



U-20629 & U-20630  
DTE Electric  
01/24/2020

**GRID SECURITY AND RELIABILITY STANDARDS – WORKGROUP MEETING #2  
COMMENTS/ HOMEWORK**

DTE Electric (DTEE) thanks the Commission Staff (Staff) for the opportunity to engage on the Service Quality and Reliability Standards (U-20629) and the Technical Standards for Electric Distribution (U-20630) through the working groups. DTEE is committed to improving our customers' experience as we modernize the distribution system.

For this submission, DTEE provides comments in response to the Staff's homework from the second Service Quality and Reliability Standards and Technical Standards workgroup held on January 8, 2020. DTEE has omitted meter-related comments from this submission because they are being more appropriately discussed with stakeholders in the meter specific breakout sessions.

DTEE has been working with Public Sector Consultants (PSC) on a detailed multi-state benchmarking analysis for both sets of Standards, and we look forward to sharing the final research with stakeholders at upcoming sessions. DTEE uses historical data and the preliminary findings from the PSC research coupled with findings from Staff's multi-state reports shared at the workgroup as support for various positions. However, overall, DTEE reiterates its initial position to support flexibility within rulesets and to leverage Commission Orders and utility filings where possible.

## TECHNICAL STANDARDS FOR ELECTRIC DISTRIBUTION COMMENTS (U-20630)

### TS-01 SPECIFIC LANGUAGE RECOMMENDATIONS

#### (a) Sustained interruption

In alignment with the IEEE Standard 1366-2012 "Sustained Interruption" definition and also the definition of an "Interruption" in R 460.702 (I) of the Service Quality and Reliability Standards, DTEE recommends that Sustained Interruption in R 460.3102 of the Technical Standards be defined with the following language:

*"Sustained Interruption" means the full or partial loss of service to one or more customers for longer than five minutes. The duration of a customer's interruption shall be measured from the time that the electric utility is notified or otherwise becomes aware of the full or partial loss of service to one or more customers for longer than five minutes.*

For consistency between the two sets of standards and to differentiate from the definition of momentary interruption, DTEE also recommends amending "Interruption" in R 460.702 (I) of the Service Quality and Reliability Standards to "Sustained Interruption".

Further, it should be clarified throughout the Technical Standards' and Service Quality and Reliability Standards' levels of performance and reporting requirements, if the language is to reflect sustained or momentary interruptions.

#### (b) Momentary interruption

DTEE recommends that momentary interruption be defined with the following language in R 460.3102:

*"Momentary Interruption" means the brief loss of power delivery to one or more customers for a duration of five minutes or less.*

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 the causes. Therefore, DTE recommends the removal of the cause description in the IEEE definition, resulting in the language as suggested above.

#### (c) Planned interruption

In alignment with the IEEE Standard 1366-2012 definitions for planned interruption and planned outage, DTEE recommends that planned interruption be defined with the following language in R 460.3102:

*"Planned Interruption" means the loss of electric power to one or more customers that results from the intentional disabling of a component's capability to deliver power, done at a pre-selected time, usually for the purposes of construction, preventative maintenance, or repair.*

#### (d) Major Service Interruption

DTEE recommends that major service interruption be defined with the following language in R 460.3102:

*"Major Service Interruption" means a loss of service for 5% or more of the utility's customers due to an extreme weather event or electrical system component failure.*

#### (e) AMI/ Solid State Meters

DTEE reiterates our December 20, 2019 recommendation to use the Department of Energy's definition of AMI, and adopt the following language into R 460.3102:

*"AMI" means an integrated system of smart meters, communication networks, and data management systems that enables two-way communication between electric utilities and customers.*

**(f) Serious Injury**

While DTEE proposed a definition of "serious injury" on January 12, 2020, after further discussion, DTEE would like to propose an alternate definition for R460.3102. Therefore, DTEE recommends that the definition of "serious injury" be defined with the following language:

*"Serious Injury" means Any injury or illness to an employee that resulted in a fatality or injury resulting in inpatient hospitalization.*

