

STATE OF VERMONT
PUBLIC UTILITY COMMISSION

Case No. 22-2230-PET

Petition of Vermont Gas Systems, Inc., Pursuant to 30 V.S.A. § 248(i), for approval of An out-of-state renewable gas purchase contract With a term exceeding five years	
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DIRECT TESTIMONY OF GEOFFREY GARDNER

September 2, 2022

Exhibit GG-1: Map

Summary of This Testimony

The testimony supports the position taken by the intervening party Catherine Bock that the contract under consideration does not provide the specific benefit claimed by the petitioning party, VGS and that, therefore, rate increases following from the contract are not justified. The Global Warming Solution Act and the contract proposal are discussed to show how the contract provisions would fail to help VGS meet the requirements of the act. The landfill source of the RNG contracted for and the price situation of RNG and FNG markets are discussed to show how both pose risks to the success of the contract. Finally, the regulatory situation relative to using a de facto credit system for RNG as a GHG emissions policy is discussed to add to the conclusion that the contract does not promote the general good of the state of Vermont.

**DIRECT TESTIMONY OF GEOFFREY GARDNER
ON BEHALF OF CATHERINE BOCK**

Q1. Please state your name, and occupation and any relevant affiliation.

A1. My name is Geoffrey Gardner. I am a writer, translator and teacher, now retired after teaching in the English Department at Tufts University from 1984-2014.

Q.2. Please describe your educational and professional background and any professional experience pertinent to the subject matter of this case.

A. 2. I am testifying as a concerned and relatively well-informed citizen.

Q.3. Have you previously testified before the Vermont Public Utility Commission (“Commission”)?

Q.3. Yes. I was lead intervenor in PUC Case No. 19-1081-PET and testified in that case.

Q.4. What is the purpose of your testimony?

A.4. I am testifying in support of the position of the intervenor in this case, Catherine Bock. Ms. Bock moved to enter this case as an intervenor and a VGS customer, seeking to ensure that she, and others with similar interests, would not have to pay more for gas service because of rate increases resulting from a benefit VGS claims but that does not actually exist. In her motion to intervene wrote that VGS claims “the Contract aligns with State . . . climate goals in a cost-effective manner that benefits VGS customers.” (*Murray Prefiled Direct Testimony, page 3, lines 16 & 17.*) This is a claim Ms Bock disputes. I agree with her and intend to show in my testimony that the contract will provide no benefit to her and other VGS ratepayers and, furthermore, that it does not align with Vermont’s goals or allow VGS “to contribute to the State’s Global Warming Solutions Act requirements.” (*Murray Prefiled Direct Testimony, page*

1 4, lines 15 & 16.) Therefore, the contract does not promote the general good of the state of
2 Vermont.

3 **Q.5. Which specific terms of Vermont’s Global Warming Solutions Act does this**
4 **contract not contribute to?**

5 **A.5.** What I am referring to specifically are the most basic terms of the Act, now in statute as
6 10 V.S.A. § 578 (a): “Greenhouse gas reduction requirements. Vermont shall reduce emissions of
7 greenhouse gases from within the geographical boundaries of the State and those emissions
8 outside the boundaries of the State that are caused by the use of energy in Vermont . . .”

9 Before passage of the Global Warming Solutions Act, this objective and the schedule of
10 reductions that follows it were framed in terms of goals. With passage of this act, the goals
11 became requirements, but the core idea of what was to be reduced, namely, “. . . emissions of
12 greenhouse gases from within the geographical boundaries of the State and those emissions
13 outside the boundaries of the State that are caused by the use of energy in Vermont . . .”—has
14 been in statute since 2007. Despite this, the out-of-state GHG emissions caused by the use of
15 natural gas in Vermont have never been counted and included in Vermont’s annual Greenhouse
16 Gas Emissions Inventory. In light of this, it is troubling to find VGS claiming a GHG emissions
17 reduction benefit that is consistent with Vermont’s climate goals for a contract that results in
18 GHG emissions reductions not in Vermont but in another state. It will be still more troubling if
19 the PUC approves this contract on the grounds that it contributes to meeting Vermont’s
20 emissions reduction requirements.

