such as tree trimming, in their line clearance program. The amendments should not significantly increase costs for adversely affect small businesses or small utilities or cooperatives.

Cybersecurity programs are necessary because cybersecurity threats have recently emerged and they challenge the reliability, resiliency, and safety of the electric grid. Michigan citizens and businesses depend on safe, reliable, and affordable electric service. Utility spending to address cybersecurity vulnerabilities and attacks can impact the bills that customers pay. Although developing, implementing, and maintaining a cybersecurity program may cost the electric utility or cooperative, these costs are necessary to ensure public health, safety, and well-being, to protect utility systems, and to protect utility and customer information. Without a cybersecurity program, the electric utilities and cooperatives may have to address costly cybersecurity attacks.

25. Estimate the cost, if any, to the agency of administering or enforcing a rule that exempts or sets lesser standards for compliance by small businesses.

There will not be any additional cost to the agency to administer or enforce the rules.

26. Identify the impact on the public interest of exempting or setting lesser standards of compliance for small businesses.

The health, safety, and welfare of Michigan citizens and businesses would be negatively affected if small electric utilities and cooperatives were not required to provide safe and adequate electric service to the public. The proposed rules provide updated metering standards, meter testing, and meter reports; line clearing program standards and reporting; and cybersecurity program standards for uniform and reasonable practices so that all electric utilities in Michigan may provide safe, adequate, and affordable electric service to the public.

27. Describe whether and how the agency has involved small businesses in the development of the proposed rules.

The Michigan Electric and Gas Association (MEGA) was a member of the workgroup that helped develop the updates to the proposed rules.

A. If small businesses were involved in the development of the rules, please identify the business(es).

MEGA represents investor-owned electric and natural gas utilities in Michigan, including utilities that may be classified as small businesses.

Cost-Benefit Analysis of Rules (independent of statutory impact)

28. Estimate the actual statewide compliance costs of the rule amendments on businesses or groups.

Electric utilities are already complying with the existing Technical Standards for Electric Service rules, and many of the proposed changes to metering standards, metering equipment inspections, and testing merely provide an update to the rules that the utilities are already complying with. The proposed changes also direct cooperatives to comply with these rules. It is impossible to estimate the statewide compliance costs associated with the compliance by cooperatives because they may or may not use solid-state meters and the number of customers varies from cooperative to cooperative.

R 460.3203 requires an electric utility with greater than 100,000 customers to file a line clearing quarterly report that shows information concerning line clearing amounts spent, miles or units cleared, and progress toward achieving the targeted line clearing cycle. It is impossible to estimate the statewide compliance cost associated with the preparation of this report because the quantity of information included in the report may vary significantly from year to year due to the amount of money spent and miles or units cleared.

The proposed amendments to R 460.3505 clarify the electric utility's or cooperative's obligations for a line clearance program and establishes a customer notification system. Most electric utilities and cooperatives already utilize line clearance activities, such as tree trimming, in their line clearance program. However, the amendments now require tree trimming, safety and reliability, and a customer notification program. It is impossible to estimate the statewide compliance costs with the line clearance program because each electric utility and cooperative have a different amount of lines to clear and their customer count varies in size.

It is impossible to estimate the statewide compliance costs associated with the cybersecurity program required by rule R 460.3506 because the proposed rule permits the electric utility or cooperative to develop, implement, and maintain a cybersecurity program commensurate with its needs.

A. Identify the businesses or groups who will be directly affected by, bear the cost of, or directly benefit from the proposed rules.

Alger-Delta Electric Co-operative Electric Association, Alpena Power Company, Cherryland Electric Cooperative, Cloverland Electric Cooperative, Consumers Energy Company, DTE Electric Company, Great Lakes Energy Cooperative, Indiana Michigan Power Company, Midwest Energy Cooperative, Northern States Power Company, Ontonagon County Rural Electrification Association, Presque Isle Electric & Gas Co-op, Thumb Electric Cooperative, Tri-County Electric Cooperative, Upper Peninsula Power Company, Upper Michigan Energy Resources Corporation, and Xcel Energy.

B. What additional costs will be imposed on businesses and other groups as a result of these proposed rules (i.e. new equipment, supplies, labor, accounting, or recordkeeping)? Please identify the types and number of businesses and groups. Be sure to quantify how each entity will be affected.

The proposed changes do not require electric utilities or cooperatives to adopt the newest technology in metering, metering equipment inspections, and tests; rather, if the utility has already installed solid-state meters, the proposed changes provide updated uniform standards for metering, metering equipment inspections, and tests of solid-state meters and set forth reporting standards.

