

CenTrio Energy

See attached file

February 1, 2022

VIA EMAIL AND ONLINE UPLOAD:

Katie Wolt, Rulemaking Lead
Washington State Department of Ecology
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Lacey, WA 98503
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Re: Comments on WAC 173-446A Proposed Rule

Dear Katie:

CenTrio Energy Seattle, LLC (“CenTrio,” formerly EnWave Energy US, formerly Seattle Steam Company) welcomes the opportunity to comment on the proposed rule for WAC 173-446A (“Proposed Rule”), which was published in recent weeks by the Washington State Department of Ecology (“Ecology”) to set forth – in accordance with Washington’s Climate Commitment Act (“CCA”) – objective criteria that would allow CCA-covered facilities to be treated as “emissions-intensive, trade-exposed” (“EITE”) facilities beginning in the second or subsequent compliance periods of the CCA cap-and-invest program (“Program”).

The comments below include (1) background information on our district energy network and the unique role it can play in a long-term sustainable future for Seattle and Washington; (2) a discussion of how, absent changes, the Proposed Rule together with the Program’s compliance requirements would potentially put an end to our business; and (3) specific recommendations for this rulemaking that would afford CenTrio and similar Washington businesses the time and ability to decarbonize their operations and utilize their district energy infrastructure to play a crucial role in a sustainable future for Washington. PP

Specifically, in recognition of the local leakage of GHG emissions that will otherwise occur when CenTrio is forced out of business due to impracticably high CCA compliance costs, Ecology should broaden the types of “trade exposure” that may be considered under WAC 173-446A, to allow facilities such as CenTrio to apply for and obtain EITE status.

I. CenTrio’s Business and Role in Washington’s Sustainable Future

A. *CenTrio plays a crucial role in Seattle’s economy and its provision of medical and other critical services.*

CenTrio tackles global energy problems on a local level, with local resources. We operate a large district energy network in downtown Seattle.¹ We produce and distribute reliable thermal energy through a vast network of underground piping. CenTrio serves about

¹ District energy is a system that connects the production and use of heating and cooling within a localized area. District energy systems generally increase energy efficiency, save on costs, and harness local and renewable energy sources, making it a very effective approach for many cities to transition to sustainable heating and cooling.

175 facilities (33 million square feet) in areas including Seattle’s downtown core, the health care district, Pioneer Square, and the stadium district. Currently, our steam energy provides heating, humidification, and sterilization to downtown Seattle’s three main hospitals (Harborview, Swedish, and Virginia Mason) and to dozens of other facilities that are the lifeblood of Seattle’s economy and culture, including the Seattle Public Library, Seattle Art Museum, Benaroya Hall, Paramount Theater, Washington State Convention Center, numerous hotels including the Four Seasons, Fairmont Olympic, Hilton, Sheraton, and Westin, Macy’s, Nordstrom, government buildings (e.g., the Henry M. Jackson and King County Administration buildings), breweries, distilleries, and many more. As discussed below, these facilities generally rely on our district energy infrastructure (e.g., piping within their buildings to receive and distribute our steam) such that they cannot transition to electricity immediately or without substantial expense. It would be far more complicated and expensive than merely plugging in and flipping a switch.

B. *CenTrio is moving aggressively to cut its GHG emissions.*

CenTrio has formed a clean energy stakeholder committee. This committee has a representative from the City of Seattle (including Seattle City Light), King County, 2030 District, IBEW, mechanical contractors, developers, architects, and existing CenTrio customers. In addition to other efforts, CenTrio will continue participating in this committee to work collaboratively with local governments and businesses to chart a course for long-term sustainability in Seattle. As part of its commitment to a low-carbon future, CenTrio will establish a realistic timeline with deadlines and milestones toward achieving its carbon reduction goals, which include the following.

- 2021 – 2030 – introduce renewable fuels and electric boilers, improve operational efficiency, expand our district energy system (hot water), and continue to purchase carbon offsets.
- 2030 – 2050 –complete the removal of fossil fuel use from the district system (except for emergency backup), implement new technologies, and continue to invest in sustainability in our system.
- CenTrio will invest in the City of Seattle through our customer buildings and will expand beyond 28 million square feet by utilizing condensing hot water loops and energy sharing between buildings by using excess heat off the cooling towers. In the peak season (winter) we will utilize an electric boiler at the central plant.

CenTrio is moving aggressively to cut its GHG emissions, and just needs near-term support – or, at least, not to be driven out of business due to impracticably high CCA compliance costs – as it transitions its operations to play an important role in the efforts of Seattle and Washington to address climate change.

