

**STATE OF VERMONT
PUBLIC SERVICE BOARD**

Docket No. 7970

Petition of Vermont Gas Systems, Inc., for
a certificate of public good, pursuant to 30)
V.S.A. § 248, authorizing the construction)
of the “Addison Natural Gas Project”)
consisting of approximately 43 miles of)
new natural gas transmission pipeline in)
Chittenden and Addison Counties,)
approximately 5 miles of new distribution)
mainlines in Addison County, together)
with three new gate stations in Williston,)
New Haven and Middlebury, Vermont)
)

**COMMENTS AND MOTION OF NATHAN AND JANE PALMER IN RESPONSE TO COST
INCREASE FILING OF VERMONT GAS SYSTEMS, INC.**

I, Nathan Palmer, *pro se*, submit these comments and motion for relief from judgment under rule 60(b)(2) in response to new evidence that has emerged since the Board’s December 23, 2013 Order (December 23rd Order), the Board’s March 10, 2014 Order (March 10th Order) and the Board’s October 10, 2014 Order (October 10th Order). Specifically, I respectfully request that the Board exercise its authority under 30 V.S.A. Section 209(a)(3) and Section 248 to investigate the latest cost overrun, and I move under Rule 60(b)(2) for relief from judgment from the Board’s Order issuing the certificate of public good (CPG) on December 23, 2014, the Board’s subsequent final Order issued in March 2014, and the Board’s October 10th Order.

I. INTRODUCTION

Several material developments have dramatically affected or are likely to affect the market price for oil, propane and natural gas; the negotiated price of natural gas purchased by VGS from Canadian suppliers; the availability of gas to meet any demand for natural gas in current and future markets in Vermont; the economic and environmental benefits of the project; and the extent to which the project contributes to the general good of the State of Vermont. In addition to this new evidence, Vermont Gas Systems, Inc. filed a letter to the Board on December 19, 2014 (December 19th Letter) regarding a new \$33 million dollar increase in the estimated costs of the Addison Natural Gas Project (Project). We make this motion in light of both the several important material facts and circumstances that have emerged over the past weeks and months and VGS' December 19th letter. Together, these include but are not limited to:

- The submission and ongoing review of the TransCanada Energy East Project by the National Energy Board of Canada and Gaz Metro's affirmative statements in that legal proceeding that the consequence of the Project, as proposed, would be to create a substantial shortfall in natural gas supplies and a sharp increase in gas transportation costs and consumer prices for natural gas in Gaz Metro markets;
- the sharp decrease in the price of crude oil that has led to a sharp decline in fuel oil and propane prices throughout the United States and in Vermont;¹
- the recent launch of VGS' "gas island" with compressed natural gas delivered by truck to industrial customers in Middlebury and announcement of plans to expand the gas island concept to Rutland;²
- the \$33 million increase in estimated capital costs;³
- classification by VGS of their latest cost estimate as an Association for the Advancement of Cost Engineering Class 3 estimate;⁴

¹ According to the Vermont Fuel Price Report, published by the Vermont Department of Public Service, "Lower crude oil prices are expected to help reduce household heating oil expenditures by 27% (\$632) compared with last winter with U.S. heating oil process averaging 20% lower at \$3.09 per gal." In the Northeast, propane prices are expected to be 13% lower resulting in households spending 20% less on propane.

² See December 19, 2014 press conference announcing increased estimated capital costs for Phase I of the ANGP at wcaxtv.com.

³ December 19th letter at 1.

⁴ Id.

- new scientific evidence of the much stronger potency of methane as a greenhouse gas compared to CO₂ and suggesting that fuel switching from petroleum products to natural gas will have no impact or will, in fact, accelerate climate change.⁵
- Documentation by the Environmental Defense Fund of methane leaks from the VGS distribution system in Chittenden County.⁶

We recognize that the Board is currently awaiting a decision from the Supreme Court regarding the finality of the Board's December 23rd Order and the effect of the March 10th Order. There also appears to be confusion among all parties as to the current procedural deadlines and intent as to the procedural and substantive nature of any scrutiny of VGS' latest increase in estimated capital costs for the Project. While we, the Palmers, continue to believe that the Board's March 10th Order represents the final order prior to parties 60(b)(2) motions on related to VGS' July 2, 2014 filing of increased estimated capital costs (July 2nd letter), we are filing this 60(b)(2) motion within one year of the Board's original order and issuance of the CPG out of an abundance of caution.

We had already been preparing a 60(b)(2) motion in response to the many developments not related to VGS' December 19th letter; however, for convenience, we have tried to incorporate VGS' latest announcement of cost overruns into the motion that we were preparing regarding the other aforementioned evidence. Given the minimal time available to accomplish this task prior to submission and the lack of complete information from VGS on the cost increase, we reserve the right to revise and amend this motion depending on the Supreme Court's ruling as to the finality of the Board's prior orders and any procedural guidance from the Board related to the most recent VGS filing.

⁵ See Haewon McJeon et al., Limited Impact on Decadal-scale Climate Change from Increased Use of Natural Gas, *Nature* 514, at 482-485, October 23, 2014, published online at: www.nature.com/journal/514/n7523/full/nature13837.html?WT.ec_id=NATURE=20141021

⁶ Several of these developments were predicted by interveners and witnesses during prior proceedings but were dismissed by VGS and the Department of Public Service (DPS), and refuted or excluded by the Board in its findings and conclusions in the December 23rd and October 10th orders.

