

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities

DG 15-289

Petition for Approval of a Gas Franchise for Lebanon and Hanover, New Hampshire

Staff Data Requests - Set 1

Date Request Received: 9/11/15
Request No. Staff 1-1

Date of Response: 9/21/15
Respondent: William J. Clark

REQUEST:

Please provide Liberty's business plan for the Lebanon/Hanover franchise. If not part of the business plan, please provide engineering cost estimates, maps, marketing strategies, estimated revenues and the expected break-even point associated with the expansion.

RESPONSE:

Pursuant to Puc 203.08, the Company has a good faith basis for seeking confidential treatment of a portion of this response and one of the attachments to this response, Confidential Attachment Staff 1-1.1. The Company will submit a motion for confidential treatment regarding this response and attachment at or before the commencement of the final hearing in this proceeding. Because Confidential Attachment 1-1.1 in its entirety includes confidential information, the Company is not providing a redacted copy of this attachment.

Liberty's business plan for Lebanon/Hanover is to provide natural gas service to residential and commercial customers that otherwise would not be available due to a lack of pipeline gas. Currently, large industrial and commercial customers in New Hampshire and the northeast are utilizing CNG and LNG to supply their needs. However, residential customers and small business owners have not been able to take advantage of the commodity price declines of natural gas due to their smaller load profile as well as the required capital investment. As indicated on the accompanying chart (Confidential Attachment Staff 1-1.1), over the last 5 years, a residential customer would have saved approximately [REDACTED] over oil and [REDACTED] over propane by utilizing natural gas from a satellite LDC system. This savings includes estimates for liquefaction, compression, vaporization, decompression and storage. The indicative pricing for #2 oil and propane were based on historical pricing from the New Hampshire Office of Energy and Planning (NHOEP) website. Liberty also believes large commercial and industrial customers are better served by removing individual CNG or LNG systems from their sites and receiving service from Liberty.

For engineering cost estimates please see Staff 1-10. For a map of the facility location please refer to Attachment Staff 1-1.2. For initial phase of distribution construction map please see Attachment Staff 1-1.3.

Liberty has been aggressively pursuing growth opportunities and has hired additional employees to meet these objectives. Liberty has met with three large anchor customers in the area to gain an understanding of their needs, objectives and service opportunities. In addition, Liberty has begun an intensive outreach campaign aimed at increasing awareness about the franchise proposal and increasing local understanding of natural gas infrastructure and its advantages over competitor heating fuels. The outreach campaign includes advertisements in the local newspaper, the Valley News, as well as multiple direct mailings to residential customers. Liberty has also dispatched our commercial sales team to meet one-on-one with commercial customers in the initial construction areas. The Liberty Sales Team is tracking the results and plans to develop a “heat map” of areas of greatest interest. Liberty is also hosting an Open House for municipal officials and the general public on September 29th, 2015.

Revenue and break-even point are components of customer connections and yearly throughput. Due to the scalability of the storage facility and timed capital investments, Liberty expects a break-even point between [REDACTED] and [REDACTED] ADTH.

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DG 15-289

Petition for Approval of a Gas Franchise for Lebanon and Hanover, New Hampshire

Staff Data Requests - Set 1

Date Request Received: 9/11/15
Request No. Staff 1-2

Date of Response: 9/21/15
Respondent: Steven E. Mullen

REQUEST:

Ref. Puc 1603.02 Contents of and Requirements of Tariff & Mullen Testimony, p. 79. When proposing an initial franchise a utility is required to file a proposed tariff, please provide proposed tariff pages for the Lebanon/Hanover cost of gas. Provide a detailed description of each gas cost and cost assumptions and provide supporting schedules.

RESPONSE:

Please see Attachment Staff 1-2. Included in the attachment are the following tariff pages that would be included as part of the existing NHPUC No. 8 tariff:

- First Revised Page 7 – expanding the service area to include the Town of Hanover and the City of Lebanon
- Cost of Gas (COG) tariff pages detailing the components of the COG (page numbers to be determined at a later time)
- Tariff page for the Fixed Price Option (page number to be determined at a later time)

In addition to those tariff pages, the Table of Contents in the tariff would need to be updated.

Cost assumptions are as follows:

Depending on market conditions, the relative amounts of CNG and LNG used for supply at any given time may vary. For CNG, the natural gas costs would be based on the EnergyNorth COG rate. In addition, the costs of compression, trucking and decompression are estimated to be in the range of \$0.40 - \$0.50 per therm. For LNG, the cost estimate begins with Henry Hub futures prices for natural gas plus a basis differential which takes into account liquefaction costs and trucking. Demand charges would also be included. On an all-in basis, the winter commodity costs are estimated to be approximately \$1.25 per therm for CNG and approximately \$1.50 per therm for LNG. Summer commodity costs are estimated to be approximately \$0.88 per therm for CNG and \$0.85 per therm for LNG, respectively.

In addition to the commodity costs, the COG rate would include the revenue requirement associated with the CNG and LNG storage, vaporization, decompression and related facilities.

The cost of the land and the facilities is estimated at \$ [REDACTED]. Using a multiplier of 15% results in a revenue requirement of \$ [REDACTED]. Applying that revenue requirement against ADTH sales of [REDACTED] results in a facilities-related adder of approximately \$0.22 per therm.

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities

DG 15-289

Petition for Approval of a Gas Franchise for Lebanon and Hanover, New Hampshire

Staff Data Requests - Set 1

Date Request Received: 9/11/15
Request No. Staff 1-9

Date of Response: 9/21/15
Respondent: William J. Clark

REQUEST:

Ref. Clark Testimony, p. 18-19. What is the status for the negotiations with Dartmouth College regarding Liberty's bid to supply Dartmouth's central boiler plant? Have negotiations included expanded service?-- if so, please describe the services being offered and terms of the service. When is a decision by Dartmouth expected?

RESPONSE:

Pursuant to Puc 203.08, the Company has a good faith basis for seeking confidential treatment of this response. The Company will submit a motion for confidential treatment regarding this response at or before the commencement of the final hearing in this proceeding.

Discussions with Dartmouth College are ongoing. As stated in my testimony, Liberty responded to a Request for Indicative Bids issued by Competitive Energy Services on behalf of Dartmouth College in January 2014.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities

DG 15-289

Petition for Approval of a Gas Franchise for Lebanon and Hanover, New Hampshire

Staff Data Requests - Set 1

Date Request Received: 9/11/15
Request No. Staff 1-10

Date of Response: 9/18/15
Respondent: William J. Clark

REQUEST:

Ref. Clark Testimony, p. 22. Please provide design plans for the LNG/CNG facility to serve Lebanon/Hanover.

RESPONSE:

Pursuant to Puc 203.08, the Company has a good faith basis for seeking confidential treatment of the attachments to this response. The Company will submit a motion for confidential treatment regarding the attachments to this response at or before the commencement of the final hearing in this proceeding.

See Confidential Attachments Staff 1-10.1, 1-10.2 and 1-10.3 for conceptual facility estimate, layout and design basis.

These plans were originally designed with the Keene Division parcel as a host site and include multiple vertical storage tanks. The Lebanon site seems to be more conducive to horizontal storage tanks. Therefore, initial designs for Lebanon will have different storage components. Based on initial design requirements of approximately 465,000 ADTH of non-interruptible load, Liberty estimates an initial facility cost of \$4.25 million. This estimate does not include CNG decompression equipment. Liberty is still evaluating the cost/benefits of owning this equipment versus including the installation, maintenance and monitoring of such as part of a contract with a CNG provider.

See Confidential Attachment Staff 1-10.4 for preliminary design and fatal flaw analysis of the site.

REVISED RESPONSE:

Because Confidential Attachment Staff 1-10.3 in its entirety includes confidential information, the Company is not providing a redacted copy of that attachment. In addition, pages 7-14 of Confidential Attachment Staff 1-10.4 also include confidential information in its entirety, and therefore the Company will not provide redacted copies of those pages.

Budgetary Opinion of Construction Cost - Summary
LNG Storage and Re-Gasification Facility
Liberty Utilities
Keene, NH

Revision: 0

Date: 2/2/15

| Discipline | Opinion of Construction Cost |
|--|------------------------------|
| Site Civil | |
| Structural | |
| Mechanical | |
| Electrical | |
| Instrumentation and Control | |
| Fire Protection | |
| Subtotal | |
| Total Contingency | |
| Total Construction Cost (To nearest ten thousand) | |

Notes:

The following items are not included in this OPCC:

- Engineering design fees for development of detailed design drawings/bid package
- Preparation of permitting documents
- Permitting fees
- Equipment mark-up by contractor; procurement by Liberty Utilities is assumed

Budgetary Opinion of Construction Cost - Site Civil
LNG Storage and Re-Gasification Facility
Liberty Utilities
Keene, NH

Revision: 0

Date: 2/2/15

| Item No. | Construction Item Description | Estimated Quantity | | Estimate Prices (\$/units) | | Extended Prices (\$) |
|------------------------------------|---|--------------------|----|----------------------------|----|----------------------|
| <i>General</i> | | | | | | |
| 1 | Mobilization/Demobilization | 1 | LS | | LS | |
| 2 | Site Survey and Layout | 1 | LS | | LS | |
| 3 | Geotechnical/Soil Borings | 1 | LS | | LS | |
| <i>Site Work</i> | | | | | | |
| 4 | Tree Clearing and Grubbing | 1 | LS | | LS | |
| 5 | Excavate & Remove Existing Soil/Unsuitable Fill Soil | 3,100 | CY | | CY | |
| 6 | Backfill w/Gravel and Crushed Stone | 2,400 | CY | | CY | |
| 7 | Road Surfacing | 760 | SY | | SY | |
| 8 | Drainage Allowance | 1 | LS | | LS | |
| 9 | Fire Hydrant | 1 | LS | | LS | |
| <i>Stormwater Management</i> | | | | | | |
| 10 | Erosion and Sedimentation Control | 1 | LS | | LS | |
| 11 | LNG Facility and Offload Pad Containment Area Sump Pumps w/Low Temp Switches and Pipe | 1 | LS | | LS | |
| Subtotal | | | | | | |
| 20% Contingency | | | | | | |
| Total (To nearest thousand) | | | | | | |

Notes:

1. This opinion of construction cost represents an estimate for financial planning purposes, and does not represent a contractor's construction cost estimate.
2. The above opinion of construction cost is consistent with the standard of practice for preparing engineering estimates and is limited to an accuracy of approximately +30% to -30%.
3. The contingency reflects uncertainty associated with the market including, but not limited to: oil prices, labor rate increases, transportation cost, quantity overruns, and design changes during construction.
4. CY = cubic yard, LS = lump sum, SY = square yard, EA = each, LF = linear foot, CLF = hundred linear feet

Budgetary Opinion of Construction Cost - Structural
LNG Storage and Re-Gasification Facility
Liberty Utilities
Keene, NH

