

**COMMENTS OF CENTRAL MAINE POWER COMPANY**

Central Maine Power Company (“CMP” or the “Company”) respectfully submits Comments to the Beneficial Electrification: Barriers and Opportunities in Maine - Draft Report (“Draft Report”), dated December 24, 2019, issued by the Efficiency Maine Trust (“the Trust”).

Maine has adopted aggressive greenhouse gas (“GHG”) emission reduction goals to address climate change. While a source of emissions continues to exist from fossil fuel combustion for the generation of electric power, other sectors that significantly contribute to emissions include the transportation, residential, commercial and industrial sectors. Progress has been made transitioning electricity generation to clean renewable resources, and there are additional opportunities to meet the state’s GHG targets in terms of “beneficial electrification.”<sup>1</sup> CMP continues to be a deliverer of clean energy, responsive to Maine’s policy goal. The Company supports strategic electrification to aid in de-carbonization and as an activity that potentially will place downward pressure on electricity rates paid by all customers. While CMP’s primary obligation is to ensure stable operations of the electric distribution grid for the delivery of safe, reliable, and affordable electricity to all customers in our service territory, the Company has been investing in foundational technologies and applications to improve reliability, resiliency, and address customer expectations. CMP is well positioned and uniquely qualified to provide the capabilities and functions necessary to address barriers to beneficial electrification of the various end-uses currently dominated by fossil fuels.

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<sup>1</sup> "Beneficial electrification" means electrification of a technology that results in reduction in the use of a fossil fuel, including electrification of a technology that would otherwise require energy from a fossil fuel, and that provides a benefit to a utility, a ratepayer or the environment, without causing harm to utilities, ratepayers or the environment, by improving the efficiency of the electricity grid or reducing consumer costs or emissions, including carbon emissions.

The Company appreciates the Trust’s approach in studying the barriers and opportunities for beneficial electrification in the transportation and heating sectors and the resulting Draft Report. The Company is appreciative of the time and effort devoted by the Trust to create the Draft Report, and respectfully provides the following comments to the Draft Report.

## **I. COMMENTS**

### **A. Transportation Electrification**

Seamless integration of high levels of transportation sector electrification will require the ability: 1) to forecast EV growth and to assess the impact to the network; 2) to integrate EV load while minimizing the impact on peak demand through strategies such as rate design and active load management; 3) to support EV market growth by ensuring sufficient charging infrastructure and system capacity; and 4) to positively influence customers’ perception of EVs through outreach and education. While CMP has invested in foundational technologies such as advanced metering infrastructure (“AMI”), these systems can be further leveraged to provide the additional functionality and capabilities that will be required to support and optimize high levels of electrification in this sector.

CMP agrees with the barriers to Electric Vehicle (EV) adoption identified by the Trust and generally agrees with the solutions proposed in the report. One solution detailed in the report focuses on charging infrastructure. Here, again, CMP is generally supportive of the strategies highlighted. However, the Company believes that certain utility ownership models, including “make-ready” investments, encourage private development in charging infrastructure. Specifically, the report states, “traditional regulatory principles dictate that incremental costs to

the utility system are allocated to those who cause the costs to be incurred.”<sup>2</sup> While this cost-causation concept is true in principal, policy and pragmatic exceptions exist. A clear example of which is non-geographically differentiated electricity delivery pricing, wherein customers in a class are charged the same prices regardless of the actual costs to provide ongoing delivery of electricity to any particular customer in the class. The Company believes that, given the state of the electric vehicle market in Maine, limited investment of ratepayer funds in charging infrastructure can result in benefits for all ratepayers. These benefits may be actualized in the form of increased revenue from EV owners and operators and increased efficiency of the distribution system through increased off-peak consumption. Additional societal benefits may be realized by all ratepayers in the form of reduced GHG emissions and improved air quality.

As potentially having additional information for incorporation in the beneficial electrification report, CMP suggests the Trust review the recently released New York Department of Public Service (“NY PSC”) Staff Whitepaper Regarding Electric Vehicle Supply Equipment and Infrastructure.<sup>3</sup> This Whitepaper is NY PSC Staff’s proposal for a statewide make-ready program for electrical charging infrastructure in New York. Pages 20-21 of this Whitepaper, for instance, provide an overview of the various ownership models for charging infrastructure.

