## BUREAU OF SAFETY AND ENVIRONMENTAL ENFORCEMENT

#### STATE OF THE RENEWABLE ENERGY PROGRAM WEBINAR

October 10, 2024 2:00-3:30 p.m. ET



## **OPENING REMARKS**

**Kathryn Kovacs,** Deputy Assistant Secretary for Land and Minerals Management Exercising the Delegated Authorities of the Director, BSEE



#### WEBINAR AGENDA

Time	Торіс
10 minutes	<ul> <li>Welcome and Opening Remarks</li> <li>Opening remarks</li> <li>Agenda review and housekeeping</li> </ul>
10 minutes	<ul> <li>National Tribal Engagement Program Updates and National Renewable Energy Program Updates</li> <li>National level updates on the BSEE National Tribal Engagement Program and BSEE Renewable Energy Program</li> </ul>
10 minutes	<ul> <li>Regulatory Updates</li> <li>Review of the Modernization Rule and Safety Rule and implications for stakeholders and Tribal Nations, ANCSA Corporations, and the Native Hawaiian Community</li> </ul>
45 minutes	<ul> <li>Regional Updates</li> <li>Status updates on project reviews, construction, and operations to date and a lookahead at upcoming activities.</li> </ul>
10 minutes	<ul> <li>Research Highlights</li> <li>Overview of BSEE's research with DOE and other partners</li> </ul>
5 minutes	<ul> <li>Wrap Up and Closing Remarks</li> <li>Review of upcoming engagement opportunities and next steps</li> <li>Closing remarks by BSEE</li> </ul>
	Adjourn

**BSEE** 

#### NATIONAL TRIBAL ENGAGEMENT PROGRAM UPDATES

**Bronia Ashford,** Tribal Liaison Officer BSEE National Tribal Engagement Program



## **BSEE'S TRIBAL ENGAGEMENT PROGRAM (NTEP)**



#### **Overview**

- BSEE's National Tribal Engagement Program (NTEP) became fully staffed in October 2023.
- NTEP advances the Bureau's commitment to fulfill its trust relationship to consult with Tribal Nations, ANCSA Corporations, and the Native Hawaiian Community whenever BSEE plans or has actions with potential substantial direct effects.
- BSEE has developed national Tribal Coordination and Consultation policies and procedures to enhance our Bureau's Tribal engagement initiatives and meet our trust responsibilities.

#### **Administrative Actions**

- BSEE's Tribal Consultation Handbook (best practices document) was signed on December 27, 2023.
- Instructional Memorandum on Tribal Engagement for Renewable Energy Activities on the OCS was signed on October 27, 2023.

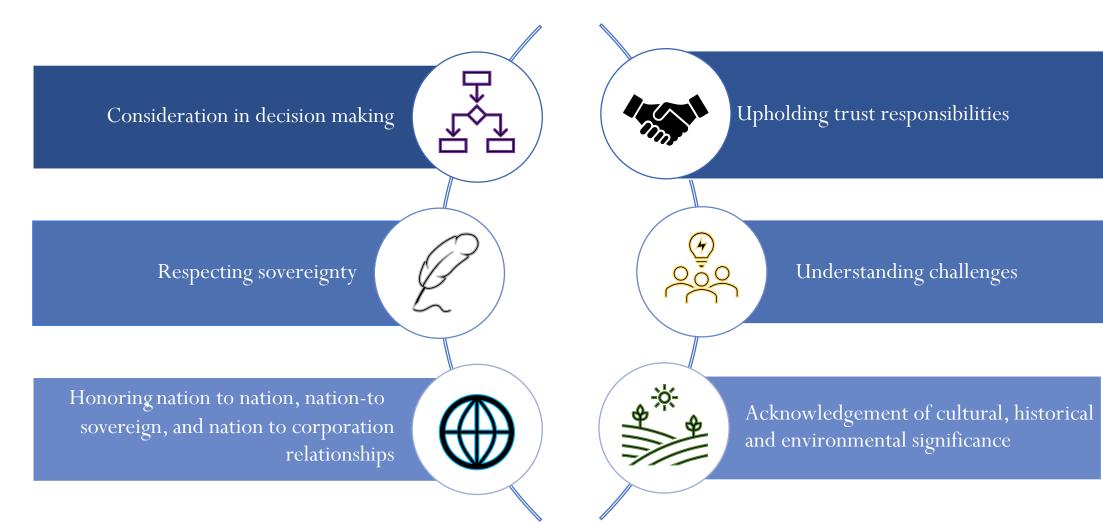
## TRIBAL INTERESTS AND CONCERNS



#### BSEE actions on the Outer Continental Shelf (OCS) could have Tribal Implications:

- There can be historical and cultural ties to areas where BSEE activities are proposed and conducted although they may no longer be physically located near the area.
- Those lands and waters contain cultural, natural, and economic resources of significance and value to Tribal Nations, Alaska Natives, and the Native Hawaiian Community.
- Sacred religious sites, burial sites, ancient submerged landforms, archaeological sites, wildlife, and sources of traditional Indigenous foods and medicines.
- Lands and waters lie within areas where Tribal Nations have retained the right to hunt, fish, and observe cultural traditions pursuant to ratified treaties and agreements with the United States.

# **BSEE'S COMMITMENT TO SOVEREIGN** BSEF



ENGAGEMENT

## **NTEP ACTIONS/ACTIVITIES**



- Determining whether BSEE's planned actions may have substantial direct effects on Tribal Nations, ANCSA Corporations, and the Native Hawaiian Community.
- Facilitating, planning, and organizing meetings to discuss interests, concerns, and regulatory issues.
- Coordinating regional consultations and engagements.
- Participating in and representing BSEE in various Tribal/Indigenous working groups.
- Informing Tribal Nations, ANCSA Corporations, and the NHC of proposed rulemaking efforts.



## NATIONAL RENEWABLE ENERGY PROGRAM UPDATES

Michaela Noble, Director Renewable Energy Regulatory Compliance



#### **BSEE RENEWABLE ENERGY PROGRAM KEY PRIORITIES**



BSEE is well-poised to execute our mission in the expanded space of offshore renewable energy given the program's current direction, focusing on the various rules, policies, research, and engagement needed to maintain our program building momentum.

