

**Outline & Bullet Points in Response to U.S. Department of Energy
Request for Information Regarding Interregional and Offshore Wind Transmission on the
U.S. West Coast**

The U.S. Department of Energy (DOE) issued a Request for Information (RFI) requesting information related to the planning and development of electric transmission facilities to service offshore wind power generating stations on the U.S. West Coast. The stated purpose of the RFI is to gather information about siting offshore wind (OSW) electricity transmission infrastructure with a particular interest on electrical cables, cable corridors, substations, transformers, converters, and other associated equipment located both offshore and onshore. The comment period closes October 3, 2024.

The Council's fundamental concerns are about offshore wind generation, including transmission-related infrastructure, and the impacts (known and unknown) to the ecosystem and fishing communities.¹ These include but are not limited to, ecosystem concerns such as upwelling, larval transport, habitats, and productivity of the California Current Large Marine Ecosystem; and concerns about impacts to commercial, recreational, and subsistence fishing industries. While these are not in the scope of this RFI, the development of OSW energy facilities is necessarily intertwined with the planning and development of OSW energy transmission infrastructure. Consideration of the potential cumulative impacts to the marine environment, fishing activities, and dependent communities necessitates a big picture perspective, which includes both the development of OSW facilities as well as transmission planning and development.

Background and Introduction

This section will describe the Pacific Fishery Management Council (Council) and its authorities:

- Magnuson-Stevens Fishery Conservation and Management Act (MSA) & essential fish habitat requirements
- Four fishery management plans (FMP) plus Ecosystem FMP
- MSA National Standards
- Endangered Species Act, Marine Mammal Protection Act, etc.

Response to questions in the RFI

The RFI poses six overarching questions with additional detailed questions about available data and information, methods and sources to obtain necessary data and information, and other considerations. The following outline is intended to describe the primary concerns, impacts, available data and information, and other concerns. The letter will include a list and hyperlinks to previous comments letters related to OSW energy and impacts to fishing activities, habitats, and communities.

1. What considerations need to be accounted for when siting transmission for offshore wind energy generation in offshore locations on the West Coast?
 - a. For the considerations identified, what information is currently available?

¹ See 16 U.S.C. §1802(17)

- Fishery Activity and Dependence on areas
 - Fisheries' catch, effort and landings data from the National Marine Fisheries Service (NMFS) and the States (e.g., Pacific States Marine Fisheries Commission, Pacific Fishing Effort Mapping project, etc.)
 - Ex-vessel dollar values
 - National Centers for Coastal Ocean Science modeling efforts, where available
 - Port Access
 - National Oceanic and Atmospheric Administration Surveys
 - Recently published [Socioeconomic Characterization of West Coast Fisheries in Relation to Offshore Wind Energy Development](#)
 - Environmental Concerns
 - Noise
 - Pollutants
 - Electromagnetic Fields (EMF)
 - Offshore Converter Stations
 - Entrainment
 - Heated seawater discharge
 - Sensitive habitats and need for high-resolution mapping and detailed habitat interpretation:
 - Ensure public availability of data and map products through a centralized data portal
 - Essential Fish Habitat Conservation Areas, habitat areas of particular concern, National Marine Sanctuaries, Marine Protected Areas, and other state and Federal conservation areas
 - Mitigation (offsets/buffers) re: impacts to sensitive habitats (reference non-fishing impacts and conservation measures described in FMPs and Kiffney et al)
 - Recommended Best Management Practices: minimize number of transmission corridors, site cables near other subsea cables, bury cables, coordinate cable installations to minimize repeated impacts
- b. For the considerations identified, do any lack existing data sources to rely on? If no data sources are available, are there existing methods to collect, survey, or otherwise measure the characteristics?
- NMFS Offshore Wind Science Plan
 - Fishery Activity and Dependence on areas
 - Recreational and subsistence fishing
 - Direct engagement w/ fishery participants
 - For some commercial and charter fisheries, information of areas utilized is not discrete enough to be of any real value
 - Environmental Concerns
 - EMF – consult existing literature on EMF effects to determine potential impacts to Pacific Coast species and habitats. Conduct additional research if necessary.
 - Offshore Converter Stations
 - No offshore converter stations are currently operational anywhere
 - Information on potential impacts from discharge and entrainment

- Habitat areas of particular concern/other sensitive habitats and need for high-resolution mapping and detailed habitat interpretation
 - Identify rocky habitats across the Study Area
 - Produce detailed substrate classification maps
 - Subterranean rock locations considered for transmission cable placement.
 - Conduct surveys to identify sensitive biogenic habitats (e.g., coral, sponge, chemosynthetic communities).
 - Surveys follow the NMFS Greater Atlantic Regional Fisheries Office Recommendations for Mapping Fish Habitat, in consultation with West Coast habitat scientists.
2. What considerations need to be accounted for when siting transmission for OSW energy generation in onshore locations on the West Coast?
 - a. For the considerations identified, what information is currently available?
 - b. For the considerations identified, do any lack existing data sources to rely on? If no data sources are available, are there existing methods to collect, survey, or otherwise measure the characteristics?
 - Cable landings could affect the hydrological function of onshore fish habitats (wetlands, estuaries, rivers, streams).
 - Need technical analyses to ensure horizontal directional drilling results in no impact to habitats re proposed landing sites.
 - Do not site transmission routes or landing sites near these important habitats.
 - EMF may impact Council-managed species (e.g., elasmobranchs, salmonids). Will be necessary to understand the potential EMF effects on fish from multiple cables coming together at a single landing site. Determine safe distances for landing cables away from estuaries, river mouths, and salmon-bearing streams.
 3. What environmental justice and energy justice issues should inform how transmission is sited and implemented on the West Coast for OSW?
 - Concerns about disproportionate impacts to the fishing industry
 - Food security and Equity and Environmental Justice (we provide access to marine resources)
 - MSA National Standard 8 and coastal communities
 4. What specific topics about offshore wind transmission siting, technology, and benefits are not well understood by yourself or your organization?
 - a. What types of educational materials or research products, if any, would improve your understanding and awareness of these topics?
 - b. What format should these resources be distributed in (e.g., written, webinar, meetings, website content, technical report, etc.)?
 - c. How should information from ocean co-users² be integrated into educational materials or research products?

² Ocean co-users include, but are not limited to, fishing organizations, maritime shipping industry, or other commercial and recreational ocean users (Note – this footnote is from the RFI. Consider expanding this to include those dependent on those uses (i.e. – replacing fishing organizations with fishing communities (see footnote 1).

- d. What specific data or information can be provided by ocean co-users for the purpose of filling knowledge gaps? How should information from ocean co-users be disseminated or shared?
 - Transporting ocean energy across the state or region may require landing sites at several locations along the coast. The Council seeks to understand spatial configuration of transmission infrastructure. The number, spacing, and locations of transmission routes and landing sites can magnify impacts to benthic habitats and fishing.
 - All mapping data, map products (GIS data) and benthic community survey information should be available to the public upon completion, and prior to proposing cable routes. All datasets used to inform transmission siting should be provided or linked through a centralized data portal (e.g., the West Coast Ocean Alliance / Data Portal).
5. What forms of assistance (technical assistance or otherwise) would support efficient and equitable siting and development of offshore wind transmission infrastructure?
 - a. Capacity support be it targeted outreach to fishing communities or financial
 - b. More clarity on the roles of all the Federal and State agencies involved, and what their various jurisdictions and roles are.
6. Do you have any additional information or thoughts you want to provide about transmission infrastructure related to offshore wind energy?

PFMC
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