

STATE OF VERMONT  
PUBLIC UTILITY COMMISSION

Case No. 22-2230-PET

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| Petition of Vermont Gas Systems, Inc.,<br>pursuant to 30 V.S.A. § 248(i), for approval<br>of an out-of-state renewable gas purchase contract<br>with a term exceeding five years |  |
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**Intervenor’s Motion for Reconsideration of Final Order and Amendment of Findings**

Pursuant to V.R.C.P. 52(b) and V.R.C.P. 59(a), the Intervenor moves for reconsideration of the Final Order Approving the Contract issued on November 8, 2022 and for amended or additional findings.

**Memorandum of Law**

The Intervenor respectfully submits that the Final Order Approving the Contract lacks critical findings of fact present in the record, and, lacking these, certain of the Commission’s conclusions cannot be understood by the Intervenor, ratepayers, citizens, or a reviewing court. The Intervenor also respectfully submits that the final order is grounded in material misapprehensions of the Commission’s duty and authority, specifically with respect to the requirements of the Global Warming Solutions Act (GWSA) of 2020. Therefore, the Intervenor moves pursuant to V.R.C.P. 52(b) and V.R.C.P. 59(a) for reconsideration of the Commission’s Final Order and for amended or additional findings.

**I. The Commission Misapprehends and Does Not Give Sufficient Weight to the Role of the Requirements of the Global Warming Solutions Act in Vermont’s Energy Policy**

Passage of the Global Warming Solutions Act in 2020 was intended to change Vermont energy policy and, in fact, did so in significant ways. For example, V.S.A. 30 § 202(a), which

sets out the State's general energy policy, was amended to add the following to the previous two subsections:

(3) To meet Vermont's energy service needs in a manner that will achieve the greenhouse gas emissions reductions requirements pursuant to 10 V.S.A § 578 and is consistent with the Vermont Climate Action Plan adopted and updated pursuant to 10 V.S.A. § 592.

The 10 V.S.A § 578 requirements referenced here are the specific greenhouse gas emissions reduction requirements that must be met by 2025, 2030 and 2050. Much of the Intervenor's case, and the arguments and facts supporting it, relies on reference to and consistency with these requirements as a matter of State energy policy. Frequently, throughout the Final Order, the Commission discounts this approach and deflects attention from the GWSA to the State's Comprehensive Energy Plan (CEP) as if the latter is the superior and more certain guide.

For example, at the bottom of page 34 of the Final Order, the Commission underplays the testimony of the Intervenor's expert witness relative to the inability of the Contract to further Vermont's energy policy with respect to the GWSA mandates by asserting the following:

Although Dr. Grubert presented expert testimony on technical issues associated with RNG, with respect to furthering Vermont's energy policy and the GWSA mandates, we emphasize our conclusion that the Contract is consistent with the CEP.

At the bottom of the previous page, the Commission argues in the same manner as follows:

With respect to those State energy policy goals, Ms. Bock argues that the proposal for decision fails to address Dr. Grubert's conclusion that "the Contract does not offer an effective pathway to the [GWSA] aim of achieving net zero emissions by 2050." We disagree with this assertion. The proposal for decision expressly concludes that the Contract is consistent with the CEP.

A more general statement of the Commission's sums this up:

It was reasonable and appropriate for the Hearing Officer to rely on the Department's testimony regarding consistency with the CEP to conclude that the Contract is in line with State energy policy, including the GWSA mandates that are incorporated into the CEP.

That the GWSA emissions reduction requirements “are incorporated into the CEP” fails to capture the full impact of the change in State energy policy created with passage of the GWSA.

Enactment of the GWSA also amended 30 V.S.A. § 202(b), adding the words italicized below:

*The Plan shall seek to implement the State energy policy set forth in section 202a of this title, including meeting the State's greenhouse gas emissions reductions requirements pursuant to 10 V.S.A. § 578, and shall be consistent with the relevant goals of 24 V.S.A. § 4302 and with the Vermont Climate Action Plan adopted and updated pursuant to 10 V.S.A. § 592.*

It is of some interest to note that when the CEP quotes this portion of the law on page 26 it omits the italicized words, understating the full, intended weight of the GWSA emissions reduction requirements. Nonetheless, the greenhouse gas emissions reduction requirements of the GWSA are statutory mandates. With respect to emissions reduction, the legislature's clear intent was that these mandated requirements are primary. The redefinition of the role of the CEP by the GWSA mandates that, along with all else it must do, the plan shall seek to implement meeting the emissions reduction requirements of 10 V.S.A. § 578.