Revision: 0

Date: 2/2/15

| Item No. | Construction Item Description | Estimated Quantity | Estimate Prices (\$/units) | Extended Prices (\$) |
|--|--|--------------------|------------------------------------|----------------------|
| <i>LNG Facility Containment Area</i> | | | | |
| 1 | Tank Containment Slab | CY | CY | |
| 2 | Tank Containment Walls | CY | CY | |
| 3 | Tank Containment Forms | SFCA | SFCA | |
| 4 | Tank Containment Footings | CY | CY | |
| 5 | Tank Foundations | CY | CY | |
| 6 | Tank Foundations Footings | CY | CY | |
| 7 | Tank Foundation Forms | SFCA | SFCA | |
| 8 | Grating | SF | SF | |
| 9 | Containment Area Access Stairs | EA | EA | |
| <i>LNG Truck Offload Pad</i> | | | | |
| 10 | Slab | CY | CY | |
| 11 | Framing | SFCA | SFCA | |
| 12 | Grating | SF | SF | |
| <i>Vaporizer Pad</i> | | | | |
| 13 | Slab | CY | CY | |
| 14 | Forms | SFCA | SFCA | |
| 15 | Grating | SF | SF | |
| <i>Offload Pad Containment</i> | | | | |
| 16 | Slab | CY | CY | |
| 17 | Walls | CY | CY | |
| 18 | Offload Pad Containment Forms | SFCA | SFCA | |
| <i>Offload Pad Trench</i> | | | | |
| 19 | Slab | CY | CY | |
| 20 | Walls | CY | CY | |
| 21 | Offload Pad Trench Forms | SFCA | SFCA | |
| 22 | Grating | SF | SF | |
| <i>Miscellaneous Concrete Pads & Foundations - Allowance</i> | | | | |
| 23 | Odorant System Skid | | | |
| 24 | Lighting Bases | | | |
| 25 | Pipe Supports | LS | LS | |
| 26 | Misc. Sonotubes | | | |
| 27 | Electrical Hand Holes | | | |
| <i>Perimeter Safety Fence</i> | | | | |
| 28 | Fence (8' High Chain Link w/Barbed Wire) | LF | LF | |
| 29 | Gates (3 Personnel) | EA | EA | |
| 30 | Gates (12' Swing Gate) | EA | EA | |
| 31 | Gates (2 Automated Truck Gates and (1) 20' Swing Gate) | EA | EA | |
| | | | Subtotal | |
| | | | 20% Contingency | |
| | | | Total (To nearest thousand) | |

Notes:

1. This opinion of construction cost represents an estimate for financial planning purposes, and does not represent a contractor's construction cost estimate.
2. The above opinion of construction cost is consistent with the standard of practice for preparing engineering estimates and is limited to an accuracy of approximately +30% to -30%.
3. The contingency reflects uncertainty associated with the market including, but not limited to: oil prices, labor rate increases, transportation cost, quantity overruns, and design changes during construction.
4. CY = cubic yard, LS = lump sum, SY = square yard, EA = each, LF = linear foot, SFCA = square feet of contact area

**Budgetary Opinion of Construction Cost - Mechanical
LNG Storage and Re-Gasification Facility
Liberty Utilities
Keene, NH**

Revision: 0

Date: 2/2/15

| Item No. | Construction Item Description | Estimated Quantity (w/units) | Estimate Prices (\$/units) | Extended Prices (\$) |
|---|---|------------------------------|----------------------------|----------------------|
| <i>Equipment (Assumed Liberty Utilities to Procure, No Mark-up)</i> | | | | |
| 1 | LNG Storage Tank w/Automated Valves | EA | EA | |
| 2 | Dual 20 HP LNG Offload Pump Skid System | EA | EA | |
| 3 | Trailerized Natural Gas-Fired Waterbath Vaporizer Skid (150 MSCFH Max) • Skid includes waterbath vaporizer, gas-powered generator, PLC and controls, final meter and pressure regulation, pressure and temperature transmitters, low temperature shutdown valve, gas and flame detection with ESD, and two trailer mounted E-Stop buttons. | EA | EA | |
| 4 | Odorization Skid | EA | EA | |
| <i>Labor</i> | | | | |
| 5 | Equipment Startup, Commissioning, and Training (By Equipment Vendor) | LS | LS | |
| 6 | Mechanical Crew (welder, foreman, helper, equipment) for 6 weeks - For Installation | Day | Day | |
| 7 | Mechanical Crew (welder, foreman, helper, equipment) for 1 week - For Cooldown, Purge, Start-Up | Day | Day | |
| <i>Service/Appertunance Mark-up by Contractor</i> | | | | |
| 8 | Interconnecting Piping (between skid mounted equipment), Isolation Valves and Fittings | LS | LS | |
| 9 | Nitrogen (system cool down) | LS | LS | |
| 10 | Crane | Day | Day | |
| 11 | Nondestructive Examination | LS | LS | |
| 12 | Propylene Glycol Solution | Gal | Gal | |
| Subtotal | | | | |
| 10% Contingency | | | | |
| Total (To nearest thousand) | | | | |

Notes:

1. This opinion of construction cost represents an estimate for financial planning purposes, and does not represent a contractor's construction cost estimate.
2. The above opinion of construction cost is consistent with the standard of practice for preparing engineering estimates and is limited to an accuracy of approximately +30% to -30%.
3. The contingency reflects uncertainty associated with the market including, but not limited to: oil prices, labor rate increases, transportation cost, quantity overruns, and design changes during construction.
4. CY = cubic yard, LS = lump sum, SY = square yard, EA = each, LF = linear foot, CLF = hundred linear feet
5. Assumed valve actuators will be electric and an instrument air compressor is not needed.
6. Limits of piping include LNG facility piping between the offload skid and 5 feet past the trailerized vaporizer to accommodate odorization tap.

**Budgetary Opinion of Construction Cost - Electrical
LNG Storage and Re-Gasification Facility
Liberty Utilities
Keene, NH**

Revision: 0

Date: 2/2/15

| Item No. | Construction Item Description | Estimated Quantity (w/units) | Estimate Prices (\$/units) | Extended Prices (\$) |
|------------------------------------|---|------------------------------|----------------------------|----------------------|
| <i>Distribution</i> | | | | |
| 1 | UG run, 4#4/0) | | LF | |
| 2 | Main Distribution Panel | | EA | |
| 3 | Stepdown Transformer | | EA | |
| 4 | 120/208 Load Center | | EA | |
| 5 | Pump Feeder (50A) | | LF | |
| 6 | Trailer Feeder (50A) | | LF | |
| 7 | Pump Starter (20HP, Nema 4) | | EA | |
| 8 | Misc power distribution (fittings, supports, etc) | | LS | |
| 9 | Electrical Rack/Structure | | LS | |
| 10 | UPS, 2 KVA | | EA | |
| 11 | TRENCHING/Excavation/Backfill | | LS | |
| <i>Lighting</i> | | | | |
| 12 | Area Light Fixtures (Gen Purp, Pole Mounted) | | EA | |
| 13 | Light Poles (20' Steel) | | EA | |
| 14 | X proof Light fixtures | | EA | |
| 15 | Ltg controls | | LS | |
| 16 | Ltg Branch ckts | | LF | |
| <i>Miscellaneous</i> | | | | |
| 17 | Sump Pumps, controls, | | EA | |
| 18 | Branch ckt, sump pumps | | LF | |
| 19 | Misc Above Ground Rigid conduit (instruments) | | LF | |
| 20 | Misc cable/conductors | | LS | |
| <i>Grounding/Bonding</i> | | | | |
| 21 | #4/0 Ground Wire | | LF | |
| 22 | Ground Rods | | EA | |
| 23 | Exothermic welds/bonds | | EA | |
| Subtotal | | | | |
| 20% Contingency | | | | |
| Total (To nearest thousand) | | | | |

Notes:

1. This opinion of construction cost represents an estimate for financial planning purposes, and does not represent a contractor's construction cost estimate.
2. The above opinion of construction cost is consistent with the standard of practice for preparing engineering estimates and is limited to an accuracy of approximately +30% to -30%.
3. The contingency reflects uncertainty associated with the market including, but not limited to: oil prices, labor rate increases, transportation cost, quantity overruns, and design changes during construction.
4. CY = cubic yard, LS = lump sum, SY = square yard, EA = each, LF = linear foot, CLF = hundred linear feet

**Budgetary Opinion of Construction Cost - Instrumentation and Control
LNG Storage and Re-Gasification Facility
Liberty Utilities
Keene, NH**

Revision: 0

Date: 2/2/15

| Item No. | Construction Item Description | Estimated Quantity | Estimate Prices (\$/units) | Extended Prices (\$) |
|------------------------------------|------------------------------------|--------------------|----------------------------|----------------------|
| 1 | LNG Facility PLC Panel | EA | EA | |
| 2 | Temperature Transmitters | EA | EA | |
| 3 | Pressure Transmitters | EA | EA | |
| 4 | Level Transmitters | EA | EA | |
| 5 | Flow Meter | EA | EA | |
| 6 | Misc Gauges/Indicators/Switches | LS | LS | |
| 7 | Offload Pump Controls (CI I Div 1) | EA | EA | |
| 8 | Flame/Gas Detection Panel | EA | EA | |
| 9 | Gas Detector | EA | EA | |
| 10 | Flame Detector | EA | EA | |
| 11 | ESTOP pushbuttons | EA | EA | |
| 12 | Security System Control Panel | EA | EA | |
| 13 | Security Cameras | EA | EA | |
| Subtotal | | | | |
| 20% Contingency | | | | |
| Total (To nearest thousand) | | | | |

Notes:

1. This opinion of construction cost represents an estimate for financial planning purposes, and does not represent a contractor's construction cost estimate.
2. The above opinion of construction cost is consistent with the standard of practice for preparing engineering estimates and is limited to an accuracy of approximately +30% to -30%.
3. The contingency reflects uncertainty associated with the market including, but not limited to: oil prices, labor rate increases, transportation cost, quantity overruns, and design changes during construction.
4. CY = cubic yard, LS = lump sum, SY = square yard, EA = each, LF = linear foot, CLF = hundred linear feet

Budgetary Opinion of Construction Cost - Fire Protection
LNG Storage and Re-Gasification Facility
Liberty Utilities
Keene, NH

Revision: 0

Date: 2/2/15

| Item No. | Construction Item Description | Estimated Quantity | Estimate Prices (\$/units) | Extended Prices (\$) |
|------------------------------------|---|--------------------|----------------------------|----------------------|
| 1 | Fire Alarm Control Panel - Allowance | LS | | |
| 2 | Fire Extinguishers (2) 150# 40A:240B:C Dry Chem Wheeled and (6) 60B:C Purple K Hand | LS | | |
| Subtotal | | | | |
| 20% Contingency | | | | |
| Total (To nearest thousand) | | | | |

Notes:

1. This opinion of construction cost represents an estimate for financial planning purposes, and does not represent a contractor's construction cost estimate.
2. The above opinion of construction cost is consistent with the standard of practice for preparing engineering estimates and is limited to an accuracy of approximately +30% to -30%.
3. The contingency reflects uncertainty associated with the market including, but not limited to: oil prices, labor rate increases, transportation cost, quantity overruns, and design changes during construction.
4. CY = cubic yard, LS = lump sum, SY = square yard, EA = each, LF = linear foot, CLF = hundred linear feet

| Table 1 Design Conditions Liberty Utilities - Keene, NH | | | | | |
|---|------------------------|-------------------|--------------|------------------|---|
| Demand | Energy (Dekatherms) | Energy (MMBTU) | NG (MSCF) | LNG (Gallons) | #18,000-Gallons Vertical LNG Storage Tanks |
| Current Peak Daily | [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] | - |
| Current Peak Hourly | [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] | - |
| Current Maximum Annual | [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] | - |
| Current Nominal 7-Day ⁴ | [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] | 1 |
| Current Maximum 7-Day ⁵ | [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] | 1 |
| Phase 2 Peak Daily | [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] | - |
| Phase 2 Peak Hourly | [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] | - |
| Phase 2 Maximum Annual | [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] | - |
| Phase 2 Nominal 7-Day ⁴ | [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] | 1 |
| [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] | 1 |

Notes:

