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Solar Massachusetts Renewable Target 3.0 Annual Program Year Report: Program Year 2026



Massachusetts Department of Energy Resources

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Table of Contents

IntroductionIntroduction	4
Annual SMART Program Assessment	
Progress Toward GHG Emissions Limits	4
Historic Program Participation	5
Ratepayer Cost Impacts	5
Material and Development Costs	6
Regional and National Solar Costs	6
Land Use and Siting	7
Annual Program Year Report: Program Year 2026	7
Annual Capacity Block	7
Capped Capacity	7
Uncapped Capacity	7
Capacity Allocation	7
Capacity Set Asides	8
Base Compensation Rates	9
Compensation Rate Adders	. 11
Flat Incentive Rates for ≤25 kW AC	. 14



Acronyms

AC Alternating Current

ATB Annual Technology Baseline CSS Community Shared Solar

DOER Department of Energy Resources EDC Electric Distribution Company

GHG Greenhouse Gas

kW Kilowatt

LBNL Lawrence Berkeley National Laboratory

LCOE Levelized Cost of Energy

MW Megawatt

NREL National Renewable Energy Laboratory

SAM System Advisory Model

SMART Solar Massachusetts Renewable Target

STGU Solar Tariff Generation Units



Introduction

On June 20, 2025, DOER filed emergency regulations establishing the SMART 3.0 Program under 225 CMR 28.00¹. A key change in the SMART 3.0 Program is the yearly setting of the Program Year's components through the publication of the Annual Program Year Report under 225 CMR 28.05(2). The Annual Program Year Report sets the following components for the Program Year: the Annual Capacity Block, annual capacity allocation between EDC service territories, capacity set asides, the Base Compensation Rates, the Compensation Rate Adder values, the Flat Incentive Rate for STGUs less than or equal to 25 kW, and the adder value for Low Income STGUs less than or equal to 25 kW.

On August 29, 2025, DOER published the Annual Program Year Report for <u>Program Year 2025</u> (PY25). DOER will accept applications under Program Year 2025 from October 15, 2025, to December 31, 2025.

This report contains the proposed program details for Program Year 2026 (PY26), which will be open for applications from January 1, 2026, to December 31, 2026. DOER will accept public comments on this draft report until **5:00 PM on October 31, 2025**. Details on how to submit public comments can be found on <u>DOER's website</u>. After reviewing public comments, DOER will publish the final version of the Program Year 2026 Report on December 1, 2025.

All capitalized terms in this report are defined terms under 225 CMR 28.00.

Annual SMART Program Assessment

Per 225 CMR 28.05(1)(a), DOER must consider several factors when determining the programmatic elements for the following Program Year. DOER shall evaluate these factors in conjunction with the results of the annual survey of solar development costs to achieve a strategic balance between policy goals.

Progress Toward GHG Emissions Limits

Pursuant to the Global Warming Solutions Act (St. 2008, c. 298, as amended and codified at M.G.L. c. 21N, "Chapter 21N") on December 21, 2022, the Secretary of the

¹DOER filed an updated version of 225 CMR 28.00 with the Secretary of the Commonwealth on August 28, 2025, which went into effect upon publication in the Massachusetts Register on September 12, 2025.

Executive Office of Energy and Environmental Affairs established a statewide greenhouse gas emissions limit and sector-specific sublimits for 2050². The Clean Energy and Climate Plan for 2050³ (2050 CECP) identified pathways to achieve the established Power Sector Sublimit of 93% emissions reduction compared to 1990 levels. The 2050 CECP identified Massachusetts will need an estimate of 8,360 MW of solar capacity installed in 2030 to stay on track to meet the established sublimits. Currently, Massachusetts has an estimated installed capacity of 5,556 MW of solar⁴, resulting in a need for approximately 2,804 MW or 468 MW per year installed between now and 2030.

Historic Program Participation

DOER begins accepting applications under the SMART 3.0 Program on October 15, 2025, for Program Year 2025 and therefore does not have historic program participation data to evaluate. Some evaluation of the volume of initial applications will be available and useful for setting Program Year 2026. DOER will make any necessary adjustments to the Program Year 2026 Annual Report before publishing the final version on December 1, 2025.

Ratepayer Cost Impacts

DOER works with BW Research Partnership (BW) to develop a model for estimating the net program costs and associated impacts on electric ratepayers in the Commonwealth. The model takes into account both direct and indirect costs and benefits of the program. The total estimated net program cost will then be used to estimate the monthly and annual impacts on an average ratepayer's electric bill.