C. *CenTrio’s district energy infrastructure must be preserved and enhanced and will play a key role in a sustainable future for Seattle.*

CenTrio is moving aggressively to decarbonize its operations. The result of that process, which will require time and investment, will be a robust and sustainably fueled district energy network that will play a crucial role in Seattle’s sustainable future. District energy systems are well-recognized as key tools for cutting emissions and energy consumption in urban areas.² District energy systems are widely recognized as a highly efficient way to heat

e, e.g., U.N. Environment Programme (UNEP), “District energy: a secret weapon for climate action and human health,” <https://www.unep.org/news-and-stories/story/district-energy-secret>

and cool many buildings in each locale from a central plant. They use a network of pipes to pump steam, hot water, and/or chilled water to multiple buildings in an area such as a downtown district, college or hospital campus, airport, or military base. Providing heating and cooling from a central plant requires less fuel and displaces the need to install separate space heating and cooling and hot water systems in each building.³

Construction of a new district energy network is extremely costly, presenting an obstacle to district energy development in cities around the world. Fortunately, Seattle already has such a network, CenTrio's system. That system, although currently fueled by natural gas, can be transitioned to renewable fuels (e.g., electricity or biomass) in the future. And that is precisely what CenTrio aims to do. The result will be a highly efficient district energy network that will allow Seattle to substantially curb its GHG emissions. That network is the unique asset that CenTrio brings to Seattle's roadmap to a sustainable future. In the meantime, however, CenTrio should be afforded the time and the opportunity to marshal investments necessary for transitioning to a decarbonized future.

II. The Problem: High CCA Compliance Costs Would Drive CenTrio Out of Business

CenTrio's GHG emissions during the CCA baseline period averaged approximately 73,000 tons per year. As such, CenTrio will be a "covered entity" under the CCA. However, CenTrio is not currently recognized as an EITE facility under the statute (i.e., its NAICS code is not included among those listed in RCW 70A.65.110(1)), and so would not receive any no-cost allowances under the CCA Program to ease its transition to decarbonized operations. Furthermore, under currently proposed WAC 173-446A, CenTrio would not meet the criteria necessary for applying for and obtaining EITE status beginning in the second compliance period. That is because the Proposed Rule, although not required to by the statute, sets forth criteria for demonstrating "trade exposure" that are unduly narrowed to trade exposure in an *international* context.⁴ Because CenTrio cannot demonstrate *international* trade exposure, it would not qualify for EITE status, even though (as explained below) CenTrio presents a substantial risk of GHG emissions "leakage," which is *precisely* the concern that led the legislature to include special provisions for EITE facilities in the CCA.

Lacking the support that EITE status would provide for its transition to decarbonized operations, CenTrio would face impracticably high CCA compliance costs: approximately \$1.5 million for the first year of the Program alone, rising to approximately \$9.3 million per year by 2050, with total 2023-2050 costs exceeding \$121 million. Absent changes to its compliance obligation pathway within the Program, CenTrio will not be able to even continue operating its district energy system, much less make the sustainability investments to render that network ready to play a crucial role in Seattle's low-carbon future.

Furthermore, the loss of CenTrio's district energy operation would result in a *net increase* in GHG emissions from its downtown Seattle service area (see attached map),

[weapon-climate-action-and-human-health](https://www.enwave.com/pdf/UNEP_DES_District_Energy_Report_V%C3%98JNC122.pdf); UNEP, "District Energy in Cities: Unlocking the Potential of Energy Efficiency and Renewable Energy," https://www.enwave.com/pdf/UNEP_DES_District_Energy_Report_V%C3%98JNC122.pdf.

³ See https://www.eesi.org/files/district_energy_factsheet_092311.pdf.

⁴ See WAC 173-446A-040(2)(b)(ii) and Equation 040-2 (equation for showing "trade exposure" relies on "imports," or "arrivals of merchandise from foreign countries," and "exports," or "goods physically moved out of the U.S. to foreign countries").

contrary to the CCA's primary goal. CenTrio's provision of thermal energy to nearly 200 facilities from its central distribution point is far more efficient than those facilities producing that energy on their own. And if CenTrio were to close, those facilities could not quickly and inexpensively "flip a switch" to electricity-based heat and steam. That is because such a transition would require the expensive and time-consuming process of installing new electricity-ready infrastructure at each customer's facility, where they currently have infrastructure for receiving and distributing CenTrio's thermal energy. Moreover, even if all CenTrio's customers could "flip a switch" and instantly "go electric" (which they cannot), it is unclear that Seattle City Light could handle the additional load (approximately 150 megawatts, at least in the near term, if all such customers made that switch. The reality is that, if CenTrio were to cease operations, most if not all of its scores of customers would install their own (less efficient) energy sources, typically fossil-fuel-fired boilers, leading to a net increase in GHG emissions from CenTrio's Seattle service area, which is to say: local GHG emissions leakage.

