#### **REGIONAL STRATEGY**

# Solar Energy Incentives

### **PURPOSE**

To promote installation of more solar energy capacity in Massachusetts by providing financial and tax incentives.

# INCENTIVES FOR SOLAR PV AND SOLAR THERMAL SYSTEMS

The Commonwealth of Massachusetts offers a variety of financial and tax incentives to help encourage more home owners, businesses and governments to install solar energy systems—namely solar photovoltaic (PV) electric systems and solar thermal hot water heating systems. With the help of these incentives, Massachusetts since 2008 has boosted installed solar electricity capacity to more than 400 megawatts (MW) statewide (enough to power about 38,000 homes under typical conditions) and thousands of building hot water heating systems, which can provide up to 80 percent of a building's hot water needs.





#### Massachusetts Solar "Carve-Out" Program and Solar Renewable Energy Certificates (SRECs) –

The Commonwealth is creating incentives for solar PV systems through a market-based incentive program to "carve out" a portion of Massachusetts' electricity market for solar PV. An initial statewide carve-out goal of 400 MW of new solar PV power was reached in 2013, and so in 2014 a new goal of 1,600 MW of in new solar PV was set for the year 2020.

The solar carve-out program is driven by an innovative market-based financial product called solar renewable energy certificates, or SRECs. Solar energy system owners receive one SREC from the Commonwealth for each megawatt of solar energy that their system generates. SRECs can then be sold or traded with utilities and other energy system owners. The larger the system, the more SRECs received. In Massachusetts, utility companies are motivated to buy SRECs because they must deliver a certain percentage of the energy (currently 4%) from "green" generate sources, such as solar. If they do not, a penalty is assessed. SRECs are currently valued at about \$280 to \$350 each, and their value fluctuates with the market. The revenue from SRECs is critical to offsetting the currently initial higher start-up costs of new solar energy systems to reduce their payback period, versus that of conventional technologies (though in the long term, solar energy systems still cost less to own and operate than purchasing power from the grid).



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#### **Net Metering**

Net metering allows owners of renewable energy systems who feed power back into the electrical grid to receive credits on their bills for that power. The practical effect of net meeting is dramatic: Any electric utility customer can become an electricity producer, too. They can earn money by generating more than they need when the sun is shining (i.e., "the meter is spinning backwards") to offset the cost of drawing power from the grid at night or during cloudy times – in many cases, resulting in net annual electricity costs of \$0. In addition, utility customers without a power system of their own can buy green power from any supplier and also receive a credit for it on their bill.

#### **Renewable Energy Income Tax Credit**

Massachusetts also offers a tax credit for homeowners who install renewable energy systems. In the first year of installation, the homeowner is eligible for a 15% credit (up to \$1,000) on their state income tax for the net expenditure (including installation costs) for a solar PV system on a primary residence. If the tax credit amount is greater than the owner's income tax liability, then the excess credit may be carried forward up to three years.

#### **Commonwealth Solar II Program**

This program of the Massachusetts Clean Energy Center is targeted to homeowners and businesses with solar PV systems that produce less that 15 kW of power. It provides a rebate of about 25 cents per installed watt, plus additional incentives. Project must be approved before installation through a non-competitive application process.

### MORE INFORMATION ABOUT SOLAR ENERGY INCENTIVES

The solar energy needs and generating potential of every property are different. The solar energy market is new and evolving. Like the price of heating oil or natural gas, the price of solar energy can change based on market conditions. Therefore, it is important to get information ahead of time and work with an installer that you trust. Every home solar installation should begin with a free Mass Save energy assessment to understand how much power can be conserved—so unneeded solar panels are not purchased.

CALCULATE SOLAR SAVINGS AND FIND LOCAL SOLAR INSTALLERS: http://www.solar-massachusetts.org/

DATABASE OF STATE INCENTIVES FOR RENEWABLES AND EFFICIENCY: http://www.dsireusa.org/solar/incentives/

APPLICATION TO FOR MASSACHUSETTS SOLAR CARVE-OUT PROGRAM: http://www.mass.gov/eea/energy-utilities-clean-tech/renewable-energy/solar/rps-solar-carve-out/ statement-of-qualification-application.html





#### MASSACHUSETTS CLEAN ENERGY CENTER:

http://www.masscec.com/

#### MASSACHUSETTS SOLAR HOT WATER (THERMAL) PROGRAM:

http://www.masscec.com/programs/commonwealth-solar-hot-water

#### COMMONWEALTH SOLAR II PROGRAM

http://www.masscec.com/solicitations/commonwealth-solar-ii-block-19

#### FOR MORE INFORMATION, PLEASE CONTACT

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