21 **Q.6. Will the renewable natural gas (RNG) purchased under this contract not**
22 **contribute to this?**

23 **A.6.** In the simplest and most direct way. By contract, the RNG purchased by VGS will be
24 injected into a common carrier pipeline somewhere close to the Seneca Meadows landfill in
25 Waterloo, NY and will come along with, and in all ways will not be distinguishable from, the other

1 natural gas in the pipeline. From injection near Waterloo, the RNG will follow a pipeline route to
2 delivery in Dawn, Ontario by “Physical Path Delivery.” (Transaction Confirmation, p.1 as
3 amended per Lawliss, Prefiled Direct Testimony, p. 5 footnote 3.) The Transaction Confirmation
4 defines “Physical Path Delivery” as “delivery of Biogas by a continuous physical pipeline
5 transportation path from the supply source to the Delivery Point.” At Dawn, Ontario, VGS will
6 take delivery of a quantity of gas and transport it by pipeline through Parkway, Ontario to
7 Philipsburg, Ontario where it will enter the TC Energy pipeline that carries natural gas from
8 Alberta and the Marcellus shale to injection into the VGS pipeline near Highgate, VT.

9 I am offering, as *Ex. GG-1* in the appendix to this testimony, a map provided to me by Stuart
10 Blood in Thetford, VT, showing the approximate route the RNG purchased under this contract
11 by VGS will follow. While the route as drawn follows actual pipelines it may not be the exact
12 route the contract will guarantee. I invite VGS to share with the Commission a truly accurate
13 map. As the map shows, the pipeline path connecting the two points is over 1,000 miles. Along
14 this physical path, natural gas will enter and leave the pipelines at many nodes. At delivery to
15 VGS at Dawn, Ontario and at injection into the VGS pipeline at Highgate, VT the gas will include
16 extremely little to none of the RNG purchased and injected at the source in Waterloo. Whatever
17 that amount, no one will disagree that it will be physically indistinguishable from any other
18 natural gas in the pipeline, and, therefore, there is no way to know just how much actual RNG is
19 delivered to Vermont under the contract. The actual gas used in Vermont will be almost entirely
20 the same under the contract as before the contract, and in the most literal sense, any emissions
21 reductions resulting from the use in Vermont of RNG purchased under this contract will be
22 impossible to trace.

23 The contract is clear that VGS will be purchasing not just a quantity of RNG but also the
24 “environmental attributes” associated with the RNG. While it can’t be guaranteed how much if
25 any RNG arrives in Vermont at the end of the “Physical Pathway,” it can be certified that the

1 environmental attributes associated with the RNG have not been sold but have been retained by
2 VGS and are “reattached” to a quantity of gas when it is “delivered” to VGS at the Dawn Hub,
3 where VGS takes ownership of actual gas.. The gas delivered, the RNG purchased and the
4 environmental attributes associated with the RNG are distinct, but they often are conflated in
5 confusing ways, verbally and conceptually. The contract is about purchase of RNG and the
6 environmental attributes associated with it. The claimed emissions reductions can only be about
7 the environmental attributes and the basis of the value claimed for them. But Vermont has
8 passed no law that sets the method or standard by which this is to be done so that the
9 environmental attributes can be credited with respect to GHG emissions reduction. And there is
10 no statutory authority that charges any agency of Vermont government with establishing a
11 credit system for environmental attributes of renewable natural gas.

12 **Q.7. What emissions reductions are generally claimed for RNG attributes?**

13 **A.7** As I’ve said there is no physical difference between fossil natural gas and RNG, both are
14 primarily methane, CH₄. They both produce the same amount of CO₂ emissions relative to any
15 quantity burned. When emitted into the atmosphere, CH₄ is a much more potent greenhouse gas
16 than CO₂. According to the IPCC, within a 20 year period, the Global Warming Potential of CH₄
17 is 86 time greater than the Global Warming Potential of CO₂. When organic matter ends up in
18 landfills, landfills emit methane into the atmosphere. If these methane emissions are captured
19 they can be burned. This burning is known as “flaring,” and it produces CO₂ emissions that are
20 less harmful with respect to climate than is the methane that would be emitted directly into the
21 atmosphere if not captured and burned. Landfill methane can also be burned to generate
22 electricity, or it can be upgraded to serve as transportation fuel or as fuel for heating. The
23 avoided methane emissions are the benefit claimed for any of these uses of landfill gas.

