BOEM Bureau of Ocean Energy Management

Offshore Wind Transmission Planning

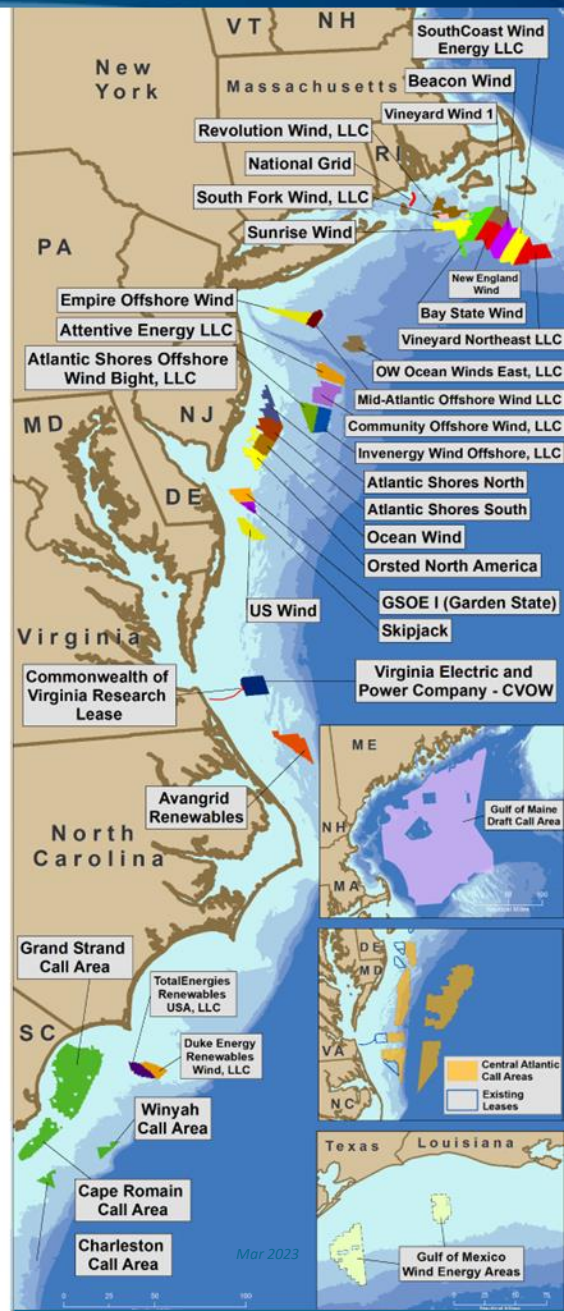
MACO Forum

New York

May 2023

Renewable Energy Program by the Numbers

Competitive Lease Sales Completed:	11
Active Commercial Offshore Leases Issued:	27
Active Research Offshore Leases Issued:	2
Site Assessment Plans (SAPs) Approved:	15
General Activities Plans Approved:	1
Construction and Operations Plans (COPs):	
• Submitted to BOEM	18
• Approved Since 2021	2
• Under Review	10
• Other COPs Submitted	6
Leasing Under Consideration:	4



OCS Renewable Energy: State Leadership & Renewable Energy Goals

Atlantic OCS Renewable Energy Goals

	Renewable Goals	Offshore Wind Goals (MW)	Offshore Wind: "Offtake" Awarded (MW) + Scheduled (MW)
Maine	80% by 2030	144	0 + 0
Massachusetts	35% by 2030	5,600	3,200 + 0
Rhode Island	100% by 2030	unspecified	430 + 600
Connecticut	48% by 2030	2,300	1,108 + 0
New York	70% by 2030	9,000	4,316 + 2,000
New Jersey	50% by 2030	7,500	3,758 + 3,742
Maryland	50% by 2030	1,568	2,023 + 0
Virginia	30% by 2030	5,212	2,652 + 0
North Carolina	unspecified	2,800	0 + 0

Pacific OCS Renewable Energy Goals

California	100% by 2045	5,000	unspecified
Hawaii	100% by 2045	unspecified	unspecified
Oregon	50% by 2040	3,000	unspecified

