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Witness: David L. Gladey, Lavelle Freeman, John P. Dipaola-Tromba, Jennifer A. Schilling, Elli Ntakou and Gerhard Walker
Request from: Office of Consumer Counsel

Question:

Refer to Exhibit CLP-TSP-1 at 68, "DERMS Demonstration – Demonstrate the value proposition of advanced DERMS capabilities, including (1) use of DER to increase system efficiency and reduce line losses; (2) integration of multiple types of DER in a microgrid application for critical load; and (3) investigation of lower cost approaches to communication and control of stand-alone solar and storage facilities integrated into the Company's centralized DERMS system."

a. Has the Company deployed DERMS and implemented any DERMS use cases to date?
b. Please describe how this DERMS demonstration will be coordinated with the implementation of the Grid Services Compensation Fund and Dynamic Flexible Interconnection.

Response:

a. Other than the use of its aggregator DERMS utilized for an ISO-New England system peak load reduction use case through the ConnectedSolutions program, the Company has not deployed DERMS or implemented DERMS use cases in its Connecticut service territory.

   In its western Massachusetts service territory, the Company deployed the first phase of a grid DERMS at the end of 2025 and is currently completing the second phase of the grid DERMS project with a target in-service date at the end of 2026. The Company is currently implementing foundational upgrades to its SCADA eECS and DMS systems in Eastern Massachusetts and is expecting to start a grid DERMS project there in early 2027.

   With respect to use cases, in western Massachusetts, the Company is currently utilizing its grid DERMS for weather-based operational forecasting, providing real time system operators with hour- and day-ahead visibility into the impact of DER on power flows, including the impact of solar generation on equipment loading. In eastern Massachusetts, the Company conducted its first locational demand response program in Summer 2026, utilizing its aggregator DERMS to reduce load during peak events at three substations in the Boston area with identified risk of overload. The Boston substation peak load reduction program was implemented in coordination with the Company's Massachusetts Grid

Services Compensation Fund, increasing incentives for participating customers served by the targeted substations. (Referred to as the "ConnectedSolutions+" program.)

The Company also actively utilizes its 34-MWh stand-alone battery in Provincetown Massachusetts in a complex microgrid configuration able to supply up to 11,000 customers solely with the battery upon loss of traditional grid supply. This microgrid is currently operated with a dedicated microgrid control scheme. In the longer term, the Company plans to integrate operation of the Provincetown battery with a grid DERMS capability to coordinate dispatch of the Eversource battery with customer DER to cost-effectively increase the duration of the microgrid. Also in process is a project at the Company's Roosevelt solar facility to utilize DERMS to support voltage management use cases. The scope of the Roosevelt project incorporates investigation into lower-cost options for DER communication and control through a centralized grid DERMS. The Company is also planning to implement a ConnectedSolutions+ program in targeted locations in southeastern MA, an area with high solar penetration, for a managed EV charging use case to reduce the risk of reverse flow overloads by charging EV batteries during periods of high solar output.

b. The DERMS demonstration program is designed to implement multiple DERMS-dependent use cases in a targeted location to demonstrate the multiple benefits of different approaches, both independently and in coordination. The intent is to show the full potential of DERMS technology to inform efforts to deploy at scale across Connecticut.

The Grid Services Compensation Fund is an important enabler of the DERMS demonstration, enabling the Company to increase incentives for DER customers supporting one or more use cases. For example, the Company would use the Grid Services Compensation Fund to provide incentives in exchange for a customer allowing use of an advanced inverter for a voltage management use case. Currently, the Company has no mechanism to compensate customers for this or any locally-targeted capacity or voltage use cases.

The DERMS demonstration could also incorporate the use of dynamic flexible interconnections. Using DERMS technology, a dynamic flexible interconnection allows larger-scale DER facilities an increased operating envelope (i.e., greater charge and discharge levels) based on real-time operating conditions. For example, a fixed operating envelope may restrict battery discharge to 25 percent of nameplate in Spring and Fall seasons when load is relatively low and solar output is high. A dynamic flexible interconnection could relax this restriction and allow more discharge based on real-time grid conditions (i.e., cloudy warm days when solar output is lower and load is higher.) The DERMS demonstration could incorporate the concept of dynamic flexible interconnection

to show the incremental value of an expanded operating envelope for capacity and/or voltage related DERMS use cases.