



Testimony before the
United States House of Representatives
Committee on Natural Resources
Subcommittee on Energy and Mineral Resources
Honorable Mr. Paul Gosar, Chairman

On
“Offshore Wind Jobs and Opportunity Act”

by Stephen Pike
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Chairman Gosar, Ranking Member Lowenthal and Members of the Subcommittee, thank you for inviting me to testify on the Offshore Wind Jobs and Opportunity Act (HR 5291). My name is Stephen Pike and I am the Chief Executive Officer of the Massachusetts Clean Energy Center (MassCEC).

The Massachusetts Clean Energy Center is a quasi-state economic development agency dedicated to accelerating the growth of the clean energy sector across the Commonwealth of Massachusetts to spur job creation, deliver statewide environmental benefits and to secure long-term economic growth. In the spirit of that mission, I am here to speak in support of HR5291, important legislation that will help prepare workers in Massachusetts and across the United States to take advantage of a significant opportunity to work and compete in a new, emerging industry.

MassCEC, created by the Massachusetts Legislature in 2008, is funded by a system benefit charge – totaling approximately .29 cents per month for the average residential customer – paid by electric ratepayers of investor-owned utilities in Massachusetts, as well as five municipal electric departments.

As a quasi-state agency, we work within Governor Charlie Baker’s administration in close coordination with the state’s Executive Office of Energy and Environmental Affairs. We support

the clean energy industry through programs and activities that spur the adoption of clean energy technology, drive innovation, connect industry players to new markets, and invest in workforce training. To be clear, MassCEC does not write or implement policy. Rather, we help to inform policy and policy makers both by designing our programs to respond to industry needs and to explore policy questions as well as by keeping an ear to the ground and working closely with the industry to determine how best to accelerate the clean energy economy in Massachusetts.

To give you a sense of the range of activities we engage in, MassCEC invests in early stage companies – from equity to debt support – and we also support incubators and accelerators like Greentown Labs, the largest cleantech incubator in the United States based in Somerville, Massachusetts. On the deployment side, we provide incentives and planning assistance to communities, businesses and residents seeking to construct clean energy projects including solar, renewable thermal, wind, hydro, and energy storage technologies. For instance, the Mass Solar Loan program, in coordination with the Massachusetts Department of Energy Resources, has helped over 4,200 residents adopt solar and supported over \$135 million in total loan value while 70 percent of funding has gone to low-to moderate income residents. To drive innovation, we act as a funder, enabler, convener and facilitator of Massachusetts' clean energy ecosystem. We run technology development programs that advance clean energy research at Massachusetts universities and institutions, and boost early stage prototype development as well as commercial demonstration projects to help companies find their first customers. We also fund workforce training programs including our nationally recognized Internship Program, which has helped place over 3,025 Massachusetts college students in paid internships with local clean energy companies. This is just a tiny fraction of the work we do.

We also own and operate two facilities in the Commonwealth – The New Bedford Marine Commerce Terminal, a 29-acre multipurpose port and the only one of its kind in the United States, purpose built to support the staging and deployment of offshore wind projects, which will serve as the primary staging area for future offshore wind projects in the Commonwealth; and the Wind Technology Testing Center in Charlestown, built with U.S. DOE and state funding and is the largest blade testing facility in the country. The cutting-edge R+D facility can test wind blade sections up to 90 meters long and is driving innovation, cost reduction and reliability in the wind energy industry.

In addition, MassCEC produces an annual report that takes the pulse of the clean energy industry in the Commonwealth. Massachusetts, with its nation-leading innovation economy, is home to a robust clean energy sector – our 2017 report found the industry grew by 4 percent over the last year, and 81 percent since 2010, totaling 109,000 jobs. The \$11.4 billion industry represents a 2.3% share of Massachusetts' total Gross State Product.

For more than a decade, Massachusetts has been setting the stage for development of the offshore wind industry in the United States, leading the nation through our ambitious renewable energy policies and greenhouse gas reduction targets. In August 2016, Massachusetts took a pivotal step toward bringing the offshore wind industry to the United States when the legislature passed and Governor Baker signed *An Act Relative to Energy Diversity*, which mandated the Commonwealth's Electric Distribution Companies to solicit proposals for 2,800 megawatts of

cost-effective renewable energy, including 1,600 megawatts of offshore wind power by 2027 – the largest legislative commitment to offshore wind by any state in the country. The legislation will result in the construction of multiple offshore wind projects off the coast of Massachusetts in the coming years. In addition to helping meet the Commonwealth’s greenhouse gas emission reduction mandate and powering one-third of all the homes in Massachusetts or roughly 800,000 Massachusetts homes, these projects will bring significant economic opportunities for Massachusetts businesses while creating thousands of jobs.

One of the critical roles MassCEC has played in the effort to bring offshore wind to Massachusetts has been in identifying barriers to the industry and working to mitigate them. To this end, MassCEC funded research to advance technology innovation, assessed environmental impacts and identified economic development opportunities; evaluated workforce needs and opportunities; measured wind speeds; convened key stakeholder groups; engaged in a long and constructive relationship with the U.S. Bureau of Ocean Energy Management through the Massachusetts Renewable Energy Taskforce, the Fisheries Working Group and other stakeholder engagement; and built critical infrastructure like the New Bedford Marine Commerce Terminal and the Wind Technology Testing Center.

