



Item 10: Advancing Environmental Monitoring Technologies for Floating Offshore Wind – GFO-22-401

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Mark Danielson, Senior Environmental Scientist
Energy Research & Development Division (ERDD), Energy Generation
Research Branch



Benefit to Californians

Improve feasibility and sustainability of floating offshore wind in California by:

- Addressing how to monitor environmental impacts.
- Improving durability to withstand California ocean conditions.
- Advancing capability to manage large datasets.
- Reducing costs for permitting and monitoring.



Solicitation Overview

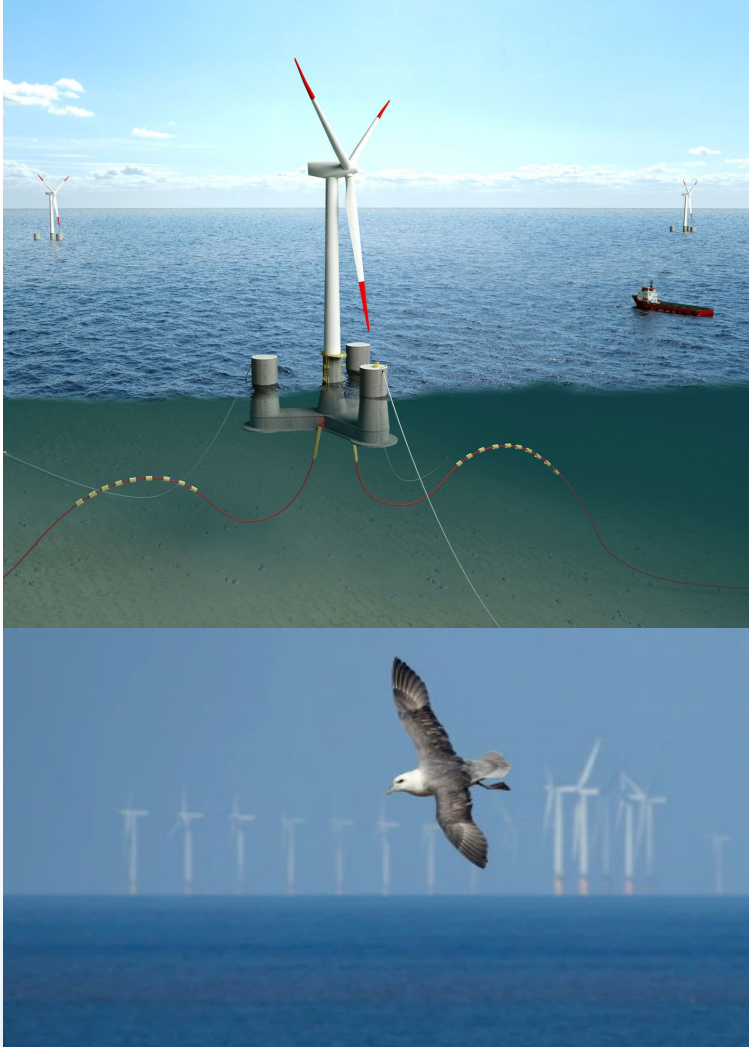


Photo credits: Top - Flagship Project
Bottom - Getty

Three proposed awards for advancing environmental monitoring technologies for floating offshore wind totaling \$8,900,868.

- Integrate multiple technologies
- Suitable for California ocean conditions
- Validate in laboratory environment

Integrated, Real-Time, Multi-Scale System for Monitoring Seabird Interactions with Floating Offshore Wind Technologies

- Integrate:
 1. Radar
 2. 3D thermal imaging
 3. Blade-mounted vibration sensor
- Artificial intelligence data management.

