Maine Offshore Wind
Update and Interests

Gulf of Maine Intergovernmental Renewable Energy Task Force
May 19, 2022

Dan Burgess, Director
Celina Cunningham, Deputy Director
Governor’s Energy Office
Maine’s Climate and Clean Energy Targets

Reduce Maine’s greenhouse gas emissions by 45% below 1990 levels by 2030.

Renewable portfolio standard requirements:
- 80% by 2030
- 100% by 2050

Achieve carbon neutrality by 2045.
Offshore Wind is an Opportunity for Maine to:

- Fight Climate Change
- Harness Renewable Energy
- Create Jobs & Economic Growth
- Sustain Maine’s Maritime Heritage
About the Initiative

**Planning & Stakeholder Engagement**
- Maine Offshore Wind Roadmap
- Ports Studies & Stakeholder Group

**Research & Innovation**
- University of Maine Demonstration Project
- Gulf of Maine Research Array
- Maine Offshore Wind Research Consortium

**Policy & Legislation**
- Bipartisan legislation supporting Research Array, Research Consortium, and prioritizing federal waters for commercial OSW

**Partnerships**
- University of Maine
- Regional Wildlife Science Consortium for OSW
- National Offshore Wind R&D Consortium
- Responsible Offshore Science Alliance
- Business Network for Offshore Wind
- MOU with United Kingdom
Maine Offshore Wind Roadmap
Led by Governor’s Energy Office with Support from Other State Agencies

Advisory Committee
GEO, Working Group Co-Chairs and Other Public, Private and Non-Governmental Leaders

Working Groups:
Technical knowledge and subject matter expertise

- Supply Chain, Workforce, Ports & Marine Transportation
- Renewable Energy Markets & Strategy
- Fisheries
- Environment & Wildlife

Focus on Economic Opportunities and Socioeconomic Impacts
Focus on Research/Data Gaps and BOEM Process
2021 Landings: $890M
2021 Lobster Landings: $733M

Lobster landings are 82% of Maine’s total and represent 80% of the total U.S. lobster catch. It is the second most valuable ocean species harvested in the U.S.

Economic Impact of Maine’s Commercial Fishing Industry

Licensed Maine Fishermen: 16,000+
Total Economic Impact: $3 billion
Home to 30% of all commercial fishing trips on the entire eastern seaboard
The Maine Offshore Wind Roadmap is supported by a $2.16 million federal Economic Development Agency Grant awarded to GEO in 2020.

**96**
Members of Working Groups and the Advisory Committee building the Roadmap

**50+**
Working Group and Advisory Committee meetings from July 2021 - April 2022

**Technical Studies**
- Supply Chain Opportunity Assessment
- Maine and New England Energy Analysis
- Ports Infrastructure Studies
- Workforce Development
- Socioeconomic Analysis
- Transmission Analysis

maineoffshorewind.org
Where we are in the Process

Roadmap Timeline and Milestones

PHASE 1:
Develop draft recommendations
(July 2021 – Feb 2022)

PHASE 2:
Refine recommendations
(March - July 2022)

PHASE 3:
Finalize Roadmap
(Aug - Nov 2022)

PHASE 4:
Communicate Roadmap
(Dec 2022 and beyond)

Proactive engagement to solicit public & stakeholder feedback

maineoffshorewind.org/working-group-recommendations
Maine Ports Studies and Stakeholder Process

Agencies: MaineDOT, Maine Port Authority
Consultant: Moffat and Nichol
Research and Innovation

- University of Maine Demonstration Project
- Gulf of Maine Research Array
- Maine Offshore Wind Research Consortium
UMaine Demonstration Project

• Single turbine project to advance 1st of its kind floating platform technology from the University of Maine.
• A public-private partnership that is supported with funding from U.S. DOE.
• Poised to be 1st full-scale floating offshore wind turbine deployed in U.S.
Gulf of Maine Floating Offshore Wind Research Array

Why A Floating Research Array?