- BSEE's top priority is to ensure the safety of American workers as more of them enter the offshore wind industry. We ensure this by the:
- 1. Promotion of safe and environmentally responsible facility design, fabrication, installation, operation, and decommissioning;
- 2. rigorous and timely technical review of industry submittals;
- 3. implement a performance-based safety approach through a focus on Safety Management Systems; and
- 4. ensuring compliance with all applicable laws, regulations, and plan approvals.

### NATIONAL PROGRAM FOCUS AREAS

- National Policy Regulations: Working to establish renewable energy policy and standard operating procedures from a national level to ensure consistent implementation across all the regions.
- Engagement: Engage with Tribes, the Native Hawaiian Community, ANCSA Corporations, stakeholders, international counterparts, federal agencies and standard development organizations to define, establish and strengthen policies and procedures that arise from sound science and evidence-based information.
- Standards Development: Working with standards development organizations to ensure better compatibility between industry and regulatory expectations.
- Data Management: Data and document management has become a key BSEE focus due to the large volume of information coming in from the operators. We are working to establish a bureau-wide renewable energy data system.
- Research: Funds and collaborates in renewable research and technical analysis to inform decision making and improve safety and standardization.



### **INTERAGENCY COOPERATION**

- United States Coast Guard
  - Memorandums of Agreement/Understanding
  - 0 New Atlantic Coast alliances
- Occupational Safety and Health Administration
- DOI Agencies
   O BOEM, FWS, other
- U.S. Army Corps of Engineers
- Department of Energy
   O Information sharing
  - Policy development cooperation
- National Oceanic and Atmospheric Administration
  - $\,\circ\,$  Memorandums of Agreement/Understanding
  - O BSEE enforcement of terms and conditions and permits
- Committee on the Marine Transportation System

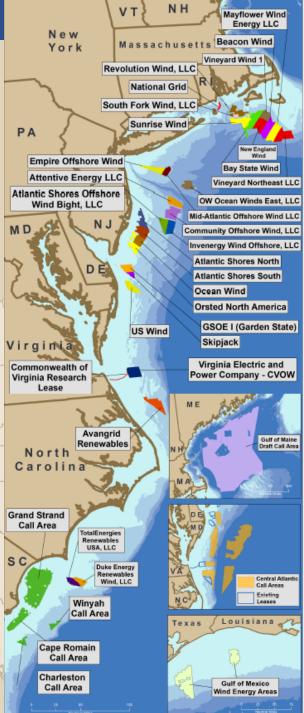












## **REGULATORY UPDATES**

Joan Hall, Renewable Energy Technical Lead, Renewable Energy and Regulatory Compliance Christy Lan, Senior Technical Advisor for Renewable Energy



#### **BSEE'S RENEWABLE ENERGY REGULATORY OVERVIEW**

- •Outer Continental Shelf Lands Act (OSCLA): Amended in 2005, "The Secretary [of the Interior] shall ensure that any activity" on a renewable energy lease "is carried out in a manner that provides for-- safety[.]"
- •Prior to 2022, BOEM oversaw siting, leasing, permitting, and safety and environmental oversight of renewable energy. However, BSEE did assist BOEM with its renewable energy activities.
- •On January 31, 2023 BOEM/BSEE "Split Rule" formally transferred certain safety and environmental oversight, compliance, and enforcement regulations for the Department's Offshore Renewable Energy Program from BOEM (30 CFR 585) to BSEE (30 CFR 285), with no substantive changes.
- •Substantive changes to BOEM and BSEE's renewable energy regulations, the "Modernization Rule" were made and went into effect July 15, 2024. BSEE is implementing Modernization Rule provisions through continued project oversight and policy work.



## **BOEM/BSEE KEY OFFSHORE WIND AUTHORITIES**



BOEM	BSEE	
• Issuing and managing leases	• Operational safety and environmental protection	
• NEPA analyses		
• Site Assessment Plan	Safety Management System	
Construction and Operations Plan	• Facility Design Report	
General Activities Plan	• Fabrication and Installation Report	
	Oil Spill Response Plan	
	Emergency Response Plan	
Financial Assurances	• Decommissioning	
Enforcing BOEM regulations	Enforcing BSEE regulations	

## **ENFORCEMENT OPTIONS**

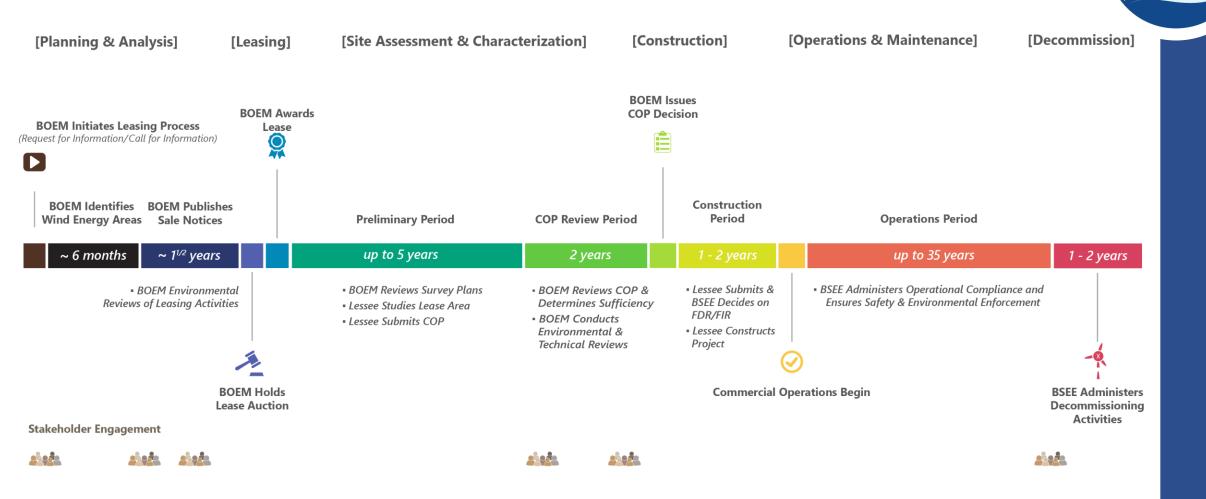
For failure to comply with 30 C.F.R. § 285

- Issues Notices of Non-Compliance (Violation)
   O Various Enforcement Levels
- Civil penalties (fines on a per day basis)
- Issue a **cessation order**: Cease all activities on the lease
- Order **lease suspension**: Generally would be used to comply with judicial decrees.
- Recommend **lease cancellation** to the Secretary of the Department of Interior: Revocation of the lease





# **OVERVIEW OF BOEM & BSEE'S ROLES FOR OFFSHORE RENEWABLE ENERGY**



BSEE



#### **Commercial Operations**

• The conflicting references were removed and requirements for when commercial operations may commence were consolidated in § 285.637.

