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May 1, 2023

## VIA ELECTRONIC MAIL TO PSC@UTAH.GOV

Utah Public Service Commission Heber M. Wells Building, 4<sup>th</sup> Floor 160 East 300 South Salt Lake City, Utah 84114

Attention: Gary Widerburg Commission Administrator

RE: Docket No. 23-999-09 Proposed Rulemaking Regarding Utah Code Title 54, Chapter 25, Electrical Power Delivery Quality Act – URECA and Utah Rural Electric Cooperatives Comments

The Utah Rural Electric Cooperative Association (URECA), on behalf of the undersigned rural electric cooperatives, submits the following comments regarding the proposed rulemaking pursuant to Utah Code Title 54, Chapter 25, Electrical Power Delivery Quality Act. These comments include recommended draft language for the proposed rules attached as Exhibit A.

The Utah Rural Electric Cooperative Association, and the undersigned rural electric cooperatives, sincerely appreciate efforts during the 2023 legislative session to develop an electric power delivery quality plan and the opportunity to help establish related procedures. The quality of electrical service has a significant impact on the communities we serve. Poor power quality in areas has proven to cause failure or prematurely age equipment, ultimately resulting in increased expense and, in some cases, prolonged power outages. Supply chain issues magnify these impacts as lead times can be more than two years for major voltage control equipment impacted by poor power delivery quality.

As efforts intensify to decarbonize energy resources, negative system impacts from inverter driven generation is expected to increase. As such, it is imperative that every effort be made now to enforce power delivery quality requirements to avoid widespread issues in the future. Doing so will protect investments in electrical assets and thereby ensure reliable electric service for all consumers including critical loads such as hospitals, grocery stores, police and fire stations, etc. Rules and procedures set forth as part of this initiative are critical to preserve the standards of living we have all come to enjoy and depend on.

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Utah Rural Electric Cooperative Association members have worked together to propose the minimum requirements that we believe the Utah Public Service Commission should adopt as part of the requirements of H.B. 389. We urge the Commission to review and accept the recommended draft language in Exhibit A.

Please don't hesitate to reach out to me or each of the rural electric cooperatives if there are any questions or additional input needed for this effort. We sincerely appreciate the support of the Commission in this effort.

Best Regards,

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Nathaniel J Johnson Executive Director Utah Rural Electric Cooperative Association

Attested by:

/s/ Andy Hewitt CEO/General Manager Bridger Valley Electric Association, Inc.

/s/ Josh Dellinger General Manager Empire Electric Association, Inc.

/s/ Yankton Johnson CEO/General Manager Moon Lake Electric Association, Inc.

/s/ Chad Black General Manager Raft River Rural Electric Cooperative, Inc.

/s/ David Crabtree President and CEO Deseret Generation & Transmission Cooperative /s/ LaDel Laub President and CEO Dixie Power

/s/ Dan McClendon CEO/General Manager Garkane Energy Cooperative, Inc.

/s/ Kevin Robison CEO Mt. Wheeler Power, Inc.

/s/ Clay Fitch CEO Wells Rural Electric Company

# EXHIBIT A

#### Recommended Draft Language Regarding HB 389: Utah Code Title 54, Chapter 25 Electrical Power Delivery Quality

The interconnected Generating Facilities shall not adversely affect the quality of service to other Utility consumers and shall have a design, installation, maintenance, and operation to minimize the likelihood of causing a malfunction in, damaging, or otherwise impairing the Power Delivery System.

If rapidly fluctuating resources are 10% or greater of the capacity of the substation transformer(s), accurate calculations should be made using the actual load currents and system impedances to determine that the effect of connected equipment does not exceed the following criteria: (See ANSI/IEEE Std 141-1993, most recent edition, page 93)

- (A) The combined intermittent resources in an area or on a particular system serving load cannot result in a voltage fluctuation greater than 3% at any time (IEEE Std 141-1993, pg. 93), calculated by assessing with intermittent resources at full designed output, disconnecting the intermittent resources completely and taking the before and after system voltage at load serving nodes as a percentage or by measurement at actual load serving nodes. The number of cycles exceeding a maximum 3% voltage fluctuation shall not exceed 1% (IEEE Std 1453-2022, pg. 45) in any given measured interval not to exceed one week. The frequency of excessive voltage fluctuation up to 3% shall be less than two occurrences per 24-hour period and no single event shall have a duration of more than 30 seconds.
- (B) The combined intermittent resources in an area or on a particular system serving load cannot cause or result in unbalance of phase voltage magnitude more than 2% (IEEE Std

141-1993, pg. 91) between any of the three phases of a three-phase power system as measured.

The Utility shall notify a Customer if there is reason to believe that operation of the Customer's Generating Facility has caused disruption or deterioration of service to other Utility customers served from the Power Delivery System or that such operation has caused damage to the Power Delivery System.

A Utility shall disconnect a Generating Facility from the Power Delivery System upon determining that the Generating Facility is causing Adverse Operating Effects and is not in compliance with the technical requirements found within this Rule and/or the Utility's Interconnection requirements.

#### **CERTIFICATE OF SERVICE**

#### Docket No. 23-999-09

I hereby certify that on May 1, 2023, a true and correct copy of the foregoing was served by electronic mail to the following:

#### **Utah Public Service Commission**

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#### **Utah Rural Electric Cooperatives**

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