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	

DIRECT TESTIMONY OF
MATTHEW MITCHELL
ON BEHALF OF VERMONT GAS SYSTEMS, INC.

February 15, 2022

SUMMARY OF TESTIMONY

Mr. Mitchell's testimony sponsors the Company's Cost of Service, explains how VGS's rates are structured, summarizes the rate request in this case, and describes in detail how various expenses and capital investments are reflected in the filing.

EXHIBITS

Exhibit VGS-MM-1	Cost of Service
Exhibit VGS-MM-2	Determination of Firm Non-Gas Rate Change
Exhibit VGS-MM-3	Index to the Cost of Service
Exhibit VGS-MM-4	Updated Depreciation Study

DIRECT TESTIMONY OF
MATTHEW MITCHELL
ON BEHALF OF VERMONT GAS SYSTEMS, INC.

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

A1. My name is Matthew Mitchell. I am a Senior Accountant at Vermont Gas Systems, Inc. ("VGS" or the "Company").

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

A2. I hold a Bachelor of Science in Business Management from the University of Arizona. I joined VGS in July 2018 as a Senior Accountant. My primary responsibilities include forecasting, budgeting, and managing fixed assets.

Prior to joining the VGS team, I worked at Keurig Green Mountain for three years as a Senior Tax Accountant. Prior to that I spent eight years working at JMM & Associates, where I provided bookkeeping and tax preparation services to various companies and individuals.

Q3. Have you previously testified before the Vermont Public Utility Commission ("Commission")?

A3. Yes, I testified on behalf of VGS in last year's rate case, Case No. 21-0898-TF.

Q4. What is the purpose of your testimony?

A4. My testimony explains the process used to calculate the Company's rates, explains the basis for relevant adjustments to the Company's Cost of Service ("COS"), and, along with the testimony of other VGS witnesses, supports the Company's rate filing, which proposes a 6.18%

non-gas rate change. When combined with an approximate -0.3% change in the natural gas charge and a return of $3.5 million to customers from the System Expansion and Reliability Fund ("SERF"), the overall rate change is expected to be 3.7%. The COS is provided as **Exhibit VGS-MM-1**. A summary of the resulting rate change is provided as **Exhibit VGS-MM-2**.

Q5. Please describe the Company's approach to developing this COS.

A5. The Commission has reviewed a fully litigated VGS rate case every year for the last six years. This COS is based on the Commission's guidance from these past cases, our work with the Department of Public Service ("Department") reviewing prior COS filings, and the framework of our Alternative Regulation Plan ("ARP"). Our overall objective regarding the COS remains unchanged: to implement and support our Climate Action Plan while maintaining stable and affordable rates and continuing to strengthen our foundational and unwavering commitment to safe, reliable service.

Q6. Please describe the Company's rates and explain the process for calculating appropriate changes to those rates.

A6. First, a recap of the composition of the Company's rate structure might be helpful background. Firm rates are comprised of several components: the daily access, natural gas, and distribution charges, plus a charge to support the Low Income Assistance Program ("LIAP") and an Energy Efficiency Charge ("EEC") to support the Company's work and responsibilities as an Energy Efficiency Utility ("EEU"). Neither the LIAP nor the EEC are addressed in this COS. The LIAP is reviewed annually in a separate filing and the EEC is established annually through a separate Commission proceeding. Additionally, and as described in Mr. Lawliss's testimony, while we provide a forecast of gas costs and revenues for purposes of establishing an accurate COS and the overall impact of the rate request, the actual gas costs customers will pay will be established pursuant to the Purchased Gas Adjustment ("PGA") under VGS's ARP.

There is also a class of customers that are served under Commission-approved "interruptible" tariffs instead of firm rate tariffs. Unlike our firm customers who receive natural gas service 365 days a year, 24 hours a day, regardless of how cold it is, interruptible customers agree to switch to an alternate fuel on two hours' notice from the Company. This allows VGS to optimize its supply portfolio and transmission system for the benefit of firm customers. In exchange, interruptible customers pay a tariffed rate that is at a discount to firm service. All of the revenues from the interruptible class of customers are credited to the firm natural gas charge and help VGS maintain competitive and affordable rates.

Daily Access and Distribution Charges

Since 2016, the daily access and distribution charges (collectively referred to as "base rates" or "non-gas rates") have been established through traditional COS review in rate cases. Together they cover all "non-gas" costs. The daily access charge is assessed on each meter on a per-day basis regardless of how much natural gas is used by the customer. In contrast, the distribution charge is based upon the amount of natural gas utilized by the customer (measured, like the natural gas charge, on a hundred cubic feet or "Ccf" basis).

