

# Go Solar in Massachusetts with LG



**LG Solar**



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If you live in Massachusetts, you've probably heard the joke: What do you do when you don't like the weather?

Wait 15 minutes.

New England weather does indeed change, and it challenges us, too. Whether it's raining or snowing or simply a cloudy day, it can be easy to forget the last time you saw the sun. That must mean solar power doesn't work here, right?

Wrong.

In fact, the average monthly solar radiation level in Boston is 4.59 kWh per square meter per day, approximately 23% greater than the average level of an area such as the state of Washington, which has historically low levels.<sup>1</sup> But what about those long New England winters? You might be surprised to learn that as long as there is sun, the cold weather shouldn't affect a solar module's performance<sup>2</sup>. In fact, solar modules function more efficiently in cold conditions, and high-quality modules, such as LG Solar modules, are built to withstand the weight of snow.<sup>3</sup> Nearly all modules on rooftops are tilted at an angle, so snow should slide off.

It's no surprise, therefore, that Massachusetts' solar industry is booming. In fact, the Solar Energy Industry Association (SEIA) ranked Massachusetts as 7th in the nation for solar in the last quarter of 2018, based on factors such as the number of homes that have solar (416,697), the percentage of the state's electricity that comes from solar (10.69 %), solar jobs (10,210) and the number of installations (89,733).<sup>4</sup>



## Incentives to Go Solar in Massachusetts

In a 2017 study, 41% of people surveyed reported that the primary reason for going solar was potential savings over time and protection against rate increases from a utility company.<sup>5</sup> Saving money is a strong incentive, especially in New England, where utility bills are generally some of the highest in the country and can be especially significant in the summer (due to the need for air conditioning) and winter (for heating).

Solar modules lead to savings over time, but how much money a household can save depends on certain variables. Savings are affected by how many direct hours of daily sunlight your home receives, the size and angle of your roof, the modules you choose, and perhaps most importantly, your local electricity rates.<sup>6</sup> One current estimate states that the average savings from solar panels in Massachusetts over a 20-year period is \$30,523<sup>7</sup> -- and that's without considering the current 30% tax credit (known as the ITC) available from the U.S. government.

## Government Incentives for Installing Solar in Massachusetts

The federal government does offer a tax credit for new solar installations that amounts to 30% of the cost of the installation. This credit is good for any solar installation that commences construction before the end of 2019. A tax credit is a dollar-to-dollar reduction in the amount of income taxes a person or company claiming the credit would otherwise pay. After 2019, the ITC steps down to 26 percent for projects that begin construction in 2020 and 22 percent for projects that begin in 2021. After 2021, the residential credit is slated to drop to zero.<sup>8</sup>





In addition to the Federal ITC, Massachusetts offers its own incentives to encourage homeowners to install solar power, including:

- **A 15% State Tax Credit** - up to \$1,000 against the state income tax for the net expenditure\* of a renewable energy system (including installation costs) installed on an individual's primary residence (the term "net expenditure" is defined as the total of the purchase price for any renewable energy source property and installation cost minus any federal tax credits and rebates/grants received from the U.S. Department of Housing and Urban Development).<sup>9</sup>
- **Net Metering:** In Massachusetts, homeowners can receive credits from their utility for excess energy from their solar panels that they are sending back to the grid. The top Net Metering programs in the state are from Eversource and National Grid.<sup>10</sup>
- **The Mass Solar Loan program:** Residential homeowners in Massachusetts can own a solar PV system by making fixed, low-interest loan payments through this financing program.<sup>11</sup>
- **Massachusetts Solar Tax Exemptions:** Massachusetts residents are exempt from 100% of the sales tax and property taxes associated with solar installations.<sup>12</sup>



## The New Massachusetts SMART Program

As a state known for its high-quality colleges and universities, perhaps it's no accident that Massachusetts' new solar incentive program is called the SMART (Solar Massachusetts Renewable Target) Program. The new program, which began accepting applications in November 2018, offers a tariff-based incentive paid directly by the utility company to the system owner, following the approval of the application by the Solar Program Administrator.<sup>13</sup> Eligible projects must be interconnected by one of three investor-owned utility companies in the state: Eversource, National Grid, and Unitil.<sup>14</sup>

Solar system owners in the SMART program receive a fixed rate per kilowatt hour (kWh) of solar energy produced for 10 years.<sup>15</sup> For systems under 25 kilowatts (kW), the rate ranges from 29 to 31 cents per kWh, depending on the location and utility. That's significant savings, considering that the normal retail rate for electricity in Massachusetts is closer to 20 cents.<sup>16</sup> The program offers higher incentive rates to low-income customers or those who install battery storage with their solar panel system.<sup>17</sup>

## Why It's Important to Join SMART Early: Declining Capacity Blocks

One important element of the SMART program is that customers join the program in declining capacity blocks on a first-come-first-served basis.<sup>18</sup> The first capacity blocks offer the highest compensation rates for solar energy produced.