Gulf of Mexico OCS Renewable Energy Goals

Louisiana	80% by 2050	5,000	unspecified
TOTAL	--	**47,124** MW	**23,829** MW

Federal Regulatory Framework

- Under the Outer Continental Shelf Lands Act (OCSLA) §1337(p)(1)(C), the Secretary may grant a lease, easement, or right-of-way (ROW) on the OCS for activities that produce or support production, transportation, or transmission of energy sources other than oil and gas.
- §585.104 states that except as otherwise authorized by law, it will be unlawful for any person to construct, operate, or maintain any facility to produce, transport, or support generation of electricity or other energy product derived from a renewable energy resource on any part of the OCS, except under and in accordance with the terms of a lease, easement, or ROW issued pursuant to OCSLA.

Two Paths

1. Transmission as part of an offshore wind lease
   - 585.200(b) - a lease confers the right to one or more project easements without further competition for transmission
2. Transmission under a Right-of-Way (ROW) Grant
   - 585.300 - an ROW grant authorizes the holder to install on the OCS cables, pipelines, and associated facilities that involve the transportation or transmission of electricity or other energy product from renewable energy projects.

Roles in Transmission Planning

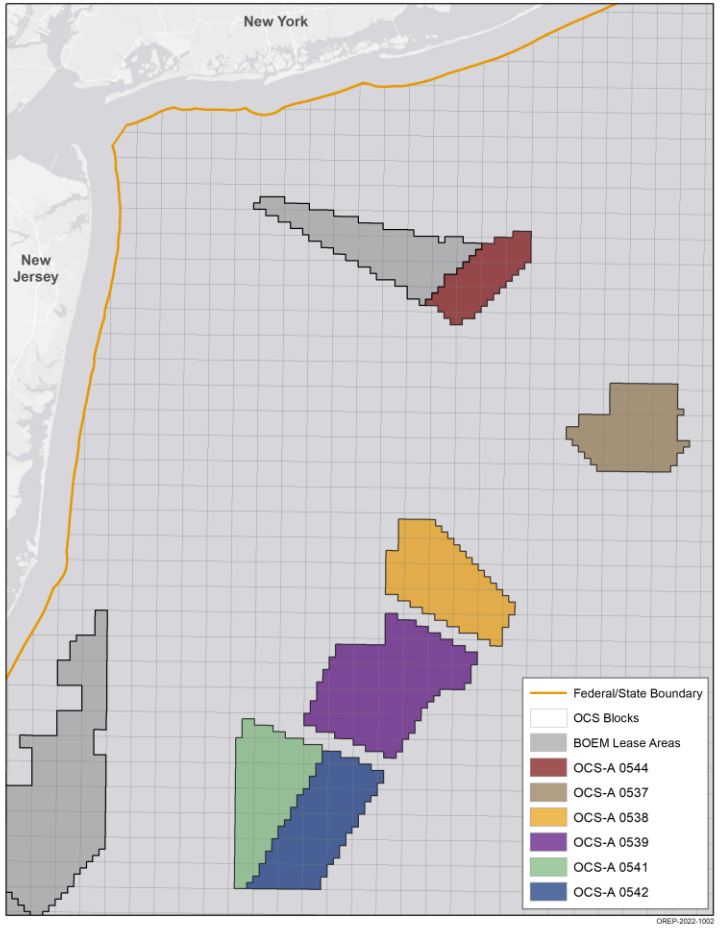
1. Federal Government
   - BOEM
   - FERC
   - Permitting Agencies – Natural Resources, etc.
2. Grid Operators
   - Independent System Operators/Regional Transmission Operators
3. State Role
   - Renewable Energy Goals/Legislation
   - Conditions in Offtake Agreements
   - State Utilities
   - Property Interests in Landfall Connection Points