24 But the avoidance of methane emissions by these uses is never complete. The closer the use of
25 the methane is to the source, the less opportunity there is for it to leak and function as a

1 powerful greenhouse gas. This is why it's usually agreed that using captured methane on site for
2 heating or to generate electricity is the optimum use with respect to emissions reduction.
3 Natural gas pipelines and storage facilities leak and often leak a lot. The longer any natural gas is
4 stored or traveled in a pipeline, whether it is RNG or fossil natural gas, the more it is likely to
5 leak. The pipeline route from Waterloo to Highgate, though not as long as the fracked gas
6 pipeline route from Alberta to Highgate, is long enough for considerable leakage to occur. But
7 methane leakage from RNG production facilities at landfills are still more considerable. Leaks
8 occur when methane is flared and when it is used to generate electricity. Methane leaks still
9 more when it is upgraded to become transportation or heating fuel.

10 In a recent paper, Professor Emily Grubert of Notre Dame University, assesses the methane
11 leakage at landfills where RNG is produced for any of the purposes mentioned. (Emily Grubert
12 2020 *Environ. Res. Lett.* **15** 084041. [https://iopscience.iop.org/article/10.1088/1748-](https://iopscience.iop.org/article/10.1088/1748-9326/ab9335)
13 [9326/ab9335](https://iopscience.iop.org/article/10.1088/1748-9326/ab9335)) Grubert's study supports her claim that "methane leakage from biogas
14 production and upgrading facilities suggest that leakage is in the 2%–4% range (mass basis), up
15 to as much as 15%. Policy makers should consider that under reasonable leakage and demand
16 assumptions, RNG could be climate intensive." Directly pertinent to the contract under
17 consideration, Grubert's discussion of the evidence further concludes that "RNG is not
18 inherently climate friendly. Based on consideration of both the source of methane used to
19 produce RNG and the likely alternative fate of that methane, and using reasonable assumptions
20 about likely system methane leakage, it is unlikely that an RNG system could deliver GHG-
21 negative, or even zero GHG, energy at scale. . . Designing a system that depends on RNG, or
22 delaying transition to a system that does not depend on natural gas because of the promise of
23 RNG, could delay climate mitigation because of induced demand for intentionally produced
24 methane."

1 This supports the claim that the VGS/Archaea contract will provide no climate benefit
2 consistent with the requirements of Vermont law either for VGS customers or for Vermonters
3 generally. In addition to the pipeline leakage of RNG under this contract, the potential for
4 leakage rates of 2-3% or more at the production site are likely to result in a negative emissions
5 reduction value. The extent to which RNG is promoted and relied on as a GHG emissions
6 mitigation method, instead of relying on other and better alternatives, only makes this situation
7 worse.

8
9 **Q.8. Landfills are considerable sources of methane emissions as you say. Are**
10 **there better alternatives than producing RNG for handling this?**

11 **A.8.** There are better methods for dealing with landfill gas. The first is keeping organics out of
12 landfills to the extent possible by composting and recycling them. And we can be more
13 aggressive about capping landfills to mitigate methane emissions at landfills that are already full
14 of organic material. Here in Vermont, we now have a law that requires organic material to be
15 composted, recycled and kept out of our landfill. It is ironic to the point of being
16 unconscionable, that under a contract like the one being proposed by VGS, we would encourage
17 perpetuating in a neighboring state activity that we consider bad practice here. As it happens,
18 under its ambitious 2019 Climate Act, New York is pursuing updates to its recently adopted food
19 scrap law. Among other provisions, these would require institutions and businesses within 25
20 miles of an organics recycler such as a composting facility or anaerobic digester to recycle food
21 scraps. Landfills would be required to “ensure the separated food scraps reach the required
22 organics recycler.” (Megan Quinn, “New York seeks feedback on regulations to limit landfill
23 expansion, update organics diversion law,” Waste Dive, July 22, 2022.

