Energy Storage For a Better World

To: Maine Department of Energy Resources (DOER)

From: Form Energy

Date: April 20, 2026

Subject: Draft Request for Proposals for Energy Storage Projects Pursuant to 35-A M.R.S. §10313

Introduction

Form Energy appreciates the opportunity to provide feedback on the Department's draft Request for Proposals (RFP). Form Energy is a domestic developer and manufacturer of a new class of cost-effective, multi-day energy storage systems. Our innovative iron-air battery technology is designed to store and discharge energy for 100 hours, providing the long-duration capacity needed to reliably integrate high levels of renewable energy into the grid. This multi-day capability offers a clean, firm solution for grid resilience, particularly during extreme weather events or prolonged periods of low renewable generation.

As Maine moves toward its statutory goal of 400 MW of installed energy storage by 2030, the procurement framework must appropriately value the unique reliability contributions of energy storage resources with longer durations. Based on our analysis of the draft and our expertise in multi-day energy storage ("MDS"), we provide these recommendations to ensure this solicitation effectively captures the value of firm, zero-carbon resources and delivers the greatest value to Maine's ratepayers at the lowest cost.

1. Evaluation Framework: Shift to Model-Based Portfolio Valuation

The current quantitative scoring relies on a project-specific Net Present Value (NPV) analysis. To accurately value clean, firm resources like 100-hour batteries, a system-level assessment is required. The Department should utilize a portfolio optimization model to capture the impact of bids on the total system-level revenue requirement. Evaluators should compare a "reference portfolio" to one where an MDS project bid is "forced in" as a planned resource to determine net savings from avoiding other more expensive resource builds. The Department should also evaluate bids on both a $/kW and a $/kWh capital cost basis. A $/kWh analysis highlights the cost-effectiveness of MDS in delivering capacity across multi-day grid stress events.

2. Interconnection: Allow Projects Using Surplus Interconnection Service

The draft currently focuses on participation in the ISO-NE Transitional Cluster Study. While the draft RFP technically allows for collocated projects, the requirement for full Capacity Capability Interconnection Standard (CCIS) at maximum injection capability functionally blocks the use of Surplus Interconnection Service (SIS). SIS is an interconnection solution that allows new resources to share underutilized interconnection capacity at existing facilities. This allows the resource to bypass the lengthy interconnection queue and avoid costly transmission upgrades, thereby reducing costs and timelines for bringing new resources online.

DOER should allow the use of SIS as an eligible interconnection option under the RFP by removing the mandate for CCIS and allowing projects to utilize Network Capability Interconnection Standard (NCIS) under the ISO-NE tariff. There are processes in place that would allow the the energy storage system to continue

3. Capacity Value: Resolving the Reliability Penalty

The current requirement to use the "lesser value if duration does not match published values" creates a penalty for LDES assets. ISO-NE so far has only published accreditation factors for durations up to 24 hours, which mathematically ignores the superior reliability benefits of a 100-hour battery. Instead, the DOER should request that ISO-NE produce an indicative rMRI value for 100 hour energy storage or should create its own Maine-specific ELCC value for multi-day storage resources like Form's 100 hour system. A state-specific ELCC would better reflect the unique reliability requirements of Maine's grid compared to the broader New England region reflected in ISO-NE's rMRI values

4. Modeling Standards: 8760-Hour Chronology and Weather Stress

To surface the true value of storage, the Department should modernize its modeling parameters to evaluate bids using an 8760-hour grid operation chronology in both capacity expansion and production cost simulations. Evaluations should use a diverse set of weather scenarios based on historical heat waves and cold snaps, rather than modeling charge/discharge profiles against a single weather year (2018). Further, production cost models should utilize annual optimization settings to capture the true value of seasonal arbitrage for long-cycle resources.

5. Performance Standards: Removing Arbitrary Daily Cycling Requirements

Section 4.2.4 currently requires that storage be able to cycle at least once per day. However, MDS technologies are physically optimized for multi-day discharge and are often not able to be fully dispatched and recharged within a single 24-hour window. The RFP should not require minimum daily or annual cycling requirements. Instead, performance should be measured by a "Multi-Day Availability" or "Full Duty Cycle" metric. Eliminating arbitrary cycling mandates ensures that ratepayers benefit from resources designed for long-term grid stability rather than just high-frequency daily trading.

6. Eligibility: "Fit-for-Purpose" Bankability Requirements

Narrow commercialization requirements can unintentionally stifle innovation. The DOER should move from narrow commercial deployment thresholds to fit-for-purpose bankability requirements, such as evaluating technology warranties, credit support, and the track record of the project team. Further, the RFP should expressly articulate an interest in procuring long-duration and non-lithium storage projects alongside traditional solutions to signal that the state values diverse reliability benefits.

7. The Indirect Benefits of Multi-Day Storage:

MDS provides significant indirect benefits, which should be adequately represented in the cost benefit analysis. These include:

- Avoided Curtailment of "Trapped" Wind: MDS acts as a long-cycle resource capable of absorbing excess renewable generation that would otherwise be curtailed due to transmission constraints (i.e., "trapped" wind). This maximizes the utilization of Maine's wind assets and directly supports the state's climate policies.
- Infrastructure and Market Value: 100-hour storage is significantly more effective at deferring grid infrastructure upgrades and providing sustained capacity market suppression than traditional short duration assets.

Conclusion

By adopting these model-based evaluation practices, the Department will ensure Maine's storage portfolio is optimized for both reliability and least-cost service to its citizens. Thank you for this opportunity to provide these comments on the Draft Request for Proposals for Energy Storage Projects. Please feel free to contact me with any questions or for further information.

Sincerely,

Sarah Jackson
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