Considerations and Reference Used to Evaluate Siting

- OCSLA 1337(p)(4) Requirements
  - Prevention of waste
  - Conservation of the natural resources of the OCS
  - Protection of the environment
- Minimization of conflict with other ocean uses and sensitive areas
  - Fisheries
  - Sand & Gravel Resources
  - Other Cables
  - Benthic Conditions
  - Navigation
  - DoD
  - Sensitive Habitat
  - Cultural Resources
- NEPA & Associated Consultations
- BOEM Offshore Wind Cable Spacing Guidance
- Marine Cadastre & Ocean Data Portals

Alignment with State & Regional Initiatives

- Planned approach transmission requires close coordination with states
  - Any ROW for transmission to land requires issuance of state grant in state waters and on land
- Timing
  - Desire to avoid stranded assets
  - ROW process has shorter minimum time than lease development
- Easements to existing offshore transmission infrastructure
- RTO/ISO studies & plans



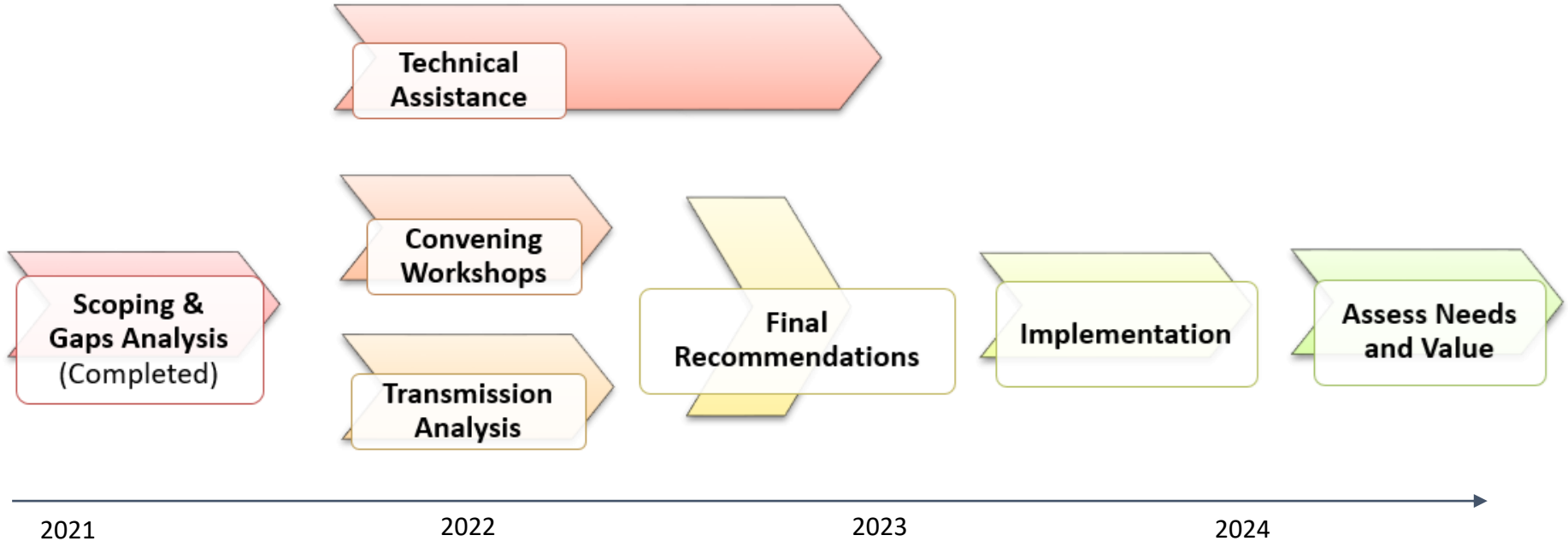
Lease Conditions & Transmission Planning

- NY Bight & Carolina FSNs stated that BOEM may condition Construction and Operations Plan (COP) approval on the use of cable corridors, regional transmission systems, meshed systems, and other mechanisms where appropriate
- Stipulations requiring seeking input from Tribal Nations and other ocean users prior to proposing easements
- Workforce & Supply Chain Development Bidding Credits
- Communication plans requirements
- State meshed requirements or shared/overbuilt transmission infrastructure incorporation in COP
- July 15, 2022 issued an NOI for a Programmatic EIS for the NY Bight