- **Advance** phased approach to floating technology as seen worldwide
- **Research** the effects of multiple floating turbines on marine life, fishing and more
- **Maximize** research and innovation in floating offshore wind to help grow U.S. floating supply chain
- **Support** UMaine's public-private partnership
- **Work** with fishing, environmental and other marine interests to answer important questions
- **Use** the experience to inform the work of the offshore wind roadmap and future projects, including lowering the cost of floating wind in the Gulf of Maine
**November 2020:** State announces intention to pursue research lease for array.

**December 2020:** Stakeholder engagement and outreach to inform siting begins.

**June 2021:** Bipartisan legislation (LD 336) to authorize power purchase agreement to support research array for New England Aqua Ventus (partners RWE & Diamond Offshore Wind), create the Maine offshore wind research consortium, and prioritize offshore wind in federal waters.

**July 2021:** 15.2-square-mile area selected for state application for research array proposed site, based on extensive stakeholder input.

**October 2021:** Initial stakeholder outreach ends as state submits application to BOEM for research lease area.

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**Research Array Siting & Timeline**

**Research Array By The Numbers**

- **Distance from mainland:** 30 miles/25 nm
- **Size of array:** 12 turbines or fewer
- **Power potential:** 144 MW
- **Size of proposed lease area:** 15.2 square miles
- **State Partners:** University of Maine Floating Technology and New England Aqua Ventus
Research Array Initial Area of Interest
Siting Process

Constraints
Recreational
Mammals
Scallop
Groundfish
Herring
Federal Management
Wildlife
Lobster
Bathymetry

Wildlife

Federal Management

Herring

Constraints

Scallop

Lobster

Bathymetry

Siting Process
Maine Offshore Wind Research Consortium

- The Research Array stakeholder process led to extensive understanding of proposed research priorities.

Research interests cut across human, social, and ecological elements of the research array, including how to best support co-existence with fishing industry.

- To manage research at the Research Array, bipartisan legislation signed into law in 2021 established and funded the Maine Research Consortium.

The consortium will include representation from fishing industry, ocean experts, and others to inform research priorities, and will work to align with related regional and national efforts.
What We Need to Know to Understand the Interactions of Ecosystems with Floating Offshore Wind Energy

Species Occurrence & How it Changes Through Time

Stressors Introduced by the Turbines & Research Array and How They Can be Minimized

How to Optimize Co-Existence With Ecosystems
State Policies

P.L. 2021 ch 327 (LD 336)
• Signed into law June 2021.
• Authorizes the Maine Public Utilities Commission to negotiate a power purchase agreement for the array with UMaine’s development partner New England Aqua Ventus.

P.L. 2021 ch 407 (LD 1619)
• Signed into law June 2021.
• Prioritizes offshore wind projects in federal waters by prohibiting new projects in Maine’s territorial waters within three miles of shore.
• Creates the Maine Offshore Wind Research Consortium to develop and oversee research priorities for the floating research array.
The Maine Offshore Wind Initiative is overseen by the Governor’s Energy Office (GEO), in close coordination with the Governor’s Office of Policy Innovation and the Future and the Department of Economic and Community Development.

Other agencies that will play a key role in the development and regulatory process for offshore wind include the Department of Transportation, Department of Environmental Protection, the Department of Marine Resources, Maine Technology Institute, and Maine International Trade Center.

- University of Maine
- Gulf of Maine Task Force
- Regional Wildlife Science Consortium for Offshore Wind
- Responsible Offshore Science Alliance
- National Offshore Wind R&D Consortium
- Business Network for Offshore Wind
- Government of the United Kingdom
Next Steps for Maine

• Continue to cultivate economic opportunities in offshore wind
• Continue stakeholder processes, including completing roadmap
• Identify data assets, gaps, and related needs for commercial leasing
• Advocate for further investment in baseline data
• Continue to work with fishing industry and stakeholders to understand perspectives and priorities
• Support BOEM’s stakeholder engagement through Task Force process