

SMART Program Summary

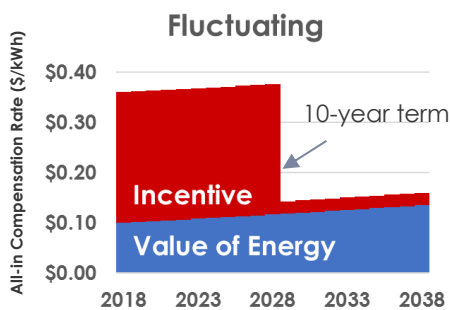
Solar Massachusetts Renewable Target (SMART) is a **tariff-based incentive program** that replaces SREC II. It aims to offer long-term, stable incentive rates to double the state's solar capacity installed to 3,200 MW. The program began with a price-setting auction from November 2017 – January 2018, but is currently paused while awaiting final approval from the Department of Public Utilities (DPU). It is expected to reopen after May 2018 (exact date not finalized), when it **will apply to all new projects**, but will not change existing SREC I or II agreements.

SREC II versus SMART

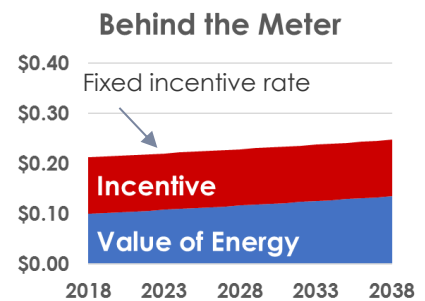
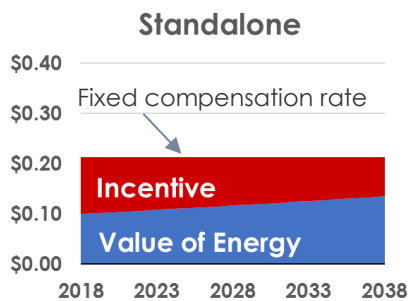
The table and charts below compare the SREC and SREC II programs to the new SMART incentive structure.

| | SREC & SREC II | SMART |
|-------|--|--|
| Form | Produces a high-value tradeable commodity ('SREC') that is sold to electricity suppliers (utilities) outright or in an auction. | Production compensated by energy suppliers at a rate that includes an incentive in addition to energy value. Lower-value Class I REC is automatically owned by the utility that provides incentive. |
| Value | SREC incentive value fluctuates based upon market conditions , but has an auction floor price. | Behind-the-meter units receive fixed incentive rates; standalone units receive fixed compensation rates. |
| Term | Systems produce auction-eligible SRECs for 10 years . | Systems above 25 kW receive incentive payments for 20 years . Systems below 25kW receive incentive payments 10 years . |

SREC Incentives

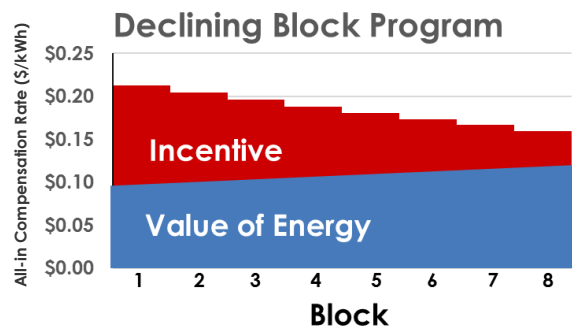


SMART Incentives



Declining Block Model

- SMART was launched with a **competitive auction for 100 MW** of solar PV, which established a base compensation rate for the remainder of the program. The base compensation rate varies by utility and is set at average price of winning competitive bids in each utility territory (this has been set at \$0.17/kWh for Eversource).
- The program will be administered as a **declining block program** with the base compensation rate decreasing 4% as each capacity block is filled. There are eight capacity blocks of ~200 MW per block.



