

Massachusetts Department of Public Utilities
1 South Station, 5th Floor
Boston, MA 02110

May 24, 2022

As submitted by email to dpu.efiling@mass.gov and sarah.smegal@mass.gov

To the Commissioners, hearing officer Smegal, and the staff of the Department of Public Utilities:

The Town of Montague is taking this opportunity to comment on previous filings and activity in the Massachusetts Department of Public Utilities (DPU) Docket 20-80, as provided by the stakeholder final comment deadline of June 22, 2022.

Two years ago, the Attorney General of Massachusetts asked the Department to open this docket to require the local distribution companies (LDCs) that supply methane [*aka* “natural gas”] in the Commonwealth to present their 30-year business plans for phasing out the vast majority of their fossil-fuel business. The Attorney General, our state legislators, and the public understand this change is necessary to comply with Massachusetts climate and emissions laws by 2050.

What has instead emerged from DPU 20-80 are joint proposals by the LDCs to prolong and increase our use of and dependence on fossil fuels, by re-branding methane as “bio-methane”, “renewable natural gas”, “synthetic natural gas”; and by mixing modest amounts of these and so-called “green hydrogen” into the types of methane currently delivered to customers.

The misleading labels “Renewable Heating Fuels Portfolio Standard” and “Certified Gas Portfolio Standard” are also being promoted by the industry, in an attempt to slip methane into our Legislature’s meticulously researched and defined Renewable Portfolio Standard (RPS).

This pattern in the proceeding led to a clarification and re-set proposal from Attorney General Maura Healey, submitted to the DPU on May 6, 2022. As the *Boston Globe* reported on May 12:

“Attorney General Maura Healey, who two years ago prompted the state to begin mapping the phaseout of natural gas in Massachusetts, is now asking it to scrap the blueprint emerging from the process, saying it favors gas company profits over a healthy climate.

“ ‘We should be setting the path for an energy system that is equitable, reliable, and affordable — not one that pumps more money into gas pipelines and props up utility shareholders,’ said Healey, who is running for governor.

“In a 106-page document filed with the state Department of Public Utilities late last week,

Healey also said the agency’s decision-making process should be overhauled to prioritize climate goals over the health of utilities, currently one of its functions.” (1)

On behalf of the Town of Montague, the Selectboard and Montague Energy Committee (MEC) submit this comment in appreciation and support of the Attorney General’s filings of May 6. We urge the Department of Public Utilities to proceed as outlined in those documents, according to the parameters that she has laid out for mapping a transition to a just and affordable fossil-free energy supply for the vast majority of uses in the Commonwealth, as state legislation already mandates.

It is undisputed that methane traps at least 80 times as much heat in the atmosphere during the first 20 years after it is emitted than is trapped by the same volume of carbon dioxide. Both are carbon-based fuels (methane = CH₄). And of course, the CH₄ that reaches its destination creates CO₂ as it burns. So any policy or law requiring “carbon-free” energy by definition excludes methane or any methane “blend”, along with excluding CO₂.

The climate impact of methane that leaks or is deliberately vented into the atmosphere in the collection, processing, transport, and distribution of methane fuels does not change, regardless of where the CH₄ came from – just as the climate impact of the CO₂ molecule is the same, regardless of its source.

We note that “renewable natural gas” (*aka* RNG, *aka* “biogas”) added to natural-gas pipelines is typically 96 to 98% methane, according to the U.S. EPA. (2)

Regarding hydrogen: Hydrogen for fuel is produced with an energy-intensive process powered by fossil fuels that contribute to, as opposed to reducing, our climate emissions. Consequently, hydrogen is not a renewable energy source.

We also bring to your attention the direct monetary cost [in addition to climate-driven costs] to consumers and taxpayers of adopting any path that relies on a blended hydrogen-methane infrastructure. An analysis submitted in this docket by economist Dorie Seavey, Ph.D., shows that replacing all of the distribution and supply pipes in the Commonwealth that it will cost at least \$40 billion between now and 2039 to replace all of the distribution and supply pipes in the Commonwealth that are not yet made of material that can withstand the corrosiveness of blended hydrogen-methane fuel.

As Dr. Seavey explained in *Commonwealth Magazine* on April 26, 2022:

“This staggering cost translates into roughly \$23,500 per gas customer—enough to install a cold climate heat pump or solar panels and weatherize the building shell of the customer’s residence or business.” (3)

(1) <https://www.msn.com/en-us/news/us/two-years-after-asking-for-future-of-gas-investigation-healey-asks-state-to-reject-results/ar-AAXbOnw>

(2) <https://www.epa.gov/lmop/renewable-natural-gas>

(3) <https://commonwealthmagazine.org/opinion/spending-billions-fixing-gas-system-makes-no-sense/>

And Dr. Seavey's cost assessment stops before we even reckon with the increased risks of asthma and of explosion that come with the adding highly volatile hydrogen to already-volatile methane for home appliances. We urge the DPU to eliminate the possibility of these risks by ruling out this path for gas utilities in the Commonwealth.

