

MMA 2016 Annual Meeting

Future Shock: What's in Store for our Electricity Needs?

DOER Commissioner Judith Judson

Massachusetts Energy Approach

1. Reduce and **stabilize the rising cost** of energy for consumers
2. Continue the Commonwealth's commitment to a **clean energy future**
 - GWSA GHG reductions: 25% by 2020 and 80% by 2050 (1990 baseline)
3. Ensure that we have a **safe, reliable, and resilient** energy infrastructure.



Clean Energy/Hydro Legislation

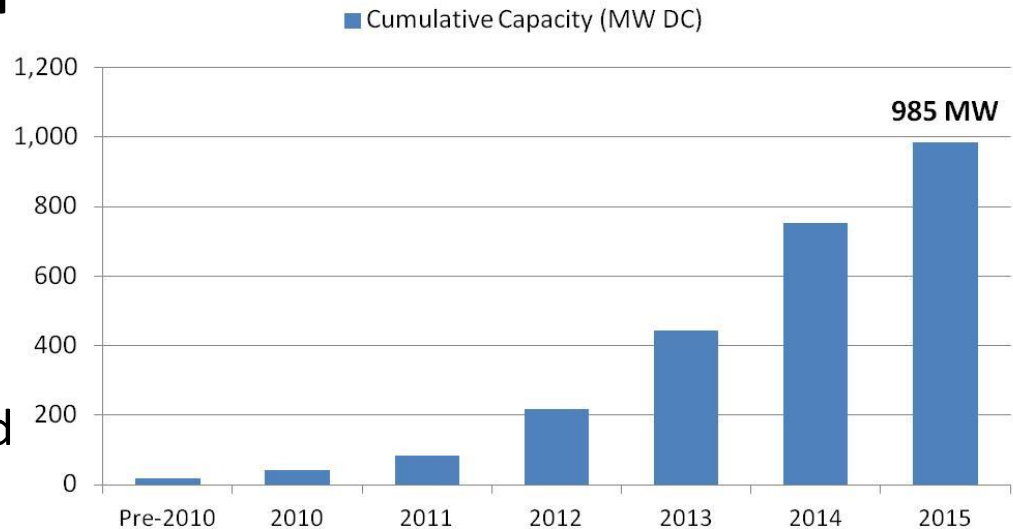
- **An Act Relative to Energy Sector Compliance with the GWSA (S. 1965), filed July 2015**
 - Allows the DOER & utilities to *review competitively solicited proposals* to bring large-scale hydroelectric power and other renewable resources to Mass.
 - 1200-2400 MW of reliable and clean *base load generation*
- **Hydroelectric Power**
 - Reliable, cost-effective, and renewable generation resource
 - Available 365/24/7 to meet MA demand
 - Is necessary to meet our GHG reduction targets
 - Can save Mass. ratepayers money

Renewable Energy

• Solar Legislation

- An Act Relative to a Long-Term Sustainable Solar Industry (H. 3724), filed August 2015
- Up to 1600 MW and beyond

Installed Solar Capacity in Massachusetts (as of 12/1/15)



• Three State Clean Energy RFP

- Connecticut, Massachusetts, Rhode Island
- Enables utilities to procure large amounts of clean energy
- Up to 280 MW for Massachusetts
- Posted Nov. 2015; Submissions due Jan. 28, 2016

Renewable Thermal

- **Alternative Portfolio Standard (APS)**
 - DOER to add renewable heating/cooling technologies to APS
 - Heat pumps, wood pellet boilers, solar hot water systems
 - Completing regulations; expect rulemaking in early 2016
 - Benefits
 - Reduce electric ratepayer costs
 - Reduce Alternative Compliance Payments (ACP)
 - Save on heating bills
 - Lower greenhouse gas emissions

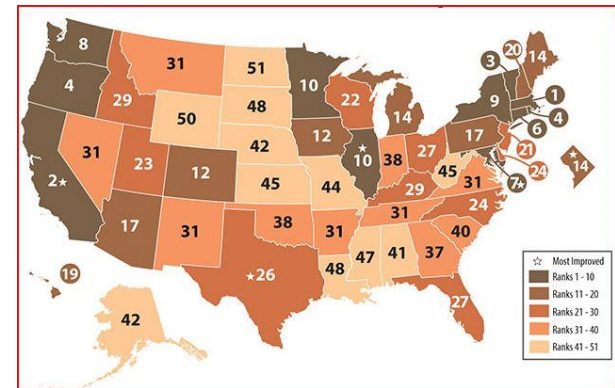
3rd Three Year Energy Efficiency Savings Plan 2016-2018

- Delivering most aggressive energy efficiency goals in U.S.