Program Year 2026 will provide lower ratepayer costs over Program Year 2025 while providing stable financing for projects.

Additionally, DOER considered the pending phase-out of federal Investment Tax Credits for solar projects that do not reach certain construction or investment milestones prior to July 2026, as it is critical to ensure there is sufficient capacity

² Massachusetts Executive Office of Energy and Environmental Affairs, *Determination of Statewide Greenhouse Gas Emissions Limit and Sector-Specific Sublimits For 2050* (Dec. 21, 2022), https://www.mass.gov/doc/determination-letter-for-the-2050-cecp/download.

³ Massachusetts Executive Office of Energy and Environmental Affairs, *Clean Energy and Climate Plan for 2050* (Dec. 2022), https://www.mass.gov/doc/2050-clean-energy-and-climate-plan/download.

⁴ Wood Mackenzie, *US Solar Market Insight Q3 2025*, (Sep. 8, 2025), https://www.woodmac.com/industry/power-and-renewables/us-solar-market-insight/

available under the SMART program to capture all projects that can meet the federal criteria to retain Investment Tax Credit eligibility, thus saving ratepayer dollars.

Material and Development Costs

As detailed in the Annual Program Year Report section, BW conducted a survey of Massachusetts market participants to collect data on the current material and development costs for different project sizes and installation types. BW received 51 survey responses from market participants, which resulted in 267 individual project cost data points. These primary data were supplemented with secondary data from NREL's Annual Technology Baseline (ATB) for solar cost and performance data. The primary and secondary data were used as inputs to the SAM, resulting in a total of 660 data points for the modeling process. The following table shows the weighting of the primary and secondary data in the modeling, based on the number of survey respondents for each project type.

Table 1: Weighting of Cost Data

Survey Respondents for Project Type	Weights
Zero	100% ATB cost data
1-2	20% survey responses, 80% ATB cost data
3-4	40% survey responses, 60% ATB cost data
5-7	75% survey responses, 25% ATB cost data
8 or more	100% survey responses

Regional and National Solar Costs

In addition to the modeling of material and development costs, BW's analysis also compared the results to third-party data on regional and national solar costs. The third-party sources included <u>NREL's state-level installed cost data</u>, <u>LBNL's installed cost data</u>, and <u>Lazard's LCOE data</u>. These comparisons showed that the modeling results are aligned with national trends and reflect true costs.

Land Use and Siting

DOER does not have land use and siting trends to evaluate yet. After the initial application periods during Program Year 2025 and Program Year 2026, DOER will have data on the locational trends for projects enrolling in the program. DOER will assess the proportion of projects qualifying for Locational Compensation Rate Adders and the proportion of projects subject to the Mitigation Fee and will make any necessary adjustments to ensure development trends are aligned with the Commonwealth's policy objectives.

Annual Program Year Report: Program Year 2026

Program Year 2026's Annual Program Year Report is based on the Annual SMART Program Assessment and the analysis performed by BW and summarized on <u>DOER's</u> website.

Annual Capacity Block

Capped Capacity

Program Year 2026 will have **450 MW AC** of available capacity for STGUs subject to the capacity cap.

Uncapped Capacity

Per 225 CMR 28.05(3)(c), STGUs less than or equal to 25 kW and Behind-the-Meter STGUs greater than 25 kW and less than or equal to 250 kW shall not count toward the Annual Capacity Block unless DOER imposes a capacity set aside for those project types. For Program Year 2026, DOER will not impose a capacity set aside for those project types and therefore the following STGU types will not be subject to the capacity cap and may submit applications for Program Year 2026 without regard to the capacity cap:

- ≤25 kW AC
- Behind-the-Meter STGUs >25 and ≤250 kW AC

Capacity Allocation

Per 225 CMR 28.05(4), each EDC will be allocated at least 5% of the available capacity block. The remaining capacity will be allocated proportional to the total retail electric

load served to Massachusetts customers by each EDC. The distribution of capacity for Program Year 2026 is based on the March 2025 retail electric load of each EDC.

The 450 MW AC of capacity available under the 2026 capacity block will be allocated amongst the three EDCs' territories as follows:

Table 2: Program Year 2026 Capacity Allocations

Electric Distribution Company	Percentage of MA Electric Load Served	Percentage of Capacity Block	Total Available Capacity
Eversource	51.78%	49.01%	220.55 MW
National Grid	47.23%	45.15%	203.18 MW
Unitil	0.99%	5.84%	26.28 MW

Capacity Set Asides

Per 225 CMR 28.05(5), a minimum percentage of the available capacity block will be set aside annually for the following STGU types:

- Standalone STGUs > 25 kW and ≤250 kW
- STGUs > 250 and < 500 kW
- Low Income Property STGUs
- Community Shared Solar STGUs

The percentages set aside for the above STGU types will stay the same throughout the Program Year, and DOER will not reassign unused capacity from one set aside category to another during the Program Year. These set asides are minimum percentages. DOER will continue to accept applications for STGU types above these minimum set aside amounts if there is unallocated capacity available in that Program Year's Annual Capacity Block.

