

**STATE OF VERMONT
PUBLIC UTILITY COMMISSION**

Case No. _____

Petition of Vermont Gas Systems, Inc. for a change in rates and for use of the System Expansion and Reliability Fund in connection therewith	
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**DIRECT TESTIMONY OF
TODD LAWLISS
ON BEHALF OF VERMONT GAS SYSTEMS, INC.**

February 15, 2022

SUMMARY OF TESTIMONY

Mr. Lawliss describes projected gas costs for the Rate Year and sponsors the following Exhibits:

EXHIBITS

Exhibit VGS-TL-1	Determination of Revenue and Gas Costs
Exhibit VGS-TL-2	Determination of Natural Gas Charge

**DIRECT TESTIMONY OF
TODD LAWLISS
ON BEHALF OF VERMONT GAS SYSTEMS, INC.**

1 **Q1. Please state your name, occupation, and business affiliation.**

2 **A1.** My name is Todd Lawliss. I am the Manager of Gas Supply at Vermont Gas Systems,
3 Inc. (“VGS” or the “Company”).

4

5 **Q2. Please describe your educational background and pertinent professional experience.**

6 **A2.** I have a B.S. in Engineering Management from the University of Vermont (1988) and an
7 Associate in Science Degree in Computer Programming from Champlain College (2000). I have
8 been at VGS since 1988 in positions of increasing authority. I took the role of Manager, Gas
9 Supply and Gas Control in January 2015, and in January 2021, I was promoted to my current
10 position.

11

12 **Q3. Have you previously testified before the Vermont Public Utility Commission**
13 **(“Commission”)?**

14 **A3.** Yes. I testified in VGS’s prior rate cases in Case Nos. 17-1238-INV, 18-0409-TF,
15 19-0513-TF, 20-0431-TF, and 21-0898-TF.

16

17 **Q4. What is the purpose of your testimony?**

18 **A4.** I describe projected customer sales revenue and gas costs for the Rate Year (October 1,
19 2022 – September 30, 2023). The projected customer sales numbers are needed to develop the
20 billing determinants and associated cost of gas supply, which is used in the Cost of Service

1 (“COS”) presented by Mr. Mitchell. I also explain how our gas forecasts used in this case
2 incorporate an increase in Renewable Natural Gas (“RNG”) consistent with the Purchased Gas
3 Adjustment (“PGA”) RNG Feature of VGS’s Alternative Regulation Plan approved by the
4 Commission on August 11, 2021, in Case No. 19-3529-PET (the “VGS ARP”).

5 VGS’s rate request in this case is limited to a change in non-gas rates, and gas costs will
6 continue to be established based on quarterly gas cost adjustments in accordance with the PGA
7 component of the VGS ARP. Our forecast of gas costs and revenues in this case is intended to
8 provide a complete view of the COS and explain the overall impact of this rate filing for
9 customers and stakeholders. Our current forecasts show that overall, the natural gas charge is
10 expected to decrease approximately 0.3% for the upcoming Rate Year. For reference, the natural
11 gas charge component makes up about one third of an average residential customer’s annual bill,
12 so customers can expect to see an overall 3.7% increase in rates when considering our proposed
13 base rate increase of 6.18%. The drivers of the natural gas forecast are primarily weather
14 normalization dollars being returned to the customer resulting from the colder-than-normal
15 winter to date and modest decreases in commodity costs. The projected revenue developed in my
16 analysis is used to determine the change in rates needed to meet the proposed COS, which is then
17 reflected in the proposed tariffs.

18 **Q5. Please explain how you developed customer sales and revenue projections.**

19 **A5.** We calculate projected customer sales and revenue using essentially the same methods
20 VGS has historically used when developing the PGA, Integrated Resource Plan, and prior COS
21 filings:

Firm Sales and Revenue

1 For context, a projection of the number of customers and associated sales volume is
2 needed to determine the amount of sales revenue we expect to be available in the Rate Year to
3 cover operating costs. We determine firm sales by projecting the number of customers, including
4 new customer growth, that will be using natural gas during the Rate Year and how much natural
5 gas customers will use. The number of customers is determined by using the actual number of
6 customers at the end of December 2021 and adding customers that will begin utilizing service
7 from January 2022 through September 2023, plus normalizing for customers who came online
8 during 2021 but did not have a full year of sales in the historic test year (“HTY”)—the twelve
9 months ending December 31, 2021. These new service turn-ons are primarily based on
10 customers VGS is planning to add in its existing distribution networks. This is referred to as “in-
11 filling.” Our customer projections from one year to the next are based on VGS’s substantial prior
12 experience with customer additions along existing distribution network mains.