24 <https://www.wastedive.com/news/new-york-feedback-proposed-land>)
25

1 These updates also propose prohibition of “lateral and vertical expansions” of existing landfills
2 from being built within 1,000 feet of schools or homes. The Seneca Meadows landfill from which
3 the RNG in the VGS/Archaea contract is produced is seeking to expand by 47 acres despite being
4 within 1,000 feet of at least nine homes. Members of the Seneca Lake Guardian, a local
5 environmental group, are asking regulators to increase this distance to half a mile. But Seneca
6 Meadows is aggressively resisting the state’s efforts to clean up its landfills. The aggressive
7 attitude of the landfill owners serves to underline the risk that Archaea may not be able to meet
8 the contracted volume of RNG.

9
10 At 400 acres, the Seneca Meadows landfill in Waterloo is the largest landfill in New York state.
11 It is also in one of the state’s most scenic areas, where tourism and recreation are mainstays of
12 the local economy, and many businesses and residents have long found themselves in conflict
13 with the landfill, fearing it is altering the region’s reputation as a vacation spot to becoming
14 known as a garbage spot. Seven semi-trailer trucks loaded with garbage clog the traffic in the
15 abutting town of Seneca Falls every day. 25% of the garbage in the landfill comes from New York
16 City, another 8% comes from Massachusetts and 4% from four other states. Some 300 tons of
17 asbestos come to the landfill each year from Canada and Massachusetts.

18 A recent long article in the Genesee Sun (see the citation on the next page) notes that because of
19 all this, it is not surprising that according to the Seneca Lake Guardian’s 2021 Annual Report,
20 ““Seneca Meadows landfill is poisoning our water and air, while pumping a putrid odor far and
21 wide and threatening our \$3 billion, 60,000 job agritourism industry in the Finger Lakes. But
22 Seneca Falls is not the only community impacted.” In fact, the Seneca Meadows landfill each
23 year produces 75 million gallons of leachate containing PFAS which is distributed beyond
24 Seneca Falls to Buffalo (44 million gallons), Watertown (8 million gallons), Chittenango (one
25 million gallons) and Steuben County. This poses a huge challenge to the state which recently

1 made a big investment in water infrastructure upgrades. Not the water problems alone, but all
2 the environmental deficits associated with Seneca Meadows pose significant health risks to
3 everyone downstream or nearby and even to very many not so nearby.

4 Seneca Meadows landfill is owned by America's third largest waste management company,
5 Waste Connections, whose home offices are far away in Texas. The landfill's permit is set to
6 expire at the end of 2025 which would require it to stop receiving waste and shut it down. The
7 town of Seneca Falls has on its books a law requiring that its permit for Seneca Meadows not be
8 renewed at expiration. The town has been taken to court because of this law many times over the
9 years, by Waste Connections, Seneca Meadows and surrogates, but the town has always
10 prevailed, and the law persists on the books. By election day last November, Waste Connections
11 had poured well more than \$200,000 into the campaigns of Republican candidates for the
12 Seneca Falls Town Board which perennially had maintained a 3-2 Democratic majority.
13 Democratic candidates collectively spent less than \$5,000. The result of this was that the new
14 Town Board is now composed of four Republicans and one Democrat. The new Board's first act
15 in January was to pass a resolution in support of renewal of the Seneca Meadows landfill's
16 permit. This has no effect on the status of the town's law against permit renewal, but it raised
17 the temperature of the conflict dramatically. This contentious legal and political situation poses
18 a significant risk the VGS/Archaea contract, a risk that VGS has omitted from its presentation.