Although "leakage" is often thought of in an international context (e.g., a reduction in energy-efficient production in Washington leading to a rise in more carbon-intensive production in China), leakage can happen locally. And local leakage would result if CenTrio's relatively efficient district energy network were replaced by a fragmented patchwork of facility-specific boilers. CenTrio is not alone in recognizing this risk.⁵ Furthermore, most if not all of those individually fueled facilities would have total annual emissions less than 25,000 tons, such that they would not be "covered entities" under the CCA. Thus, if CenTrio is forced out of business due to impracticably high CCA compliance costs, the result will be local leakage, and that aggregate of net-*higher* emissions would be fragmented and moved *outside* the purview of the CCA Program. Such a result is antithetical to the goals of the legislature in enacting the CCA.

Lastly, the CCA itself explicitly calls for supporting district energy systems in Washington. The legislature specifically called out "district energy" as one of the types of projects to be funded by Program proceeds in the "Climate Commitment Account." See RCW 70A.65.260(1)(e). Far from supporting "district energy," the CCA and draft WAC 173-446A as it stands now would imperil the very existence of district energy in downtown Seattle, contrary to the legislature's intent. In this context, and to implement the legislative intent that is already evident in the statute, draft WAC 173-446A should be amended to allow for district energy

⁵ For example, in a past study of district energy options, the City of Seattle's Office of Sustainability and Environment cautioned as to what would likely result if one of Seattle's major hospitals were no longer served by CenTrio. Speaking of events as they stood in 2012, the City's briefing report stated: "Harborview's service agreement [with Seattle Steam, n/k/a, CenTrio] expires in 2013 and the hospital has expressed a desire to move to a *stand-alone, gas fired steam plant*. Should a load of this size be removed from the Seattle Steam system, it is likely that the heating provider would need to raise costs for other customers, leading to further attrition from the system, which in turn would lead to further price increases. *It is likely that a majority of buildings leaving Seattle Steam would pursue a natural gas-based strategy, a negative impact to the carbon footprint of building energy use in the city.*" See City of Seattle, District Energy Briefing Packet, http://clerk.seattle.gov/~public/meetingrecords/2012/energy20120124_4a.pdf (emphases added).

systems such as CenTrio's to apply for and obtain EITE status.

III. The Solution: Broaden the Criteria for Demonstrating Trade Exposure or Otherwise Allow Facilities Presenting "Local Leakage" Risks to Obtain EITE Status.

The CCA itself does not define "emissions-intensive," "trade-exposed," or "emissions-intensive, trade-exposed." There is nothing in the CCA that dictates that Ecology must consider trade exposure solely and narrowly on an international basis. The CCA affords Ecology the flexibility and discretion to identify and address any "trade exposure" that indicates a risk of emissions leakage, which (again) is the primary concern that led the legislature to craft special provisions for EITE facilities in the statute. And furthermore, "leakage" is essentially shorthand for describing a situation where, for example, a law or regulation results in reduced emissions from one area or class of sources, but those reductions are exceeded in magnitude by resulting increases in emissions from another area or from other sources. The cautionary principle at play is this: take care that a particular law or regulation aimed at *reducing* GHG emissions does not result in the opposite, i.e., a net *increase* in emissions. That principle is relevant not only in the international context, but also (in certain factual scenarios) in a local context, e.g., within a major metropolitan area such as Seattle. CenTrio's operations in the context of Seattle present just such a risk of local leakage.

Ecology can address this risk with simple changes to the Proposed Rule. Currently, proposed WAC 173-446A-040(2)(b)(ii) has only one subsection (A) and provides only Equation 040-2 for demonstration of the requisite "trade exposure" for EITE status, and (as noted) it is only *international* trade exposure. Ecology should amend the Proposed Rule to add a subsection (B) allowing for other demonstrations of trade exposure (not confined to just international trade exposure) that present significant risks of emissions leakage.

Specifically, subsection (ii) could specify, "Trade exposure must be demonstrated by one of the following," and then, after subsection (A), subsection (B) could read as follows:

(B) Facilities that cannot demonstrate trade exposure according to subsection (A) and Equation 040-2 above may provide other information to Ecology to demonstrate trade exposure on a more local (i.e., not international) level. If Ecology determines that those facilities present credible risks of significant emissions leakage based on their market or trade context, Ecology may consider them to be trade exposed.

