

STATE OF VERMONT  
PUBLIC UTILITY COMMISSION

Petition of Vermont Gas Systems, Inc., pursuant to 30 )  
V.S.A. § 248, for a Certificate of Public Good to )  
authorize construction of a pressure-regulation station ) Case No. \_\_\_\_\_  
in Monkton, Vermont )

**PREFILED TESTIMONY OF ADAM GERO  
ON BEHALF OF  
VERMONT GAS SYSTEMS, INC.**

**November 9, 2017**

Summary of Testimony

Mr. Gero's testimony describes the proposal to construct a pressure-regulation station located off of Hollow Road in Monkton, Vermont, and he demonstrates that the Project meets the relevant criteria of 30 V.S.A. §§ 248(b)(1), (2), (3), (4), and (6), and certain subparts of (b)(5).

Mr. Gero also offers the following exhibits:

EXHIBIT VGS-AG-1: Station Plans

EXHIBIT VGS-AG-2: Proposed Monkton Service Territory

EXHIBIT VGS-AG-3: 45 Day Notice Letters

EXHIBIT VGS-AG-4: Project Budget

**PREFILED TESTIMONY OF ADAM GERO  
ON BEHALF OF  
VERMONT GAS SYSTEMS, INC.**

1   **1.    Q.    State your name, title and business address.**

2           **A.**    My name is Adam Gero. I am the Engineering and Compliance Manager for  
3 Vermont Gas Systems, Inc. (“VGS or “the Company”), 85 Swift Street, South Burlington,  
4 Vermont.

6   **2.    Q.    Describe your professional and educational background.**

7           **A.**    I have been in my current position, Engineering and Compliance Manager, since  
8 October 19, 2015. My role is to provide engineering and technical support to the Operations  
9 Services, Construction, and Engineering Departments. I am responsible for the design of natural  
10 gas transmission and distribution systems. Prior to my current position, I held a variety of other  
11 positions at the Company beginning in May 2009, which included Intern in the Engineering  
12 Department and Gas Engineer. As Gas Engineer, my responsibilities included performing  
13 system analysis for our distribution and transmission systems, design and cost estimating of all  
14 new construction projects, and inspection of gate station and transmission projects.

15           I received my Bachelor’s Degree in Civil Engineering in May 2011 from the University  
16 of Vermont. In October of 2015, I received my Professional Engineering licensure in the State  
17 of Vermont. In addition to receiving my degree and PE license, I have attended numerous Gas  
18 Technology Institute (“GTI”) courses, including Measurement and Regulator Station Design for  
19 Distribution and Transmission Systems. In July of 2016, I completed the certificate program  
20 through GTI and became a Registered Gas Distribution Professional.

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

2           **A.**    Yes. I submitted testimony in Docket No. 8679 relating to the rebuilding of an  
3 existing pressure-regulation station with the addition of a pipeline heater, a new station building,  
4 and the installation of a communications equipment enclosure in Georgia, Vermont.

5

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

7           **A.**    My testimony describes the proposed construction of a pressure-regulation station  
8 (“Station”) in Monkton, Vermont (the “Project”). My testimony also demonstrates that the  
9 Project meets the relevant criteria of 30 V.S.A. §§ 248(b)(1), (2), (3), (4), and (6), and certain  
10 subparts of (b)(5).

11

12   **5.    Q.    Please describe the Project.**

13           **A.**    The Project involves the construction of a new pressure-regulation station to bring  
14 natural gas service to residents of the Town of Monkton (“Town”). The Station will be  
15 contained in an approximate 12-foot by 12-foot fence that will be 7-feet tall. The station will be  
16 accessed by a new permanent 12-foot wide, approximately 400-foot long, crushed stone access  
17 road. A 4-inch natural gas distribution pipe will be installed alongside the road that will connect  
18 the Station with the proposed Monkton distribution network. VGS is proposing to build the  
19 Station on a property located at 282 Hollow Road in Monkton with a Parcel ID of  
20 05.102.006.000 282. Currently, VGS owns the property, and the Station would be located  
21 approximately 350 feet north of Hollow Road and adjacent to the west side of VGS’ 12-inch  
22 pipeline easement.

