

- BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH -

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In the Matter of the Rulemaking for Service  
Reliability and Continuity Requirements for  
Electric Public Utilities.

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DOCKET NO. 11-999-05

NOTICE OF RULEMAKING AND  
TECHNICAL AND SCHEDULING  
CONFERENCE

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ISSUED: April 19, 2011

By The Commission:

Notice is hereby given that a **Technical and Scheduling Conference** in the above-entitled matter will be conducted by the Public Service Commission of Utah on **April 27, 2011, at 2:30 p.m., Fourth Floor Room 401**, Heber M. Wells Building, 160 East 300 South, Salt Lake City, Utah. The purpose of the technical and scheduling conference is to discuss with interested parties the Commission's proposed new rules pertaining to service reliability and continuity applicable to electric public utilities and to establish a schedule for the rulemaking process. To commence this discussion, a "straw- man" rule is attached to this Notice as Exhibit A.

Individuals wishing to participate by telephone should contact the Public Service Commission two days in advance by calling (801) 530-6716 or (toll-free) 1-866-PSC-UTAH (1-866-772-8824). Participants attending by telephone should then call the Public Service Commission five minutes prior to the conference to ensure participation.

In compliance with the Americans with Disabilities Act, individuals needing special accommodations (including auxiliary communicative aids and services) during this

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meeting should notify Julie Orchard, Commission Secretary, at 160 East 300 South, Salt Lake City, Utah, 84111, (801)530-6716, at least three working days prior to the meeting.

DATED at Salt Lake City, Utah, this 19<sup>th</sup> day of April, 2011.

/s/ Julie Orchard  
Commission Secretary  
G#72137

**Exhibit A**  
**Straw-Man Service Reliability and Continuity Requirements Rule**

**R746-313-1. Authority**

(1) This rule establishes electric service reliability and continuity requirements as provided for in Sections 54-3-2, 54-4-2 and 54-4-7.

**R746-313-2. Definitions**

(1) “Electric corporation” means an electric public utility, as defined in Utah Code 54-2-(16).

(2) “Governing Authority” means

(a) for a distribution electric cooperative, its board of directors; and

(b) for each other electrical corporation, the Public Service Commission, otherwise referred to as the commission.

(3) “Interruption duration” means the period (measured in seconds, minutes, or hours) from the initiation of an interruption to a metering point until service has been restored to that metering point.

(4) “Interruption, momentary” means a single interruption with a duration of five minutes or less.

(5) “Interruption event, momentary” means:

(a) A momentary interruption; or

(b) A series of momentary interruptions that is restored by an automatic interruption device, is limited to a single relay sequence, and does not exceed five minutes, such as when an auto-reclose breaker operates two or more times in a single relay sequence and then holds.

(6) “Interruption, sustained” means an interruption with a duration of greater than five minutes.

(7) “Interruption” means the loss of service to one or more metering points.

(8) “Loss of service” means a complete loss of voltage to one or more metering points, but does not include power quality issues such as transients, sags, swells, flickers, harmonics, and other waveform distortions.

(9) “MAIFI” means momentary average interruption frequency index. This index is the number of times that a metering point experiences momentary interruption events during a year. It is determined by dividing the total annual number of metering point momentary interruption events by the total number of metering points. Note that this index does not include the events immediately preceding a sustained interruption.

(10) “Major event” means a catastrophic event that:

(a) Exceeds the design limits of the electric power system;

(b) Causes extensive damage to the electric power system; and

(c) Results in a simultaneous sustained interruption to more than 10 percent of the metering points in an operating area.

(11) “Metering point” means an electric point of service to a customer where there is a meter and for which an electric company renders a bill.

(12) “Metering points, total number of” means the number of metering points as of the last day of the calendar year.

(13) "Operating area" means a geographic subdivision of an electric company's Utah service territory that functions under the direction of an electric company office and as a separate entity used for reliability reporting. These areas may also be referred to as regions, divisions, or districts.

(14) "Reliability" means the degree that electric service is supplied without interruptions.

(15) "SAIDI" means system average interruption duration index. This is the sustained interruption duration time (in hours) that an average metering point experiences during the year. It is determined by dividing the annual sum of all metering point sustained interruption durations by the total number of metering points.

(16) "SAIFI" means system average sustained interruption frequency index. This index is the number of times that an average metering point receives sustained interruptions during a year. It is determined by dividing the total annual number of sustained interruptions by the total number of metering points.

(17) "System-wide" means pertaining to and limited to the electric company's metering points in Utah.

(18) "Threshold" means a performance level, excluding major events, which requires appropriate electric company action.

(19) "Underperforming circuit" means a circuit characterized by substandard performance. A circuit has this designation if it has a SAIDI, SAIFI, or MAIFI index that exceeds its designated threshold level.

### **R746-313-3. Electric Service Continuity**

(1) An electric company shall use reasonable means in design, operations, and maintenance to ensure reliable service to each customer. Such means shall include, but not be limited to, programs to prevent service interruptions.

(2) By December 31, 2011, an electric company shall have a written electric service reliability/continuity program:

(a) approved by its governing authority;

(b) addressing performance measures, goals, and investments necessary for maintaining and/or achieving appropriate electric service and reliability; and

(c) for an electric company whose governing authority is the commission, the written program shall also address vegetation management, maintenance and capital spending, and customer guarantees.

(3) When interruptions occur, each electric company shall reestablish service with the shortest possible delay consistent with the safety of its employees, customers, and the general public.

(4) An electric company shall have a program for analyzing, and where appropriate, for correcting underperforming circuits.