13 Once we understand how many customers we expect in the Rate Year, we forecast how
14 much natural gas those customers will use based on historical usage data by rate class. Because
15 customer usage is driven both by weather and how energy efficient customers’ homes are, we
16 forecast usage based on “normal” weather (calculated based on the 10-year average heating
17 degree days¹ as of December 31, 2021) and reduce that amount to reflect energy savings from
18 investments in energy efficiency. Using this methodology, projected firm sales for the Rate Year
19 are approximately 5.1% higher than the HTY, primarily because the HTY had a lower number of

¹ A degree day is defined as the difference between the actual daily average temperature and 65 degrees Fahrenheit. For example, a day where the average temperature was 55 degrees would be a 10-degree day.

1 heating degree days (6,352) than the 10-year average (6,756). The increased firm sales are shown
2 on Schedule 13 to Exhibit VGS-MM-1 accompanying Mr. Mitchell's testimony.

3 The firm revenues reflect these Rate Year firm customer sales at VGS's current rates as
4 of February 1, 2022. The tables below show the number of customers and sales for the Rate
5 Year.

Number of Firm Customers

Customer Class	2023
Rate R	48,998
Rate G1	4,116
Rate G2	1,051
Rate G3	529
Rate G4	551
Total	55,245

Mcf Sales

Customer Class	2023
Rate R	3,966,963
Rate G1	624,457
Rate G2	189,372
Rate G3	781,262
Rate G4	1,547,978
Total	7,110,032

Interruptible Sales and Revenue

1 Projections for interruptible sales and revenues are based on a similar methodology. The
2 sales per customer are based on HTY sales and are adjusted for the same 10-year normal weather
3 for customers that are weather sensitive. Based on the above methodology, the projected Rate
4 Year interruptible sales are approximately 1.4% above the HTY level due to colder weather in
5 the Rate Year. This is shown on Schedule 14 to Exhibit VGS-MM-1 accompanying Mr.
6 Mitchell’s testimony.

7 Interruptible revenue is based on tariff formulas and the forecasted wholesale gas market
8 prices because the tariff formulas contain a market-based provision.

9
10 **Q6. Please describe the change in projected Rate Year gas costs from the HTY.**

11 **A6.** Gas costs are calculated using the methodology contained in the current PGA and
12 consisting of several components, including demand-related costs (costs associated with delivery
13 of natural gas to the Vermont border, the point of interconnection between the VGS pipeline
14 system and TC Energy) and costs associated with the natural gas itself—the physical supply
15 necessary to serve VGS’s firm and interruptible customers. Each of these components is
16 discussed below.

Demand Costs

17 Demand costs generally reflect costs associated with moving natural gas from supply
18 hubs to the market areas and are usually incurred on a fixed basis, regardless of the volume of
19 gas moved. For VGS, they include the fixed tolls for firm transportation and storage services on
20 the Enbridge Gas Inc. (“Enbridge”) and TC Energy pipeline systems. VGS’s TC Energy

1 transportation contracts have a receipt point of Parkway, Ontario, and a delivery point at VGS's
2 point of interconnection at Philipsburg, Quebec, and Highgate, Vermont. VGS's Enbridge
3 contracts have a receipt point of Dawn, Ontario (where VGS's storage services are located) and a
4 delivery point of Parkway. Both Dawn and Parkway are liquid points on the Enbridge system,
5 and nearly 100% of VGS's supply is purchased at one of these two market supply points.

6 The Rate Year demand charges for the TC Energy tolls reflect the current TC Energy
7 tolls. Similarly, the Enbridge tolls included in the Rate Year reflect current Enbridge tolls. This is
8 consistent with the methodology contained in the PGA, which does not reflect toll changes until
9 such time as they are approved by the Canada Energy Regulator, the Canadian regulatory body
10 that regulates TC Energy tolls, or the Ontario Energy Board, the Canadian regulatory body that
11 oversees Enbridge tolls. TC Energy tolls are anticipated to remain stable through at least 2026,
12 and VGS is not aware of any potential changes in Enbridge tolls.

13 VGS pays TC Energy and Enbridge tolls in Canadian dollars. As such, the cost of gas is
14 impacted by fluctuations in the Canadian-to-U.S. dollar exchange rate. Based on the current
15 exchange rate, the demand costs in the Rate Year are expected to be relatively unchanged.

16 Demand charges also include the fixed costs associated with storage. VGS puts natural
17 gas into storage during the spring and summer months and withdraws it from that storage to meet
18 customer demand during the colder months. VGS's current storage services are provided through
19 our agreement with Tenaska Marketing Canada, which was renewed in April 2017, and with
20 Enbridge. The existing storage contracts will expire on March 31, 2022. VGS has entered into a
21 new storage contract with Tenaska Marketing Canada that will begin on April 1, 2022, and be in
22 place during the Rate Year.

1 Asset management agreement (“AMA”) revenues serve to offset demand costs. VGS
2 annually negotiates an AMA through a competitive bid process. Under an AMA, a third-party
3 marketer uses a portion of VGS’s TC Energy or Enbridge capacity and VGS receives revenue
4 associated with the transaction. The current AMA is expiring October 31, 2022, and VGS will
5 enter into a new agreement beginning November 1, 2022, using a competitive bid process. Based
6 on experience with historical AMA revenues, VGS has included these projected revenues in the
7 projected gas costs for this COS. AMA revenues will be reflected in future PGA filings. AMA
8 revenues reduce overall gas costs in the PGA and therefore reduce the natural gas charge on
9 VGS’s firm rates.