Natural Gas Charge

The natural gas charge pays for gas costs on a dollar-for-dollar basis. This means that customers pay only the actual costs we incur to purchase and transport the gas to Vermont. These costs are then reduced for firm customers based on revenue from our interruptible customers as described above. We make adjustments to the natural gas charge, either up or down, on a quarterly basis under the PGA mechanism, which is a rate setting mechanism initially approved by the Commission in Docket No. 7109. While there have been some modifications since the initial approval of the PGA, its structure has been in place in largely the same form since October 2006. On August 11, 2021, the Commission approved VGS's current Alternative Regulation Plan, which includes the PGA, through September 30, 2024, in Case No. 19-3529-PET. Accordingly, gas costs forecasted in this COS will actually be established through the Commission's approval of quarterly PGA filings. The bulk of our COS testimony is therefore focused on non-gas costs.

Q7. What rate changes are you seeking in this filing?

A7. In this case, VGS seeks a non-gas (daily access and distribution charge) rate change of 6.18%. See Exhibit VGS-MM-2. Although this case only governs the non-gas component of VGS's rates, when combined with the anticipated decrease in natural gas costs of approximately 0.3%, the resulting overall rate change is expected to be a 3.7% increase.

Q8. Please describe how the non-gas rate change is determined.

A8. Non-gas rates are determined by calculating the total non-gas revenue required to meet the COS. These costs include operating and non-operating costs, with adjustments for SERF withdrawals (described below) and other income. The central component of establishing non-gas rates is determining the appropriate cost of providing service during the Rate Year, which in this case is the 12-month period starting October 1, 2022. The COS for the Rate Year is determined by evaluating the actual costs incurred by the Company in the Test Year, which in this proceeding is the twelve-month period ending December 31, 2021. Test Year costs are then adjusted based on changes that are expected in the Rate Year when those changes are known and measurable with reasonable accuracy. Accordingly, this rate filing is based on the Company's actual costs in the Test Year, with some adjustments that I describe in more detail below. See Exhibit VGS-MM-1.

Q9. Please describe the components of the COS.

A9. The overall COS is best considered from two perspectives: operating costs and non-operating costs. Operating costs are the expenses the Company incurs during the Rate Year to operate a safe, reliable system for customers. These are grouped into categories such as "Transmission," "Distribution," and "Sales." Non-operating costs refer to the costs associated with the Company's rate base. This includes depreciation, property taxes, and recovery of capital costs. These costs are generally associated with the Company's investment in the pipeline network needed to provide natural gas service to customers, and other capital investments necessary to support operations, such as computer systems and vehicles. A narrative summary of these costs and adjustments is provided throughout my testimony. I also elaborate on the testimony of Mr. St. Hilaire, who testifies about both transmission and distribution operating expenses as well as capital investments, and I provide some additional detail about the COS as outlined in Ms. McNeil's testimony. **Exhibit VGS-MM-3** provides an index to the COS schedules and a description of what each schedule covers.

Q10. Please describe the general categories included in the Test Year and Rate Year COS and explain any major adjustments.

A10. The COS presents VGS's operating expenses in Federal Energy Regulatory Commission account number format for both the Test Year and the Rate Year, with adjustments between the two clearly identified. The process for adjustments is described below.

Consistent with the approach taken in the last several rate cases, each general operating expense category is broken out by labor and non-labor expenses. For labor, also referred to as payroll expense, each general operating category is adjusted for the Rate Year to reflect union and non-union wage increases for 2021 and 2022, and to account for:

- New employees that were added during the Test Year that will be in place for the whole Rate Year;
- Employees that left during the Test Year and will not be replaced in the Rate Year; and
- Positions that have been or will be added after the Test Year, but before the Rate Year.

Consistent with the Commission's findings in prior rate proceedings, the COS reflects the removal of 100% of the executive long-term incentive plan ("LTIP") and 50% of the short-term incentive plan ("STIP"). The adjustment to labor-related accounts is shown on **Schedule 17** to Exhibit VGS-MM-1.

Next, each general operating expense category is evaluated for non-labor-related expenses. I discuss each category below, identify the schedule in the COS where the adjustments can be found, and provide a brief explanation of the rationale for proposed adjustments.

