September 16, 2016

Ms. Debra Howland Executive Director, New Hampshire Public Utilities Commission 21 South fruit Street, Suite 10 Concord, New Hampshire 03301-2429

Docket: DG16-770 - Joint Petition for Approval of an Asset Purchase Agreement Liberty Utilities (Energy North Natural Gas) Corp. d/b/a Liberty Utilities and Concord Steam Corporation

Request: Stop Liberty Utilities from buying Concord Steam for Fracked Gas Pipeline Expansion

Dear Director Howland,

Over the past few years, New Hampshire has been turned upside down as residents have been pushing back against Northern Pass and the NED pipeline. Granite Staters work hard and like all Americans, look forward to their down time with friends and family, enjoying outdoor recreational activities and just relaxing. That much-needed time has been significantly cut as we write letters, petitions, letters to editors, FERC comments, social media posts and informational events, go to meetings, testify at FERC hearings and talk to the press. We go to fairs and festivals throughout the state, not to enjoy them, but to educate others, raising awareness. We've spent money on unsightly signs against the projects that litter our roadsides, never letting us forget for a moment the threat that looms before us.

Communities all over New Hampshire have said a resounding no to energy projects that will negatively impact health, safety, air, water, farms, food, the magnificent bucolic landscapes and sweeping mountain vistas we are so well known for.

Northern New Hampshire's "Northern Pass" (NP) project would flood out more precious forested woodlands that trap carbon. No environmental organization has endorsed the NP because it is not considered a carbon-reducing project. There is no need for the project in New Hampshire and no fossil fuel plants are slated to be closed as a result of NP. The energy is slated for export to southern states.

Southern New Hampshire's "Northeast Energy Direct" (NED) pipeline was also an export project, one that would use the Granite State as a carbon corridor, transporting toxic fracked gas from the Pennsylvania Marcellus Shale fields to Canada.

More centrally located, New Hampshire's Mount Sunapee has also received strong opposition to the expansion of the State Park ski areas that already have declining attendance and decreased ski days due to climate change and "no-snow winters".

All of these projects are overwhelmingly unpopular and have received strong public opposition. Together, they have raised NH's "Energy IQ" and climate change awareness. We have collectively said we will not allow projects to take our land, our homes and history, our health, safety and future. These two projects have provided the vehicle for increased support of homegrown clean energy more than any outreach could provide. Why then, are we still fighting to be heard?

New Hampshire's Sierra Club, NextGen, 350NH, 350 Action, Environment NH, Society for the Protection of NH Forests, Moms Clean Air Force, ECHO Action and countless national organizations have warned of the threats posed by the continued use of fossil fuels.

Rights and Democracy NH, an organization whose mission is for political justice, states, "Climate change represents the greatest threat to the future of our communities in New Hampshire and around the globe. Unless we act now and act with audacity, this crisis will continue to devastate ecological systems, vulnerable human and animal populations, and our very means for survival on this planet. We know from our own experience from the impacts of lrene, that the hardest hit communities from extreme weather events are ones which are already struggling because of the economic crisis and extreme inequality." This is a part of their campaign, along with other New England organizations, for "Jobs, Justice and Climate".

New England's maple trees, moose, shrimp and lobster are in serious decline. Right whales have stopped visiting some northern waters because of reduced copepods that they feed on. Native species are being replaced by invaders from the southern regions.

The National Wildlife Federation website says, "The New Hampshire moose population has plummeted by more than 40 percent in the last decade from over 7,500 moose to just 4,000 today, and biologists attribute some of this decline to increasing parasite loads influenced by shorter winters caused by climate change."

Barry Rock, interviewed for a December 2015 article by National Geographic, "Global warming pushes maple trees, syrup to the brink", said that "there is a "direct correlation" between sweetness reduction and temperature rise since 1970. "Because of the lower sugar content, more sap is needed to bring the maple syrup to its required 66.9 percent sugar content in the finished product. So while it used to take 25 gallons of sap to make a gallon of pure maple syrup, it now takes 50." Their brilliant red and orange autumn leaf displays are also in decline.

