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July 11, 2013

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Re: Docket No. 7970

Dear Counsel:

Enclosed please find the Department's responses to the First Set of Information Requests from Vermont Gas Systems, Inc. The original signature pages from our consultants are being obtained and will be forwarded to you upon receipt. Please feel free to call should you have any questions. Thank you.

Sincerely,



Timothy M. Duggan
Special Counsel

Enclosure

cc: Public Service Board
Service List (via email)



PSB Docket Nos. 7970 - SERVICE LIST

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STATE OF VERMONT
PUBLIC SERVICE BOARD

Petition of Vermont Gas Systems, Inc.,)
requesting a Certificate of Public Good pursuant)
to 30 V.S.A. §, 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)

Docket No. 7970

DEPARTMENT OF PUBLIC SERVICE'S RESPONSES TO
PETITIONER'S
FIRST SET OF INFORMATION REQUESTS

July 11, 2013

Docket No. 7970

**Department of Public Service's Responses to
Petitioner's
First Set of Information Requests**

Questions for David Berger

Q.PET:DPS.1-1: Admit that 49 CFR Part 192 would not require that the entire transmission pipeline be built to Class 3 specifications.

ANSWER: Admit.

Person Responsible for Response: David Berger, Consultant

Date: July 11, 2013

Docket No. 7970

**Department of Public Service's Responses to
Petitioner's
First Set of Information Requests**

Q.PET:DPS.1-2: Admit that 49 CFR Part 192 is the applicable pipeline safety code and considers risks in establishing class specifications. If denied, provide please explain the reason for the denial and provide all documentation you relied on in reaching your conclusion.

ANSWER: Admit. However, federal regulators at the Pipeline and Hazardous Material Safety Administration (PHMSA) have proposed additional requirements that are currently under consideration. PHMSA, Pipeline Safety: Safety of Gas Transmission Pipelines, Advanced Notice of Proposed Rulemaking, 76 Fed. Reg. 53,086 (Aug. 25, 2011) (amending 49 C.F.R. Part 192). Given the likelihood of their adoption, it is my opinion that these more current proposed regulations should be followed for new construction.

Person Responsible for Response: David Berger, Consultant

Date: July 11, 2013

Docket No. 7970

**Department of Public Service's Responses to
Petitioner's
First Set of Information Requests**

Q.PET:DPS.1-3: Admit that VGS's design to upgrade Class 1 and Class 2 to the next highest Class exceeds code requirements. If denied, please provide documentation supporting your response.

ANSWER: Admit. The federal and Vermont regulations relating to gas transmission and gas distribution systems are the minimum safety requirements. Per PHMSA, all states and operators are encouraged to exceed these minimums.

Person Responsible for Response: David Berger, Consultant

Date: July 11, 2013

Docket No. 7970

**Department of Public Service's Responses to
Petitioner's
First Set of Information Requests**

Q.PET:DPS.1-4: Admit that the construction specifications listed on page 5, lines 8-18 of your pre-filed testimony all exceed the applicable code.

ANSWER: Admit. However, PHMSA, on August 25, 2011, provided notice that it intends to amend the minimum safety standards with additional requirements for construction, maintenance and operation of transmission facilities. PHMSA, Pipeline Safety: Safety of Gas Transmission Pipelines, Advanced Notice of Proposed Rulemaking, 76 Fed. Reg. 53,086 (Aug. 25, 2011) (amending 49 C.F.R. Part 192). The additional construction specifications that VGS has proposed do not cover all of the proposed additional requirements.

Person Responsible for Response: David Berger, Consultant

Date: July 11, 2013

Docket No. 7970

**Department of Public Service's Responses to
Petitioner's
First Set of Information Requests**

Q.PET:DPS.1-5: Regarding your testimony on page 8, lines 17-20, is it your position that a report should be filed if, after the pipe is installed and in operation, VGS becomes aware that there has been "out of specification material or workmanship"? If not, please clarify and provide further detail on your position.

ANSWER: VGS should immediately notify PSD after it becomes aware of such an issue, and provide information on the nature of the problem and steps that have been and will be taken to address the issue. Follow-up reporting may be required as necessary.

Person Responsible for Response: David Berger, Consultant

Date: July 11, 2013

Docket No. 7970

**Department of Public Service's Responses to
Petitioner's
First Set of Information Requests**

Q.PET:DPS.1-6: Please provide additional information on the type of reporting on construction activity that you are requesting, particularly regarding the level of detail requested for daily schedules.

ANSWER: VGS should provide an overall master construction plan which includes all materials, where they will be installed, all expected construction-related practices, where they will be performed, identification of all personnel/contracting companies, what specific procedures they will be performing and where they will be performing them. Overall plan updates should be provided to the DPS as revisions are made to it, even if tentative. This overall construction plan should be provided well in advance (at least several weeks) of the construction project commencement.