19 Despite this level of opposition, Waste Connections early this year applied to New York's
20 Department of Environmental Conservation for a seven-story high expansion of the landfill on
21 47 acres, within the landfill perimeter, which would allow Seneca Meadows to keep operating
22 until 2040. ("Seneca Lake Guardian Claims Seneca Meadows Landfill is Poisoning Drinking
23 Water," Genesee Sun, no date online. [https://geneseesun.com/seneca-lake-guardian-claims-
24 seneca-meadows-landfill-is-poisoning-drinking-water/](https://geneseesun.com/seneca-lake-guardian-claims-seneca-meadows-landfill-is-poisoning-drinking-water/))

1 New York's Department of Environmental Conservation responded to this permit request by
2 determining that the proposed expansion "may have a significant adverse impact on the
3 environment." As a result, the Department is requiring Seneca Meadows to prepare and submit
4 a draft Environmental Impact Statement for the proposed expansion. This is a process that can
5 take a very long time to complete, requiring the Department to publish a draft scoping
6 document that will advance the draft impact statement for public review before developing a
7 final scoping document. State officials have promised a "comprehensive and transparent" review
8 "with a particular focus on the potential climate change impacts and consistency with the state's
9 Climate Leadership and Community Protection Act, in addition to ensuring continued
10 compliance with DEC's current permit for the facility." (David L. Shaw, "Seneca Meadows
11 expansion requires draft environmental impact statement," Finger Lakes Times, April 2, 2022.
12 <https://www.fltimes.com/news/seneca-meadows-expansion-requires/>)

13 To say the least, the picture produced by this list of environmental grievances, complaints and
14 degradation does not fit at all well with the climate and implicit environmental benefits VGS is
15 claiming for the present contract. It also does not encourage confidence in Archaea's long-term
16 ability to meet the supply demands of this contract or its many other contract commitments.
17 This could very well entail impacts both on the cost to VGS of the contract over time and for the
18 rates VGS customers may have to pay as a result of cost increases beyond VGS's current
19 projections.

20 **Q.9. You mention cost concerns. Has the cost of renewable natural gas over time**
21 **been stable enough to support a long-term contract such as this?**

22 **A.9.** U.S. Energy Information Agency data shows that at the end of August 2012, the Henry
23 Hub spot price for natural gas was \$2.80/MMBtu. At the end of August 2019, the Henry Hub
24 spot price for natural gas was \$2.98/MMBtu. Today at the end of August 2022, the Henry Hub
25 spot price for natural gas has jumped to \$9.24/MMBtu. (EIA, Henry Hub Gas Spot Price.

1 <https://www.eia.gov/dnav/ng/hist/rngwhhdD.htm>) This is important since we can expect that
2 when natural gas prices rise, renewable natural gas prices will rise, too. For example, at the end
3 of 2019 the American Gas Foundation reported that RNG prices were then in the \$10 -
4 \$20/MMBtu range and typically were 3-4 times higher than fossil natural gas prices. (American
5 Gas Foundation, Renewable Sources of Natural Gas, December, 2019.

6 ([https://gasfoundation.org/wp-content/uploads/2019/12/AGF-2019-RNG-Study-Full-Report-](https://gasfoundation.org/wp-content/uploads/2019/12/AGF-2019-RNG-Study-Full-Report-FINAL-12-18-19.pdf)
7 [FINAL-12-18-19.pdf](https://gasfoundation.org/wp-content/uploads/2019/12/AGF-2019-RNG-Study-Full-Report-FINAL-12-18-19.pdf)) This past May, Enverus Intelligence Research, noted that RNG prices had
8 climbed as high as \$30/MMBtu to more than \$100/MMBtu. (Enverus, Renewable Natural Gas
9 and That New Car(Bon) Credit Smell, May 17, 2022.