From a practical standpoint, many of the reasons that the Board should reconsider the CPG or reconsider its October 10th Order not to reconsider the CPG overlap with one another. Rather than asking the Board to review two motions with redundant arguments, we have combined our arguments into this brief under Section 248 criteria rather than separating them out by prior order. We have attempted to reference the specific Order under discussion in each instance. Should the Board determine that this approach is in error or unwieldy, we request that the Board provide us notice and give us leave to revise our submission accordingly.

II. DISCUSSION

We believe that the Board's conclusions and decision to issue the CPG would have been different if all currently available evidence had been available at that time, and we have reason to believe that the Board's decision in its October 10th Order would similarly change in light of several new and heretofore undiscoverable developments had been known to the Board. We also believe that Board erred in its October 10th Order when it decided not to reconsider and reopen the docket in light of the July 2nd letter and increase in estimated capital costs of the Project. The Board's assessment of the reliability of VGS' cost estimate has now proved, in light of VGS' own statements in the December 19th letter to be incorrect. It's now apparent that VGS' cost estimation was as unreliable as we and other parties asserted during technical hearings in September 2014.

The aforementioned new evidence is material to the Board's prior findings and discussion and goes to the heart of the Board's determinations in the December 23rd and October 10th orders. We have therefore summarized the reasons why the Board should reconsider the Project's adherence to each of Section 248(b)(2), Section 248(b)(3), Section 248(b)(4), and Section 248(a)(3) criteria below.

Section 248(b)(2) Requirement of Project to meet present and future demand for service

New evidence confirms both a real risk that VGS might have the capacity to meet residential, commercial or industrial customers present or future gas service and that viable alternatives exist to serve all three categories of customer.

VGS might not be able to acquire enough gas through its current and only transportation channel to meet present and future demand for natural gas service. Even if there were a “need” for the Project, which the Board has defined as the demand for natural gas, the Project cannot meet the Section 248(b)(2) if it cannot meet that demand. Section 248(b)(2)’s establishes that a natural gas facility project must be “required to meet the need for present and future demand.” Inherent in the idea that the Project must necessary is the threshold question of whether the company, through the Project, will have the capacity to meet present and future demand for service. We do not require something that does not meet our needs. In light of new developments in the Canadian pipeline system, VGS can no longer respond affirmatively to this threshold question.

In October, TransCanada, which operates the only conduit for VGS’ purchased natural gas from Alberta, Canada to Eastern Canada, the TransCanada Pipeline (TCP), submitted an application to the National Energy Board of Canada (NEBC) to convert the TCP to from a natural gas to an oil pipeline.⁷ Gaz Metro has formally stated to the National Energy Board of Canada that Gaz Metro and its affiliates are captive customers of the TransCanada pipeline because Gaz Metro has no other channel through which it can transport natural gas purchased from producers in Alberta, Canada via Ontario to its

⁷ See National Energy Board of Canada website at <https://www.neb-one.gc.ca/pplctnflng/mjrpp/nrgyst/index-eng.html> .

customers in Quebec.⁸ Gaz Metro has stated that the substitute pipeline that TransCanada has offered to build to serve its current natural gas transportation customers would provide no more than 50% of needed capacity to serve Gaz Metro and other clients of the current system. Gaz Metro has further said that the project would make it impossible for VGS to provide adequate gas service to all of its customers. Vermont Gas Systems is similarly a captive customer of Gaz Metro and the TransCanada's natural gas transportation system. Vermont Gas Systems receives its gas off of the same system, and there is no other natural gas pipeline entering Vermont or proposed to enter Vermont from Canada or any U.S. state for the purposes of importing gas to Vermont at this time. If Gaz Metro cannot transport enough gas to meet customer demand VGS will have the same problem. And if VGS has the same problem, Vermont ratepayers will suffer.

Perhaps with the exception of teenagers and college students, Vermonters, don't buy shorts for the winter because shorts won't cover our legs or keep us warm. We require pants not shorts in the winter. Likewise, we require heating fuel or alternatives that alone or in combination will heat our homes and fuel our businesses. We do not require a pipeline that cannot deliver fuel to meet the needs of customers. The Board has repeatedly said that VGS has established "conservative" projections for uptake of natural gas.

There is now a serious risk that VGS might not even be able to meet the needs of VGS's own conservative projected demand. We cannot find any record that VGS disclosed this risk. Perhaps the company hoped to convince TransCanada of a more workable solution or hoped that the Keystone XL Project would get through the U.S. Senate. The fact is that neither of these conditions has come to pass,

⁸ See https://docs.neb-one.gc.ca/leng/lisapi.dll/fetch/2000/130635/2558093/ANE_Support_for_Deficiency_Order_re_TransCanada_Energy_East_Applications_-_A4F3G5.pdf?nodeid=2557979&vernum=1 .

and until the NEBC's review is completed VGS cannot certify to the Board that it can meet current much less future demand regardless of what happens on this side of the Canadian border. For this reason alone, the Board should rescind the CPG before for failure to meet Section 248(b) threshold conditions. It's imperative that the Board do this before Addison County residents make decisions that put them at risk of being left out in the cold if they convert to natural gas, and before Chittenden and Franklin County residents face an immediate of unreliable or unstable supply if VGS is faced with gas shortages in the context of an even a larger customer base due to reckless expansion.

It is now evident that VGS or an independent fuel dealer could meet industrial clients' demand for natural gas without the Project. New evidence of VGS' capacity to deliver compressed natural gas to industrial clients mitigates any concern that only an extended pipeline can meet the claimed demand for natural gas to meet thermal energy requirements. In its October 10th Order, the Board expressed skepticism that cold climate heat pumps could "displace other fuels used in industrial processes" noting that "Ms. Lyon's witness readily concedes that heat pumps are not an alternative solution for many medium or larger commercial and industrial customers...."⁹ However, VGS has now operationalized its "gas island" infrastructure in Middlebury and has expressed its intention to create a gas island in Rutland to serve customers there.