For consistency with the proposed definition of serious injury, DTEE also recommends modifying R 460.3804 to the following language:

***R 460.3804 Employee Accidents; notice to commission.***

*Rule 804. Regarding employees, each utility shall promptly notify the commission of fatalities and serious injuries that are substantially related to the facilities or operations of the facilities.*

To ensure that the Commission is provided with the electric utilities' awareness of non-employee accidents, DTEE also recommends adding a section (a) to R 460.3804 and adopt the following language:

***R 460.3804 (a) Accidents – Non-Employees; notice to commission.***

*Rule 804. Regarding non-employees, each utility shall promptly notify the commission of fatalities and injuries resulting in hospitalization involving non-employees that the utility learns of and that are substantially related to the facilities or operations of the facilities.*

**(g) Emergency Response Plan**

DTEE recommends adopting the following language into R 460.3102, which provides the flexibility needed to address the vast number of emergencies that electric utilities must be prepared for.

*"Electric Emergency Response Plan" (ERP) means the Company's plan to address an emergency event, where an electrical system component failure (i.e., underground cable, substation transformer, etc.) or extreme weather event (i.e., extreme weather events such as heavy rain, lightning, high winds, heavy wet snow, ice or heat) can adversely impact the integrity of the electric system."*

DTEE recommends excluding cyber and physical response plans from this definition and streamlining rules for those topics under the cybersecurity section of this ruleset.

**TS-02 SPECIFIC CONSIDERATIONS/SUGGESTIONS**

**(a) Extension of Electric Service**

Though this rule is complicated its level of detail is necessary for determining the appropriate and cost-efficient manner for the provision of electric distribution utility service to new geographic areas.

**(b) Standard Frequency for Alternating Current Systems**

For the update of R 460.3701, DTEE agrees with removal of language regarding frequency being maintained within limits that will permit the satisfactory operation of customers' clocks which are connected to the system. DTEE recommends the following revised language:

***R 460.3701 Alternating current systems; standard frequency.***

*Rule 701. The standard frequency for alternating current systems shall be 60 hertz. The frequency shall be kept within limits as defined by MISO.*

**(c) Cybersecurity**

DTEE is open to continuing stakeholder discussions on cybersecurity recommendations but is preliminarily in agreement with Staff's recommendation to rely on attestation for compliance. DTEE also believes that the cybersecurity annual assessments proposed by Staff should rely on the National Institute of Standards and Technology (NIST) framework to ensure that the standards, guidelines and best practices to manage cybersecurity risk stay current.

**(d) Vegetation Management**

For planned tree trimming work, DTEE already provides notification to impacted customers prior to trimming and performs audits of the tree trimming work following completion. DTEE believes that reporting of these processes is better suited for the Distribution Investment & Maintenance Plan filing rather than as part of the Technical Standards.

If the notification and audit requirements are added to the rules, DTEE would recommend the following revised language:

***R 460.3505 Utility line clearance program.***

*Rule 505. Each utility shall adopt a program of maintaining adequate line clearance through the use of industry-recognized guidelines. A line clearance program shall recognize the national electric safety code standards that are adopted by reference in R 460.811 et seq. The program shall include tree trimming. For all planned (non-emergency) tree trimming work, the utility shall attempt to provide notification to impacted customers prior to trimming and perform audits of the tree trimming work following completion.*

**TS-03 ADDITIONAL RECOMMENDED "FOCUS AREAS"**

- DTEE does not have any additional recommended "focus areas" at this time but will bring them forward for discussion in future stakeholder sessions should they come up.

**TS-04 DESIRE TO PARTICIPATE IN PARTICULAR "FOCUS AREA"**

- DTEE is interested in participating in all the Staff's identified focus areas, which include language updates, meter related topics, cybersecurity, accident and incident reporting, vegetation management, advanced technologies, extension of electric service rules, standard frequency for alternating current systems as well as any other areas that may come into fruition.

