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TESTIMONY BEFORE THE ENERGY, UTILITIES AND TECHNOLOGY COMMITTEE

**An Act To Encourage Research To Support the Maine Offshore Wind Industry
L.D. 336**

GOVERNOR'S ENERGY OFFICE

May 11, 2021

Senator Lawrence, Representative Berry, and Members of the Joint Standing Committee on Energy, Utilities and Technology (EUT): My name is Dan Burgess and I am the Director of the Governor's Energy Office (GEO).

The GEO testifies in support of L.D. 336.

This proposed legislation would direct the Public Utilities Commission (PUC) to negotiate a long-term power purchase agreement necessary to facilitate the development and operations of the State of Maine's floating offshore wind research array in the Gulf of Maine. The legislation could lead to facilitating important research in the Gulf of Maine, using Maine ports and manufacturing facilities, creating new jobs, and ensuring the lowest possible costs to ratepayers.

Maine has a world-class offshore wind resource off our coast and the Gulf of Maine represents our state's largest untapped clean energy opportunity. Harnessing this potential, given the deep waters of the Gulf of Maine, will require innovative floating wind platform technology – such as that pioneered by the University of Maine. Yet with few floating offshore wind turbines operating in the world, and none now in the U.S., more research and scientific study is necessary to understand how floating offshore wind technology affects fishing and the marine environment.

The State sees this research array as a valuable opportunity to conduct this research, which is central to the Governor's prudent, phased approach to advancing and informing this innovative new industry while also protecting Maine's vital marine industries and ecosystems. As a source of clean, renewable energy, offshore wind is also a critical tool for fighting climate change by cutting greenhouse gas emissions, reducing Maine's nation-leading dependence on oil, aiding the expansion of clean transportation and clean heating solutions, and keeping here at home some of the over \$4 billion Maine people spend annually to import fossil fuels.

Maine's recently released Renewable Energy Goals Market Assessment indicates that while Maine is on track to meet its near-term Renewable Portfolio Standards requirement through 2026, new energy resources, such as offshore wind, will need to be brought online to continue to meet our clean energy goals.¹ Maine's renewable energy demand will increase in the decades to come with beneficial

¹ State of Maine Renewable Energy Goals Market Assessment. February 2021. Accessed at: <https://www.maine.gov/energy/studies-reports-working-groups/current-studies-working-groups/renewable-energy-market-assessment>

electrification, requiring significant investment in a diverse set of renewable energy resources, including offshore wind. The investment Maine makes today in floating technology innovation will not only directly contribute to lower prices now and over the long term when offshore wind demand will be greatest, but positions the state to seize the opportunity of this growing industry.

The offshore wind industry is expected to generate \$1 trillion in global investments by 2040. With a growing number of projects in development along the Eastern coast of the U.S., and a clear directive from federal government and states supporting offshore wind, the time for Maine to responsibly develop this renewable energy industry as an economic driver to create sustaining, good-paying jobs in engineering, construction, manufacturing, and more is now.

Research Array

Recognizing this, Governor Mills announced the State's plan to create the country's first floating offshore wind research array in the Gulf of Maine. The research array will be twelve turbines or fewer, in an area covering approximately 16 square miles and will be 20 to 40 miles offshore in the Gulf of Maine. Compared to usual commercial scale offshore wind lease areas elsewhere, the proposed research array is a fraction of the size.

The State intends to utilize the University of Maine's VoltturnUS technology, which is the result of more than a decade of research and development and investment from the State and federal government, creating a unique opportunity to further demonstrate serial manufacturing and deployment of the technology. Additionally, with its concrete foundation it provides more Maine-based employment opportunities than traditional steel foundations. To further advance the University's leadership in foundation design and to develop a technology created in Maine, for Maine and beyond, the State intends to partner with New England Aqua Ventus, which has recognized the market potential of the technology and is committed to investing in projects here in the state.

Maine is taking this path to advance offshore wind in the Gulf of Maine to ensure the State, the fishing industry and many others learn about potential impacts of floating offshore wind together, in order to ensure Maine develops this industry in a manner that capitalizes on our innovative technology and abundant resources, while protecting our priorities, industries, environment and values.

The federal government has announced ambitious offshore wind targets and many coastal states – on the Atlantic and the Pacific -- are advancing projects; the findings of the research array will provide critical information that can inform future commercial projects.

A key part of all phases of the research array is working with stakeholders – from identifying a site, planning the project, to developing research priorities. Since late last year, GEO, in coordination with other state agencies including Department of Marine Resources (DMR), have conducted extensive stakeholder engagement through numerous public meetings, informational webinars and sessions, and other means to directly inform the project, including identifying a site for the project.

The outreach includes four stakeholder webinars in December 2020 specifically focused on the fishing industry, a Stakeholder Planning and Knowledge Sharing Workshop in February 2021, a series of work sessions focused on wildlife and fisheries, and informational webinars with offshore wind and scientific experts from around the world. A full listing of our outreach is available here: <https://www.maine.gov/energy/initiatives/offshorewind/webinars>.

