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New Hampshire Public Utilities Commission
21 S Fruit St
Concord, NH 03301

Re: Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Request for Change in Distribution Rates; Case No. DG 30-067

Comments of the Propane Gas Association of New England

On behalf of the Propane Gas Association of New England (PGANE), which represents propane marketers, suppliers, distributors, and equipment manufacturers across the Granite State, we appreciate the opportunity to provide comment on the docket submitted by Liberty EnergyNorth (LEN).

Our members provide clean-burning and critical energy to residential, commercial, and industrial customers in the state. The State of New Hampshire boasts a robust propane market, having 263,000 retail accounts and 86,000 primary home heating customers.[1] The application submitted by LEN is requesting approval from the New Hampshire Public Utilities Commission (PUC) for changes to LEN's permanent rates, as well as a temporary increase in distribution revenues and approval for three step adjustments to recover capital investments.[2]

Within this request, LEN is proposing to replace a propane-air facility that provides service to Liberty EnergyNorth's Keene Division, including recovery of associated costs for such a replacement. The Company intends to replace the propane-air facility with a natural gas facility that will run on compressed natural gas (CNG) and liquified natural gas (LNG). Liberty EnergyNorth commissioned a report conducted by Sanborn Head, as well as GHD, a global engineering consultant. Both reports examined the financial and environmental feasibility and impacts of such a transition, and both reports ultimately recommended a transition to natural gas.[3]

In testimony provided by Liberty EnergyNorth, background on the propane-air facility was provided. It is stated that the facility dates back to the late 1800s,[4] and that due to its age it has been rendered obsolete. We presume that the propane-air facility itself does not date to the late 1800s, as propane was not commercially available in the United States until 1912.[5] Rather, we assume that other infrastructure components of the Keene facility may date back to the aforementioned time period. Regardless, we would urge the Commission to seek further clarity regarding the dating of this facility.

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[1] *Propane's Impact on Economy: 2018 New Hampshire,* National Propane Gas Association, https://www.npga.org/wp-content/uploads/2020/06/NEW-HAMPSHIRE__Propane-1-Pager_2020.pdf
[2] *Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Petition for Permanent and Temporary Rates*, State of New Hampshire Before the Public Utilities Commission, https://www.puc.nh.gov/Regulatory/Docketbk/2023/23-067/MOTIONS-OBJECTIONS/23-067_2023-07-27_ENGI_PETITION-PERM-TEMP-RATES.PDF
[3] *Direct Testimony of Jacob Drouse, Morgan MacGregor, and Heather M. Tebbetts*, State of New Hampshire Before the Public Utilities Commission, https://www.puc.nh.gov/Regulatory/Docketbk/2023/23-067/MOTIONS-OBJECTIONS/23-067_2023-07-27_ENGI_TESTIMONY-DROUSE-MACGREGOR-TEBBETTS.PDF
[4] *Id.*
[5] *History of Propane*, The National Energy Education Development Project, (2018), https://www.need.org/Files/curriculum/infobook/PropaneI.pdf

We would also encourage the Commission to take additional aspects into consideration when considering approval of this docket and the various initiatives therein. First, as previously mentioned, Liberty EnergyNorth is requesting approval to recover all associated costs with the conversion of the propane-air facility. It is incumbent upon the Commission to keep sound ratemaking principles in mind when considering this request.

If the Commission approves for LEN to utilize ratepayer dollars to replace their facility, then we would encourage the Commission to fully examine the economic feasibility of forgoing this facility and building a new natural gas facility. It may make practical sense for LEN to simply conduct a full retrofit of their propane-air facility with current technology and continue to utilize LP gas instead of decommissioning the facility and pouring capital into an entirely new facility.

By the Company's own admission in their testimony, the current CNG system which was brought online in 2016/2017 is not sufficient to serve all of Keene's 1,250 customers. The current CNG system serves only 22 customers. In order for the proposed new system to adequately serve all of Keene's customers, a new facility will need to be constructed that will rely on deliveries and storage of LNG, with CNG to supplement.[6]

The benefits of propane-air over LNG are significantly lower capital investments, ease of fuel storage and lower maintenance costs.[7] The Company acknowledges in their testimony that the current propane-air facility consists of components of different vintages through decades of upgrades. Fully retrofitting the current facility with new propane-air technology would avoid the cost, including infrastructure needs, of developing an entirely new natural gas facility.

