Docket UE-190760

Submitted by Public Utility District No. 1 of Klickitat County

And

Swan Lake North Hydro, LLC

In the Matter of Carbon and Electricity Markets Work Group

Submitting Nomination for the Carbon and Electricity Markets Stakeholder Work Group and Suggested Education Topics

Nomination for Markets Work Group

Public Utility District No. 1 of Klickitat County ("Klickitat PUD") recommends Therese Hampton for one of the public power seats on the Carbon and Electricity Markets Stakeholder Work Group ("MWG"). Ms. Hampton has extensive experience in the industry and broad knowledge on key issues the MWG must address. Moreover, she is a proven leader that can engender support from groups with different interests and vantage points.

Suggested Education Topics

Klickitat PUD and Swan Lake North Hydro, LLC ("Swan Lake") recommend two presentation topics:

Presentation Subject #1

As a threshold matter, to understand and carry out the purpose of the MWG stated in provision convening the MWG: *"to examine the … efficient and consistent integration of chapter 288, Laws of 2019 and transactions with carbon and electricity markets outside the state*[1]*,* Klickitat PUD and Swan Lake suggest the MWG, after appropriate presentation, reach a common understanding of the compliance requirements under RCW 19.405 which may or may not be consistent with (*i.e.*, tradeable or non-tradeable) or available for (*i.e.*, markets outside the state) "efficient and consistent integration . . . with carbon and electricity markets outside the state."

Discussion regarding compliance requirements and instruments should include:

- Unbundled RECs from "eligible renewable resources" including incremental hydro RECs
- Unbundled RECs other than those from "eligible renewable resources"
- Energy transformation project investments, including additional conservation and efficiency resources, under certain conditions, and are non-tradeable
- Energy from a waste recovery facility, either tradeable or untradeable
- Existing non-incremental hydro RECs, untradeable

[1] RCW 19.405.130(1)

- Pumped storage RECs
- Battery storage RECs
- Thermal RECs
- Non-emitting generation
- Demand Response targets, which may include an increase or decrease in generation on the customer side of the meter

Klickitat PUD and Swan Lake also suggest the MWG identify compliance requirements and instruments from the list that may benefit from the efficiency of markets, to provide efficiency in compliance, but where markets "outside the state" either do not exist or are not available.

Presentation Subject #2

The MWG should also study and have a presentation on the effect of the retirement of substantial amounts of thermal capacity during the transition to 100% clean energy, much if not most of that energy coming from intermittent renewable generation. Thermal capacity will be retired to meet the requirements of RCW 19.405. While the ***energy*** imbalance market may fill some of the loss of dispatchable resources, the West currently does not have an organized capacity market. MWG should therefore examine what the loss of thermal capacity will mean to resource adequacy and reliability and how (and how much) to replace that loss of thermal capacity with renewable capacity and how to value that renewable capacity.

This topic must include a discussion on the value of capacity. The West has a market in renewable ***energy*** credits and has formed the ***energy*** imbalance market, both having been formed to either support the trading of compliance instruments and/or support the intermittent nature of renewable resources. What is lacking is the valuing of and markets for renewable ***capacity***. While energy storage, both pumped storage and battery storage, is rightfully seen as part of the solution of converting intermittent renewable energy to renewable capacity, that conversion of energy to capacity has a cost, i.e. the loss of energy in the cycling of storing and redispatching. Rather than accepting a cost to that conversion, we should place a value on it. Other forms of renewable energy capacity that are not recognized as providing value to the system in the transition to 100% clean energy include renewable natural gas, geothermal, biomass and hydro.

Ultimately, we request the MWG identify and recommend efficient mechanisms, market or otherwise, that will identify the value proposition for renewable capacity **that will be required** for the transition to clean energy to maintain reliability and reduce carbon emissions efficiently.

Respectfully submitted

s/

Dave Warren
The Warren Group, LLC
dave@warren-group.net
360-951-5551