



June 28, 2023

Comments of Key Capture Energy to the Massachusetts Department of Energy Resources (DOER) and Energy+Environmental Economics (E3) in response to June 7 Mid-and Long-Duration Energy Storage Study Overview

About Key Capture Energy

Headquartered in Albany, Key Capture Energy (KCE) has been active in developing, constructing, and operating utility-scale battery energy storage systems (BESS) since 2016. Across the country, KCE has over 570 MW of BESS in operation and construction, and nearly 10 GW of BESS in development, including in Massachusetts.

Comments

1) The study should provide evidence necessary to determine whether to proceed with an energy storage procurement

Section 80 (c) of H 5060 states, “If the study finds it beneficial to the commonwealth, the department of energy resources shall require solicitations and procurements in accordance with the study recommendations.” While there are numerous areas of inquiry that DOER is directed by the legislation to pursue, the Department and E3 should not lose sight that the outcome of study should provide the Department and legislature with information necessary to determine whether or not a procurement of energy storage is in the benefit of the Commonwealth. To inform this determination, the study should examine two factors: a) whether additional energy storage investment provides net benefits to the Commonwealth, and b) whether large-scale storage deployment may be achieved – and said benefits realized – absent a procurement or incentive program.

The initial study overview provided by E3 indicated that it is investigating both factors. The preliminary findings with respect to the participate cost test (slides 21 and 22) broadly align with KCE’s experience, indicating that large-scale deployment of additional energy storage will not be achieved absent state action. KCE urges DOER and E3 to continue its focus on the even as it addresses more complex modeling questions with respect to long-duration energy storage in decarbonization scenarios.

2) Revenue certainty is essential for financing large-scale energy storage projects

Revenue certainty is necessary to finance and construct large-scale battery energy storage systems (BESS), particularly with the tax equity necessary to take full advantage of the federal Investment Tax Credit (ITC). Tax equity investors must have high confidence that wholesale market prices will support battery storage, or reliable revenue streams such as long-term contracts must be available. Not only are future wholesale



market prices for energy, ancillary services and capacity highly uncertain, but ISO-NE’s pending adoption of marginal Effective Load Carrying Capability (ELCC) capacity accreditation adds significant uncertainty to the value of capacity for mid-duration energy storage at a given clearing price.

In addition to a quantitative cost test, DOER should also consider qualitative factors such as the comfort level of tax equity investors in revenue certainty as it investigates whether energy storage will be deployed absent a large-scale procurement program.

3) Current energy storage programs in Massachusetts do not support front-of-meter energy storage that participates in ISO-NE wholesale markets.

- a. The SMART program supports BESS that charge from a paired solar photovoltaic system, and does not support standalone BESS that charge from the grid.
- b. The Clean Peak Program does not provide a consistent, financeable revenue stream. The EDCs have not conducted any procurements of Clean Peak Credits (CPCs) under long-term contracts, and prices will fluctuate as more eligible resources come online and impact supply. Additionally, it is unclear whether BESS could maintain eligibility to produce CPCs while providing ancillary services due to eligibility guidelines that limit charging hours.

4) Front-of-meter BESS faces unique barriers when deployed on the distribution system.

BESS interconnected to the distribution system are also subject to electric distribution system rates even though they may be providing wholesale market services. Though these systems can often be thought of as “distributed generation” or small-scale, KCE’s experience has been that these distribution rates can apply to relatively large systems connected at high voltages. E3 and DOER should consider this potential barrier when examining the economics of existing mid-duration energy storage systems. Section 72 of H. 5060 directs each electric distribution company to file at least one electric rate tariff to apply to energy storage system with the DPU by Oct 31, 2023. The EDCs will then file a wholesale distribution service rate schedule with FERC. The study should consider the impact of the expected wholesale distribution tariff when evaluating the current viability for front-of-meter systems that interconnect to the distribution system.



Conclusion

Key Capture Energy supports DOER and E3's efforts and looks forward to the results of the study. Please contact me if you have any questions.

Sincerely,

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