**TS-05 INFORMATION SHARING (I.E., EMERGENCY RESPONSE PLANS (ERP), PREVENTATIVE MAINTENANCE PLANS, ETC.)**

- DTEE supports updating Part 2. Records and Reporting R 460.3203 to include the following reporting requirements.

**(a) Safety Reporting**

DTEE recommends that electric utilities provide the Commission with an annual summary of the utility's MIOSHA 300 Log, including only injury type/injury classification and number of corresponding incidents. The full MIOSHA 300 log is extensive, and DTEE believes a summary rather than the redacted full report will suffice. DTEE understands that Staff may occasionally require additional incident specific details. In these cases, DTEE recommends sharing

disclosable details with the MPSC verbally or through other confidential channels.

DTEE recommends that the safety report be submitted no later than 30 days after February 1, which is when employers are required to post their annual OSHA reports.

**(b) Emergency Response Plans**

DTEE reiterates its position in the December 20, 2019 comments that ERPs, as defined above in TS-01(g), should not be made public. Protecting confidentiality of those plans maintains the integrity of the plans and protect employees, customers, infrastructure, and communities for emergency events. Therefore, DTEE recommends providing verbally or through other confidential channels to Staff on a biennial basis that may include the following components of ERPs.

1. Demonstration of preparation of resources and predictive models on size of the storms and customer outage impacts
2. Demonstration of communications plans that involve local officials and relevant regulatory agencies;
3. Demonstration of a system for communicating with customers during an emergency that extends beyond normal business hours and business conditions;
4. Demonstration on how the company will assure the safety of its employees and the public;
5. Procedures for deploying crew members and/or other required teams for service restoration;
6. Demonstration of outage assessments, after-action reviews and continuous improvements after major service interruptions
7. Staff may request topics that may be included or addressed in the update.

**(c) Preventative Maintenance Plans/ Prescriptive Inspection Program Requirements**

DTEE reiterates its position in the December 20, 2019 comments that the current language in R 460.3504 of the Technical Standards provides the flexibility needed for each utility's unique types of equipment that require various inspection and maintenance schedules.

DTEE is required to share its preventative maintenance plans in the Distribution Investment and Maintenance Plan filing under docket U-20147. DTEE supports the continued use of the Distribution Investment and Maintenance Plan filing and does not recommend specific O&M requirements be introduced into the Technical Standards at this time.

In addition, preliminary peer state benchmarking suggests very few states require detailed O&M reporting. According to both Public Sector Consulting's (PSC) and Staff's benchmarking studies, California is one of the only peer states to include extensive preventative maintenance plan requirements; however, California's O&M requirements target mostly generation rather than transmission or distribution.

## **SERVICE QUALITY AND RELIABILITY STANDARD COMMENTS (U-20629)**

### **SS-01 MOMENTARY OUTAGES; DO ELECTRIC UTILITIES HAVE THE CAPABILITY TO TRACK MOMENTARY OUTAGES CURRENTLY AND IF NOT, IS IT SOMETHING THAT IS GOING TO BE INCORPORATED IN THE FUTURE?**

- DTEE has started tracking MAIFI (Momentary Average Interruption Frequency Index), which captures the average number of momentary interruptions experienced by a residential or small commercial customer since 2018. DTE can include annual MAIFI in future reports. The Commission has amended the annual filing requirements on SAIFI, SAIDI, and CAIDI through Orders, for example in Case No. U-12270. The Company believes that the Commission should use that approach to include MAIFI reporting.

### **SS-02 EMERGENCY RESPONSE FILINGS; HOW OFTEN DO YOU REVIEW AND UPDATE YOUR PLANS? (THIS CAN BE FILED CONFIDENTIALLY)**

- Emergency response plans (ERP) are reviewed on an ongoing basis. DTEE has a cadence of table-top exercises that simulate implementation of ERPs. Participants then utilize after action reviews to evaluate the process, identify opportunities for improvement and adjustment, and then implement those improvements and adjustments into the plans.