The Town of Montague is a Berkshire Gas ratepayer, as are many of our businesses and residents. When the Town was accepted as an intervenor in DPU docket 16-103, a regularly occurring review of the Berkshire Gas Company's 5-year Forecast & Supply Plan, we presented expert testimony from Synapse Energy Economics that challenged Berkshire's forecasts of demand growth for methane fuel as too high. At that time (March 2017) a major, yet still-novel, prediction of the Synapse consultant was that air-source heat pumps (ASHPs) would be rapidly improved for cold climates, and that the demand for ASHPs would cut into any increase in demand for natural gas – most likely even reducing demand in the near term. (4)

The technical advancement and popularity of ASHPs that we have witnessed in the ensuing 5 years has outstripped the consultant's most optimistic projections. As happened with solar panels across the state, ASHPs are now a familiar sight adjacent or attached to schools, homes, and commercial buildings throughout the Commonwealth.

Under the Mass. Clean Energy Center (CEC)'s incentive programs alone, 3863 households switched to ASHPs for heating & cooling during the initial 21-month cycle (Dec. 2014 through Aug. 2016), with another 20,000+ households making the switch during the next program cycle of 31 months (Sept. 2016 through March 2019). This was a jump from an average 175 new ASHP households a month during round one, to 645/month during round two. (5)

Montague now returns to the DPU as a Massachusetts municipality, urging the Department to perform its mandated functions of guarding the ratepayers' safety, our pocketbooks, and implementing the Commonwealth's climate policies, by directing the gas utilities toward fossil-free, climate-stabilizing business activities and practices. (6)

As detailed by all of the major environmental organizations and dozens of scientists, economists, and engineers who have filed evidence in this docket, the Berkshire Gas Company, and any other LDC that wishes to stay in the energy business going forward, could concentrate their future business in one or more of these needed and growing sectors:

--Design and installation of geothermal heating/cooling technology, especially for multi-facility, *aka* district heating and cooling. These systems may be able to use gas companies'

(4) <https://fileservice.eea.comacloud.net/FileService.Api/file/FileRoom/9188067>, pp.55+ [N/A using Firefox browser.]

(5) Table 13 in <https://fileservice.eea.comacloud.net/FileService.Api/file/FileRoom/9188067>, p.62 [N/A using Firefox browser.], combined with this data at <https://www.masscec.com/blog/2021/09/13/masscec-pilot-showcases-success-whole-home-heat-pumps>: "MassCEC launched the Whole Home Heat Pump pilot shortly after ending our larger Residential Air-Source Heat Pump Program, which had run from November 2014 through March 2019 and supported the installation of air-source heat pumps at over 20,000 homes."

existing underground rights-of-way for hot-water distribution infrastructure. Some utilities in this docket have suggested they will conduct “pilot projects” of these systems; but so far this is a minimal and marginal element in the utilities’ proposals to the DPU, in contrast to their push to re-define methane as emissions-free.

The recent announcements by both the University of Massachusetts at Amherst (one of Berkshire Gas Company’s highest-volume customers) and Smith College that they will transition the vast majority of their heating and cooling to campus-wide networked geothermal systems, starting this summer, will likely trigger an upsurge in market demand and technical innovation in networked geothermal heating/cooling solutions. UMass officials have stated that to lead by example is a key intention for the transition. (7) These changes will also create forward-facing jobs.

--State-of-the-art insulation & ventilation technologies that manage indoor comfort with maximum efficiency while also providing health-supporting air exchange that minimizes the transmission of airborne diseases and molds;

--Design and/or installation of electrified air-source and water-source heat pumps.

Berkshire Gas and its parent company, Avangrid, have the resources to change Berkshire’s business activities to those that contribute to a fossil-fuel-free system of energy provision and management. Avangrid’s net income for the quarter ending March 31, 2022 was nearly half a billion dollars (**\$0.445B**), a **33.23% increase** year-over-year, according to financial reporting site Macrotrends.net. (The site defines net income as “net profit or loss after all revenues, income items, and expenses have been accounted for”.) (8)

After many years of effort by Western Massachusetts legislators, among others, the Legislature mandated that the DPU include emissions reduction to slow climate change in the Department’s core criteria in all of its regulatory and policy functions governing utility companies’ operations. (6)

The DPU appears not to have included this criterion in its 20-80 process so far. The Town of Montague urges the Department to re-start and conduct this Investigation according to the

(6) <https://malegislature.gov/Laws/SessionLaws/Acts/2021/Chapter8>:

SECTION 15. Chapter 25 of the General Laws is hereby amended by inserting after section 1 the following section:-

Section 1A. In discharging its responsibilities under this chapter and chapter 164, the department shall, with respect to itself and the entities it regulates, prioritize safety, security, reliability of service, affordability, equity and reductions in greenhouse gas emissions to meet statewide greenhouse gas emission limits and sublimits established pursuant to chapter 21N.

(7) <https://www.wbur.org/news/2022/04/26/university-massachusetts-amherst-carbon-zero-geothermal-solar-energy>

(8) <https://www.macrotrends.net/stocks/charts/AGR/avangrid/net-income>

frameworks and criteria submitted by the Attorney General and Conservation Law Foundation, which have also been supported by the majority of public comments in the docket to date.

Overall, we urge the DPU, under its emissions-reduction mandate, to use its technical resources and authority to work toward the removal of all forms of oil and gas, as well as wood, from the state and regional electric grid (ISO-NE) and as heating sources.

The Town of Montague is one of Massachusetts first Green Communities, and as such has been consistently committed to increasing energy efficiency and moving toward climate stability by reducing our dependence on fossil fuels and other carbon-emitting sources. Thank you for considering this Green Community's point of view in your deliberations.

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