Schedule 3 to Exhibit VGS-MM-1 shows that transmission-related expenses in the Rate Year will increase from the Test Year to account for non-labor-related expenses of approximately $277,400. This increase is driven by several key safety initiatives that result in adjustments in two transmission-related areas and associated accounts, (1) Controls and Dispatching expense and (2) Transmission Mains – Maintenance:

- First, Account 8510 (Controls and Dispatching expense) is adjusted by $26,600. This change reflects site visits and desk audits to be performed by a third party relative to Renewable Natural Gas ("RNG") facility inspections. These annual inspections are to verify the RNG volumes purchased; that the RNG was produced by a renewable gas production facility; and that VGS is sole owner of the environmental attributes of the RNG, in accordance with the final order in Docket No. 8667.
- Second, Account 8630 (Transmission Mains - Maintenance) was adjusted by approximately $250,800 to reflect costs related to a Rate Year In-Line Inspection ("ILI") ($467,000) and two Over the Line Surveys ($208,000) on our 12-inch transmission pipe from Colchester to Middlebury. These increases are offset by expenses that are not going to be incurred in the Rate Year but were incurred during the Test Year. These include expenses related to pressure tests in Swanton ($84,000) and Colchester ($98,000) as well as an ILI on our 16-inch transmission pipe from Highgate to St. Albans ($160,000) and an Over the Line survey ($83,000). These Rate Year adjustments are discussed in more detail in the testimony of Mr. St. Hilaire.

Schedule 4 to Exhibit VGS-MM-1 shows that distribution-related expenses in the Rate Year will increase from the Test Year to account for non-labor-related expenses of approximately $387,000. This increase is driven by adjustments in two distribution-related areas and associated accounts, (1) Distribution Mains – Maintenance and (2) Meter and Regulator expenses:

- First, Account 8870 (Distribution Mains – Maintenance) was adjusted by $342,000, which relates to two items. First, the Rate Year reflects a continuation of the Company's legacy cross-bore program ($401,000) to reflect planned cross-bore work. Due to timing of cross-bore spending during the Test Year, this expense was adjusted by $100,000 to reflect expected cross-bore spending, which aligns with our experience in a normal rate year. The Rate Year expense for the cross-bore program is consistent with what was approved in the cost of service for 2022 rates, adjusted by inflation—and also consistent with what we will actually spend in Fiscal Year 2022. The second adjustment is $242,000 and is related to the St. Michael's College erosion repair project. Both of these known Rate Year adjustments are discussed in more detail in the testimony of Mr. St. Hilaire.
- Second, Account 8930 (Meters and Regulators) was adjusted by $45,000 and is related to normalizing for three-year averages, as the Test Year expense was abnormally low due to the pandemic.

Schedule 5 to Exhibit VGS-MM-1 shows Customer Account expenses. "Customer Accounts" reflects costs associated with the full cycle of customer billing from meter reading through collections. The only non-labor adjustment to the Customer Account expenses is a reduction of approximately $1,018,030 to Bad Debt Reserve (Account 9040). The Company adjusts the Bad Debt Reserve to reflect the three-year average of write-offs as applied to the projected Rate Year revenues.

It should be noted that the Company utilized years 2019 and 2021 to calculate the average because 2020 was an outlier due to the Covid-19 pandemic. For most of 2020, the Company, along with other utilities in Vermont, suspended service shut-offs. While the Company has been experiencing an increase in arrearages, State funding available to customers has helped to mitigate the increased balance. As State funding is currently under way and could help to further reduce aged arrears, the longer-term impact of the pandemic on bad debt is still unknown and, as such, the Company has not forecasted an increase in bad debt for purposes of this COS.

Schedule 6 of Exhibit VGS-MM-1 is the Sales expense category and reflects expenses associated with sales and marketing, including customer communications. This expense category also reflects some non-capital expenses related to the Company's innovation and Climate Action Plan work. Consistent with our current Alternative Regulation Plan, "Base Rates shall include a Climate Action and Innovation Budget," which "shall include $2 million in spending, per year, for Climate Action and Innovation, a portion of which shall be operating and maintenance costs of no more than $500,000 annually." In addition, the sales category includes the revenues and expenses generated by the Field Services department from service contracts, emergency repair work (referenced as "Jobbing Sales"), and installation work. These revenues serve to reduce the COS to the benefit of customers. Non-labor sales expense reflects the following adjustments:

- Accounts 9133 and 9138 have been decreased by $66,600 to exclude work related to a website refresh that was performed in the Test Year, but is not expected to recur in the Rate Year.
- Account 9135 has been increased by $212,000 to support innovative initiatives. Consistent with our Alternative Regulation Plan discussed above, this account includes $500,000 of expense related to innovation work in this cost of service. This includes a known and measurable adjustment of $172,400, as spend relating to innovation in the test year was $327,600.While the innovation work will be spent across multiple FERC accounts, for simplicity, VGS included the full $500,000 in account 9135. This budget is provided to support our work and planning on Climate Action Plan initiatives such as the partnership with the University of Vermont and Global Foundries for development of a hydrogen pilot project, RNG digester feasibility studies, power-to-gas facilities, and district energy engineering/design studies, as well as grant-seeking activities through the Department of Energy and others. Additionally, the Company plans to spend $190,300 in the Rate Year on marketing-related expenses, including incentives to encourage new customers to switch from higher carbon emitting fossil fuels to natural gas. This line item includes a $40,000 known and measurable adjustment relating to marketing expenses because the Test Year spend was $150,300.
- Accounts 9152, 9153, 9158, 9165, and 9168 are all associated with the non-labor costs of VGS's service contracts, installation work, emergency repair work on customer's appliances, and work performed on rental equipment. Primarily, these

costs are for parts necessary for this work. Accounts 9153, 9158, 9165, and 9168 were increased by 5% to reflect increases in costs that the Company is experiencing. These increases are offset by increased revenues associated with the activities described below. For account 9152- Cost of Service Contracts, two adjustments were made. The first adjustment is to increase the cost consistent with FY2020 experience as the Test Year was abnormally low due to the Covid-19 pandemic. The second adjustment was to increase the costs by 15%, which is the amount by which service contract revenue was adjusted.

Schedule 6b to Exhibit VGS-MM-1 provides the offsetting revenues from the Field Service department. These revenues have been increased by 5% and 15% to reflect new billing rates. With this adjustment, the revenues generated decrease the COS by approximately $2.5 million.

Q11. Schedule 7 to Exhibit VGS-MM-1 details Administrative and General Expenses. Please describe the proposed changes to this schedule.

A11. One adjustment to **Schedule 7** relates to payroll and benefits. I explain how the benefits percentage is applied in this COS later in my testimony. Other adjustments to **Schedule 7** include the following:

Meals Expense (Account 9214) and Travel Expense (Account 9215): Due to the pandemic, Test Year costs in these two categories were abnormally low. The adjustment of $30,200 to meals and $59,700 to travel is to bring these accounts more in line with the three-year average of fiscal years 2018-2020, as 2021 had abnormally low expenses in this category.

Office Expenses (Account 9210): The increase in this account is related to employee training. The Test Year was abnormally low due to the pandemic. Additionally, VGS is committed to investing in our employees to ensure they have the skills necessary to deliver exemplary customer service and operate a modern utility. The Rate Year continues this investment through additional training expenses of $38,500.

Computer Expenses (Account 9212): Expenses in this account primarily relate to support contracts for computer hardware and software. The adjustment of $105,300 is driven by three items. The first adjustment for $67,000 relates to two new cybersecurity-related contracts. We engaged with a third party Arctic Wolf to make strides toward strengthening our cybersecurity posture, including monitoring for and reporting on security threats. We also engaged a third party Secure Networks to assist with any needed incident response should VGS experience any sort of ransomware attack. These expenses started in the last quarter of the Test Year, so this adjustment annualizes these costs for the Rate Year. The second adjustment for $34,000 relates to a support contract on our main servers at 85 Swift Street and our disaster and recovery sites. The support for the first four years was included as part of the asset purchase and therefore that cost is not included in the Test Year but is planned for the Rate Year. The last adjustment for $4,300 is related to new software purchased in FY2022 associated with our tax software, Sage.

Admin Costs Capitalized (Account 9220): An adjustment was made to this account in the amount of $179,000, reducing the COS. This adjustment utilizes the Test Year administrative overhead costs and then applies wage increases for calendar year 2022 and the first nine months of 2023, as labor is a large portion of administrative overhead.

Outside Services-Legal and Other (Accounts 9230 and 9231): Consistent with the Commission's guidance in Case No. 19-0513-TF, the Company has adjusted outside services-legal and outside services-other based on multi-year averages. As in Case No. 19-0513-TF, this means basing legal costs on a three-year average and setting outside services-other to reflect a five-year average. In both cases, in accordance with VGS's Memorandum of Understanding with the Department in Case No. 18-0409-TF, the Company has removed the costs related to investigations in Case Nos. 17-3550-INV and 17-4630-INV when calculating the averages. In determining the three-year average for outside services-legal, the Company also removed expenses related to lobbying. For this COS, the averages result in a decrease to the COS related to outside services-other ($82,800), and a decrease to the COS related to outside services-legal ($133,900), for a total decrease of approximately $217,700.