#### Safety Management System

- BSEE is incentivizing lessees and grant holders to obtain a safety management certification from recognized accreditation organizations.
- BSEE made updates to ensure applicability of an SMS to all OCS activities undertaken pursuant to a lease, from site assessment through decommissioning.
- BSEE made additions for data collection:
  - Annual data reports to be submitted
  - SMS audits submitted to BSEE every 3 years

FACILITY DESIGN REPORT (FDR) AND FABRICATION AND INSTALLATION REPORT (FIR)

- FDR/FIR Review Period
  - The FDR and FIR review period is 60 business days.
- Completeness Check
  - O BSEE has 20-business days to conduct a completeness review and deem FDRs and FIRs submitted before the 60-business day review time starts.
- Separation of FDR/FIR into Integrated Asset Packages
  - Lessees may submit a FDR and FIR for each integrated asset package (e.g. WTG, substation, array cable, export cable, seabed preparation).
  - Each package must be complete and include an explanation of how the integrated asset packages will function together effectively.



FDR AND FIR, CONT.

• Submittal of FDR/FIR

• May submit the FDR and FIR before or after COP approval.

- Procurement and Fabrication
  - You may procure commercially available and type-certified components and begin fabrication activities that do not take place on the OCS prior to submittal of the FDR and FIR.
- Critical Safety Systems and Equipment
  - Critical safety systems and equipment are now required to be addressed in the FDR, FIR, project modification and repair reports, and have CVA oversight.
- Deferral of Geotechnical Surveys

O In situ, site specific geotechnical surveys have been deferred from the COP to the FDF



Certified Verification Agent (CVA)

- BSEE is expanding the role of the certified verification agents (CVA) to include verification of the design and commissioning of the critical safety systems.
- BSEE is allowing Lessees to nominate multiple CVAs for different components if there is an overall project CVA to ensure consistency.
- The CVA may be nominated before or after COP submittal. The nomination must occur before the CVA conducts verification activities.



#### INSPECTIONS

- Lessees are required to develop and follow a self inspection plan.
   O Structural:
  - Must include type, extent, and frequency of inspections above and below water structures
  - Monitoring corrosion protection above and below water. corrosion and structural inspection plan.
  - Submit a report annually no later than November 1
- Onsite inspection of Critical Safety Systems at each of your facilities.
  - Develop and retain summary reports for all such inspections each calendar year and provide to BSEE upon request.
- BSEE may conduct both scheduled and unscheduled inspections.
- BSEE may inspect OCS facilities and any vessels engaged in activities authorized under § 285.820.



#### THE RULEMAKING PROCESS; SAFETY RULE NOTICE OF PROPOSED RULEMAKING (NPRM)



- NPRM for 1014-AA59 Safety Rule
  - Currently in the development and drafting stages
  - March 2024: BSEE <u>sent letters</u> to Tribes, ANCSA Corporations, and Native Hawaiian Organizations regarding our Regulatory Agenda, including Safety Rule
    Target publication for the NPRM is the end of 2024.
- Regulatory Agenda <u>www.Reginfo.gov</u> Office of Information and Regulatory Affairs (OIRA)/Office of Management and Budget (OMB)
- Publication of NPRM in Federal Register for Public Comment