10 ([https://www.enverus.com/newsroom/renewable-natural-gas-and-that-new-carbon-credit-](https://www.enverus.com/newsroom/renewable-natural-gas-and-that-new-carbon-credit-smell/)
11 [smell/](https://www.enverus.com/newsroom/renewable-natural-gas-and-that-new-carbon-credit-smell/))

12 There is no doubt that much of the recent price volatility of FNG and RNG follows from the
13 effects of the pandemic and the war in Ukraine. But there is a very strong element of inevitability
14 about increased natural gas prices quite independent of these factors, indicating these prices are
15 unlikely to come down soon and very likely will never return to the \$2-\$3/MMBtu range of five
16 and ten years ago. Writing for RAPonLine early in August, David Farnsworth, who serves as
17 head of the Buildings Task Force of the Cross-Sector Mitigation Subcommittee of the Vermont
18 Climate Council, noted that in 2013, Marty Kushler, a senior fellow at the American Council for
19 An Energy Efficient Economy, argued that it was imprudent “to make decisions about programs
20 with lengthy multi-year effects based on the record-low spot market prices for domestic natural
21 gas.” In October of 2013 while U.S. gas prices were below \$4/MMBtu, prices in Europe were at
22 \$11/MMBtu and at \$16/MMBtu in Asia. Kushler named this gap “the ‘Jaws of Delusion’ –the
23 delusion being that the United States would continue living with very cheap natural gas while
24 the rest of the world pays three to four times the price.”

1 The reason for this Farnsworth points to is that the U.S. has gone from being an importer of
2 LNG to becoming the world's leading exporter of LNG. The worldwide demand for the gas the
3 U.S. produces, has caused domestic prices to rise and the gap to shrink. Pandemic and the war
4 in Europe have intensified the trend, but the trend was already cresting before the current
5 emergencies. (David Farnsworth, "An Escape from the "Jaws of Delusion": Planning for the End
6 of Cheap Gas, RAP on Line, August 10, 2022. ([https://www.raponline.org/blog/an-escape-
7 from-the-jaws-of-delusion-planning-for-the-end-of-cheap-gas/](https://www.raponline.org/blog/an-escape-from-the-jaws-of-delusion-planning-for-the-end-of-cheap-gas/))

8 The prices I cited above from Enverus, indicate that the three-fold increase of FNG prices
9 extends to a trend at least as intense in the RNG markets. Farnsworth recommends that
10 regulators reconsider the wisdom of continuing subsidies for new gas infrastructure. The same
11 recommendation is in order for regulators with respect to reliance on RNG to bring down GHG
12 emissions, reductions that can be very small at best. Weatherization and electrification for
13 heating are far more efficient solutions for reducing GHG emissions, and they are cheaper, too,
14 than RNG at \$30/MMBtu and more. As the Enverus article referenced above notes, current
15 demand for RNG credits is also intense, and this is driving price increases in the RNG market
16 even more strongly than the pressures that drive prices up in the FNG markets.

17 Predictions about prices are always iffy. Building urgent solutions based on price predictions is
18 still more iffy. Building urgent solutions based on price predictions over long periods of time is
19 more than iffy. It's risky. The 14.5 years of the contract in question here will be a long and risky
20 time as the climate emergency impinges more and more immediately on us all. Underlying the
21 urgency about the need for alternatives because of prices and the risks they pose, is the greater
22 urgency about the gas itself, RNG as well as FNG: the only certain way to reduce GHG emissions
23 caused by RNG and FNG is to use less of them. The contract under consideration would
24 perpetuate the use of RNG and FNG in Vermont for another 15 years and at the same level of use
25 as today. This does not promote the general good of the state of Vermont.

1 **Q.10. Please explain further why the contract is does not promote the general**
2 **good of the state of Vermont.**

3 **A.10.** What very small GHG emissions reductions will follow from this contract will come at a
4 heavy cost. It will perpetuate the use of natural gas in Vermont and the GHG emissions this
5 causes --at a rate not greatly different from today's-- for another fifteen years. Thinking of the
6 available alternatives money could be spent on, the contract seems to be a force that will inhibit
7 reaching the State's emissions reduction requirements rather achieving them. The contract will
8 also be a force toward perpetuation of the Seneca Meadows landfill just when finding ways to
9 limit the waste we produce and changing the way we manage it should be matters of urgent
10 concern. The narrow way VGS looks at this contract, and asks the Commission to do the same,
11 encourages us to treat the severe health, climate and water quality consequences of the gigantic
12 landfill at the source of the contract as if they are irrelevant and do not exist. But they do exist
13 and are a powerful negative presence at the heart of the contract and in the lives of those who
14 live closest to it. We can't ignore this. They are our neighbors. We can't cause them to bear
15 burdens we would not want to suffer ourselves.

