



July 31, 2023

Harry Lanphear
Administrative Director
Maine Public Utilities Commission
#18 State House Station
Hallowell, ME 04347

RE: PUBLIC UTILITIES COMMISSION, Request for Proposals for
Pilot Programs to Support Beneficial Electrification of the Transportation
Sector (P.L. 2019, ch. 365, § 5), Docket No. 2019-00217

Dear Mr. Lanphear:

CMP submits the attached report on the “B-DCFC General Service – Electric Vehicle Direct Current Fast Charger and Critical Care Energy Storage (“DCFC”) pilot rate to the Maine Public Utilities Commission’s (“MPUC” or “Commission”).

Sincerely,



Mary Alice Laiho
Manager, Pricing and Analysis

STATE OF MAINE
PUBLIC UTILITIES COMMISSION

DOCKET No. 2019-00217

July 31, 2023

MAINE PUBLIC UTILITIES COMMISSION
Request for Proposals for Pilot Programs to
Support Beneficial Electrification of the
Transportation Sector (P.L. 2019, ch. 365, § 5)

Central Maine Power Company
Final Report

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I. INTRODUCTION

This is the final report on the “B-DCFC GENERAL SERVICE – ELECTRIC VEHICLE DIRECT CURRENT FAST CHARGER AND CRITICAL CARE ENERGY STORAGE (“DCFC”) pilot rate to the Maine Public Utilities Commission’s (“MPUC” or “Commission”) in accordance with Docket No. 2019-00217. The contents of this report includes the number of customers enrolled in the program, delivery cost savings and revenue loss associated with the implementation of the two-part demand rate.

Per Docket 2021-00325 the Commission approved phasing out the B-DCFC Pilot and in Docket 2021-00198, rate B-DCFC rate was cancelled July 1st 2023 and renamed Optional Targeted Service Rate Coincident Peak Transmission (“B-CPT”). “The methodology for calculating distribution rates for the B-CPT Rate shall be the same methodology used for the B-DCFC Rate. Under the B-CPT Rate, the end-use restrictions of the B-DCFC Rate will be removed such that all MGS, IGS, and LGS customers taking service at secondary or primary voltage levels will be eligible to take service under this optional, whole-facility rate. The actual Rate B-CPT may change from the current Rate B-DCFC prices over the course of normal price change business (e.g., January 1st transmission price changes and July 1st annual compliance filing price changes). The B-CPT Rate shall not have a termination date.”

Below is a summary list of the new eligibility requirements summarized from Docket No. 2021-00325:

1. B-CPT is an optional rate for customers who are MGS and larger.
2. Customers already on an optional rate may not participate in another optional rate.
3. Customers taking short-term delivery service are not eligible.
4. There is no longer a requirement that the customer have EV Chargers.
5. There is no longer a requirement that load on B-CPT be separately metered.
6. Customer must be moved to billing cycle 19 which occurs after the system coincident peak hour is published.
7. Any customer taking service under B-CPT whose maximum monthly measured demand has not exceeded 20 kW in each of the preceding twelve months shall be transferred to the applicable Small General Service rate, effective with the next succeeding billing month and no longer eligible for B-CPT.
8. B-CPT has a transmission demand charge (measured on a monthly RNS coincident system peak basis) and a distribution demand charge (measured on a monthly individual (noncoincident) peak basis). B-DCFC/B-CPT was originally designed to not be dependent upon the creation of cross-subsidies to subsidize beneficial electrification. Rather, the rate design is based upon cost causation. EV chargers can save on delivery costs because those fast chargers are not contributing to the network costs of delivery as much as other loads. And they can further reduce their delivery costs (and contribution to

T&D network costs) if customers are willing to try and anticipate and avoid peak times (both system peak and individual peak). Such change in charging behavior reduces T&D delivery costs by reducing the need for new infrastructure upgrades to meet higher peaks – those costs reductions are passed along to the customer via the B-CPT construct.

9. Reactive Demand Charge for customers with non-coincident demands less than or equal to 1,000 kW, the applicable reactive demand charge from the table above will be applied to reactive demand in excess of 50% of the monthly kW demand or, for time-differentiated options, the monthly on-peak kW demand. For customers with non-coincident demands greater than 1,000 kW, the applicable reactive demand charge from the table above will be applied to reactive demand in excess of 50% of the first 1,000 kW of monthly on-peak kW demand and 25% of all additional monthly on-peak kW demand.
10. For customers with maximum measured non-coincident demands below 400 kW and taking service under a rate option that is not time-differentiated, the monthly non-coincident peak demand shall be the highest 15-minute integrated kW demand registered during the month as determined by the Company.”

II. B-DCFC RATE PILOT RESULTS

The B-DCFC Rate Pilot ran for three years from July 1, 2020 to July 1, 2023. Over that time nine customers with 21 separately metered accounts enrolled in the program¹.

