



August 7, 2017

Samantha Meserve
Department of Energy Resources
100 Cambridge Street, Suite 1020
Boston, MA 02114

RE: 225 CMR 16.00; draft regulations to include renewable thermal, fuel cells, and waste-to-energy thermal in the Massachusetts Alternative Portfolio Standard (APS) pursuant to Chapter 251 of the Acts of 2014 and Chapter 188 of the Acts of 2016.

Dear Ms. Meserve:

Thank you for providing the opportunity to comment on the draft language on renewable thermal technologies under the Alternative Portfolio Standard (APS).

The Metropolitan Area Planning Council (MAPC) is the regional planning agency serving 101 cities and towns in the greater Boston region. MAPC has participated in the implementation of the 2008 Global Warming Solutions Act (GWSA) through our seat on the Implementation Advisory Committee (IAC). We also served on the 2014 Thermal Working Group in which inclusion in the APS was first discussed, and have been supportive since that time. MAPC's Clean Energy Department acts as an educational resource for our communities on renewable thermal technologies. In our work, we have observed many of the current barriers to deploying renewable thermal technologies. These often include project economics, the patchwork of policies and incentives, and lack of awareness.

We commend the state's inclusion of renewable thermal in the 2015 update to its Clean Energy and Climate Plan as a critical strategy in our collective efforts to advance the greenhouse gas emissions reductions mandated in the GWSA. The addition of clean heating technologies to the APS will help to institutionalize renewable thermal further as a prioritized measure and improve the economic feasibility of potential projects, particularly those of a larger scale.

MAPC would like to offer a few comments and recommendations on the draft 225 CMR 16.00:

- We encourage DOER to consider crediting the cooling output from heat pumps. Currently, heat pumps will not earn AECs when in cooling mode because they deliver heat energy to the environment, rather than sourcing it from there. Heat pumps represent a highly efficient alternative to window air conditioning units, the use of which will only continue to grow as climate change calls for more indoor cooling capacity. Allowing heat pumps to earn credits during the summertime will encourage their uptake and help to offset the proliferation of emissive and inefficient window A/C units. We believe that eligibility for cooling operations could be limited only to clean heating and cooling technologies, such as small-scale air and ground source heat pumps, so as not to enable conventional A/C units or non-prioritized technologies to generate AECs.



- MAPC strongly supports the additional AECs per MWh allocated to small ground source and air source heat pumps installed in residential buildings with strong HERS index ratings and for those installed in zero-energy non-residential buildings (225 CMR 16.05(1)(a)6.b.ii.). We believe incentivizing energy efficiency measures alongside clean heating and cooling technologies creates greater GHG reduction and cost savings outcomes, and sends the proper signal to both consumers and industry stakeholders.
- MAPC supports incentivizing the full electrification of heating systems through the deployment of renewable thermal systems such as air-source heat pumps. However, we also feel that partial systems may be a necessary transition tool, building awareness and comfort with technology. We urge DOER to lower the percentage heating supply requirements for small air-source heat pumps in new construction and retrofits (225 CMR 16.05(4)(e)), at least initially, to help speed the adoption of air-source heat pumps.
- MAPC supports the option of advanced minting of Attributes for small systems (225 CMR 16.05(4)(d)1.) because it removes a financial barrier by providing the option of an up-front rebate. However, we believe the discounting of advance-minted Attributes needs modification to provide small system owners with certainty regarding the number of Attributes for which systems will be eligible (225 CMR 16.05(4)(d)2.).
- MAPC supports maintaining high standards regarding the emissions profile of eligible biomass (225 CMR 16.05(4)(g)).
- MAPC recommends that DOER consider incorporating flexibility into the APS to enable the addition of new renewable thermal technologies as the market evolves. This could include regular evaluation of the multipliers provided for specific technologies to support a cost-effective transition from fossil fuel heating to renewable thermal sources.

In closing, MAPC urges DOER to finalize the APS regulation in an expedient manner to support the needed transition to renewable thermal sources. MAPC looks forward to working with DOER to provide outreach and education to cities and towns on the available incentives for clean heating technologies.

Thank you for taking our comments into consideration. Please contact me at cpeterson@mapc.org with any questions.

Sincerely,

Cammy Peterson
Director of Clean Energy, MAPC