CMP has ongoing efforts to encourage transportation electrification, including charging station grants and EV pilot projects. Given the extent to which the section on Load Flexibility Pilot Projects in Maine, pages 24-25 and other parts of the report relay beneficial electrification

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<sup>2</sup> Beneficial Electrification: Barriers and Opportunities in Maine, Staff Report of the Efficiency Maine Trust, December 24, 2019 at page 46.

<sup>3</sup> Issued January 13, 2020 in NY PSC Docket 18-E-0138, Proceeding on Motion of the Commission Regarding Electric Vehicle Supply Equipment and Infrastructure.

activities and studies being conducted in Maine by the Trust and others, it should be noted, perhaps in this section in the last paragraph on page 25, that CMP has also conducted an EV Pilot where, among other topics, charging behavior and timing of EV drivers was assessed. For charging behavior results see pages 19-24 of the attached July 31, 2015 final semi-annual report on CMP's EV pilot projects.

In the paragraph starting "Section 5.2.5" on page 50 of the report, note that "make-ready" work and EVSE ownership aligns well with the definition of beneficial electrification. Both EVSE ownership and "make-ready" work can provide a benefit to utilities (through increased asset utilization and rate base), a benefit to ratepayers (through increased throughput that increases load factors), and a benefit to the environment (through carbon reductions). The Benefit-Cost Analysis ("BCA") of EV Deployment in New York State found that, "from a societal perspective, the EV BCA is positive across all scenarios and regions, as it captures the benefits of reduced GHG emissions, pollutants, and displaced petroleum" and that "ratepayer benefits are realized through electricity supply cost savings, incremental revenue collected for EV charging via utility bills, and the mitigation of distribution system upgrades."<sup>4</sup>

How to transition existing employment and economic activity to electrified transportation (and heating) is an important topic covered in this report. To add to the discussion in the last full paragraph on page 52 on the transition of entities that are part of the fossil-fuel economy, it may be helpful to point out that DCFC stations may be installed at convenience stores, as these stores exist for the convenience of commuters.

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<sup>4</sup> Department of Public Service Staff Whitepaper Regarding Electric Vehicle Supply Equipment and Infrastructure at page 22.

Finally, around financial incentives for EVs (pages 25-26), note that another possible incentive is to wave the annual Maine inspection sticker fee for EVs.

## **B. Heating Electrification**

The Company finds the discussion in the report on heating electrification to provide a good description of the challenges and opportunities of heating electrification and the efforts of the Trust to provide incentives to encourage heating electrification. While the heat pump deployment goals are aggressive, a transition of Maine’s heating sector away from a dependence on oil is an important and necessary step to reduce carbon emissions.

## **C. Electricity Pricing**

The report is well-served in exploring the critical issue of proper electricity pricing. The Company offers the following comments to further clarify electricity pricing.

The discussion on rate mechanisms on pages 23-24 could be read to suggest that electric utilities in Maine have the ability to charge or solicit time-varying pricing for electricity production (energy supply). This ability does not exist. Rather, it is the Maine Public Utilities Commission that has the responsibility for tendering default electricity supply, including time-varying pricing options. Competitive electricity suppliers may also offer time-varying electricity supply pricing products. Maine’s electric utilities only provide electricity delivery services.

As such, the Company would recommend editing the following sentence on page 23 as follows (insertions in italics): “To that end, electric *delivery* utilities can use various forms of time-varying pricing, charging different rates per kWh *or kW* consumed depending on the time of day, season, and type of day (e.g., critical peak day) to better align prices with costs of

producing and delivering electricity.” A further sentence discussing how the Maine PUC could procure time-varying default electricity supply options may be beneficial to add for further clarity.

In addition, note that price signals in rate design are not established for the purpose of incentivizing or disincentivizing certain behaviors but to accurately reflect costs, which may include Pigovian pricing mechanisms that internalize cost externalities. It is transparent, accessible, and cost-reflective pricing that enables customers to make economically efficient decisions with regard to the allocation of their capital. Because costs can and do vary across time, economically efficient price signals reflect these time variant costs.