1. MSCF = thousand standard cubic feet
2. MMBTU = million British thermal units
3. 1 Dekatherm = 1 MMBTU
4. Assumes 52 weeks per year.
5. Assumes 7 consecutive peak days.
6. Conversion: 1,000 BTU = 1 SCF of NG = 0.012 gallons of LNG
7. Phase 2 consists of the current load with the addition of [REDACTED]
8. Maximum daily flow will be used for quantifying on-site LNG storage requirements and maximum hourly flow will be used to size vaporization equipment.
9. Calculations performed based on the assumption that tanks are filled to maximum 90% of capacity.

| Table 2 Current Budgetary Equipment Cost Estimate Liberty Utilities - Keene, NH | | | |
|---|--|--------------|-----------------|
| Item Number | Equipment | Quantity | Total Cost (\$) |
| 1. | 18,000-Gallon Vertical LNG Storage Tank (Including Shipping) | 1 | ██████████ |
| 2. | LNG Offload Pump Assembly (Dual Pumps) - Transport to Tanks | 1 | ██████████ |
| 3. | Shell and Tube Vaporizer/Boiler System | 1 | ██████████ |
| 4. | Control Manifold | 1 | ██████████ |
| 5. | Odorization System | 1 | ██████████ |
| 6. | Meter Manifold (Orifice or Ultrasonic Meter w/Transmitter) | 1 | ██████████ |
| 7. | Fire Detection & Safety Systems | 1 | ██████████ |
| 8. | PM, Startup, Commissioning & Training (By Chart) | 1 | ██████████ |
| 9. | Piping and Trim (Estimated at 10% of CAPEX) | 1 | ██████████ |
| 10. | Installation (Estimated at 25% of CAPEX) | 1 | ██████████ |
| | | Total | ██████████ |

Notes:

1. It has been assumed that tank pressure will be sufficient and that transfer pumps will not be required upstream of vaporization. An add-on for redundant transfer pumps would be approximately ██████████
2. Contingency has not been applied to this high level budgetary estimate at this time.

| Table 3 Estimated Anchor Loads Liberty Utilities - Keene, NH | | | |
|--|-----------------------|-------------------------|--------------------------|
| | Maximum Annual () | Peak Hourly (MM /hr) | Peak Daily (MMB /day) |
| [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] |
| [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] |
| [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] |
| [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] |

- [REDACTED] is based on actual hourly and daily fuel usage data.
- [REDACTED] is based on annual fuel usage data, hourly boiler fuel consumption rates, and knowledge of boiler operating characteristics.
- [REDACTED] is based on actual hourly fuel usage data and the assumption of an 8-hour day.
- [REDACTED] is based on actual monthly fuel usage data and the assumption of a 20-hour day.
- The 7-day peak value will need to be qualified per PUC 500: "Projected design week demand determined using verifiable total degree day data collected from an identified New Hampshire location for the seven coldest consecutive days in the past 30 years of historical degree data", during the design development stage of this project.
 - Further definition of the peak daily load will be needed to properly characterize the firm customer gas needs versus dual fuel customers.



Sanborn, Head & Associates, Inc.
1 Technology Park Drive
Westford, MA 01886
978-392-0900

LETTER OF TRANSMITTAL

To: Bill Clark
William.Clark@libertyutilities.com

Number: 3672.00-002
Date: August 31, 2015
Job #: 3672.00

Via: Overnight
 Regular Mail
 Hand Delivery
 FAX (# of Pages)
 Electronically
 Other:

Telephone No.:

Fax No.:

WE ARE SENDING YOU:

Attached Under Separate Cover

- Copy of Report Prints Plans Samples Specifications
 Copy of Letter Change Order See below

| COPIES | DOCUMENT NUMBER | DATE | REVISION | DESCRIPTION |
|--------|-----------------|---------|----------|--|
| 1 | - | 8/31/15 | - | Lebanon Site Fatal Flaw Siting Analysis Memo |
| 1 | - | 8/12/15 | - | Preliminary Design Basis |
| 1 | 3672.00, G-1 | 8/31/15 | 0 | Location Plan |
| 1 | 3672.00, G-2 | 8/31/15 | 0 | Site Plan |
| 1 | 3672.00, G-3 | 8/31/15 | 0 | Site Plan - Flood Plains |
| 1 | 3672.00, G-4 | 8/31/15 | 0 | Equipment General Arrangement |
| 1 | - | 8/31/15 | - | LNGFire3 Modeling Output |

THESE ARE TRANSMITTED (As Checked Below):

- For Approval Approved as Submitted Resubmit _____ Copies for Approval
 For Your Use Approved as Noted Submit _____ Copies for Distribution
 As Requested Returned for Corrections Return _____ Corrected Prints
 For Review & Comment PRINTS RETURNED AFTER LOAN TO US
 FOR BIDS DUE _____

Remarks:

cc: JMF
MAN
CJF
file

SANBORN, HEAD & ASSOCIATES, INC.

Tom Sudol
Project Manager

(IF ENCLOSURES ARE NOT AS NOTED, PLEASE NOTIFY US IMMEDIATELY)



MEMORANDUM

To: Bill Clark | Liberty Utilities
From: Joan Fontaine and Mike Nicoloro
File: 3672.00
Date: August 31, 2015
Re: LNG Facility Fatal Flaw Siting Analysis for West Lebanon, NH Parcel – Initial Phase
cc: Tom Sudol, Maxwell Quinn | Sanborn Head

Project Overview

Liberty Utilities is evaluating a parcel of land in West Lebanon, NH for the potential siting of an LNG storage and vaporization facility. Liberty Utilities requested Sanborn Head to perform an analysis to assess if there are any fatal flaws with respect to siting an LNG facility. The proposed LNG facility is anticipated to have [REDACTED], vaporization, LNG transport offloading, and associated natural gas sendout piping. It is also anticipated that CNG tube trailers will deliver CNG to the facility for use in up to six decompression skids.

Tasks Performed As Part of Initial Phase of Analysis

1. Preliminary Design Basis

We prepared a preliminary design basis that addresses LNG flow rates and natural gas send out flow rates (peak hourly) and associated fluid temperatures and pressures, as well as number of days of on-site storage. A summary table is provided as an attachment to this memo. Key points of the design basis are:

- a. The maximum hourly sendout from the proposed LNG facility is 358 MSCFH which is based on a peak demand estimate from Liberty Utilities. [REDACTED].
- b. The on-site LNG storage provides an estimated four days of storage for uninterrupted users.
- c. It is assumed that the MAOP of the distribution system will be 60 psig and upstream pressure requirements were estimated based on this MAOP.

2. Data Review – Publicly Available and Phase 1 Environmental Site Assessment Report (ESA)

We reviewed publicly available information to assess the proximity of the property to an airport and flood plains. Liberty Utilities also provided a Phase 1 ESA performed for the property for another entity. The findings from this data review

are outlined below. Additionally, Sanborn Head has extensive knowledge of the property to the north of the parcel being evaluated – the Lebanon Landfill. Our knowledge of this property as it may relate to the parcel south of it is provided below as well.

- a. The Lebanon Municipal Airport's runway is located approximately 6,750 feet (1.3 miles) to the east of the property. This distance does not pose any issue for the layout of the proposed LNG facility with respect to runway and approach distances. Reference Drawing G-1, Location Plan, which depicts where the property is with respect to the airport.
- b. Review of both the ESA and the Federal Emergency Management Agency's National Flood Insurance Program published mapping indicate that there are not any flood plains on the property. Refer to Drawing G-3, Site Plan – Flood Plains, which depicts where the flood plain is located with respect to the property.
- c. Geology – We did hit bedrock unexpectedly during the construction of the last cell. There was an error in the bedrock map provided to us. The mapping we have doesn't include the property to the south, so we cannot comment offered on the depth to bedrock. However, considering the information we have to the north, the change in the river direction, bedrock could have a localized high point almost anywhere. That said, considering that the site is a sand and gravel operations, there should be drilling logs that may provide information about bedrock. Also, if continued excavation is a concern, perhaps the site development could involve engineered backfill areas. In this case the backfilling operations should be monitored to assure that a well-compacted foundation is constructed.
- d. Landfill Gas – Prior to the installation and operation of the active LFG extraction system, there were some LFG migration issues detected along the landfill's east property boundary. The active system should be the mitigation for this condition. LFG migration to the south is less likely because of the unlined landfill is quite a distance away from the south boundary and the newest landfill cell is significantly deeper than the bottom of the older cells (lined and unlined). Of note is that there are plans (not yet permitted) to expand the landfill further south. This phase of the landfill is some years off. While it is not impossible for LFG to migrate from the unlined cell, or even the lined cell of the landfill gas conveyance piping, if things are well managed, the potential risk is limited.
- e. Wetland areas – Considering the site usage, there may be wetlands on the site that could affect the site development. Such information is not typical of an ESA, and a wetland scientist would need to visit the site to verify the presence or absence of wetlands.

3. Conceptual Equipment General Arrangement

We prepared a conceptual equipment general arrangement drawing that depicts the major system components for the proposed LNG facility. Set back and equipment separation distances and containment requirements in accordance with NFPA 59A were incorporated into this conceptual equipment general arrangement. Reference Drawing G-4, Equipment General Arrangement, provided as an attachment to this memo.

4. Site Plan Drawing

Refer to Drawing G-2, Site Plan, which overlays the equipment general arrangement onto the property. At this preliminary phase, we did not include the proposed CNG equipment or truck egress and access routes.

5. Conceptual Level Thermal Radiation Modeling

We performed conceptual level thermal radiation modeling using LNGFire3 modeling software. Climactic data from the last six years was researched to establish the input parameters to the model (e.g., wind speed, relative humidity, temperature) in accordance with the regulations. Exclusion zone radii are depicted on the site plan developed in Item 4, above. Code requires that the 10,000 BTU/hr-ft² zone stay within the property boundaries; this is achievable based on this first round of modeling. The modeling printout is provided as an attachment.

Conclusions

The first phase of this fatal flaw analysis has not identified any fatal flaws in areas studied that would pre-empt Liberty Utilities from proceeding with the next level assessment.

Recommended Next Steps

Performing vapor dispersion modeling will be a critical aspect to more definitively qualify the property being considered. We strongly recommend that the vapor dispersion modeling be performed as soon as possible, since it is our experience that keeping the 50% LEL exclusion zone within the property boundaries is typically more challenging than keeping the 10,000 BTU/hr-ft² exclusion zone within the property boundaries. Please note that the recommended vapor dispersion modeling will provide worse case conditions. It may even show that the 50% LEL will travel beyond the property limits. Mitigation measures such as insulated concrete, vapor fences and water spray systems would be studied in the detailed design phase if we conclude that the 50% LEL goes beyond property boundaries.

As part of this next phase of the analysis, we may need to consider reducing the amount of on-site storage, using smaller LNG tanks, and optimizing the size of the subimpoundment within the LNG containment in order to meet exclusion zone requirements. Each of these elements will have an impact on the extent of the modeled vapor dispersion zones.