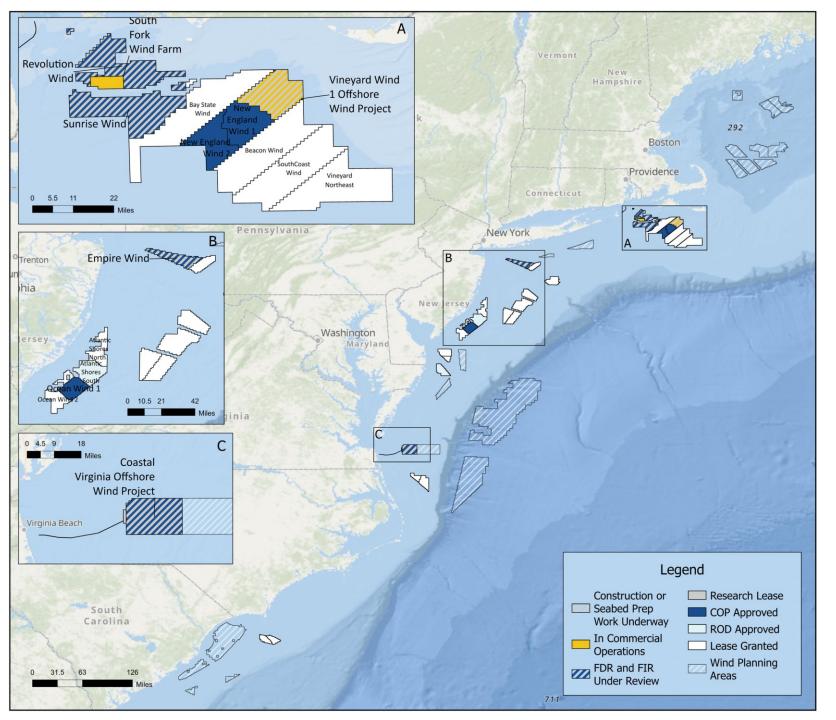
   <u>www.federalregister.gov</u>

O www.Regulations.gov - public comment portal

## **ATLANTIC REGIONAL UPDATES**

Cheri Hunter, Director, BSEE Atlantic Renewable Energy Operations





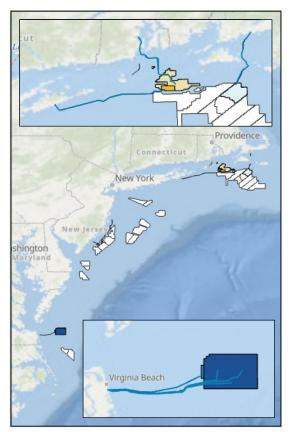
# BSEE

#### ATLANTIC REGION RENEWABLE ENERGY LEASE ACTIVITY

ATL Lease Activity*	#
Leases Granted	31
Record of Decision/COP Approved	10
Research Leases	2
Projects with FDR and FIRs Under Review	4
Construction or Seabed Prep Work Underway	5
In Commercial Operations	2
Current Electrical Production	144 MW
Capacity of Windfarms under Construction	5.9 GW

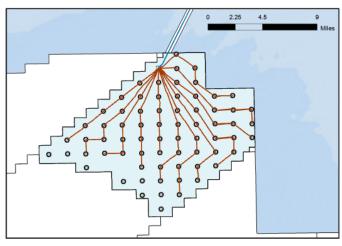
\*Data as of October 1, 2024

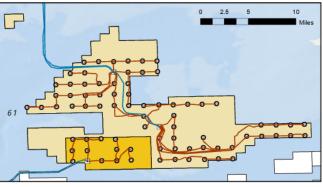
# ATLANTIC REGION – RENEWABLE ENERGY BY THE NUMBERS PROJECTS UNDER CONSTRUCTION & IN COMMERCIAL OPERATIONS

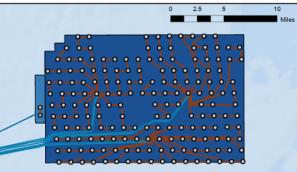




Atlantic OSW Installation Totals*	#
Foundations	193
Monopiles	192
Jackets	1
WTGs	42
OSS	2
Array Cables	59
Export Cables	5
Turbines in Operation	14









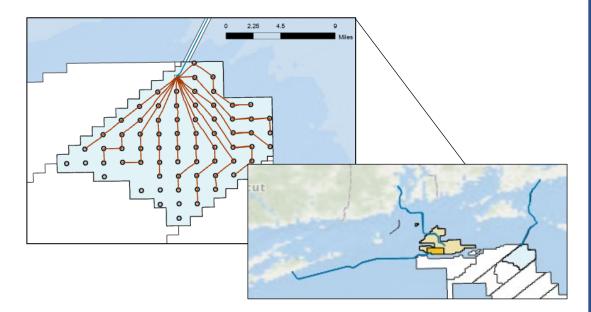
\*Data as of October 1, 2024

#### VINEYARD WIND 1 – BLADE INCIDENT

During commissioning procedures on July 13, 2024, there was a blade failure on the Vineyard Wind 1 wind farm.

- The blade collapsed, resulting in debris on the deck structure and in the water.
- BSEE immediately deployed technical staff to New Bedford, MA.
- BSEE-issued Suspension Order & Preservation Order
- USCG Safety Exclusion Zone
- BSEE REN OPS personnel on-site for several weeks following incident
  - BSEE-led independent investigation and assessments
  - Overseeing blade material testing, debris recovery, blade repair efforts
- BSEE is examining improvements in:
  - Blade inspection expectations.
  - Marine debris response procedure expectations for major debris events.







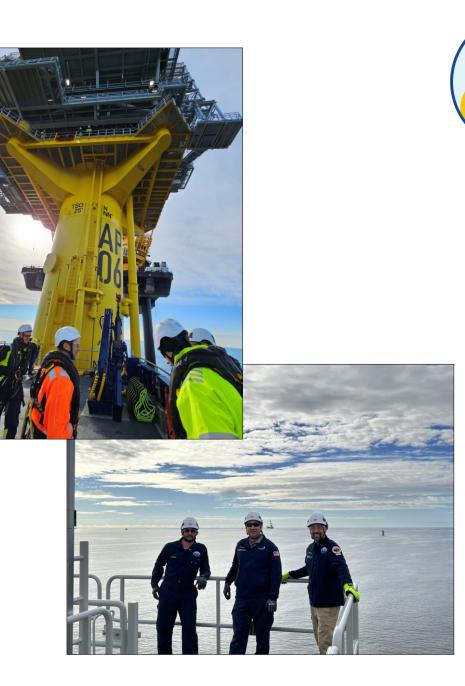
#### **ROUTINE SAFETY INSPECTIONS**

In accordance with 30 C.F.R. § 285.820, BSEE has conducted several scheduled safety inspections. As per federal regulations, BSEE may inspect:

- OCS facilities.
- Any vessels engaged in activities authorized under 30 C.F.R. 285.

The purpose of BSEE inspections is to:

- Verify that activities are being conducted in accordance with federal law and regulations, and approved plans.
- Determine whether proper safety equipment has been installed and is operating properly according to the project's SMS.



BSEF

#### HURRICANES & SEVERE STORMS PREPARATION & RESPONSE



Hurricane Henri, as viewed by NOAA's GOES EAST satellite on August 21, 2021, prior to making landfall. (NOAA)

#### • **Preparation**:

- Communication with lease holders to outline BSEE expectations for both preand post-storm response.
- FDR review assurance that design is sufficient for expected environmental conditions.
- Post-storm monitoring plans
   O Required prior to construction.
- Response:
  - BSEE monitors storm extent and defines area of impact.
  - BSEE reviews documentation of poststorm inspections.

BSEF

### **ENVIRONMENTAL COMPLIANCE**

- **Provide expertise and input** on COP reviews (NEPA, ESA Section 7 consultation, EFH and other consultations).
- Collaborate with BOEM, NMFS, USFWS, USCG, and USACE to develop COP terms and conditions to ensure:
  - Mitigation and monitoring **adequately address** safety and environmental protections.
  - **Enforceability** throughout Conditions of COP Approval.
- Review post-COP plans and FDR and FIR documents for consistency with environmental analyses.
- Coordinate with BOEM and NMFS on sound field verification report reviews and providing instructions to lessees on operational changes (e.g. increasing bubble curtain pressure, expanding monitoring zone).
- Ensure compliance with requirements.
- Carry out enforcement, if necessary.
  - Issue notices of non-compliance (NONC) when noncompliance is identified.
  - Review corrective actions implemented by lessees to return to compliance.

