

Rulemaking 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.