JMF/MAN: jmf

Encl. Preliminary Design Basis
Drawing G-1, Location Plan

Drawing G-2, Site Plan
Drawing G-3, Site Plan - Flood Plains
Drawing G-4, Equipment General Arrangement
LNGFire3 Modeling Output

P:\3600s\3672.00\Work\Lebanon Site Fatal Flaw Analysis\20150831 Phase 1 of Fatal Flaw Analysis - Memo.docx

| Equipment/Service | Fluid | Flow Rate | Pressure | Temperature | Comment |
|--|-------------|---|---|--------------------------------------|--|
| LNG Offloading | LNG | 200 gpm (maximum) | 80 psig (nominal) 100 psig (maximum) | -260 °F | (2) 100% capacity pumps, off-loading stations. Pumps to increase pressure from 20-40 psig in transports to 80 psig nominal pressure in tanks. |
| LNG Tanks | LNG | -- | 80 psig (nominal) 100 psig (maximum allowable) | -260 °F | |
| Vaporized LNG | Natural Gas | 358 MSCFH (maximum) 45 MSCFH (minimum) | 70 psig | 50 °F | Maximum hourly flow rate based on peak demand estimate from Liberty Utilities (does not include Dartmouth College). Minimum flow rate assumes an 8:1 turndown. |
| NG Sendout | Natural Gas | 358 MSCFH (maximum) 45 MSCFH (minimum) | 60 psig | 50 °F | Pressure based on distribution system MAOP. |
| LNG Vaporizer | TBD | -- | -- | -- | 6.5 MMBtu/hr - required heat output. |
| Boil Off Gas | Natural Gas | 0.74 MSCFH | 80 psig | -240 °F | Assumes a boil off rate of 0.1 % per day of the 90% full tank volume. |
| Boil Off Gas (after ambient heat exchanger) | Natural Gas | 0.74 MSCFH | 70 psig | Ambient Temperature less 20 °F | Downstream of ambient heat exchanger. |

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities

DG 15-289

Petition for Approval of a Gas Franchise for Lebanon and Hanover, New Hampshire

Staff Data Requests - Set 1

Date Request Received: 9/11/15
Request No. Staff 1-11

Date of Response: 9/21/15
Respondent: William J. Clark

REQUEST:

Ref. Clark Testimony, p. 22. Please identify the three anchor customers and the load requirements of each. What is the status of those negotiations and when is a decision expected?

RESPONSE:

Pursuant to Puc 203.08, the Company has a good faith basis for seeking confidential treatment of information contained in this response. The Company will submit a motion for confidential treatment regarding this response at or before the commencement of the final hearing in this proceeding.

The three anchor customers and their respective loads are:

Dartmouth College – [REDACTED]

Dartmouth Hitchcock Medical Center – Approximately [REDACTED]

Kleen Laundry – [REDACTED]

[REDACTED]

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities

DG 15-289

Petition for Approval of a Gas Franchise for Lebanon and Hanover, New Hampshire

Staff Data Requests - Set 1

Date Request Received: 9/11/15
Request No. Staff 1-14

Date of Response: 9/21/15
Respondent: William J. Clark

REQUEST:

Ref, Clark Testimony, p. 28. Please identify the possible fueling facilities. How does the Company plan to obtain site control and what is the expected cost? What are the required federal, state, municipal and regulatory approvals for facility construction and the expected number of months to satisfy each of those requirements?

RESPONSE:

Pursuant to Puc 203.08, the Company has a good faith basis for seeking confidential treatment of the cost information in this response. The Company will submit a motion for confidential treatment regarding this information at or before the commencement of the final hearing in this proceeding.

Liberty has gained site control of two parcels of land in West Lebanon located at 384 and 386 Plainfield Road, which is located adjacent to the active Lebanon landfill and in the "Industrial Heavy" zoning area. Liberty has executed an option to purchase the land with commercial terms that include the exclusive right to purchase both parcels for a sale price of [REDACTED]

Liberty anticipates that, depending upon the final location, size and scope of the project, the following federal, state and local regulatory authorities may be notified and/or requested to issue applicable permits and approvals. Liberty also anticipates that the permits and approvals would be issued in a timely manner after submission of relevant applications and requests on or before the anticipated commencement of construction in 2016. To the extent that additional permits or approvals are identified or become applicable, Liberty will amend the following list.

1. U.S.E.P.A. – NPDES (Notice of Intent), SWPPP
2. U.S. Fish & Wildlife/NH Fish & Game Dept. – Endangered/Threatened Species approval
3. U.S. Army Corps of Engineers – Clean Water Act Section 404/Section 10 Permit

4. U.S. Department of Transportation – PHMSA/Gas Distribution Integrity Management
5. NH Public Utilities Commission – Franchise, Tariff, Water Crossing License, Financing, Pipelines
6. NH Site Evaluation Committee -- Certification/Exemption (upon jurisdictional determination)
7. NH Department of Environmental Services – Alteration of Terrain Permit, Wetlands Permit, Water Quality Certification, AST Registration, UST Permit to Operate, Air Permit, Hazardous Waste Generator Notification/ID#
8. NH Historic Preservation Office – Cultural/historical/archeological review through other NHDES permits
9. NH Natural Heritage Bureau -- wildlife review through other NHDES permits
10. NH Department of Transportation – Excavation Permit/Use & Occupancy
11. NH Department of Agriculture – Division of Weights and Measures License
12. NH State Fire Marshall/Municipal Fire Departments - Construction/Storage notification
13. Municipal Zoning, Planning and Building Offices – Zoning Approvals, Site Plan Review, Building Permits, Utilities (water, sewer, poles), Roadway Excavation/ROW Approvals.

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities

DG 15-289

Petition for Approval of a Gas Franchise for Lebanon and Hanover, New Hampshire

Staff Data Requests - Set 1

Date Request Received: 9/11/15
Request No. Staff 1-15

Date of Response: 9/17/15
Respondent: William J. Clark

REQUEST:

Ref. Clark Testimony, p. 28. Please describe the costs associated with providing temporary LNG or CNG. What, if any, permits are required to operate temporary LNG or CNG facilities and the timeline to acquire permits?

RESPONSE:

Pursuant to Puc 203.08, the Company has a good faith basis for seeking confidential treatment of the cost information in this response. The Company will submit a motion for confidential treatment regarding this information at or before the commencement of the final hearing in this proceeding.

To provide temporary LNG or CNG service, Liberty would seek a temporary easement from a "host facility" that would be supplied by the facility. This site would either host a transferrable CNG decompression skid or a portable LNG regasification trailer (Attachment Staff 1-15).

Costs for the LNG regasification trailer are:

| Description | p/n | Base price |
|------------------------|-----|---------------|
| ST 15000 26000SCFH | | \$ [REDACTED] |
| ST-15000 31500 scfh | | \$ [REDACTED] |
| ST-15000 50000 scfh | | \$ [REDACTED] |

Liberty is evaluating a lease option or utilizing a trailer-mounted vaporizer as well.

For temporary LNG facilities, Liberty would work with the local Fire Chief, as well as the Commission's Safety Division to assure these guidelines are followed:

- 49 CFR §193.2019 - Mobile and temporary LNG facilities.

(a) Mobile and temporary LNG facilities for peak shaving application, for service maintenance during gas pipeline systems repair/alteration, or for other short term applications need not meet the requirements of this part if the facilities are in compliance with applicable sections of NFPA-59A-2001 (incorporated by reference, *see* §193.2013).

(b) The State agency having jurisdiction over pipeline safety in the State in which the portable LNG equipment is to be located must be provided with a location description for the installation at least 2 weeks in advance, including to the extent practical, the details of siting, leakage containment or control, firefighting equipment, and methods employed to restrict public access, except that in the case of emergency where such notice is not possible, as much advance notice as possible must be provided.

At this time, permitting is expected to take approximately three months.

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities

DG 15-289

Petition for Approval of a Gas Franchise for Lebanon and Hanover, New Hampshire

Staff Data Requests - Set 1

Date Request Received: 9/11/15
Request No. Staff 1-16

Date of Response: 9/21/15
Respondent: Francisco C. DaFonte

REQUEST:

Ref. DaFonte Testimony, p. 64. Please providing supporting schedules used to determine the \$0.45 per Dth savings for Keene customers.

RESPONSE:

Pursuant to Puc 203.08, the Company has a good faith basis for seeking confidential treatment of information in this response. The Company will submit a motion for confidential treatment regarding this information at or before the commencement of the hearing in such proceedings.

The Company conducted a request for proposal ("RFP") process in June 2015 to determine the least cost supplier for the Keene Division's Propane Purchasing Stabilization Plan ("PPSP"). Under the previous ownership, the PPSP RFP was sent to the same counterparties year-after-year and the same bidder was typically awarded the supply deal. Under Liberty's ownership, the RFP was extended to additional counterparties with whom Liberty had previously conducted business and one of those counterparties submitted the lowest bid, which was over \$0.04 per gallon or \$0.45 per dekatherm ("Dth") lower, as compared to the incumbent supplier. The winning bids, and the incumbent bids, by month are provided in Table Staff -1-16 below. All prices are in \$/gallon. A Dth conversion factor of 10.9 was used to arrive at the \$0.45 per Dth savings shown on Bates page 64 of the DaFonte Testimony.

Table Staff-1-16

| Winning Bidder | | | | | Incumbent | | | | |
|----------------|---------------|-----------------------|-------|----------|-----------|---------------|-----------------------|-------|-------|
| | Pricing Point | Current Futures Price | Basis | Total | | Pricing Point | Current Futures Price | Basis | Total |
| 15-Nov | Mt. Belvieu | \$0.5656 | | | 15-Nov | Mt. Belvieu | \$0.5656 | | |
| 15-Dec | Mt. Belvieu | \$0.5706 | | | 15-Dec | Mt. Belvieu | \$0.5706 | | |
| 16-Jan | Mt. Belvieu | \$0.5819 | | | 16-Jan | Mt. Belvieu | \$0.5819 | | |
| 16-Feb | Mt. Belvieu | \$0.5775 | | | 16-Feb | Mt. Belvieu | \$0.5775 | | |
| 16-Mar | Mt. Belvieu | \$0.5569 | | | 16-Mar | Mt. Belvieu | \$0.5569 | | |
| 16-Apr | Mt. Belvieu | \$0.5444 | | | 16-Apr | Mt. Belvieu | \$0.5444 | | |
| | | | | \$0.8930 | | | | | |

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities

DG 15-289

Petition for Approval of a Gas Franchise for Lebanon and Hanover, New Hampshire

Staff Data Requests - Set 2

Date Request Received: 10/21/15
Request No. Staff 2-3

Date of Response: 11/2/15
Respondent: William J. Clark

REQUEST:

Ref. Staff DR 1-1. Please explain how the break-even point was determined and provide supporting Excel schedules.

RESPONSE:

Pursuant to Puc 203.08, the Company has a good faith basis for seeking confidential treatment of information contained in this response. The Company will submit a motion for confidential treatment regarding this information at or before the commencement of the final hearing in this proceeding.

As stated in the response to Staff 1-1, revenue and break-even point are components of customer connections and yearly throughput. Staff 1-1 asked for estimated revenues and break-even. To answer this request as asked, Liberty utilized certain assumptions which are:

- Land acquisition costs of [REDACTED]
- Initial scalable LNG/CNG construction of between [REDACTED] million and [REDACTED] million
- Distribution system construction of approximately \$6 million over the first two years
- An estimated revenue requirement of between 12% and 15% (to include return, taxes, depreciation and operating expenses)

These assumptions would result in an initial rate base of between [REDACTED] million and [REDACTED] million. This would result in an annual revenue requirement of between [REDACTED] and [REDACTED]. Another assumption utilized to answer DR 1-1 was the customer base would be made up of R-3, G-41 and G-42 accounts initially. Estimated customer charges would contribute approximately \$250,518 annually (R-3 at 400, G-41 at 100 and G-42 at 50). Distribution rates for these accounts average approximately \$3.20 per dth. After accounting for customer charges, the annual revenue requirement associated with distribution charges would need to be approximately [REDACTED] and [REDACTED]. Utilizing the average distribution charge of \$3.20 per dth stated above and no CIAC payments from customers, break-even would occur between [REDACTED] and [REDACTED] dth.