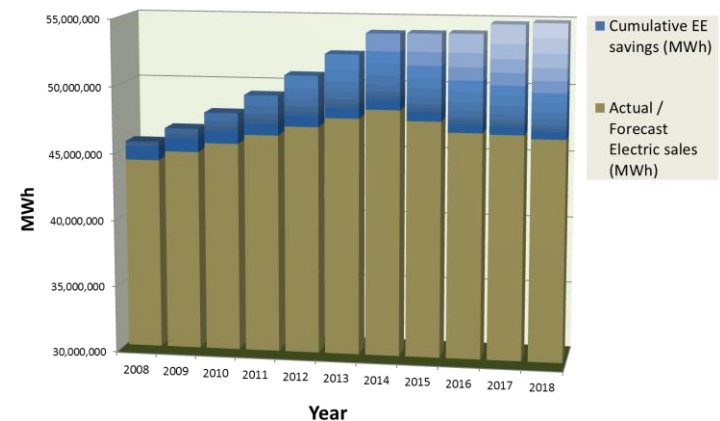
- \$8 billion in economic, environmental and energy benefits
- Electric savings: 2.93% reduction in retail sales each year
- Gas savings: 1.24% reduction in retail sales each year

- Addressing peak demand
- Embracing innovation

ACEEE ranks Mass. #1 state for energy efficiency, 5 years in a row

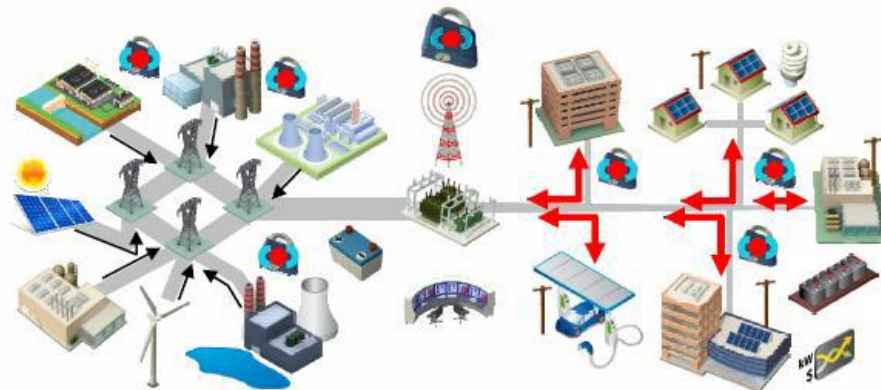


Cumulative impact of EE on MA electric load



Emerging Technology and Innovation

- Energy Storage - \$10M for study and pilots
- Resiliency – community clean energy projects
- Zero Emission Vehicles
- Grid Modernization Proceedings
 - Reducing the effects of outages
 - Optimizing demand, including reducing system and customer costs
 - Integrating distributed resources
 - Improving workforce and asset management

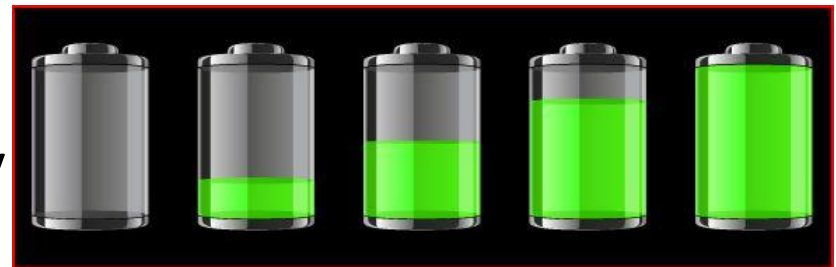


Energy Storage

- Storage is a **game changer** that can play a part in solving our energy challenges
- \$10 million Energy Storage Initiative includes **two-part study** as well as **demonstration projects**
- **Community Clean Energy Resiliency Initiative: \$40 million** in municipal resiliency projects focus on critical facilities using clean energy technology

“The Commonwealth’s plans for energy storage will allow the state to move toward establishing a mature local market for these technologies that will, in turn, benefit ratepayers and the local economy. “

