Review of Vermont Gas Systems submittal to Public Service Board 12/20/12

P. Pouech

Key Documents:

01. VGS ANGP Filing Cover Letter 12-20-2012.pdf
    - Good description of filing
02. VGS ANGP Petition & Proposed Schedule.pdf
    - Good description of VGS's proposed "fast track" schedule

Summary of Testimonies and how they impact Hinesburg

Michael Buscher (TJ Boyle Associates) – Aesthetics analysis

- Speaks of adverse impacts which include tree and vegetation removal (pg. 7)
- Uses what is called the Quechee test. Does the project……
    - Violate community standards?
    - Fail to take mitigating steps?
    - Offend sensibilities of average person?
- Did not evaluate impact of staying on the VELCO ROW
- Staying in road ROW reduces impact to private property but some impact to trees and vegetation

John Gordon Crock, Ph.D (UVM) – Archeology studies

- Work was accomplished by UVM CAP (consulting archeology program)
- No adverse affects to historic and cultural values provided recommendations are followed.
- Project re-routes will follow previously disturbed areas (road ROW)
- 36 out of 95 archaeological sensitive areas and sites are avoided with re-route (ref pg. 8)
- 10 of 23 are "preContact" sites
- Reference JDC-2 PDF for actual maps showing UVM sensitivity
    - Almost entire length of VELCO ROW from Charlotte road to Monkton are sensitive sites
    - Missing Map? Pg 30-31?
- Reference JDC-4 PDF Pg 18
    - 1 test pit positive "hit" near Charlotte Rd
- 3 historic homes on Baldwin road but no direct affect

Donald Gilbert, Jr. (VGS) – Overview of project and benefits

- 3,000 new customers save $1500-$1900 / household
- Natural gas cost:
    - 43% < oil
    - 51% < Propane
    - 55% < electricity
- Ticonderoga is 2nd phase, which will be submitted to PSB in 2013. This requires

larger diameter piping (12" vs. 10")

- Asking PSB to issue CPG in 9 months (Sept 2013) Reason- save $ for Addison businesses. No other reasons provided.
- Overall cost $84M as proposed.

John Heintz, Clough Harbour & Associates (CHA) – Project Manager Addison Gas Project

- Defines submittal route as the "Final Alignment"
- There were multiple realignments to avoid/mitigate impact to sensitive environmental and cultural areas. 18 miles of southern segment (**including Hinesburg)** will now run along public road ROW. "the entire ROW will be cleared of vegetation on Public Road ROW's" Ref. pg 17
- $5M added cost includes 9 miles of Public ROW Ref. JH-11.
- 3.6 miles will utilize narrow ROW (50' vs. 75') to minimize impacts and will add cost $560K
- Horizontal Direct Drilling (HDD) will minimize impacts (ex. Lewis Creek and LaPlatte crossings) HDD will cost $3M
- Valve to be located on Charlotte Rd. (MLV-3)
- Blasting on 35% of the route
- Ref. ANGP-T-C-041-45 shows detail design through Hinesburg and Baldwin Rd.

James Howe, Clough Harbour & Associates (CHA) Consultant

- Started with 5 conceptual routes
- Ref. JBH-2 which shows 5 alternatives.
- Alternate 5 goes through Hinesburg
- Alternate 5A moves from VELCO ROW to Baldwin Rd
- **Difference from 5 to 5A approx. increase of $15M**

Timothy S. Lyons (VGS) – Sales and Marketing

- 70% of households and businesses with Natural Gas access use it
- Cabot, Middlebury College, Goodrich, Porter Hospital – want project
- I.P. at Ticonderoga will use 30% of total VT. Gas
- Expand to Bristol in 2016
- Offers programs to customers to switch fuels

Jeffrey A. Nelson (VHB) – Director of Energy and Environmental Services Vanasse Hangen & Brustlin

- Completed Natural Resource Report
- Route has evolved in order to avoid or minimize impacts to various resources resulting in final alignment
- Re-routing from VELCO to Baldwin Rd to avoid 6 acres of wetland impacts and significant stream impacts. Ref. JH-14
- Some impacts will still occur
- Other changes include using HDD and narrowing construction corridor from 75' to 50'
- Other criteria (storm water, waste water, floodways) negligible impact
- Streams – construction risks addressed using HDD

- Riparian buffers: trees > 15' height 25' from pipe can be cut
- Wetlands – re-route, construction techniques have temporary impact only
- No specific rare or irreplaceable natural areas (RINA's) in Hinesburg
- Alternate 5 allowed more North-South trending roadways and potential to realign on these roadways
- **Question #36 – Could we use VELCO ROW and still not have undue affects? Yes, with qualifications – design/construction/operational practices** Ref. JAN-13 (pg. 24)
- Ref. JAN-2 maps of surveys showing wetlands along VELCO line

Eileen Simollardes (VGS) – General Good & Environmental Benefits

- Saves $200M over 20 years
- Saves 300,000 lbs. of GHG
- Reduce truck traffic (fuel delivery) 1300-1700 trips/year
- Generate $23.5M property taxes