In the Final Order, the Commission makes two further assertions about the GWSA emissions reduction mandates that also tend to underweight their importance within the State's overall energy policy. At the end of the first paragraph on page 34 of the Final Order, the Commission writes:

*Although we have given significant consideration to the GWSA's mandates in rendering our decision in this case, we note that the most stringent of the GWSA mandates will not take effect until 2050 – well after the expiration of the Contract.*

This is not quite accurate. All the mandates of the GWSA took effect immediately on enactment of the bill. The emissions reduction required by January 1 of 2050 have to be met by that date, but they are in effect now. The Intervenor believes the legislative intent of the GWSA is clear: progress toward the 2050 mandate is a matter of planning and action now and cannot

wait until that date. Nor can planning and action wait till expiration of the Contract. The 14.5-year term of the Contract is more than halfway to the 2050 target date. If VGS were to exercise the five-year extension allowed by the Contract, its term would come within seven years of the target date.

In the following paragraph on page 34 of the Final Order, the Commission writes,

Indeed, we are not statutorily charged with making ultimate determinations on compliance with the GWSA.

It is not fully clear what is meant by “ultimate determinations” here. Certainly, no party to this case has claimed that the Contract alone must meet the GWSA emissions reduction mandates or that they are the only factor to be considered in reaching a decision. But it is also certain, that the Commission is charged with making decisions consistent with State energy policy, including the GWSA mandates. The Intervenor is concerned that all consideration of emissions reductions by the petitioner, by the Department and by the Commission itself have been made only with reference to VGS’s current supply or its projected supply by 2030, and no effort has been made by these parties or by the Commission to see that the claimed reductions be measured against the GWSA mandates.

## II. Underweighting the Role of the GWSA Emissions Reduction Mandates Has Resulted in Exclusion of Critically Important Findings

By underweighting the importance of the specific GWSA emissions reduction mandates, the Commission has implicitly and sometimes explicitly supported the view that any reduction of greenhouse gas emissions, no matter how small, is a benefit consistent with the State’s energy policy and the recommendations of the CEP. This reasoning can be found in Finding 39, but also, for example, in the first sentence on page 33 of the Final Order, where the Commission writes:

Notably, we also conclude that Dr. Grubert's testimony, although it highlighted flaws with VGS's reliance on California-specific GREET Model carbon intensity scores, did not undermine VGS's contention that the carbon intensity of the RNG to be procured under the Contract is less than the carbon intensity of geologic natural gas used in Vermont.

Notable here as well, is that Dr. Grubert explained how the emissions reduction relative to VGS's 2030 supply could be as low as 2.6%, and the evidence offered by VGS reached an estimate for a reduction of no more than 4.3%.

This reasoning, in turn, has resulted in exclusion of critically important findings that follow from evidence and argument offered by the Intervenor's expert witness, Dr. Grubert. The findings in question are found on pages 9 and 10 of the Intervenor's Post-Hearing Brief and Findings of Fact, as follows:

22. Natural gas accounted for 13% of Vermont's energy-related CO<sub>2</sub> emissions in 2019, up from 6% in 1990. [Grubert, PFT, p. 8 and citing: Energy Information Administration, Vermont emissions table as above]

24. Vermont's 2019 energy-related CO<sub>2</sub> emissions were higher than 1990 emissions. [Grubert, PFT, p. 9 and citing: Energy Information Administration, Fuel specific emission tables by state, Vermont: at the link above]

27. Because emissions related to natural gas are much higher now than in 1990, substituting smaller but positive emissions above the 1990 baseline will result in higher emissions than the 1990 baseline unless use of RNG is coupled with dramatic reduction of natural gas demand in Vermont. [Grubert, Response to VGS.Intervenors 1-4]

