



RE: Comments on draft rule language for Chapter 173-444 WAC regarding the Clean Energy Transformation Act rules

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NW Energy Coalition (NWECC) submits the following comments on the first round of draft rules proposed by the Department of Ecology (Department), and offers responses to questions raised at the rulemaking meeting on January 14, 2020 regarding Energy Transformation Projects in the Clean Energy Transformation Act (CETA). We would like to thank the Department for hosting the stakeholder discussion on these topics on the 14th of January and look forward to continuing those conversations to achieve the most effective rules. Our comments are grouped by topics that were raised at that meeting.

Chapter 173-444 WAC draft rules

Overall, the definitions are a solid start. We expect as this process evolves there may need to be more definitions included. For now, we suggest a few clarifications on definitions that are in the methodology section for greenhouse gas content calculations embedded in 173-444-0X0, as well as additional definitions for section 173-444-020 draft rules.

“Carbon dioxide equivalent” or “CO₂e” – the definition for this term is in the methodology section; it references Table A-1, lists of emission rates, in WAC 173-441-040. The data in the is based on the outdated IPCC AR4 report from 2007, which used a Global Warming Potential (GWP) of 25. However, EPA uses the newer value for GWP of 28-36 (with a single point of 33, which is 33% higher than the AR4 rate) for domestic purposes from the IPCC's Fifth Assessment Report, published in 2014. Washington should update WAC 173-441-040 by adopting the newer AR5 values for methane and other GHGs.

In 173-444-020

“biogenic CO₂” – the Department engaged in a very detailed explanation during the stakeholder meeting on how the Department understood and described biogenic CO₂, biogenic energy and biomass energy. It would be helpful to include draft terms if those terms will be employed in any phase of the Department’s rule making.

“Utility claims” – which is defined in 2(d) under the EPA methodology, might also be included in the general definitions.

“cogeneration correction factor” – It looks like this definition, which is found under the EPA methodology at 2(f), which might also benefit from being listed in the definition section.

“unit” - this apparently means a generation facility, but should be clarified in a definition. Also, under equation 2 of the EPA methodology, the term “unitless” appears; the Department might want to clarify that along with “unit”.

Chapter 173-444-0X0 greenhouse gas content calculations

There is clearly public benefit to require GHG content calculations and reporting by unit/generation resource, with the emissions by each unit added together to create each utility’s total emissions, rather than calculate emissions by each utility’s primary fuel type or types. This information is necessary for the public to understand where emissions are emitted on a more local, granular basis, and will also benefit ongoing cumulative impact assessments under the Department of Health and other low-income and vulnerable community planning. To be consistent with other reporting, these calculations should be in metric tons.

One correction NWEA would suggest to the models relates to the comments above on “upgrading” the GWP standards. The older AR4 GWP standard for Methane is referenced under Equation 3 (b)(iii) as the “Tier 1 Calculation Methodology in Subpart C of 40 CFR part 98”. The state should update that to AR5 of 2017 and then correct the reference in this subsection.

We agree with the Department’s proposal to include a co-generation factor.

There needs to be more narrative to explain when to use each methodology. For example, under 2(g)(ii), if a public report is flagged by EPA as not having met EPA’s verification requirements, what is a utility’s next step? We agree that there should be exception language giving the Department or the Washington Utilities and Transportation Commission (UTC) flexibility to determine factors on a case by case basis, since limiting everything to rule language could leave out some cases.

If the two proposed data sources, the Environmental Protection Agency (EPA)’s Greenhouse Gas Reporting Program (GHGRP) established under 40 CFR Part 98 and public data from the Energy Information Administration (EIA)’s Form EIA-923 program do not include all related

generations losses, then the methodologies specified by the Department should give clear guidance about how to include those values. CETA requires utilities to report the GHG content calculations for *all* the power generated to meet retail WA load, not the *net* electricity ultimately consumed by the end user.

Therefore, we agree that a transmission loss *and distribution loss* adjustment must be required, as it is an important component of the calculation. Not including such losses would result in under estimating actual GHG emissions.

However, transmission and distribution losses are not the only sources of emissions that should be included in the calculations. Energy production and resulting emissions should also include station service, at least for combined cycle gas plants. The California Energy Commission (CEC) recently issued a very detailed document¹ on power plant assumptions for system modeling and adopted a 2.2% station service rate for combined cycle and 0% for combustion turbines based on their very limited annual output (see page 12 of the attached document). And to be thorough, spinning reserve emissions should also be added in. The emissions from spinning reserves are small and result when units are in standby mode at a minimum rate, but not generating saleable power, in order to comply with mandatory reliability standards. Spinning reserve is discussed briefly in the CEC document as well (p. 21). While not counted as service to load, spinning reserve does result in a small amount of emissions and is required to be able to provide the power that is delivered.

