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May 1, 2023

Commissioner Bonnie Heiple  
Massachusetts Department of Environmental Protection  
100 Cambridge Street, Suite 900  
Boston, MA 02114

Dear Commissioner Heiple,

I am deeply appreciative of your work to develop a Clean Heat Standard (“Standard”) for Massachusetts, an idea which has the potential to meaningfully accelerate our transition to clean forms of heating. Thank you for allowing me and other stakeholders the opportunity to share our thoughts on how the Standard should be designed and implemented. I would like to offer the following comments:

**1. The Standard should not incentivize the blending of hydrogen into the gas distribution system.**

If the Standard includes hydrogen, it should only include so-called green hydrogen, which is made from renewable electricity. Moreover, it should not incentivize the blending of hydrogen of any kind into the gas distribution system. Green hydrogen has appropriate uses that the Standard could incentivize, including in industrial processes where electrification is not feasible, but it does not belong in the pipes that serve our homes and commercial businesses. That is true for several reasons. One, the renewable energy necessary to produce large amounts of green hydrogen would be better used to decarbonize our electric grid. Two, hydrogen can only be blended into the gas system at a level of around 20 percent, and even that would require expensive upgrades to the distribution system. The emissions reductions from such blending would be too limited to justify the costs. Three, hydrogen is explosive and corrosive, so introducing it into the gas distribution system would pose safety concerns. Four, hydrogen has indirect warming effects, so hydrogen leaks from pipelines would exacerbate climate change.

**2. The Standard should not incentivize the blending of biomethane into the gas distribution system.**

The Standard should not incentivize blending biomethane into the gas distribution system. Biomethane, sometimes referred to as renewable natural gas, may have a limited role to play in our transition to clean heating, but we do not have sufficient feedstocks for it to become a major alternative for natural gas. Nor is biomethane an ideal climate solution, given that it can still leak from pipelines and contribute to warming. As with green hydrogen, biomethane is best used in areas where electrification is not feasible. If the Standard does include biomethane, it should only reward uses on the sites where it is produced or uses related to decarbonizing hard-to-abate sectors of the economy.

### **3. The Standard should exclude hybrid conversions to clean heating.**

Some building owners choose to install an air-source heat pump while also maintaining a fossil fuel-powered source of thermal energy. This sort of hybrid conversion raises several concerns. One, it is more difficult to ascertain the climate value of a hybrid conversion because building owners could continue to rely exclusively on their fossil fuel-powered heating source. Two, if hybrid conversions are common, we may find ourselves in a situation where we are paying for both a heat pump-based thermal energy system and a gas system that is in limited use. The costs of maintaining both systems simultaneously would be enormous. Part of the value of transitioning to heat pumps is that it will enable us to strategically decommission portions of the gas system and reduce the costs of maintaining that system. Widespread hybrid conversions would frustrate our ability to achieve that goal.

### **4. The Standard should incentivize geographically targeted conversions to clean heating.**


The Standard should reward investments in zonal electrification projects by allowing such projects to generate additional clean heat credits. Converting an entire street, neighborhood, office park, or campus to networked geothermal or air-source pumps is preferable to a piecemeal, geographically random transition to clean heating, because it enables us to avoid continued investment in the local gas network. A geographically targeted transition is thus essential to our ability to strategically decommission the gas system and prevent costs from spiraling out of control for gas customers who are late to the transition. Zonal conversions are also more cost-effective for electricity ratepayers, because they can be targeted to areas where there is excess local electric capacity.

### **5. The Standard should reward efforts to bring clean heating to low-income communities.**

If it is not done carefully, the transition to clean heating could leave low-income communities behind and raise energy costs for those who can least afford it. I appreciate the emphasis that your discussion document places on equity, and I urge you to implement some mechanism, such as a carveout, that would encourage or require investments in low-income communities. I also urge you to consult with low-income communities as the Standard is developed, and to make equity a key consideration in every element of the program's design.

Thank you again for providing this opportunity to provide feedback and for your consideration of my comments. Please do not hesitate to reach out my office with any questions.

Sincerely,



Cynthia Stone Creem  
State Senator  
Norfolk and Middlesex District