28. Proving only that RNG has lower emissions than fossil natural gas is insufficient to establish reduction relative to the Global Warming Solutions Act's 1990 baseline. Reducing emissions growth is not emissions reduction. [Grubert, Response to VGS.Intervenors. 1-2]

29. It is unlikely that the RNG in this Contract will be reducing rather than adding to emissions relative to a 1990 baseline. [Grubert, PFT, p. 8, lines 7-9]

Including these findings will serve, among other things, to correct an erroneous claim first made by VGS in its Post-Hearing Brief at the bottom of page 14:

Dr. Grubert's contention that this Contract is not enough—on its own—to achieve the emissions reduction contemplated by the GWSA is irrelevant. VGS does not contend this Contract solves the entire carbon emissions problem. Instead, this Contract makes meaningful progress toward GWSA mandates as part of a suite of efforts that VGS is undertaking to reduce carbon emissions.

Following the lead of VGS, the Hearing Officer repeated the same erroneous claim on page 26 of the Proposal For Decision:

Ms. Bock is correct that this Contract, by itself, will not enable VGS to meet its GWSA obligations.

By implication, on page 34 of the Final Order, the Commission itself repeats the same error:

Also, to be clear, our decision to approve the Contract is not a determination that the Contract, by itself, is sufficient for VGS to meet its anticipated GWSA obligations.

In fact, neither the Intervenor, nor Dr. Grubert ever contended that this Contract on its own would have to meet all VGS's emissions obligations under the GWSA. Nor did Dr. Grubert fail to take into account the demand-side emissions reduction initiatives VGS was offering to customers: weatherization, heat pumps, heat pump water heaters and electric appliances, etc. On the contrary, the Intervenor was at pains in her Reply to the Proposal For Decision to indicate that her point was this:

VGS offered no emissions or cost comparisons to other pathways, even to pathways that it provides, such as weatherization and heat pumps. The only emissions and cost comparisons it provides for the contract are to the current supply, which is almost entirely fossil gas. To demonstrate a net benefit from the Contract, commensurate with the GWSA, VGS would need to show that all alternative replacements of the current supply would have higher emissions than this RNG supply. It has not done that because it has shown no alternative pathways at all.

It is more than likely that comparison of the Contract RNG to the other pathways VGS already provides would show that these alternatives produce greater emissions reductions at lower cost. Neither VGS nor the Department offered, nor did the Commission require, evidence that would have allowed this critical comparison to be made. The Intervenor's expert witness was nowhere

asserting that the Contract RNG on its own must satisfy the GWSA emissions reduction mandates. Rather she was indicating that none of VGS's emissions reduction measures were evaluated relative to the GWSA requirement that Vermont's GHG emissions must be reduced "not less than 40 percent from 1990 greenhouse gas emissions by January 1, 2030."

III. The Final Order Minimizes the Importance of the GWSA Goal for Vermont to Reach Net Zero Emissions by 2050, Resulting in Further Exclusion of Critical Findings

The Intervenor's expert witness provided evidence to show that if a climate mitigation strategy requires achieving net zero GHG emissions, efforts which lack a path to that end will eventually have to be replaced by alternatives that do provide such a path. Efforts that fail to provide a pathway to a net zero emissions requirement will not only waste investment. They also will waste time that cannot be regained to meet the climate challenge. As a result of discounting the importance of the GWSA's net zero goal, the Final Order excludes the following findings offered on page 11 of the Intervenor's Post-Hearing Brief and Findings of Fact:

30. One of the aims of the Global Warming Solutions Act is to "achieve net zero emissions by 2050 across all sectors." [Grubert, PFT, p. 14, citing Vermont General Assembly, Vermont Global Warming Solutions Act of 2020, p.15.]

