



August 31, 2022

RE: Comments to Ecology Clean Fuel Program Rulemaking

Dear WA Ecology, LCFS Rulemaking Committee:

Regenis, LLC is a Washington-based company located in Ferndale WA focused on construction and operations of dairy manure anaerobic digesters for production of renewable energy and fuel, either in the form of electricity or renewable natural gas. With fourteen installations, a half-dozen presently in the works, and operations on numerous facilities, Regenis is a national leader in the dairy manure anaerobic digestion field. Regenis is pleased to be a part of this industry due to its numerous economic and environmental benefits to farms, communities, and state and federal policy priorities – be it much needed renewable energy for the electric grid, fuel for clean vehicles, methane capture and destruction, rural economic development, and improved manure management for farms. Accordingly, Regenis was pleased to see passage of Clean Fuels Standard legislation for Washington State.

We applaud the Department of Ecology's efforts to develop a well-conceived program and appreciate all of your hard work. We do, however, want to comment on two aspects of the draft rules under WAC 173-424-630, "Determining the carbon intensity of electricity."

***Comment 1 – Engine Efficiency Penalty within Electricity Pathways***

From our reading it appears that Washington State is leaning towards incorporating an engine efficiency penalty within the rulemaking that is similar to California's rules. The California rule penalizes electricity projects with a formula-based credits reduction for projects that achieve less than 50% electrical conversion efficiency. We understand and accept the rationale behind the need to penalize electricity projects utilizing inefficient generators. Our concern resides in the use of the 50% standard. At present, only a very limited number of technological approaches, each with very high-cost structures, are available to potentially achieve that standard (i.e., certain fuel cells and unique Rankine or heat recovery-to-electricity approaches). In our opinion, it does not seem appropriate or effective to impose such a high standard on a specific industry when the associated technology is attainable from only a few high-cost vendors – in effect placing the state in a position of rewarding particular companies while also limiting project development.

Washington State could venture away from California's restrictive approach through a compromise that incentivizes projects to use high efficiency engines while also opening the door to additional technological solutions, vendors, and project developers. For example, the most common approach to electrical generation for these types of projects is still internal combustion (IC) engines, or hybrid IC/fuel cell approaches that are now just emerging in the marketplace. High-efficiency models of these technologies can achieve 35-42% electrical conversion efficiency while also providing recovered heat to maintain necessary temperatures in the digester (an approach to energy efficiency that presently is not rewarded by California as its use is in the form of recycled, renewable heat as opposed to heat converted to additional electricity).



Resultingly, the State could adopt a compromise that protects the program against bad actors who might purposefully opt for inefficient engines in favor of higher CI scores, while also allowing for inclusion of additional generation pathways with relatively high electrical conversion. This could take the form of a lower, but still beneficial efficiency threshold (e.g., 40%), or a phased approach that increases the threshold over a number of years, giving the technology time to improve. Or reward IC/hybrid approaches for their recovery and use of heat, which also reduces greenhouse gas emissions by offsetting the need to use fossil fuels to supply the heat.

***Comment 2 – RECs from Electricity Projects***

Nearly all of the existing dairy-based digesters in Washington can produce electricity of benefit to both them and the state. Digester owners and operators are excited about transitioning from conventional low-value, short-term power sales agreements to the Clean Fuels Program, and the opportunity to provide power for electric vehicle charging. However, according to our reading of the proposed rules, these digesters would not be able to generate Renewable Energy Credits associated with electricity from their existing generators. This would render them stranded assets with regard to this important revenue source unless they made substantial investments in new generators. We note that California does not have such facility date requirements for renewable electricity generation from biogas. The state and nation have aggressive plans for transportation electrification, so it makes sense the state would bend towards incentivizing electricity for electric vehicles, not excluding existing sources. As such, Regenis proposes that the rulemaking committee make strong consideration to rethinking this approach.

In addition, it appears that the text for electricity projects as written excludes renewable electricity through book-and-claim accounting through at least 2024, given the timeline to generate RECs in WREGIS such renewable electricity could not participate until 2025. Regenis suggests using the benchmark year of 2017 as identified in statute.

Thank you for your time and consideration. Feel free to reach out if you have any questions or concerns, and if you are interested in possibly touring facilities and learning more about the digester industry.

Sincerely,

Bryan Van Loo, Vice President and the entire Regenis Team