



BOEM Bureau of
Ocean Energy Management

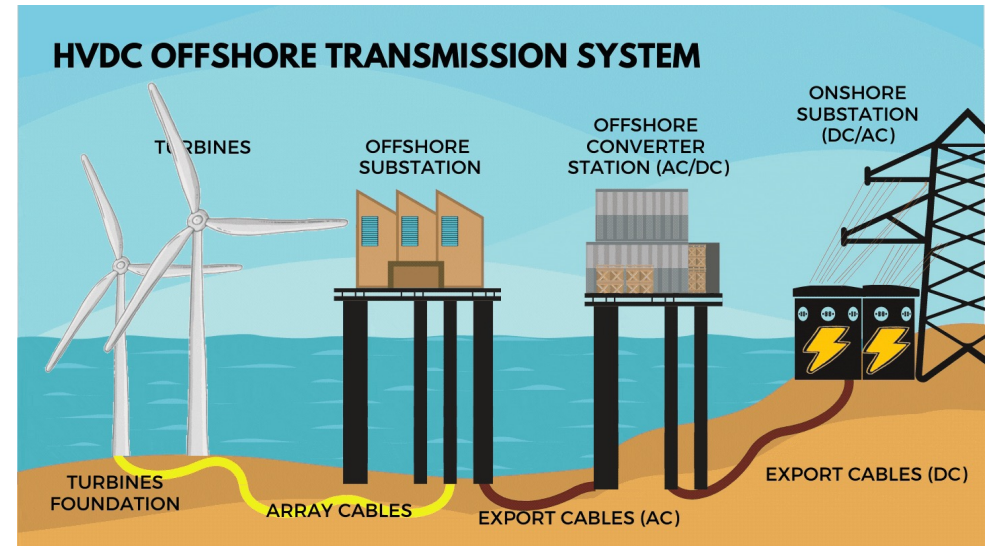
Offshore Wind Transmission Planning

Gulf of Maine Task Force

May 2023

What is Transmission?

- Getting power from the offshore wind project to the onshore grid
- Key Terms
 - Points of Interconnection
 - Interarray & Export Cables
 - Shared Infrastructure
 - HVDC & HVAC
 - Substations
 - Easements & Right of Way Grants
 - ISOs/RTOs



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



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.



Transmission as Part of a Lease

1. A lessee negotiates with state entities and utilities to determine appropriate landfall and grid connections points
 - BOEM does not have jurisdiction over landfall sites, nor state waters
 - Grid connection study with ISO/RTO
2. The right to one or more noncompetitive easements are included the lease
 - The details of the easement(s) are provided as part of the COP
3. Easement may be presented in COP as options under a Project Design Envelope
 - Allows for more than one option to be considered



Key Steps in ROW Process

1. OCSLA requires a competitive process unless BOEM determines there is no competitive interest (585.307)
 - Request for Competitive Interest (RFCI)
 - Spatial conflicts & criteria for ROW
 - Solicits information on area/potential conflicts
2. Grant Issuance
 - Discretion in whether to issue any ROW/Right of Use Easement
 - Survey work for development of a General Activities Plan
3. Submission of General Activities Plan
 - Within one year of grant issuance
 - Triggers NEPA review



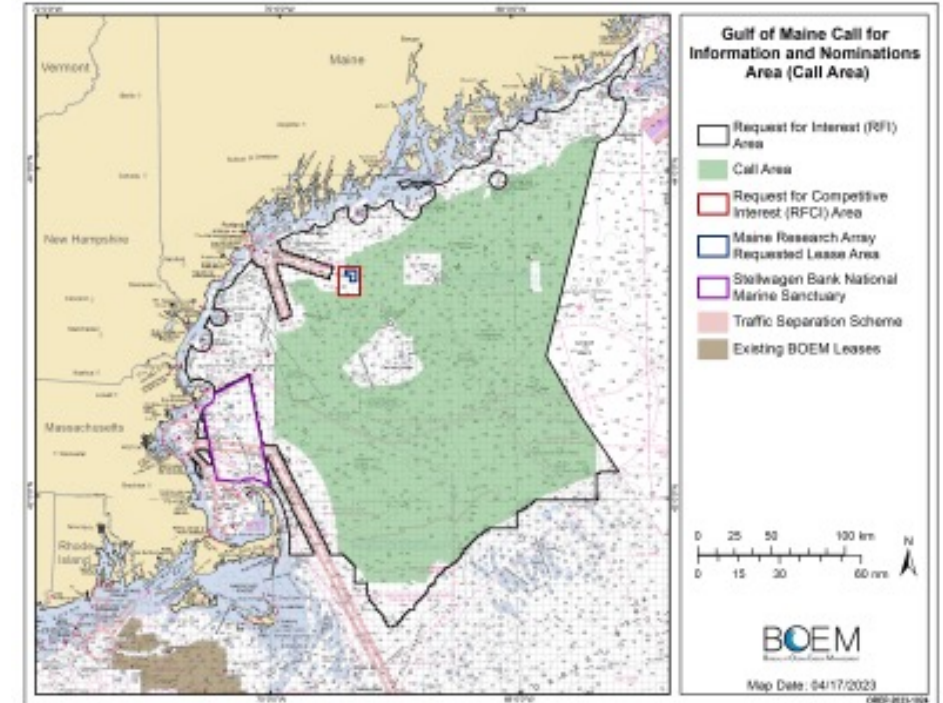
Lease Conditions & Transmission Planning