Since SMART began accepting applications, a significant number of applications from both homeowners and businesses have already been filed. The following chart is a SMART Solar Block Status update from July 30.<sup>19</sup>



# Applications Status

SMART Solar Block Status Update						
Last Update: 7/30/2019 8:45 AM						
SMALL PROJECTS (<= 25 kW AC)	Accepting Applications for Block <sup>1</sup> :	Current Block Size (MW) <sup>2</sup>	Total Allocated Capacity (MW) <sup>3</sup>	Total Pending Capacity (MW) <sup>4</sup>	Total Remaining Capacity (MW) <sup>5</sup>	Waiting List (MW) <sup>6</sup>
Electric Distribution Company (EDC)						
Eversource MA East	2 of 8	18.313	22.217	3.413	120.792	0.000
Eversource MA West	4 of 8	3.147	8.993	1.509	14.675	0.000
National Grid (Massachusetts Electric)	3 of 8	18.004	34.911	5.671	103.454	0.000
National Grid (Nantucket)	1 of 2	0.604	0.077	0.000	1.132	0.000
Unitil	2 of 4	0.801	1.067	0.293	1.798	0.000
<b>Total</b>			<b>67.264</b>	<b>10.886</b>	<b>241.850</b>	<b>0.000</b>
LARGE PROJECTS (>25 kW AC)	Accepting Applications for Block <sup>1</sup> :	Current Block/Size (MW) <sup>2</sup>	Total Allocated Capacity (MW) <sup>3</sup>	Total Pending Capacity (MW) <sup>4</sup>	Total Remaining Capacity (MW) <sup>5</sup>	Waiting List (MW) <sup>6</sup>
Electric Distribution Company (EDC)						
Eversource MA East	3 of 8	73.211	118.558	31.753	435.377	0.000
Eversource MA West	Waitlist	TBD	99.137	36.511	0.000	34.941
National Grid (Massachusetts Electric)	Waitlist	TBD	537.531	48.291	0.000	9.679
National Grid (Nantucket)	1 of 2	2.417	1.000	0.000	3.833	0.000
Unitil	Waitlist	TBD	12.444	6.466	0.000	6.279
<b>Total</b>			<b>768.670</b>	<b>123.020</b>	<b>439.211</b>	<b>50.900</b>

**Note 1:** Assuming that all the Pending Capacity is approved, this is the estimated Block where new applications will be assigned.

**Note 2:** The Block Size MW values are estimated using the minimum Small Block set-aside percentage (20%) of the total capacity available for each block, per DOER regulations. Up to 35% can be allocated to small systems for any given block. Therefore, depending upon the makeup of project types, small project Capacity Block sizes may be adjusted upward and large project Capacity Block sizes may be adjusted downward.

**Note 3:** Allocated Capacity (MW) is the total of Applicants that have been issued a Statement of Qualification.

**Note 4:** Pending Capacity (MW) is the total applications submitted but not yet approved or assigned to a Capacity Block.

**Note 5:** Remaining Capacity (MW) represents the total amount of MW that remain available in all Capacity Blocks.

**Note 6:** Waiting List (MW) represents the total amount of MW that do not fit under the existing available Capacity Blocks and will likely be placed on a waiting list.

**Note 7:** On a monthly basis, the Block capacities will be analyzed and any capacity freed up by withdrawn/cancelled/denied applications that had already received Preliminary SOQs will be reallocated to the Block against which apps are currently being processed.



In some areas, blocks are filling fast or could even already be full, especially for commercial installations. Because it's impossible to predict when blocks will fill or financial incentives will run out in your area, moving quickly to install solar gives you the best opportunity to receive the best benefits from the SMART program.

If you're interested in learning more about the SMART program, general information as well as links to the SMART Application, Website and program guidelines can be found at the Mass.gov website at the following URL: <https://www.mass.gov/info-details/solar-massachusetts-renewable-target-smart-program>. You can also contact a trusted LG PRO solar installer to find out the specifics of the block availability in your area.

## Proposed: The Clean Peak Standard in Massachusetts

Recently, Massachusetts Governor Charlie Baker's administration proposed a new pro-solar policy called the Clean Peak Standard that would incentivize energy sources that not only supply zero-carbon electricity, but supply it during peak hours when it is needed most.<sup>20</sup>

The policy would create a system of Clean Peak Credits (CPC) that qualified generators would create and utilities would have to purchase.

The four resources eligible for CPCs in the program would be:

- New RPS Class 1 eligible resources which came into operation on or after the beginning of 2019
- Existing Class 1 and 2 resources, but only those resources that are paired with a qualified energy storage system
- Qualified energy storage systems
- Demand response resources

After all proposals, comments and amendments are in and have been finalized, the state's Department of Energy Resources expects the program to be launched in 2020.<sup>21</sup>

## When You Go Solar, Demand the High-quality, Trusted Products and Service of LG Solar

You live in Massachusetts. You're smart – both in your choice to reside in the beautiful Bay State and in the title of your state's solar incentive program. You're also smart because you want to take steps to help protect the environment. Now, it's time to be smart about your choice of solar modules.

When you talk to a solar installer, be sure to demand LG Solar modules for your project. Let the installer know that you choose LG because of the advantages you'll get from high power output, high-efficiency, high-quality solar modules that are backed by a trusted global brand. LG Solar will be here for you now and in the decades to come. We stand behind our products and want you to enjoy the financial and environmental advantages of your installed solar system for decades.

We look forward to helping you Go Solar!





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