

Utilities and Energy Markets: State of the Industry

ACEC/MA Webinar Program

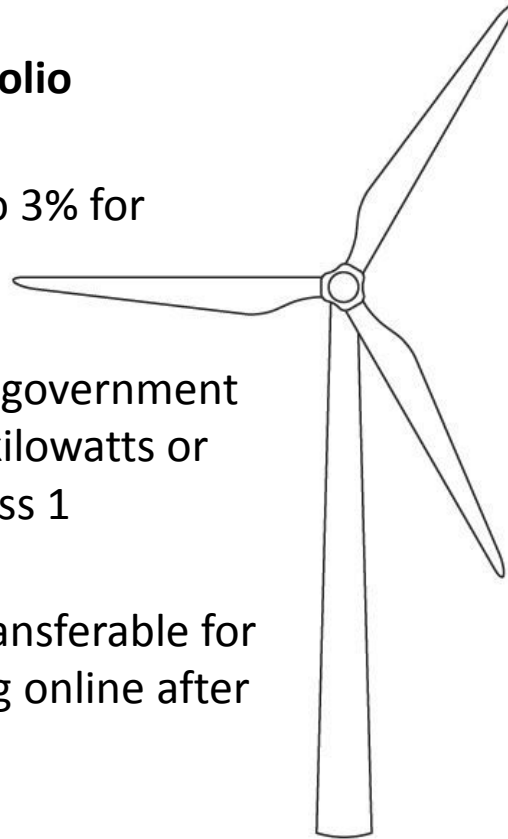
Patrick Woodcock, DOER Commissioner

April 15, 2021

Climate Bill & DOER – Renewable Energy

Renewable Energy Portfolio Standard (RPS)

- Increased from 2% to 3% for 2025-2030
- Municipal and other government solar facilities of 60 kilowatts or less to qualify for Class 1
- Excess RPS credits transferable for solar facilities coming online after January 1, 2021



Offshore Wind Generation

- 2016 authorization increased by 2400 Mw to 4000Mw
- DOER may require ECS to conduct procurements of transmission capacity for OSW

Electric Distribution Companies

- Allowed to own generation facilities in environmental high-risk areas with municipal approval
- Generating capacity cap of 10% of the states total as of FY2020

Climate Bill & DOER – Energy Efficiency

Changes to the energy efficiency programs intend to better balance cost with emissions reductions

- Three-Year Energy Efficiency Plans must include an estimate of social value of emissions reduction
- EEA Secretary sets a goal (in tons of carbon) for EE plans to achieve
 - EEA Secretary certifies if plan’s goal was met and files report with Legislature
- Cost effectiveness review based on “social value of greenhouse gas emissions reductions”
- Distribution companies are required to file quarterly reports on progress and contribution
- EEAC’s annual report to include annual estimation of impacts on meeting climate goals



Climate Bill & DOER – Building Code

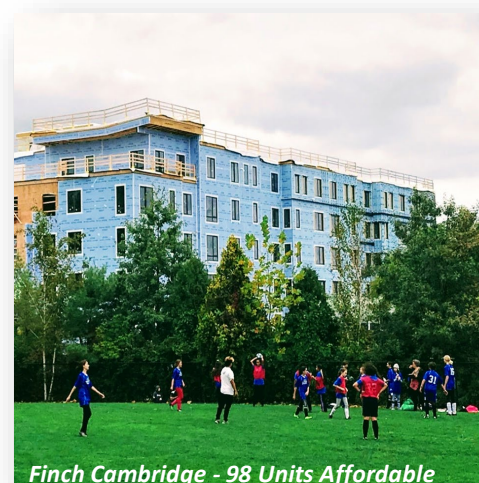
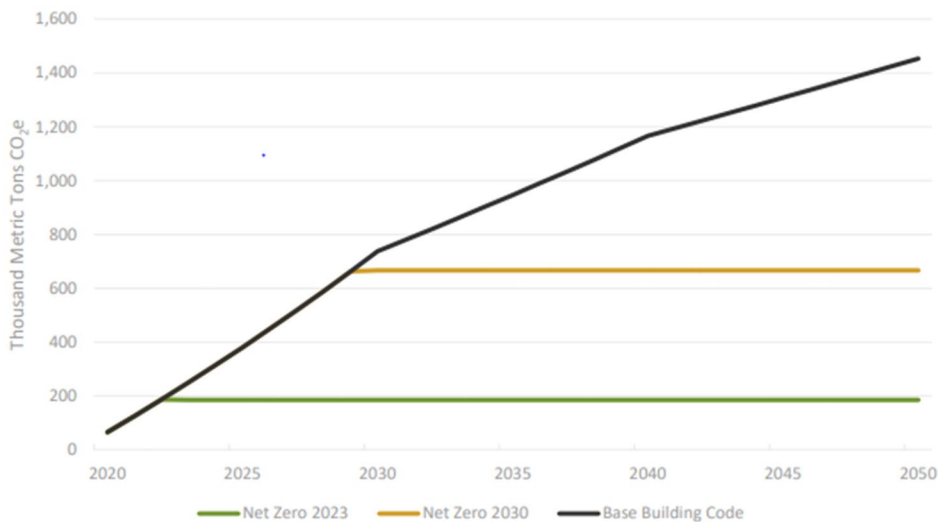
Stretch Energy Code