16 The legal and regulatory situation of the landfill is far from stable and secure. This poses risks
17 that have not until now entered the case. I've also pointed to the further and quite direct
18 financial risks of upward price pressures in both the FNG and RNG markets. Building rate
19 increases --even as minimized by VGS's language and proposals--does not meet a reasonable
20 standard of prudent planning. All the less so, when less expensive alternatives that will reduce
21 GHG emissions much more and much more rapidly are available. I won't hesitate to say quite
22 directly what many people think: solutions to our GHG emissions problem like the solution this
23 contract offers seem like little more than an effort to save an industry and a business whose days
24 might be numbered --as well they should be.

1 There is something that must be said that touches on the general good of the state of Vermont.
2 This is now the fourth contract for out-of-state RNG that VGS has proposed to enter. As such, it
3 the latest in a chain of proceedings before the Public Utility Commission. To my knowledge this
4 is the first time the list of parties has extended beyond the Department of Public Service and
5 VGS. Although the Commission has sometimes been wary and imposed conditions, it has
6 approved all the previous contracts. Relatively closed hearings limit the scope of issues that
7 come to bear on decisions. Consistent decisions create a sense of direction, weight and
8 inevitability. This is the situation Ms Bock has entered.

9 The contracts considered till now have been small and limited with respect to length relative to
10 this contract. The Dubuque water treatment RNG contract, caught attention: 30,000 Dth of
11 RNG per year for seven years. The present contract increases the annual amount to be
12 purchased per year tenfold to 300,000 Dth and doubles the term of the contract to 14.5 years.
13 The method of treating purchases of RNG for thermal use as purchases of separable
14 environmental attributes as well as of actual gas that can be credited against the emissions of
15 FNG is often referred to by VGS as a “nascent” business. It was said to be nascent four years ago
16 when the purchased amounts were small and the contracts short. Apparently, it still seems
17 nascent to VGS as they look forward to buying 1,000,000 Dth of RNG by 2030 and still more for
18 years beyond that.

19 The principle of using the environmental attributes of RNG as GHG emissions credits against
20 the emissions of FNG is close to becoming entrenched. VGS frequently says it is analogous to
21 how the State treats Renewable Energy Credits for electricity. And this is true except for one
22 crucial difference, and that is that the law establishing and governing Vermont’s Renewable
23 Energy Standard mandates the creation of a credit system, but there is no Vermont statute that
24 establishes a similar credit system for renewable natural gas attributes. The regulatory agencies
25 and VGS have been working toward establishing and entrenching a system for which there is no

1 statutory authority. This is rather like playing tennis without a net, without a ball and while
2 making the rules up as the game goes on. VGS seems to think of this simply as business. The
3 Department and the Commission apparently think of it as just what they do. I've come to think
4 of it as policy creep. The fact is that Vermont has yet to pass a law that establishes a credit
5 system for RNG.

6 The Commission order that opened the VGS/Dubuque contract petition case (Case no. 20-0384-
7 PET) noted several new items VGS was asking approval of that went beyond what had been
8 specifically approved in Docket 8667. The third of these was this: "The purchase of out-of-state
9 RNG attributes, which are like electrical renewable energy credits. Unlike the injected RNG
10 currently supporting the voluntary RNG program, the out-of-state RNG need not and may never
11 enter the VGS pipeline." The Commission approved the contract, which by implication seemed
12 to also approve the principle. But the Commission never again mentioned this principle. If this
13 is the principle that governs cases like the present one, I believe the Commission, should it issue
14 an order to approve the present contract, should say so explicitly.

15 **Q.11. Does this conclude your testimony?**

16 **A.11.** Yes.