VGS should also provide the DPS representative weekly details on where all construction activities are taking place prior to their commencement so the representative can be present if so desired. Weekly notifications should be provided several business days prior to the activities described in them, provided that the schedule is being followed. If there are changes to the weekly schedule, then the PSD representative must be notified immediately but no later than the night before and/or the morning of the change. Since construction crews may move during a day, a range of locations would be acceptable.

Person Responsible for Response: David Berger, Consultant

Date: July 11, 2013

Docket No. 7970

**Department of Public Service's Responses to
Petitioner's
First Set of Information Requests**

Questions for Jatinder Kumar

Q.PET:DPS.1-7: Please provide all workpapers and calculations used [in] the preparation of Exhibit JK-4.

ANSWER: As stated on Page 13 of my Direct Testimony, I used two peak load forecast approaches. The first is based on a regression analysis. This load forecast is presented as Forecast 1 on Exhibit JK-4. These calculations are presented in the attached spreadsheet marked as Attachment PET:DPS.1-7.

The second approach is based on the average percentage difference between the actual firm and the Company's last forecasted Peak-day loads. These calculations are presented as Forecast 2 on Exhibit JK-4. There are no workpapers for these calculations.

Person Responsible for Response: Jatinder Kumar, Consultant

Date: July 11, 2013

FY	ACTUAL*		TREND	
	Firm	Total	Firm	Total
<u>Actual</u>				
2007	49,679	56,832	47,175	58,944
2008	44,710	59,477	47,980	59,529
2009	51,585	62,008	48,785	60,114
2010	46,952	61,440	49,589	60,699
2011	50,812	63,064	50,394	61,284
2012	48,401	61,435	51,199	61,868
2013	54,987	60,634	52,004	62,453
<u>Projected</u>				
2014			52,808	63,038
2015			53,613	63,623
2016			54,418	64,208
2017			55,223	64,793
2018			56,027	65,378
2019			56,832	65,963
2020			57,637	66,548
2021			58,442	67,133

* From Exhibit JK-2

Docket No. 7970

**Department of Public Service's Responses to
Petitioner's
First Set of Information Requests**

Q.PET:DPS.1-8: Are the load forecasts presented in Exhibit JK-4 intended to represent Mr. Kumar's forecast of system demands on a design-day basis?

ANSWER: No.

Person Responsible for Response: Jatinder Kumar, Consultant

Date: July 11, 2013

Docket No. 7970

**Department of Public Service's Responses to
Petitioner's
First Set of Information Requests**

Q.PET:DPS.1-9: Admit that the peak-day forecasts provided in Exhibit JK-4 do not represent expected loads at on 86 degree day.

ANSWER: Yes.

Person Responsible for Response: Jatinder Kumar, Consultant

Date: July 11, 2013

Docket No. 7970

**Department of Public Service's Responses to
Petitioner's
First Set of Information Requests**

Q.PET:DPS.1-10. Admit that the peak-day forecasts provided in Exhibit JK-4 do not represent expected loads at on an 86- degree day.

ANSWER: Yes.

Person Responsible for Response: Jatinder Kumar, Consultant

Date: July 11, 2013

Docket No. 7970

**Department of Public Service's Responses to
Petitioner's
First Set of Information Requests**

Q.PET:DPS.1-11: Please provide in native format with all cell references intact all workpapers and spreadsheet used to produce the figures shown in the table entitled "ANGP-related Savings at Different Discount Rates" shown on page 17, lines 9-27 of Mr. Kumar's testimony.

ANSWER: I derived the ANGP-related Savings at Different Discount Rates by changing the discount rate (to 9.75% and 7.69%) from the 3.0% discount rate used in the workpapers provided in support of Mr. Carr's revised Tables JC-1 and JC-4. Thus, no other workpapers exist.

Person Responsible for Response: Jatinder Kumar, Consultant

Date: July 11, 2013

Docket No. 7970

**Department of Public Service's Responses to
Petitioner's
First Set of Information Requests**

Q.PET:DPS.1-12: Provide all reports, information, documents relied on for the statement of page 19, line 11 that the capital structure is "equity heavy."

ANSWER: It is my opinion that a balanced capital structure is 50% equity and 50% debt. Thus, 54% equity is "equity heavy." If the equity exceeds 50%, then the capital structure is equity heavy and if the debt exceeds 50%, then the capital structure is "debt heavy." An equity heavy capital structure generally results in a higher cost of new equity and a heavy debt capital structure generally results in a higher cost for new debt. For this reason, the New Mexico Commission encourages utilities to maintain a capital structure of 50% equity and 50% debt. Additionally, for private holding companies, the Federal Energy Regulatory Commission generally allows the use of a capital structure of 50% equity and 50% debt in computing the overall rate of return for their jurisdictional facilities. Mr. Kumar's expressed opinion is based on his involvement with the utilities regulation since 1972.

Person Responsible for Response: Jatinder Kumar, Consultant

Date: July 11, 2013

Docket No. 7970

**Department of Public Service's Responses to
Petitioner's
First Set of Information Requests**

Questions for Walter (TJ) Poor

Q.PET:DPS.1-13: Vermont Gas currently has a minimum usage requirement to qualify for a free energy audit. Is Mr. Poor recommending that this minimum usage requirement be waived for new customers? Please explain in detail the response.