On May 23, 2018, Massachusetts brought a United States offshore wind industry closer to realization when the Baker-Polito Administration announced that Vineyard Wind’s proposed 800 megawatt project had been selected by the Commonwealth’s utilities to move forward to contract negotiations. At the same time, Rhode Island – which is home to the five-turbine, 30 megawatt Block Island Wind Farm, announced it was moving forward with a proposal from Deepwater Wind to develop a 400 megawatt project. And just weeks ago, Connecticut announced it had selected a 200 megawatt project from Deepwater Wind.

All across the Northeast region, we are seeing states pursuing offshore wind. New York has set a target to develop 2,400 megawatts of offshore wind power; New Jersey has announced it will pursue 3,500 megawatts; Maryland has selected projects totaling 368 megawatts; Delaware, Virginia and North Carolina are all pursuing offshore wind; in total, the Northeast region is working to develop over 7,500 megawatts of offshore wind power by 2030. And given the reports that the price of offshore wind has become extremely competitive, that number is likely to increase.

Now that a large and predictable pipeline of projects is emerging, offshore wind in the United States is finally taking root. A recent analysis sponsored by Massachusetts, Rhode Island and New York titled *U.S. Job Creation in Offshore Wind* and prepared by BVG Associates found that the deployment of 4,000 megawatts by 2030 would create 17,000 to 18,000 jobs during the five-year period 2024-2028.

As an economic development agency, MassCEC has been particularly focused on preparing the state to take advantage of the significant opportunities for economic development and job creation associated with the emergence of this industry. To give you one illustrative example, on June 6, MassCEC hosted the second annual Massachusetts Offshore Wind Supply Chain Forum. The event was attended by over 450 people and resulted in 214 one-on-one matchmaking

sessions between Massachusetts companies and multiple European companies looking to establish local operations in Massachusetts.

Already, companies specializing in the manufacturing of offshore wind components such as foundations, transition pieces, towers, and blades are looking for locations in Massachusetts and throughout the Northeast where they can establish operations. In addition to finding sites to meet their needs, companies are also inquiring about the local workforce.

In response to these industry inquiries, MassCEC undertook a report on the workforce needs and economic impact of the emerging offshore wind industry (the "Report"), finding that the deployment of 1,600 megawatts of offshore wind is estimated to generate up to \$2.1 billion in total economic impact to the Commonwealth and as many as 9,800 total job years – defined as one person working full time for one year - over the next ten years.

The job opportunities to work in the offshore wind industry are significant and include both white and blue-collar occupations. Constructing, operating and serving offshore farms requires the support of a diverse group of workers in a variety of occupations. Offshore wind industry jobs include project managers, engineers, technicians, marine scientists, crane operators, divers, construction workers, water transportation workers, steel workers, and electricians, among others.

The Report identifies recommendations and strategies to better position the state's educational institutions and training centers to develop and serve a burgeoning offshore wind workforce, including recommending strategic investment in curriculum development, courses, equipment and facilities necessary to provide training and certification programs. These are exactly the types of programs and initiatives that HR5921 would support.

HR5921 would facilitate and accelerate several key recommendations in MassCEC's Report including: (1) Workforce development efforts should be targeted at the high priority occupations of water transportation workers, trade workers, and O&M technicians; (2) Strategic investment in key courses and physical facilities are needed to provide O&M and installation technicians with the appropriate industry-recognized technical training; and (3) The Commonwealth, in partnership with academic and labor organizations, should consider capital investments to leverage and match private sector investments in offshore wind health and safety programs designed to comply with the requirements of national and international credentialing bodies.

The offshore wind career training grants envisioned in HR5921, as well as the 25 percent allocation of training grants to community colleges, would support and complement the development of courses and training infrastructure recommended by MassCEC's Report. Furthermore, the example grant uses specified in HR5291, including occupational skills training, health and safety training, and development of offshore wind certificate programs, all align with the key recommendations identified in MassCEC's Report.

Massachusetts is already making investments in workforce training for offshore wind. Just last week we finalized an award for creation of a crew transfer training facility at Massachusetts Maritime Academy. This facility will help ensure worker safety when transferring from vessels

to wind turbine structures at sea. MassCEC is also planning to issue future solicitations to help local universities, community colleges and training institutions support offshore wind training. These efforts would be greatly enhanced, both in Massachusetts and in any state that is moving forward with their own development of an offshore wind industry, by the passage of HR5921.

Offshore wind presents a once in a generation opportunity to establish a new industry – one that provides clean renewable energy, economic development, and jobs. Providing local workers access to this critical training required by the industry will ensure that we can develop a workforce – both in Massachusetts and across the region – ready and able to fully participate in this emerging industry. I would like to thank Congresswoman Tsongas for proposing this legislation, and Chairman Gosar, Ranking Member Lowenthal and all members of the subcommittee for inviting me to testify today.

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