

Maine Governor's Energy Office (GEO) Request for Information Maine Energy Storage Program Development Pursuant to P.L. 2023, ch. 374

Issue Date: November 13, 2023

Subject: Request for Information Regarding the Development of the Maine Energy

Storage Program Pursuant to P.L. 2023, ch. 374 (LD 1850)

Response Due Date: December 8, 2023

Submit Responses To: caroline.colan@maine.gov

Description

This is a Request for Information (RFI) issued by the Governor's Energy Office (GEO). The GEO, established within the Executive Department and directly responsible to the Governor, is the designated state energy office tasked with a wide range of activities relating to state energy policies, planning, and development.

This RFI seeks public input to inform the GEO's implementation of section 2 of Public Law 2023, chapter 374, An Act Relating to Energy Storage and the State's Energy Goals (LD 1850), which was signed into law by Governor Janet Mills on June 30, 2023. This legislation builds upon the state's existing energy storage goals and makes clear Maine's intention to invest in energy storage infrastructure to increase grid reliability and support the integration of clean energy resources needed to meet the state's climate and clean energy goals in a cost-effective manner.

Section 2 of this legislation directs the GEO to evaluate designs for a program to procure commercially available utility-scale energy storage systems connected to the transmission and distribution systems, including, but not limited to, through the use of an index storage credit mechanism. Energy storage is defined in Maine statute as 'a commercially available technology that uses mechanical, chemical or thermal processes for absorbing energy and storing it for a period of time for use at a later time'. The GEO interprets "utility-scale energy storage" to mean energy storage resources connected in front of the meter.

In evaluating programs for the procurement of energy storage systems, per statute, the GEO shall consider programs that are likely to be cost-effective for ratepayers and that are likely to achieve the following objectives:

A. Advance both the State's climate and clean energy goals and the state energy storage policy goals established in Title 35-A, section 3145 through the development of up to 200 megawatts of incremental energy storage capacity located in the State;

¹ Public Law 2023, Chapter 374 (June 30, 2023).

² 35-A M.R.S. §2481.

- B. Provide one or more net benefits to the electric grid and to ratepayers, including, but not limited to, improved reliability, improved resiliency and incremental delivery of renewable electricity to customers;
- C. Maximize the value of federal incentives; and
- D. Enable the highest value energy storage projects, specifically energy storage systems in preferred locations, projects that can serve as an alternative to upgrades of the existing transmission system and projects of optimal duration.

The intent of this RFI is to obtain public input regarding the GEO's evaluation of program designs and consideration of key program objectives. The GEO shall complete the evaluation required by law and provide its recommendations to the Public Utilities Commission (Commission) for a program to procure up to 200 megawatts of energy storage capacity. The Commission shall review the recommendations and determine whether the program recommended by the GEO is reasonably likely to achieve the objectives established by the law. Upon finding the proposed program reasonably likely to achieve those objectives, the Commission shall take steps to implement the program.

Questions of Interest

Specifically, this RFI seeks input on the following questions. Respondents may respond to some or all of these questions, and may provide additional information they believe may be useful to the GEO in meeting its obligations regarding implementation of section 2 of LD 1850.

- 1) Maine law requires greenhouse gas emission reductions of 45 percent below 1990 levels by 2030 and 80 percent below 1990 levels by 2050.³ Comment on how the Maine Energy Storage Program could be designed to support deployment and operation of front of the meter energy storage resources in a manner that enables reductions in greenhouse gas emissions?
- 2) The State of Maine has significant clean energy goals, including an 80 percent renewable portfolio standard by 2030⁴ and a goal of 100 percent clean energy by 2040. Comment on how the Maine Energy Storage Program could be designed to encourage the development of front of the meter energy storage resources in a manner that supports incremental delivery of renewable electricity to customers, or otherwise supports the achievement of these goals?
 - a) Comment on how the Maine Energy Storage Program should define and operationalize "incremental delivery of renewable electricity to customers."
- 3) How should the Maine Energy Storage Program value and prioritize net benefits to the electric grid and to ratepayers to "provide one or more net benefits to the electric grid and to ratepayers?"
 - a) What inputs or data sources should the GEO prioritize, if any, in implementing any cost-benefit test or tests?

