May 25, 2020

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Re: Comments to the Dept of Ecology's Draft WAC 173-444 rules to implement provisions of the Clean Energy Transformation Act (CETA) addressing Energy Transformation Projects, on behalf of Douglas Public Utility District, Klickitat Public Utility District and The Renewable Hydrogen Alliance

Mr. Drumheller,

On behalf of Douglas County PUD, Klickitat County PUD and the Renewable Hydrogen Alliance, we appreciate the opportunity to comment on the Department of Ecology's (Ecology) Draft Energy Transformation Project Rule Outline (Outline) for the Energy Transformation Project (ETP) Rule as presented in the March 16 teleconference. Douglas PUD, headquartered in East Wenatchee, WA, owns and operates the 840 MW Wells Hydroelectric Project on behalf of its electric customers, is actively pursuing renewable hydrogen production and distribution facilities. Klickitat PUD is headquartered in Goldendale, WA, owns and operates multiple renewable energy projects, including one of the largest renewable natural gas (RNG) production facilities in the country, and wind and hydroelectric generation facilities. Klickitat PUD has been approached recently by several parties seeking to utilize the PUD's expertise in developing RNG production facilities. The Renewable Hydrogen Alliance (RHA) is a Portland based trade association, with more than 60 electric and natural gas utility, electrolyzer, fuel cell and automotive manufacturing, and NGO members. RHA advocates for inclusion of the production, distribution, and end use of renewable hydrogen (RH) into renewable energy policies throughout the Pacific Northwest.

All three of these entities directly supported and advocated for inclusion of utility investments in RH and RNG production, distribution and end uses as energy transformation projects (ETPs) for use by utilities to use for alternative compliance options to reach carbon neutrality by 2030 pursuant to RCW 19.405.040.

We note the context that ETPs appear in CETA (bold and underline added).

> *The Legislature finds:* ***Absent significant and swift reductions in greenhouse gas emissions, climate change poses immediate significant threats to our economy, health, safety, and national security.***[1]

[1] RCW 19.405.010(3) Findings - Intent

> *"Energy transformation project" means a project or program that: Provides energy-related goods or services, other than the generation of electricity;* ***results in a reduction of fossil fuel consumption and in a reduction of the emission of greenhouse gases attributable to that consumption****; and provides benefits to the customers of an electric utility.*[2]

To reach the standard of greenhouse gas neutrality from 2030 through 2045, CETA allows up to 20% of its compliance obligation to be satisfied with a selection of alternative compliance options[3]:

- An alternative compliance payment equal to the $100/MWh, adjusted for inflation beginning 2027, times the listed multiplier for various fossil generated electricity[4] (though it is not clear what multiplier this alternative compliance payment would be subject to)
- Unbundled renewable energy credits (RECs)
- Investments in energy transformation projects (ETPs)

It is important to keep in mind that the other alternative compliance options (ACOs) that ETPs will be competing with both have a set and known cost (at the time of planning for and acquisition of the ACO), with quantifiable, if very little risk – one quite expensive (administrative penalty equivalent), and one quite inexpensive (REC purchases). Both alternatives, however, are relatively certain, pose little or no risk to the utility (should their "approving body" approve of the choice of ACO), and potentially providing substantially less greenhouse gas emissions reduction potential for either investment[5] over ETPs.

It is with this in mind that we take the position that the proposed rules for ETPs as presented in this draft rule are unnecessary, burdensome, costly, and will result, in a substantially unviable compliance alternative for utilities, contrary to the legislative intent to encourage *"significant and swift reductions in greenhouse gas emissions"* and *"spur transformational change in the utility industry."*[6]

Accordingly, we respectively request Ecology consider the Washington PUD Association's (WPUDA) comments requesting that Ecology form the equivalent of the Northwest Power and Conservation Council's Regional Technical Forum (the Energy Transformation Project Forum – ETPF?) for developing the metrics that are suitable for standard calculations to meet the charge to Ecology for these rules to determine the