For Program Year 2026, DOER retained the minimum percentages from 225 CMR 28.05(5) to establish a baseline for program participation rates. Future set aside percentages may be informed by the participation rates from the first two Program Years. The capacity set asides for 2026 will be as follows:

Table 3: Program Year 2026 Set Asides

STGU Type	Percentage of Capacity Block	Total Capacity
Standalone >25 and ≤250 kW; and >250 and ≤500 kW	10%	45 MW
Low Income Property	10%	45 MW
Community Shared Solar	15%	67.5 MW

These capacity set asides will then be distributed between the EDCs' available capacity according to their respective capacity allocations:

Table 4: Program Year 2026 Set Asides by EDC

STGU Type	Unitil	Eversource	National Grid
Standalone >25 and ≤250 kW; and >250 and ≤500 kW	2.63 MW	22.05 MW	20.32 MW
Low Income Property	2.63 MW	22.05 MW	20.32 MW
Community Shared Solar	3.94 MW	33.08 MW	30.48 MW

Base Compensation Rates

For Program Year 2026, the Base Compensation Rates for STGUs >25 kW AC are based on the levelized revenue requirements for each project size category and take into account the following inputs:

- Capacity factor and production degradation
- Installed costs

- Financing costs
- Operation and maintenance costs
- Project management costs
- Land lease costs
- Incremental operating and capital expenditure costs for certain project types

Information on these inputs was obtained via a survey of solar installers and developers in Massachusetts. This information was then integrated with high-quality public secondary data on solar costs and inputted into NREL's SAM, which modeled anticipated levelized revenue requirements for project types based on project size, battery storage, and project type.

Respondents were asked to provide Massachusetts specific project costs for each current SMART project size, and Compensation Rate Adder categories. The survey collected the following project cost data:

- **Total installed cost** costs associated with installing the photovoltaic system, and include equipment, labor, engineering, permitting, customer acquisition, marketing, interconnection and any other costs that apply in Year 0 of the project cash flow.
- **Total fixed costs** annual costs associated with the operation and maintenance of the photovoltaic system over the lifetime of the project, including annual costs associated with the replacement of solar photovoltaic inverters.
- Total solar photovoltaic plus energy storage installed cost cost of purchasing and installing all photovoltaic and battery-related equipment, including labor and other associated costs.
- **Total energy storage fixed costs** annual costs associated with the operation and maintenance of the energy storage system over the lifetime of the project, including annual costs associated with the replacement of battery-related equipment.
- Solar photovoltaic financing data project financial and debt structure.
- **Solar photovoltaic project ownership** project financial and debt structure under varying ownership structures.

This analysis indicated the majority of Base Compensation Rates for Program Year 2026 should be reduced (see "Calculated PY26 Base Compensation Rate" below). However, based on the overall SMART Program Assessment, DOER will reduce Base

Compensation Rates by 10% from Program Year 2025 ("PY26 Base Compensation Rate" below). Base Compensation Rates for Program Year 2026 will be as follows:

Table 5: Program Year 2026 Base Compensation Rates (\$/kWh)

STGU Capacity	PY25 Base Compensation Rate	Calculated PY26 Base Compensation Rate	PY26 Base Compensation Rate
>25 and ≤250 kW AC	0.2821	0.2339	0.2539
>250 and ≤500 kW AC	0.2482	0.2025	0.2234
>500 and ≤1,000 kW AC	0.2113	0.1931	0.1931⁵
>1,000 and ≤5,000 kW AC	0.1729	0.1492	0.1556

This modified reduction of Base Compensation Rates acknowledges Massachusetts commitment to achieving emissions reductions and reducing ratepayer costs while supporting the solar industry in the wake of growing federal destabilization of the solar and storage markets, the need to accelerate development of new electric supply like solar energy, and in consideration of the economic development and jobs solar provides.

Compensation Rate Adders

The Compensation Rate Adders for STGUs >25 kW AC were developed by comparing the average levelized cost of energy of all project types >25 kW AC for each respective adder category to a baseline value.

