Local Energy Investment and Infrastructure Modernization



A Proposal for Massachusetts

The energy system in Massachusetts is undergoing a significant transition as consumer-centric technologies upend the historic model of supplying energy to passive consumers. Distributed solar, efficiency, and smart energy management can reduce the need for traditional utility infrastructure expenditures and save on overall costs, but reaping the benefits of these technologies requires reforms to grid planning standards, and utility and customer incentives.¹

In response to the changes transforming the energy system, the Massachusetts Department of Public Utilities (DPU) required the Commonwealth's electric distribution utilities to develop 10-year grid modernization plans. The DPU initiated a regulatory process to review the utilities' plans and allow stakeholders to provide input.² Acadia Center supports this process, and believes the grid modernization objectives established by the DPU in Order 12-76-B (the Grid Mod Order) are key to making a successful transition to the grid of the future. However, more needs to be done to help Massachusetts utilities and consumers adapt to an increasingly networked, electrified, and low-carbon energy system. The following legislative concepts supplement the Grid Mod proceedings by promoting local energy resources and customer control, and establishing consumer protections.

Concepts for Legislation

Grid Modernization 2.0: Planning for Local Energy Resources

Promptly completing the current DPU proceeding will provide initial steps toward modernizing Massachusetts' distribution system. Additional policies are needed to ensure sufficient stakeholder participation, establish consistent statewide plans, and use of best practices in utility system planning.

Specific Reforms

- Require an order in the current Grid Modernization proceedings by end of 2017
- Commence a subsequent DPU proceeding in early 2018 that establishes:
 - Specific metrics to evaluate progress under the main goals of the Grid Mod Order (reducing the impact of outages, optimizing demand, integrating local energy resources, and improving workforce and asset management) and other key indicators
 - o Protections for low-income consumers from potential negative effects of advanced metering technology and costs, including, but not limited to remote shutoff protection, and protection from special cost recovery mechanisms

¹ Acadia Center describes a pathway to this fundamental shift and a clean, modern, affordable energy future in its <u>EnergyVision</u> and <u>UtilityVision</u> publications.

²D.P.U. 15-120 (National Grid), D.P.U. 15-121 (Unitil) and D.P.U. 15-122 (Eversource). The utilities' plans were filed in August 2015, with the procedural schedule in all dockets suspended on August 2, 2016, and a revised procedural schedule issued on October 19, 2016. This schedule anticipates conclusion of discovery in April 2017 with hearings in May 2017, and a schedule for briefing and anticipated decision to be determined later.

- Submission of grid modernization plans every 5 years that analyze locational costs and benefits for local energy resources, create hosting capacity maps for distributed generation, and improve planning to more effectively integrate renewables
- Creation of a consumer advisory board to assist with development and approval of the new grid modernization plans, mirroring the successful model used to support Massachusetts' nation-leading utility energy efficiency programs.

Promote Local Energy Resources as Alternatives to Infrastructure

Current grid planning regulations favor traditional expenditures on transmission and distribution infrastructure, but cheaper, cleaner alternatives are increasingly able to meet energy system needs. Full consideration of local energy resource alternatives (LERs) ensures that all options are considered and solutions that benefit ratepayers, public health, and environment are chosen.

Specific Reforms

- Revise Energy Facility Siting Board procedures to require 3rd party evaluation of LERs and fair consideration in comparison to proposed transmission and/or distribution infrastructure
- Competitive procurement of LERs where cost-effective LERs could satisfy some or all the need

Cap Residential Fixed Charges to Promote Smart Energy Pricing and Protect Low-Income and Low-Usage Ratepayers

Electricity bills should be designed to empower consumers to make smart energy and economic decisions, and preserve the consumer incentive to use electricity wisely. Massachusetts should avoid reliance on high fixed charges, which make it harder to reduce electric bills by using less power or self-generating electricity.

Specific Reform

• Define fixed charges as limited to only the investment costs and operation and maintenance expenses directly related to the (1) cost of connection, not including the cost of advanced metering used to provide energy services; (2) billing; and (3) the provision of customer service

Offer Opt-In Time of Use Rates for Energy Supply to Improve Incentives

Energy supply and capacity costs are heavily influenced by the timing of electricity consumption. Time-varying rates provide better economic incentives to reduce overall generation costs and create opportunities for consumers to save money by taking advantage of low-cost hours.

Specific Reform

• Require default service to include an optional time of use rate with appropriate consumer protections, phasing out if the Department approves other time-varying rates.

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