1 All of the Station gas piping is above ground, except for the gas inlet and outlet pipes,  
2 which will be buried. The Station is designed to have redundant regulator runs, which enhances  
3 reliability of the natural gas supply by having a primary run for normal operations and a back-up  
4 run for maintenance or emergency purposes. If the primary regulator run needs to be taken  
5 offline for maintenance or other reasons, the back-up run can handle the entire load. Each  
6 regulator run consists of two identical regulators set up in what is termed a working and monitor  
7 set. The new regulator runs will each use two 1-inch Fisher 627 Series direct-operated pressure-  
8 reducing regulators or equivalent and each run will have a capacity of 14 mcfh. The Station also  
9 includes a rotary meter so the amount of gas flowing through the Station can be accurately  
10 measured.

11 The Station will be connected to the existing 12-inch VGS transmission pipeline via an  
12 approximate 60-foot long, 2-inch pipe. This pipe will be equipped with a buried 2-inch valve  
13 located at the connection with the 12-inch pipeline that can be used to shut off gas flow to the  
14 Station, if necessary. The Station will have a blow down valve and stack that will allow VGS to  
15 purge the 2-inch line and the Station if maintenance is required. This is compliant with 49 CFR  
16 192.179(c).

17 The Station will be situated on a 50-foot-by-60-foot easement and contained within an  
18 approximate 12-foot-by-12-foot fenced in area. As stated above, a 12-foot wide gravel road will  
19 provide access to the Station off Hollow Road on a 25-foot wide access easement on the west  
20 side and fully located on the property.

21 A communications enclosure will house the Supervisory Control and Data Acquisition  
22 (SCADA) and telecommunications equipment.

1           The plans for the Station design are shown in **Exhibit VGS-AG-1**. The final details may  
2 change slightly from those shown on Exhibit VGS-AG-1, but the location of the Station and the  
3 significant design components will not change. Additionally, Exhibit VGS-AG-1 contains an  
4 aerial view of the Project location.

5

6 **6. Q. How will VGS get electric power to the station?**

7           **A.** VGS intends to install two small solar panels, approximately 2-feet wide by 3-feet  
8 long each, with battery storage to provide electric power to the Station. The solar panels will be  
9 located just outside the northeastern corner of the 50-foot-by-60-foot easement, in the VGS  
10 transmission pipeline easement to maximize exposure to the sun. However, if it is deemed that  
11 there is not adequate sunlight on the site, electricity will need to be run to the site from the road.  
12 In that case, electrical conduit will be installed alongside the new access road and into the fenced  
13 area.

14

15 **7. Q. Why is Vermont Gas proposing that the Station be built?**

16           **A.** Currently, there is only a high pressure transmission pipeline in the Town of  
17 Monkton. In order to serve the Town with natural gas, a Station is required to reduce the high  
18 pressure in the existing 12-inch transmission line to medium pressure (under 100 p.s.i.) that will  
19 run through the proposed distribution system. The distribution system will initially supply gas to  
20 potential customers along the agreed upon distribution route, which was included in the MOU  
21 between the Town and VGS, which was filed in Docket 7970. In Docket 7970, the PUC

1 approved the construction of the Addison Natural Gas Project (“ANGP”). A copy of the  
2 proposed service area is included as **Exhibit VGS-AG-2**.

3 VGS currently has gate stations of similar size, design, and functionality operating in the  
4 Towns of Milton, Georgia, and Swanton.

5

6 **8. Q. Is there an alternative to building the Station?**

7 **A.** Yes. An alternative would be to connect the Town with the existing VGS  
8 distribution system. The nearest distribution network is located in Hinesburg, Vermont.  
9 Extending the distribution network to Monkton would require constructing approximately 5  
10 miles of distribution line from the end of the existing system in Hinesburg along Silver Street.  
11 Based on a preliminary review of the distribution line extension alternative, it appears  
12 comparable to the proposed gate station in terms of cost and reliability, with the Station being  
13 slightly less expensive. However, this initial cost comparison does not account for the potential  
14 for rock and stream crossings along the distribution line route, which could materially increase  
15 the cost and timing of distribution pipeline construction. Accordingly, VGS has selected the gate  
16 station option as the least-cost solution.

