



September 8, 2021

Efficiency Maine Trust
Ian Burnes, Program Manager, Strategic Initiatives
Jack Riordan, Strategic Initiatives Manager
168 Capitol Street, Suite 1
Augusta, ME 04330

Submitted electronically

Re: Triennial Plan V: Draft Appendix L – Demand Management Program Analysis and Considerations

Dear Mr. Burnes, Mr. Riordan, and members of the Efficiency Maine Trust

Thank you for the opportunity to comment on Efficiency Maine Trust's Draft Appendix L to the Triennial Plan for Fiscal Years 2023-2025.

CPower is one of the largest providers of demand response and distributed energy services in North America, with over 4 GW of customer capacity under management. CPower has been participating in demand management ("Connected Solutions") programs in Massachusetts, Rhode Island, New Hampshire, and Connecticut since their inception.

We appreciate the Efficiency Maine Trust's (EMT's) leadership in developing a plan to implement a demand management program in Maine. The proposed program will create a welcome incentive for electric end-users to reduce Maine's contribution to the New England region's coincident peak load. This, in turn, will reduce Maine's allocation of capacity costs in ISO-New England (ISO-NE), providing a benefit not only to those customers that actively participate in the program, but all electric rate payers in the State.

The plan proposed by EMT is very similar to the successful Connected Solutions programs already offered by other utilities in New Hampshire, Massachusetts, Connecticut, and Rhode Island. We applaud the decision to model the program after existing Connected Solutions programs; this will allow Maine to benefit from lessons already learned in these programs and reduce EMT's set-up and administrative costs.

CPower has the following comments and questions regarding the EMT proposal:

1. [Paragraph 8] DRI advancing the Goal:

- In Paragraph 8, EMT proposes that program participants be subject to a test dispatch to verify participation and communication channels. We do not believe such a test is necessary or advisable. It isn't necessary because the program is voluntary and pays only for successful dispatches. It isn't advisable because it would increase the number of dispatches, contributing to customer fatigue as the summer progresses which would increase the risk of customers missing the peak day, especially if it falls late in the season. No other Connected Solutions Programs require tests. CPower does a thorough review of load data and works with customers to put forth a reasonable expectation of participation.

In terms of communications, CPower holds a preseason webinar for customers, reviewing the program design, processes, and expectations. Also prior to the start of the season, we run a test communications drill to ensure all dispatch contacts are engaged in the communications and comfortable with the flow of the protocols. (This is a communication drill only and customers are advised not to curtail loads).

2. [Paragraph 14] Eligibility Criteria:

- **Eligibility of customers in Northern Maine Independent System Administrator territory** - Will customers of utilities that are not directly connected to the ISO-NE electric system (specifically those located in the Northern Maine Independent System Administrator territory) be eligible to participate in the program? Load curtailments of these customers will have no direct impact on the allocation of ISO-NE capacity costs, from which much of the expected benefits of the program will flow. That said, peak demand reductions in the Northern Maine Independent System Administrator territory will provide benefits, however, those benefits have not been quantified. If customers in Northern Maine are eligible to participate, are the prices and capacity quotas shown in the Appendix inclusive of the Northern Maine territory?
- **Exclusion of DER and Generators from the program** – The plan proposes to disqualify distributed energy resources (DER) from participation in the program. CPower believes this exclusion should be rethought. Allowing properly permitted DERs to participate in demand management programs will reduce emissions and make the program more robust. More detail on our thoughts in this area are below.
 - Photo voltaic generators (“PV”): Customers with PV behind the meter are still capable of curtailing their consumption in response to price signals and therefore the presence of PV should not make a customer ineligible to participate in the program. If EMT moves forward with its proposal to exclude customers with PV from the program, it risks dampening interest in installing PV. Concerns about inadvertently paying for load reductions resulting from PV output or distorting customer baselines due to PV can be addressed by adding any PV output back into the facility load for purposes of calculating the baseline.
 - CHP generators: CHPs are generally more efficient than the peaking power plants that are dispatched during peak hours. Failing to incentivize CHPs through EMT's new demand management program will result in lost environmental benefits due to higher emissions from grid connected power plants.

- Back Up Generators: In order to participate in demand response programs in other New England states, backup generators must meet specific emissions requirements determined by the Environmental Protection Agency. The savings and revenues these generators receive from demand response programs can pay for the retrofits required to qualify. Allowing properly permitted backup generators to participate in EMT's proposed program will reduce emissions by incentivizing owners to retrofit their generators with the aftermarket emissions controls that will allow them to comply with EPA requirements. If these generators are excluded, they will not have the incentive to invest in emissions reduction equipment. The benefits of generators that run with reduced emissions will accrue in all future hours of operations whether that be for the 10 – 20 hours of demand response events, or during outages caused by extreme weather events which may last for days or even weeks.