- 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
- 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



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



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

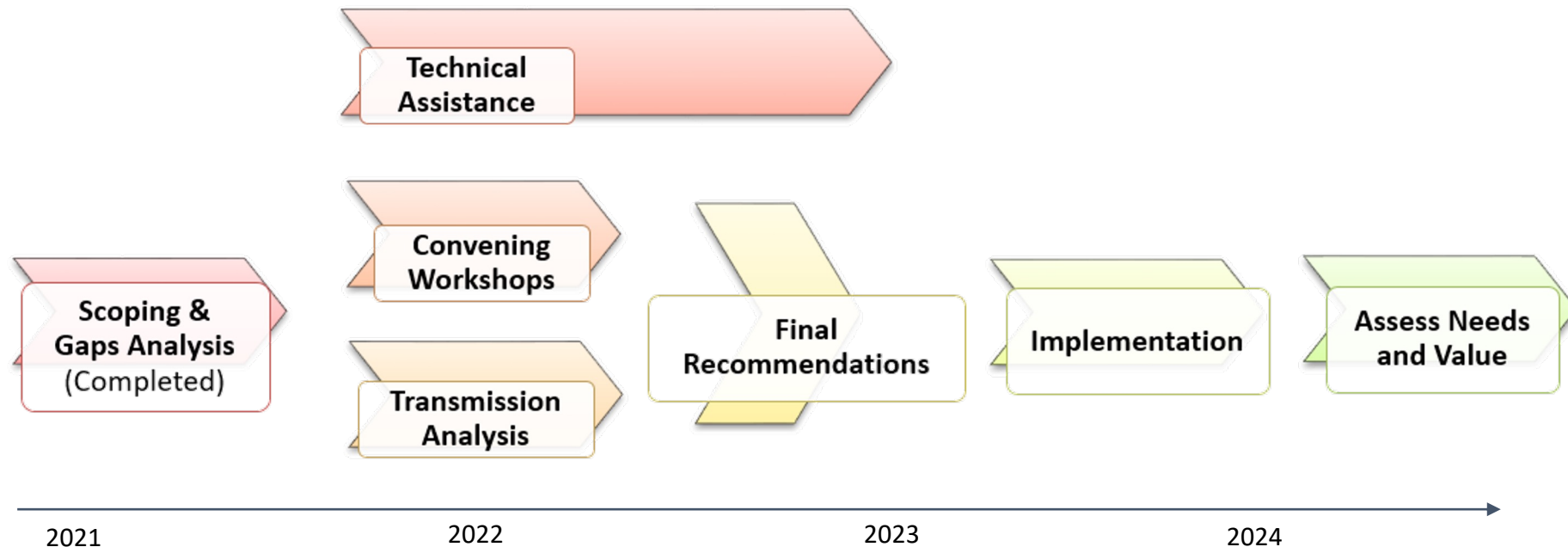


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DOE-BOEM OSW Transmission Planning Effort 2021–2023

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 |
|-----|-------|

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|------|------|
| NOAA | USCG |
|------|------|

