

Catherine Bock's First Discovery Questions

Q: CB:VGS.1.1 Please explain the difference between delivery of biogas by Displacement and delivery of biogas by Physical Path Delivery.

- a) Under this contract will VGS nominate that all biogas to be used in Vermont will be delivered to the Delivery Point by Physical Path Delivery? Will all biogas delivered to the Delivery Point for use in Vermont then be delivered to Vermont by Physical Path Delivery?
- b) What percentage of the actual biogas purchased under this contract for use in Vermont will reach Vermont in any year?

Q:CB:VGS.1.2 Will this contract reduce the amount of fossil gas burned in Vermont in any year?

- a) If so, how much?

Q:CB:VGS.1.3 Over the term of this contract, will the mix of actual biogas and fossil gas used be the same for all VGS customers?, or will the mix of actual biogas and fossil gas vary according to whether customers belong to the VGS RNG Program or any other factors?

Q:CB:VGS.1.4 Over the term of this contract, will the percentage of actual biogas used by VGS customers increase?

- a) If so, is it possible to say how great an increase you expect?
- b) How do you calculate this increase? Please produce all spreadsheets, assumptions and formulas used in these calculations.

Q:CB:VGS.1.5 With reference to biogas purchased under this contract, Mr. Murray has said,

“... the term of this contract specifically supports the 2025 and 2030 requirements set forth in 10 V.S.A. § 578.” (A. DPS.VGS.,1-1 p.4, line 4) Does VGS claim that this contract, specifically, will result in a reduction of greenhouse gas emissions within Vermont?

- a) What specific calculations support this statement? Please produce all spreadsheets, assumptions and formulas used in these calculations.
- b) **Q:CB:VGS. 1.6** The Global Warming Solutions Act requires the State to reduce “emissions of greenhouse gases from within the geographical boundaries of the State and those emissions outside the boundaries of the State that are caused by the use of energy in Vermont.” (10 V.S.A. § 578.) The emissions reductions mentioned are measured in metric tons of CO₂e. How does VGS quantify and calculate the specific emissions reductions it claims this contract supports? Please produce all spreadsheets, assumptions and formulas used in these calculations.

Q:CB:VGS.1.7 Mr. Murray has testified that “to contribute to the State’s Global Warming Solutions Act requirements . . . the Company will need to purchase and sell upwards of 2 billion cubic feet (Bcf”) per year of non-fossil gas . . . by 2030.” He further testifies that “this Contract alone could secure 50% of the non-fossil gas needed to meet our supply goal for 2030.”(Murray prefiled direct testimony, p.4, line 17ff) At present, VGS has 170 customers purchasing renewable gas attributes associated with 41,310 million cubic feet of biogas. (VGS Gas Supply and Renewable Natural Gas Report, July 1, 2022, p.7)

- a) Does this mean that over the first 8 years of this contract VGS will scale up its voluntary RNG program by a factor of 25?
- b) How does VGS plan to do this?

Q:CB:VGS.1.8 VGS expects that sale of biogas will “smooth” and limit the level of rate increases that could be brought about by this contract. On what basis does VGS predict that the price of RINs on the unregulated Renewable Transportation Fuels market will remain high enough to generate net revenue sufficient to offset the high cost of pipeline biogas?

- a) Produce historical data about the RIN marketplace showing how the marketplace has operated since its inception.
- b) Are RIN values stable? Please produce the data you rely on in answering this query.
- c) Do RIN values fluctuate (similar to RECs)? Please produce all spreadsheets, assumptions, formulas and calculations used to answer this question.

Q:CB:VGS.1.9 Under this contract, as the quantity of RNG in the VGS portfolio increases, will a percentage of RNG be reached great enough so that the voluntary RNG program will no longer be sufficient to help meet the cost of the biogas purchased?

- a) If so, what is that percentage?
- b) If it is reached won’t this cause rates to increase for all customers beyond VGS’s present predictions?
- c) Please produce all spreadsheets, assumptions, formulas and calculations used to answer these questions.

Q:CB:VGS.1.10 VGS is proposing to purchase possibly an additional 100,000 Dth or more of RNG from Seneca Meadow annually up to a total possible amount of 1,000,000 Dth by 2030. (Murray prefiled testimony, p. 4, line 16 and following) In its Discovery response at Q.DPS. VGS. 1-4, VGS reports, “Archaea has other off-take contracts for the Seneca Landfill RNG.” Taking into consideration Archaea’s other off-take contracts for the Seneca Landfill RNG, will Seneca Meadows be able to meet VGS requests for RNG in addition to the 300,000 Dth required annually by this contract and up to as much as 1,000,000 Dth by 2030?

a) Please produce all information available to VGS indicating that increased annual supplies of up to 1,000,000 Dth of RNG by 2030 will be available to VGS from the Seneca Meadows landfill.

Q:CB:VGS.1.11 VGS has testified that by 2030 “this contract could secure 50% of the non-fossil gas needed to meet our supply goal for 2030.”(Murray prefled direct testimony, p.4, line 17ff) This 50% would be equal to 1,000,000 Dth of RNG. If VGS purchases this amount of RNG under the contract to meet its supply goal for 2030, will it still be able to purchase and nominate an additional amount of RNG to be sold as transportation fuel in order to “smooth” and limit rate increases?