According to New Hampshire's Department of Environmental Services, severe drought, such as we are currently experiencing, is one of the many impacts of climate change that we are already experiencing. A select few of the other potential impacts are:

• Loss of 10 - 20 percent of ski season days, representing a loss of \$42 million to \$84 million in direct and indirect spending in New Hampshire.

• Widespread tree mortality, including spruce and others; decreases in vegetation density of 25 - 75 percent; extensive wildfires; large increases in pest and pathogen outbreaks; and a lag in the establishment of new forests for several decades.

• Potential large-scale die-offs of sugar maple, on average a \$3 - \$3.5 million dollar industry.

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- Sea level rise of 12 20 inches, causing large scale alteration of Great Bay, reduction of coastal estuaries and flooding of rivers, as well as potentially large revenue losses from coastal tourism, a \$484 million generator for New Hampshire.
- Huge infrastructure investments to erect dikes and dredge channels to "stem the tide."

• Dulling and browning of foliage season due to tree die-offs, species substitution, and "climate stressed" unhealthy trees. New Hampshire foliage travelers on average spend a total of \$292 million annually.

• Loss of cold water fishing: 50 - 100 percent eradication of rainbow, brook, and brown trout fishing, a \$150 million New Hampshire industry.

With all of these things already negatively impacting industries important to New Hampshire including tourism, and so many environmental organizations and citizens pleading for New Hampshire to surge forward with readily available and increasingly popular renewable energy, you would think our legislators and utilities would be getting a climate clue. Not so.

Liberty Utilities thinks their gas supply will be sufficient through 2017/18. We're half way through 2016. If we allow them the 1% expansion they want, that opens the door to more and more gas expansion. That is unacceptable and fossil fuel opponents are not going to sit idly by and let that happen.

Acceptance of any expansion of fossil fuel use is in direct opposition to the needs of our state, which is not nearly strong enough in increasing energy efficiency, reducing fossil fuel dependence and emissions, increasing renewable energy and incentives for residential and commercial solar projects.

The greenhouse gas (GHG) methane (CH4) is a more potent gas in our atmosphere than carbon (CO2) in terms of trapping heat. Reducing carbon is the main focus of the Regional Greenhouse Gas Initiative (RGGI). We are lobbying to include methane as another critical GHG that should be integrated in the RGGI goals. There is a limit to how much the carbon sinks (forests, the ocean, soil) can absorb and offset before we reach a tipping point, the point of no return.

The Daily Catch article of September 8, 2016 entitled, "Oceans hit dangerous global warming tipping point, can't protect us anymore" says it all.

"Since 1970, global waters have been a "powerful ally" against global warming, absorbing 93 percent of the carbon dioxide released by human activities.

"Without this oceanic buffer, global temperature rises would have gone much, much speedier..."

To put it bluntly, if the oceans weren't there to protect us, our lower atmosphere would have already heated up by 36 degrees Celsius."

As a Granite Stater against fracked gas, I will not go quietly away and be complicit in the destruction of our state, nation and planet. That would be as irresponsible as the toxic practice of fracking and expanding fossil fuel pipelines.

As a science teacher, environmental and climate educator, advocate for clean energy and a citizen of this state, I ask you to comply with the outcry of the people of our state. Stop advancing projects that will lock us into a fossil fuel future. Do not proceed in selling Concord Steam and allowing it to be converted into a fracked gas factory.

The people of New Hampshire, their children, and the wildlife here deserve to be protected and pristine. To do otherwise would not only be neglectful, but cause deliberate and alarming damage that would be irreversible. I ask that you make the moral and responsible choice and stop any plans to expand gas in our state.

I was part of a team that met with Governor Hassan's staff to encourage her to support NH offshore wind, which could provide up to 50% of our energy needs. We need to be open to the exciting new trends and opportunities before us and move away from outdated thinking and practices.

Please take the time to thoughtfully choose a renewable option. Allow Green City Power and other companies to offer bids on clean energy that would make New Hampshire's state capital a point of pride, progress and prestige.

With sincere dedication to climate action,

Ctephani Allen

Stephanie A. Scherr, MS ECHOaction.org