VGS' gas island infrastructure allows the delivery, by truck, of compressed natural gas (CNG) to meet demand of "medium" and "large" commercial and industrial clients for natural gas along the distribution routes selected by Vermont Gas for Phase I or any other area, for which the company is able to obtain appropriate permits.¹⁰ There is no reason to believe that a combination of direct CNG

⁹ October 10th Order at 17.

¹⁰ VGS' own demand projections demonstrate that there are virtually no potentially "large" or even "medium" industrial clients by U.S. government standards in any of the communities to be served by the pipeline in Addison County. Manufacturing accounts for only about 11% of all business in the county. As stated in previous filings, 60% of the savings generated by the project would accrue to only 4 "large" clients, and 75% of the savings would accrue to around 75 customers.

deliveries using trucks only and gas islands cannot service the Addison County manufacturing and other enterprises that have expressed an interest in natural gas. First, none of the manufacturers in Addison County meet the description of “large” enterprises under U.S. Government classifications. Most if not all are actually small to medium businesses by definition. Second, NG Advantage already supplies CNG by truck to industrial clients of comparable size in Southern Vermont and New Hampshire to meet their demand for natural gas, and other suppliers in New England and Canada supply much larger industrial and commercial clients by trucked CNG. Suppliers boast that they have never missed a delivery even in cold climates with severe weather because they can deliver and store the gas on the trucks several days ahead of when they are needed if necessary.

Trucked CNG has other more important benefits for commercial and industrial customers, including continuous availability because of diversified supply chains that include sources in New England and the Northeastern United States. Should NG Advantage not be able to deliver on contracts because of its dependence on supply from Gaz Metro, industrial and commercial clients would be able to obtain CNG from other sources. And, if transportation costs of Canadian gas make Canadian natural gas too pricey, commercial and industrial clients can purchase trucked CNG from U.S. suppliers. Finally, trucked CNG allows industrial and commercial clients the flexibility to purchase the least expensive natural gas available rather than to be held hostage by a regulated utility that both has extensive expansion plans that will continue to be reflected in increased rates for over 30 years into the future and by TransCanada monopoly on the transportation of natural gas from Canada to Vermont.

This new evidence, had it been available previously, would have led the Board to conclude that VGS has already admitted that trucked CNG is a viable option, and it appears now to be in ratepayers’ best interest to expand rather than constrict their choice among competing suppliers.

Section 248(b)(2) – Need for the Project (demand for natural gas in Addison County)

A pillar of VGS' application to the Board for the Project has been that there is a tangible and quantifiable demand for natural gas service in Addison County. The risk of a major supply shortage because of the Energy East project, the availability of more reliable and flexible alternatives for commercial and industrial clients, the recent sharp decline in fuel oil and propane prices, and the increase in estimated capital costs addressed in VGS' December 19th letter each separately and independently call into question whether VGS' original assumptions about demand for natural gas in Addison County are still credible. Specifically, we believe that each of the four new pieces of evidence described above will have a catastrophic impact on demand for natural gas in Addison County because each alone will contribute to a diminished price advantage of natural gas over oil and propane. Without adequate demand there is no need for the project, and the Project cannot meet the Section 248(b)(2) standard.

The Board has previously emphasized that the relative price of natural gas compared to fuel oil and propane is only one of many factors influencing the Board's assessment of the economic benefit of the Project and contribution of the Project to the general good of the State of Vermont. However, the Board also explained in its October 10, 2014 order that "The estimated cost of the Project was not a direct consideration in our discussion of need in the December 23rd Order. Rather the estimated cost informed questions such as the demand for natural gas service. Put simply, **if the Project costs drive the price of supplying natural gas too high, the demand for natural gas will fall.**"

The Board further noted that, "At the time of the evidentiary hearings in September 2013, VGS had a 40% price advantage relative to other fuels, primarily propane and fuel oil. Our December 23rd Order observed that this large price advantage was likely to produce over \$200 million in savings for

consumers in the areas where natural gas service was newly available.”¹¹ The Board further explained:

“The information examined on remand does not demonstrate that the revisions to the Project’s capital costs are likely to reduce demand for natural gas service by so much that we would be likely to find the Project is not needed. The record from the September 26th hearing indicates that, with the new, higher capital costs, the construction of the Project is expected to result in an increase in rates of approximately 10%. Admittedly, such a rate increase would reduce the price advantage that natural gas now holds relative to other fuels. However, given that the price advantage is now at least 40% (depending on the alternative fuel considered), the remaining price advantage for natural gas would still be substantial.”

New facts call into question whether VGS has met its burden of proof regarding demand in light of the changes in the market, price risks associated with developments in Canada, the estimated capital cost increase, system stability and reliability risks for residential, commercial, and industrial customers, and alternatives for industrial clients that would meet needs and offer more price security. First, these factors could cause a sharp increase in the price of natural gas or a decrease in the price of fuel oil and propane in Vermont.

Even if VGS is able to procure and transport to Vermont an adequate supply of natural gas in light of the Energy East project, the “city gate” cost of that gas to Vermont Gas is likely to be much higher than is currently the case, and that increased cause will be passed on to customers in Vermont.