17

18 **9. Q. Has VGS reviewed the Project under all of the applicable Section 248**  
19 **criteria?**

20 **A.** Yes. I describe the Project’s compliance with each of the applicable criteria  
21 below. Josh Sky from Vanasse Hangen Brustin, Inc. (“VHB”) will be providing testimony on  
22 additional criteria contained in 30 V.S.A. § 248(b)(5), as well as (b)(8).

**SECTION 248(b)(1)**  
**ORDERLY DEVELOPMENT OF THE REGION**

1   **10.   Q.    Will the Project unduly interfere with the orderly development in the**  
2   **affected region with due consideration having been given to the recommendations, if any,**  
3   **of the municipal and regional planning commissions and the municipal legislative bodies**  
4   **and the land-conservation measures contained in their plans?**

5           **A.**    No. The station is being constructed on a currently undeveloped site directly  
6   adjacent to the VGS pipeline right-of-way (“ROW”) and the VELCO ROW and on a parcel of  
7   land that VGS currently owns. In addition, the access road will be constructed on an existing  
8   path located on the property. Also, the site is not located in a prohibited area on the “Zoning  
9   District: Conservation – Prohibited” map that is included on page 93 of the Monkton Town Plan.

10           VGS provided copies of the Project plans to the Addison County Regional Planning  
11   Commission (or “ARPC”), Monkton Select Board and Monkton Planning Department as part of  
12   its 45 day notice. Copies of the notice letters are provided as **Exhibit VGS-AG-3**. None of  
13   these entities have submitted any comments on the Project to VGS.

14           Although natural gas is not specifically mentioned in the Addison County Regional Plan,  
15   constructing the station and offering natural gas service to residents and businesses in the Town  
16   can help with achieving several goals listed in the “Energy” section of the plan. See list below:

- 17           •   *Goal A. To increase local energy production in an effort to move towards a less*  
18               *centralized and more reliable energy production system in the Addison Region. VGS is*  
19               *currently working on providing renewable natural gas, called EcoGas, to its customers.*  
20           EcoGas is a renewable natural gas option created from the methane produced by the

1 organic material in farms and landfills. Vermont Gas anticipates that once gas service is  
2 installed, residents and businesses of Monkton will have the opportunity to sign-up for  
3 EcoGas. Also VGS is exploring projects in the Addison County region that will produce  
4 EcoGas and inject it directly into the VGS gas distribution system.

- 5 • *Goal B. To reduce the Addison Region's energy consumption by maximizing the*  
6 *environmental, reliability and economic benefits of conservation.* VGS has been  
7 designated as an Energy Efficiency Utility by the State of Vermont and offers its own  
8 energy conservation programs to its customers. Benefits include rebates and incentives  
9 for upgrading equipment and special financing for customers who upgrade to high  
10 efficiency equipment. When residents and businesses of Monkton sign-up for gas  
11 service, they will have direct access to all of these programs.

- 12 • *Goal C. To have reliable, adequate and affordable energy that meets the needs of the*  
13 *Addison Region's residents and businesses.* VGS provides a competitively priced fuel  
14 that is reliable because of its state of the art pipeline system. Also, since the gas is piped  
15 directly to a home or business, it provides a reliable heating source with the customer not  
16 having to worry about running out of fuel.

17 The Monkton Town Plan mentions Vermont Gas' Addison County pipeline in the  
18 "Utilities and Facilities" section of the plan and lists several measures that should be considered  
19 during a public service review process, on page 27 and 28 of the Plan. These items have been  
20 addressed in this filing. As well, the Town Plan discusses energy efficiency and conservation.  
21 As discussed above in connection with the similar goals in the regional plan, residents and  
22 businesses will have access to VGS' energy efficiency programs.



1           Constructing the Project will enable new natural gas service to this community and allow  
2 for the expansion of service to new customers who will benefit from having the choice in  
3 selecting their home and/or business heating fuel. In sum, the Project will not adversely affect  
4 orderly development of the Town of Monkton, or the region.