The proposed amendments to R 460.3505 clarify the electric utility's or cooperative's obligations for a line clearance program and establishes a customer notification system. Most electric utilities and cooperatives already utilize line clearance activities, such as tree trimming, in their line clearance program. However, the amendments now require tree trimming, safety and reliability, and a customer notification program. It is impossible to estimate the additional costs associated with the line clearance program because each electric utility and cooperative have a different amount of lines to clear and their customer count varies in size.

R 460.3203 requires an electric utility with greater than 100,000 customers to file a line clearing quarterly report that shows information concerning line clearing amounts spent, miles or units cleared, and progress toward achieving the targeted line clearing cycle. It is impossible to estimate the additional costs associated with the preparation of this report because the quantity of information included in the report may vary significantly from year to year due to the amount of money spent and miles or units cleared.

R 460.3617 requires an electric utility or cooperative to file with the PSC (1) a statement that the metering equipment used by the utility complies with the requirements in the rules relating to meter standardizing equipment and (2) a report that summarizes all rejected lots tested as part of the sampling plan and lots rejected not tested as part of the sampling plan. It is impossible to estimate the additional costs associated with the preparation of this report because the type and quantity of information included in the report may vary significantly from year to year due to the number of rejected lots.

It is impossible to estimate the amount of additional costs associated with the cybersecurity program required by R 460.3506 because the proposed rule permits the electric utility or cooperative to develop, implement, and maintain a cybersecurity program commensurate with its needs, which may vary from utility to utility.

29. Estimate the actual statewide compliance costs of the proposed rules on individuals (regulated individuals or the public). Include the costs of education, training, application fees, examination fees, license fees, new equipment, supplies, labor, accounting, or recordkeeping.

There are no compliance costs for individuals.

A. How many and what category of individuals will be affected by the rules?

No individuals will be affected by the rules.

B. What qualitative and quantitative impact do the proposed changes in rules have on these individuals?

No individuals will be affected by the rules.

30. Quantify any cost reductions to businesses, individuals, groups of individuals, or governmental units as a result of the proposed rules.

The proposed updates to the rules for advanced metering infrastructure and solid-state metering technology allow a utility to electronically read customer meters without the need for a meter reader to be physically present on the customer's property. Advanced metering infrastructure and solid-state metering reduce, if not eliminate, the expense associated with sending a person to read an electric meter, especially in rural areas. As a result, total meter reading costs for electric utilities and cooperatives may be reduced, which in turn, reduces customer and business costs.

In addition, there are no provisions, rules, or laws that require an electric utility or cooperative to develop, implement, and maintain a cybersecurity program. The proposed rule may help reduce cybersecurity incidents, which may lead to reduced costs for the utilities and customers.

31. Estimate the primary and direct benefits and any secondary or indirect benefits of the proposed rules. Please provide both quantitative and qualitative information, as well as your assumptions.

The proposed updates to the rules for advanced metering infrastructure and solid-state metering technology allow a utility to electronically read customer meters without the need for a meter reader to be physically present on the customer's property. Advanced metering infrastructure and solid-state metering reduce, if not eliminate, the expense associated with sending a person to read an electric meter, especially in rural areas. As a result, total meter reading costs for electric utilities and cooperatives may be reduced.

In addition, the amendments to the rules require an electric utility or cooperative to adopt a program of maintaining adequate line clearance through the use of industry-recognized guidelines; that the program must include tree trimming; and the line clearance program must ensure safety and reliability. This type of program is important to ensure safety and reliability of electric service for businesses and individuals.

There are no provisions, rules, or laws that require an electric utility or cooperative to develop, implement, and maintain a cybersecurity program. If proposed rule R 460.3506 is not adopted, there is no other provision, rule, or law requiring a cybersecurity program. As a result, an electric utility or cooperative may not have a sufficient cybersecurity program to protect against the unauthorized acquisition, access, use, or disclosure of customer information. The proposed rule may help reduce cybersecurity incidents, which may lead to reduced costs for the utilities and customers.

32. Explain how the proposed rules will impact business growth and job creation (or elimination) in Michigan.

Advanced metering infrastructure and solid-state metering technology lead to a reduced need for utility meter-readers, which may reduce utility costs.

The line clearance reporting requirements may lead to increase line clearing activities because electric utilities with greater than 100,000 customers must show their progress toward achieving the targeted line clearing cycle. This may lead to increased job creation for line clearing activities.