Insurance Premiums (Accounts 9240 and 9250): Insurance premiums for the Rate Year are based on the Company's fiscal year 2022 premiums, which agree to 2022 invoices received, with an adjustment to reflect expected increases in premiums in fiscal year 2023. As anticipated, and as experienced in 2021 and 2022, there is a general hardening of the insurance market and a pronounced rate adjustment for all risk categories of on average 10% in 2023. Further, because many of the premiums are paid in Canadian dollars, the adjustment reflects the current $US to $Canadian exchange rate.

DSM Amortization and Expenses (Account 9280): To help maintain affordable rates, the Company proposed, and the Commission approved, in Docket No. 8710 extending the amortization period for all remaining energy efficiency balances from 3 years to 10 years. This extended amortization is reflected in this COS. The COS reflects a reduction of $44,600 in amortization expense as some older efficiency investments will be fully amortized during the Rate Year.

Miscellaneous General Expense (Account 9301): This account includes the charitable donations the Company makes and, therefore, it has been adjusted to remove it from the Rate Year consistent with past practice.

Memberships (Account 93021000): This account has been adjusted downward consistent with the Department's recommendation in previous rate cases to remove the portion of American Gas Association dues related to lobbying. Additionally, this account has been increased by $30,000 relating to three memberships in the Rate Year that were not in this account for the Test Year: the RNG Coalition, the Downstream Natural Gas Initiative, and the Natural Gas Supply Collaborative. Lobbying expenses have been removed as it relates to these memberships consistent with treatment for other membership costs in prior rate cases. These memberships were paid for by VGS in the Test Year but were recorded to a different account (account 9135). VGS removed these expenses from account 9135 before adding them into the correct memberships account. The RNG Coalition is the leading trade association for the Renewable Natural Gas industry in the U.S. They provide resources, training, and networking to developers, utilities, and stakeholders, which is essential to promote this early-stage industry. Given the state's aggressive climate goals, it is critical for VGS to connect to the national RNG industry in order to make informed decisions on our RNG supply purchases and strategy. The Downstream Initiative and Natural Gas Supply Collaborative are two industry groups for industry leaders and are staffed by ERM (formally MJ Bradley), which facilitates monthly meetings and provides a variety of white papers and issue briefs on topics like RNG, hydrogen, and methane emission.[1] VGS's participation in these groups aligns the Company with forward-looking gas utilities and allows us to leverage ERM's expertise to shape strategies addressing climate change.

Q12. Employee Benefits are also shown on Schedule 7 to Exhibit VGS-MM-1. Please describe how employee benefits are included in the COS.

A12. Employee benefits include federal and state payroll taxes; costs associated with providing employee insurance (workers compensation and medical); employee retirement plan expenses; and employee benefits regarding wellness, safety, and tuition reimbursement. Employee benefits are expressed as a percent of total payroll for the Rate Year. The employee benefits percentage in this COS is 32.26% of payroll.

The employee benefit adjustment also reflects the Company's past practice of excluding 50% of the cost of the Supplemental Executive Retirement Plan ("SERP") in its calculation. Finally, the employee benefit calculation is further adjusted to reflect costs associated with non-productive time (such as holiday, sick, and vacation pay) and transportation that gets capitalized as part of direct charge capitalized labor. While these are not directly employee benefit related, they reflect reductions to the Company's operating expenses related to capitalization. Because those reductions are reflected as a reduction in employee benefits in the Company's Test Year expenses, it is necessary to make a similar adjustment to the Rate Year expense. This adjustment can be seen on **Schedules 7 and 17a.**

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[1] A full list of the reports can be found at https://www.mjbradley.com/publications?field_topics_value=Natural%20Gas&field_type_value=All.

Benefits expense has decreased from the FY2022 cost of service to the FY2023 Rate Year. The rate has decreased from 38.03% to 32.26% and is largley driven by a reduction in pension expense. Pension costs in the Rate Year are projecting pension income of $277,000 and that income is included as a reduction to overall employee benefit costs.

Q13. Turning now to non-operating expenses, please describe how those expenses are established in the COS.

A13. Non-operating costs include things like depreciation, property taxes, and recovery of carrying costs, which all arise from rate base. The methodology for determining rate base in this COS is essentially unchanged from previous rate proceedings. The COS rate base reflects the 13-month average from September 2022 to September 2023, and the balance sheet accounts included fundamentally mirror the accounts previously included in rates, with one addition. The starting point for the rate base calculation is the per book account values as of December 31, 2021. These values are then adjusted for changes from January 2022 to September 2023. The total Rate Year rate base is $261.7 million. Significant adjustments to rate base are shown in **Schedule 12** to Exhibit VGS-MM-1 and described below:

Plant-in-Service: The COS reflects an increase of approximately $13.5 million for plant-in-service, which is described in more detail in Mr. St. Hilaire's testimony. Highlights of these investments include improvements to and modernization of the Company's gate stations and distribution network. Also included are investments in distribution mains, meters and services related to growth within VGS's existing service territory, and other investments needed to provide safe and reliable service to customers. Additionally, consistent with VGS's Alternative

Regulation Plan approved in Case No. 19-3529-PET, $1.5 million is included to reflect capital investment in innovation and our Climate Action Plan. This is described further in the testimony of Ms. McNeil.