In the response to Staff 1-1, it was stated that break-even would occur between 200,000 and 400,000 ADTH. Those calculations included only the first year estimate of distribution system construction of \$3 million.

Liberty firmly believes that a smaller scale facility with decreased infrastructure sizing and without any anchor customers is still economically feasible and would generate sufficient revenue to meet revenue requirements.

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities

DG 15-289

Petition for Approval of a Gas Franchise for Lebanon and Hanover, New Hampshire

Staff Data Requests - Set 2

Date Request Received: 10/21/15
Request No. Staff 2-5

Date of Response: 11/2/15
Respondent: William J. Clark

REQUEST:

Ref. Staff DR 1-3. Please provide a copy of the purchase contract with the site land owners.

RESPONSE:

Pursuant to Puc 203.08, the Company has a good faith basis for seeking confidential treatment of the attachment to this response, Confidential Attachment Staff 2-5. The Company will submit a motion for confidential treatment regarding this attachment at or before the commencement of the final hearing in this proceeding.

Please see Confidential Attachment Staff 2-5 for a copy of the purchase contract.

OPTION AGREEMENT

THIS OPTION AGREEMENT ("Option Agreement") is made as of the 1st day of September, 2015 (the "Effective Date") by and between Upper Valley Sand & Gravel, LLC ("Seller") and Liberty Utilities (EnergyNorth Natural Gas) Corp. and its affiliates and subsidiaries ("Purchaser").

RECITALS

A. Seller is the owner of real property generally located in the city of West Lebanon, State of New Hampshire consisting of approximately 24.7 acres with improvements and generally described as 384-386 Plainfield Road, West Lebanon, New Hampshire and more particularly described on Exhibit A attached hereto and made a part hereof (the "Property").

B. Seller desires to grant to Purchaser, and Purchaser desires to acquire from Seller, an option to purchase the Property.

AGREEMENT

NOW, THEREFORE, for the mutual covenants and agreements set forth herein, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties agree as follows:

Option to Purchase the Property

1. Grant of Option. Seller hereby grants to Purchaser an exclusive option (the "Option") to purchase the Property on the terms and conditions set forth herein. This Option Agreement grants a true option to Purchaser to purchase the Property and Purchaser shall have no obligation to purchase all or any portion of the Property.

2. Purchase Price. If Purchaser exercises the Option, the purchase price for the Property shall be [REDACTED], subject to customary adjustments and adjustments outlined in Sections 4 and 9(c) of this Option Agreement, which shall be paid at the time of closing of the purchase of the Property, as hereinafter provided.

3. Option Period. The term of the Option shall be for a period of [REDACTED] from the date first above written (the "Option Period"). Purchaser has the right, in its sole discretion, to extend the Option on a month to month basis (the "Option Period Extension") upon giving written notice to Seller on or before the last day of the Option Period or Option Period Extension as applicable. Purchaser shall have the right to terminate this Option Agreement at any time during the Option Period or any Option Period Extension upon the provision of written notice to Seller. The Option Period together with Option Period Extensions (the "Option Term") shall have a maximum term of [REDACTED].

4. Option Payment and Option Period Extension Payment(s). Upon execution of this Option Agreement, Purchaser shall deliver to Seller a payment in the amount of [REDACTED] as consideration of Seller's grant of said Option, which consideration is hereby acknowledged by Seller to be received and sufficient (the "Option Payment"). On or prior to the end of the Option Period or Option Period Extension, Purchaser shall deliver to Seller an amount equal to [REDACTED] extension to the Option Period as consideration of Seller's grant of an extension to the Option Period or Option Period Extension. [REDACTED]

5. Exercise. Purchaser may exercise the Option by executing and delivering to Seller during the Option Term, a copy of the purchase agreement attached hereto as Exhibit C and incorporated herein by reference (the "Purchase Agreement") fully executed by Purchaser (Seller having executed two (2) originals of said Purchase Agreement at the time of execution of this Option Agreement) and specifying therein a Closing Date not more than sixty (60) days from the date of exercise of the Option.

6. Runs with the Land. The Option contained in this Option Agreement shall run with and against the Property and shall be a benefit in gross to Purchaser as provided herein. This Option Agreement shall be binding upon Seller, and its successors in interest in the Property, and shall inure solely to the benefit of Purchaser. Purchaser shall have the sole right and ability to enforce the terms of this Option Agreement against Seller or its successors in interest in the Property and may record a memorandum of this Option Agreement in the Grafton County Registry of Deeds.

7. Affirmative Covenants. Seller shall cause the Property to be maintained free from waste and neglect and shall not allow the dumping on the Property of any wastes or substances of any kind whatsoever, except strictly in accordance with all applicable federal, state or local statutes, ordinances, rules, regulations or other law. Without the prior written consent of Purchaser and with the exception of the agreements listed in Exhibit B to this Option Agreement, Seller shall not (i) enter into any transaction in respect to or affecting the Property, including, without limitation, leases or service, maintenance or repair contracts in respect to or affecting the Property, which will survive the closing of a purchase and sale transaction for the Property between the Purchaser and the Seller, (ii) further encumber the Property in any form or manner whatsoever, or (iii) create or allow to be created any additional exceptions to title to the Property.

8. Seller's Covenants, Representations and Warranties. Seller covenants, represents and warrants that, as of the Effective Date:

- a. Seller has full and lawful right and authority to execute and deliver this Option Agreement and to consummate the transactions contemplated hereunder;
- b. Seller owns good fee simple marketable title to the Property;

c. To Seller's knowledge, there is currently no litigation, bankruptcy or other proceeding threatened or pending in any manner affecting the Property or any part thereof;

d. To Seller's knowledge, there is no pending or threatened condemnation of the Property or any part thereof;

e. To Seller's knowledge, there are no violations of any federal, state or local law, code, ordinance, rules, regulation or requirement, including without limitation applicable environmental laws or regulations, affecting the Property or any part thereof;

f. To Seller's knowledge, no unrecorded liens, encumbrances or adverse claims exist with respect to the Property or any portion thereof;

g. To Seller's knowledge, there are no management contracts, repair contracts, service contracts, options or any other material agreements relating to the Property which shall survive Closing;

h. Seller is not a "foreign person" as defined in Section 1445 of the Internal Revenue Code and is therefore exempt from the withholding requirements of said section (and Seller will furnish to Purchaser at Closing with an exemption certificate as set forth in said section);

i. Seller shall provide the Title Company with a certified statement in order to comply with Section 6056 or the Internal Revenue Code;

j. There are no leases or occupancy agreements affecting all or any portion of the Property that will survive the Closing except for those leases or agreements listed in Exhibit B to this Option Agreement.

k. Seller represents and warrants that the Property is currently zoned Heavy Industrial in accordance with the City of Lebanon Zoning Ordinance.

As provided in Section 7 and 8 above, Purchaser's obligations under this Option Agreement are expressly conditioned on the foregoing covenants, representations and warranties of Seller being true on the Contract Date and remaining true through Closing. The foregoing covenants, representations and warranties shall survive Closing.

9. Conditions of Option. This Option and subsequent purchase and sale shall be subject to the following:

a. *Access to Property and Inspections by Purchaser:* Seller shall allow Purchaser, its employees, agents, contractors, consultants, and representatives reasonable access to the Property, upon reasonable advance notice, for the purposes of conducting such surveys, tests, and inspections of the Property (including the groundwater and subsurface thereof) as Purchaser deems appropriate. Upon the completion of such investigations, Purchaser shall

promptly restore the Property to its prior condition to the extent practicable. Purchaser shall not incur any mechanics' liens in connection with its due diligence and, if so incurred, shall have same removed by payment or bond or other method reasonably satisfactory to Seller within thirty (30) days of receipt of notice of attachment. Purchaser shall not be responsible for notifying any party, including any public agency, of any conditions discovered at the Property, and Seller shall be responsible for all such notification. Purchaser, its employees, contractors, consultants, servants, and agents, shall have the right to inquire at any and all offices of governmental authorities regarding the Property.

b.

10. Furnishing Documents. Seller shall, within ten (10) days following the date of this Option Agreement, furnish to Purchaser, for Purchaser's review, copies of any and all of the following items with respect to the Property in Seller's possession or control: (i) title insurance policies and underlying title documents, (ii) surveys, plats and other drawings, (iii) engineering reports, (iv) soil reports, (v) maintenance, repair and service contracts and any other material agreements relating to the Property, (vi) correspondence, documents, instruments or other information related to environmental conditions at or pertaining to the Property, (vii) records or information relating to any claims, actions, suits or other proceedings relating to all or any portion of the Property, and (viii) the most recent tax bill(s) with respect to the Property.

Seller shall also deliver to Purchaser (i) copies of any and all documents of the kind described in the foregoing paragraph received by Seller or its agents, employees, representatives or contractors on and after the Effective Date ("After Acquired Documents"), and (ii) any other types of documents or correspondence reasonably requested by Purchaser on or before the Closing with respect to the Property (the "Additional Documents"). After Acquired Documents shall be delivered to Purchaser within ten (10) days after receipt and any and all Additional Documents requested by Purchaser shall be delivered to Purchaser within ten (10) days after Purchaser's written request for such documents.

11. Notice. All notices, consents, requests, demands and other communications hereunder are to be in writing, and are deemed to have been duly given or made: (i) when delivered in person; (ii) three days after deposited in the United States mail, first class postage prepaid; or (iii) in the case of overnight courier services, one business day after delivery to the overnight courier service with payment provided for.

All notices to Seller shall be directed to:
Upper Valley Sand & Gravel, LLC

[REDACTED]

All notices to Purchaser shall be directed to:
Liberty Utilities (EnergyNorth Natural Gas) Corp.
William Clark
15 Buttrick Road, Londonderry, NH 03053

or to such other persons or addresses as either party shall hereafter designate by notice given from time to time in accordance with this Section.

12. Benefit and Binding. This Option Agreement and the agreement resulting from the exercise of the Option shall bind and inure to the benefit of the heirs, administrators, executors, successors, and assigns of the respective parties. All rights of Purchaser hereunder may be assigned without restriction or consent of Seller.

13. Specific Performance. Purchaser may enforce this Option Agreement by specific performance, it being agreed that Purchaser has no adequate remedy at law.



14. No Conveyance. Seller shall not convey the Property or any portion thereof or interest therein to any person other than Purchaser during the Option Term.

15. Attorney's Fees and Costs. In the event either party to this Option Agreement commences a legal proceeding to enforce any of the terms of this Option Agreement or any rights under this Option Agreement, the prevailing party in such action shall be entitled to recover reasonable attorneys' fees and costs from the other party.


[Remainder of this Page Intentionally Left Blank]

IN WITNESS WHEREOF, the parties have executed this Option Agreement as of the date first above written.