In addition, the cybersecurity program rule is intended to help prevent cybersecurity threats, which may reduce costs for customers. It may be an opportunity for business growth and job creation within the utility's cybersecurity program.

33. Identify any individuals or businesses who will be disproportionately affected by the rules as a result of their industrial sector, segment of the public, business size, or geographic location.

No individuals or businesses will be disproportionately affected by the rules. The rules are applied uniformly across all businesses engaged in the provision of electric service in order to protect the health, safety, and welfare of Michigan citizens and businesses.

34. Identify the sources the agency relied upon in compiling the regulatory impact statement, including the methodology utilized in determining the existence and extent of the impact of the proposed rules and a cost-benefit analysis of the proposed rules.

The PSC relied upon the technical standards for electric service rules from Illinois, Indiana, Iowa, Ohio, and Wisconsin to determine whether the rules exceed standards in those states. In addition, the PSC relied on literature produced by the National Association of Regulatory Utility Commissioners, National Conference of State Legislatures, Public Sector Consultants, and others to identify state cybersecurity rules/laws/policies. The PSC also reviewed cybersecurity literature from NERC, the United States Department of Energy, the National Institute of Standards and Technology, and others to identify common cybersecurity themes and practices. Various elements were melded together to produce the proposed cybersecurity program rule.

The proposed updates regarding metering standards, meter testing, and metering reports will have little to no effect on the utilities because they are already complying with the current rules. The proposed changes do not require these utilities to adopt the newest technology in metering, metering equipment inspections, and tests; rather, if the utility has already installed solid-state meters, the proposed changes provide uniform standards for metering, metering equipment inspections, and tests of solid-state meters. Therefore, a benefit-cost analysis would show no effect on the utilities.

It is impossible to perform a benefit-cost analysis regarding the line clearing program because each electric utility and cooperative have a different amount of lines to clear and their customer count varies in size, making a comparison difficult to perform.

It is impossible to perform a benefit-cost analysis of the preparation of the line clearing report because the type and quantity of information included in the report may vary significantly from year to year.

It is also impossible to perform a benefit-cost analysis regarding the cybersecurity program because the proposed rule permits the electric utility or cooperative to develop, implement, and maintain a cybersecurity program commensurate with its needs, which may vary from utility to utility.

A. How were estimates made, and what were your assumptions? Include internal and external sources, published reports, information provided by associations or organizations, etc., that demonstrate a need for the proposed rules.

The PSC relied upon the technical standards for electric service rules from Indiana, Ohio, and Wisconsin to determine whether the rules exceed standards in those states. In addition, the PSC relied on literature produced by the National Association of Regulatory Utility Commissioners, National Conference of State Legislatures, Public Sector Consultants, and others to identify state cybersecurity rules/laws/policies. The PSC also reviewed cybersecurity literature from NERC, the United States Department of Energy, the National Institute of Standards and Technology, and others to identify common cybersecurity themes and practices. Various elements were melded together to produce the proposed cybersecurity program rule.

Alternative to Regulation

35. Identify any reasonable alternatives to the proposed rules that would achieve the same or similar goals.

Identify any reasonable alternatives to the proposed rules that would achieve the same or similar goals.

There are no reasonable alternatives to the proposed rules if Michigan wishes to continue to provide standards for uniform and reasonable practices for all electric utilities in Michigan. Each electric utility could establish its own set of technical standards for electric service and cybersecurity program rules, however they would be inconsistent and unequal, and would insufficiently protect electric utility customers in Michigan.

A. Please include any statutory amendments that may be necessary to achieve such alternatives.

There are no statutory amendments that would be necessary to achieve the alternatives.

36. Discuss the feasibility of establishing a regulatory program similar to that proposed in the rules that would operate through private market-based mechanisms. Please include a discussion of private market-based systems utilized by other states.

If each utility established its own set of technical standards for electric service and cybersecurity program rules, the standards would be inconsistent and unequal, and would insufficiently protect utility customers in Michigan. The PSC is not aware of a private market-based system in another state.

37. Discuss all significant alternatives the agency considered during rule development and why they were not incorporated into the rules. This section should include ideas considered both during internal discussions and discussions with stakeholders, affected parties, or advisory groups.

No alternatives to regulation are available; thus no alternatives were discussed.

Additional Information

38. As required by MCL 24.245b(1)(c), please describe any instructions regarding the method of complying with the rules, if applicable.

There are no instructions regarding the method of complying with the rules.