- Established in statute
- DOER may update
- Commissioner of DOER sits on board of Building Regulation and Standards (BBS) and shares responsibility with DPL

Specialize Stretch Energy Code

- Established in DOER's statutory mandate
- DOER promulgates within 18 months
- Municipal opt-in code for cities and towns
- Includes definition of net-zero buildings and sets performance standard
- DOER must hold at least 5 public hearings in geographically and population density diverse locations

Figure 14. Annual emissions from new construction associated with a 2023 and 2030 implementation of a high-performance electric code, as well as a no implementation scenario for commercial and residential buildings. Note that this does not include forecasts of unclassified energy-demand currently serviced by natural gas.



Finch Cambridge - 98 Units Affordable

DOER

Massachusetts Department
of Energy Resources

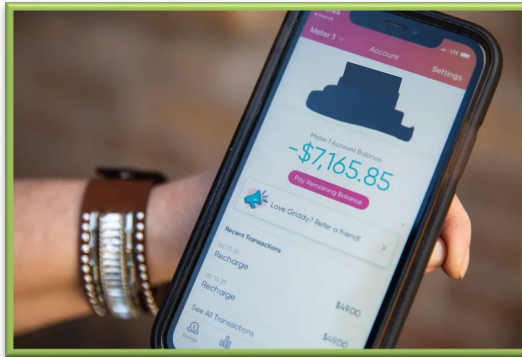
DOER Mission



Solar and renewable generation

Peak reduction and energy efficiency

Stored energy; Flexible resources



- Texas Tribune.

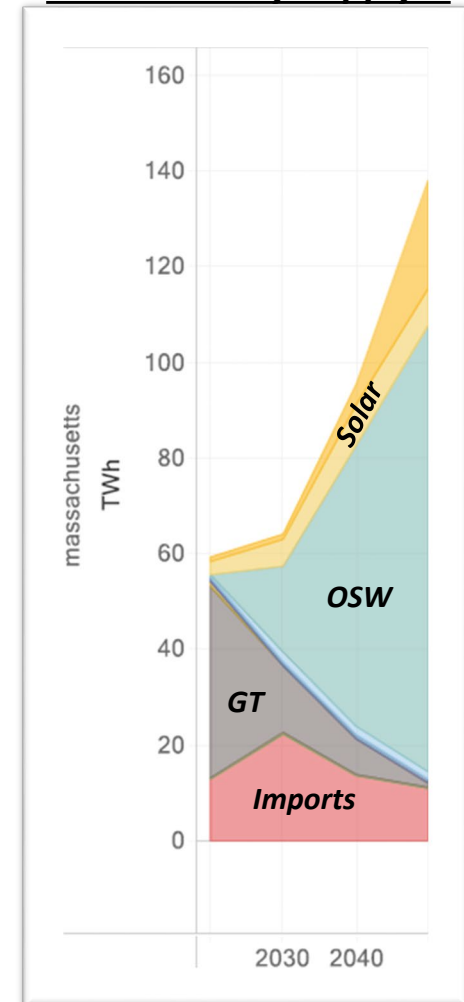


- Texas Tribune.

