

Improving grid reliability during Washington's transition to a clean energy grid

Modify requirements to reflect unprecedented load growth projections.

Request: Avoiding blackouts which threaten public safety, and our economy is vital to ensuring public confidence in the state's clean energy policies. With projections of significant load growth (energy needs), the threat of blackouts is a pressing concern especially during extreme weather events when energy use is high. The public utility districts that make up WPUDA urge support for legislation that modifies the Clean Energy Transformation Act (CETA) to support grid reliability in the near term, until new clean energy resources can be developed and deployed that will meet the increasing energy needs of Washington. This will facilitate a responsible transition to a 100% clean energy grid.

Background: The Clean Energy Transformation Act passed in a time (2019) when electric use was expected to grow 0.8% a year - 2019 forecast of the Pacific Northwest Utilities Conference Committee (PNUCC). Today, load growth expectations are nearly four times higher at 3.1% annually. The expected jump in electric use requires modification to current energy policy to maintain reliable and affordable electric service as the state transitions to a 100% clean energy grid.

- PNUCC's 2024 forecast projects regional demand for electricity will grow 4% annually through 2029 and 3.1% through 2034. Overall electric use is anticipated to be 30 percent higher in 2034.
- High-tech manufacturing, increasing electrification of buildings and transportation, data center needs and population growth all contribute to the expected increase in demand.

In 2022, non-emitting resources provided slightly less than 80% of the electricity consumed by Washington customers. Wind and solar generation will need to massively expand to cover the expected 30% load growth but would provide little help during periods of peak use such as cold snaps and heat waves.

Three times in the last five years, super peak loads induced by extreme weather brought Washington utilities perilously close to implementing forced load shedding (i.e., rolling blackouts). During these events regional wind resources contributed very, very little to the region's peak power needs:

- January 2024 Cold Snap; 1/14, 7:00PM 1/15, 3:00AM, **0.01%** of BPA's average 9711 MW load.
- June 2021 Heat Dome; 6/29, 6:00AM 10:00AM, <u>0.5%</u> of BPA's 7113 MW load.
- March 2019 Unseasonably Cold Temps; 3/1, 4:00AM 8:00AM, <u>0.04%</u> of BPA's 7368 MW load.

The new Western Region Reliability Program (WRAP) is designed to allow utilities to share resources during extreme events to protect grid reliability. To participate, utilities must make a "forward showing" that they have the firm generating and transmission resources they need to serve their retail load.

- The program has not transitioned from the non-binding (test) phase to full implementation because several utilities do not have the firm resources needed to make the "forward showing."
- Wind and solar add minimally to the "forward showing" because of production uncertainty.

<u>The Clean Energy Transformation Act</u> requires that by 2030, 80% of the electricity delivered by utilities to customers in Washington state be from non-carbon emitting generating resources.

 Due to load growth and the absence of renewable resources with high capacity values (other than hydro generation) meeting this 2030 mandate does not appear feasible without jeopardizing system reliability. • By 2045, nuclear, battery, geothermal and other technologies under development coupled with transmission expansion may provide a pathway for a carbon free electric utility grid.

<u>The Proposed Amendment</u> would create a "public safety" designation for all resources that were necessary to maintain grid reliability during the January 2024 cold snap or the June 2021 heat dome.

- Public safety resources would be added as a category of resources included within the 80% delivery mandate that begins in 2030.
- This designation would cease to matter in 2045 when CETA requires an 100% carbon free grid.
- Public safety resources would receive a full allocation of CCA allowance for electricity delivered to WA customers.

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