

**Testimony of Dr. Christopher G. Hart
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**Before the
U.S. House of Representatives
Committee on Natural Resources
Subcommittee on Energy and Mineral Resources**

**For a Hearing Concerning
Building a 21st Century American Offshore Wind Workforce**

June 11, 2019

Chairman Lowenthal, Ranking Member Gosar, and Members of the Subcommittee:

Thank you for inviting me to testify on offshore wind development in the United States. I appreciate the Committee's continued interest in advancing the development of renewable energy on federal lands.

My name is Christopher Hart and I am the President and Managing Director of Atlantic Shores Offshore Wind LLC, a joint venture partnership between EDF Renewables and Shell to develop an 183,000-acre lease area in federal waters off the coast of New Jersey. The lease area has the potential to generate 2,500 MW of clean, renewable offshore wind energy – enough to power nearly one million homes.

Prior to leading this company, I led various teams in the offshore environment for 23 years. My experience includes 10 years of active duty service as a Special Operations Officer in the U.S. Navy; founding the U.S. Department of Energy's effort to develop and implement a six-year, \$500 million National Offshore Wind Strategy; and five years at ExxonMobil where I worked offshore energy projects, including the world's largest floating offshore wind project.

Over my years in this space, I have watched the potential and promise of the offshore wind industry grow. In 2016, the nation's first offshore wind farm near Block Island in Rhode Island was commissioned. Since then, offshore wind farms are under advanced stages of development in several other states, including Massachusetts, Virginia, Rhode Island, Maryland, New York, and New Jersey. Many of these same states have established renewable energy standards requiring certain percentages of the energy sold in the state to come from renewable sources, including commitments to offshore wind. It is projected that over 18 GW of offshore wind power will be contracted between 2020 and 2030 as a result.

Meeting this need will require companies with the capital and expertise to develop large off-shore lease areas safely, efficiently, and cost-effectively, but also an understanding of the complexities and unique aspects of the American energy market. Atlantic Shores is one of those companies.

Our parent companies, EDF Renewables and Shell, have significant financial strength, with a combined Tangible Asset Value of 6x the next closest competitor in the offshore wind industry, and deep American roots. EDF, for example, has over 30 years' experience developing renewable energy assets in all U.S. markets, resulting in 16 GW developed and a pipeline of 24 GW. Shell has been in the US for over 100 years and first entered the onshore wind business in the U.S. in 2001. Shell has operated offshore assets for decades, has a strong supply-chain network, and is one of the largest power wholesalers in North America. Our Atlantic Shores team, currently comprised of 102 folks from across the country – from San Diego to Philadelphia and everywhere in between – and Canada, France, The Netherlands and UK as well, brings unparalleled experience in building supply chains in emerging industries and developing large energy projects, including offshore wind projects in Europe.

But if we, and the entire U.S. offshore wind industry, are to meet our mission of delivering safe, sustainable energy, we will need to hire many more, and, as Mike will share (or has shared), many of these jobs will require hard hats and specific skillsets that require proper training. According to a recent study,¹ the offshore wind industry will need to employ more than 35,000 full-time employees to support 8 GW of offshore wind. According to another recent report published by McKinsey,² this number is roughly equivalent to a quarter of the domestic labor force employed by the oil and gas industry. McKinsey also identified significant concerns with the lack of adequate training and size of the skilled labor pool for offshore wind. The report noted that skilled trade workers, operations and maintenance technicians, and water transportation workers are integral to offshore wind project sites but are in short supply.

The Offshore Wind Jobs and Opportunity Act would help address this issue by fostering collaboration between the Interior Department, offshore developers, local governments, labor groups and others on the educational and career-training needs of the offshore wind industry. The bill would provide resources for individuals to obtain skills and training necessary to compete in this global industry. Such investments are important for meeting regional offshore wind labor needs and avoiding costly labor shortages.

It is important to note that the economic development and job training needs are not limited to the states where the turbines are located. In fact, the offshore wind industry will build upon domestic infrastructure and expertise in manufacturing offshore oil and gas structures and shipbuilding and transfer those resources to the offshore wind context. For example, both the foundations for the first U.S. offshore wind farm and the liftboats used in its installation were designed and constructed by Louisiana companies. There is also a significant amount of transferrable skills from the onshore wind industry, which currently supports 114,000 jobs across all 50 states. With over 500 facilities spread across 42 states, it is certain that onshore manufacturing capabilities will also be important to leverage as this new industry pushes to match growth projections.³

¹ BVG Associates Ltd., U.S. Job Creation in Offshore Wind, *A Report for the Roadmap Project for Multi-State Cooperation on Offshore Wind*, October 2017.

² Nicolas Lefevre-Martou et. al, *Scaling the US East Coast Offshore Wind Industry to 20 Gigawatts and Beyond*, McKinsey & Co., April 2019.

³ <https://www.awea.org/wind-101/benefits-of-wind/powering-job-growth> (Maybe we want to find a “less-biased” source?)

To date, Europe, and to a lesser degree, Asia, have the lead in the number of installed offshore turbines and technical and operational expertise. But together with other offshore wind developers, we are working to ensure that the United States assumes a leading role in this vibrant, growing industry.

Thank you to this Committee for your work to address this issue with your consideration of the Offshore Wind Jobs and Opportunity Act and your support for development of safe, renewable offshore wind energy.

I look forward to the opportunity to engage further on this topic and to answering any questions that the Committee may have for me.