UPPER VALLEY SAND & GRAVEL, LLC

By: 
Name: 
Title: Owner dated
7/16/15

**LIBERTY UTILITIES (ENERGYNORTH
NATURAL GAS) CORP.**

By: 
Name: Kevin H. McCarthy
Title: V.P. Finance - Technology

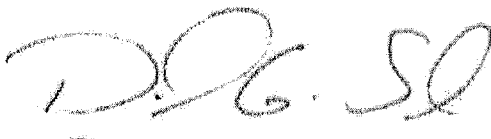
By: 
Name: Daniel G. Saad
Title: President - NH



EXHIBIT A TO OPTION AGREEMENT

LEGAL DESCRIPTION

All and the same land and premises conveyed to Upper Valley Sand & Gravel LLC by Warranty Deed of Carl L. Moulton acknowledged September 26, 2014, recorded October 2, 2014 in Book 4086, Page 111 of the Grafton County Registry of Deeds, and being more particularly described as follows:

PARCEL I: A certain parcel of land situated in the Town of West Lebanon, County of Grafton and State of New Hampshire, located westerly of River Road, so-called, and easterly of the Connecticut River. Said parcel of land is shown on a certain plan entitled "Boundary and Easement Plan, Carl L. Moulton, West Lebanon, NH" dated January 9, 1998, prepared by Holden Engineering & Surveying, Inc. recorded as Plan No. 9271 in the Grafton County Registry of Deeds (the "Plan"), more particularly bounded and described as follows:

Beginning at a point on the shore of the Connecticut River, said point being the northwesterly corner of the within described premises; thence S 77° 09' 33" E, along land now or formerly of the City of Lebanon, NH, a distance of 200 feet, more or less, to a point; thence continuing along a barbed wire fence S 76° 38' 03" E a distance of 483.40 feet, more or less, to a point; thence S 80° 02' 07" E a distance of 282.69 feet, more or less, to a point; thence S 77° 31' 13" E a distance of 240.74 feet, more or less, to a point; thence S 79° 51' 51" E a distance of 156.56 feet, more or less, to an iron pin found; thence turning and running along land now or formerly of Dennis Eaborn S 11° 22' 03" E a distance of 411.24 feet to an iron pin found.; thence turning and continuing along said Eaborn land N 79° 37' 57" E a distance of 139.68 feet, more or less, to a point being 0.72 feet from an iron pin found, as shown on said Plan; thence turning and running along the westerly side of River Road, so-called, S 03° 22' 01" E a distance of 520.53 feet to a point at land now or formerly of the State of New Hampshire Fish & Game Dept.; thence turning and running along said State of New Hampshire land N 67° 02' 52" W a distance of 18.77 feet, more or less, to a concrete bound found; thence continuing N 67° 02' 52" W a distance of 558.54 feet, more or less, to a concrete bound; thence N 79° 09' 24" W a distance of 566.77 feet, more or less, to a concrete bound; thence continuing N 79° 09' 24" W a distance of 108 feet, more or less, to a point on the shore of the Connecticut River; thence running along the easterly shoreline of the Connecticut River in a northerly and westerly direction a distance of 962 feet, more or less, to a point at land now or formerly of the City of Lebanon, NH, said point being the point of beginning.

PARCEL II: Two certain tracts of land, with buildings thereon, situate in West Lebanon, and City of Lebanon, County of Grafton, and State of New Hampshire, bounded and described as follows:

Tract 1: Beginning at an iron pipe driven in the ground on the westerly side of the highway leading from the village of West Lebanon southerly to Plainfield and known as the River Road in said Lebanon. Said iron pipe being the southeasterly corner of land now or formerly of Margaret Wood, and now by the City of Lebanon, and 33 feet westerly from the center line of said highway as now used;

Thence leading South 10° 30' West in a line parallel with and 33 feet westerly from the center line of said highway as now used, a distance of 340 feet to an iron pipe driven in the ground, said iron pipe being about 550 feet northerly from the junction of the highway leading easterly to Meriden;

Thence making an interior angle of 96° and leading North 85° 30' West in the northerly line of land now or formerly of Edward P. and Mary E. Drake, a distance of 140.5 feet to an iron pipe driven in a woodchuck's hole;

Thence making an interior angle of 91° and leading North 03° 30' East in the easterly line of remaining land of Edward P. and Mary E. Drake, now or formerly, a distance of 408.8 feet to an iron pipe driven in the ground in the southerly line of land of said City of Lebanon;

Thence easterly to the southerly line of land of said City of Lebanon, and following a wire fence, a distance of 196 feet to the point of beginning.

The bearings as given are Magnetic (1949) and all distances to be more or less.

Tract 2: Being a small tract of land, 35 feet on the north and south sides, and 50 feet on the east and west sides. Said spring or well of water being of concrete construction, 3 feet in diameter and nearly center of said tract in a valley or ravine, lying 350 feet easterly of the highway known as the River Road in said Lebanon, leading from said West Lebanon southerly to Plainfield, and 150 feet northerly of the junction of the highway leading easterly to Meriden. The northwest corner of said tract being marked by a 12 inch soft maple tree, the northeast corner marked by a 12 inch rock maple tree, the southeast corner marked by a 10 inch walnut tree and the southwest corner marked by a 10 inch beech tree. All said trees being blazed with three hacks.

Together with right to enter, repair, relay and maintain an aqueduct from said concrete spring or well of water westerly to premises now or formerly owned by Edward P. Drake and Mary E. Drake, bounded and described as follows:

Beginning at said spring or well of water and leading North 38° West a distance of 102 feet;

thence South 78° West 57.7 feet;
thence North 77° West 21 feet;
thence North 06° 30' West 84.5 feet;
thence North 04° 30' West 88.7 feet;
thence North 03° 30' West 118.3 feet;
thence North 10° 30' West 65.4 feet;
thence North 36° 40' West 45.2 feet;
thence North 05° 30' West 73 feet;
thence North 19° 30' West 30.6 feet;

thence North 68° 15' West across said River Road, 56 feet to the easterly line of land of Edward P. and Mary E. Drake, now or formerly, at a point 73 feet northerly from an iron pipe at the

southeasterly corner of land now or formerly of said Edward P. and Mary E. Drake. Doing no unnecessary damage.

The Bearings are given as Magnetic (1950) and all distances to be more or less. Tree measurements are as of May 27, 1950.

Reference is hereby made to the foregoing deed and its records, and to the deeds and records referenced therein in further aid of this description.

EXHIBIT B TO OPTION AGREEMENT

SECTION 7. LEASES

1. Lease by and between Upper Valley Sand and Gravel, LLC and [REDACTED]
[REDACTED].

EXHIBIT C TO OPTION AGREEMENT
FORM OF PURCHASE AGREEMENT

THIS PURCHASE AGREEMENT ("Purchase Agreement") is made as of the ___ day of _____, 20__ by and between Upper Valley Sand & Gravel, LLC ("Seller") and Liberty Utilities (EnergyNorth Natural Gas) Corp. and its affiliates and subsidiaries ("Purchaser").

1. Property. Subject to the terms and conditions of this Purchase Agreement, Seller agrees to sell and Purchaser agrees to purchase the real property depicted on Exhibit A to the Purchase Agreement attached hereto and made a part hereof (Purchaser's final survey and legal description to govern; provided that Purchaser's final survey is certified to Seller), together with any and all buildings, attachments, improvements, easements, hereditaments and appurtenances thereto (the "Property").

2. Contract Date; Closing; Closing Date. The "Contract Date" shall be the date first set forth above. The "Closing Date" shall be _____, 20___. The closing of the transaction contemplated herein ("Closing") shall take place on the Closing Date at the offices of _____ (the "Title Company").

3. Purchase Price. The total purchase price for the Property, subject to adjustments provided for herein, shall be _____ (the "Purchase Price").

4. Deed. Seller shall sell the Property for the Purchase Price on the terms set forth herein and, at Closing, Seller shall convey or cause to be conveyed to Purchaser title to the Property by recordable form of special warranty deed subject only those exceptions accepted by Purchaser prior to the execution of this Purchase Agreement as exceptions to the Purchaser's title (the "Deed"); duly executed and acknowledged by Seller.

5. Inspection Prior to Closing. Purchaser, its agents, employees, representatives and contractors shall have reasonable access to the Property prior to the Closing Date, upon reasonable prior notice to Seller, to confirm, at Purchaser's sole cost and expense, the results of its earlier testing and inspections have not changed, which activities may include, without limitation, additional environmental site assessments and testing. Purchaser shall not allow any mechanic's lien or other lien, charge or order for the payment of money to be filed against the Property.

6. Affirmative Covenants. Seller shall cause the Property to be maintained free from waste and neglect and shall not allow the dumping on the Property of any wastes or substances of any kind whatsoever, except strictly in accordance with all applicable federal, state or local statutes, ordinances, rules, regulations or other law. Without the prior written consent of Purchaser and with the exception of the agreements listed in Exhibit B to this Purchase Agreement, Seller shall not (i) enter into any transaction in respect to or affecting the Property, including, without limitation, leases or service, maintenance or repair contracts in respect to or

affecting the Property, which will survive the Closing, (ii) further encumber the Property in any form or manner whatsoever, or (iii) create or allow to be created any additional exceptions to title to the Property.

7. Conditions Precedent to Purchaser's Obligations. Purchaser's obligation to purchase the Property is expressly contingent upon (i) Seller's representations and warranties being true on the Contract Date and remaining true through the Closing of this transaction; (ii) Seller's removal at Closing by application of the Purchase Price, of all title exceptions pertaining to liens and encumbrances of a definite and ascertainable amount (including, without limitation financing liens) which Seller hereby agrees to remove; (iii) the results of Purchaser's investigations pursuant to Section 5 hereof identifying no material changes to results identified during Purchaser's investigations under the Option Agreement; and (iv) Purchaser's obtaining an ALTA Form 2006 Owner's Title Insurance Policy containing only those exceptions accepted by Purchaser prior to the execution of this Purchase Agreement as exceptions to the Purchaser's title. The foregoing conditions are (x) necessary prerequisites for Purchaser's purchase of the Property; (y) included in this Purchase Agreement solely for Purchaser's benefit; and (z) may be waived solely by Purchaser, in Purchaser's reasonable discretion. Purchaser may terminate this Purchase Agreement at Purchaser's sole election upon written notice to Seller if any of the foregoing conditions are not satisfied.

8. Seller's Covenants, Representations and Warranties. Seller covenants, represents and warrants that, as of the Contract Date and the Closing Date:

a. Seller has full and lawful right and authority to execute and deliver this Purchase Agreement and to consummate the transactions contemplated hereunder;

b. Seller owns good fee simple marketable title to the Property;

c. To Seller's knowledge, there is currently no litigation, bankruptcy or other proceeding threatened or pending in any manner affecting the Property or any part thereof;

d. To Seller's knowledge, there is no pending or threatened condemnation of the Property or any part thereof;

e. To Seller's knowledge, there are no violations of any federal, state or local law, code, ordinance, rules, regulation or requirement, including without limitation applicable environmental laws or regulations, affecting the Property or any part thereof;

f. To Seller's knowledge, no unrecorded liens, encumbrances or adverse claims exist with respect to the Property or any portion thereof;

g. To Seller's knowledge, there are no management contracts, repair contracts, service contracts, options or any other material agreements relating to the Property which shall survive Closing;

h. Seller is not a "foreign person" as defined in Section 1445 of the Internal Revenue Code and is therefore exempt from the withholding requirements of said section (and Seller will furnish to Purchaser at Closing with an exemption certificate as set forth in said section);

i. Seller shall provide the Title Company with a certified statement in order to comply with Section 6056 or the Internal Revenue Code;

j. There are no leases or occupancy agreements affecting all or any portion of the Property that will survive the Closing with the exception of leases or occupancy agreements listed in Exhibit B to this Purchase Agreement.

k. Seller represents and warrants that the Property is currently zoned Heavy Industrial in accordance with the City of Lebanon Zoning Ordinance.

As provided in Section 8 above, Purchaser's obligations under this Purchase Agreement are expressly conditioned on the foregoing covenants, representations and warranties of Seller being true on the Contract Date and remaining true through Closing. The foregoing covenants, representations and warranties shall survive Closing.