While VGS uses the EIA Henry Hub spot price for projection purposes, it actually purchases gas from Alberta Canada and pays a negotiated price to transport that gas from Alberta to Vermont. A quick look at any North American pipeline map shows that there is simply no other source of natural gas, from which Vermont Gas could receive its gas. A constriction of capacity would spell not only supply problems as outlined above but, according to Gaz Metro’s recent filing with the NEBC, the Energy East project will also cause transportation prices to skyrocket. Gaz Metro’s joint filing with other Eastern

¹¹ October 10 Order at 16 citing to December 23rd Order at 75 (emphasis added).

Canadian natural gas distribution companies to the NEBC also describes Gaz Metro as a “captive customer” of the TransCanada pipeline.¹² Valener/Gaz Metro Partnership’s 2013 Annual Report further explains that any increase in gas transportation tolls would mitigate the competitive advantage of natural gas over petroleum products *in Vermont*. The logical conclusion is that VGS currently faces a serious structural (v. market) risk of price hikes and that, as the Board has reasoned, if the price of supplying natural gas is too high, demand for natural gas will drop.

We distinguish this new evidence of difficulties with transporting natural gas to Vermont from general market trends in the natural gas, fuel oil, and propane markets in the United States. The Energy East Project presents a concrete change in the cost of delivering natural gas *from Canada to Vermont* and is not reflected in the market data presented by the U.S. Energy Information Agency presented by VGS to the Board as the basis for its rate projections. The inputs to EIA’s annual energy outlook projections not take account of the circumstances of individual companies that service markets as small as Vermont’s and would not account for Energy East until the NEBC’s decision had been made or was imminent.

It is also important to reiterate that the price that VGS pays for gas includes more than the spot price that it pays for gas purchased following delivery to its relevant Canadian hub. The price paid also includes the aforementioned transportation cost. We believe that the Board was likely unaware of the lurking risk to VGS prices that has now become more concrete and real as the TransCanada project

¹² We note that VGS was or should have been aware of this risk that TransCanada would proceed with its long-planned “Plan B” following the rejection of the Key Stone XL project by the U.S. Senate. However, it appears that the Department’s due diligence on the project did not uncover the risk. We raised this concern in the technical hearings leading up to the October 10th Order, but since that time, TransCanada has filed an application with the National Energy Board of Canada (NEBC). This issue was also raised with the Department of Public Service following a press article about a speech by Gaz Metro’s CEO, Sophie Brochu, in which she voice the company’s opposition to the project and stated that the proposal would increase rates for Gaz Metro customers and inhibit Gaz Metro from meeting current and future demand. A copy of the article was send to the Department. The Department responded, in part, that it had had no information about the issue except the article sent. We have not reason to believe that the Department acted in bad faith and therefore feel that this information could not have been discovered by us, *pro se* litigants, with reasonable due diligence.

moves, albeit in the face of strong opposition, through the Canadian regulatory review process. Had the Board been aware of this risk, we believe at the time of the December 23rd Order we believe that the Board would have decided to deny the CPG or at the very least delay a decision until the risk could be fully assessed following a decision by the NEBC.

Even without the expected increase in transportation prices, natural gas no longer enjoys the substantial price advantage over oil and propane that it did when the CPG was issued or when the October 10th Order was published. The logical corollary of the Board's conclusion that if the cost of supplying gas becomes too high demand will drop is that if the cost of supplying fuel oil and propane drop such that there is no substantial price advantage of natural gas over fuel oil, the demand for natural gas will also drop. Oil and propane customers will simply have no incentive to switch fuels. There only option to lower costs would be to switch to wood, wood pellets, heat pumps (with or without solar) and supplement with much smaller amounts of fossil fuels.

According to the EIA, as of December 15, 2014, the price of heating oil in Vermont is \$3.004 per gallon. According to the latest information available from VGS' website, the price of natural gas exclusive of access charges and low-income program charges is \$1.2305 per CCF. Annual access charges are about \$248 dollars per year and annual assistance program fees are \$17 per year. According to VGS' own filings with the Board, the average Vermont family uses 650 gallons of gas or 901 therms of natural gas. Based on the figures, the average residential customer in Vermont will pay about \$1953 in fuel costs per year. The average VGS customer will pay about \$1,374 dollars per year. In other words, the price advantage of natural gas over oil or propane *before accounting for the cost of the Project* has dropped to about 29.5%. That differential also does not take into account the upfront cost of conversion, which the VFDA has estimated would take nearly 20 years to recover even if the price advantage of natural gas were to remain as it is today.

The Board's implies in its October 10th Order that there is no need to worry about the 10% rate increase that would be required to cover just the initial \$35 million increase in capital costs, submitted in VGS' July 2nd letter, because "given that price advantage was at least 40% (depending on the alternative fuel considered), the remaining price advantage for natural gas would still be substantial." Now that the market-driven price advantage of natural gas is 29% that initial 10% increase to cover only the first cost overrun would reduce the price advantage to 19.5%. The average customer in Addison County, who decided to convert from older equipment to natural gas, would need roughly 40 years to recover that investment out of fuel savings. If \$35 million produced a 10% rate increase, it is likely that \$33 million would create a nearly comparable increase in the 9%-10% range thereby making the cost advantage of natural gas, excluding conversion costs customers must absorb before enjoying the price differential, only around 10%, or for the average Addison County customer around \$195 per year.

All of the above assumes that oil prices do not continue to fall. We have looked to EIA current prices above. The Board said in the October 10th order that "Given that EIA's price forecasts are informed by an extremely wide range of information, we find no reason to second guess those projections and adjust them simply because one party asserts, without evidence, that EIA improperly weighted one factor more than others." As predicted by Mr. Sweetser, witness for the Vermont Fuel Dealers Association in the original proceedings, natural gas no longer enjoys such a substantial price advantage over heating oil or petroleum. In other words, there is now the evidence that the Board previously felt was lacking that the EIA reference case is not reflected in fuel price trends in the United States or Vermont.