Construction Work in Progress ("CWIP"): CWIP has been adjusted to calculate the 13 months of plant additions from September 2022 through September 2023, which results in $1,338,000 of CWIP in the Rate Year. Calculating CWIP on plant additions ensures that only projects that will be in service during the Rate Year are reflected in CWIP, which is consistent with the Commission's guidance in Case No. 19-0513-TF.

Inventories and Prepaid Expenses: Except for gas in storage, the adjustments to these accounts reflect the 13-month average of the Test Year. Gas in storage is adjusted to reflect the average of the Rate Year and captures changes in the value of VGS's gas in storage inventory.

Deferred Charges and Liabilities: These balances reflect the 13-month average balance during the Rate Year for unamortized debt expense, unamortized DSM balances, deferred gas costs, and pension settlement deferrals, which are treated consistent with the Commission's approval of rates in prior cases. Consistent with past practice, the balance of the unamortized Barge Canal expense is excluded from the rate base calculation. Similarly, consistent with the Memorandum of Understanding in Docket No. 8710 and Case No. 17-1238-INV, the unamortized balance of the Regulatory Asset associated with Segment 1 of the 12-inch transmission line and development costs related to the so-called Phase 2 are also excluded from rate base. The Company has included in rate base 50% of assets and liabilities associated with providing a SERP benefit to certain employees.

Additionally, we have made an addition to rate base for "Pension, net". "Pension, net" is related to (1) the Company's net pension obligation (the projected benefit obligation offset by plan assets) which as of December 31, 2021 was -$648,000, and (2) the regulatory asset associated with unrecognized pension costs, which as of December 31, 2021 was $6,052,000. Over the past several years, VGS has taken steps to de-risk our pension plan and is actively working to continue that effort.

Pension costs are included in VGS's cost of service and are annually collected from customers. Pension costs are included in the COS in two ways: first, through the collection of "normal pension expense" which is included as part of our Benefits percentage as seen on Schedule 17a, and second, through the amortization of deferred pension settlement accounting pension expense on Schedule 8c. As we work to de-risk our plan and bring the plan to a closed status, it will ultimately remove pension costs entirely from the COS and reduce any risk to customers associated with the fluctuation in the net pension obligation due to actuarial changes and changes in market conditions.

In prior years, the normal pension expense has been approximately the same as our employer contributions. Additionally, in prior years, the Company's net pension obligation and regulatory asset associated with unrecognized pension costs essentially offset each other, and therefore have not been reflected in rate base. However, as part of the process to de-risk the pension plan, VGS has been making an effort to bring its plan to a fully funded status. One way in which VGS has done this is to make contributions to the pension fund in excess of normal pension expense—in excess of the amount collected in rates. The Company began this effort in FY2019, where in addition to contributing normal pension expense to the plan, we also began matching lump sum payments with contributions. VGS is proud that as of September 30, 2021, the plan was 97.5% funded. VGS's excess contributions to the plan have driven the Company's net pension obligation down. As a result, the regulatory asset that reflects pension costs not yet recognized on our income statement (which as of December 31, 2021 was $6,052,000) now exceeds our net pension obligation (which as of December 31, 2021 was a credit balance of $648,000). The net of the two is a net asset of $5.4M. Accordingly, this adjustment is made to include these essentially prepaid pension contributions in rate base.

Additionally, it is important to note that making contributions in excess of normal pension expense has contributed to having pension income in the Rate Year instead of pension expense. This pension income has been passed on to customers through a reduction in the Benefits percentage as shown on Schedule 17a and discussed above.

Working Capital: Working capital has been determined using the same methodology and average day lead/lag as has been reflected in VGS's past rate filings, applied to Rate Year revenues and expenses.

Rate Base Deductions: The deductions to rate base include accumulated depreciation, asset retirement obligation, accumulated cost of removal, deferred income taxes, and the regulatory liability associated with deferred taxes, each of which has been adjusted to reflect the 13-month average during the Rate Year. In aggregate, these rate base deductions reduce rate base by $25.3 million.