31. If long-term climate mitigation efforts require achievement of net zero GHG emissions, mitigation efforts which lack a path to that end will eventually have to be replaced by alternatives that do have such a path. [Grubert, PFT, p. 5]

32. If policy requires net zero emissions, then consideration of whether an investment, including RNG, enables achievement of complete or near complete decarbonization of the service it provides is important. Grubert, PFT, p. 5]

33. Among the factors that must be evaluated when assessing the climate implications of using RNG in a fossil natural gas system are alternatives for providing the service for which the RNG is used. If RNG is used for home heating, the GHG impact depends on how else the home might have been heated, for example via zero-GHG electricity in a heat pump, district geothermal, or fossil natural gas. [Grubert, PFT, p. 4]

Minimizing the net zero by 2050 goal seems related to the Commission's disinclination to acknowledge the importance of the 2050 GWSA mandates as a subject for action now. However, it is clear that the legislative intent and the plain language of the GWSA is that the 40% reduction of emissions by 2030 and the 80% reduction of emissions by 2050 are inseparable and are of a piece with one another. They require planning and action beginning now, the later target no less than the closer target.

In this light, with respect to reaching the GWSA requirement for net zero emissions by 2050, the Commission also errs when it excludes the following findings offered on page 12 of the Intervenor's Post-Hearing Brief and Findings of Fact:

36. VGS's broader strategy to reduce carbon emissions consistent with the GWSA is to always include use of RNG along with demand-side, conservation strategies, e.g., weatherization, heat pumps, hybrid and geothermal systems. [Morse, PFT, p. 15.]

37. VGS has testified that it will be using RNG and fossil natural gas in its system for the next 20 years. [Murray testimony, Evidentiary Hearing Transcript, p. 61]

38. VGS has testified that substituting alternative gas fuels for fossil natural gas is necessary for VGS to achieve an 80% reduction in emissions from 1990 levels. [Murray testimony, Evidentiary Hearing Transcript, p. 61]

39. VGS has testified that it is possible that its current system of transmission and distribution will still be in service to deliver methane fuel of some sort in 2050. [Murray testimony, Evidentiary Hearing Transcript, p. 62]

These findings are derived from prefiled testimony and responses to cross examination at the evidentiary hearing by VGS witnesses. They show clearly that to always include RNG is an integral part of VGS's strategy for meeting GWSA requirements and that it is VGS's expectation that its current system of transmission and distribution will continue in service to deliver methane fuel in 2050. It is not possible to see how either is consistent with the GWSA goal for Vermont to reach net zero emissions by 2050. Nor is it possible to understand the Commission's disagreement with Dr. Grubert's conclusion that "the contract does not offer an effective

pathway to the [GWSA] aim of achieving net zero emissions by 2050.” The Commission’s reason for its disagreement, found on pages 33 and 34 of the Final Order, is circular and less than convincing:

The proposal for decision expressly concludes that the Contract is consistent with the CEP. As the Hearing Officer discussed in detail, under Vermont law, the CEP is intended to implement Vermont’s energy policy – including the greenhouse gas emission reductions that are mandated by the GWSA. It was reasonable and appropriate for the Hearing Officer to rely on the Department’s testimony regarding consistency with the CEP to conclude that the Contract is in line with State energy policy, including the GWSA mandates that are incorporated into the CEP.

The exclusion of Intervenor’s findings 36-39 just referred to seems unmerited and unexplained. The Commission has provided no Memorandum of Law to explain fully its resort to consistency with the CEP when the challenge is to show how the Contract meets the requirements of the GWSA. *New England Power v. Barnet*, 134 Vt. 498, 503, 367 A.2d 1363 (1976), seems pertinent: "The purpose of findings is to make a clear statement to the parties, and to this Court if appeal is taken, of what was decided and how the decision was reached..." The Commission must explain how it reached factual conclusions upon which it relied and why it excluded other facts that contradict those conclusions.

