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Early Opportunities in the Pacific to Design Floating Offshore Wind to Coexist with Fisheries

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Agenda

• Uncertain Floating Offshore Wind Designs
• FOSW 3-D Footprint
• The Role of Scientific Research
• Misinformation East Coast Examples
• West Coast Stakeholder Concerns
• Main Obstacles for FOSW Development
• Identify Future Research
• Opportunity to Design FOSW to Minimize Impacts
• Streamlining the Industry with Fish in Mind
Uncertain Floating Offshore Wind (FOSW) Designs

- Multiple technology prototypes
- Anchoring system options
- Anchoring and cable radius changes with technology type
- Depth influences width of anchor system
- Certain fishing gear could interact with these structures causing safety concerns
FOSW 3-D Footprint

• Inter-array cable connections and depths
  • What depths avoid vulnerable animals?
  • What depths would allow certain fishing gear?
• 3-D footprint to determine ocean-user interaction zone
The Role of Scientific Research

- West Coast scientific research vital for fisheries management
- NMFS and PFMC conduct scientific research and surveys along the coast
- Transects allows decades of data collection comparisons
- Some scientific methods can be adapted, just as they have in the past with technology innovation
Misinformation East Coast Examples

- Misunderstandings about risks and impacts
- Confuse clear science-based outreach
- Slow US offshore wind development

<table>
<thead>
<tr>
<th>Offshore wind excludes all fisheries</th>
<th><strong>False</strong></th>
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<tr>
<td>Offshore wind is unreliable and leads to blackouts</td>
<td><strong>False</strong></td>
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<td>Vessels cannot transit through wind farms</td>
<td><strong>False</strong></td>
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West Coast Stakeholder Concerns

- EMF impacts
- Loss of fishing grounds
- Vessel safety
- Noise impacts to protected animals
- Studied and mitigated
- Unique to specific area and fishery
- Multi-Agency priority
- Regulations and safeguards control impact level
  - MMPA
  - ESA

Projects undergo:
- Site characterization
- Site assessment plan
- Construction and operation plan
- Environmental and technical reviews
Main Obstacles for FOSW Development

- Fisheries and PFMC can collaborate with NMFS and developers to determine best depths
  - Avoid certain fishing gear types
  - Identify gear types that could interact with FOSW footprint
  - Adapt fishing gear (if possible) to minimize potential interactions
- BOEM ongoing study with NOAA to identify in a computer simulation where derelict gear are in the water column

Inter-array cable depth

Research method adaptations and transects

- NOAA has been collecting scientific survey data for 150
  - Methods have adapted with technology innovation
  - Platforms of opportunity
- Transect corridors
- Adapt management for new baselines
Identify Future Research

- West Coast subject matter experts
  - Identify FOSW and fish/fisheries risk questions
  - Assess current research
  - Design research to answer priority risk questions
- Regional coordination across
  - Academia
  - Agencies
  - States
  - Developers
  - Organizations

University of Washington

California Department of Fish and Wildlife
Opportunity to Design FOSW to Minimize Impacts

- West Coast technology, environment, and grid are different
- West can identify unknowns and close gaps
- FOSW can be designed **now** to minimize impacts
- Increased monitoring and research effort with operation and maintenance vessels
- Gear entanglement monitoring could lead to fast removals, increasing Pacific derelict gear removal
Streamlining the Industry with Fish in Mind

- FOSW can learn from past industry successes
- Identify gaps to design targeted research
- Research can answer fish/fisheries interaction potential
- Anticipate interactions and adapt designs before construction
- Transparency and collaboration
Thank you for your time!

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References