Based on the Program Year 2026 analysis, DOER found that Compensation Rate Adders for Program Year 2026 varied in whether they should be reduced, kept the same, or increased (see "Calculated PY26 Adder Rate" below). As with the Base Compensation Rates, based on the overall SMART Program Assessment, DOER made the decision to maintain or increase the value of Compensation Rate Adders (see "PY26 Adder Rate" below). Some Compensation Rate Adders, including Floating, Low Income Property, and Pollinator were limited in their adder increases pursuant to 225 CMR 28.05(6) which limits changes to Base Compensation Rate or Compensation

11

⁵ In the instance where the calculated PY26 Base Compensation Rate is higher than a 10% reduction from PY25 Base Compensation Rate, DOER will utilize the higher value.

Rate Adder to up to 20% of the value for the same category of Base Compensation Rate or Compensation Rate Adder from the prior Program Year or one cent per kWh, whichever is greater.

Projects may only qualify for one location based adder and one off-taker based adder at a time. The one exception is for Brownfield projects, which may qualify for one additional location based adder.

The Compensation Rate Adders for Program Year 2026 will be as follows:

Table 6: Program Year 2026 Compensation Rate Adders (\$/kWh)

Adder Type	STGU Type	PY25 Adder Rate	Calculated PY26 Adder Rate	PY26 Adder Rate
	Brownfield	\$0.03	\$0.04	\$0.04
	Building Mounted	\$0.03	\$0.02	\$0.03
	Canopy	\$0.08	\$0.08	\$0.08
Location Based	Dual-use Agricultural	\$0.08	\$0.09	\$0.09
Location based	Floating	\$0.03	\$0.14	\$0.04*
	Landfill	\$0.06	\$0.04	\$0.06
	Large Building Mounted (≥900 kW AC) ⁶	\$0.04		\$0.04
	Raised Racking ⁷	\$0.04		\$0.04
	Community Shared	\$0.07	\$0.07	\$0.07
Off-taker Based	Low Income Property	\$0.04	\$0.06	\$0.05*
	Public Entity	\$0.04	\$0.00	\$0.04
	Pollinator	\$0.0025	\$0.06	\$0.01*
Other	Solar Tracking ⁸	\$0.01		\$0.01
	Energy Storage Multiplier	\$0.0265	\$0.0363	\$0.03

^{*} Pursuant to 225 CMR 28.05(6) Compensation Rate Adder changes across program years are limited to up to 20% of the value for the same category of Base Compensation Rate or Compensation Rate Adder from the prior Program Year or one cent per kWh, whichever is greater.

⁶ DOER introduced the Large Building Mounted STGU adder after the completion of BW's analysis. The adder value is based on the Building Mounted STGU adder.

⁷ DOER introduced the Raised Racking STGU adder after the completion of BW's analysis. The adder value is based on the Building Mounted STGU adder.

⁸ BW's analysis did not include the Solar Tracking adder. DOER retained the Tranche 1 adder value from the previous version of the SMART program under 225 CMR 20.00.

Flat Incentive Rates for ≤25 kW AC

To simplify program participation for residential participants, 225 CMR 28.05(7) establishes a flat \$/kWh incentive rate for all STGUs ≤25 kW AC. STGUs serving Low Income Customers will receive an adder on the Flat Incentive Rate.

The Flat Incentive Rate is intended to compensate the system owner for the Renewable Energy Certificates that the EDC retains from their system. The \$/kWh value is locked in at the time of qualification and is guaranteed to the system owner for a 20-year tariff term. The Flat Incentive Rates were developed by calculating the difference in the levelized cost of energy between rooftop systems $\le 25 \text{ kW AC}$ relative to the cost per kW for systems $> 25 \text{ and } \le 250 \text{ kW AC}$.

Based on the Program Year 2026 analysis, DOER found that the Flat Incentive Rates for Program Year 2026 varied in whether they should be reduced or kept the same (see "Calculated PY26 Flat Incentive Rate" below). As with the Base Compensation Rates and Compensation Rate Adders, based on the overall SMART Program Assessment, DOER made the decision to maintain the value of the Flat Incentive Rates (see "PY26 Flat Incentive Rate" below).

For Program Year 2026, the Flat Incentive Rates will be as follows:

Table 7: Program Year 2026 Flat Incentive Rates (\$/kWh)

STGU Type	PY25 Flat Incentive Rate	Calculated PY26 Flat Incentive Rate	PY26 Flat Incentive Rate
STGUs ≤25 kW AC	\$0.03	\$0.02	\$0.03
Low Income STGUs	\$0.06	\$0.06	\$0.06