# **Massachusetts Clean Energy Center**

he Massachusetts Clean Energy Center (MassCEC) was established in 2008 to advance the state's clean energy economy. The quasi-public agency chaired by Massachusetts Executive Office of Energy and Environmental Affairs (EEA) Secretary Ian Bowles serves as a clearinghouse and support center for the clean energy sector, making direct investments in new and existing companies, helping companies access capital and other vital resources for growth, and developing training programs to build a strong clean energy workforce that capitalizes on the job opportunities created by this vital industry.

In November 2009, Governor Deval Patrick signed legislation that transferred the Massachusetts Renewable Energy Trust to MassCEC, creating a single agency responsible for fostering the development and installation of clean energy technologies and the green jobs that go with them. MassCEC's initiatives include promoting renewable energy generation, investing in job creation, and developing the clean energy cluster and a strong clean energy workforce.

#### **Commonwealth Solar**

In January 2010, MassCEC launched Commonwealth Solar II. Building on the success of the Patrick-Murray administration's inaugural solar PV program, which supported 1,200 installations for more than 23 MW, Commonwealth



Biomanufacturing and life science research firm Millipore Corp. unveiled its 350 kW solar panel installation in October 2009. The project, which was funded from the Clean Energy Center's Renewable Energy Trust and the Renewable Energy Grant Program, will help Millipore achieve its goal to cut greenhouse gas emissions by 20 percent. In less than two years, the Commonwealth Solar rebate program funded more than 1,200 solar PV projects such as this in more than 200 cities and towns across the state.

"States are at the forefront of the effort to drive innovation and growth in renewable energy. As the federal government increases its support for clean energy, it's vital that individual states continue to support the development and deployment of clean energy innovations."

Ian Bowles, Secretary of Energy and Environmental Affairs, Chairman of the Massachusetts Clean Energy Center

Solar II complements the introduction of a new Solar Renewable Energy Certificate (SREC) program launched in January 2010 by the state's Department of Energy Resources. Residential and small commercial scale solar systems are eligible for rebates under Commonwealth Solar II. In addition, residential, small commercial, and larger systems will receive incentives through the SREC program, which features an innovative price support mechanism. Under a separate initiative, MassCEC administered \$8 million to support large scale (10 kW



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# HIGHLIGHTS

to 200 kW) solar PV projects with funding from the American Recovery and Reinvestment Act-funded State Energy Program.

#### **Commonwealth Wind**

This program consists of four components:

- Micro Wind is a performance-based incentive program offering support to wind installations below 100 kW.
- The Community-Scale Wind program provides feasibility and design and construction support to projects ranging from 100 kW to 2 MW in conjunction with the state's new net-metering regulations.
- The Commercial-Scale Wind program grants nonrecourse loans to early stage projects that will sell to the regional wholesale power market.

In addition, MassCEC supports the development of national offshore wind policy by funding of the U.S. Offshore Wind Collaborative.

### **Commonwealth Hydro**

The state's new Renewable Portfolio Standard (RPS) regulations require that eligible facilities become certified by the Low Impact Hydro Institute. MassCEC's hydroelectric support helps small dam owners explore certification and provides substantial grant support to improvements that create incremental increases in renewable power generation.

# **Workforce and Development Training**

MassCEC's Workforce Development and Training program has devoted nearly \$4 million to workforce training and education initiatives by awarding grants for training in weatherization, solar photovoltaic and thermal, wind energy, clean energy construction, apprenticeship development, and entrepreneurship. Massachusetts implemented the statefunded Pathways Out of Poverty green jobs training initiatives. MassCEC established a statewide network for energy efficiency and building science training and continuously sponsors workforce training and education events.

# **Job Creation**

Through its new investment program, MassCEC makes seed-stage and expansion-stage capital investments in clean energy companies, and partners with its portfolio companies, new companies, and clean energy investors to help companies develop proof of concepts and prototypes.

In the past two years, Massachusetts' legislative leaders have passed landmark pieces of legislation that have spurred development in the clean energy industry:

The **GREEN COMMUNITIES ACT** is a comprehensive reform of the state's electricity marketplace that promotes a dramatic expansion in energy efficiency, supports the development of renewable energy resources, creates a new greener state building code, removes barriers to renewable energy installations, stimulates technology innovation, and helps consumers reduce electric bills. In addition, the state's existing RPS was enhanced under the law, doubling its rate of increase, and a commission on wind energy siting reform created by the Act produced draft legislation, which is now being considered by the Legislature.

The **OCEAN MANAGEMENT PLAN** is the first-in-the-nation comprehensive plan to manage development in state waters, providing new protections for critical environmental resources in nearly two-thirds of the state's coastal waters and setting standards for the development of communityscale and commercial-scale offshore wind energy, as well as other infrastructure.

The **CLEAN ENERGY BIOFUELS ACT** is the first tax incentive in the nation for next generation, non-food-based gasoline alternatives. It exempts cellulosic biofuels from the state's gasoline tax, sets minimum advanced biofuel content for diesel and home heating fuel, and commits the state to developing a Low Carbon Fuel Standard on a regional basis.

Since 2008, the **COMMONWEALTH SOLAR I** program has leveraged installation of more than 23 MW of solar PV through targeted investment of \$68 million from the Renewable Energy Trust Fund. This and other initiatives will bring the state up to more than 50 MW from 3.5 MW in four years, from when Governor Patrick took office.

WIND ENERGY Since 2006, the amount of wind installed has increased five-fold in the Commonwealth from 3 MW in 2006 to more than 15 MW as of February 2010.

In June 2007, Massachusetts won a \$2 million competitive grant from the United States Department of Energy, and in May 2009 received \$25 million in federal stimulus dollars for the construction of the new WIND TECHNOLOGY TESTING **CENTER** (WTTC) in Charlestown, which will offer certification tests for state-of-the-art turbine blades up to 90m in length, and the latest wind turbine blade testing and prototype development methodologies. The WTTC will attract new wind technology and other renewable energy technology companies to the region.

In July 2009, MassCEC awarded \$1.875 million for the Massachusetts Energy Efficiency and Building Science Training Initiative to Springfield Technical Community College to establish **REGIONAL TRAINING CENTERS** for new and incumbent workers seeking energy efficiency skills training.