



May 15, 2026

*Submitted electronically via ePUC*

Ms. Holly Anderson  
Clerk of the Commission  
Vermont Public Utilities Commission  
112 State Street  
Montpelier, Vermont 05620

Re: Petition of Vermont Renewable Gas, LLC for a certificate of public good, pursuant to 30 V.S.A. § 248, to construct and operate a 2.2 MW generation facility in Lyndon, Vermont, Case No. 24-2797-PET

Dear Ms. Anderson,

The Partnership for Policy Integrity (PFPI) commends the Vermont Public Utilities Commission for its careful scrutiny of Vermont Renewable Gas's (VRG) application for a Certificate of Public Good (CPG), pursuant to 30 V.S.A. § 248. We applaud the Commission for rejecting VRG's petition for an expedited 248(j) review, and for launching an investigation of the standard-offer contract between VRG and the Standard Offer Facilitator (Case. No. 24-3359-INV) which led to the nullification of that contract. We appreciate the Commission's decision to schedule a virtual public hearing in this case and extend the deadline for testimony by non-petitioner parties to allow more opportunities for public input.

PFPI recommends that the Commission **reject** VRG's petition for a CPG for its proposed 2.2 MW biomass facility in Lyndon, Vermont, on the following grounds:

- 1) The project does not pass the needs test
- 2) The project poses an unknown risk to public health, safety, and the environment
- 3) The applicant has failed to demonstrate that the project will reduce greenhouse gas emissions.

### **1. The Project Does Not Pass the Needs Test**

30 V.S.A. § 248(b)(2) requires that a project "meet the need for present and future demand for service *that could not otherwise be provided in a more cost-effective manner.*" It is difficult to imagine a more expensive way to produce electricity than this proposed project, which is only

economically viable through state and federal subsidies, including from the sale of renewable energy credits and carbon removal certificates. While some of these costs may be borne by taxpayers and ratepayers outside of the state, the fact remains that converting wood to methane to burn to generate electricity is expensive, resource-intensive, and inefficient. There are far cheaper and easier ways to produce electricity for the grid, not to mention more cost-effective measures such as energy conservation and efficiency.

## 2. The Project Poses an Unknown Risk to Public Health, Safety, and the Environment

30 V.S.A. § 248(b)(5) requires that an in-state facility must not have “an undue adverse effect on aesthetics, historic sites, air and water purity, the natural environment, the use of natural resources, and the public health and safety.” The applicant has stated that the proposed High Temperature Ablative Pyrolysis (HTAP) technology has not previously been used in the United States, but has not been forthcoming with information about the six facilities that it claims is using this technology in Europe. What is the applicant hiding? If the technology works as well as VRG claims, VRG should provide the data to support these claims, including real-world data on air emissions, wastewater discharges, and operational safety. At the public hearing on April 30<sup>th</sup>, VRG deflected this question. Without such information from reference facilities, how can risk be properly assessed?

We are particularly concerned about the potential air pollution impacts on the surrounding community:

- According to the air permit issued by the Agency of Natural Resources (ANR) in 2024, the facility will emit more than 2.5 tons per year of hazardous air pollutants (HAPs), mostly formaldehyde, which EPA lists as a “known human carcinogen,” 1-3 butadiene, a “known human carcinogen,” and acetaldehyde, a “probable human carcinogen.”
- While the permit requires the facility to install a pollution control system to achieve Vermont’s “Hazardous Most Stringent Emission Rate” (HMSEER), ANR “determined that the Facility, following imposition of HMSEER as noted above, **may continue to have estimated emissions of 1,3-butadiene (106-99-0), acetaldehyde (75-07-0) and formaldehyde (50-00-0) in excess of their respective Action Level.**” (emphasis added)
- Despite these hazardous emissions, ANR opted not to require an Air Quality Impact Evaluation, stating: “The Agency has reviewed several factors relating to this Facility, including, but not limited to those listed in §5-261(3)(a)-(c) of the Regulations **and the level of emissions and emission reduction measures typical for this category of emission source.** Based on this review, the Agency is not requiring the Facility to conduct an air quality impact evaluation pursuant to §5-261(3) of the Regulations at this time.” (emphasis added)

ANR’s decision to not require an air quality impact analysis for this facility raises many questions. Since this is the first time this technology has been proposed in the US, how did ANR determine what level of emissions are “typical” for this category of emission source? Did ANR review emissions data from the six facilities that CETY claims use this technology in Europe? Given the novel technology and the proximity of businesses, residents, and a day care center, community members have legitimate concerns that the potential risks to public health and safety, particularly from hazardous air emissions, have not been properly evaluated.