Commodity Costs

10 Commodity costs reflect the cost of the molecule of natural gas itself and are a function
11 of the wholesale market price of natural gas and the volume of natural gas purchased. The firm
12 market supply requirements transported under the TC Energy contracts are reflected in the Rate
13 Year using the same methodology as VGS’s PGA. The commodity costs are set in a manner that
14 replicates how VGS purchases the commodity. Specifically, the commodity is set using a
15 NYMEX-based market price determined as follows: NYMEX Henry Hub, Louisiana prices for
16 each month of the Rate Year adjusted for: (i) location basis differential between either Dawn,
17 Ontario, and Henry Hub, or Parkway, Ontario, and Henry Hub; (ii) applicable TC Energy and
18 Enbridge compressor fuel requirements; and (iii) a heating value adjustment.

19 While VGS purchases its supply based on prices that fluctuate with the wholesale market
20 price of natural gas, VGS systematically hedges its firm commodity supply to reduce the price
21 volatility associated with these market fluctuations. Under VGS’s systematic hedging, every two

1 months VGS locks in approximately 1/6 of the annual firm purchases for the year beginning
2 three months ahead. The Rate Year reflects the current value of existing hedge positions that will
3 be in effect during the Rate Year. Additional systematic hedges affecting Rate Year volumes will
4 be executed between now and the Rate Year.

5 The firm commodity unit costs described above are applied to firm market requirements
6 that have been normalized for weather and customer growth through September 30, 2023, as
7 described above, excluding firm market requirements met by storage withdrawals or the
8 propane-air plant as discussed below. These costs are grossed up to account for unaccounted-for
9 gas.

10 VGS purchases gas for its interruptible customers from various suppliers on the
11 wholesale spot market. The wholesale spot market is also NYMEX-based and adjusted for the
12 locational basis differential. The Rate Year reflects market-based wholesale pricing for these
13 customers.

14 For both firm and interruptible commodity costs in the COS, the market-based pricing is
15 based on the average NYMEX strip for the Rate Year as of the five business days ending
16 January 26, 2022. Basis differential and foreign exchange rates are based on the same five-day
17 period.

18 Gas withdrawn from storage for use by VGS's customers is priced at the
19 weighted-average cost of gas in storage inventory. Based on current projections, storage
20 inventory is expected to be \$3.15/MMBtu at the beginning of the Rate Year.

21 VGS also operates a propane-air plant ("PAP") in Colchester, Vermont. The PAP is used
22 to meet peak customer demand in lieu of incurring incremental costs of additional pipeline

1 capacity. This is sometimes referred to as “peak-shaving.” VGS annually incurs operation and
2 maintenance expenses and maintains an inventory of propane gas to operate the PAP. Only the
3 cost of propane used in the operation of the PAP is included in the cost of gas calculation. The
4 ongoing maintenance and operation expenses are included in the Company’s COS as an
5 operating expense. (See Schedule 2 to Exhibit VGS-MM-1.) The detailed gas cost and revenue
6 determination is provided as **Exhibit VGS-TL-1**.

7

8 **Q7. Once the overall gas costs for the Rate Year have been established, how is the**
9 **natural gas charge component of rates determined?**

10 **A7.** Consistent with the current PGA, total natural gas costs from Exhibit VGS-TL-1 are
11 reduced by total interruptible revenue to ensure that revenue from interruptible customers fully
12 accrues to the benefit of firm customers. Further, gas costs are adjusted by the balance of the gas
13 cost deferral as of January 31, 2022, and the weather amortization for the Rate Year based on
14 weather normalization balances as of January 31, 2022, less amounts to be amortized before the
15 Rate Year. The resulting net gas costs are then divided by Rate Year firm sales to determine the
16 average natural gas rate per Mcf. For the Rate Year, this is an average cost of gas of \$4.87/Mcf
17 compared to a current average cost of gas of \$4.89/Mcf, a decrease of approximately 0.3%. The
18 existing natural gas charge for each firm rate class is adjusted by the same overall percentage
19 decrease. The determination of the resulting natural gas charge is provided as **Exhibit VGS-TL-**
20 **2**. It should be noted that between now and the beginning of the Rate Year, additional PGA
21 filings will be made and actual gas charges in November 2022 will be based on those PGA
22 filings.

23

1 **Q8. Do your forecasted gas costs incorporate increases in RNG consistent with the PGA**
2 **RNG Feature of the VGS ARP?**

3 **A8.** Yes. Our forecast for this COS filing incorporates RNG as a portion of our overall retail
4 gas sales at 1.1%, and we expect to increase RNG through the PGA RNG Feature by 1% during
5 the Rate Year.

6

7 **Q9. Does this conclude your testimony?**

8 **A9.** Yes.