### **SS-03 REDUCING CALL ANSWER TIMES FROM 90 SECONDS TO 45 SECONDS OR 30 SECONDS**

- DTEE does not support reducing call response times in R460.724(a) as any call answer time under the 90 second threshold has little to no additional impact on satisfaction. Instead, DTEE believes focusing efforts on first-call-resolution, which likely will have a greater positive impact on customer satisfaction.

DTE has previously found with our Market Strategies International (MSI) survey that the threshold for customer satisfaction is 100 seconds, meaning that there is little to no increase in customer satisfaction when the response time is less than 100 seconds. However, at 105+ seconds customer satisfaction decreases.<sup>1</sup>

DTE has conducted a cost-benefit analysis and found if the if the average call response threshold were to lower call response times to 30 seconds it would cost more than \$4 million annually to implement and for 45 seconds it would cost more than \$2 million annually to implement.<sup>2</sup>

Furthermore, preliminary peer state benchmarking shows inconsistent support for a reducing call response times. Of the 25 states considered in the PSC's study, only five states established a reliability metric for customer response time, two of which are equal to Michigan and set to 90-second thresholds. Massachusetts has previously required an average call response time of 20 seconds, but this performance metric was removed in 2015 as utilities began using, "more direct and comprehensive methods of capturing customer satisfaction."

#### **(a) What is your current average call response time?**

DTE's 2019 average call response time (with IVR) for residential customers was 64 seconds and 24 seconds for business customers. These averages do not include large industrial customers because their calls go to specific account managers.

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<sup>1</sup> DTE Energy. (2017). Impact of ASA on Overall Satisfaction. Customer Service Analytics.

<sup>2</sup> DTE has determined cost based on an additional O&M expenses needed to achieve recommended standards. This analysis includes customer service representatives, analysts, and leaders, as well as costs for necessary workspace infrastructure to accommodate additional FTEs.

**(b) Have you experienced any issues with handling call volume in the previous five years?**

Attrition and technology implementations have temporarily compromised call response times during major storms in recent years. In 2019, high attrition coupled with a massive storm compromised call response times, and in 2017 a major storm and SAP billing go-live briefly elevated response times.

**SS-04 UPDATED CUSTOMER PORTALS; WHAT WOULD BE THE COST AND IMPLEMENTATION TIMELINE FOR UPDATING YOUR CUSTOMER PORTALS TO TRACK THE NUMBER OF OUTAGES EXPERIENCED ANNUALLY?**

- DTEE recommends automating outage credits and leaving discussions on customer portals outside of this rulemaking. DTEE recognizes automatic outage credits as the key step to improve customer experience and satisfaction. A customer portal would be premature at this time for rulemaking, as DTEE believes initial focus on establishing the automated outage credit system is required. Customer portals would require additional cost, time, resources, and stakeholder education without knowing the impact on customer satisfaction.

DTEE cannot comment on the cost and implementation timeline for such a customer portal, as it will require a cross-functional team to develop a business case to fully understand the scope, cost and timeline for the development.

**SS-05 AUTOMATED OUTAGE CREDITS**

**(a) What would be the cost and implementation timeline for the development of a system to automate outage credits to customers?**

DTEE agrees that customer outage credits should be handled through a proactive process that is easier for the customer than it is today. DTEE has started a cross-functional team to develop the business case that captures the anticipated cost and implementation timeline for the development of a system to automate outage credits to customers. DTEE will share its findings from the business case with stakeholders and looks forward to working together on the implementation timeline for the new system

DTEE would like to note that to automate tracking and customer payments of outage credits involves multiple complicated IT and data systems (AMI, OMS, Customer Relationship and Billing) and is expected to take some time and resources to put in place. For example, data on customer outage events from both AMI and OMS systems need to be extracted, processed, reconciled and audited to ensure data accuracy and prevent any mis-tracking caused by system or telecommunication issues. The reconciled outage data needs to be properly recorded and archived so that any questions can be addressed in a timely fashion in the event of customer questions or disputes the outage credit timing and amounts. The Customer Relationship and Billing System needs to be modified to include the new business process and inclusion of proactive generation of outage credits in customer billing. Due to the importance of customer billing and its impacts on customer satisfaction, the modification of the system needs to be fully tested and validated to ensure it is free of errors in any possible circumstances. Last but not the least, the starting date for any new outage credit tracking system needs to be clearly defined in the standards discussion to prevent confusion and ensure consistency in customer communication and outage credit payments.

