

Dear Secretary Burgess:

I am a Board Member of the NY Geothermal Energy Organization, a NYS non-profit entity which represents the Geothermal industry in the State. New York has made the commitment to electrify the heating sector in order to reduce its greenhouse gas emissions, and geothermal heat pumps are one of the cornerstones in that energy shift.

I am also a mechanical engineer and President of Aztech Geothermal located in Ballston Spa. My company has designed, installed, maintains and services over 450 heat pump systems. The vast majority of our installations are ground source heat pump (GSHP) systems with our service territory focused on the Capital Region, including the communities along the proposed E37 pipeline.

In my experience, NY-GEO and Aztech Geothermal have a good working relationship with National Grid. We continue an active dialog regarding topics such as the Beneficial Electrification Rate Design, the development of heat pump rebate programs, the potential of utility ground loop ownership, quantifying summer peak reductions, and Non-Pipeline Alternatives.

I would like to state for the record that electric heat pumps can, and do offer a viable alternative to fossil fuel heating while providing air conditioning with much lower peak demand (GSHPs). We have hundreds of successful projects in the area, with the last 150 systems carefully monitored, and performance data logged for verification. At the present volumes and energy prices, an air source heat pump (ASHP) or GSHP are affordable and reliable. Affordability will only improve as heat pumps become the standard for space conditioning.

Sometimes there is a concern that large commercial and industrial natural gas users are negatively impacted in gas constrained areas. As more buildings rely on electric heat pumps for space conditioning, the large commercial and industrial natural gas customers could benefit from the reduced demand for gas for space heating, making more of the existing gas capacity available for their operations - especially during very cold periods. In addition, there are now available high capacity electric heat pumps from companies like MAYEKAWA that produce high temperatures generally associated with boilers (e.g., 179 F) [see attached literature] and the company is in the late stages of testing electric heat pumps capable of producing steam.

I would further submit that the vast majority of existing HVAC installation and service companies (and the tradespeople who work for them) are capable of installing and servicing heat pumps, which are just a variation of air conditioning technology and equipment. A significant change to mechanical systems in buildings will be accompanied by job creation for these tradespeople. The development of thermal utilities, like networks of geothermal ground loops, utilizes the same basic materials and installations techniques as those used in natural gas pipeline construction. Job creation is important. Workforce development, with associated training will be important elements in any alternatives to gas expansion.

Of course reductions in pipeline expansions do present challenges, as outlined by many of the other comments received in this matter. Even relatively small changes in the price of energy can cause significant disruptions to certain populations. These concerns should be taken seriously and if the E37 pipeline project is not approved, we must all work to insure alternatives are reliable and affordable. The good news is, we have a strong start already.

Respectfully submitted,

John Ciovacco  
NY-GEO Board Member

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