2050 Decarbonization Roadmap Study

- 2050 Massachusetts Decarbonization Roadmap Study was published last December. It includes scenario modeling to achieve net-zero GHG emissions in 2050
- Least-cost pathways are dominated by offshore wind (over 25 GW) and require new transmission
- A draft 2030 Clean Energy and Climate Plan was released for public comment as well

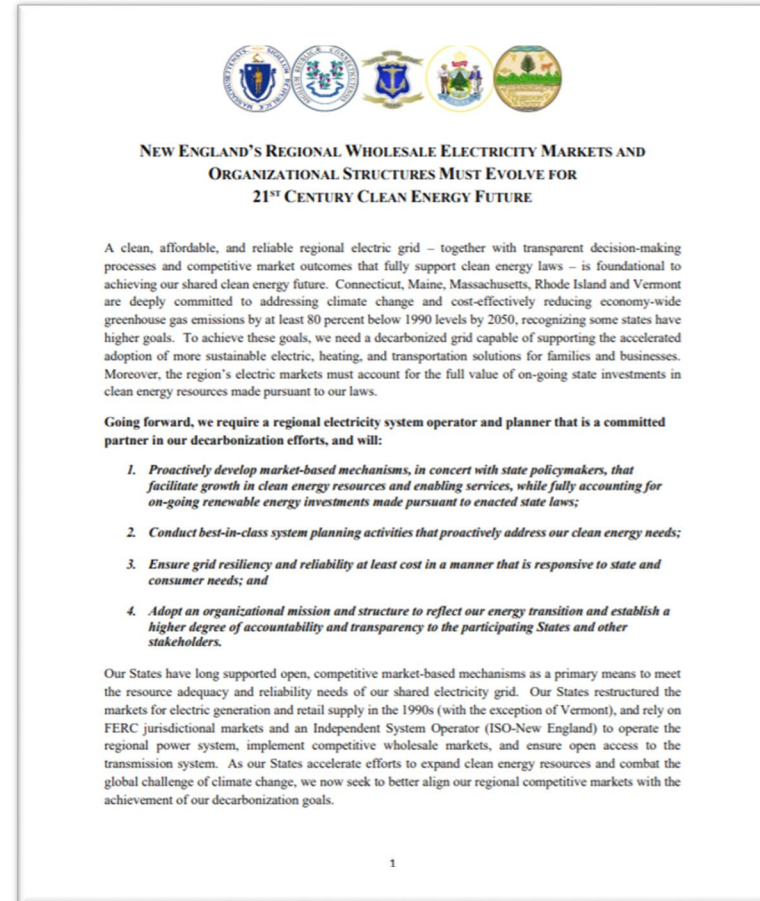
*MA Electricity Supply**



**Draft initial results.*

NESCOE Vision

- Recent NESCOE Vision document signed by five New England governors provides states' recommendations to ISO-NE:
 - Conduct a comprehensive long-term regional transmission planning process to integrate the new offshore wind resources necessary to meet state policy goals
 - Modernize wholesale market structures to accommodate state clean energy goals
 - Increase transparency and state voices in ISO governance
- Upcoming Technical Conferences to be hosted by NESCOE to generate dialogue with interested stakeholders



SMART Storage

- The percentage of projects utilizing the storage adder is increasing for Approved & Qualified resources to-date
- Developers say requiring storage is “healthy medicine”
- FCA Auction Results signal new era commencing;
- The nearly 1,600 MWh of approved and qualified storage projects exceeds the Commonwealth’s 2025 energy storage target
- Long-term challenges:
 - Interconnection (20-75);
 - Land-use/Clean Energy;
 - Long-duration storage.