### 3. The Applicant Has Failed to Demonstrate that the Project will Reduce Greenhouse Gas Emissions

30 V.S.A. § 248(b)(5) requires the PUC to consider greenhouse gas (GHG) impacts. While VRG claims this project will avoid GHG emissions in the electricity sector, the company’s claims consistently understate the potential CO<sub>2</sub> emissions from biomass combustion and overstate the potential carbon storage benefits from biochar.<sup>1</sup> This is typical for the biomass industry, which, in utter denial of established science, frequently maintains that burning wood for energy is “carbon neutral,” often erroneously citing the Intergovernmental Panel on Climate Change (IPCC) as the source for this claim.<sup>2</sup>

To the contrary, the IPCC has repeatedly stated that emissions from burning wood and other biogenic fuels should *not* be automatically considered carbon neutral or “zero” carbon, even if the fuel is thought to be produced sustainably.<sup>3</sup> Scientists at the EPA and around the world have acknowledged this.<sup>4</sup> Lifecycle accounting has long established that net CO<sub>2</sub> emissions from forest bioenergy typically exceed fossil fuels for decades to centuries, depending on various factors, including the feedstock, its alternate fate, the fossil fuel that is replaced, and the energy conversion efficiency.<sup>5</sup>

<sup>1</sup> See, for instance, *Biomass Feedstock Assessment and Greenhouse Gas Emissions Benefits*, an analysis prepared for Vermont Renewable Gas by Innovative Natural Resource Solutions, LLC, April 30, 2024 (Exhibit VRG-EK-1)

<sup>2</sup> See Exhibit VRG-EK-1, *supra*, p. 12 for an example.

<sup>3</sup> Intergovernmental Panel on Climate Change (IPCC), Taskforce on National Greenhouse Gas Inventories, Frequently Asked Questions, Q2-10 at <https://www.ipcc-nggip.iges.or.jp/faq/faq.html>.

<sup>4</sup> EPA Science Advisory Board (SAB), *SAB review of Framework for Assessing Biogenic CO<sub>2</sub> Emissions from Stationary Sources (2014)* (Mar. 5, 2019), available at <https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M512/K176/512176981.pdf>.

<sup>5</sup> See, for instance: Thomas Buchholz, *et al.*, A global meta-analysis of forest bioenergy greenhouse gas emission accounting studies, *GCB Bioenergy*, (Mar 2016), <https://onlinelibrary.wiley.com/doi/abs/10.1111/gcbb.12245>; Niclas Bentsen, *et al.*, Carbon debt and payback time – Lost in the forest?, *Renew. Sustain. Energy Rev.* (Jun 2017), <https://www.sciencedirect.com/science/article/pii/S1364032117302034>; Mary S. Booth, Not carbon neutral: Assessing the net emissions impact of residues burned for bioenergy. *Environmental Research Letters*, Feb. 21, 2018, at <https://iopscience.iop.org/article/10.1088/1748-9326/aaac88>; John D. Sterman, *et al.*, Does replacing coal with wood lower CO<sub>2</sub> emissions? Dynamic lifecycle analysis of wood bioenergy, *Environmental Research Letters*, Jan 18, 2018, at <https://iopscience.iop.org/article/10.1088/1748-9326/aaa512/meta>; Jerome Laganier, *et al.*, Range and uncertainties in estimating delays in greenhouse gas mitigation potential of forest bioenergy sourced from Canadian forests, *GCB Bioenergy* (2017)9, 358–369, <https://onlinelibrary.wiley.com/doi/epdf/10.1111/gcbb.12327>; John Gunn *et al.*, Spatial Informatics Group, Natural Assets Laboratory, Scientific evidence does not support the

