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TESTIMONY BEFORE THE ENERGY, UTILITIES AND TECHNOLOGY COMMITTEE

Resolve, Directing the Public Utilities Commission to Ensure That the Maine Electric Grid Provides Additional Benefits to Maine Ratepayers
L.D. 589

GOVERNOR'S ENERGY OFFICE
January 11, 2024

Senator Lawrence, Representative Zeigler, and Members of the Joint Standing Committee on Energy, Utilities and Technology (EUT): My name is Caroline Colan, and I am the Legislative Liaison for the Governor's Energy Office (GEO).

The GEO testifies neither for nor against L.D. 589.

Thank you for the opportunity to comment on this legislation. I will primarily take this opportunity to share information regarding work underway at the GEO related to what I understand to be the intentions of this legislation.

GEO is currently in the midst of a planning effort for achieving the use of 100 percent clean energy in Maine by 2040 and the other requirements of the office. The "Maine Energy Plan: Pathway to 2040" is engaging the public and key energy stakeholders on actionable and affordable strategies to meet this target. GEO and its consultants have hosted three public meetings to date to share assumptions and preliminary findings, in addition to meetings with interested stakeholders. We are happy to brief the committee on this work at any time, and intend to publish the full results of this work in the first quarter of this year.

This plan will be a new, comprehensive, integrated energy plan consistent with the Governor's directive of 100 percent clean energy by 2040 and other Maine laws, and will identify economy-wide decarbonization options looking beyond 2040. It will inform planning for future investment opportunities, including the pursuit and deployment of federal and other funds by entities within the state so Maine is able to capitalize on such opportunities. It will also ensure sufficient planning and policies are in place to make sure Maine households and businesses have access to clean, affordable, and reliable energy over the coming decades.

The technical analysis compares several pathways to achieve 100 percent clean electricity by 2040 through the modeling of hour-by-hour energy supply and demand scenarios for the state. This is the first time an analysis at this level of granularity has been done for Maine. The performance of each pathway is compared on several dimensions including cost, emissions, and energy use, with the model identifying the most feasible and affordable pathways based on these factors. The final report will contain an evaluation of a range of supply side technologies including solar, onshore and offshore wind, hydro, nuclear, energy storage, clean thermals, and other emerging technologies, as well as demand side or end-use technologies in addition to a discussion of transmission and related technologies, including grid

enhancing technologies (GETs). According to U.S. Department of Energy, GETs "maximize the transmission of electricity across the existing system through a family of technologies that include sensors, power flow control devices, and analytical tools."

GEO recognizes the importance of GETs and related solutions to increase capacity and reliability. This is one suite of tools, in addition to others, that are important in building out the broader transmission needs to meet the state and region's clean energy goals, increase grid reliability, and stabilize costs.

We know that in the decades ahead, as we continue to pursue beneficial electrification, the ways in which electricity is consumed, produced and transmitted will be significantly different than they are today, from rapid penetration of renewables, to engagement of customers to provide demand-side flexibility to the system, to the deployment of new technologies that provide supporting grid services. GEO supports regular evaluation and reporting on load growth and behind-the-meter resources to ensure expected resource additions are planned for and that the state's clean energy portfolio is developed in a cost-effective and equitable manner. This work will require continued collaboration and coordination of several entities including the Commission, the Efficiency Maine Trust, the GEO, transmission and distribution utilities, and others.

Finally, it's important to note that GEO's 2040 modeling effort and Maine's decarbonization policies are not happening just within the borders of our state. Nearly all of the New England states are pursuing similar clean energy and emission reduction goals, and the Pathway to 2040 modeling takes those policies and resulting market dynamics into account. When it comes to technology evaluation of grid enhancing technologies, it is critical to keep this regional and national context in mind, and to review emerging best practices for their deployment.

We look forward to sharing more on this work soon and would like to be of assistance on this legislation as it evolves.

Thank you for your consideration.

Caroline Colan

Caroline Colan, Legislative Liaison
Governor's Energy Office