**SECTION 248(b)(2)**  
**NEED FOR PRESENT AND FUTURE DEMAND FOR SERVICE**

5   **11.   Q.    Is the Project required to meet the need for present and future demand for**  
6 **service, which could not otherwise be provided, in a more cost effective manner through**  
7 **energy conservation programs and measures and energy efficiency and load management**  
8 **programs?**

9           **A.**    Yes. The Project is required in order to bring natural gas service to the residents  
10 and businesses in the Town. The ANGP transmission line was commissioned in April 2017, but  
11 currently there are no gate stations or distribution lines feeding the Town. Since this would be a  
12 new gate station, energy conservation programs and measures, energy efficiency, or load  
13 management cannot meet the demand. Once gas service is available, efficiency programs will be  
14 made available to new customers in the Town of Monkton.

**SECTION 248(b)(3)**  
**SYSTEM STABILTY AND RELIABILTIY**

15   **12.   Q.    Will the Project adversely affect system stability and reliability?**

16           **A.**    No, the Project will not adversely affect system stability and reliability. The new  
17 gate station is not within VGS' existing service territory, therefore, its addition has no effect on  
18 the rest of the pipeline network. In the future, if the VGS distribution network expands into  
19 neighboring towns, then there could be an added benefit of reliability if individual distribution

1 systems can connect and back feed each other. Furthermore, the ANGP transmission line was  
2 designed with the intent of serving the town of Monkton; accordingly, the addition of a gate  
3 station will not affect the transmission system.

**SECTION 248(b)(4)**  
**ECONOMIC BENEFIT**

4 **13. Q. Will the Project result in economic benefit to the State and its residents?**

5 **A.** Yes. The Project will result in economic benefits to the State and its residents by  
6 providing access to a competitively priced fuel choice and VGS energy conservation programs  
7 for the customers served from the Station, which will support the economic health of those  
8 customers and Vermont as a whole. Currently, no portion of the Town is served by natural gas.

**SECTION 248(b)(5)**  
**PUBLIC HEALTH AND SAFETY**

9 **14. Q. Does the Project comply with the criteria listed in Section 248(b)(5), with due**  
10 **consideration given to the criteria specified in 10 V.S.A. § 1424a(d) and § 6086(a)(1) through**  
11 **8 and 9(K), impacts to primary agricultural soils and greenhouse gas impacts?**

12 **A.** Yes. As detailed in testimony provided by Josh Sky, this Project will not have  
13 any undue adverse effect on aesthetics, historic sites, water purity, the natural environment, the  
14 use of natural resources, or primary agricultural soils. As I describe below, there is no undue  
15 adverse effect on the other criteria listed in Section 248(b)(5).

16

1 **15. Q. Will the Project have an undue adverse effect on the health and safety of the**  
2 **public?**

3 **A.** No. The Project will be designed, constructed, operated and maintained in  
4 accordance with the applicable federal and state regulations and PUC Rule 6.100 to protect the  
5 health and safety of the public.

6

7 **16. Q. Considering the criteria listed in 10 V.S.A. § 6086(a)(1) and § 1424a(d), will**  
8 **the Project result in undue air pollution?**

9 **A.** No. The Station is designed in accordance with U.S. Department of  
10 Transportation regulations and PUC Rule 6.100 for transportation of natural gas, and is designed  
11 not to leak or process emissions into the air.

12

13 **17. Q. 10 V.S.A. § 6086(a)(1)(C) – Water Conservation: Will the Project require any**  
14 **significant use of water?**

15 **A.** No. The project will require minimal water during construction for dust control  
16 and equipment cleaning and will not use water during operation.

17

18 **18. Q. 10 V.S.A. § 6086(a)(2) – Sufficient Water Availability: Is there sufficient**  
19 **water available for the needs of the Project?**

20 **A.** During construction of the Project, small amounts of water may be used to control  
21 dust and/or clean equipment. The Project will not require or use any water during the operational  
22 phase, once construction has completed.

1 **19. Q. 10 V.S.A. § 6086(a)(3) – Existing Water Supply: Will the Project cause an**  
2 **unreasonable burden on an existing water supply?**

3 A. No. See response to Question 18 above.  
4

5 **20. Q. 10 V.S.A. § 6086(a)(5) – Transportation: Will the Project cause unreasonable**  
6 **congestion or unsafe conditions with respect to use of the highways, waterways, railways,**  
7 **airports and airways, and other means of transportation?**

8 A. No. During construction and once constructed, the Project will not interfere with  
9 any main road or any other means of transportation. The Project components do not require any  
10 special transportation arrangements and will not interfere with traffic during delivery. There will  
11 be an access road and an area at the station to park VGS vehicles when working at the Station.  
12