DOE-BOEM OSW Transmission Planning Effort 2021–2023

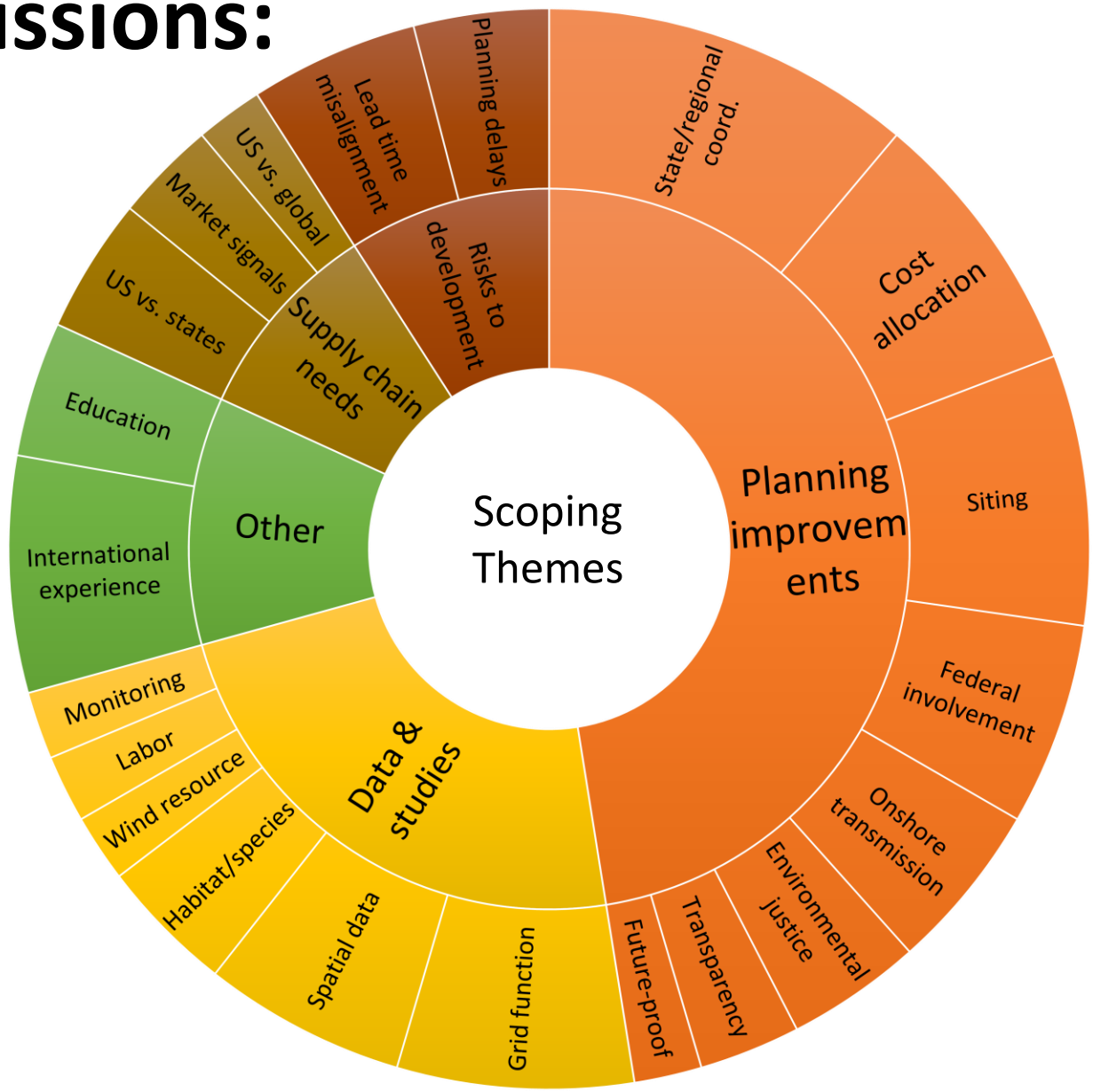
DOE & BOEM Coordinated Offshore Wind Transmission Effort

PURPOSE To identify a proposed planned approach for Atlantic offshore wind (OSW) transmission and interconnection that will achieve the Biden Administration's goal of 30 GW of OSW deployed capacity by 2030 *and* to facilitate OSW development beyond the 2030 goal. The effort will consider transmission solutions that would reduce onshore congestion and support system interconnection, including potential onshore transmission upgrades.

