

Email Attachment

From: Cunigan, Cedric
Sent: Tuesday, April 17, 2018 4:34 PM
To: 'Anita Wessling'
Cc: Ghomsi, Noumvi
Subject: RE: Rule References for Reliability

Update:

While it is not defined in a tariff or regulation, the IEEE 1366-2003, which is referenced in 4 CSR 240-23 does define the following:

3.14 momentary interruption: A single operation of an interrupting device that results in a voltage zero. For example, two circuit breaker or recloser operations (each operation being an open followed by a close)

that momentarily interrupts service to one or more customers is defined as two momentary interruptions.

3.15 momentary interruption event: An interruption of duration limited to the period required to restore service by an interrupting device.

NOTE—Such switching operations must be completed within a specified time of 5 min or less. This definition includes

all reclosing operations that occur within five minutes of the first interruption. For example, if a recloser or circuit

breaker operates two, three, or four times and then holds (within 5 min of the first operation), those momentary

interruptions shall be considered one momentary interruption event.

3.21 sustained interruption: Any interruption not classified as a part of a momentary event. That is, any interruption that lasts more than 5 minutes.

I hope this answers your questions.

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Missouri Public Service Commission

From: Cunigan, Cedric
Sent: Monday, April 16, 2018 4:51 PM
To: 'Anita Wessling'
Cc: Ghomsi, Noumvi
Subject: Rule References for Reliability

Ms. Wessling

I have copied sections of the Code of State Regulations (CSR) below (emphasis added) that relate to service quality and maintenance of utilities. You may search the CSR yourself at the following website.

https://psc.mo.gov/General/Statutes_and_Rules

You referenced some of this in your initial complaint, but we need to use the entire section. The service is not guaranteed to be uninterrupted. The standard is to make reasonable efforts to eliminate service interruptions.

4 CSR 240-10.030 Standards of Quality

7) Reasonable efforts shall be made to eliminate interruptions of service, and when these interruptions occur, service should be reestablished with the shortest possible delay.

When service is interrupted for the purpose of working on any portion of the system, the interruption should occur at a time which will cause the least inconvenience to the consumer, and those seriously affected by the interruptions, if possible, should be notified in advance. A record shall be kept of all interruptions of service on the entire system or major divisions, including the times, duration and cause of each interruption. These records shall be filed, made available for inspection by the commission and preserved for a period of at least one (1) year.

4 CSR 240-23.030 Electrical Corporation Vegetation Management Standards and Reporting Requirements

(3) Maintenance Cycle.

(A) An electrical corporation shall perform a visual inspection at least once every two (2) years of all urban energized distribution conductors and at least once every three (3) years of all rural energized distribution conductors, to determine whether vegetation management is needed. Where needed, the electrical corporation shall perform vegetation management in a timely manner. Vegetation management performed along a circuit in compliance with this rule shall meet this two (2)- or three (3)-year visual inspection requirement, accordingly.

(B) In addition to the maintenance required in subsection (3)(A) above, if an electrical corporation becomes aware either through notification or during the inspections required under subsection (3)(A) above or at any other time, of any vegetation close enough to pose a threat to its energized conductor, which is likely to affect reliability or safety prior to the next required vegetation management, the electrical corporation shall ensure that necessary vegetation management

is promptly performed as required under section (4) of this rule.

I have also copied the section you referenced from Ameren's tariff, MO.P.S.C. SCHEDULE NO. 6 Original SHEET NO. 105. (emphasis added)

J. CONTINUITY OF SERVICE

Company will make **all reasonable efforts** to provide the service requested on an adequate and continuous basis, but will not be liable for service interruptions, deficiencies or imperfections which result from conditions which are beyond the reasonable control of the Company. The **Company cannot guarantee the service as to continuity**, freedom from voltage and frequency variations, reversal of phase rotation or singlephasing. The Company will not be responsible or liable for damages to customer's apparatus resulting from failure or imperfection of service beyond the reasonable control of the Company. In cases where such failure or imperfection of service might damage customer's apparatus, customer should install suitable protective equipment.

Again, a reasonable effort to provide service on an adequate and continuous basis is the standard. It is not reasonable to expect to completely uninterrupted service with measures outside of direct company control. See **Chapter 23—Electric Utility Operational Standards** at <https://sl.sos.mo.gov/cmsimages/adrules/csr/current/4csr/4c240-23.pdf>. This section details reporting and inspection requirements related to reliability monitoring and reporting, infrastructure standards, and vegetation management and reporting.

To my knowledge, there is no specific tariff or regulation detailing what constitutes a momentary outage. The limiting factor is the ability of the utility to measure and report the outages. Per previous work with the company, Ameren considers anything less than 3 minutes to be momentary. The short duration of the outage makes it difficult to determine a cause and subsequently, provide a remedy.

Please contact me if you have any questions.

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