The detailed rate base is shown on **Schedule 12** to Exhibit VGS-MM-1. The rate base amount directly affects the return on rate base (referred to as "cost to finance rate base" in the COS), depreciation, and property taxes as discussed below.

Q14. The COS reflects a weighted cost of capital of 6.6% applied to the rate base described above. How was the weighted cost of capital determined?

A14. The weighted cost of capital is comprised of an equity ratio of 50% at a return on equity ("ROE") of 8.92%. The remaining capital structure is comprised of long-term debt ("LTD") and short-term debt ("STD"). VGS currently has $117 million of LTD, at interest rates ranging from 3.32% to 7.62%. The weighted cost of capital reflects the actual interest rates for each outstanding LTD issuance. One million dollars of the LTD tranche at 7.62% interest rate will mature and be repaid in June 2022, with another one million being repaid in June 2023. The LTD capital structure for the Rate Year reflects these maturities. The remaining capitalization is assumed to be comprised of STD at the ratio approved by the Commission in Case No. 19-0513-TF. VGS currently has one short-term credit facility that is indexed to the 30-day LIBOR. The interest rate for the STD is based on forecasted LIBOR and the Company's current STD rate to arrive at a total short-term debt interest rate of 1.97%. This agreement expires on June 30, 2023, and we anticipate potentially higher interest rates in the last quarter of FY2023, but we have not reflected that expectation in the COS, which places the risk of higher rates on the Company rather than customers.

Q15. How did the Company calculate the 8.92% ROE?

A15. The basis for the ROE is discussed in more detail by Ms. McNeil. In summary, the ROE was set based on the indexing method utilized in prior cases. The baseline is the ROE approved in our last rate case, which was set based on the same methodology. In that case, Case No. 21-

0898-TF, the Commission approved an ROE of 8.8%, which is adjusted for this case by one-half the change in the composite 10-Year Treasury Note rate. In this case, as in the last rate case, we utilized the three-month period ending at the beginning of February. The resulting ROE is 8.92% because the composite 10-Year Treasury Note rate was 1.37 (June 1, 2021 to September 1, 2021) and the average rate for the most recent three-month period was 1.60, an increase of 0.23. Adjusting the current 8.8% ROE by half the increase results in a ROE of 8.92%.

Q16. Please describe the changes in depreciation expense.

A16. Depreciation expenses are reflected on **Schedule 8** to Exhibit VGS-MM-1. They are calculated based on applying the current depreciation rates to the Rate Year plant-in-service. The Company conducted a depreciation study in 2019 and the updated depreciation rates were implemented in October 2020. As further noted in Case No. 21-0898-TF, the depreciation study included a methodology change for treatment of general plant that resulted in a $41,313 downward adjustment to depreciation expense, and that adjustment is reflected in the Rate Year. The depreciation rates utilized in this cost of service were adjusted based on the findings in Case 21-0898-TF. Specifically, as a result of the findings in Case 21-0898-TF, the Company engaged our depreciation study experts to review the 2019 depreciation study and update our rates to correct the cost of removal rate. The updated rates are currently being utilized in FY2022 and are reflected in this case. This adjustment decreases depreciation even further than the estimate proposed by the Department in Case No. 21-0898-TF, thus reducing the non-gas revenue and reducing rates. For the updated depreciation study please refer to **Exhibit VGS-MM-4**.

Q17. Please describe the amortization of certain regulatory assets and liabilities on Schedule 8.

A17. Schedule 8 includes the following amortizations:

Debt Expense: Debt expense amortization is simply the amortization of costs incurred related to the issuance of long-term debt that will amortize over the life of the loan.

Segment 1: Pursuant to the Memorandum of Understanding between VGS and the Department approved by the Commission in Docket No. 8710, VGS amortizes over 10 years, without carrying costs, its regulatory asset related to Segment 1 of its 12" transmission line that was put in service in advance of the remainder of the 12" line.

Phase 2: Pursuant to the Memorandum of Understanding between VGS and the Department, approved by the Commission in Case No. 17-1238-INV, VGS amortizes over 10 years, without carrying costs, $1,046,218 of development costs associated with Phase 2, the so-called Addison-Extension. The amortization on **Schedule 8** reflects the treatment established in that case.

Pension Amortization: VGS has begun amortizing, over 10 years, $741,327 of costs related to pension-settlement accounting consistent with the methodology previously used by the Department and the Company in a Memorandum of Understanding approved by the Commission in Case No. 18-0409-TF. The COS also reflects the amortization of pension settlement accounting of $603,931 that was incurred in FY2019 and $956,332 that was incurred in FY2020, which were both included in the last rate case. Additionally, the COS reflects a new pension settlement accounting amount of $821,608 that was incurred in FY2021.

