

Action Implementation Blueprints



ACTION NAME

Redesign electricity rates to support energy conservation, peak load management, electrification, and renewable energy generation.

DESCRIPTION OF ACTION

Concord Municipal Light Plant (CMLP) plans to deploy smart meters for all customers. Smart meters will allow CMLP to implement Time of Use (TOU) rates better align customer, utility, and grid expenses. TOU rates provide peak load savings, benefits to the grid, allowing customers to best utilize solar + energy storage and providing environmental benefits.

CHAMPION

CMLP

IMPLEMENTATION STEPS

PLANNING CONSIDERATIONS

TIME FRAME

KEY PARTNERS

1. Model how time-of-use (TOU) rates would affect peak load management, renewable energy generation, energy conservation, and electrification efforts. Analysis of existing rates and modeling of new TOU rates should be performed collectively to ensure the outcome reaches the right balance between customer value and utility goals.

2020-2021

- CMLP
- Concord Municipal Light Board
- Sustainability Division

2. Deploy smart meters to all CMLP customers with advanced metering infrastructure to provide communication network and data management system.

2022-2025

- CMLP

3. Pilot TOU rates across rate classes and with a variety of customer types and then deploy TOU rates community-wide.

2022-2025

- CMLP
- Concord Municipal Light Board

4. Design and implement marketing/awareness campaign to educate CMLP customers on the benefits of the rate re-design and the installation of smart meters.

2021-2025

- CMLP
- Concord Municipal Light Board
- Sustainability Division
- CSEC

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FINANCING RESOURCES AND MECHANISMS

- CMLP
- 2017 Town Meeting Article 26 – Smart Meter Improvements

TRADEOFFS (CHALLENGES/BARRIERS)

- Deployment of smart meters is a large project and may require a phased approach
- Rate changes require careful analysis and approval
- Smart meters must be deployed before TOU rates can be widely adopted
- Transitioning to TOU rates will require extensive community engagement and education

EQUITY CONSIDERATIONS

- TOU rates will be designed to reduce customer costs.
- As customers understand their energy use, they can change their behavior for additional cost and carbon benefits. Smart thermostats that sync with the smart meter can help give customers a real-time understanding of their usage.
- The Town could consider discounts or no-cost smart thermostats for low-income customers.

TRACKING SUCCESS

Outputs:

- Operational plan to deploy smart meters
- Timeline for rolling out TOU rates

Outcomes:

- Potential reduction in energy consumption if TOU paired with monitoring and appliance control technologies
- Reduction in peak demand
- Enhanced energy resilience

ENGAGING THE COMMUNITY

- TOU implementation will have an effect on all CMLP customers and the marketing and awareness campaign will be a critical step in gaining acceptance from all Town of Concord residents.
- Town committees and community groups with sustainability missions can help to build community support.