3. [Paragraphs 8, 13, 15, 16, 17] Role of Curtailment Service Providers:

- CPower concurs with EMT's decision to allow Curtailment Service Providers (CSP) such as CPower to enroll recruit, qualify, and enroll participants. CSPs will add value to the process as they can help identify the classes of customers that are qualified for demand response programs. Once identified, the CSP will help customers develop successful curtailment plans. It is not unusual for a customer to be hesitant when first approached about participating in demand response programs, until the potential savings and revenues are identified. Customers typically become enthusiastic participants once they realize the value to them.
- CSPs can save EMT significant back-office expenses if they are responsible for dispatch and notification systems, baseline and performance calculations, and settlement processes associated with determining individual customers' kW savings and revenues earned. These types of efficiencies have been realized in other regional Connected Solutions programs.
- Given the responsibilities that EMT is proposing for CSPs, CPower encourages EMT to develop a CSP qualification process to ensure that each participating CSP has successfully demonstrated the required back-office capabilities. CPower also encourages EMT to consider CSPs' successful experience in similar demand response programs, as well as financial, reputation, settlement, and operational capabilities.
- EMT proposes that each CSP develop their own peak day forecasts and determine when customers should be curtailed. This is likely to result in CSPs identifying different peak days and calling customers at different times, which will cause confusion and could ultimately undermine program objectives. In order to maintain consistency in performance expectations, CPower encourages EMT to select a single forecaster or agent to determine when curtailment events should be called and subsequently communicated to all CSPs.

4. Metering and Interval Data Requirements:

- CPower encourages EMT to accept more than one source of interval data when calculating demand response performance. In our experience it is not uncommon to have missing/corrupted data issues when tabulating utility provided interval data. When CPower

enrolls a customer as Active Demand Capacity Resource (ADCR) in ISO-NE's Forward Capacity Market, it is a requirement that near real time metering data be provided to ISO-NE in 5-minute intervals. When the utility data is missing, this 5-minute interval data has provided a reliable backup source of performance measurement. CPower encourages EMT to allow for this ISO-NE qualified data to be an acceptable alternative for performance calculations.

- Will EMT or the Maine utilities provide interval data required to pre-qualify potential demand response prospects? Utility interval data is needed to determine a customers' ability to participate in the program and to quantify their load reduction capability but in the past CPower has experienced difficulties in getting such data from utilities. Given this, we encourage EMT to consider providing this data directly to CSPs. Alternatively, if this is not feasible, we ask that EMT help facilitate the transfer of this data from the utility to the CSP

5. Capacity Targets:

- EMT has identified the program's capacity targets in Table 5 of the proposed Appendix L. CPower requests clarification on the difference between the columns titled "Demand Reduction Budget Enrollment Target", "Demand Reduction Report Target" and "Demand Reduction Evaluated Target".
- CPower also requests clarification on the following:
 - What will be the system of record for enrolling customers in the various programs?
 - When and how will CSPs be notified that the enrollment cap has been reached?
 - What will be the system of record to time stamp enrollments?
 - How will available capacity be allocated across competing CSPs?
 - This can be done on a "first come, first serve" basis or equal allocations can be given to each qualified CSP. CPower recommends that EMT adopt the former method (first come, first serve); this method provides for more efficient enrollment and faster attainment of capacity targets. An equal allocation method is not efficient because it may result in some CSPs being unable to fill their capacity allotment (while others may fill their allotment quickly). Therefore, the quickest and most efficient way to fill the program is to allow CSPs to enroll customers on a first come, first serve basis.

6. [Paragraph 13] Weekend Events:

- CPower encourages EMT to allow for the possibility of weekend curtailment events. The peak day load profiles in New England have been changing over the last several years, primarily due to the introduction of behind the meter distributed generation resources. This has pushed the peak hours into periods that were not foreseen just a few years ago. In several recent years, peak events have occurred on weekends. In those cases, these "weekend peaks" were later surpassed by higher weekday peaks, however, had the extreme warm weather that generated those later weekday peaks not occurred, ISO-NE would have had their peak day on a Saturday

during 2019 and 2020. EMT should design a system that is robust enough to accommodate a weekend peak.

- CPower agrees that weekend events should be optional, with a bonus payment for weekend events, but no penalty if the customer was already shut down and did not contribute to the weekend peak.

7. [Paragraphs 17 – 25] Battery Programs:

- How will battery performance be calculated? CPower encourages measuring performance as the discharge from the battery, rather than based on a baseline calculated at the meter. This will encourage some customers to participate in both the Battery Storage program (LSI) and the Demand Response Curtailment option (DRI), maximizing benefits to Maine customers. Measuring at the meter would preclude dual participation and could lead to overpayment in the LSI program (for both battery discharge and load curtailment). If instead, battery performance is measured at the battery, this performance can be netted out of the customer meter, and load reductions and battery performance can be compensated appropriately at their respective incentive rates.
- Who will control the charge and discharge cycles of batteries during program months? EMT? CSPs? Customers?
 - Who will control the batteries on non-program months?
 - When will the customer be free to utilize their battery to minimize their utility demand charges?

Thank you for your consideration of these comments. Please feel free to reach out to me with any questions

Sincerely,

/s/ R. Keith Black

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