Second, New England, New Hampshire included, has had historical difficulties with natural gas distribution and transmission. The capacity of the region's natural gas infrastructure is not always adequate to deliver all of the gas needed, especially during the winter. The natural gas pipeline system in New England is relatively small, and its access to the rest of the North American Pipeline network is limited.[8] The risk of inadequate transmission would be especially felt during winter peaking hours, as New Hampshire is a cold-climate state with long periods of subfreezing temperatures. Being a delivered fuel, propane is readily available during all seasons and bulk storage on-site prevents the risk of running low on supply due to pipeline issues.

Also, propane-air is essentially synthetic natural gas that is formed by mixing vaporized propane with air. The resulting mixture can be used as a direct replacement for natural gas in combustion applications. While it is understandable that LEN wishes to improve service to Keene customers, the ratepayer must be kept at the forefront of all decisions as it is ultimately their dollars that will be utilized for this undertaking. The Keene propane-air facility provides an energy source that current customers can utilize, and its utilization of LP gas allows the facility to take aggregate pressure off of the transmission pipeline system during high winter demand.

Even large natural gas production, transportation and storage options cannot support 100% of peak demand in every location. Propane-air systems allow natural gas users the ability to have live back-up whenever required. Because propane air is a synthetic natural gas, it does not require additional gas trains, piping, regulators or special fuel delivery systems. The propane-air mixture is simply connected to the natural gas piping just after the metering station but before entering the building(s). These systems can be placed on live back-up so that they take over upon falling pressure, or can be turned on manually. It essentially serves as a "back-up generator" for natural gas customers.

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[6] *Supra 3*

[7] *Preliminary Assessment of a Propane-Air Backup System for the Anchorage, Alaska, Area*, Infrastructure Assurance Center Decision and Information Sciences Division, Argonne National Laboratory, (February 2012), https://publications.anl.gov/anlpubs/2012/07/73792.pdf

[8] *New England Natural Gas and Electricity Prices Increase on Supply Constraints, High Demand*, Energy Information Administration, (February 3, 2022), https://www.eia.gov/todayinenergy/detail.php?id=51158

Lastly, we would encourage the Commission to take into account renewable propane and its various applications. Renewable propane can be made from a variety of renewable feedstocks. The most common form of renewable propane today is a byproduct of renewable diesel and sustainable aviation fuel made primarily from plant and vegetable oils, animal fats, or used cooking oil.[9] In its final form, renewable propane retains the same molecular structure as conventional propane - C_3H_8. Given this, renewable propane can be used for all the same applications. At the point of combustion, renewable propane is carbon neutral, meaning no new carbon is added to the atmosphere when renewable propane is burned.[10]

In testimony provided by LEN, the Company emphasized that an additional reasoning for switching to natural gas is the possibility of co-blending renewable natural gas which would allow for the longer-term blending of hydrogen from renewables such as solar.[11] When renewable propane is purchased and utilized for a propane-air facility, it is ready to use and performs the same as conventional propane, however it has a lower carbon content. In fact, renewable propane currently being consumed in California has a Carbon intensity score as low as 20.5.[12]

We understand that LEN wishes to follow the most direct path towards long-term environmental goals, and believe that the utilization of renewable propane at a retrofitted propane-air facility would be the most direct, and economical path. Although it is clear that the current Keene facility is aged and an alternative solution is necessary, propane-air still stands as the most viable option. The World LP Gas Association estimates that by 2050, renewable propane could meet half the world's demand for propane.[13] Given this, propane-air technology not only remains a viable option, but with the inclusion of renewable propane it is an even more environmentally friendly option than conventional natural gas.

In closing, we would encourage the Commission to closely examine the proposed initiatives in this docket. The financial cost of decommissioning the Keene propane-air facility and constructing a new natural gas facility would rest on the backs of ratepayers. It is essential that the most economically and environmentally viable option be pursued on their behalf. Given the unique ability for propane-air to act as a reliable back-up for natural gas customers during times of natural gas transmission uncertainty, and the availability of renewable propane as an extremely environmentally friendly option, fully upgrading the existing facility to continue to operate on propane-air would be a prudent decision for both LEN and the 1,250 customers that the Keene facility serves.

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[9] *Renewable Propane*, Alternative Fuels Data Center, U.S. Department of Energy, https://afdc.energy.gov/fuels/propane_renewable.html
[10] *The Path to Zero: Propane's Environmental Fact Sheet,* Propane Education and Research Council, https://www.npga.org/wp-content/uploads/2020/11/PERC-Enviroment-FactSheet6-02-20.pdf
[11] *Supra 3*
[12] *Supra 8*
[13] *Global rLPG Pathways to 2050: A Scenario of Future Supply*, World LP Gas Association, https://www.wlpga.org/wp-content/uploads/2022/06/Global_rLPG_Pathways_to_2050_FINAL-1.pdf

Thank you again for the opportunity to provide comments.

Respectfully submitted,

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