**(b) How do you currently deal with customers that experience multiple interruptions within a major catastrophic event?**

DTEE treats multiple outage interruptions within a major catastrophic event as separate outage events if the interruptions are 10 minutes or longer from each other. If the interruptions occur in less than 10 minutes, DTEE combines them into one outage event.

**SS-06 WIRE-DOWN PROGRAMS**

- Preliminary benchmarking by PSC demonstrates that Michigan has some of the strictest wire-down reliability standards in the country. Out of 48 state study, only Michigan and Massachusetts have established performance thresholds specifically related to wire-down response.

**(a) What would it take to meet the one-hour relief standard requested by Fire Departments? Think of your worst event (windstorm) – how long would it reasonably take to reach the end of your territory to repair a wire?**

Using the March 2017 Windstorm as a basis, DTEE received reports of 11,000 wire-downs. In this scale of event, it will be very unlikely to achieve a one-hour request on a significant portion of the wire-downs. In general, any event with a large volume of outages and downed wires will imply challenges to meet a one-hour requirement. DTEE will provide additional data on the March 2017 Windstorm at the scheduled February 12 collaborative.

**(b) How is your wire-down program constructed?**

- **Is wire guarding part of an employee's normal job duties or is it voluntary?**  
DTEE utilizes volunteer Secure First Employees rather than Wire Guards. Secure First Employees are dispatched to reported wire-downs.
- **How long is their standard shift?**  
The standard shift for DTEE volunteer Secure First Employees is 12 to 18 hours.
- **How long is their training program?**  
The DTEE training program for volunteer Secure First Employees is two-fold: instructor-led classroom training for five hours and field training with an experienced Secure First Employee for 50 hours.
- **Do you information share/train with first respondents as well?**  
In 2019, DTEE worked with the State Bureau of Fire Service to develop a firefighter electrical safety training program. This will begin being rolled out to firefighters in 2020.
- **Is wire-down relief part of your official emergency response planning?**  
Yes.
- **How is it handled during an emergency or storm event?**  
DTEE stands up an alternate workforce made up of internal employees and contractors who supplement the field crews who address reported wire-downs daily.

**SS-07 REDUCE ANNUAL SAME CIRCUIT REPETITIVE INTERRUPTION FACTOR FROM FIVE OUTAGES TO FOUR OUTAGES**

- Rule 22-(d) (R460.722) stipulates that it is an unacceptable level of performance for an electric utility to have more than 5% of its circuits experience five or more same circuit repetitive interruptions in a 12-month period, considering data derived through the amalgamation of data from both normal and catastrophic conditions. Rule 2-(s) (R460.702) defines "same-circuit repetitive interruption" as a grouping of more than 10 customers on a circuit who experience multiple interruptions under all conditions. At its option, an electric utility may report on specific identifiable circuit segments rather than whole circuits as long as the criteria for identification of the specific circuit segments are fully explained in its report. If an electric utility lacks the capability of independently tracking same-circuit repetitive interruption data, then the utility may rely solely upon notification provided by its customers to report the data to the commission.

DTEE would not have been compliant with this rule or would be considered for "unacceptable level of performance" for any of the historical years if the annual same circuit repetitive



interruption factor were reduced from five outages to four outages. Based on DTE's analysis, given the current system conditions and projected level of investments including tree trimming, DTEE's reliability performance is expected to improve, however, would likely not be compliant with this rule in the near 10 years if this recommendation were adopted. Therefore, DTEE does not feel it is prudent to require the Company to meet a more stringent level of performance when the projected investments do not support that level of performance.

Preliminary benchmarking by PSC demonstrates that no other peer states have this specific performance requirement, making Michigan already one of the strictest in the country.