In addition, Ecology should amend its definition of "manufacturing facility" in WAC 173-446A-020 to include facilities such as CenTrio's, which produces and distributes steam (or, more generally, thermal energy) as its product. For example, the definition may be amended to mean "a facility, as defined in WAC 173-441-020, that produces a physical product or material as its primary activity." Alternatively, Ecology could broadly define "product," which is currently undefined, to include materials such as steam produced and distributed to customers for heat and other applications.

IV. Conclusion: Broadening EITE Criteria Will Avoid Local Leakage in Seattle and Preserve Crucial District Energy Infrastructure for the City's Low-Carbon Future.

CenTrio recognizes its responsibility to do its part in helping Washington reach its GHG emissions reductions goals. CenTrio has already committed to aggressively decarbonize its operations between now and 2050. And the result of those efforts will be a robust district

energy system serving 200 or more customers with efficient thermal energy with a low-carbon footprint. CenTrio's district energy infrastructure is a unique and valuable asset for Seattle (and thus, the State), which should be preserved and supported in the coming years.

Without changes to its CCA compliance obligation pathway in the years to come, CenTrio will face impracticably high compliance costs and will have to cease operations. That will not only harm CenTrio's business and its customers (including Seattle's three major downtown hospitals) who rely on CenTrio's thermal energy; it will lead to a net *increase* in GHG emissions from CenTrio's service area (as facilities respond to CenTrio's absence by installing their own fossil-fueled boilers), and those net-*increased* emissions will be fragmented among scores of facilities whose individual emissions are sufficiently low to keep them beyond the ambit of the CCA. Thus, emissions in the aggregate would increase and those increased-but-fragmented emissions would be outside the reach of the CCA. Furthermore, Seattle would be deprived of the opportunity to utilize an existing district energy network, (which the United Nations calls a "secret weapon for climate action and human health"), as a crucial component of its plan for a long-term low-carbon future for the city.

CenTrio's annual GHG emissions (73,000 tons) represent about .00073 of statewide emissions, or *less than 3/4 of 1/10 of 1 percent* of statewide emissions (at approximately 100 million tons per year). Every facility must do its part to help reduce state-wide emissions. But the timing and manner in which facilities do their part should be tailored to particular facilities' operations, challenges, and potential contributions in the longer term to a sustainable future for Washington; and should be tailored to avoid emissions leakage (which would thwart the purpose of the CCA). In affording CenTrio the ability to apply for and obtain EITE status, the cap-and-trade program would be providing a reasonable transition pathway to sustainability for *less than 3/4 of 1/10 of 1 percent of statewide emissions*, a proverbial "drop in the bucket."⁶ That provision would not appreciably slow or hinder Washington's swift progress toward its emissions reduction goals. What would thereby be obtained, however, is unquestionably significant. Local leakage in Seattle would be avoided, as would the scenario where emissions now associated with CenTrio's energy would be fragmented and diverted out of the CCA Program's coverage.

Seattle (and Washington) would preserve the very "district energy" systems that the legislature expressly called for the CCA to support and would thereby allow CenTrio's district energy network to play a crucial role in the cities and the state's long-term sustainable future.

CenTrio appreciates the opportunity to provide input on Ecology's Proposed Rule for WAC 173-446A. We hope to continue engaging with Ecology during the rulemaking process,

⁶ Note that CenTrio is the *only* facility with NAICS code 221330 ("Steam and Air-Conditioning Supply") in the current public state GHG inventory (which generally lists facilities with annual emissions of 10,000 tons or more), where it is listed as "Western Avenue Steam Plant – Seattle." Therefore, emissions associated with district energy state-wide (considering facilities with 10,000 or more tons per year of emissions) amount to less than 3/4 of 1/10 of 1 percent of statewide emissions. Thus, broadening the EITE criteria to allow for district energy facilities (presenting a leakage risk) to apply for and obtain EITE status would be amending the regulatory compliance pathway for *less than 3/4 of 1/10 of 1 percent of statewide emissions*. That is to say, it would not present any significant obstacle to the Program's swift progress toward helping the State achieve its emissions reduction goals.

and we would be grateful for the opportunity to discuss the issues described above in further detail in a meeting with Ecology.

If you have any questions about these comments, please contact me.

Very truly yours,



Clarence Clipper
General Manager

cc: Luke Martland, luke.martland@ecy.wa.gov