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To: Ferguson, Thomas (ENE) <Thomas.Ferguson@mass.gov>

Subject: Inlyte Energy's Comments re: DOER AMP Straw Proposal Stakeholder Questions

The Massachusetts Department of Energy Resources ("MassDOER") is requesting feedback regarding the Advancing Massachusetts Power ("AMP") Straw Proposal. Inlyte Energy ("Inlyte"), a U.S. based manufacturer of iron-sodium long-duration battery storage solutions, is pleased to share comments specific to the i) Community Resilience and ii) Long-Duration Energy Storage ("LDES") Commercialization subprogram areas.

Inlyte Energy applauds MassDOER's efforts to promote resilience-focused and LDES projects at the state-level to benefit the stakeholders of Massachusetts. Specifically, while the commercial potential for LDES has been enhanced by the recent federal extension of the 48E technology-neutral Production Tax Credit (PTC), the simultaneous and meaningful reduction in federal innovation funds highlights the vital need for state-level acceleration of LDES adoption with particular focus to domestically produced, sustainable alternatives to lithium-ion. State energy agencies, such as MassDOER, are uniquely positioned and critical for accelerating the early, pre-commercial deployments necessary to mature the LDES market and promote domestic industry.

Inlyte offers the following comments on the initial straw proposal document shared by MassDOER.

General / All Subprogram

Q2. We are motivated by the project-level grant levels of \$2.5M for Community Resilience and \$5M for LDES Commercialization and we believe these award sizes will meaningfully accelerate deployments of beneficial solutions.

Q4.i. Community Resilience - Option 2 (Project Installation Support).

1. Project Eligibility Criteria

- a. We support the system size requirements stated in the proposal (50+ kW).
- b. We recommend that MassDOER clarify "commercially available energy storage technology" in the final application guidance to further define "commercially available" and allow for technologies that are commercially available *by the time of grant award*. If commercial availability is required at the time of the application (Q4 2025) limits the options for developers planning for projects with an installation date up to the proposed deadline (Q4 2030). This is particularly important as recently enacted federal policies

have begun to strongly incentivize emerging alternatives to lithium-ion batteries which should drive rapid emergence of new commercial alternatives.

- c. We recommend that MassDOER clarify “functional throughout an outage” in the final application by setting a minimum outage duration that the system should be designed to support. A 24 hour duration would have been sufficient to help communities through three of the four major outages in Massachusetts in 2024, as tracked by the US Energy Information Administration’s (EIA) “Electric Power Monthly.”

2. Project Evaluation Criteria

- a. We recommend that MassDOER include i) safety and ii) performance in cold and hot weather as evaluation criteria. ESS projects sited at community resilience sites will need to take into account both the real and perceived fire risks of some existing technology options, e.g., lithium-ion, given the direct community interface. Additionally, given that the majority of major outages in Massachusetts, as tracked by the EIA’s “Electric Power Monthly,” occur in the winter months, rated performance in cold weather is particularly important.

Q4.ii. LDES Commercialization.

1. Project Eligibility Criteria

- a. We support the proposed eligibility criteria, and recommend that MassDOER clarify the definition of nameplate capacity as the maximum amount of energy, as measured in kWh or MWh, that the battery can store when fully charged.

2. Project Evaluation Criteria

- a. We recommend that MassDOER include resilience benefits to the local community and/or project customers in the evaluation criteria. In addition to serving as a critical asset for, e.g., load shifting and peak shaving, we believe that LDES can also serve as a resilience asset for communities. For example, Inlyte’s iron-sodium battery can support 4-12 hours of discharge at rated power for daily load shifting *and* provide an additional 24+ hours of resilience capacity.

Community Resilience

Q11. Although Inlyte is a battery manufacturer and not primarily a project developer, we believe that it is reasonable to expect ESS projects to enable 8-24 hours of target load

backup before severe weather events to ensure resilience. This level of charge is crucial for severe weather events, where multi-hour outages are common and time-to-service can exceed hour(s) for hard-to-reach communities. However, due to the wide range of technologies and potential durations of LDES project, we recommend that “hours” be targeted rather than state of charge, because a 10 hour energy storage state of charge may require a high SoC to meet the requirement, and a 24+ hour energy storage system may not.

LDES Commercialization

Q17. With \$5M in grant funding and 50% cost share (or \$10M in total project cost), we believe that developers can optimally target a 10-hour or longer duration project of 2.5 MW / 25 MWh+, with material enabling support provided to projects up to 5 MW in scale. At this scale, projects can both support large commercial & industrial (C&I) sites *and* utility-scale pilots at sites such as utility substations and rural feeder backup.

Inlyte appreciates the opportunity to provide comments and looks forward to continued coordination with MassDOER and developers in Massachusetts. Should MassDOER have any questions, please feel free to contact Ben Kaun (ben.kaun@inlyteenergy.com).