Third-Party Ownership with SMART

SMART includes an **alternative on-bill credit** that is likely (pending finalization) equal to the basic service rate (approximately \$0.10/kWh). Solar developers can sell this credit at a discounted rate to off-takers. The table below summarizes what each stakeholder receives in an alternative bill credit agreement (PPA):

| Installer/Developer | Off-taker | Utility |
|---|---|---|
| <ul style="list-style-type: none"> SMART incentives Federal tax credits Payment from off-taker for some portion of SMART bill credit value | <ul style="list-style-type: none"> SMART bill credit value | <ul style="list-style-type: none"> Renewable Energy Credit (because utility provides SMART incentive payments) |

Incentive Calculation

Under the SREC program each project received roughly the same SREC value (the SREC II program modified this with SREC factors based on the project type). Under the SMART program, each project builds-up its SMART incentive based on the type of solar project being built:

Previous SREC program calculation

- Net Metering Credit Rate
- + SREC of approx. 27 cents/kWh

SMART calculation: Standalone (Block 1)

- (Baseline Price Auction Price)
- x (Size Multiplier)
- + (Adders)
- - (Greenfield Subtractor)
- x (total kWh generated)
- - (Value of energy generated)

SMART calculation: Behind the Meter (Block 1)

- (Baseline Price Auction Price)
- x (Size Multiplier)
- + (Adders)
- - (Greenfield Subtractor)
- - (Value of energy generated)

Incentive Structure

- Small projects get a higher incentive than larger projects
- Four Adder types (projects > 25 kW can “stack” one from each category) with one subtractor

Size Multiplier

| Generation Unit Capacity | Base Compensation Rate Factor |
|--|-------------------------------|
| Low Income less than or equal to 25 kW | 230% |
| Less than or equal to 25 kW | 200% |
| 25 kW to 250 kW | 150% |
| 250 kW to 500 kW | 125% |
| 500 kW to 1,000 kW | 110% |

Four Types of Adders and one Subtractor

| 1. Location | | 2. Off-Taker | |
|-------------------|----------------|---------------------------------|----------------|
| Unit Type | Value (\$/kWh) | Unit Type | Value (\$/kWh) |
| Building-Mounted | \$0.02 | Community Shared | \$0.05 |
| Floating Solar | \$0.03 | Low Income | \$0.03 |
| Brownfield | \$0.03 | Community Shared and Low Income | \$0.06 |
| Eligible Landfill | \$0.06 | Public Entity | \$0.02 |
| Canopy | \$0.06 | | |
| Agricultural | \$0.06 | | |

| 3. Storage* | | 4. Tracking | |
|----------------|-------------------|----------------|----------------|
| Unit Type | Value (\$/kWh) | Unit Type | Value (\$/kWh) |
| Energy Storage | \$0.0247-\$0.0763 | Solar Tracking | \$0.01 |

*varies with capacity and discharge duration

Greenfield Subtractor: \$0.0005/kWh per acre occupied by solar development

Additional Resources: MassCEC offers free solar resources for commercial buildings at www.masscec.com/commercialsolar

Sources

- Energy Sage. Solar Massachusetts Renewable Target (SMART): Massachusetts' SREC II replacement program. 2017. <https://news.energysage.com/solar-massachusetts-renewable-target-smart-massachusetts-srec-replacement-program/>
- Massachusetts Department of Energy Resources. Solar Massachusetts Renewable Target (SMART) Final Program Design. 2017. <http://www.mass.gov/eea/docs/doer/rps-aps/final-program-design-1-31-17.pdf>
- Mass.gov. Capacity Block, Base Compensation Rate, And Compensation Rate Adder Guideline. <https://www.mass.gov/doc/capacity-block-base-compensation-rate-and-compensation-rate-adder-guideline>
- 225 CMR 20.00: Solar Massachusetts Renewable Target (SMART) Program: <https://www.mass.gov/files/documents/2017/11/14/225-cmr-20-00-draft.pdf>