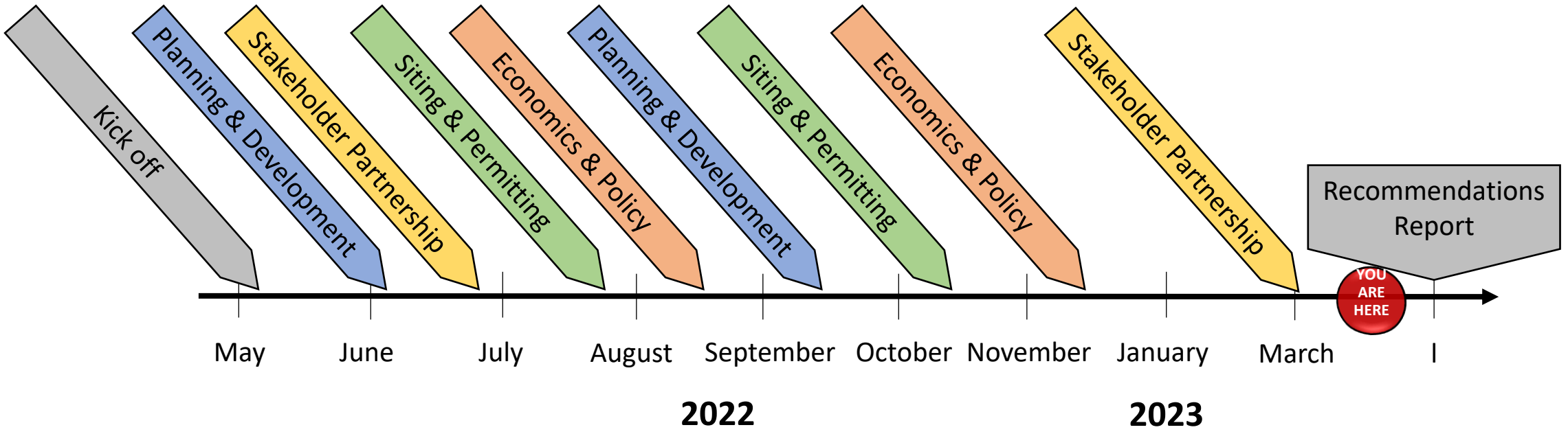


DOE & BOEM Scoping Discussions: June-August 2021

Tribal Nations	
Federal Agencies	
DOD	USACE
NOAA	USCG
Non-federal Groups & Organizations	
NGOs (business, tech, environment)	State energy offices and agencies
Project developers	Transmission providers
Public Utility Commissions	Fisheries Organizations
Regional ocean coordinators	Unions
Regional Transmission Operators	Utilities



Atlantic Offshore Wind Transmission Convening



DOE-BOEM Recommendations and Action Plan for OSW Transmission Development in the Atlantic: Draft Report Overview

Transmission Recommendations

- **Options for transmission infrastructure siting**
  - Preferred Routes
  - Request(s) for Competitive Interest
- **Intergovernmental Partnerships**
  - Transmission Task Force
  - Federal-Tribal Nations-State group
- **Regulatory Guidance**
  - Process & Timing for more complex shared transmission scenarios

Recommendations Continued

- Standards for Equipment
- Continued R&D for offshore wind Transmission
- Funding mechanisms for Tribal, State, and Local government initiatives
- Leveraging RTOs and planners for systematic POI evaluation
- Improvements to cost allocation methodologies

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