The final and most important point with respect to the Contract’s failure to provide a pathway to net zero is that since VGS by its own testimony cannot achieve net zero by 2050, then other providers, either within or outside of the thermal sector, will have to assume a disproportionate share of the burden of decarbonization and its expense. This hardly seems to meet the least-cost planning requirements of Vermont’s energy policy. Findings 40 and 44 in the Intervenor’s Post-Hearing Brief and Findings of Fact, also both excluded from the final order, drive to the same point:

40. The Department of Public Service has “found that demand-side measures such as energy conservation generally reduced emissions at costs much lower than RNG,” . . . [DPS Response to Bock.DPS.1.4]

44. The Department determined that, “the Proposed Contract is one of the most expensive means for VGS to reduce emissions.” [Jacobs PFT p. 5]

But perhaps it is Dr. Grubert who made the most salient point about the cost-effectiveness of the Contract RNG. In response to one of VGS's interrogatories, she wrote, “I note further that an approach that does not reach a goal is not a cost-effective means of reaching that goal even if it is cheaper than approaches that do meet the goal.” [A.VGS.INTERVENORS.1-13]

#### IV. A Final Word on the CEP, RNG and the GWSA

The CEP chapter on Thermal and Process Energy Use runs to more than fifty pages. Only three of those pages focus on issues associated with RNG. Though those 3 pages do mention VGS's Climate Action Plan, they do not mention Vermont's Global Warming Solutions Act. The CEP mentions that:

While increases in the quantity of RNG and natural gas alternatives serving ratepayers is desirable, Vermont should be aware — just as it needs to be with unregulated fuels — of locking customers into existing combustion-based thermal energy infrastructure, particularly if it delays or dissuades electrification of thermal loads. [CEP, p. 210]

The Proposal for Decision mentions this passage on page 16. The Intervenor's Reply to the Proposal for Decision indicates on pages 9 and 10 that the Proposal fails to acknowledge that the Intervenor's Post-Hearing Brief makes a more detailed argument to the same point, showing “that the Contract RNG does not provide a pathway to net zero emissions by 2050 but will instead be a barrier to that mandated aim of the GWSA, locking not only VGS customers but all Vermonters into natural gas infrastructure and the burning of methane in Vermont for decades. For this reason, the contract will be a wasted investment, delaying and dissuading “electrification of thermal loads.”

The CEP goes on to list and discuss briefly other “challenges” with RNG: that it is currently three times more expensive than traditional natural gas, that as demand for RNG grows in-state and elsewhere upward pressure will be exerted on rates, that the potential for use of in-state RNG is unknown but will be addressed in VGS’s next IRP, that codifying the blending of RNG into its system generally could distribute the increased cost of such a shift inequitably among all VGS ratepayers. [CEP, p. 210]

The CEP’s thermal chapter and the section of it on RNG concludes with only two recommendations with respect to RNG:

- *Complete the study of Vermont potential for renewable natural gas, as required by Public Utility Commission Order in Case 21-0167-PET. Based on results of that study, consider ways to support cost-effective RNG development.*
- *Consider RNG or cleaner fuel requirements for Vermont Gas, first in the context of a Clean Heat Standard, or independent of such a standard if a CHS is not pursued. Any RNG design should consider the benefits and burdens of RNG to all ratepayers.* [CEP, p. 211]

Apparently, the study mentioned in the first recommendation has not been completed since it is nowhere mentioned as a point of comparison in the record of the present Contract case. While the benefits of RNG to all ratepayers are discussed and over-estimated in the record of the present case, the burdens of RNG to all ratepayers, aside from the high cost of the Contract RNG, are hardly mentioned at all. The danger of “locking customers into existing combustion-based thermal energy infrastructure, particularly if it delays or dissuades electrification of thermal loads” [CEP, p. 210] is mentioned in the Proposal for Decision, but only that. The lesson it proposes to teach is nowhere applied in the Final Order.

After reading through the Final Order and noting its deference to the CEP and its heavy reliance on it, it is surprising to rediscover how little the CEP has to say that can inform the issues raised in the present Contract case. It is still more surprising to be reminded how sparse

the CEP's recommendations for RNG are, especially when so many more fully informative findings have been excluded from the Final Order.

## **CONCLUSION**

The Commission's Final Order of November 8, 2022 should be amended to include the presently excluded Findings of Fact mentioned and quoted above so that the order may be reconsidered and reversed.

Dated this 6<sup>th</sup> day of December 2022 in Burlington,

Respectfully submitted by,

*/s/ Catherine Bock*

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