9. Closing Escrow. For the purpose of closing the transactions described in this Purchase Agreement, payment of the Purchase Price, the Deed and all other instruments necessary to close such transactions shall be passed through escrow with the Title Company in accordance with the general provisions of the usual form of escrow agreement then in use by the Title Company with such additional provisions inserted in such escrow agreement as may be required to conform with this Purchase Agreement. Purchaser shall pay its attorney's fees, all recording fees (except those necessary to release the encumbrance of Seller's existing deed of trust or other liens), environmental review and test fees and expenses, all closing and escrow fees imposed by the Title Company and all title examination costs and premiums for its owner's and lender's policies of title insurance. Seller shall pay its attorney fees and any costs associated with the removal of Seller's existing deed of trust, other liens or other exceptions to title affecting the Property which Seller has agreed to remove.

10. Adjustments at Closing. The following shall be prorated as of the Closing Date, with Seller being charged through the Closing Date: (i) real estate taxes for the year in which Closing occurs pertaining to the Property based on the latest available tax bill and any accrued but unpaid general or special assessments payable therewith, (ii) utility charges for sewer, water, gas, and electricity pertaining to the Property, and (iii) any other customary prorations. In the event the latest available tax bill does not include the tax bill for taxes due and payable during the year of Closing, upon the issuance of such tax bill for the Property, the parties shall reprorate the taxes and make any necessary cash adjustment.

[REDACTED] dated September 1, 2015 by and between Upper Valley Sand & Gravel, LLC and Liberty Utilities (EnergyNorth Natural Gas) Corp. (the "Option Agreement"), and (ii) an amount equal to [REDACTED]

11. Events of Closing. At Closing, (i) Seller shall execute and deliver the Deed to Purchaser in accordance with Section 4 of this Purchase Agreement; (ii) Seller shall execute and deliver a title affidavit in customary form, stating that, without limitation, there are no leases, liens, judgments, claims or bankruptcies affecting the Property; (iii) Seller shall execute such other instruments as the Title Company shall reasonably require; (iv) Purchaser shall deliver into escrow with the Title Company the Purchase Price, subject to the adjustments and offsets herein provided, by cash or wire transfer of immediately available funds; (v) the Title Company shall pay the adjusted and offset Purchase Price to Seller; and (vi) Seller and Purchaser shall also execute and deliver such additional documents as may be necessary at Closing or thereafter to conclude the sale of the Property as contemplated by this Purchase Agreement. Seller shall deliver sole and exclusive possession of the Property to Purchaser immediately after Closing.

12. Real Estate Brokers and Commission. Purchaser has retained [REDACTED] to serve as Purchaser's agent ("Purchaser's Agent") and Purchaser shall be responsible to pay any fee due to Purchaser's Agent. Nonetheless, Purchaser and Seller hereby state and warrant to one another that, other than Purchaser's Agent, neither party has dealt with any real estate broker, agent or salesperson in connection with the purchase and sale of the Property. Seller and Purchaser each shall indemnify, defend and hold the other harmless against any claims for real estate commissions made by anyone claiming representation of such party in this transaction. Such obligations to indemnify and hold harmless shall include, without limitation, all costs and attorneys' fees relating to litigation and other proceedings.

13. Default. If Purchaser defaults under this Purchase Agreement and does not cure any such default within ten (10) days after written notice from Seller to Purchaser that such default exists, Seller's sole remedies shall be to either seek specific performance against Purchaser or terminate this Purchase Agreement, Seller hereby waiving all other remedies for breach of this Purchase Agreement, including, without limitation, damages and retaining all payments made by Purchaser under the Option Agreement. If Seller defaults under this Purchase Agreement prior to Closing and does not cure any such default within ten (10) days after written notice from Purchaser to Seller that such default exists, then Purchaser may, as its exclusive remedies hereunder, either (i) terminate this Purchase Agreement and Seller shall immediately refund to Purchaser the Option Payment and all other amounts paid by Purchaser to Seller in connection with the Option Agreement and the Purchase Agreement or (ii) enforce the specific performance of this Purchase Agreement, Purchaser hereby waiving all other remedies for breach of this Purchase Agreement, including, without limitation, damages. In the event of termination by either Party in accordance with this section 13, upon the payment of the amounts stipulated in this section 13, neither Purchaser nor Seller shall have any further liabilities, obligations or rights with regard to this Purchase Agreement which shall then become null and void and of no further force or effect

14. Notices. All notices, consents, requests, demands and other communications hereunder are to be in writing, and are deemed to have been duly given or made: (i) when delivered in person; (ii) three (3) days after deposited in the United States mail, first class postage prepaid; (iii) in the case of telegraph or overnight courier services, one business day after

delivery to the telegraph company or overnight courier service with payment provided for; (iv) in the case of telex or telecopy or fax, when sent, verification received.

All notices to Seller shall be directed to:
Upper Valley Sand & Gravel, LLC



All notices to Purchaser shall be directed to:
Liberty Utilities (EnergyNorth Natural Gas) Corp.
Mr. William Clark
15 Buttrick Road, Londonderry, NH 03053

or to such other persons or addresses as either party shall hereafter designate by notice given from time to time in accordance with this Section.

15. Condemnation; Risk of Loss. If, after this Purchase Agreement is executed and prior to the Closing Date:

a. Any or all of the Property is taken by exercise of the power of eminent domain or any proceedings are instituted, or threatened to be instituted, to effect such a taking or any offer of settlement is made in lieu of a taking, Seller shall promptly notify Purchaser thereof (with a copy of all relevant correspondence and other materials relating thereto) and Purchaser shall have the option (exercisable by notice to Seller within thirty (30) days after the receipt of such notice) to either (i) cancel this Purchase Agreement; or (ii) completing the purchase in accordance with the terms, conditions and provisions of this Purchase Agreement, in which event all condemnation proceeds or claims thereof shall be assigned to Purchaser.

b. Any or all of the improvements located at the Property are destroyed or damaged by fire, windstorm, or other casualty; Purchaser shall have the option of canceling or enforcing this Purchase Agreement. If enforced, Purchaser shall be entitled to all insurance proceeds, if any, and Seller shall assign insurance policies and right to such proceeds at Closing.

16. Miscellaneous.

a. Assignment. This Purchase Agreement and the rights, obligations, duties, interests, and duties of Purchaser hereunder may be assigned by Purchaser. If such assignment is made as permitted herein, then the sale of the Property contemplated by this Purchase Agreement will be consummated in the name of any such assignee.

b. Construction; Severability; Entire Agreement; Binding Effect; Governing Law. The section headings herein are solely for convenience and shall in no way be deemed to affect the meaning or construction of any part hereof. If any provision or provisions of this Purchase Agreement shall be unlawful, then such provision or provisions shall be null and void, but the remainder of the Purchase Agreement shall remain in full force and effect and binding on

Seller and Purchaser. This Purchase Agreement constitutes the entire understanding and agreement between the parties and may not be amended, supplemented, or modified except by a writing executed by both of the parties. This Purchase Agreement shall be binding upon, and shall benefit, the parties and their heirs, personal representatives, successors and assigns. This Purchase Agreement and all related documents shall be governed by the laws of New Hampshire.

c. Time of Essence. Time shall be of the essence in this Purchase Agreement.

d. Business Days. If the last day for making an Earnest Deposit, for conducting due diligence or for providing notice to either party is a Saturday, Sunday or legal holiday, then such last day shall be extended to the next succeeding business day thereafter.

e. Execution in Counterparts. This Purchase Agreement may be executed in two or more identical counterparts which taken together shall constitute one and the same instrument.

f. Attorney's Fees and Costs. In the event either party to this Purchase Agreement commences a legal proceeding to enforce any of the terms of this Purchase Agreement or any rights under this Purchase Agreement, the prevailing party in such action shall be entitled to recover reasonable attorneys' fees and costs from the other party.

g. 1031 Like-Kind Exchange.

(i) The parties shall have the right at or prior to Closing to elect to exchange the Property for any other property or properties (each an "Exchange Property") pursuant to Section 1031 of the Internal Revenue Code of 1986 and regulations thereunder (an "Exchange"), as the same may be amended from time to time (collectively, "Section 1031"; capitalized terms contained in this Section 16(g) not defined in this Agreement shall have the meanings ascribed to them in Section 1031).

(ii) In the event that a party shall elect to use the Property as a Relinquished Property or a Replacement Property (the "Exchanging Party), then the other party (the "Cooperating Party") shall cooperate in such exchange by executing such instruments as may reasonably be required to effect such exchange at no cost or expense to the Cooperating Party. It is understood that the Exchanging Party shall utilize the services of a Qualified Intermediary and/or a Qualified Exchange Trust, and that the Cooperating Party shall have no obligation to undertake to identify or take title to any Exchange Property as part of such transaction or to incur any liability in connection therewith. Further, none of the other terms of this Agreement shall be modified or conditioned upon any such exchange. The Exchanging Party shall indemnify, defend and hold harmless the Cooperating from and against any and all costs (including, without limitation, attorney's fees), expenses, liabilities, losses and damages incurred by reason of the execution and/or delivery of any Seller Exchange documents. The

Exchanging Party warrants and represents that the foregoing indemnity shall survive the Closing, further, the Exchanging Party shall comply with all local, state and federal laws that may exist at the time of Closing with respect to the Exchange.

[REMAINDER OF THIS PAGE INTENTIONALLY LEFT BLANK]

IN WITNESS WHEREOF, the parties have executed this Purchase Agreement, as of the day and year first above written.

SELLER:

By: _____

Name: _____

Title: _____

Date of Execution: _____

PURCHASER:

By: _____

Name: _____

Title: _____

By: _____

Name: _____

Title: _____

Date of Execution: _____, _____

EXHIBIT A TO PURCHASE AGREEMENT

LEGAL DESCRIPTION

EXHIBIT B TO PURCHASE AGREEMENT

SECTION 8(j) LEASES

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities

DG 15-289

Petition for Approval of a Gas Franchise for Lebanon and Hanover, New Hampshire

Staff Data Requests - Set 2

Date Request Received: 10/21/15
Request No. Staff 2-7

Date of Response: 11/2/15
Respondent: William J. Clark

REQUEST:

Ref. Staff DR 1-11. For each of the three anchor customers, please identify what customer class they would qualify as and list of the top 10 customer accounts (annual usage) at a single location (non-aggregated) with corresponding tariff rates for those 10 customers. Please indicate where the three potential anchor customers would be in relation to those current EnergyNorth customers that most compares with the anticipated requirements.

RESPONSE:

Pursuant to Puc 203.08, the Company has a good faith basis for seeking confidential treatment of the attachment to this response, Confidential Attachment Staff 2-7. The Company will submit a motion for confidential treatment regarding this attachment at or before the commencement of the final hearing in this proceeding. Because Confidential Attachment Staff 2-7 in its entirety includes confidential information, a redacted version of this attachment will not be provided by the Company.

Please see Confidential Attachment Staff 2-7 for the top 10 customers of EnergyNorth, their annual consumption and rate classification, as well as the three potential anchor customers' annual usage, projected rate classification and where they would rank on the existing EnergyNorth system (highlighted).

As requested, this list is single meter, non-aggregated load.

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities

DG 15-289

Petition for Approval of a Gas Franchise for Lebanon and Hanover, New Hampshire

Staff Data Requests - Set 2

Date Request Received: 10/21/15
Request No. Staff 2-9

Date of Response: 11/2/15
Respondent: William J. Clark

REQUEST:

Ref. Staff DR 1-14. Please provide the property assessment performed by the independent broker on behalf of EnergyNorth. What is the assessed value on the property tax?