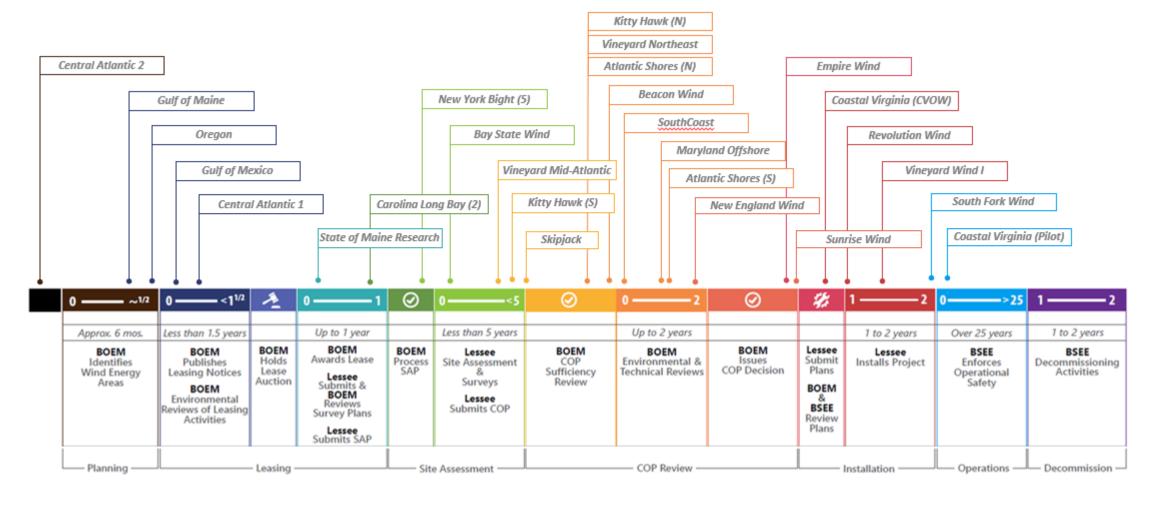






#### LOOKING AHEAD

#### Upcoming Atlantic Region Projects



#### **LOOKING AHEAD**

#### **Gulf of Maine**

08/19/2024 Washington, DC

• Research & Commercial Leases

offshore wind turbines capable of generating up to 144 megawatts of renewable energy.





Contact(s) Alison Ferris (202) 230-3849

In support of the Biden-Harris administration's goals for deploying 30 gigawatts (GW) of offshore wind energy capacity by 2030 and 15 GW of floating offshore wind energy capacity by 2035, the Bureau of Ocean Energy Management (BOEM) today announced the availability of its final Environmental Assessment (EA) of the Wind Energy Area (WEA) located in the U.S. Gulf of Maine.



#### ATLANTIC TRIBAL ENGAGEMENT UPDATES

- Continued coordination with BOEM
- Collaboration with Industry on Tribal concerns/issues

   Vineyard Wind
   GE Vernova
- Tribal Notifications
  - 0 Vineyard Wind 1 Incident
  - O Government Initiated Unannounced Exercise (GIUE)

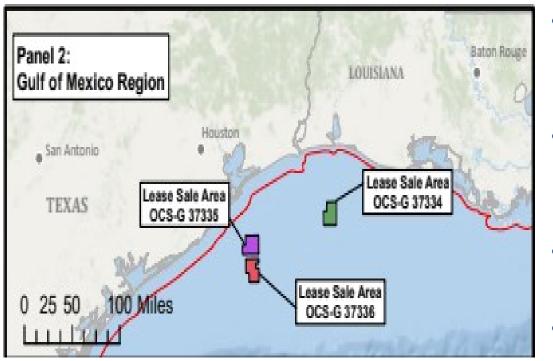


### **GULF OF MEXICO REGIONAL UPDATES**

Michaela Noble, Director, BSEE Renewable Energy Regulatory Compliance



#### OCS-G37334 RWE OFFSHORE US GULF, LLC



 Selection made for the new OCS GOM Regional Wind Project Coordinator BSEE

- Continue to developed the process and procedure for the regional reviews
- Development of the Inspection protocol
- Preparation for the 1-, 3-, and 5-year plans to meet the needs for RWE Offshore US Gulf,
   LLC proposal