Non-federal Groups & Organizations

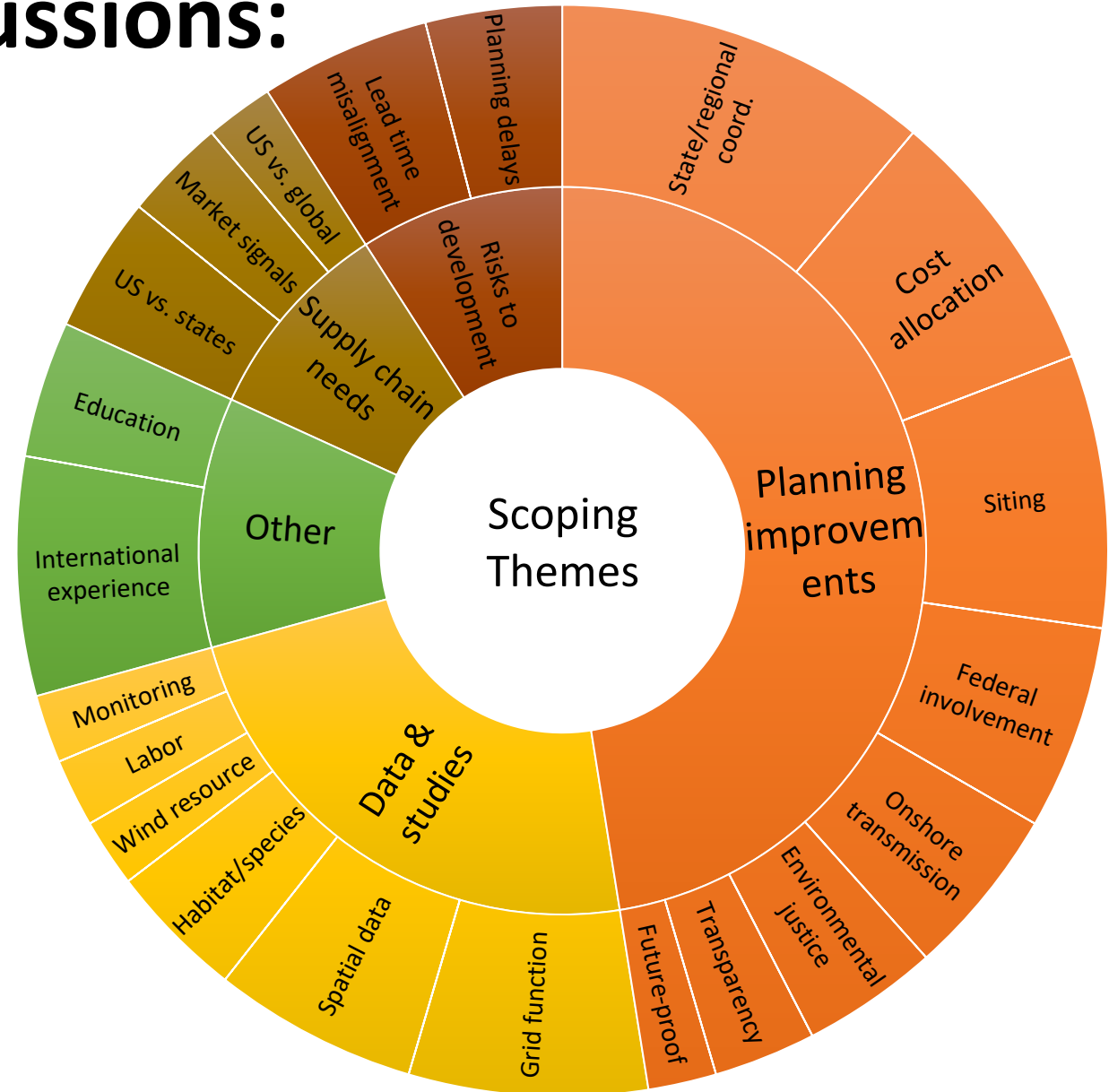
| | |
|---------------------------------------|-----------------------------------|
| NGOs (business, tech, environment) | State energy offices and agencies |
|---------------------------------------|-----------------------------------|

| | |
|--------------------|------------------------|
| Project developers | Transmission providers |
|--------------------|------------------------|

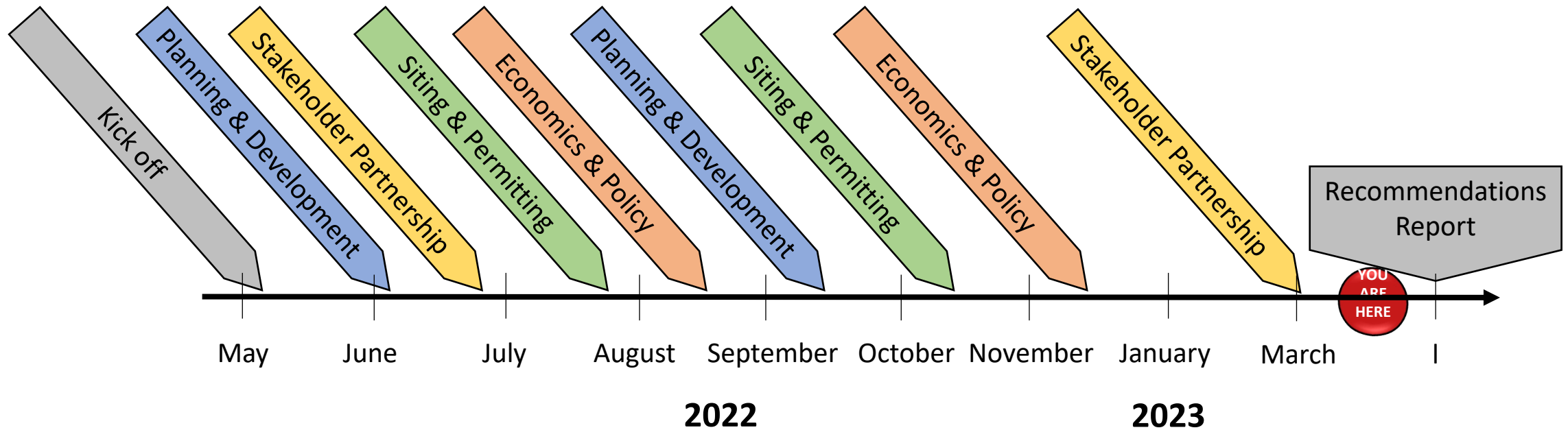
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|----------------------------|-------------------------|
| Public Utility Commissions | Fisheries Organizations |
|----------------------------|-------------------------|

| | |
|-----------------------------|--------|
| 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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