Note that the last paragraph of this rate mechanisms section on page 24 should be revised to reflect that CMP already offers time-varying delivery rates. CMP has time-varying kW delivery charge options for medium and large class customers and time-varying kWh delivery charge options for residential and small commercial class customers. And again, CMP does not tender standard offer rates. CMP is a delivery-only electric utility. As such, the sentence “In fact, Central Maine Power (CMP) and Emera have experimented with time-varying rates in the past for certain circumstances” is not particularly accurate. Perhaps the intent here is to convey that the Maine PUC has solicited standard offer time-varying residential supply rates in the past.

Regarding further discussion of rate mechanism on page 28, note that technology-specific rates should generally be avoided as they are not a sustainable pricing solution in and of themselves. End-use technologies that consume electricity and the behavior of that consumption are constantly evolving. Rather, electricity rates are set to reflect the cost of service in alignment with economic theory and rate design principles. However, it may be the case that a more cost-reflective rate can be developed that has the ancillary benefit of improving certain end-user value

propositions. CMP has proposed a two-part demand rate for DCFC stations that threads this needle.

As noted by the Trust, “Level 3 charging stations are typically subject to utility tariffs that contain demand charges to ensure the reasonable and equitable recovery of fixed distribution costs.”<sup>5</sup> To further clarify, these demand charges at CMP are based upon the maximum power draw averaged over a 15-minute period.

#### **D. Other Topics**

CMP looks forward to working collaboratively with the Non-Wires Alternatives (“NWA”) Coordinator, the Trust and other interested parties to assess whether demand reduction strategies can meet CMP’s electric transmission and distribution system reliability needs more cost effectively than traditional poles and wires solutions, ensuring the best value for CMP’s ratepayers. To that end, CMP suggests editing the last sentence to the section on Renewable Energy Supply on page 22 to (insertion in italics) “The NWA Coordinator, working in collaboration with the Trust, *transmission and distribution utilities, and interested parties*, will have the opportunity to assess whether demand reduction strategies can meet reliability needs at a lower cost, ultimately ensuring the best value for ratepayers.”

Addressing the challenges of electrification for those customer groups with little capital is a significant challenge that is properly addressed in this report. To expand on this important issue, the section on customer groups facing particular investment challenges on pages 31-32 may also include discussion on programs that address ongoing operational cost barriers for these

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<sup>5</sup> Draft Report, P. 42

customers. CMP suggests information be added that describes Maine’s low-income assistance program that mitigates electricity purchase costs.

Finally, the Company has significant and ongoing contact with electricity consumers. Utilities communicate with every one of their customers on a regular basis – at a minimum through the billing process – so are well positioned to perform consumer outreach. As such, the consumer awareness solutions section on page 32 ought to mention the existing role of utilities in providing consumer awareness solutions. As providers of electricity delivery service, Maine’s electric utilities communicate with almost all Maine consumers regularly. Electric utilities provide electricity information and education through their websites, events, and other activities to help consumers understand their electricity consumption. As part of the AVANGRID family, CMP seeks to work together to deliver a more accessible clean energy model that promotes healthier, more sustainable communities to these consumers every day.

## **II. CONCLUSION**

The Company commends the analysis of the Trust set forth in the Draft Report, and appreciates the opportunity to present these written comments. The Company respectfully requests the Trust consider the foregoing comments before issuing a Final Report.

### **III. APPENDIX**

To aid in polishing the document, the following minor edits were observed upon reading of the report.

Barriers, pages 27-28: At the end of the first full paragraph on page 28, the word “alterative” is likely meant to be “alternative”.

Consistent Price Signals, pages 28-29: For the sentence going from pages 28 to 29, the word “were” is likely meant to be “where”.

Cost, pages 36-37: In the first full paragraph on page 37, the word “continue” should probably be deleted in the sentence discussing VRF market growth.

Footnotes 68, page 26 and 147, page 47: This hyperlink for Nissan’s rebate program is broken (404 Page Not Found error).