This new information understandably may not alter the Board's judgment as to the usual standard or common information source the Board and Department use to forecast energy prices for

general and public information purposes; however, this new evidence demonstrates that on a practical level, as recommended by the EIA itself, the EIA reference cases for home heating oil, propane, and natural gas, should perhaps be replaced by relevant EIA alternative cases, which are adjusted to take into account global and U.S. economic, energy, and other factors used in the EIA methodology. EIA monthly reports and forecasts are clearly stating that the EIA didn't foresee the magnitude of the drop in oil prices and that the agencies own 2014 Energy Outlook alternative models do not accommodate this sharp decline.¹³

For the purposes of estimating the projected price differential between fuels, taking into account rate increases to cover construction costs, and thereby forecasting the relative demand for natural gas in Vermont recently updated market forecasts appear to be critical to understanding whether there will be any real price differential between natural gas, fuel oil, and propane as project costs mount and the price of oil and propane decline. Suffice it to say that real-world evidence clearly shows that market factors have led to a substantial decrease in the price of oil since. It is obvious that 2014 and the years ahead are currently proceeding in accordance with higher OPEC oil production than expected. Therefore, oil prices in the United States are much lower than the reference case, and VGS' projections should be adjusted to adhere to the EIA's appropriate alternative case. It doesn't take a rocket scientist to realize that unless something changes, oil prices are going to continue to drop, and if any eventuality causes VGS' prices to increase even modestly there could be nearly no price advantage of natural gas over petroleum products and consequently little or no demand for natural gas in Addison County while customers in Franklin and Chittenden Counties will be paying through the nose for a pipeline no one needs or wants, and taxpayers will be paying for DPS, ANR, and the PSB to oversee the Project.

¹³ In both the December 23rd and October 10th orders, the Board accepted VGS' and the Department's use of United States Energy Information Agency's ("EIA") 2013 Annual [Energy] Outlook and the 2014 Annual Energy Outlook respectively. VGS' original submission and pre-filed testimony preceding the Board's October 10th Order were based on the reference case; however, as the EIA clearly states in the introduction to each annual report, that the reference case depends on many factors. Therefore the agency includes low and high reference cases.

It's not just the \$33 million that will contribute to rate hikes. VGS is likely to pay more to borrow to finance the project, and this cost will also be passed on to ratepayers. It's unclear how VGS intends to finance the estimated additional \$68 million to complete the Project. VGS' capitalization ratio prior to either cost increase was 55.06%, and as of August 2013, VGS had no formal credit rating in place. Until the Board gains a better understanding of the potential cost of any future VGS-incurred debt, the impact of which will be passed along to customers, it will not be possible for the Board to obtain an accurate estimate of the impact on rates or to accurately estimate the price differential between natural gas and alternatives. Given VGS' decision to redo Project capital cost estimates using new industry-standard methodologies, any reasonable Vermonter must ask whether VGS used industry-accepted methods for estimating the additional cost to ratepayers of financing the project or for pitching the project to investors.

A reasonable Vermonter might also ask whether VGS' project planners, new managers, or current leadership has assessed the availability and cost of any debt or the likelihood of an injection of equity to cover Project costs, and the impact of any options on ratepayers? We do not see any basis for assuming that VGS has accomplished any estimates using accepted practices or that VGS has applied those practices correctly. There is also, to date, no evidence available to parties to demonstrate that VGS' credit rating (or lack thereof based on prior filings) would support additional long-term debt or credit lines to cover the additional \$68 million in probable Project capital costs.

In light of the above other circumstances outlined above, VGS' projected residential and commercial demand for natural gas and uptake in Middlebury and Vergennes are no longer credible. In the Board's December 23rd and October 10th orders, the Board notes that VGS' uptake projections are "conservative" and that the demand for natural gas could actually be greater. However, the logical

conclusion of the Board's analytical framework regarding the interplay of price of natural gas and demand is that the interest of residents along the planned pipeline distribution route in hooking up to natural gas may very well have changed or would change once new price information is made public. VGS' estimates are presumably based on market studies that should be updated. We are prepared to present evidence that VGS has continued to state its original claims regarding savings of natural gas over oil and propane despite the known impact on rates of the July 2nd increase in estimated capital costs. Any new interest in natural gas by potential customers may be based on outdated savings claims. We believe that it would be absurd to continue to use VGS' original demand projections until the public and potential customers have been informed of the real relative costs and reliability of any commitment to conversion to of using natural gas versus to other alternative fuels or investment in weatherization and continuation with current heating fuel sources.

It's not just a matter of residential demand figures being unreliable. The advent of trucked CNG and the gas island in Middlebury may have already reduced commercial and industrial demand for natural gas via the pipeline and will likely reduce that demand even more in the future. As stated previously, Given the current risk to natural gas supply from Canada and the existence of other regional sources of trucked CNG, industrial customers not only have a better alternative in terms of supply than the pipeline, they would also be able to take advantage of the unregulated trucked CNG market to purchase already less expensive U.S. shale gas. The Board should reevaluate industrial demand for natural gas in light of the potential cost-competitiveness of U.S. CNG.