SMART Status	# With Storage	MW of Storage	MWh of Storage
Approved	788	63	136
Qualified	1,088	508	1,459
Under Review	300	16	50
Approved + Qualified	1,876	571	1,595
Approved, Qual, & Under Review	2,176	587	1,645



Happy Hollow Community Solar + Storage Farm

MOR-EV Trucks

- In February, through a \$10 million commitment, DOER expanded MOR-EV to include light, medium and heavy-duty vehicles
- Program will help to reduce air pollution and increase access to clean transportation options
- Some program features include:

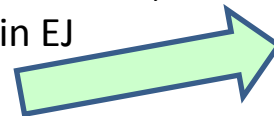


- An individual fleet may only reserve up to 10% of any particular incentive block, additional purchases are subject to block declines

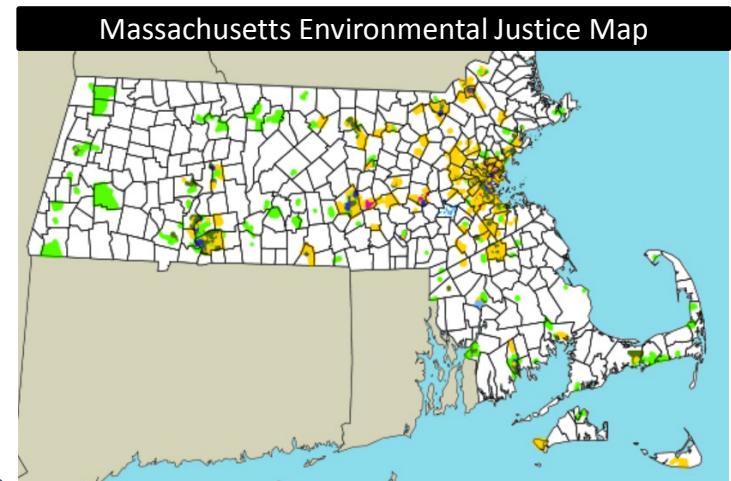
- Public and private purchases are eligible



- Environmental Justice Adder: 10% increase for vehicles registered in, or which primarily operate in EJ Communities



GVWR (lbs.)	BEV/FCEV Block 1 Value	Incentive Reservation	Block Size (# Veh)
8,501 – 10,000	\$7.5k	Rebate	200
10,001 – 14,000	\$15k	Rebate	200
14,001 – 16,000	\$30k	Voucher	100
16,001 – 19,500	\$45k	Voucher	100
19,501 – 26,000	\$60k	Voucher	100
26,001 – 33,000	\$75k	Voucher	50
33,001 +	\$90k	Voucher	50

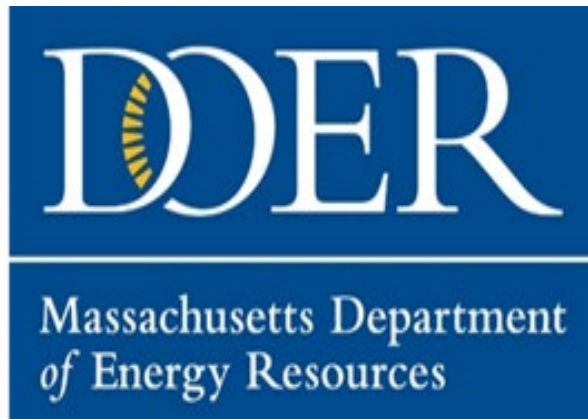


Massachusetts Department of Energy Resources

Environmental Justice and Equity Efforts

- A recent non-participant study found that moderate-income households, renter households, and language isolated households have lower awareness of Mass Save energy efficiency programs and participate at lower rates than other populations
- To address this, DOER is working closely with utilities to create the next three-year energy efficiency plan for the Mass Save programs with robust community engagement which included:
 - Six virtual public comment sessions
 - Six workshops
 - Equity working group created to address low participation and ensure community-driven priorities
- Some other EJ and equity focus areas in 2021:
 - **SMART Low-Income**
 - Expanded eligibility to income eligible EJ areas
 - Reserved 5% of all remaining capacity for certain low-income projects
 - **83C III Offshore Wind Draft RFP**
 - Would require bidders to submit diversity, equity and inclusion plans that includes a Workforce Diversity Plan and Supplier Diversity Program Plan
 - Asks bidders to detail any potential impacts, including assessments of cumulative environmental impacts, on EJ Populations and host communities





THANK YOU

