CRWA
Saving the Charles River since 1965

August 7, 2017

Michael Judge, Director
Renewable Division
Massachusetts Department of Energy Resources
100 Cambridge Street, Suite 1020,
Boston, MA 02114
Attn: Samantha Meserve

Via email: thermal.doer@state.ma.us

Re: Alternative Portfolio Standards (APS) Renewable Thermal Regulations (225 CMR 16.00)

Dear Mr. Judge,

On behalf of Charles River Watershed Association (CRWA), I submit the following comments on the Massachusetts Department of Energy Resources (DOER) 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.

CRWA is deeply concerned about global climate change and is actively working on climate change mitigation and adaptation across our watershed and beyond. CRWA supports the addition of all truly renewable energy sources into the Massachusetts APS. While we can already observe ways in which global climate change is impacting our state, it is critical that we continue to reduce greenhouse gas emissions drastically and quickly to avoid some of the potential worst-case, future climate scenarios. Massachusetts is a leader in GHG reduction through both energy efficiency and renewable energy generation, yet there is still much more we need to do to mitigate the effects of climate change. As the APS provides subsidies for certain types of energy generation paid for by the Commonwealth, we need to ensure we are encouraging truly clean energy sources that do not damage human health or the environment. Any project that these regulations would extend APS eligibility to should also be able to certify that thermal energy generation will not result in an increase in air pollutants other than GHGs, such as sulfur or nitrogen oxides.

CRWA is very concerned about an edit to the most recent draft regulations that struck the word “water” from 6.a.ii. CRWA has done considerable research and modeling of the opportunity provided by thermal energy generation from treated wastewater (a.k.a. reclaimed water). Regulations should make it very clear that thermal energy generation from heat pumps at wastewater treatment facilities or heat pumps extracting energy from treated wastewater are included in the APS. A small wastewater facility, treating only 3 million gallons per day (~1% of the flow to Deer Island Wastewater Treatment Plant) has the potential to produce about 410,000 MMBtus/year using a heat pump (COP=1.5) to extract energy from treated effluent[1]. Furthermore, this thermal energy can be combined with thermal energy from combined heat and power (CHP) units powered by anaerobic digestions, making wastewater treatment facilities into efficient, reliable generators of renewable energy.

[1] CRWA. (2017). *Transformation: Water Infrastructure for a Sustainable Future.*

Finally, CRWA believes DOER should develop a clear path to move the state away from natural gas over the long term. Although natural gas does burn more cleanly than other fossil fuel based sources, it is not renewable, clean, safe or sustainable. In addition to producing greenhouse gases when burned, natural gas leaks are a source of potent greenhouse gas emissions often not well-quantified in GHG inventories, and result in the death of trees and other vegetation that could potentially sequester atmospheric carbon. The inclusion of natural gas as a CHP fuel source in these regulations only helps to further entrench the natural gas infrastructure. Instead the state should be looking forward to how we can wean ourselves off of all fossil fuel based energy sources including natural gas. There should be a limit to the extent natural gas fueled energy sources are taking advantage of these incentives.

If you have any questions on my comments, please feel free to contact me at jwood@crwa.org or (781) 788-0007.

Sincerely,

Julie Wood
Director of Projects