

Global Climate Change— Leading by Example in Massachusetts

By Ian Bowles, Secretary of the Executive Office of Energy and Environmental Affairs

Wind turbines. Solar power. Fuel efficiency. Biofuels.

These are some of the things we've been talking about in the offices and hallways of the Executive Office of Energy and Environmental Affairs (EEA) since Governor Patrick merged the Commonwealth's environment and energy agencies into one Secretariat in the spring of 2007. The backdrop to these conversations—and to the bold steps we have taken over the past year—is global climate change. What some once dismissed as an unproven theory is now, for most policymakers and citizens, accepted not only as mainstream science, but as an environmental imperative that requires strong action. With headlines increasingly reporting the real-life consequences of greenhouse gas emissions, more and more people are realizing that this is not something we can ignore.

Nowhere is that imperative more evident than along the coast. Rising sea levels and changing weather patterns will accelerate the erosion of our historic shorelines where Massachusetts residents have lived, worked, and played for generations, and threaten their very existence in the future. The coastal resources that make Massachusetts unique are on the front lines of climate change.

With so much at stake, we aren't wasting any time. I am pleased to report that Massachusetts has emerged as a trailblazer in the clean energy arena nationally. We are meeting these challenges head-on with cost-effective solutions that already have us firmly on the path toward a clean energy future.

Governor Patrick set the pace in January 2007, when, as one of his first official acts in office, he brought Massachusetts into the Regional Greenhouse Gas Initiative (RGGI)—a multi-state effort to cut power plant carbon dioxide emissions. Although Massachusetts was the last state to join RGGI, we were the first to release regulations for instituting a market-based, cap-and-trade system that will reduce harmful emissions associated with global climate change. The cap and trade system sets regional limits for power plant greenhouse gas emissions, with each plant required to obtain allowances, or permits, for the amount of greenhouse gas it produces in the course of generating electricity. Massachusetts will sell these allowances to power generators by auction,

and plants that produce a lot of emissions will have to buy more allowances—either at auction or from other lower-emitting plants that find themselves with more allowances than they need. In Massachusetts, proceeds from allowance auctions will be used to fund energy-efficiency and demand-management efforts, reducing energy use and saving money for business and residential consumers.

On the heels of joining the regional climate change compact, in the spring of 2007 the Governor issued an Executive Order creating a “Leading by Example” program that sets ambitious energy-saving standards for state facilities and mandates greater use of renewable energy throughout state government, cutting agencies' energy costs while setting an example for local governments and the private sector. Under the Executive Order, state agencies must reduce overall energy consumption by 20 percent from 2004 levels by 2012 and 35 percent by 2020. Agencies must also reduce greenhouse gas emissions 25 percent by 2012, 40 percent by 2020, and 80 percent by 2050.

To achieve these goals, we are requiring state agencies to increase the percentage of electricity they obtain from renewable sources to 15 percent by 2012 and 30 percent by 2030. For this past winter (2007-08), certain facilities were required to use biofuels for three percent of their heating oil needs. That benchmark rises to 10 percent in 2012. Other Leading by Example requirements prohibit most purchases of energy-wasting

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incandescent light bulbs, calling on agencies to use energy-saving products, such as high-efficiency lighting and programmable thermostats, and require that new state building construction and major renovations not only meet, but exceed Leadership in Energy and Environmental Design (LEED) building standards.

Conserving water is another important Leading by Example goal. Our agencies are charged with reducing potable water (i.e., water that meets drinking water standards) use 10 percent by 2012 and 15 percent by 2020.

We recently celebrated the accomplishments of this program by presenting Leading by Example Awards to six exemplary agencies, institutions, and municipalities: the Massachusetts Water Resources Authority, the Department of Correction, Cape Cod Community and Bridgewater State Colleges, the city of Boston, and the town of Andover. EEA also began an innovative pilot project to introduce plug-in hybrid technology to the state vehicle fleet, retrofitting at least 10 state-owned hybrids with plug-in technology. Using power from the grid stored on a rechargeable battery to reduce gasoline use, these plug-in hybrids will achieve more than 100 miles per gallon. By embracing it within the state fleet, we hope to jump-start commercialization of this cutting-edge technology in the Bay State.

In addition to Leading by Example, Governor Patrick worked with the Legislature to make Massachusetts a national leader in clean energy by passing important new laws during the 2007-08 session. These include:

- **Green Communities Act** – which promotes a dramatic expansion in energy efficiency, supports the development of renewable energy resources, creates a new greener state building code, removes barriers to clean energy installations, stimulates technology innovation, and helps consumers reduce their electric bills.
- **Clean Energy Biofuels Act** – which makes Massachusetts the first state in the nation to exempt advanced, non-food-based biofuels from state gasoline taxes, creating economic incentives for companies to bring fuels to market that reduce greenhouse

gas emissions. This law also commits Massachusetts to developing a Low Carbon Fuel Standard—which would allow electric cars, plug-in hybrids, and other technologies to compete with various forms of biofuel to reduce greenhouse gas emissions from vehicles—and working with neighboring states to implement this fuel standard on a regional basis.

- **Green Jobs Act** – which establishes a Clean Energy Technology Center to support workforce development, university partnerships, research and development, and entrepreneurship in the growing clean energy industry.
- **Global Warming Solutions Act** – which requires Massachusetts to cut greenhouse gas emissions across the economy by up to a nation-leading 25 percent by 2020, 80 percent by 2050. In addition to cleaning up the environment, the law will stimulate the development of clean energy technologies and jobs. Massachusetts also became the first state in the nation to require alternatives analysis to reduce greenhouse gas emissions in the state environmental review process (MEPA).

Finally, Governor Patrick signed into law legislation that recognizes the connection between our ocean waters and clean energy goals. The Oceans Act of 2008 requires Massachusetts to develop a first-in-the-nation comprehensive plan to manage development in its state waters, balancing natural resource preservation with traditional and new uses, including renewable energy. This new law gives Massachusetts an unprecedented opportunity to manage its offshore assets to maximum effect, preserving its irreplaceable resources while making optimal use of those that are renewable.

In the months ahead, I look forward to working with EEA staff and all our agencies to implement this new legislation and the many other initiatives we have embarked upon to put Massachusetts firmly on the path to a clean energy future—a path that ensures our place as a national leader in energy innovation, while protecting the coastal habitats, clean air and water, and other natural resources that make Massachusetts the truly outstanding place that it is.