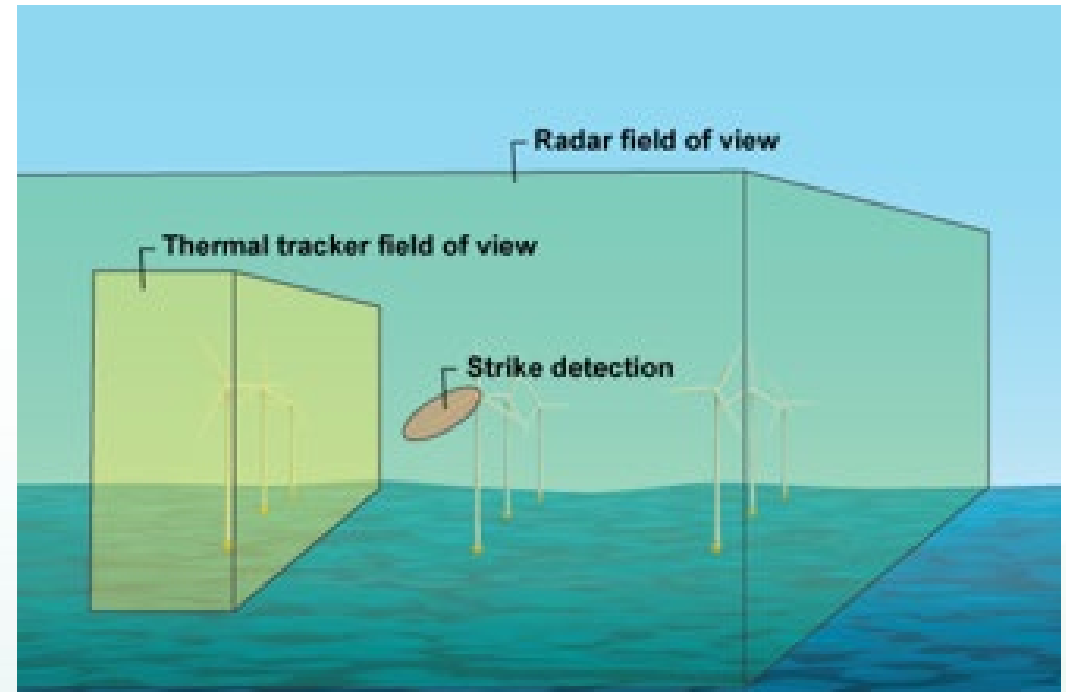
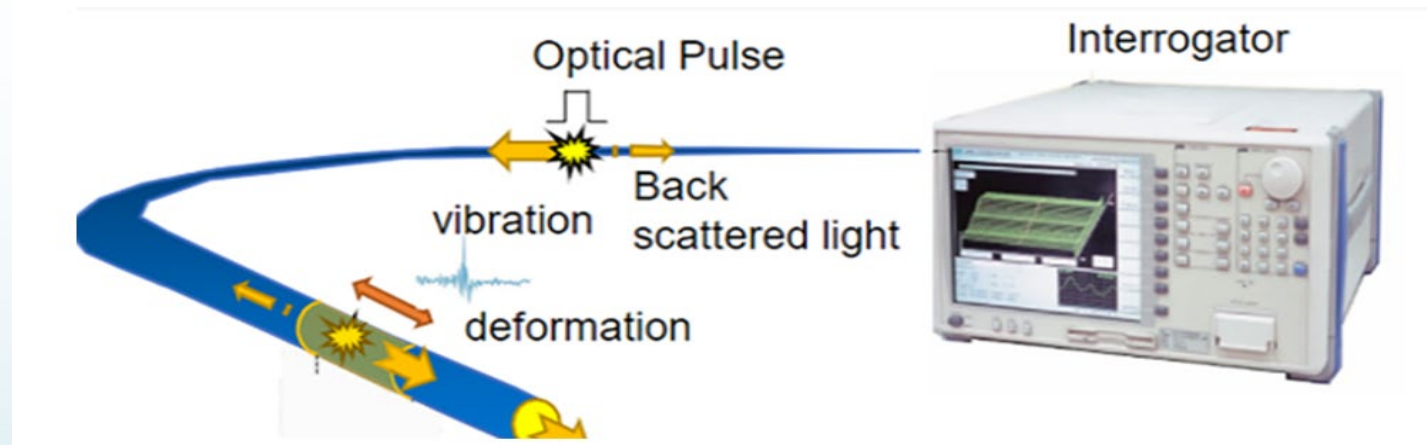


Image credit: Integral Consulting, Inc.

Integrated Monitoring of Cetacean and Ocean Environmental Impacts from Floating Offshore Wind Development on the Pacific Coast

- Integrate fiber optic sensing technologies and hydrophones.
- Monitor marine mammal presence, entanglement risk, and ocean environmental conditions.



Integrated Monitoring Approach to Reduce Entanglement Hazards for Floating Offshore Wind Developments

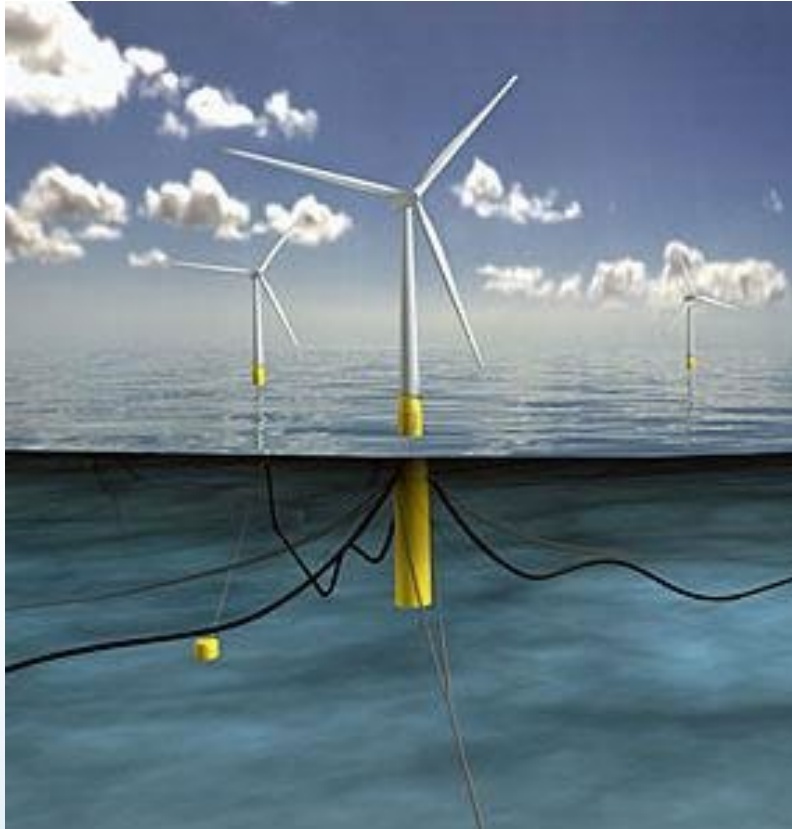


Photo credit: Statoil

- Simulate mooring line response to marine mammal collisions and secondary entanglement.
- Integrate sensor package and remotely operated vehicle.



Staff Recommendation

- Adopt staff's determination that action is exempt from CEQA.
- Approve the three proposed awards under GFO-22-401.