VGS has not met its burden of proof to show sustained or future demand for natural gas in Addison County, and with each passing day, the likelihood that demand will come close to approximating VGS' most conservative numbers diminishes. Mr. Rendall has said that going forward the company will be candid about the Project. We think that's a great idea. Let's all start with honest

advertising, a candid presentation of the facts to current and future ratepayers, and a reassessment of demand for natural gas in Vermont. We believe that consumers are just as capable, if not more so, of determining and reporting what their demand for natural gas would be under various conditions. Those conditions have changed dramatically with recent events, and it is no longer reasonable to assume that the evidence presented regarding demand for natural gas service is relevant or accurate today.

Section 248(b)(3) Adverse effect on system stability and reliability

New evidence indicates that expansion of VGS' current system into Addison County could have a negative impact on system stability and reliability for current customers. The above discussion has focused purely on whether there is actually adequate demand for natural gas in Addison County to warrant the project. That is not the only reason that the Board needs to reopen the case. The fact is that if VGS cannot guarantee an adequate supply of natural gas to meet its current customer demand, and expansion of its system would actually exacerbate its supply problems and force the company to spread diminished supply over a larger number of customers. Instead of bringing reliable and stable natural gas service to Addison County, the Board will be permitting VGS to risk worsening reliability and stability for existing and new customers in Franklin and Chittenden Counties in violation of Section 248(b)(3).

Worse, creating more draw on diminished or even level (i.e. not increased) gas supply from new customers – and especially large enterprises – will have a negative impact on the reliability and stability of the system that serves the very VGS customers, who are being asked to pay for the pipeline expansion. Until the National Energy Board of Canada issues a final order – about a year from now – on the Energy East Project, any continued construction of the Project would be done at the risk of a severe negative impact on system stability and reliability for Gaz Metro's current 50,000 customers.

Similarly, the upside-down financials of this Project threaten VGS' ability to operate as a reliable utility partner for the State of Vermont and to maintain system reliability and stability. The catastrophic increase in the project cost since it was envisioned in 2011 now has implications for VGS' capacity to continue to operate effectively and to sustain any additional setbacks. Vermont ratepayers have already had to bail out other utilities in order to insure service – something that we believe the Board and most Vermonters now regret. If VGS' finances get out-of-whack we don't trust that the company will be able to complete the Project or operate its expanded infrastructure adequately to provide stable, reliable, or safe service.

Even if VGS has a plan for financing the project that would allow it to continue to provide adequate service and maintain system integrity, we question whether the Board could actually approve the capital structure necessary to sustain \$68 million in cost overruns. Under Docket 8131, the Board approved an estimated capitalization structure of 55.06%. At that time, the Board emphasized that the Order did not constitute approval of any expenditures as used and useful or the resulting capital structure. According to the record under Docket 8131, VGS only provided evidence of an informal opinion from a financial advisor, given in 2009, of VGS' likely credit rating if the company were to be rated by a credit rating firm. It appears that there has been no further evaluation by the Department of Public Service or the Board of VGS' financial viability or even capacity to obtain equity or credit to finance the construction of Phase I at 1.78 times the total cost (or \$154 million) compared to the assumed level of costs at the time that VGS arranged and received approval from the Board for placement of long-term debt in the form of first mortgage bonds in an aggregate offering amount up to \$35 million and to extend the company's two existing unsecured revolving credit facilities of up to \$45 million. VGS stated that it would need the long-term debt even if the ANGP were not built so it seems reasonable to ask where all this extra money is going to come from and whether any reasonable utility commission would approve the capital structure necessary to sustain the Project. To us this is another threshold question that cannot

be left for another docket or a prudence review once the pipe is gasified.¹⁴

Section 248(b)(4) Economic Benefit

We once again feel compelled to question the reliability of VGS' projections.

New evidence demonstrates that VGS' July 2nd cost estimate was not reliable and that the Board therefore based its decision on unreliable projections of the Project's economic benefit. In its October 10th Order, the Board found AARP's, Kristin Lyons, and our positions that VGS' cost estimate was likely not reliable to be "unpersuasive." Based on evidence presented by VGS, the Board determined that "many of the cost elements in the revised budget are ***no longer projections, but reflect actual costs.***"¹⁵ For example, VGS [had] put the project out to bid and entered into contracts. VGS [had] purchased pipe for the project. Furthermore, the revised projections include[d] a contingency. Though VGS has indicated that the updated cost projections in July were prepared by the previous firm, CHA, whose performance in managing cost projections proved unsatisfactory to the Company over time, VGS' president testified under oath at the September 26th hearing that the Project is now under new management that is capable and is producing reasonable cost projections."¹⁶

On this basis, the Board concluded that it could not "conclude that the new cost projections [were] so unreliable that the Board must reject them and reopen the evidentiary record supporting the December 23rd Order to develop a more reliable estimate for the purpose of assessing the public good of

¹⁴ We know from experience that VGS is probably going to claim that Docket 8131 is not before the Board; however, to the extent that the increase in estimated capital costs alters VGS' capital structure to the extent that the Board would not approve that capital structure, the cost increase represents a significant and perhaps critical risk to the feasibility of VGS completing the project successfully.

¹⁵ Emphasis added.

¹⁶ October 10th Order at 21.

authorizing the construction of the Project pursuant to Section 248.”¹⁷ We believe that it is now apparent, based on new evidence in the form of VGS’ letter of December 19th regarding the new increase in estimated capital costs of \$33 million, that the Board may have erred in its judgment of the credibility of VGS’ cost estimates. Based on VGS’ latest submission to the Board, VGS’ management team had committed an estimation error of nearly 95% -- meaning that the companies new estimate of potential cost overruns on the Project is nearly double the July 2nd despite VGS leadership’s assurances that its filing was reliable. It is important to note, that VGS’ current CEO, under whose authority the current estimate was submitted to the Board, said that the new budget was reliable not based on science but rather based on the completion of procurements for construction and materials. The current CEO also stated that at least some members of the new project management team, including the company’s new “executive sponsor” of the Project and others were on board and worked with VGS’ team to develop the estimates.