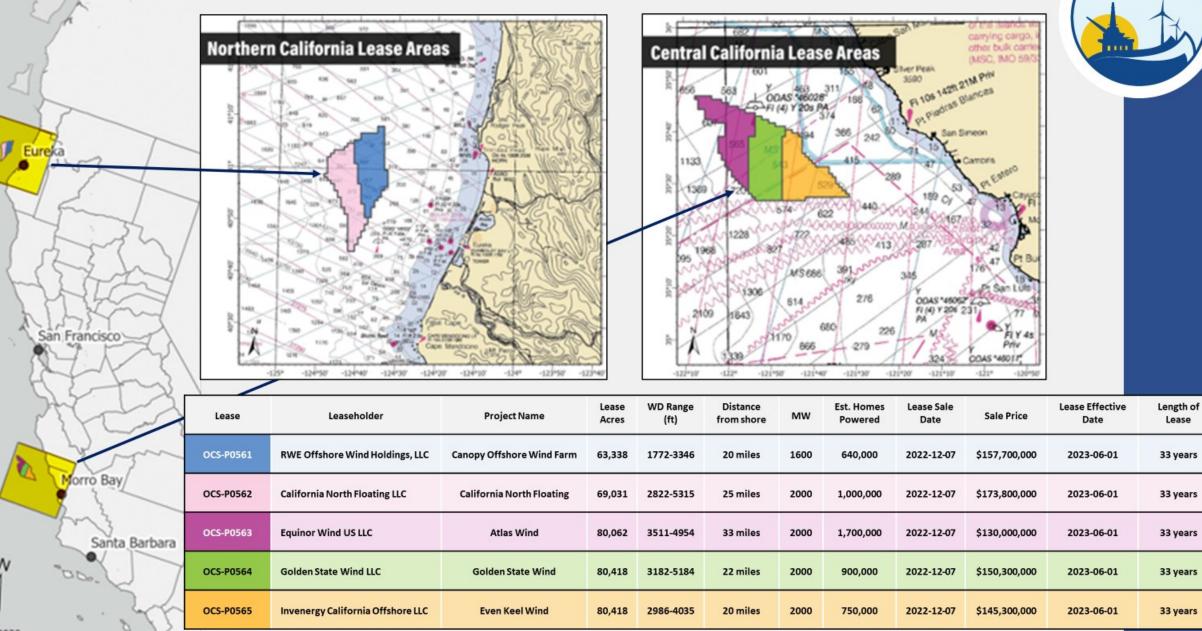
# PACIFIC REGIONAL UPDATES

Bobby Kurtz, Regional Supervisor, BSEE Regional Operations

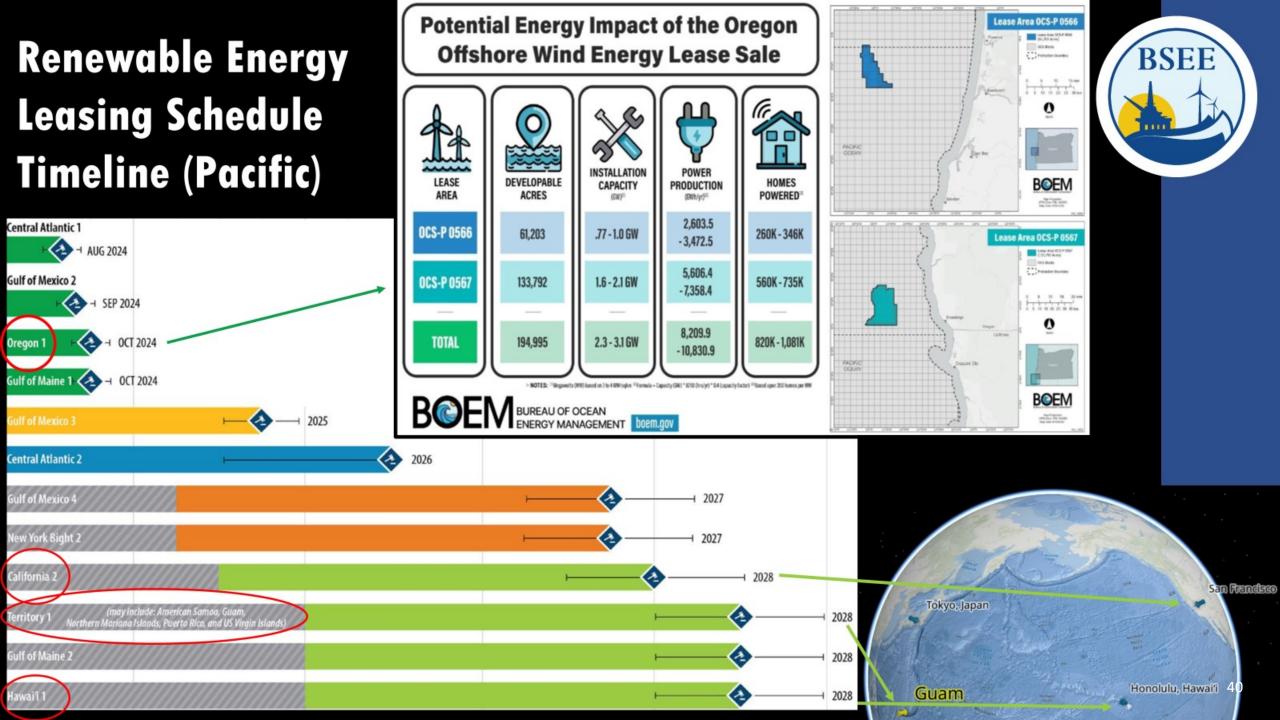


# Pacific Region – Offshore Wind Updates

BSEE



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#### SUBSEA CABLE INSTALLATION WORK

R.T. Casey will be performing subsea cable installation and burial operations off the Oregon coast in the vicinity of Driftwood Beach State Recreation Site near Seal Rock, Oregon out to 13 miles offshore.

Operations are scheduled from 01-JUL-2024 through 15-OCT-2024, 24 hours a day, 7 days a week.

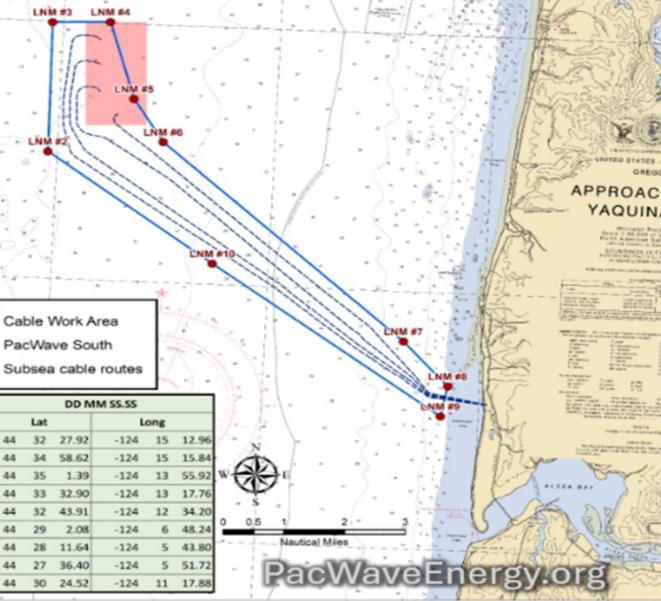
Operations will be staged from the following: HOS Innovator, M/V Liberty, and OSV Nautilus and can be reached on VHF-FM Channels 13 & 16.

Mariners are requested to contact the above listed vessel and maintain a minimum of 500yards distance when transiting in the vicinity.

For additional information contact Zachary Casey at (504) 491-2288.