13 **21. 10 V.S.A. § 6086(a)(6) – Education: Will the Project cause an unreasonable burden**  
14 **on the ability of any municipality to provide educational services?**

15 A. No. The Project will have no impact on the ability of any municipality to provide  
16 educational services. The installation of the station will not require people to relocate to the  
17 Town of Monkton or otherwise impact schools.  
18

19 **22. Q. 10 V.S.A. § 6086(a)(7) – Government: Will the Project place an unreasonable**  
20 **burden on the ability of local governments to provide municipal or governmental services?**

21 A. No. The Project will have no impact on the ability of any municipality to provide  
22 municipal or governmental services.

1 **23. Q. 10 V.S.A. § 6086(a)(9)(k) – Public Investments: Will the Project**  
2 **unnecessarily or unreasonably endanger any public or quasi-public investment in a facility,**  
3 **service, or lands, or materially jeopardize or interfere with the function, efficiency, or**  
4 **safety of, or the public’s use or enjoyment of or access to the facility, service, or lands?**

5 **A.** No. The Project will have no impact on the criteria identified in 10 V.S.A. §  
6 6086(a)(9)(K).

7  
8 **24. Q. Will the Project have an impact on greenhouse gases (“GHG”)?**

9 **A.** Yes, the Project is expected to have a positive impact on GHG in two ways. First,  
10 because natural gas is cleaner burning than either propane or fuel oil, by ensuring continued  
11 access to reliable natural gas service, the Project will enable the continued reduction in GHG  
12 associated with natural gas use. Next, because VGS has been designated as an Energy  
13 Efficiency Utility by the State of Vermont, it offers its own energy efficiency programs to its  
14 customers. Benefits include rebates and incentives for upgrading equipment and special  
15 financing for customers who upgrade to high efficiency equipment, all of which are designed to  
16 reduce GHG emissions. VGS also expects to be offering EcoGas to Monkton customers in the  
17 future. By capturing methane that would otherwise be released into the air and using it as an  
18 energy source, overall GHG emissions are reduced.

**SECTION 248(b)(6)**  
**INTEGRATED RESOURCE PLANNING**

19 **25. Q. Is the Project consistent with the VGS’ Integrated Resource Plan?**

20 **A.** Yes. In the Integrated Resource Plan (“IRP”) approved in 2012, VGS states  
21 Vermont Gas is aggressively pursuing expansion into Addison County. In the IRP filed in July

1 of 2017, which is currently pending before the Public Utility Commission (“PUC”) in case 17-  
2 3658-PET, VGS states “The Addison County natural gas project is presently underway and  
3 includes service expansion into eight communities over a three-year period that began in 2017.  
4 The planned service commencement dates and communities served by the project are listed  
5 below.

6 2017 Middlebury and Vergennes

7 2018 Bristol, New Haven, and Monkton

8 2019 East Middlebury, St. George, and underserved parts of Hinesburg”.

9 Further, VGS’ IRP indicates growth in the number of customers. The Project has the  
10 capacity to provide service to incremental customers in the greater Monkton area.

11

12 **26. Q. Have you addressed all applicable Section 248 criteria in this Petition?**

13 **A.** Yes. The additional criteria in Section 248(b)(5), as well as 248(b)(8) will be  
14 addressed by Mr. Sky. The criteria in Sections 248(b)(7), (b)(9), (b)(10), and (b)(11) are not  
15 applicable.

16

17 **27. Q. What is the proposed timeline for this construction project?**

18 **A.** The current schedule has construction of the Station beginning in mid-June 2018.  
19 VGS anticipates the construction to take a total of six to eight weeks. In order to remain on  
20 schedule to properly secure contractors and purchase the necessary materials, VGS requests a  
21 PUC decision by April 2018.

22

1   **28.   Q.    What is the proposed budget for this construction project?**

2           **A.    The total cost for the construction of the station is \$637,234. See Exhibit VGS-**  
3 **AG-4** for more detail. The budget includes a 20% contingency for unknown costs since none of  
4 the construction or materials have officially been put out to bid.

5

6   **29.   Q.    Does this conclude your testimony?**

7           **A.    Yes.**