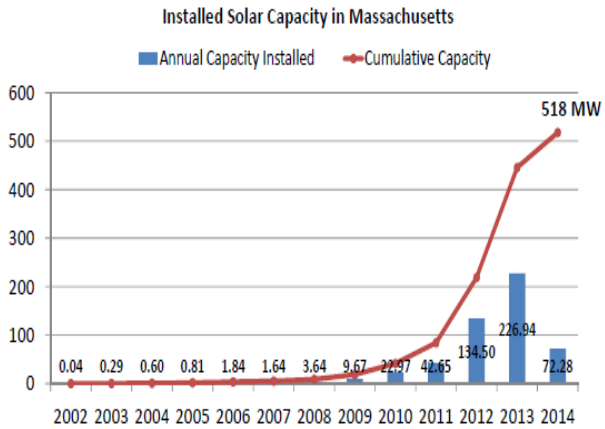
The Success of Solar Energy in Massachusetts

Protecting the Environment While Growing the Clean Energy Economy

The Patrick Administration's comprehensive suite of incentives, market development, utility regulation reform, technical support, targeted state investments and streamlined permitting has unleashed the rapid deployment of solar photovoltaics (PV) in Massachusetts.



In 2007, there were about 3 megawatts (MW) of solar PV installed in the Commonwealth. As of today, 518 MW are installed, enough electricity to power nearly 79,000 homes.

Across the Commonwealth, consumers ranging from homeowners to Fortune 500 companies to mom-and-pop shops and municipalities are taking advantage of the state's programs and:

- Lowering energy costs
- Dampening the volatility of fossil fuel price swings
- Growing clean energy jobs
- Keeping energy dollars in Massachusetts
- Reducing emissions of greenhouse gases and local air pollution

In 2007, Governor Patrick set a goal of 250 MW of installed solar power by 2017. The Commonwealth surpassed that goal in 2013, and the Governor set another, more aggressive goal of 1,600 MW by 2020. The broad deployment of solar has meant economic benefits. For every municipality that uses solar energy on schools, landfills, or at waste water treatment facilities, more revenue can be available for hiring teachers or providing critical services. For businesses that save money through solar, resources can be plowed back in to R&D, hiring, marketing or other core opportunities. For residential customers, lower energy bills mean more money that can be available for other household budget items.

The expansion of solar has also meant a rapidly growing solar sector that includes installers, designers, electricians and the manufacturers of component parts. In fact, solar has been an anchor segment of the Commonwealth's nation-leading clean energy sector growth accounting for 8,400 of the 80,000 clean energy jobs in the state. The expansion of solar has been one of the drivers of the clean energy sector's 6-12 percent annual job growth for the last five years – rates that far outpace the rest of the economy. There are more than 5,500 clean energy companies in the Commonwealth.

The Patrick Administration's Policies That Have Unleashed Solar Energy:

The RPS Solar Carve-Outs

The Renewable Portfolio Standard (RPS) program is the bedrock market-based mechanism that provides incentives for all qualified renewables in a cost-effective way. The Solar Carve-Out I and II programs are targeted parts of the RPS program and have been primarily responsible for the growth of installed solar capacity from about 3MW to 518 MW of installations to date. The Solar Carve-Out II Program was launched in April 2014 and seeks to build on the success of the original program by continuing to support the market until 1,600 MW of PV has been installed statewide.

Net Metering

Net metering allows customers of certain electric distribution companies to generate their own electricity in order to offset their electricity usage and allows customers to receive credits for any electricity that they generate but do not use. Common examples of net metering installations include solar panels on a home or a wind turbine at a school. These installations are connected to a special meter, which spins forward when the customer uses electricity from the distribution company and spins backward when the customer generates excess electricity.

Green Communities

The Green Communities Division of DOER provides support to all Massachusetts cities and towns on all of their energy needs, including grants for renewable energy and energy efficiency projects, technical assistance, and education and outreach. The program has become a national and even international model for linking state, municipal and private sector partners to lower energy costs for municipalities while getting environmental benefits. To date, the Division has provided various grants to 49 municipalities to support solar PV installations. In addition, the Division has provided funding for technical assistance to assist 37 municipalities pursuing PV installations, 17 of which are landfill projects.,

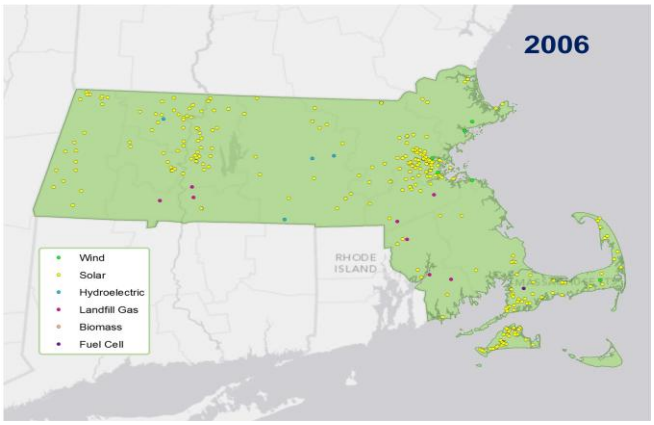
Solarize Massachusetts

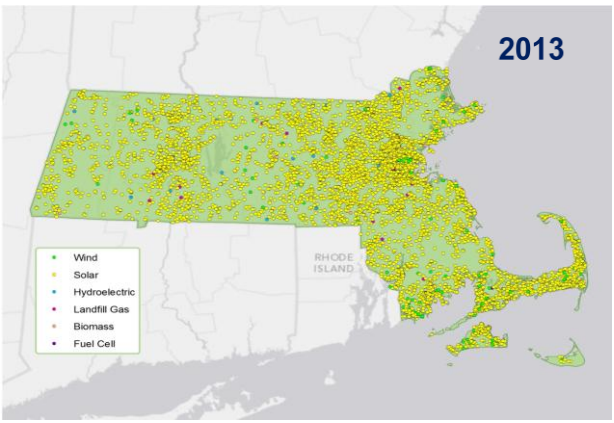
Solarize Massachussets is a partnership between the Massachusetts Clean Energy Center, Massachusetts Department of Energy Resources, solar installers and volunteers in cities and towns across the Commonwealth with the goal of increasing the adoption of solar electricity through a grassroots outreach campaign and a tiered pricing structure in which, as more residents and business owners sign contracts, the savings increase for everyone. Since its launch in 2011, this program has helped to dramatically expand the Massachusetts solar market, with 46 cities and town participating so far, accounting for over 1,700 solar contracts for more than 12 MW of installations.

Clean Energy Results Program (CERP)

The Clean Energy Results Program, funded by DOER and established in 2011, is another first-of-its-kind partnership between the MassDEP and DOER building on MassDEP's regulatory expertise and DOER's expertise and incentives in advancing the permitting and development of clean energy projects. Thus far, CERP has directly advanced over 160 clean energy projects including solar, wind, anaerobic digestion and energy efficiency projects at landfills, brownfields, wastewater treatment plants, and drinking water facilities.

The Patrick Administration's Clean Energy Future…Today:





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http://www.masscec.com/technology/solar-electricity