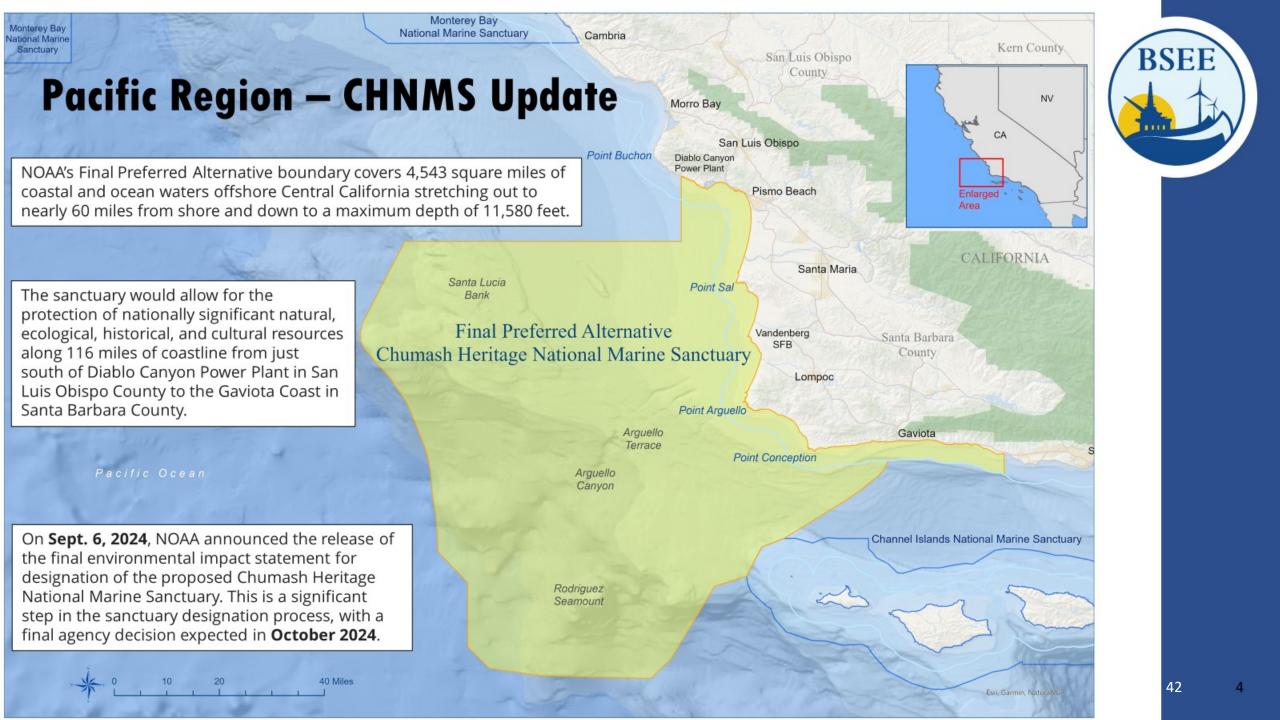
Name	DD.DD		DD MM.MM				DD MM SS.SS					
	Lat Long	Long		Lat	Long		Lat			Long		
LNM #2	44.54109	-124.2536	44	32.465	-124	15.216	44	32	27.92	-124	15	12.96
LNM #3	44.58295	-124.2544	44	34.977	-124	15.264	44	34	58.62	-124	15	15.84
LNM #4	44.58372	-124.2322	44	35.023	-124	13.932	44	35	1.39	-124	13	55.92
LNM #5	44.55914	-124.2216	44	33.548	-124	13.296	44	33	32.90	-124	13	17.76
LNM #6	44.54553	-124.2095	44	32.732	-124	12.570	44	32	43.91	-124	12	34.20
LNM #7	44.48391	-124.1134	44	29.035	-124	6.804	44	29	2.08	-124	6	48.24
LNM #8	44.46990	-124.0955	44	28.194	-124	5.730	44	28	11.64	-124	5	43.80
LNM #9	44.46011	-124.0977	44	27.607	-124	5.862	44	27	36.40	-124	5	51.72
LNM #10	44.50681	-124.1883	44	30.409	-124	11.298	44	30	24.52	-124	11	17.88

#### Pacific Region – Marine Hydrokinetic Research Lease Update





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# Pacific Region — FY24 Tribal & Native Hawaiian Community Engagements

- Bear River Band of the Rohnerville Rancheria
- Blue Lake Rancheria
- Cher-Ae Heights Indian Community of the Trinidad Rancheria
- Confederated Tribes of Coos, Lower Umpqua and Siuslaw Indians
- Coquille Indian Tribe
- Hoh Indian Tribe
- Kletsel Dehe Wintun Tribe
- Makah Tribe
- Pulikla Tribe of Yurok People
- Quileute Tribe
- Quinault Indian Nation
- Santa Ynez Band of Chumash Indians
- Shinnecock Indian Nation
- Tolowa Dee-ni' Nation
- Yurok Tribe
- West Coast Ocean Tribal Caucus member Tribes

#### **Native Hawaiian Community Engagements**

- Native Hawaiian Organization leaders
- Coordination with Office of Hawaiian Affairs
- Coordination with DOI Office of Native Hawaiian Relations

RSEF

# **RESEARCH HIGHLIGHTS**

**Eboné Pierce,** Operations Research Analyst, BSEE Renewable Energy Regulatory Compliance



### **RESEARCH COLLABORATIONS**

- Department of Energy Collaboration
  - RERC is engaging with DOE's laboratories, identifying potential synergistic topics for collaborative renewable energy research supporting BSEE's mission.
- Ocean Energy Safety Institute (OESI)
  - Collaboration with academia, industry, and nongovernment organizations to execute research that impacts offshore energy safety
- Cooperative Ecosystem Studies Unit (CESU)
  - Provide research, technical assistance, and education to federal land management, environmental, and research agencies and their partners