³ 38 M.R.S. §576-A.

⁴ 35-A M.R.S. §3210.

- b) Comment on cost-benefit test or tests (e.g. ratepayer impact measure test, societal cost test) that the GEO should utilize in developing the Maine Energy Storage Program. ⁵
- 4) Comment on how the Maine Energy Storage Program could enable improved electric reliability in Maine and how the Maine Energy Storage Program should define and operationalize "improved electric reliability."
- 5) Comment on how the Maine Energy Storage Program could enable improved electric resiliency in Maine and how the Maine Energy Storage Program should define and operationalize "improved electric resiliency."
- 6) How should "preferred location" be defined in the context of the Maine Energy Storage Program? How should "preferred locations" be identified, by whom, and at what time?
- 7) How should "serve as an alternative to upgrades of the existing transmission system" be defined in the context of the Maine Energy Storage Program? How should such upgrades be identified, by whom, and at what time?
- 8) How should "optimal duration" be defined in the context of the Maine Energy Storage Program? Comment on whether and how any definition of "optimal duration" should be operationalized in the Maine Energy Storage Program.
- 9) Legislation directs the GEO to consider an index storage credit mechanism.⁶ Comment on the suitability of an index storage credit mechanism, or other contract mechanisms, to achieve the Maine Energy Storage Program objectives, including any advantages or disadvantages relative to other potential mechanisms.
- 10) How should the Maine Energy Storage Program be designed to maximize currently available federal incentives and opportunities?
- 11) Comment on any tradeoffs or potential conflicts that exist between the multiple program objectives established by the act and contemplated in questions 1-10 above.
 - a) To the extent tradeoffs or potential conflicts are identified, comment on which program objectives, if any, should be prioritized or deprioritized in the design of the Maine Energy Storage Program, and why.

⁵ In 2022 the GEO released the Maine Energy Storage Market Assessment, which utilized a number of cost-benefit tests to analyze the potential benefits of various energy storage applications. In 2023, the GEO released the Final Report of the Distributed Generation Stakeholder Group, which included in Appendix A an analysis defining and applying the so-called "Maine Test" to examine cost-effectiveness of distributed solar and energy storage resources. Commenters should identify which, if any, of the tests utilized in these reports should be utilized here and discuss any related considerations or modifications in the context of the Maine Energy Storage Program statutory objectives.

⁶ LD 1850 notes that for the purposes of Section 2, "index storage credit mechanism" means a mechanism for setting contract prices for energy storage capacity using the difference between a competitively bid price, or strike price, and daily reference prices calculated using an index designed to approximate wholesale market revenues available for each megawatt-hour of capacity and including a mechanism to provide for a net payment from the operator of the storage capacity project to ratepayers in the event the reference price exceeds the strike price.

- 12) Comment on barriers to deployment of utility-scale energy storage systems that should be considered in the design of the Maine Energy Storage Program, and any recommended solutions or mitigating measures that could be incorporated into the program design.
- 13) Comment on appropriate participant and project qualifications that should be incorporated into the Maine Energy Storage Program design.
- 14) Comment on any utility-scale energy storage systems or procurement systems in other jurisdictions that may have relevant considerations for the Maine Energy Storage Program.

Use

Information collected from this RFI will be used by the GEO to inform the fulfillment of requirements under the Act, including the design of the Maine Energy Storage Program.

This is an RFI only, and the GEO will not pay for information provided under this RFI and no project will be supported as a result of this RFI. This RFI is not accepting applications for financial assistance or financial incentives. The Commission may ultimately implement a program recommended by the GEO that is based on consideration of the input received from this RFI. *The GEO may publish responses to this RFI on its website.*All responses to this RFI may be subject to the State of Maine Freedom of Access Act, thus sensitive or confidential business information should not be provided in response to this RFI.

⁷ https://www.mainelegislature.org/legis/statutes/1/title1ch13sec0.html.