Gov. Baker, May 2015

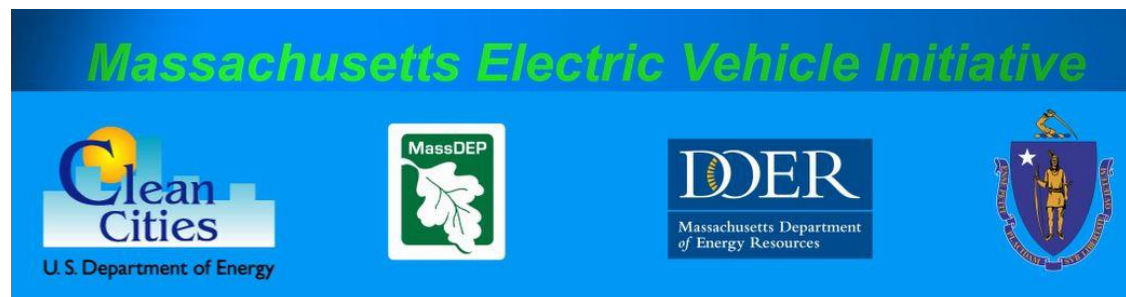


Electric Vehicles & Clean Transportation

- Install charging stations and spur the market for EV ownership
- MOR-EV Rebates
- Mass-EVIP
- Zero Emission Vehicles Commission
- Fleet conversions

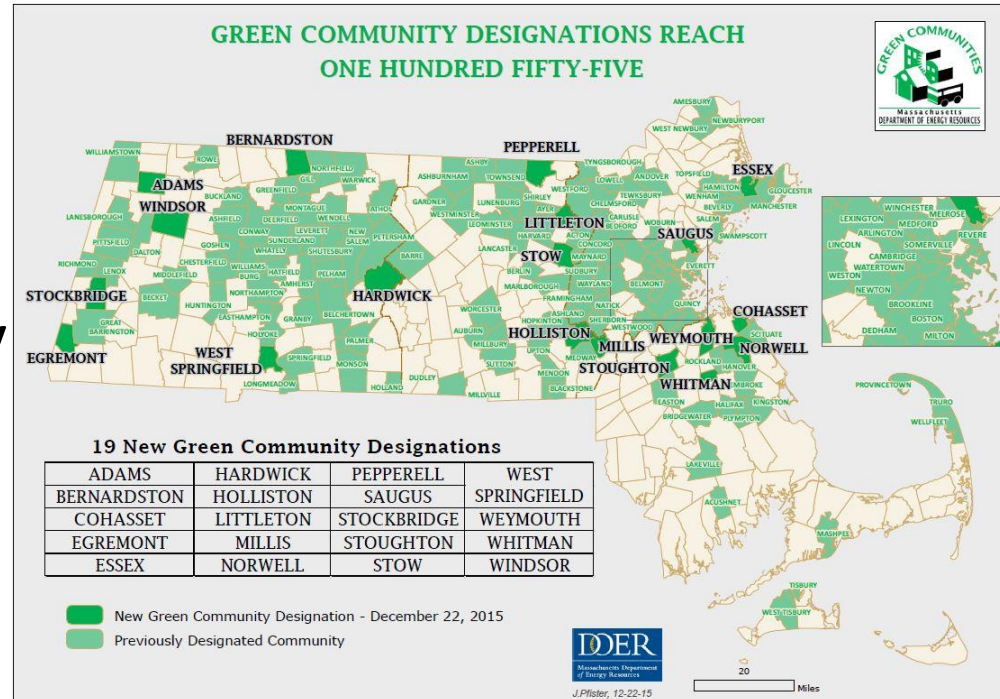


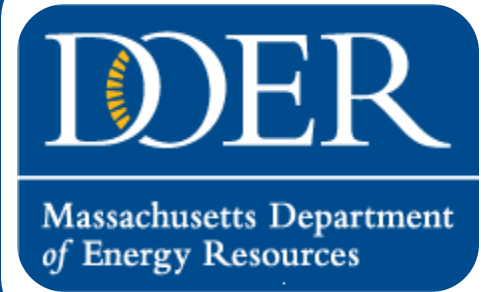
MOR-EV
Massachusetts Offers Rebates
for Electric Vehicles



Green Communities

- Energy hub for 351 cities and towns
- \$51.3 million for local clean energy and energy efficiency projects
- 155 designated Green Communities
- 54% of residents





Thank you!