The Board similarly rejected our contention that there was little evidence to demonstrate that VGS had used applied empirical methods to develop the basis for its cost estimates because, as we understand it, the Board believes that cost estimation is an art rather than a science. Applying the Board’s theory, we see no way that the Board could now accept VGS’ contention that the AACE’s recommended practices could produce a more accurate cost estimate than CHA’s prior methodology or than VGS’ already executed contracts and procurement of materials. If we recall correctly, Mr. Gilbert told the Board that 70% of right-of-way agreements were signed at the time of the technical hearing so that land acquisition estimates were also highly reliable. VGS’ December 19th letter attributes the new increase in estimated capital costs to, among other things, construction and land acquisition. We see an obvious contradiction here: how could company representatives certify the completeness and known value of the contracts and now report increased costs in these same categories?

¹⁷ October 10th Order at 21.

VGS still hasn't done the homework necessary to support construction of this project and construction should therefore be halted until the company has completed industry-accepted steps and met industry-accepted planning guidelines. Perhaps more important than the obvious inconsistencies in the facts as presented above is VGS' statement that the current budget predictions are consistent with a "class 3" classification under AACE standards. Since VGS did not reference or provide an indication of the specific standard or recommended practice the company used to develop this classification we are unable to comment on the accuracy of the designation. However, having reviewed a number of the organization's documents, we have reason to believe that something is amiss. Perhaps VGS overstated the progress it had made in concretizing costs in previous testimony that led to the Board's assessment of the reliability of the estimate. Perhaps VGS is now underestimating the cost estimation deliverables that it has completed to date, but if VGS is so far behind relative to where it should be for a project that is already under construction, then the Board needs to reassess the company's capacity to manage and complete this project successfully and safely.

We believe that it is imperative for the Board to investigate the situation by granting our 60(b)(2) motion rather than through a process that has no procedural consequences or the capacity to cancel the CPG. The Board needs the details to compare VGS' claims of having prepared a sane cost estimate and the actual reality of where VGS is in terms of the planning, scheduling, design, and investigation necessary to develop a reliable budget estimate. We also recommend that the Board review the AACE methodology as part of its review to determine whether it is materially different from the assessment provided by our witness as to industry standards when it comes to margin of error in project cost estimation. Our very cursory review of AACE standards suggest that if VGS' current classification of the budget is accurate the problem is that VGS commenced procurement and construction long before it should have under accepted practice. In other words, VGS had not completed the groundwork necessary

to obtain the level of detail that any reasonable company would have before beginning to develop contract specifications, obtain and review bids, procure materials, and/or begin construction.

We also believe that upon inspection, the Board will find that the AACE standards that VGS now claims to espouse are consistent with our prior testimony and analysis of the credibility of VGS' July 2nd cost estimate and with our questioning of VGS' management performance. It is increasingly apparent that the margin of error and the newly increased contingency are representative of a project that is not ready for construction let alone procurement of materials and services. Our initial opinion that VGS started construction far too early in its rush to get to IP, and it certified a budget to the Board at a point at which it knew or should have known that the numbers were likely not very accurate to get approval of the project has been borne out. Now, ratepayers are paying the price of what we consider to be reckless behavior.

Aside from anything else, we have grave concerns that VGS may not have completed other groundwork in other areas of its planning process before beginning execution of this Project, and that the health and safety of Vermonters may be at risk.

Even taking into account that VGS itself is suggesting that the cost estimation process is only halfway completed, there is still no reason to trust that VGS' team has even gotten the first part right.

No matter which way you slice it, a class 3 cost estimate is only around the halfway point in cost estimation before the commencement of construction. That is why the proposed contingency is so large – because there are so many factors that are still unaccounted for in the planning process. That said, we don't feel confident that even this first part has been completed properly because we, like other parties, have not had the opportunity to review or comment on the qualifications of the team executing the work. We also don't have a lot of confidence that just because this is a new team it is the right team. VGS'

practice of discrediting prior team members, including contractors, and introduction of new teams whenever a crisis occurs provides us with little confidence in the numbers presented in July 2014, and there is no reason to believe that the current team will not be discredited in the future. For starters, the same management that had selected and presented CHA as highly qualified to execute Project tasks, including cost estimation, selected the new team that is now redoing those cost estimates.

Why should we or the Board assume that VGS' current managers were more capable of selecting competent people in July than they were two years ago? The parties to this case have never had the opportunity to review or comment on the qualifications of the team, the methodology being used, or the implications of this new methodology on project design. Given this latest cost increase, we believe that due process demands that we have the opportunity to review what changes the VGS team is making to this project. Reasonable project oversight requires a vigorous review.

We predict that Mr. Rendall, who starts in January as CEO, will be before the Board in a matter of months to say that the old management erred, but VGS has made some changes since he took over, and unfortunately, the new team has found some more problems in the budget. Vermont Gas' new CEO can be as "candid" as he wants, but the buck must stop somewhere, and we believe that the only way to achieve this is to give due scrutiny to VGS' application of its new industry-accepted practices. We also believe that the buck needs to stop before Vermonters pay any more bucks for this project! Until VGS can demonstrate competency in budgeting, forecasting, and execution it would be imprudent to allow the company to continue.

Section 248(a)(3) Promotion of the general good of the state

Once again, VGS' latest filing calls into question whether the project meets the criteria of

Section 248(a)(3), and all parties deserve the opportunity to review and comment on whether the new increase in Project costs must be evaluated to determine whether the economic benefits of the project still exist.

