

TAUNTON DAILY GAZETTE

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Europe proves that clean power is possible in Massachusetts

State Sen. Marc Pacheco, D-Taunton, is pictured at the Anholt wind farm in Denmark during his recent trip. Submitted photo



By Marc Pacheco

Massachusetts Senate President Pro Tempore

For Massachusetts to address the severe threats of climate change while prospering from a robust clean energy economy, we need a diverse, balanced energy portfolio. [Offshore wind energy can be an important part of that mix](#), and the technology is well within our grasp.

Before the Senate session resumed, I attended an energy innovation mission in Switzerland to explore new energy technologies, a cooperation conference in Quebec where we discussed Canadian hydropower and an education trade mission in Denmark on the offshore wind industry. If we want to meet the goals set forth by the Global Warming Solutions Act, Massachusetts needs to use all viable sources of clean energy, and that includes solar, hydropower, wind, greater energy efficiency and new technology.

Massachusetts has the third highest electricity prices in the country, just below Hawaii and Connecticut. From 2000 to 2012, natural gas went from 15 percent of Massachusetts' total electric energy production to 52 percent. This is a dangerous figure, one that defies sustainability and provides an uneven energy portfolio. Spikes in electricity transmission rates are serious hardships for the residents and businesses of our state, and action must be taken to provide as many clean alternatives as possible.

The Danish Ministry of Energy, Utilities and Climate and the University of Delaware invited me to Denmark to gain a deeper, more hands-on understanding of the offshore wind industry and its potential uses back home. Vindeby, the world's first offshore wind farm, was built in Denmark in 1991, and since then the country has built a solid offshore wind industry that contributes significantly to the country's energy supply.

In 2014, Denmark's wind market provided 39 percent of Denmark's annual electricity consumption, with offshore wind power providing more than 1270 megawatts (MW) of power, or 10 percent of the country's annual energy consumption. The forecast for 2021 estimates that figure to rise to 25 percent. The industry is beginning to see cost reductions as the technology advances and competition increases.

Massachusetts can do the same. In America, offshore wind is projected to supply 22,000 MW of clean energy to cities and communities by 2030, enough to power 4.5 million homes. The commonwealth is in an ideal position to grab a piece of this clean energy future, with the Department of Energy's National Renewable Energy Laboratory conservatively estimating the Massachusetts' Offshore Wind Energy Areas to generate 4,000 to 5,000 MW of wind energy, enough electricity to power half the homes in Massachusetts. A single 1-MW turbine in an offshore wind farm can power more than 400 households.

Companies such as Dong Energy, Deepwater Wind and Offshore MW have [successfully acquired more than 500,000 acres of federal water](#) off of Martha's Vineyard from the Bureau of Ocean Energy Management. Deepwater Wind is also currently building the nation's first offshore wind project off of Block Island in Rhode Island. In working towards offshore wind for the commonwealth, the Massachusetts Clean Energy Center announced a three-year Marine Wildlife Survey Initiative to provide baseline whale, turtle and avian data for the federal offshore permitting process. We're turning a page in the offshore wind story.

Last week, the White House hosted a summit on offshore wind where I and other policy makers convened with industry leaders to discuss the offshore wind sector. The U.S. Department of Energy is funding a multi-state project with Massachusetts, Maine, New York and Rhode Island to produce a regional roadmap for offshore wind, laying out a cooperative path in its large-scale development. How far and fast this market develops depends on the political will to move it forward.

Bills proposed by Gov. Charlie Baker to meet the state's carbon reduction goals by 2020 rightly include hydropower, which I believe must be an important part of our diverse energy mix, but I also believe that the proposals are not complete without the inclusion of viable and plentiful offshore wind energy. We need diversity. We need balance. We need clean power. We have created a \$10 billion clean energy economy in Massachusetts, and we can also create a whole new offshore wind industry.

Pope Francis recently made his first visit to the United States, and I was lucky enough to be in the audience of his address on the South Lawn of the White House. He called for urgent action on climate change to care for our common home. In the words of His Holiness, "we are living at a critical moment of history. We still have time to make the change needed to bring about sustainable and integral development, for we know that things can change." This call is one we all must answer.

State Sen. Marc R. Pacheco is president pro tempore of the Massachusetts Senate and founding chair of the Senate Committee on Global Warming and Climate Change.