> *"conversion factor of emissions reduction resulting from energy transformation projects to megawatt-hours of electricity from nonemitting electric generation"… or for energy*

[2] RCW 19.405.020 (18)

[3] RCW 19.405.040(1)(b)

[4] RCW 19.405(1)

[5] For instance, many RECs are originating in states such as Idaho, where renewable energy facilities are sold to utilities at an avoided cost rate under federal law (PURPA) which does not require RECs to be generated or retired for compliance. Those RECs are surplus, and only provide additional revenue to projects that are already built and operating, but they nonetheless meet the renewable energy compliance requirements of our state.

[6] (RCW 19.405.010(5))

transformation projects in the transportation sector, consistent with default emissions or conversion factors established by other jurisdictions for clean alternative fuels.[7,8]

Certainly, the categories identified in the draft rule are a good starting point (we will be requesting additional categories to this list later in our comments) for that Forum.

For instance, BEV charging infrastructure[9] could use either conversion factors already established in other jurisdictions, or something as simple as (and certainly these example equations bear review):

(Kwhs sold) x (kWh/mi avg across the BEV fleet) x (20# of CO_2 avoided/mile) –(utility's #CO_2/kWh from fuel mix disclosure x Kwhs sold).

Similarly for *"Incentives for the electrification of vehicle fleets utilizing a battery or fuel cell for electric supply;*[10]

([ETP$ of rebate] / [MSRP or KBB $ of vehicle]) x (avg mpg of vehicle type) x x (20 lbs of CO2 avoided/mile)/2000 #s/ton = tons of CO_2 then divide by # tons of CO2/MWh from utility's fuel mix disclosure to arrive at MWhs of CO_2 free electricity.

For incentive to install and operate renewable hydrogen production, distribution, and/or fueling[11]

<u>For sales as transportation fuel:</u>

([annual ETP$ invested]/[annual amortized capital cost + annual operating cost]) x (est kilograms RH produced or distributed/yr) x (avg m/kg of avg vehicle type) x (20 lbs of CO2 avoided/mile)/2000 #s/ton = tons of CO_2 then divide by # tons of CO2/MWh from utility's fuel mix disclosure to arrive at MWhs of CO_2 free electricity.

<u>For all other hydrogen end uses</u>:

([annual $ invested]/[annual amortized capital cost + operating cost]) x (est kilos produced or distributed/yr)x CO_2e of methane displaced[12] = tons of CO_2 displaced then divide by # tons of CO2/MWh from utility's fuel mix disclosure to arrive at MWhs of CO_2 free electricity.

[7] RCW 19.405.040(2)

[8] We note that, although "*conversion factors of emissions reduction resulting from energy transformation projects to megawatt-hours of electricity from nonemitting electric generation"* are required of Ecology for ETPs, and these rules are to be adopted by January 1, 2021, nowhere in these draft rules are MWhs or conversion factors to MWhs for ETPs mentioned.

[9] RCW 19.405.020(b)(ii)(C)

[10] RCW 19.405.020(b)(ii)(B)

[11] RCW 19.405.020(b)(ii)(E) and (F)

[12] Steam methane reformation (SMR) is currently the source of 98% of all hydrogen used in the US. Any renewable hydrogen produced and used in the US can be safely assumed, at least initially, to be replacing hydrogen produced from SMR, thus entirely avoiding the emissions from the production, distribution, and processing of that source methane.

Incentives for RNG production and distribution[13] can likewise use the same formulas as renewable hydrogen for transportation fuel or other end uses not including operating costs which are not included in the statute for RNG investments.

Comments to Specific Provisions in the Draft

- 173-444-060(4)(c) – delete [along with 173-070(3)(f) which also deals with the equity provision]

While there were two interpretations of the equity test in the May 17th workshop, one suggesting that the equity consideration has to be placed on each and every item, or the other that it should be placed on an overall basis, in either interpretation, this test of satisfying the equity considerations is not in Ecology's charge under CETA for ETPs. We would suggest that the resolution of either interpretation belongs with the Approving body when comparing and incorporating the equity requirements for ETPs into the broader CETA compliance obligations.

As active participants in the CETA process, we are not aware of any discussion or legislative intent placing Ecology in the role of approving or disapproving of whether an ETP "*satisfies the equity consideration for this chapter",* nor do we believe that the statute grants such authority to Ecology. That Ecology would presume such a role in these rules places the agency in both a regulatory decision making position over the utility proposing an ETP for compliance to an Approving Body for compliance, and also places Ecology in an equity consideration oversight position of only 1 of the 3 alternative compliance options, (alternative payments and REC purchases would still be left to the Approving Body) – leading to a further inequity among the 3 alternative compliance options the Approving Body applying it one way, and Ecology applying it to ETPs in a different manner.

- 173-444-060(8)

We request more clarity between a "category", a "component" and the process that Ecology is proposing.

We propose that two additional categories be added to the list of eligible categories, along with the calculations that we proposed earlier in our comments:

Subsection 8 would be amended to read:

(8) The first component of the list of eligible categories of energy transformation projects will be composed of the following project categories, upon the effective date of this chapter.

[13] RCW 19.405.020(b)(iv)

Absent specific formulas for calculating MWh conversion factors, t annual CO_2e emissions reductions calculated are converted to MWh equivalents by calculating:

[Annual CO_2e reductions in tonss from ETP] / [Annual utility GHG emissions in tonss x MWhs/yr = #MWhs of CO_2 free electricity

(a) Electric Vehicle charging infrastructure calculated as follows:

(Kwhs sold) x (kWh/mi avg across the BEV fleet) x (20# of CO_2 avoided/mile) – (utility's #CO_2/kWh from fuel mix disclosure x Kwhs sold).

(b) Renewable hydrogen fueling, distribution, and production infrastructure[14]

For sales as transportation fuel:

([annual $ invested]/[annual amortized capital cost + annual operating cost]) x (est kilograms RH produced or distributed/yr) x (avg m/kg of avg vehicle type) x (20 lbs of CO2 avoided/mile)/2000 #s/ton = tons of CO_2 then divide by # tons of CO2/MWh from utility's fuel mix disclosure to arrive at MWhs of CO_2 free electricity.

For all other hydrogen end uses:

([annual ETP $ invested]/[annual amortized capital cost + operating cost]) x (est kilos produced or distributed/yr)x CO_2e of methane displaced[15] = tons of CO_2 displaced then divide by # tons of CO2/MWh from utility's fuel mix disclosure to arrive at MWhs of CO_2 free electricity.

~~(c) Renewable hydrogen distribution infrastructure~~
~~(d) Renewable hydrogen production infrastructure~~
(c) Renewable natural gas production and distribution infrastructure

173-444- 070 - Criteria for Energy Transformation Projects

This section could be used as a template (We'll call WPUDA's suggested group equivalent to the Power Council's RTF the "Energy Transformation Project Forum" [ETPF] for want of a better name at this time) for the ETPF to review the legislatively listed ETPs as they develop the conversion factors and deemed reductions where appropriate, though we think streamlining many of the legislatively listed projects could be accomplished in these rules as we have proposed without diminishing the accuracy or

[14] Note that RCW 19.405.020(18)(a)(b)(ii)(E) includes operation: "Incentives to install **and operate** equipment to produce and distribute renewable hydrogen

[15] Steam methane reformation (SMR) is currently the source of 98% of all hydrogen used in the US. Any renewable hydrogen produced and used in the US can be safely assumed , at least initially, to be replacing hydrogen produced from SMR, thus entirely avoiding the emissions from the production, distribution, and processing of that source methane.

reliability of the reductions. For instance, we know, or can agree on a default value, quite precisely how many kWhs an EV charging station is capable of, and actually does sell. Under these criteria, each utility would have to go through this entire exercise for each charging station, or each set of charging stations. Equally, we know how many kilograms of renewable hydrogen an electrolyzer is capable of producing, and ultimately does produce and distribute. These are quantifiable, measurable, and trackable. Same for RNG production facilities, same for BEV and FCEV vehicle rebates. These values can be easily established for planning and documented for compliance. For those categories that do not have readily available or derivable conversions to MWh equivalents, the ETPF could use this section to deliberate and arrive at the conversion to MWh equivalents.

And as previously mentioned, the equity provisions of this section[16] do not belong in Ecology's rule on ETPs, rather in the Approving Body's compliance approval, where those provisions can be applied in an equal manner to the other areas where the equity provisions are to be applied.

173-444-080 - Procedures for Energy Transformation Projects

We request, for 173-444-080 that the first sentence of the section, if the section is going to be kept in the substantial form that it is in now, read:

<u>For Energy Transformation Projects proposed by a utility for compliance with RCW 19.405.040 that are not listed in RCW 19.405.020(18) the following procedures apply:</u>

This section, with three pages of requirements, seems to be the "poster child" for the administrative burden that is duplicative, excessive and will, for all practical purposes, take ETPs off the list of available compliance options. While the process outlined in this draft 173-444-080 may be necessary and useful in a regulatory framework developed to oversee a cap-and-trade auction where this regulatory structure is the only screening, review and approval of carbon reductions being offered in a competitive and potentially lucrative and profitable auction market, where a wide range of otherwise non-regulated public and private parties can participate, we ask again that Ecology take note that ETPs are only one form of alternative compliance options for highly regulated utilities that are subject to a transparent regulatory process that already provides multiple layers of review from existing regulatory staff as well as outside stakeholders and their technical experts. Adding yet another layer of pre- and post-verification by third party consultants only adds unnecessary and duplicative costs and delays for projects that have great potential to reduce carbon.

We request that Ecology take note of the legislative declaration that (bold and underline added): *utilities in the state have an important role to play in this transition, **<u>and must be fully empowered</u>**, through regulatory tools and incentives, **<u>to achieve the goals of this policy</u>**."*[17]

[16] Draft WAC 173-444-070(3)(f)
[17] RCW 19.405.010(5)

Under the current CETA compliance regime, each and every instrument planned and ultimately utilized for compliance, including ETPs, will be offered, reviewed and scrutinized by multiple parties and the Approving Body in each utility's: Integrated Resource Plan; Clean Energy Action Plan; Clean Energy Implantation Plan; and audit or regulatory review and acceptance by the Approving Body of the final compliance determination where that instrument is offered.

Adding a requirement that each utility must submit a project plan to the "validating or verifying entities"[18] and then afterwards "conduct or facilitate a performance verification process to verify the actual benefits of the project over time"[19] . . . through a "third party verifier" that must be accredited and demonstrate no conflict of interest, and all the requirements that those two additional layers of review and approval require in the rules, adds two more layers of substantial, expensive, duplicative and unnecessary administrative requirements in addition to the four previously mentioned layers of review that each ETP, if used by a utility for compliance, will have to pass through.

Reductions achieved before the 2030 carbon neutrality requirement

And finally, to fulfill the Legislature's intent to encourage *"significant and swift reductions in greenhouse gas emissions,"* and to diminish the *"immediate significant threats to our economy, health, safety, and national security"* that climate change poses, we request as Ecology researches and develops protocols, to the extent that early or immediate reductions in greenhouses gases is demonstrated to meet the legislative intent to diminish those "immediate and significant" threats and otherwise reduce the environmental threats posed by greenhouse gas emissions, that the protocol provide "regulatory incentives" to "empower utilities" to invest early in ETPs and bank the greenhouse gas reductions against the utility's 2030 initial compliance obligation.

Respectfully submitted,

s/

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[18] WAC 173-444-080(3)
[19] WAC 173-444-080(16)