

July 14, 2019

Debra Howland Executive Director and Secretary

New Hampshire Public Utilities Commission

21 S. Fruit Street, Suite 10

Concord New Hampshire 03301

RE: DG 17-198 Granite Bridge Pipeline and LNG liquefaction and storage facility

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

DG 17-152 Least Cost Integrated Resource Plan

Dear Ms. Howland,

Thank you for accepting my comments on Liberty's supplemental filing of June 28, 2019.

Part I Environmental Impact Analysis

I've read through the environmental impact analysis report written by Paul Hibbard of Analysis Group, Inc. and think that it is not germane to the Granite Bridge project. For one thing, most of the reported benefits result from converting up to 37,000 homes heating with oil to fracked gas service over the course of 21 years, yet none of the filings associated with the Granite Bridge project include the costs that would be incurred from building out the metering stations and distribution lines to support those new customers. We could estimate this cost based on the value of existing infrastructure, but that still wouldn't include the direct costs to customers for buying and installing the necessary equipment to make the switch.

I find it interesting that when Liberty is asked why they don't consider offering targeted weatherization services to relieve demand along congested distribution routes, they note that they have no power to convince people to weatherize and therefore can't reliably calculate the benefits. Yet, they are willing to calculate the environmental benefits of homeowners switching from oil to fracked gas (mostly at their own expense) without having any ability to compel such conversions either.

Granite Bridge would do nothing to reduce the emissions or environmental impact of existing customers, so only new customers would contribute to lowering Green House Gases (GHG). The cost of the Granite Bridge project alone, without the required metering station and distribution line expansion, amounts to nearly \$12,000 for each of the 37,000 customers who would be added.

If gas produces 27% less CO2 emissions than heating with oil, what would the statewide impact be if 37,000 homes converted from oil to fracked gas? There are roughly 700,000 households in NH, so 37,000 conversions would be approximately 5.3% of the total. That means the statewide impact would reduce GHGs $.053 * .27 = 1.4\%$. Over a 20-year period, this is clearly not a sufficiently high percentage to combat the climate crisis.

Mr. Hibbard might have compared the two options (Granite Bridge versus Concord Lateral) with the benefit of weatherizing 74,000 (at \$6000 each) existing customer homes to a 20% reduction in fuel use resulting in a 2.1% statewide reduction in GHGs. While this still wouldn't be enough in the long term to combat our climate crisis, it would free up 10% to 20% of existing supply to meet customer needs and return immediate, demonstrable savings to customers.

Given that the Intergovernmental Panel on Climate Change (IPCC) reports that we have about 10 years to transition away from fossil fuels, Liberty's LCIRP must include clear goals for decarbonizing completely by 2050 or sooner. Utilities in other states are studying district hot water heating systems using utility

rights of way and ground source heat pump technology. It is change on this scale that will be required to meet the urgency of our situation and allow utilities to survive.

Part II Environmental Permitting for Granite Bridge

I was surprised to read nothing at all in the report about the Liquefied Natural Gas (LNG) processing facility and storage tank in Epping. Sherrie Trefry of VHB notes that there will be no need for an air quality permit for the Granite Bridge pipeline since there is no associated compressor station. The LNG processing facility is never mentioned.

My understanding of the 2 Billion Cubic Foot LNG processing plant is that it will decompress, clean, and liquefy for storage and then vaporize and compress the released gas at the 750 PSI pressure of the pipeline. These operations are electrically powered by a gas fired generation source. Is it possible that there will be no air permitting required for the LNG processing plant and associated power generation? What about measuring the impact of “boil off” of LNG on air quality while in storage?

Part III Energy Efficiency Strategy and Accomplishments

In the 2014 NH State Energy Strategy it was estimated that full investment in energy efficiency and weatherization could cost effectively reduce energy use by 20% overall. As shown in the chart below, Liberty Utilities has an energy efficiency strategy that reduces usage by 0.73% annually. At that rate, it would take almost 28 years to achieve a 20% reduction in energy usage.

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Utility	2018 Natural Gas Annual Savings Target (MMBtus)	2018 Natural Gas Sales (MMBtus)	Ratio of Savings Target to Sales
National Grid (MA)	1,725,114 ⁵	155,603,750 ⁶	1.11%
Eversource (MA)	663,225 ⁷	72,623,600 ⁸	0.91%
Liberty Utilities (NH)	130,072 ⁹	17,868,268 ¹⁰	0.73%
Columbia Gas (MA)	420,827 ¹¹	59,822,202 ¹²	0.70%
Connecticut Natural Gas (CT)	230,641 ¹³	37,995,000	0.61%
Berkshire Gas Company (MA)	53,815 ¹⁴	10,545,000 ¹⁵	0.51%
Southern Connecticut Gas (CT)	175,428 ¹⁶	36,251,000 ¹⁵	0.48%
Unitil (NH)	33,544 ⁹	8,621,418 ¹⁷	0.39%

Clearly, even a 20% reduction in Liberty customer usage of fossil fuels by 2037 will not be enough to meet New Hampshire’s established Climate Action Plan goal of reducing GHG emissions by 80% by 2050. https://www.des.nh.gov/organization/divisions/air/tsb/tps/climate/action_plan/documents/nhcap_xsum.pdf

There must be a simultaneous effort to transition Liberty’s services from fossil fuel generated BTUs to renewable energy generated BTUs.

Sincerely,
Patricia A Martin
17 Farrar Road
Rindge, NH 03461