Jean-Marc Teixeira (VGS) – VP of Ops - Health, Safety and Reliability

- Overview of technical design (size and pressure of piping)
- Use of design standards for pipeline and equipment

Stephen J. Wark (VGS) – Describes public outreach

- Pg. 18 defines agreement to study expansion on Richmond road during 2013 construction cycle.
- Defined concern of Hinesburg about ROW outside of existing VELCO ROW
- Move from VELCO to Baldwin Rd:
    - Number of impacted parcels reduced from 28 to 11. (Counts roadway ROW as one parcel)
    - Private land impact decreases from 6.48 to 2.11 acres for same reason
- Same issues raised by Monkton citizens and Selectboard
    - Routing along roadway vs. VELCO
    - Will provide opportunity for distribution access point

PSB RULE 5.402(C)(1)(e) INDEX

December 20, 2012 **Criteria & Associated Testimonies**

30 V.S.A. § 248(b)(1) – Orderly Development of the Region

• _Stephen J. Wark (VGS)

30 V.S.A. § 248(b)(2) – Need for Present and Future Demand for Service

• _Jean-Marc Teixeira (VGS)

30 V.S.A. § 248(b)(3) – System Stability and Reliability

• _Jean-Marc Teixeira (VGS)

30 V.S.A. § 248(b)(4) – Economic Benefit to the State

• _Timothy S. Lyons (VGS)

• _Eileen Simollardes (VGS)

• _Jeffrey Carr (Economic and Policy Resources, Inc.)

30 V.S.A. § 248(b)(5) – Archeology (below ground) & Above Ground Historic Sites
• _John Gordon Crock, Ph.D (UVM)

30 V.S.A. § 248(b)(5) – Natural Environment
• _Jeffrey A. Nelson (VHB)

30 V.S.A. § 248(b)(5) – Aesthetics
• _Michael Buscher (TJ Boyle Associates)

30 V.S.A. § 248(b)(5) – Noise, Public Health and Safety
• _John Heintz (CHA)
• _Jean-Marc Teixeira (VGS)

30 V.S.A. § 248(b)(5) – Greenhouse Gas Impacts
• _A. Donald Gilbert, Jr. (VGS)
• _Eileen Simollardes (VGS)

30 V.S.A. § 248(b)(6) – Compliance with Integrated Resource Plan
• _Eileen Simollardes (VGS)

30 V.S.A. § 248(b)(7) – Compliance with Vermont Electric Energy Plan
• _Not Applicable

10 V.S.A. § 1424a(d) & 30 V.S.A. § 248(b)(8) – Outstanding Resource Waters
• _Jeffrey A. Nelson (VHB)

30 V.S.A. § 248(b)(10) – Impact on Vermont Utilities and Customers
• _Not Applicable

PSB Rule 5.402 (C)(1)(a)
• _John Heintz (CHA)

PSB Rule 5.402 (C)(1)(b)
• _John Heintz (CHA)
• _Jeffrey A. Nelson (VHB)

PSB Rule 5.402 (C)(1)(c)
• _John Heintz (CHA)

10 V.S.A. § 6086(a)(1) – Water and Air Pollution
• _Jeffrey A. Nelson (VHB)

10 V.S.A. § 6086(a)(1)(A) – Headwaters
• _Jeffrey A. Nelson (VHB)

10 V.S.A. § 6086(a)(1)(B) – Waste Disposal
- **_Jeffrey A. Nelson (VHB)**
- **_John Heintz (CHA)**

10 V.S.A. § 6086(a)(1)(C) – Water Conservation
- **_Jeffrey A. Nelson (VHB)**

10 V.S.A. § 6086(a)(1)(D) – Floodways
- **_Jeffrey A. Nelson (VHB)**

10 V.S.A. § 6086(a)(1)(E) – Streams
- **_Jeffrey A. Nelson (VHB)**

10 V.S.A. § 6086(a)(1)(F) – Shorelines
- **_Jeffrey A. Nelson (VHB)**

10 V.S.A. § 6086(a)(1)(G) – Wetlands
- **_Jeffrey A. Nelson (VHB)**

10 V.S.A. § 6086(a)(2)&(3) – Sufficiency of Water & Burden on Existing Water Supply
- **_Jeffrey A. Nelson (VHB)**
- **_John Heintz (CHA)**

10 V.S.A. § 6086(a)(4) – Soil Erosion
- **_Jeffrey A. Nelson (VHB)**

10 V.S.A. § 6086(a)(5) – Transportation Systems/Traffic
- **_Stephen J. Wark (VGS)**
- **_John Heintz (CHA)**

10 V.S.A. § 6086(a)(6)&(7) – Educational & Municipal Services
- **_Stephen J. Wark (VGS)**

10 V.S.A. § 6086(a)(8) – Rare and Irreplaceable Natural Areas, Necessary Wildlife Habitat, Endangered Sp
- **_Jeffrey A. Nelson (VHB)**

10 V.S.A. § 6086(a)(9)(K) – Development Affecting Public Investments
- **_Stephen J. Wark (VGS)**