It is not clear that the fugitive *upstream* emissions from thermal, non-steam generation are incorporated into the EPA reports. If they are not, there should be some method developed to add those very important fugitive emissions, which are primarily methane, to the total emissions from generation. As we commented to the UTC on Docket UE-190625,

“...methane is a highly interactive “short lived forcer” with about a 12-year average atmospheric residency, where oxidation and other processes convert it mostly into water and a small fraction of CO₂. In addition, methane has a much higher radiative forcing per unit mass compared to carbon dioxide – around 34 times for 100-year Global Warming Potential (GWP) or about 85 times for a 20-year GWP.

Methane emissions of this magnitude (from leakage), per unit of natural gas consumed, produce radiative forcing over a 20-year time horizon comparable to the CO₂ from natural gas combustion. Significant emission reductions are feasible through rapid detection of the root causes of high emissions and deployment of less failure-prone systems. “

Tracking upstream emissions will help focus on correcting those problems. Finally, there should also be recognition and incorporation of emissions released during abnormal operating conditions.

As for which units should report GHG content calculations, the law is clear that all utilities should report, regardless of compliance methodology; if all power comes from hydro or renewables, the content will reflect “0”. NWECC agrees with the Department that if a source unit of some amount of power cannot be identified, then the power should be defined as “unspecified power” and treated as such with the approved emission rate, per 19.405.070(2).

The public should be able to look at all units of utilities and be able to compare them on the same basis. As we urged both Commerce and the UTC, we urge the Department of Ecology to work with the other state agencies to create consistent reporting forms for all utilities to use. This will reduce confusion. Since reporting will occur once a year for each year of a compliance period, any inconsistencies that arise moment to moment or a real time basis will be worked out over the calculations for year-end reporting.

Finally, CETA calls for the use of a default emission value of 0.437 metric tons CO₂e/MWh of electricity for unspecified electricity emissions and directs the Department to adopt an emission rate for unspecified electricity consistent with the emissions in the western interconnect. We would encourage the Department to begin investigations into other values as soon as possible, as we suspect the actual WECC average might be different or even higher than the marginal CO₂E value. In other rule making processes, we have strongly urged the Commission to adopt only provisional emissions rates at this time, and to plan ahead for frequent updates as new scientific analysis is forthcoming.

Chapter 173-444-XX Energy Transformation Projects

While the opportunity to apply Energy Transformation Projects (ETPs) to up to 20% of the 2030 standard, applied over each four year compliance period, will not come into play until 2030, we agree that it is responsible to begin to clearly define what kinds of projects and what types of measurements will qualify as ETPs so that utilities, if necessary, can begin long-range planning.

The law clearly requires that any ETP:

- Reduce fossil fuels and GHGs;
- Provide benefits to electric utility customers;
- Be associated with the consumption of energy in WA;
- Not create new use of fossil fuels that result in a net increase of fossil fuel usage;
- Not be double counted.

These are clearly criteria that require narrative descriptions that are detailed enough to enable a person to decide if the proposal meets the eventual general protocol.

The specific criteria (be a real project, specific, identifiable, quantifiable, permanent, enforceable by the state and verifiable, not required by another statute, rule or other legal requirement, and would not have occurred absent this investment or additional investments) also require very specific answers. And every proposed project must address each requirement. The onus of proving each of these points lies with the proposer.

Further, the Department should initially recognize projects able to meet these criteria, and only certify ETP's once the emissions reductions are realized and verified by Commerce, the proposed project itself, without the verified reductions, should not be allowed to fulfill a compliance obligation. That is why measurement and verification are so important. Proposed ETPs need to have explicit information about performance evaluation and outcomes of each proposal -which elements or outcomes will need to be measured; how, when, how often and by whom verification and measurements will be conducted; how the measurements and results will be verified and by whom.

The Department must be careful not to establish approval methodologies that could be argued to be equivalent to 'preapprovals' of projects. The UTC or a utility's governing body must still have the final word on which projects that meet the criteria/protocols can actually be implemented. Review processes should also encourage public participation, either on a package of proposals or a single proposal. There should be an opportunity to compare proposed ETPs to other alternative compliance actions.

The question was raised if "early credit" could be developed for projects that come online before 2030. The rules and protocols will need to be able to distinguish between projects that would have occurred anyway under a business as usual approach and those that are truly additive. In order to more fully examine the question of "early credit" it would be useful to have some concrete examples of what might qualify for early action to consider and examine.

We appreciate this initial opportunity to comment on the early drafts of what will be important rules for the fair and successful implementation of CETA and look forward to working with the Department and other stakeholders.

Cordially,

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¹Deaver, Paul. 2019. *Estimating Heat Rates for Thermal Power Plants in the Western Interconnect*. California Energy Commission. Publication Number: **CEC-200-2019- 001**.
<https://ww2.energy.ca.gov/2019publications/CEC-200-2019-001/CEC-200-2019-001.pdf>