In addition to outreach, research partnerships are also key to this project. Over the past year, the State has signed an MOU with the United Kingdom to share offshore wind research and findings and became the fifth state to join the National Offshore Wind Research Development Consortium.

In regard to siting of the project, the State has been and remains committed to working with fishing and other interests in considering where to site the project, with the goal of minimizing any negative impacts and has gathered valuable input throughout this process.

The stakeholder process has also garnered significant input into the research priorities of the research array, including interest in pursuing research in all aspects of offshore wind. Gathering input from local scientists and research institutions, ocean users, federal and state agencies, as well as assessing the global state of relevant offshore wind research, the State will put forward an integrated research framework that captures the latest state of the industry, highlights the research areas most critical to Maine, and outlines an inclusive and thoughtful approach to formalizing the research plan for the project over the various phases of the project.

After considerable stakeholder engagement, the State will submit an application to the federal government for a State-held research lease for the project. This will be the first of a multi-year step to designing, developing, and extensive permitting, where there will be continued opportunity for public input.

Roadmap

Expected to be completed in late 2022, the Maine Offshore Wind Roadmap (Roadmap) is an economic development planning process which will recommend policies, strategies, and investments for Maine to responsibly maximize the economic opportunity presented by offshore wind along the East Coast. The Roadmap does not decide whether offshore wind is developed in the Gulf of Maine. The Roadmap will be developed by the GEO, an advisory committee, and several working groups analyzing energy markets, ports and infrastructure, socioeconomic impacts, equity, manufacturing and supply chains, workforce development, innovation, research, and ocean and environmental compatibility.

The research array and the Roadmap are necessary and complementary projects. With the growth of offshore wind development on the East Coast—now further accelerated by the federal government and neighboring states -- the Roadmap will create a comprehensive planning document about the economic opportunity for Maine.

With the need for research and scientific study into floating offshore wind technology in the U.S., the research array will address key unanswered questions about operations and impacts of commercial-scale offshore wind projects in the Gulf of Maine specifically. Together, the Roadmap and the research array will help inform and enable responsible development of offshore wind in Maine to create additional good-paying jobs, fight climate change, and protect Maine's important fisheries and marine environment.

Moratorium

In recognition of concerns raised by Maine's fishing industry during stakeholder conversations on offshore wind, Governor Mills announced legislation to establish a 10-year moratorium on new offshore wind projects located in State waters as is now before this Committee (LD 1619). The GEO believes that this approach strikes a balance between preserving State waters for valuable fishing and recreation, while reaffirming Maine's priority of locating offshore wind projects in Federal waters of the Gulf of Maine. This effort prioritizes areas for offshore wind that are well offshore and in federal waters. It is our belief that fishing and offshore wind energy can co-exist for the benefit of all Maine people. GEO supports the moratorium in addition to other efforts to minimize potential impacts to fishing activity, including investment in hands-on research to lead to data-driven approaches to minimize impacts.

Clean Energy Economy

Upon the release of the Maine Climate Council's Climate Action Plan, *Maine Won't Wait*, the Governor announced a clean energy jobs goal of doubling Maine's clean energy jobs to 30,000 by 2030. The growth and development of the State's offshore wind industry will aid in meeting this clean energy jobs goal, while growing the clean energy economy and providing supply chain development opportunities.

With offshore wind now projected to be a \$70 billion industry in the U.S. over the next decade alone, a growing number of projects in development along the Eastern coast of the U.S., and a clear federal directive supporting offshore wind, the time for Maine to responsibly develop this renewable energy industry as an economic driver to create sustaining, good-paying jobs in engineering, construction, manufacturing, and more is now. Additionally, Maine's 10-year Economic Development Strategy identifies offshore wind as a critical opportunity to grow the State's economy and encourages the State to set forth a balanced agenda that maximizes economic benefits for Maine people while creating a culture of innovation that creates a foundation for future leadership in this growing industry.

Using Maine technology, Maine workers, and Maine ports to meet Maine's climate and economic targets and answer Maine's fundamental research questions, we can responsibly develop the world-class wind resources in the Gulf of Maine that will jumpstart a new industry, help Maine meet its renewable energy and greenhouse gas reduction requirements – which are aligned with U.S. and international efforts to slow global climate change, and fight climate change effects now impacting our state, such as a warming and acidifying ocean, sea level rise, and increasing severe storms.

Thirteen years ago, Maine first recognized the vast opportunity to responsibly develop offshore wind in the Gulf of Maine to make the state more energy independent and established an Ocean Energy Task Force. Since then, Maine has been in the vanguard of developing innovative floating wind technology at the University that can make Maine a global leader in offshore wind. With this legislation today, Maine is taking the next pragmatic step in our development of this critical resource in a way that will realize the energy, economic, and innovation opportunities before us.

Thank you for your consideration.

A handwritten signature in black ink that reads "Dan Burgess". The signature is written in a cursive, flowing style.

Dan Burgess, Director
Governor's Energy Office