ANSWER: The time of transition to natural gas service is an opportunity where VGS is already providing energy services to the customer. If VGS does not include the opportunity for energy efficiency services at this time, another opportunity to engage with the customer and provide efficiency recommendations may not materialize, and potential energy savings could be lost. In addition, VGS will only have limited, if any, new customer fuel usage information available at the time natural gas service is offered. Even if a customer has prior fuel usage information available, many factors will make it difficult to determine if a customer would qualify for VGS efficiency services, such as recent changes in the customer's habits, timing of bulk fuel deliveries, and other factors. Because of the chance of creating lost opportunities, and because limited data will be available to determine a customer's usage and thus their eligibility under the current structure of VGS programs, VGS should offer their efficiency services to all new customers.

Person Responsible for Response: TJ Poor, Public Service Department

Date: July 11, 2013

Docket No. 7970

**Department of Public Service's Responses to
Petitioner's
First Set of Information Requests**

Q.PET:DPS.1-14: If the response to Q.PET:DPS.1-13 is yes, has Mr. Poor done any analysis regarding the cost-effectiveness of this recommendation?

ANSWER: I have not conducted a detailed cost-effectiveness analysis with regard to this recommendation. However, a number of factors make it likely that the recommendation would be cost effective. First, it is my understanding that Efficiency Vermont has successfully provided cost-effective retrofit services to some customers that VGS has not served due to its minimum usage requirement, and that the Efficiency Vermont services were indeed cost-effective under the societal test.

Second, efficiency measures should be evaluated for cost-effectiveness at each of the measure, project (the individual building or group of efficiency measures installed), program (the entire sector, e.g. Residential New Construction), and portfolio levels. Broadly, efficiency programs should be cost-effective at the portfolio level – if so then society has been well served by the overall program. Usually, other “levels” at which energy efficiency measures are evaluated should screen as cost-effective as well. However, given competing priorities, the primary level at which the cost-effectiveness should be evaluated is the portfolio level. As an example of the differences in screening between levels, the installation of efficiency measures at a particular project (home) may not be cost effective if viewed in isolation. But when viewed at the program level, where indirect costs can be shared across all homes retrofitted, it may become cost-effective.

Lastly, as I noted, I have not conducted a detailed benefit-cost analysis. However, given VGS’s program experience and expected results as forecasted in its Integrated Resource Plan (IRP), it is likely that retrofit programs would remain cost-effective even with the implementation of my recommendation.

Person Responsible for Response: TJ Poor, Public Service Department

Date: July 11, 2013

Docket No. 7970

**Department of Public Service's Responses to
Petitioner's
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Q.PET:DPS.1-15: Please elaborate further on the recommendation contained on page 8, lines 13-18 of Mr. Poor's testimony regarding the development of a bio-methane program similar to the standard offer program.

ANSWER: The standard offer program was established by the General Assembly via Act 45 in 2009 (and modified by Act 170 of 2012) to encourage the development of small-scale distributed renewable electricity generation projects in Vermont. Pursuant to this legislation, the Public Service Board established prices for long-term power purchase contracts for certain renewable energy projects, including energy from generation plants using methane derived from agricultural operations. Prices are intended to be sufficient to allow developers of qualifying renewable energy projects to recover their costs plus a reasonable return on their investment. Electric utilities are required to purchase the power from these facilities at prices developed under this program; ultimately ratepayers fund these power purchases.

I have suggested that a similar mechanism be utilized to develop appropriate prices that will encourage bio-methane to be utilized for heating as well as for electricity. Other methods may be viable; the standard offer mechanism was recommended because it has been successful in both securing power from small-scale renewable projects and reducing their cost. As noted in my testimony, the actual prices to be paid to bio-methane plants can be determined via dedicated Board process at a later date.

Person Responsible for Response: TJ Poor, Public Service Department

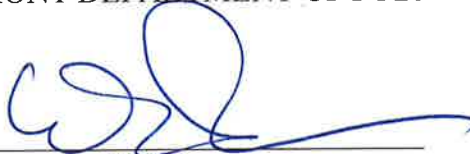
Date: July 11, 2013

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Department of Public Service's Responses to
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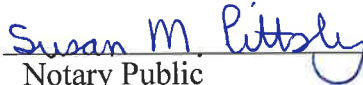
VERMONT DEPARTMENT OF PUBLIC SERVICE

By



Walter (TJ) Poor

Subscribed and sworn before me this 11th day of July 2013.



Notary Public

My commission expires: 02-10-15

VERMONT DEPARTMENT OF PUBLIC SERVICE

By

David Berger

Subscribed and sworn before me this ___th day of July 2013.

Notary Public

My commission expires:

VERMONT DEPARTMENT OF PUBLIC SERVICE

By

Jatinder Kumar

Subscribed and sworn before me this ___th day of July 2013.

Notary Public

My commission expires: