



# **Solar and Energy Storage for Massachusetts Environmental Justice Communities:**

**Benefits, Barriers, and Solutions**



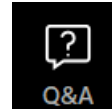
**May 26, 2026**

[www.cleangroup.org](http://www.cleangroup.org)

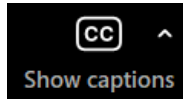
# Webinar Logistics

All attendees are in **“listen only” mode** – your webcam and microphone are disabled. The Chat function is also disabled.

**Submit questions** and comments via the Q&A panel



Automated **captions** are available



**Speaker bios** will be made available in the Chat

**This webinar is being recorded.** We will email you a webinar recording within 48 hours. This webinar will be posted on CEG’s website at [www.cleanegroup.org/webinars](http://www.cleanegroup.org/webinars)

We encourage you to provide feedback for us via post-webinar survey or email.

# Webinar Speakers

*Solar and Energy Storage for Massachusetts Environmental Justice Communities*



**Todd Olinsky-Paul**

Senior Project Director  
Clean Energy Group



**Paula García**

Senior Manager of Energy  
Justice Research and Policy,  
Union of Concerned Scientists



**Elena Weissmann**

Senior Regional Director,  
Northeast, Vote Solar



**Tanya Stasio**

Senior Researcher  
Applied Economics Clinic



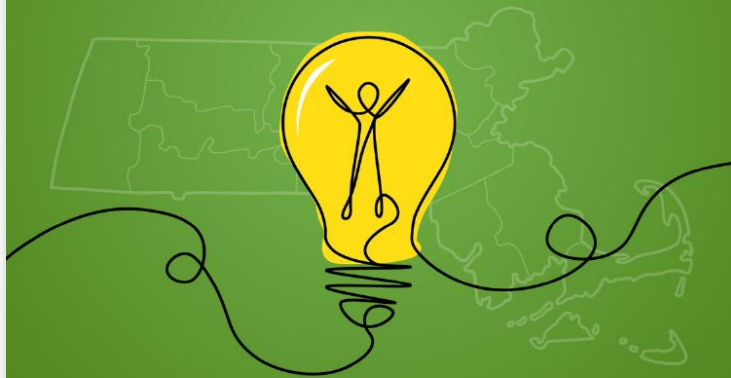
MAY 2026

# Electrification With Equity

PART

1

The Opportunity for Behind-the-Meter  
Solar and Storage in Massachusetts



MAY 2026

# Electrification With Equity

PART

2

Scaling Behind-the Meter Solar+Storage in  
Massachusetts Environmental Justice Communities





Affordable, reliable, clean energy for all.



**Climate Resilience and  
Community Health**



**Distributed Energy Access  
and Equity**

4



**Energy Storage and Flexible  
Demand**



**Fossil Fuel Replacement**

Science

and

for a

healthy planet  
safer world.

[ Union of  
Concerned Scientists





## Powering a Resilient World with Solar Energy

- Our mission is to realize a 100% clean energy future through a solutions-driven, people-first approach
- We work across state legislatures, utility regulatory commissions, and communities to defend and expand access to solar solutions



## Underlying Theory

- **Electrification** is the key to **decarbonization**
- Electrification also creates a **surge in electricity demand**
  - *Electrification will more than double peak demand in MA by 2050*
- If clean energy does not scale quickly enough, new gas generation will be the default technology to meet higher demand
- Clean energy without equity leaves half the state behind

**Solution: Behind-the-meter solar and solar+storage can scale quickly to reduce peak demand while delivering equity, resilience and human health benefits through investments in communities, not big corporations**

The programs and policies are ALREADY IN PLACE... they just need to be UPGRADED!

# Context and Opportunity

## Massachusetts Energy Omnibus Bill (Feb – June 2026)

- House passed H.5175 with provisions that can facilitate the expansion of BTM solar and storage: Permitting, interconnection, municipal net metering, solar for affordable housing, VPPs, plug-in solar
- Senate process underway, then the two versions to be reconciled through Conference Committee this summer / fall
  - The report provides evidence for protecting those House provisions, and ideas to expand them even further to meet our BTM potential

## Governor Healey Executive Order 654 (March 2026)

- Directs EEA and OEJE to analyze whether EJ communities have equitable access to clean energy program eligibility and benefits
  - Reports underscore the importance and can inform that analysis
- Targets 10 GW of new energy resources by 2035, including 4 GW of solar and 5 GW of storage
  - The report shows which program reforms are needed from all partners
  - 3.5 GW from demand management (a 175x scale): documentation of paired storage gap and how to meet potential

## Federal Context

- Phasing out of federal residential solar / storage credits
- Suspended leases for offshore wind projects

## Regulatory & Program

### SMART 3.0 Tariff (DPU Docket 25-175)

- The tariffs implementing the SMART 3.0 regulations are pending DPU approval.
  - This report documents the impact of the changes and provides evidence for administrators to correct course.

### Clean Energy and Climate Plan (CECP)

- The 2025/2030 CECP sets our clean energy targets with dramatic BTM growth to meet a doubled peak demand.
  - This report shows us how to get there and serves as a gap analysis.

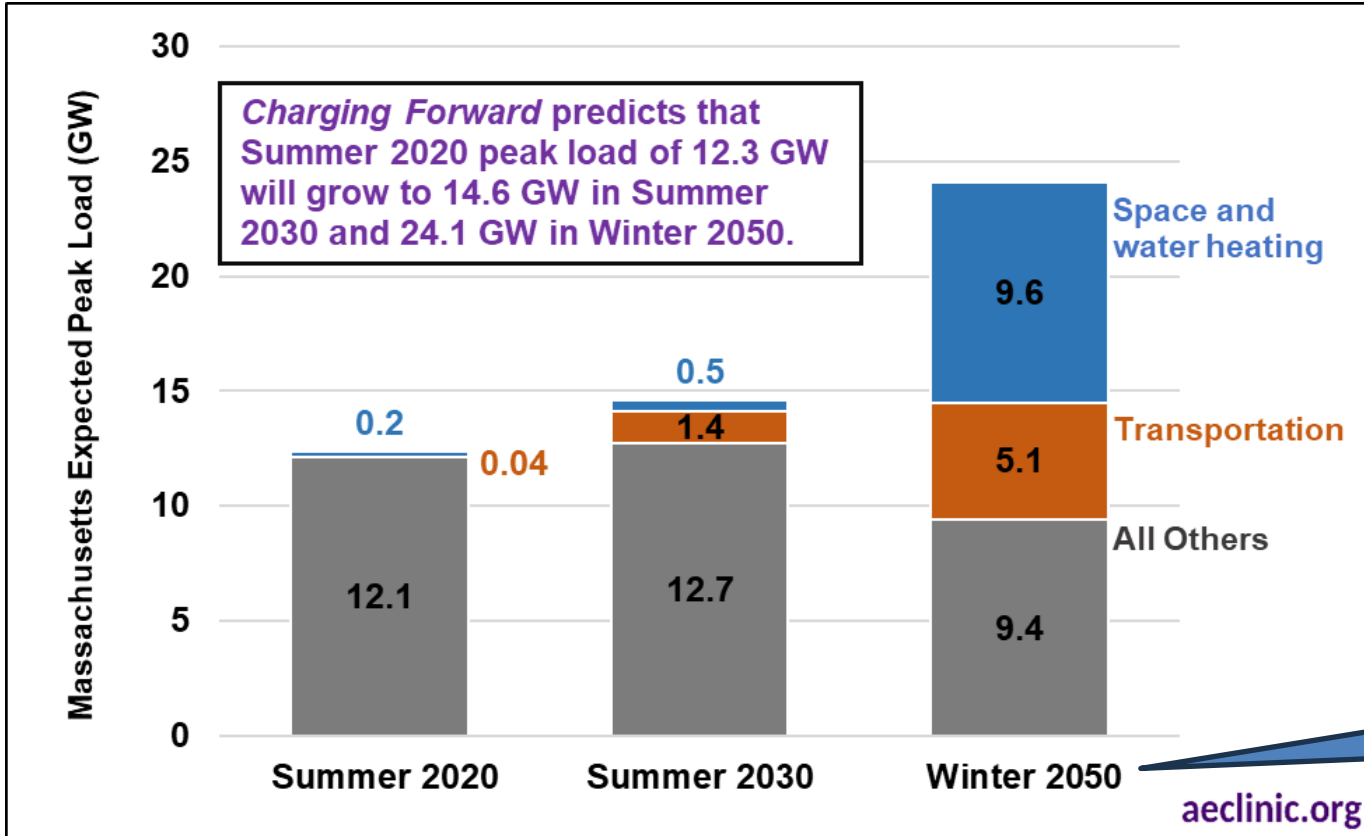
### MassCEC Grid Services Study & Pilots

- MassCEC completed a grid services compensation framework in September and will begin pilot project implementation this year.
  - This report provides evidence for the barriers they seek to identify and overcome and can help structure the pilots.

### Charging Forward Recommendations

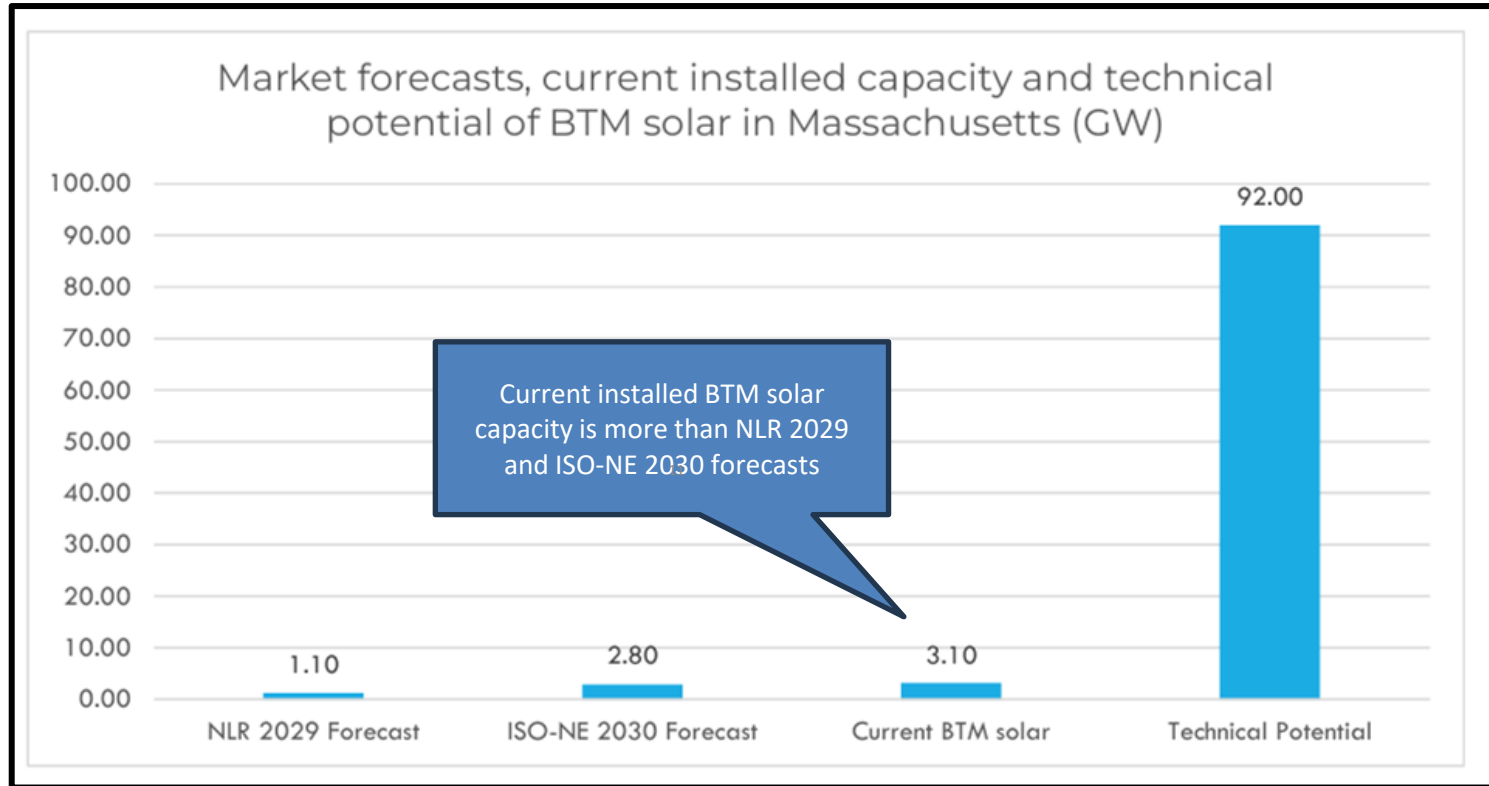
- The 2023 Charging Forward report (MassCEC/DOER) makes the system-level case for expanding storage in our grid planning. It identifies ConnectedSolutions and the SMART storage adder as key solutions for deployment.
  - This report addresses the equity gap and quantifies these provisions, with specific recommendations for how to equitably deploy.

# Peak load growth in MA is largely due to electrification

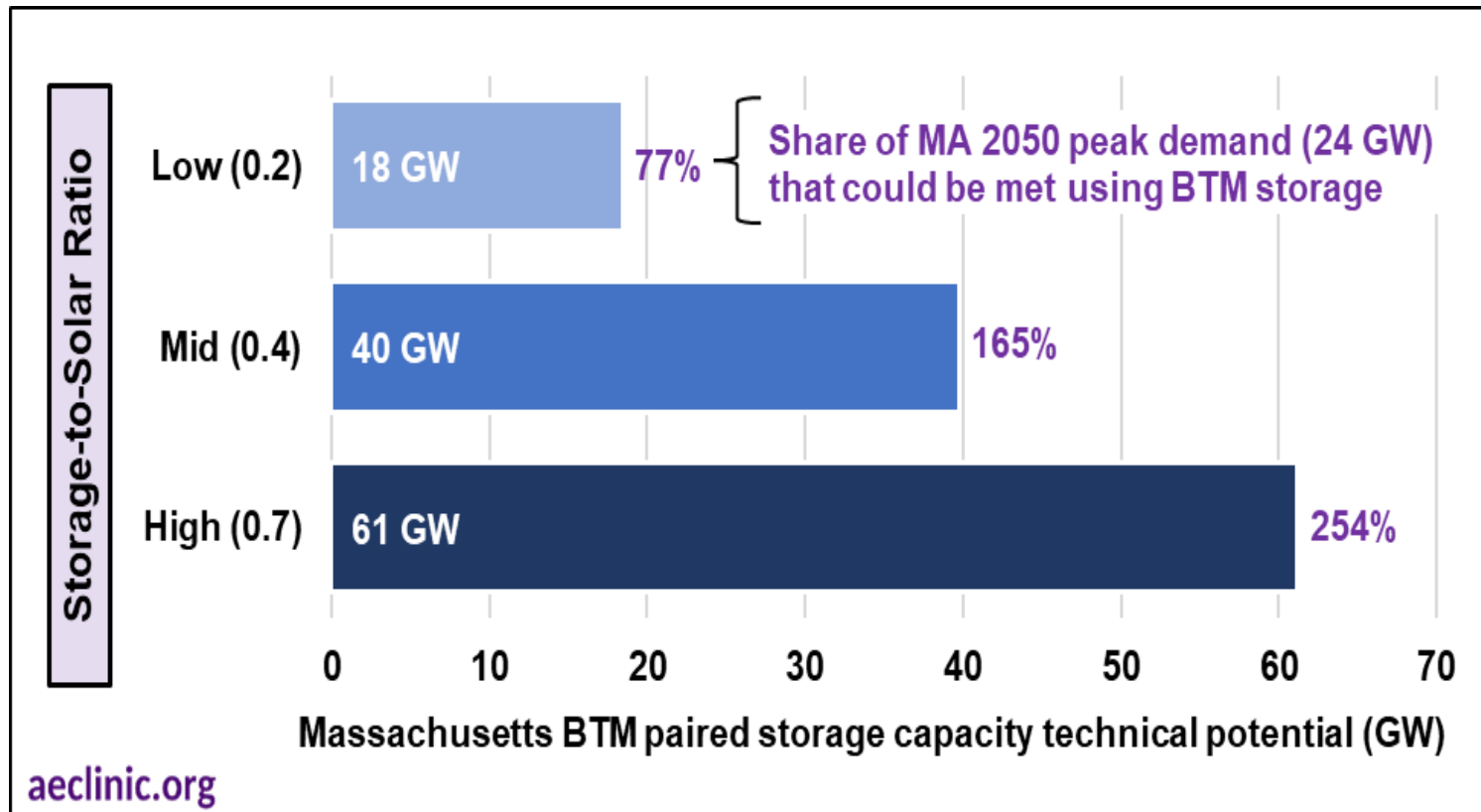


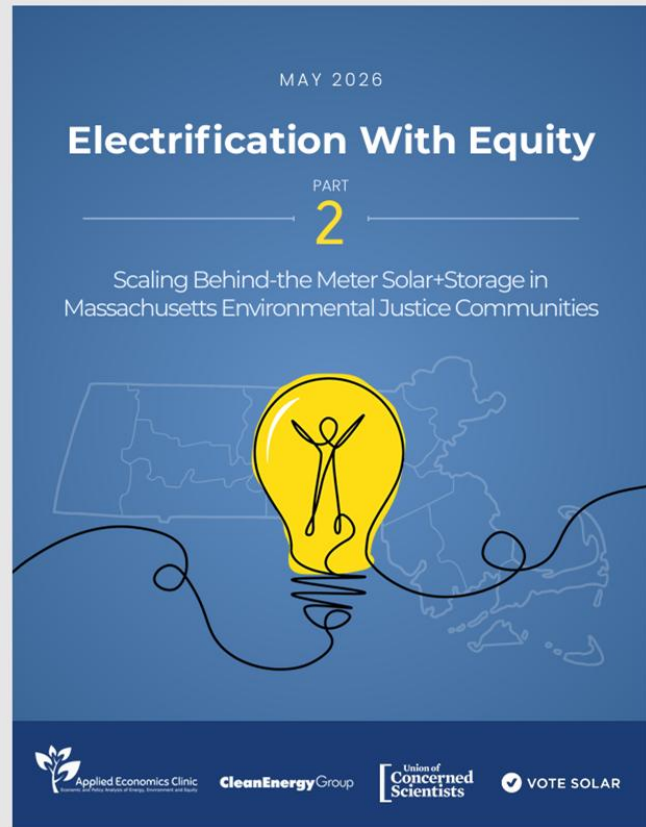
Grid flips to winter peaking

# Technical Potential is Huge!



## Potential BTM Solar+Storage capacity easily mitigates projected 2050 peak demand

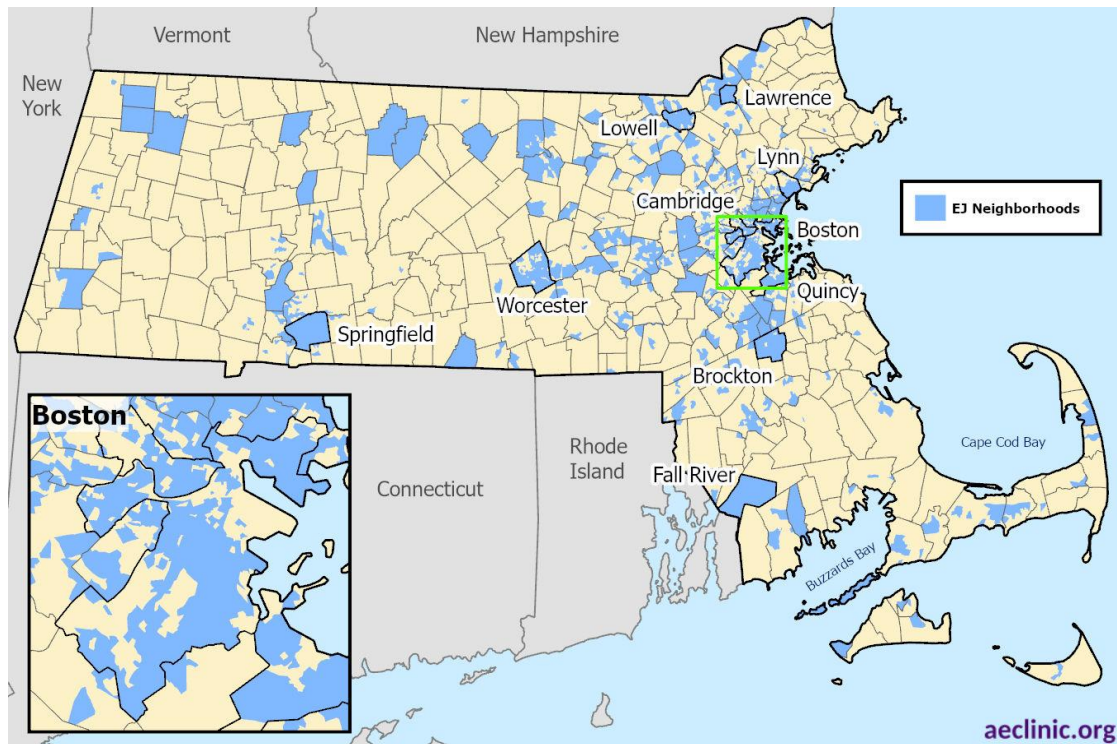




- Estimates the **technical potential** of behind-the-meter (BTM) solar and solar paired with storage in EJ neighborhoods.
- Looks at **housing conditions** to better tailor programs that enable adoption for end users.
- Maps the overlap with **extreme heat and energy burden** data.
- Offers insight on the **barriers and their solutions** to scale up deployment in and for EJ communities.

*Developed in collaboration with an **advisory committee** bringing perspectives from different sectors—including environmental justice organizations, affordable housing, and clean energy developers.*

# EJ neighborhoods hold 31 GW of untapped BTM solar potential



**31.3 GW**

**BTM solar**

technical potential in MA EJ neighborhoods

**13.4 GW**

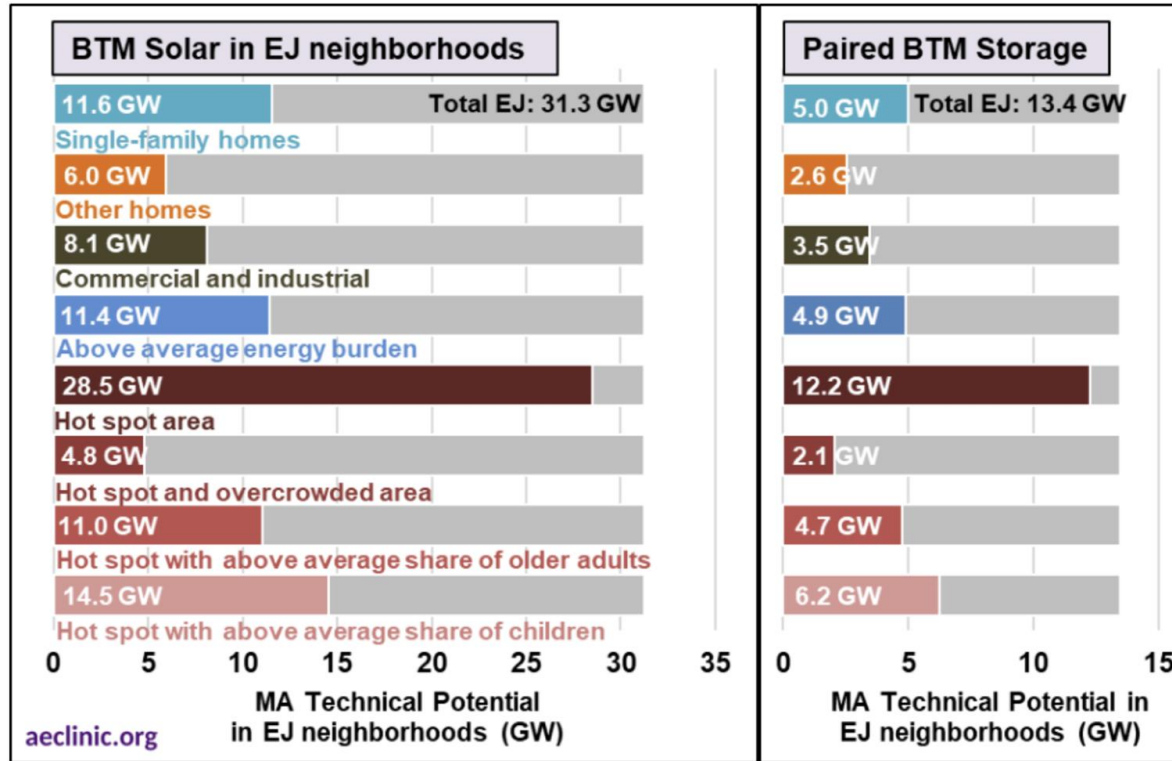
**BTM storage**

paired storage potential in EJ neighborhoods

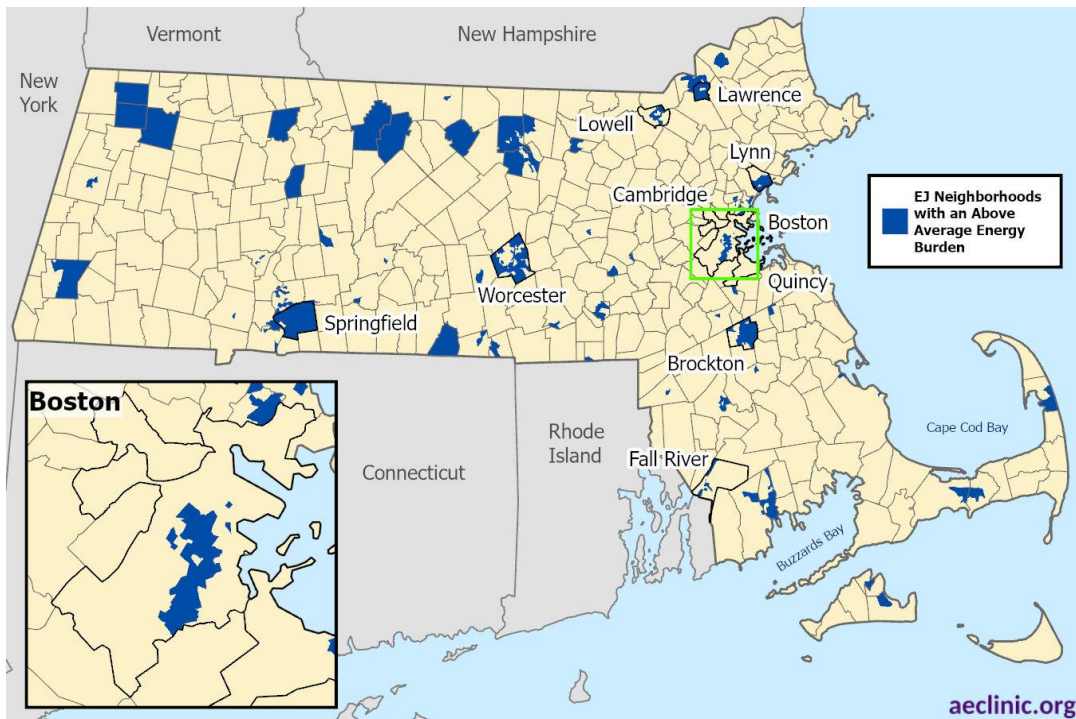
**21%**

of statewide BTM solar potential

# Close to 1/3 BTM Solar Potential in Single-Family Homes



# Energy burden falls hardest on EJ neighborhoods — and BTM solar and storage can change that



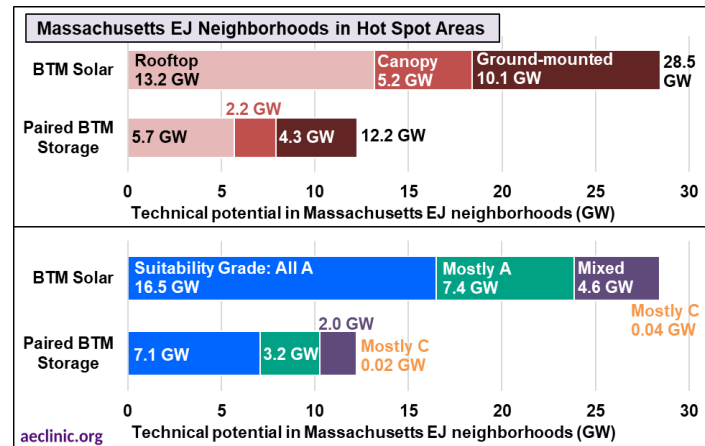
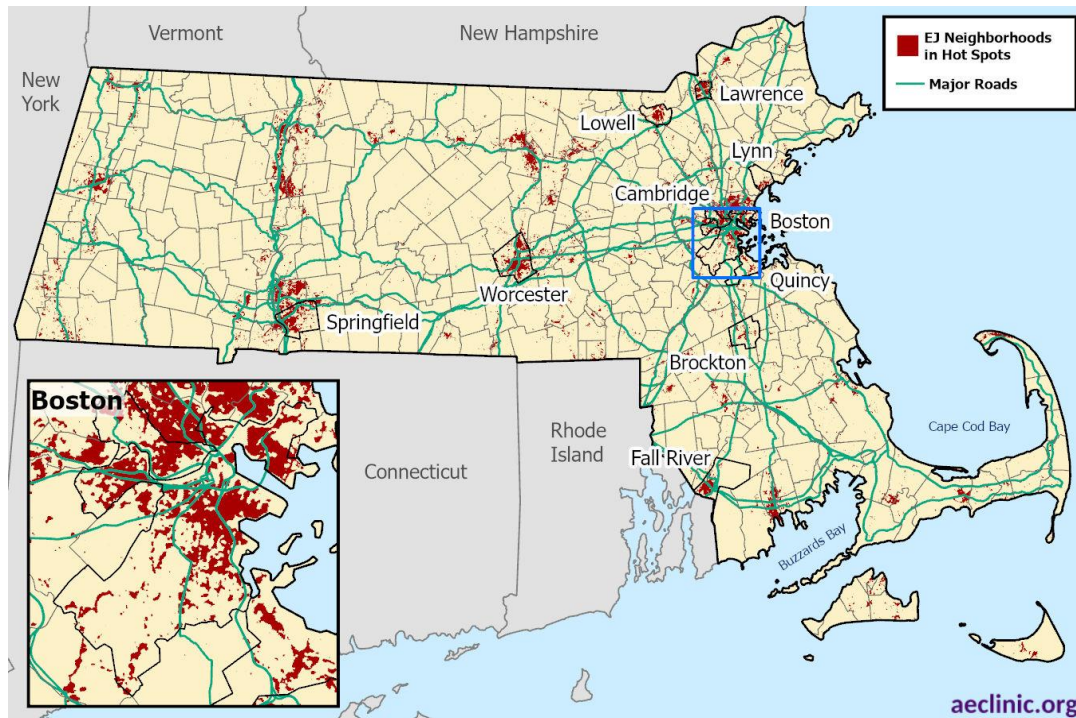
**3%**  
average energy burden in Massachusetts

**10%**  
energy burden for low-income populations in MA

**31%**  
energy burden in the highest-burdened MA neighborhoods

**BTM solar reduces energy burden:** Berkeley Lab (2024) found rooftop solar cut median energy burden from 7.7% → 6.2% for low-income adopters. **AEC finds 11.4 GW of BTM solar potential in MA EJ neighborhoods with above-average energy burden.**

# EJ neighborhoods are highly suitable for solar — and most are in hot spots. The need is greatest where access is lowest



**0.1%**  
of SMART BTM units on low-income properties (2018–2025)

**91%**  
of EJ BTM potential is in heat-vulnerable hot spot areas

# 9 barriers stand between potential and deployment

Barriers to BTM deployment	Existing programs or policy
1 <b>Insufficient targeted financial incentives</b>	Massachusetts offers rebates and loan programs to reduce the cost of BTM solar and storage systems, and on-bill incentives, but lacks targeted provisions to successfully incentivize community solar or adoption in low-income areas
2 <b>Electric system or building upgrades</b>	Massachusetts' loans and grants for electric system and building upgrades are not targeted at BTM readiness or EJ neighborhoods
3 <b>Workforce limitations</b>	MassCEC and Mass Save offer insufficient workforce training grants and assistance to organizations to support clean energy careers in EJ neighborhoods, tribes and underrepresented groups, and to support retraining for fossil fuel workers. Trainees from these programs face uncertainty in successfully finding employment opportunities.
4 <b>Lack of incentives for renters and/or condo owners</b>	Existing programs do not address the lack of incentives for renters and condo owners
5 <b>Complexity and lack of program coordination</b>	Participating in Massachusetts programs is complicated and available guidance materials are not written for a general audience or available in multiple languages
6 <b>Lack of trust</b>	Massachusetts lacks programs or policies to improve trust between customers and utilities and solar and storage developers/installers
7 <b>Interconnection issues</b>	Interconnection costs and delays deter BTM solar and storage deployment in the Commonwealth
8 <b>Solar panel and battery recycling and disposal</b>	Existing programs do not address end-of-life management for solar panel or battery components, raising environmental concerns for disposal of these materials
9 <b>Lack of broadband access</b>	There are no current efforts to distribute information on programs that support BTM deployment at in-person events, via mail, or other means that do not require internet access

We group these into 4 themes:

## Money & Incentives

Barrier 1  
Cost, equity gaps, no targets or carve-outs

## Buildings & Workforce

Barriers 2 & 3:  
Upgrades needed, not enough trained / retained workers

## Access & Ownership

Barriers 4, 5, & 7:  
Renters locked out, programs too complex, interconnection & permitting

## Trust & Outreach

Barriers 6, 8, & 9:  
Distrust of utilities/developers, recycling concerns, broadband access

## Theme 1: Money & Incentives

### **Barrier 1: Insufficient targeted financial incentives**

The high upfront cost of BTM solar and storage is out of reach for many households, especially low-income households and those without access to credit. Existing programs lack targeted provisions to successfully incentivize adoption in low-income areas.

**Just 0.1% of SMART BTM units brought online 2018–2025 were on low-income properties**

### **Recommendations:**

**#1** Establish equity participation targets for statewide programs to ensure financial assistance is flowing to EJ neighborhoods

**#2** Expand SMART, CPS, and ConnectedSolutions budgets to include more incentives for equitable deployment

**#3** Require state program budget carveouts for BTM systems in low-income and EJ neighborhoods

**#4** Implement a Solarize Mass Plus program to support BTM solar + storage in EJ neighborhoods

## Theme 2: Buildings & Workforce

### Barrier 2: Need for electric system or building upgrades

46% of MA homes were built before 1960, and only 15% after 2000. Older buildings may need panel upgrades or structural work before BTM resources can be installed, adding cost and time.

### Barrier 3: Workforce limitations

Solar installations are growing faster than the number of qualified workers to install and maintain them. From 2022 to 2023, the number of solar PV installers in Massachusetts fell from 950 to 700.

**46% of MA homes were built before 1960 — and are disproportionately occupied by low-income households**

### Recommendations:

**#5** Offer zero-interest financing for BTM readiness, electric/building upgrades, and grants for projects that benefit households in EJ neighborhoods

**#6** Establish a state-funded stretch and specialized code for BTM solar and storage readiness in new construction

**#7** Assess workforce trends and identify opportunities to expand training programs, with follow-through measures to help trainees secure employment

## Theme 3: Access & Ownership

### Barrier 4: Lack of incentives for renters and condo owners

This impacts almost half of all residential units in MA: 37% of MA housing units are rented and 10% are multifamily owner-occupied. Renters can't install solar — and landlords have no incentive to do it for them when tenants pay the utility bills. Condo owners face similar constraints.

### Barrier 5: Program complexity and lack of coordination

Programs are siloed. A customer who wants to electrify, install solar, and sign up for ConnectedSolutions must navigate three separate enrollment processes with different administrators.

### Barrier 7: Interconnection issues

Connecting to the grid is slow, expensive, and unpredictable. Cost-causation rules can assign the full cost of a grid upgrade to a single project — making smaller projects uneconomical. Surprise charges of \$10,000+ are already killing projects mid-installation.

**47% of MA block groups are EJ neighborhoods — yet solar programs have no binding access provisions for renters or small developers**

### Recommendations:

**#8** Expand budget for community solar and storage, and invest in educational materials and outreach to support community-led solar development

**#9** Investigate opportunity for plug-in solar paired systems

**#10** Conduct a technical study to inform the development of a multifamily solar and storage incentive program

**#11** Establish incentive mechanisms for renters and condo owners to invest in BTM solar and storage

**#12** Create educational resources and an outreach plan for EJ neighborhoods

**#13** Ensure existing program materials are comprehensive and accessible

**#14** Establish a statewide whole-home electrification and backup power program based on the Cape and Vineyard Electrification Offering

**#16** Set maximum interconnection costs that can be charged by utilities to project developers

## Theme 4: Trust & Outreach

### **Barrier 6: Lack of trust between customers, utilities, and solar developers**

Utilities in Massachusetts have documented billing errors and poor customer service. In EJ communities with histories of disinvestment, distrust of both utilities and even solar developers reduces participation in programs.

### **Barrier 8: Lack of recycling and disposal options**

In an EJ context, this is a trust issue. Communities that have borne the environmental costs of industry are skeptical about who will bear the cost of disposing of solar panels and batteries at end-of-life. Recycling processes exist but are expensive, and the infrastructure is underdeveloped.

### **Barrier 9: Lack of broadband access**

Over 110,000 Massachusetts households lack internet access — cutting them off from program information, enrollment, and the ability to learn about solar incentives. EJ households are disproportionately affected.

**110,000+ MA households lack internet — and EJ communities are understandably skeptical of programs they've been excluded from**

### **Recommendations:**

**#15** Establish outreach and transparency requirements for utilities and clean energy developers

**#17** Investigate recycling and reuse solutions for solar and storage systems

**#18** Require utilities to host in-person workshops in EJ neighborhoods to learn about and enroll in existing programs

# We have the tools and the technology – Now let's grow to meet the moment

---

## Fund what works:

- Establish equity participation targets
- Require budget carveouts for EJ neighborhoods
- Implement Solarize Mass Plus
- Offer zero-interest financing for building upgrades
- Expand SMART, CPS, and ConnectedSolutions

## Remove the barriers:

- Cap interconnection costs
- Create a statewide CVEO-style program
- Study multifamily incentive programs

## Reach everyone:

- Expand community solar and investigate plug-in solar for renters
- Create multilingual EJ outreach plans and ensure program accessibility
- Foster trust through solicitor transparency and utility workshops

# Thank You

**Todd Olinsky-Paul**, Clean Energy  
Group  
Senior Project Director  
[Todd@cleanegroup.org](mailto:Todd@cleanegroup.org)

**Paula García**, Union of Concerned Scientists  
Senior Manager of Energy Justice Research  
and Policy  
[pgarcia@ucs.org](mailto:pgarcia@ucs.org)

**Elena Weissmann**, Vote Solar  
Senior Regional Director, Northeast  
[elena@votesolar.org](mailto:elena@votesolar.org)

**Tanya Stasio**, Applied Economics Clinic  
Senior Researcher  
[tanya.stasio@aeclinic.org](mailto:tanya.stasio@aeclinic.org)



# Upcoming Webinars

---

**Beyond Lithium, Part 2: ESS Tech's Iron Flow Battery**  
(June 3)

Read more and register at [www.cleanegroup.org/webinars](http://www.cleanegroup.org/webinars)



[www.cleanegroup.org](http://www.cleanegroup.org) | [info@cleanegroup.org](mailto:info@cleanegroup.org)