### **R746-313-4. Electric Interruption Records**

(1) Except as provided in subsection (3) of this section, an electric company shall keep an accurate record of each interruption of service that affects one or more customers. Each record shall contain at least the following information:

- (a) The operating area where the interruption occurred;
  - (b) The name of the substation involved;
  - (c) The name of the circuit involved;
  - (d) The date and time the interruption occurred (if the exact time is unknown, the beginning of an interruption is recorded as the earlier of an automatic alarm or the reported initiation time);
  - (e) The date and time service was restored;
  - (f) The duration of the interruption;
  - (g) The number of metering points affected by the interruption;
  - (h) The cause of the interruption;
  - (i) The weather conditions at the time of the interruption;
  - (j) Whether the interruption was planned or unplanned;
  - (k) The protective device that made the interruption; and
  - (l) The component involved (e.g., transmission line, substation, overhead primary main, underground primary main, transformer, etc.).
- (2) For interruptions where customers are not simultaneously restored, an electric company shall keep records that document the step-restoration operations.
- (3) For major events where an electric company cannot obtain accurate data, the electric company shall make reasonable estimates.
- (4) An electric company shall retain for ten years the records associated with subsections (1) and (2) of this rule.

**R746-313-5. Electric Reliability Calculations**

- (1) Except as provided in section (3) of this rule, an electric company at year-end shall calculate, at a minimum, SAIDI, SAIFI, and MAIFI indices, with and without major events:
- (a) On a system-wide basis;
  - (b) For each operating area; and
  - (c) For each circuit.
- (2) Data included in the above calculations shall include all interruptions associated with or related to high voltage components (above 600 volts).
- (3) For each circuit an electric company shall be required to calculate only indices with major events excluded.
- (4) If an electric company estimates MAIFI, it shall specify the method that it used for making the estimate.

**R746-313-6. Electric Threshold Levels**

- (1) An electric company shall establish threshold levels for SAIDI, SAIFI, and MAIFI for system-wide operations, each operating area, and each circuit. The following factors should be used to guide the setting of the levels:
- (a) Past reliability information;
  - (b) Demographic, geographic, and electrical characteristics; and
  - (c) The relative performance of the circuits to each other.

(2) An electric company whose governing authority is the commission shall file with the commission its threshold values and any revision to the values.

**R746-313-7. Customer Inquiries about Electric Reliability**

(1) A customer may request a report from an electric company about the service reliability of the circuit supplying the customer's own meter. Within 15 business days, the electric company shall supply the report to the customer at no cost. However, if a customer requests an additional reliability report for the same meter within one year of the date of the first request, the electric company may require a deposit from the customer to recover the cost of the report. The electric company shall return the deposit if the additional report indicates that the circuit has become an underperforming circuit, with major events excluded.

(2) The report shall include:

(a) The name of the customer;

(b) The date of the request;

(c) The address where the meter is installed;

(d) The meter number involved;

(e) The circuit involved; and

(f) A chronological listing, covering at least 36 months up to the date of the request, of all interruption data as required by R746-313-4 affecting the customer's meter, stating the beginning time, date, duration, and cause for each interruption.

**R746-313-8. Public Inquiries about Electric Reliability**

(1) Any person may request from an electric company a report about the service reliability for any circuit. The report shall be supplied to the person within 20 working days. A reasonable fee may be charged for each report.

**R746-313-9. Annual Report on Electric Reliability**

(1) On or before April 1 of each year, an electric company whose governing authority is the commission shall file with the commission a report that includes reliability information pertaining to the previous calendar year. The electric company shall make copies available to the public upon request.

(2) In accordance with sections (3) and (4) of this rule, the report shall contain:

(a) SAIDI, SAIFI, and MAIFI indices and thresholds compared to the most recent four years, both with and without major events:

(i) On a system-wide basis; and

(ii) For each operating area.

(b) SAIDI, SAIFI, and MAIFI indices and thresholds for each circuit, with major events excluded.

(c) A summary of the system-wide interruption causes compared to the previous four-year performance. Categories to be evaluated shall include:

(i) Adverse environment;

(ii) Adverse weather;

- (iii) Customer equipment;
  - (iv) Equipment failure;
  - (v) Foreign interference;
  - (vi) Human element;
  - (vii) Lightning;
  - (viii) Loss of supply;
  - (ix) Major events;
  - (x) Scheduled outages;
  - (xi) Tree contacts;
  - (xii) Unknown; and
  - (xiii) Other (if used, the electric company shall be specific as to the cause involved).
- (d) A listing of the major events affecting the electric company as determined in R746-313-10.
- (3) An electric company shall present the SAIDI, SAIFI, and MAIFI indices and thresholds in both a tabular and a graphical format. For the graphical format for circuits, an electric company shall compare the SAIDI, SAIFI, and MAIFI indices for each circuit with other circuits in descending order of performance:
- (a) On a system-wide basis; and
  - (b) On an operating-area basis.
- (4) For historical information prior to the effective date of this rule, the electric company shall provide the best information available.

**R746-313-10. Major Event Filing by Electric Utilities**

- (1) Within 20 business days after a major event, an electric company shall submit a report to the Commission which includes:
- (a) A description of the event;
  - (b) A discussion of why the electric company considers it to be a major event;
  - (c) The total number of metering points affected, the number of metering points without service at periodic intervals, and the longest service interruption;
  - (e) The number of crews assigned to restore service at periodic intervals;
  - (f) The estimated SAIDI and SAIFI impact to metering points on a system-wide and an operating-area basis;
  - (g) The damage cost estimates to the electric company's facilities;
  - (h) The reason timely restoration was beyond the electric company's control; and
  - (i) A listing of circuits that were affected with sustained interruptions lasting more than four hours.