RESPONSE:

Pursuant to Puc 203.08, the Company has a good faith basis for seeking confidential treatment of one of the attachments to this response, Confidential Attachment Staff 2-9.1. The Company will submit a motion for confidential treatment regarding this attachment at or before the commencement of the final hearing in this proceeding. Because Confidential Attachment Staff 2-9.1 in its entirety includes confidential information, a redacted version of this attachment will not be provided by the Company.

Please see Confidential Attachment Staff 2-9.1 for independent broker analysis on property.

Please see Attachment Staff 2-9.2 for assessed value on the property tax.

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities

DG 15-289

Petition for Approval of a Gas Franchise for Lebanon and Hanover, New Hampshire

Staff Data Requests - Set 2

Date Request Received: 10/21/15
Request No. Staff 2-11

Date of Response: 11/2/15
Respondent: William J. Clark

REQUEST:

Ref. Staff DR 1-15. Please provide a detailed description and cost estimates to provide temporary service and the expected net margins from those customers while providing temporary service, when using (a) LNG and (b) CNG.

RESPONSE:

Liberty would only provide temporary service to those customers that have signed an SLA and meet the current Line Extension Policy of the EnergyNorth tariff, but may be a construction season away from receiving distribution piping. Any temporary equipment will also be added to the calculations of the Line Extension Policy.

Net margins will depend on construction estimates, as well as throughput and rate classifications of the customer base. However, as stated above, these temporary customers will be required to meet the requirements of the current Line Extension Policy.

Liberty will evaluate leasing and purchasing LNG/CNG equipment to serve temporary customers. Whichever option is most economical will be chosen, with those costs added to the Line Extension Policy calculations.

For costs to acquire a temporary LNG system please see the response to Staff 1-15.

For costs to acquire a CNG decompression skid for temporary service please see Confidential Attachment Staff 2-11. Pursuant to Puc 203.08, the Company has a good faith basis for seeking confidential treatment of this attachment. The Company will submit a motion for confidential treatment regarding this attachment at or before the commencement of the final hearing in this proceeding. Because Confidential Attachment Staff 2-11 in its entirety includes confidential information, a redacted version of this attachment will not be provided by the Company.

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities

DG 15-289

Petition for Approval of a Gas Franchise for Lebanon and Hanover, New Hampshire

Staff Data Requests - Set 2

Date Request Received: 10/21/15
Request No. Staff 2-14

Date of Response: 11/2/15
Respondent: William J. Clark

REQUEST:

Ref Staff 1-3. "The advantages to this site are: appropriately zoned for heavy industrial trucking (adjacent businesses include the Lebanon Landfill, Pike Industries, a cement company, and a wholesale club all of which include heavy trucking), positive initial feedback from city officials and proximity to the landfill which could present an opportunity to utilize renewable gas."

- a. Please provide a description of how the renewable gas would be comingled with the LNG/or CNG.
- b. Please provide an estimate of what that additional modifications and cost of such modifications would be needed to maintain a gas quality that could be used by residential, commercial or industrial customers without experiencing negative impacts to customer owned gas burning equipment.
- c. Please provide Liberty's experience with introducing renewable or landfill gas into its existing pipeline systems in New Hampshire and if any customers are receiving such renewable.
- d. Please provide copies of any studies that Liberty is aware of describing the capability and potential supply capacity of Lebanon landfill.

RESPONSE:

Pursuant to Puc 203.08, the Company has a good faith basis for seeking confidential treatment of an attachment to this response, Attachment Staff 2-14. The Company will submit a motion for confidential treatment regarding this attachment at or before the commencement of the final hearing in this proceeding. Because Confidential Attachment Staff 2-14 in its entirety includes confidential information, a redacted version of this attachment will not be provided by the Company.

- a. Renewable gas is currently being collected and flared via a system of underground piping. The landfill collection will be occurring in both the capped and uncapped areas of the landfill. After collection, the landfill gas would be purified by removing the carbon dioxide and contaminants before being brought to the adjacent Liberty storage site by an underground pipe.

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities

DG 15-289

Petition for Approval of a Gas Franchise for Lebanon and Hanover, New Hampshire

Staff Data Requests - Set 3

Date Request Received: 12/7/15
Request No. Staff 3-1

Date of Response: 12/17/15
Respondent: William J. Clark

REQUEST:

Please list the 10 potential customers with the greatest annual load usage and for each, the projected annual usage, design day use, current fuel use, distance from the plant, customer class, a summary of discussions/negotiations between the Company and potential customer. For customers that the Company expects to serve under a special contract, please explain why tariff rates should not apply.

RESPONSE:

Pursuant to Puc 203.08, the Company has a good faith basis for seeking confidential treatment of the attachment to this response, Confidential Attachment Staff 3-1. The Company will submit a motion for confidential treatment at or before the commencement of the final hearing in this proceeding. Because Confidential Attachment Staff 3-1 in its entirety includes confidential information, a redacted version of this attachment will not be provided by the Company.

Please see Confidential Attachment Staff 3-1 for Customer list.

Design Day usage has not been calculated at this time.

Special contracts could be required under any of the following scenarios:

- Service to the customer may require Liberty to perform plant modifications or additions. Under such circumstances, Liberty would bill the customer an amount in excess of standard tariff rates to recover the additional investment.
- Liberty may require a "take-or-pay" provision for a minimum amount of consumption in order to recover its investment.
- If a customer has an alternate fuel source, they may not require a 7-day storage minimum, thus resulting in significant savings to Liberty. Since Liberty is required to maintain a minimum 7-day storage, a special contract would be required indicating that the minimum storage amount is not applicable to the customer and that gas service is not firm.

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities

DG 15-289

Petition for Approval of a Gas Franchise for Lebanon and Hanover, New Hampshire

Staff Data Requests - Set 3

Date Request Received: 12/7/15
Request No. Staff 3-3

Date of Response: 12/17/15
Respondent: William J. Clark

REQUEST:

What is the annual Dth (ADTH) projected sales necessary for the Company to go forward with the project (order equipment and commence construction)? For each of the first five years, please provide projected ADTH sales, net income and rate of return. For the utility, what is the anticipated breakeven point in ADTH sales and in what year does the Company expect to reach the breakeven point? Please provide supporting schedules in both hard copy and electronic (Microsoft Excel) formats, with all data and formulas intact.

RESPONSE:

Pursuant to Puc 203.08, the Company has a good faith basis for seeking confidential treatment of the consumption information in this response. The Company will submit a motion for confidential treatment regarding this information at or before the commencement of the final hearing in this proceeding.

Liberty has not calculated a minimum ADTH to move forward with the project. As stated previously, Liberty believes there is ample support without all anchor customers signing contracts at initiation. However, Liberty feels there is approximately [REDACTED] ADTH from 4 customers within 5 miles of the Liberty facility:

[REDACTED]

To serve these customers with distribution piping only would be approximately \$2.25 million direct cost. Although one of these customers would be expected to sign a special contract, it is anticipated that yearly GPM from these 4 customers would be \$407,000. Based on Liberty's existing Line Extension Policy of utilizing six years of GPM toward direct costs this would make the project revenue justified. As other customers connect to this five miles of main, individual estimates will be conducted for commercial customers to determine if a CIAC is required.

Liberty intends to work with these potential customers before construction begins. However, if other customers, in aggregate, within this area sign Service Line Agreements totaling a single anchor customer GPM, these customers may be substituted.

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities

DG 15-289

Petition for Approval of a Gas Franchise for Lebanon and Hanover, New Hampshire

Staff Data Requests - Set 3

Date Request Received: 12/7/15
Request No. Staff 3-4

Date of Response: 12/17/15
Respondent: William J. Clark

REQUEST:

Ref. Staff DR 2-2.1 p. 11. Please describe the potential to utilize landfill gas and the investment and timing necessary to realized that potential, as well as operational challenges of using landfill gas and how Liberty would address those challenges. Please provide the expected ADTH of landfill gas over the expected life of the project. Using the same format as Attachment Staff 2-2.1 p. 9, please compare the heating fuel values of landfill gas, LNG and CNG. Please provide supporting schedules in both hard copy and electronic (Microsoft Excel) formats, with all data and formulas intact.

RESPONSE:

Pursuant to Puc 203.08, the Company has a good faith basis for seeking confidential treatment of information contained in this response. The Company will submit a motion for confidential treatment regarding this information at or before the commencement of the final hearing in this proceeding.

Discussions with City personnel to utilize landfill gas are ongoing. High level estimates for required investments have been given from Liberty's outside engineering firm. More detailed estimates will be completed in the near future. As stated previously, the BTU content of this landfill gas is expected to be approximately [REDACTED]. Liberty will be blending this gas with CNG and LNG, so as to not impact customer equipment at the burner tip.

Please see Response Staff 2-14 for 15 year projection of annual ADTH.

At this time, Liberty cannot calculate the heating fuel values and pricing in the same format as the chart on Attachment Staff 2.1 p.9, since the cost per ADTH has not been finalized with the City. [REDACTED]

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities

DG 15-289

Petition for Approval of a Gas Franchise for Lebanon and Hanover, New Hampshire

Staff Data Requests - Set 3

Date Request Received: 12/7/15
Request No. Staff 3-6

Date of Response: 12/17/15
Respondent: William J. Clark

REQUEST:

Ref. Staff DR 2-3 & 4. Please provide supporting schedules in electronic (Microsoft Excel) formats, with all data and formulas intact.

RESPONSE:

Pursuant to Puc 203.08, the Company has a good faith basis for seeking confidential treatment of the attachment to this response, Confidential Attachment Staff 3-6.xlsx. The Company will submit a motion for confidential treatment at or before the commencement of the final hearing in this proceeding. Because Confidential Attachment Staff 3-6.xlsx in its entirety includes confidential information, a redacted version of this attachment will not be provided by the Company.

Please see Confidential Attachment Staff 3-6.xlsx.

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities

DG 15-289

Petition for Approval of a Gas Franchise for Lebanon and Hanover, New Hampshire

Ariel Arwen's Data Requests - Set 3

Date Request Received: 12/7/15
Request No. Arwen 3-2

Date of Response: 12/15/15
Respondent: William J. Clark

REQUEST:

Your response to Arwen 25 does not answer the question I asked. Your response makes reference to a break even point measured in terms of energy units. I would like to know the range of time which Liberty projects will be required for this expansion of service to yield a positive return on investment. Specifically, using the most favorable reasonable assumptions, please give your best estimate of the earliest year in which a positive return will be reached. Using the least favorable assumptions, please give your best estimate of the latest year in which a positive return will be reached. In response to Arwen 25 and Staff 23, you cite that in response to Staff 11, the breakeven point would occur between 200,000 and 400,000 ADTH, and that those calculations include only the first year estimate of distribution system construction of \$3 million. Please clarify: is 200,00 ADTH the best case scenario, and if so, in which years do you project that to occur; and is 400,000 ADTH the worst case scenario, and if so, in which years do you project that to occur?

RESPONSE:

Pursuant to Puc 203.08, the Company has a good faith basis for seeking confidential treatment of the consumption information in this response. The Company will submit a motion for confidential treatment regarding this information at or before the commencement of the final hearing in this proceeding.

The Company believes the response to Arwen 2-5 was misunderstood. The break-even point for Liberty is based on system throughput, customer connections and capital investment. It is not a function of time. In addition, the higher throughput, in this case 400,000 ADTH, is more favorable than the 200,000 ADTH, provided capital costs are similar.

The figures referenced from Staff 2-3 are incorrect. Staff 2-3 indicates that a break-even point would occur between [REDACTED] and [REDACTED] ADTH and includes \$6 million for distribution system construction. The \$6 million is in addition to land acquisition costs, as well as LNG/CNG facility construction costs.