Ocean Energy Safety Institute WIND ENERGY ROADMAP JANUARY 2023

#### **BSEE RENEWABLE ENERGY RESEARCH**

BSEE Project	Lead of the Office	Date Finalized	Ongoing or Final	Total amount in Funds (\$)
Coastal Virginia Offshore Wind Pilot (CVOW-P) Structural Monitoring Joint Project	Renewable Operations (REN Ops)	Oct-2025	On-going	\$750K
Examination of Physical and Chemical Characteristics of Dielectric Fluids	Oil Spill Response Research (OSRR), United States Coast Guard Academy (USCGA)	Oct-2025	On-going	\$42.5K
Testing of Oil Spill Technologies (TOST) 2023: Performance Testing of Oil Recovery Skimmers with Selected Dielectric Fluids	Oil Spill Response Research (OSRR), BSEE, United States Coast Guard (USCG)	Oct-2025	On-going	\$270K
Test Effort: Analysis of the Efficacy of Conventional Sorbent Materials Exposed to Selected Categories of Dielectric Fluids	Oil Spill Response Research (OSRR), BSEE, United States Coast Guard (USCG)	Oct-2025	On-going	\$52K
Renewable Energy Block Island	Renewable Operations (REN Ops)	Jul-2023	Final	\$609K
Renewable Energy Fire Protection	Technology Assessment Program (TAP)	Apr-2022	Final	\$128K
Estimating Tropical Cyclones	Office of Offshore Regulatory Programs (OORP)	Mar-2021	Peer Review on- going	\$150K
Tension Leg Platforms	Office of Structural and Technical Support, Gulf of Mexico Region (GOMR)	Sep-2018	Final	\$290K
Wave impacts on wind energy installation "Breaking Waves"	Renewable Operations (REN Ops)	Oct- 2018	Final	\$145K
Wind Turbine Fatigue and Design Criteria	Renewable Operations (REN Ops)	Sep-2015	Final	\$250K



#### **DOE/BSEE RENEWABLE ENERGY COLLABORATIONS**

DOE Mechanism	DOE Project	BSEE's Level of Involvement	Timeline	Total Amount of Project	BSEE's Contribution	# of Projects Selected
FOA 3334 NOI	Topic 1a: Refinement and Innovation in Floating Platform Design, Manufacturing, and Deployment	Aware (No Involvement), Potential SMEs	7/23/2024 – 9/2025	\$10M		4-6
	Topic 1b: Next-Generation Integrated Floating Turbine/Platform Technologies	Aware (No Involvement), Potential SMEs	7/23/2024 – 9/2025	\$10M		1-3
	Topic 2: Innovation for Fixed-Bottom Offshore Wind Foundation Types and Supporting Infrastructure	Aware (No Involvement), Potential SMEs	7/23/2024 – 9/2025	\$7.5M		2-3
	Topic 3: Technology Advancement to Inform Risk to Birds and Bats from Offshore Wind Energy	Aware (No Involvement), Potential SMEs	7/23/2024 – 9/2025	\$8M		2-4
	Topic 4: Development of a Manufacturing and Supply Chain Offshore Wind Consortium Based in the Great Lakes Region	Aware (No Involvement), Potential SMEs	7/23/2024 – 9/2025	\$5M		1-2
	Topic 5: Floating Offshore Wind Center of Excellence	Funding, SMEs	7/23/2024 – 9/2025	\$3.5M	\$300K	1
	Topic 6: Protecting Future Offshore Wind Farms Against Lightning	Funding, SMEs	7/23/2024 – 9/2025	\$4.2M	\$300K	1-2
NREL/SNL AOP	Standards Development (w/ BOEM & BSEE)	Funding, SMEs	2020 -> 2025+	~600K per year		
BSEE IAA	Ocean Energy Safety Institute 2.0 – 2nd Solicitation	Funding, Contract administration, SME's	FY21-26 (+)	\$5M	\$4M	
US/DK NOI	U.SDanish Floating Offshore Wind Energy Mooring and Anchoring Research and Development	Aware (No Involvement), Potential SMEs	FY24-27	\$4M		
NOWRDC NOI	Solicitation 4.0 – Innovations in Floating Offshore Wind (CEC, NYSERDA, DOE, MassCEC, BOEM)	Aware (No Involvement), Potential SMEs	FY24-28	\$10.6M		
NOWRDC JIP (NREL AOP)	Multi-fidelity Modeling of Offshore Wind Inter-Array Wake Impacts to Inform Future U.S. Atlantic Offshore Wind Energy Area Development	Funding, SMEs, New NREL IAA	6/22/2024 – 9/2025	\$250K	\$300K	
STORM AOP	Determination of appropriate design parameters for storm force winds along the eastern seaboard and out to the exclusive economic zone.	Funding, SMEs, New NREL IAA	5/2024 – 1/2025	TBD	\$150K	
	Determination of appropriate design parameters for future storm force winds because of climate change along the eastern seaboard and out to the exclusive economic zone.	Funding, SMEs, New NREL IAA	5/2024 – 1/2025	TBD	\$150K	
FOA 3121 (In selection phase)	Topic 1: Reliable Moorings for Floating Offshore Wind and Marine Energy Systems: 1a) Test Mooring Ropes for Fatigue 1b) Robust Sensor Systems for Mooring Condition Monitoring 1c) Validate Shared Anchor / Shared Mooring Array Configurations	Funding, SMEs	9/2023 – 9/2024	\$6.4M	\$400K	6-8
	Topic 2: Noise Reduction for Fixed-Bottom Offshore Wind Installation:	SMEs	9/2023 – 9/2024	\$10M		3-8



# WRAP UP AND CLOSING REMARKS

**Michaela Noble,** Director, BSEE Renewable Energy Regulatory Compliance



# PUBLIC INQUIRIES AND INCIDENT REPORTING

BSEE

- General public inquiries:
  - BSEE Office of Public Affairs (800) 200-4853



- Incident reporting as per 30 CFR 285.831(a):
  - BSEE Incident Reporting webpage:
    - https://www.bsee.gov/resources-tools/incident-reporting
  - 30 CFR 285.831(a): incidents involving personnel safety, hazards, structural/equipment damage, environmental damage or harm

# THANK YOU

We will share the meeting recording and the presentation with attendees afterwards.

For follow-up on today's presentation, please contact us at: <u>BSEEOfficeofRenewableEnergy@bsee.gov</u>