The confusion stems from inappropriately applying IPCC inventory reporting guidelines to specific projects or policies. The IPCC guidelines require emissions inventories to report bioenergy CO<sub>2</sub> emissions in the land sector, when the biomass is harvested, and thus report energy sector bioenergy emissions as zero to avoid double-counting. However, this is literally a book-keeping convention – counting energy sector biomass CO<sub>2</sub> emissions as “zero” in state and national GHG inventories does *not* mean biomass physically has “zero” CO<sub>2</sub> emissions. Policies that ignore physical reality and treat biomass combustion as if it *actually* has zero CO<sub>2</sub> emissions undercount emissions, direct subsidies to renewable energy that emits more CO<sub>2</sub> than fossil fuels, and increase pressure on forests and farmlands.

In a similar case just last year, the California Public Utilities Commission (CPUC) denied Pacific Gas and Electric Company’s application seeking approval of a woody biomass to renewable natural gas pilot project, in large part due to PG&E’s failure to demonstrate that the proposed gasification project would reduce greenhouse gas emissions.<sup>6</sup> In its decision (attached), CPUC found that, among other things:

- PG&E did not demonstrate that the Project would be able to offset emissions from the transportation of biomass associated with the Project.
- PG&E’s GHG emissions estimates for the Project did not include GHG emissions from methane leakage from the transmission, storage, distribution, or production of biomethane at the Facility or biomass storage.
- PG&E did not demonstrate that the Project would be able to offset emissions from the commercial hydrogen used in the methanation process.<sup>7</sup>
- PG&E did not provide a concrete estimate of the ratepayer benefits of the Project.
- PG&E did not conduct a life cycle analysis for the Project to calculate the Project’s carbon intensity score.
- PG&E did not provide any granular estimates of GHG emissions from the Project.

While the proposed technology and the applicable state requirements are not identical in the case of VRG’s project, CPUC’s decision underscores the variability and complexity of quantifying the greenhouse gas impacts of projects of this type, and the need for comprehensive accounting of all the carbon emissions associated with energy generation.

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carbon neutrality of woody biomass energy: a review of existing literature 3 (Oct. 31, 2018), [https://www.sig-nal.org/files/ugd/f5c52e\\_a51f246c8a854cf594ce47e6d05d9616.pdf](https://www.sig-nal.org/files/ugd/f5c52e_a51f246c8a854cf594ce47e6d05d9616.pdf).

<sup>6</sup> California Public Utilities Commission, Decision Denying Application of Pacific Gas and Electric Company for Approval of its Woody Biomass to Renewable Natural Gas Pilot Project (Application 23-06-023), April 24, 2025

<sup>7</sup> While the PG&E proposal utilized a different process, using hydrogen, the relevant point is the need to demonstrate that all emissions are considered, including for the processing of fuel. In the case of VRG’s proposed facility, GHG emissions associated with chipping, heating and drying wood prior to feeding it into the pyrolysis chamber must be factored into the proposal’s overall GHG impacts.

## Conclusion

PFPI is a science-based nonprofit organization that has worked extensively on the environmental impacts of forest bioenergy, both in the US and internationally, since 2010. We believe that VRG's proposed biomass facility in Lyndon, Vermont will result in increased air pollution and greenhouse gas emissions, with no demonstrable benefit for ratepayers. We therefore urge the Commission to deny VRG's petition requesting a certificate of public good for this project.

Thank you for your careful consideration of this proposal.

Sincerely,



Laura Haight  
Policy Advisor  
[lhaight@pfpi.net](mailto:lhaight@pfpi.net)

Attachment: California Public Utilities Commission, Decision Denying Application of Pacific Gas and Electric Company for Approval of its Woody Biomass to Renewable Natural Gas Pilot Project (Application 23-06-023), April 24, 2025