

To Thomas Ferguson and the MA Dept. of Energy Resources,

I am delighted to see this draft of the AMP program and wanted to offer a few comments. I am an Associate Professor of Mechanical Engineering at Olin College of Engineering in Needham, MA, and I have a PhD from MIT in Mechanical Engineering with a focus on energy. At Olin, I teach thermal-fluids engineering through the lens of sustainable technology, I work with our Facilities Engineering team to analyze campus decarbonization pathways, and I do outreach to regional energy users through the New England Onsite Energy Technical Assistance Partnership. While Olin (a private college) would not qualify for this grant, I am enthusiastic about the program, and I have a few thoughts based on my experience.

In response to Question 4a, I would suggest specifying that **thermal energy storage** (TES) is an eligible technology for both Community Resilience and LDES Commercialization subprojects. Currently, it is not mentioned. Although the language of “energy storage” is neutral, the draft eligibility criteria (like size in kW or whether a system is BTM) and examples suggest that electrical storage technologies are of interest. If only energy storage that discharges electricity is desired, that should be explicitly stated. However, I believe TES meets several of the program’s goals. As such, I believe TES should be explicitly included, and language should be added to specify relevant eligibility and evaluation criteria.

TES, particularly chilled storage, is relevant to the program goals of **resiliency** and **community benefits** by providing stored cooling power to keep people safe and cool during summer outages at facilities like schools and community centers, especially where EJ and LMI communities exist in urban heat islands. TES can also shift chillers’ electricity consumption outside of peak periods, allowing facilities to generate revenue through CPECs, lowering electricity costs in the region, and reducing pollution from peaker plants, which are disproportionately located in EJ communities. Hot storage used in concert with heat pumps will fill a similar role throughout the heating season, particularly as the state electrifies building heating. Essentially, thermal storage conveys most of the same benefits as battery storage.

TES also plays an important role at food banks, community-based organizations where cold storage is critical. The Greater Boston Food Bank, for example, uses a phase change material to keep their refrigeration units cold during peak hours, saving money on their electric bills while also reducing peak loads on the grid. Cold TES could also provide resilience by maintaining refrigeration during outages.

Finally, TES is compatible with LDES, and it is naturally scalable because it does not rely on critical minerals like lithium. Long-duration *thermal* energy storage designed for resilience and peak-shaving deserves an equal playing field in de-risking programs such as the proposed LDES Commercialization subproject. Data collected from supported projects (both electrical and thermal) could help shape the future of energy storage in Massachusetts and beyond.

Sincerely,

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