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MMWEC, Center for EcoTechnology Issue Report to Align Carbon-Based Incentives with Decarbonization Goals

Ludlow, MA – November 21, 2022- The Massachusetts Municipal Wholesale Electric Company (MMWEC) and its decarbonization and energy efficiency partner, the Center for EcoTechnology (CET), have released a report detailing a new model designed to help municipal light plants (MLPs) develop carbon-based incentives for MMWEC's NextZero program.

The report, "[Carbon-Based Incentives: Aligning Utility Incentives with the Decarbonization Impacts of Efficiency and Electrification Measures](#)," was produced by CET, with assistance from staff from MMWEC and Shrewsbury Electric and Cable Operations (SELCO). MMWEC received a grant from the American Public Power Association (APPA) Demonstration of Energy & Efficiency Improvements (DEED) program to help fund the project.

The report details the development of the model, which is designed to help MMWEC's MLP members set energy efficiency and electrification incentives at levels that are fully aligned with the Commonwealth's decarbonization objectives. The model uses carbon as the metric for deriving incentive levels and for comparing carbon benefits from a range of measure types, including efficiency, electrification, renewable energy, demand response, and storage. In addition to the carbon analysis, the model also calculates economic impacts of installed measures for the customer and utility.

The model, to be used by NextZero program managers and utility staff, is designed to be easily adapted to reflect the unique aspects of each utility. Users have control over utility-specific inputs, including electricity pricing, electricity carbon emission factors, existing utility incentives, and carbon price, which is a price per ton of carbon avoided.

With inputs relevant to MMWEC participants, the model finds that overall, the measures with the largest recommended incentives are ground source and air source heat pumps. Other top measures from a carbon mitigation perspective are electric vehicles, solar PV, and heat pump water heaters.

While the model is a helpful tool to measure carbon and financial impacts of energy efficiency and electrification measures, the study's authors suggest that other benefits, such as fuel switching and health benefits, be considered in the development of incentives as well.

"With the evolution of utility programs from conservation-focused to decarbonization-focused, it's time that program incentives, such as for heat pumps, insulation, EV chargers and appliances, be sized based on the amount of carbon they

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offset,” explains Ashley Muspratt, President at the Center for EcoTechnology. “The model we built allows utilities to set a carbon price, or a willingness to pay for carbon, and the model will set incentives accordingly. This way, a utility is always paying a consistent carbon price, say \$50 or \$100 per ton of CO2.”

“The Carbon Based Incentive Model allows participants in the NextZero program to focus limited resources on measures that eliminate the most carbon emissions at the lowest cost, allowing rates to remain as low as possible,” explains MMWEC’s Sustainability Policy and Energy Program Senior Manager, Bill Bullock. “MMWEC considers low electric rates a built-in incentive to make strategic electrification an easier choice for electric customers in municipally owned electric utilities.”

MMWEC is a not-for-profit, public corporation and political subdivision of the Commonwealth of Massachusetts created by an Act of the General Assembly in 1975 and authorized to issue tax-exempt debt to finance a wide range of energy facilities. MMWEC provides a variety of power supply, financial, risk management and other services to the state’s consumer-owned, municipal utilities.

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