During the 3-year pilot the delivery cost savings realized by customers averaged sixty percent of their total transmission and distribution (“T&D”) costs. The average credit was \$1,834.51. The value of the total credits applied was \$339,746.12² This is consistent with the report filed in August 2022 which showed an average of sixty-one percent.

There was no revenue loss associated with the implementation of this two-part demand rate. Any distribution revenues that were not collected from these customers is recovered through the annual revenue decoupling mechanism.

III. CONCLUSION

The new rate was designed for customers with behind the meter storage that have sophisticated energy management processes and technology. While customers on B-CPT will

¹ See Appendix Figure 1

² See Appendix Figure 1

earn the same distribution demand charges as the DCFC rate they should also be aware of the risk of operating during the coincident system peak (CP) which is published by ISO-NE and available on CMP RNS Downloads (RNS Downloads - CMP (cmpco.com)). In order to optimize costs customers will need to forecast CP and manage demand during this time in order to avoid demand charges.

B-CPT has a transmission demand charge (measured on a monthly RNS coincident system peak basis) and a distribution demand charge (measured on a monthly individual (noncoincident) peak basis). B-DCFC/B-CPT was originally designed to not be dependent upon the creation of cross-subsidies to subsidize beneficial electrification. Rather, the rate design is based upon cost causation. Customers that are not contributing to the network chargers can save on delivery costs because their cost of delivery is not as much as other loads. These customers may further reduce their delivery costs (and contribution to T&D network costs) if customers are willing and able to forecast and manage load to avoid peak times (both system peak and individual peak). Such change in charging behavior reduces T&D delivery costs by reducing the need for new infrastructure upgrades to meet higher peaks. Those costs reductions are passed along to the customer via the B-CPT rate construct.

Since July 1 CMP has seen a dramatic increase in the number of customers interested in B-CPT. Since the completion of the pilot and the cancellation of DCFC these customers have been enrolled in the new B-CPT rate. Now that customers are no longer required to have EV chargers or be separately metered, an additional 26 new accounts have enrolled in B-CPT and another thirteen accounts have asked for a best rate analysis against other optional LGS-TOU rates.

CMP continues to process customer credits using the same manual method as the pilot DCFC rate. It currently takes 35 minutes to onboard a new customer and 6.8 hours per month to process credits for all customers. Considering the growing popularity of this rate for LGS and IGS customers CMP is pursuing a process to automate the calculation and application of customer credits.

Please contact me if the Commission has any questions regarding this Final Report.

Respectfully submitted,



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IV. APPENDIX:

Figure 1: DCFC Customer Savings

Location	Avg Credit	Credit Applied	Total Delivery	Total % Savings
Oxford	\$ 166.10	\$ 3,155.93	\$ 6,353.42	50%
Biddeford	\$ 2,023.90	\$ 50,945.13	\$ 105,909.40	48%
Windham	\$ 1,102.09	\$ 25,622.21	\$ 42,640.38	60%
Westbrook	\$ 1,115.16	\$ 16,727.43	\$ 25,119.21	67%
Portland	\$ 2,212.18	\$ 4,424.35	\$ 5,988.69	74%
Biddeford	\$ 1,263.58	\$ 20,533.02	\$ 29,664.46	69%
Newport	\$ 1,127.17	\$ 5,635.86	\$ 7,807.24	72%
Lewiston	\$ 563.86	\$ 1,691.59	\$ 2,180.27	78%
Portland	\$ 210.52	\$ 2,535.51	\$ 4,243.72	60%
Rangeley	\$ 186.08	\$ 1,014.12	\$ 1,299.38	78%
Bethel	\$ 2,023.90	\$ 50,945.13	\$ 105,909.40	48%
Skowhegan	\$ 1,562.78	\$ 7,315.78	\$ 14,310.96	51%
Portland	\$ 3,190.69	\$ 15,022.72	\$ 45,811.74	33%
Saco	\$ 3,745.39	\$ 11,236.16	\$ 15,825.67	71%
Waterville	\$ 3,941.80	\$ 21,452.91	\$ 31,960.69	67%
Augusta	\$ 2,719.67	\$ 15,038.03	\$ 20,785.37	72%
Freeport	\$ 3,790.33	\$ 20,213.03	\$ 37,302.08	54%
Farmington	\$ 1,977.71	\$ 9,954.10	\$ 19,390.41	51%
Waterville	\$ 2,926.62	\$ 14,603.99	\$ 27,598.04	53%
Jackman	\$ 1,122.44	\$ 5,414.32	\$ 11,939.88	45%
Windham	\$ 1,552.67	\$ 4,658.00	\$ 7,141.42	65%
	\$ 1,834.51			60%
		\$ 308,139.32	\$ 569,181.83	