It is no longer just a question of whether this project produces any economic benefit to the State. The latest cost increase begs the question of whether the Project will actually undermine the family finances and the economies of communities in Franklin and Chittenden Counties. The Board has stated that Chittenden and Franklin customers will eventually benefit from the project through lower rates; however, market conditions and the developments that put VGS gas supply at risk from Canada no longer support this view. Most Franklin and Chittenden County customers have used natural gas for an extended period of time and have become accustomed to the price they pay for natural gas. Without substantial investment in conversion or new equipment, most of these VGS customers, who will be paying for the Project, would not be able to switch from natural gas to another fuel. Like VGS, they are essentially captive customers. As the rates for current customers in Chittenden and Franklin Counties go up, they at some point, the prices become a detriment to individual ratepayers, their local economies, and the State economy. VGS and DPS have claimed throughout the proceedings that savings from fuel switching would be translated into spending into the Vermont economy. It is logical to assume that the opposite is also true. Increased expenditures on home heating will translate into less consumer spending. The result is that VGS will continue to profit at the expense of local businesses that will suffer from a contraction in consumer spending and economic activity in their communities. The risk of reduced economic activity in Franklin and Chittenden counties was never contemplated as a potential problem because the projected increase in rates was considered too low to matter. New costs on top of new costs have made the rate hikes for current customers look big enough to deserve close scrutiny.

Any remaining economic benefit of the Project to Addison County should be balanced against

the economic detriment to Franklin and Chittenden counties. Now that the value of price increases for each of the 50,000 customers in Chittenden and Franklin counties are converging on the value of any savings for the purported 2600 individual customers in Addison County it makes sense to reevaluate the economic impact of the project. Since VGS has not shared revised exhibits or a complete explanation of the cost increase, we have no way to evaluate the impact of the near doubling of the cost increase along with the market changes and other developments, but we believe that it is incumbent on the Board at least to consider the specific impact on current customers and take any negative economic impact into account when calculating the overall economic benefit of the project.

We believe that following careful analysis, the Board will have no choice but to recognize that the net economic impact of 2600 people saving under 10% over oil or propane once average conversion costs are taken into account over a 20 year period while 50,000 end up losing over 75% of their previous price advantage from using natural gas does not make economic sense. In fact, the losses to the economy and to Vermonters will far outweigh any benefit under current market and forecasted market conditions.

The environmental benefits of the project should be reevaluated in light of new scientific evidence showing that Methane emissions from natural gas transmission and distribution are much higher than previously realized and likely outweigh any benefits of reduced CO2 emissions. New studies from the Environmental Protection Agency and scientific publications have demonstrated that not only is methane nineteen times more potent than CO2 as a greenhouse gas, but it is also leaking from natural gas transmission and distribution pipelines at a much higher rate than previously thought. In fact, the Environmental Defense Fund recently found that VGS' system was leaking methane in ten locations in the Burlington area alone.¹⁸ Moreover, a new study published in Nature suggests that fuel switching from petroleum products to natural gas at a global level will likely have no impact whatsoever or a

¹⁸ See www.edf.org/climate/methanemaps/city-snapshots/burlington

detrimental impact on climate change.¹⁹ This information was not available at the time that the Board made its December 23rd or March 2014 decisions, and much of it has emerged since the technical hearings in September.

III. CONCLUSION

The landscape for the Project has changed dramatically over the past few months. Oil and propane prices are down. People all over Addison County are switching to heat pumps and wood stoves and achieving greater savings over use of oil and propane than are even currently possible with natural gas. VGS and its partners now have piloted alternatives to a pipeline to serve the needs of industrial and commercial clients. Conditions that are outside the control of VGS over the border in Canada threaten VGS' ability to provide stable, reliable, and affordable natural gas service to customers – or really any natural gas service at all. We know much more about the environmental risks of methane and the widespread imminent safety, climate, and health risks associated with leaky transmission and distribution systems.

Most importantly, we now know that VGS' July 2nd capital cost estimate for the Project was completely off base. We know that VGS will have a new CEO in January and that the company has hired several new people without historical memory of the project.

We don't know whether any of the changes that VGS has and is making will matter at all. We don't have much confidence that they will because we have been down this road over and over. We don't think that any reasonable public official would have much confidence either. Most importantly, we believe that VGS has made such a mess of things that no one can deny that any and all prior assumptions

¹⁹ See Haewon McJeon et al., Limited Impact on Decadal-scale Climate Change from Increased Use of Natural Gas, *Nature* 514, at 482-485, October 23, 2014, published online at: www.nature.com/journal/514/n7523/full/nature13837.html?WT.ec_id=NATURE=20141021

should be tossed, and VGS' application should be reviewed again only when the company has finished doing its homework and can present a budget and answers that are consistent with reality.

IV. PRAYER FOR RELIEF

For the aforementioned reasons, I request that the Board reopen the proceedings under Rule 60(b)(2) or in light of both the updated estimated capital costs submitted by Vermont Gas Systems, Inc. (hereinafter "VGS") on July 2, 2014 (hereinafter "VGS Cost Update") and December 19, 2014, and the several other new developments outlined above. I also ask that the Board afford all parties adequate opportunity to develop, present, and examine evidence through both full discovery and technical hearing(s) and subsequently allow all parties to present supplemental briefs and oral argument. I respectfully request that the Board reopen the proceedings and reevaluate the extent to which the Project meets the standards set forth in Section 248(a) and Section 248(b).

Signed at Monkton, Vermont on this day of December 23, 2014



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