By way of background, and as described in Case No. 18-0409-TF, pension settlement accounting occurs when the cash payment of lump sums to plan participants are greater than the sum of the plan's service cost and interest cost in a given year. This is known as the "trigger," and it resets at the start of every fiscal year. Pension settlement accounting accelerates future recognition of pension expense that otherwise would have remained in a pension regulatory asset for future rate recovery. In fiscal year 2021, VGS "triggered" pension settlement accounting, which resulted in additional pension expense of $821,608. As this amount would otherwise be collected in future COS filings, VGS recorded a regulatory asset of $821,608, and VGS proposes to amortize the new pension-settlement regulatory asset over 7 years consistent with how the expense otherwise would have been collected from customers. The amortization on **Schedule 8** reflects this agreement applied to all pension settlement accounts.

Barge Canal: The Barge Canal amortization expense relates to VGS's share of the cleanup of the Pine Street Barge Canal Superfund site located in Burlington, Vermont. The amortization reflects VGS's actual expenses through December 31, 2021. This amortization has been treated in past proceedings as a regulatory asset, recoverable through rates without carrying costs. Beginning with the FY2017 COS, to maintain affordable rates, the Company proposed, and the Commission approved, an extended amortization period from 10 years to 20 years of Barge Canal expenses. The Company has continued this practice into this COS. In the Rate Year, the 2009 Barge Canal regulatory asset is set to be fully amortized, so an adjustment has been made to account for this change.

Q18. The COS reflects an increase in property taxes of approximately $463,000. Please describe how this adjustment was determined.

A18. By way of background, VGS is assessed property taxes beginning July of each year based on the plant-in-service as of December 31 of the prior year. Accordingly, the property taxes in the Test Year reflect 6 months of taxes (January to June 2021) based on plant-in-service as of December 31, 2019 and 6 months of taxes (July to December 2021) based on plant-in-service as of December 31, 2020.

Due to the timing of the assessment relative to the calculation and payment of property taxes, the Company must make an adjustment to the COS to properly reflect property taxes that will be payable in the Rate Year. Because of the timing of tax assessment relative to tax payment, the Rate Year property taxes will reflect nine months (October 2022 to June 2023) based on plant-in-service as of December 31, 2021, and 3 months (July to September 2023) based on plant-in-service as of December 31, 2022. To determine the appropriate property taxes during this period, the Company first reviewed the most recent property tax bills received, which represent property taxes that will be paid from July 2021 to June 2022 and are based on plant-in-service as of December 31, 2020. Then using the tax rates from those bills and adjusted for historical trend increase in property tax rates, the Company adjusted those property taxes for the increase in plant-in-service from December 31, 2020, to December 31, 2021, to determine the property taxes that will be incurred on this incremental plant beginning in July 2022. The final adjustment to property taxes reflects the impact of plant-in-service as of December 31, 2022. That plant will be taxable beginning July 2023. The Rate Year COS includes 3 months of these taxes. The property tax calculation is shown on **Schedule 9a** to Exhibit VGS-MM-1**.**

Q19. Are there any other adjustments to the COS?

A19. Yes. There are four other adjustments that should be mentioned.

First, the COS includes adjustments to reflect expected increases to the collections from the gross receipts taxes used to fund the Commission and the Department (0.525%) and low-income weatherization (0.75%). These adjustments are straight adjustments based on the overall COS and can be seen on **Schedule 9**.

Next, the Rate Year includes an adjustment of $50,000 related to interest on customer deposits and, per prior agreement with the Department, interest on the deferred tax asset associated with SERF. The applicable interest rate is the current Commission-approved interest rate for customer deposits of 1.25%. These adjustments are shown on **Schedule 18**.

Third, the Test Year includes $978,069 related to weather normalization that has been removed from the COS as shown on **Schedule 1**. The weather normalization expense is recovered in gas costs through the quarterly purchased gas adjustment filings.

Finally, the COS reflects two adjustments to Schedule 15. An adjustment was made to interest income, which represents SERF interest income offset by SERF interest expense. As the SERF balance continues to decline, interest expense declines with it and, as such, this COS reflects an adjustment related to the declining interest expense of SERF. Additionally, a $1,905 adjustment was made related to Account 40510000. This adjustment removes all fines and penalties from the COS.

This covers the COS adjustments that are reflected in more detail on Exhibit VGS-MM-1 and in the testimony of other VGS witnesses.

Q20. Does this conclude your testimony?

A20. Yes.