Item 11: Advancing Designs and Analysis of High Voltage Direct Current (HVDC) Substations and Environmental Monitoring for Floating Offshore Wind – GFO-24-307

November 12, 2025 Business Meeting

Nathan Lubega, Renewable Generation Specialist
Energy Research and Development Division, Energy Supply Branch

Benefit to Californians

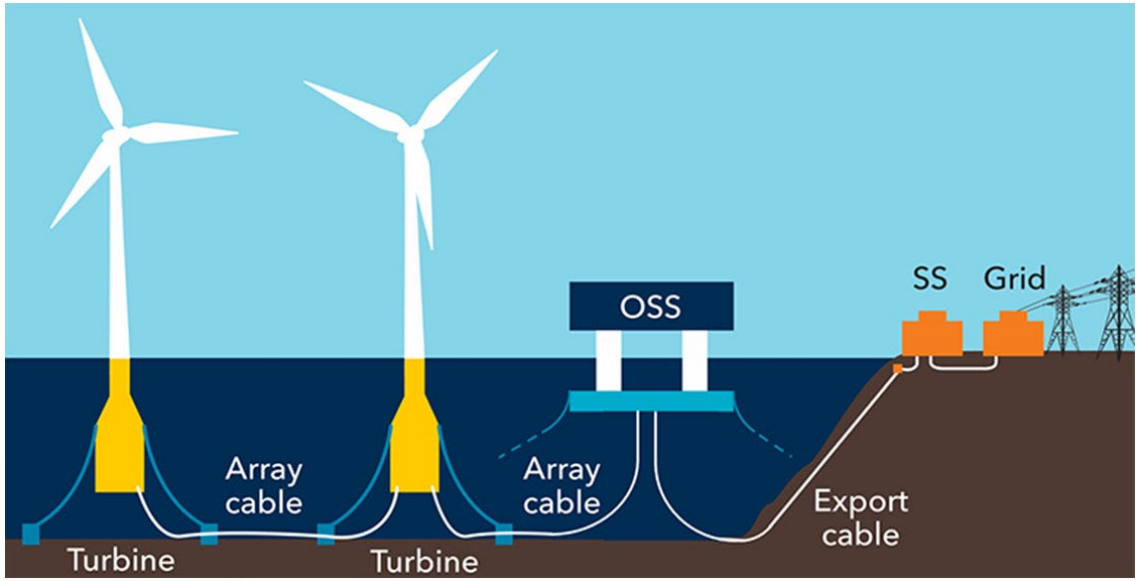
Improve feasibility and sustainability of floating offshore wind in California by:

- Reducing entanglement risk to marine life
- Increasing safety for personnel
- Lowering costs for permitting, monitoring, and transmission
- Improving system and grid reliability

Solicitation Overview

Advance development of floating offshore wind:

- Offshore HVDC substation design for interconnecting to shore
- Environmental monitoring to minimize impacts to marine life and habitats
- Consistent with AB525 Offshore Wind Strategic Plan



Source: DNV

Proposed Awards

Agreement #	Recipient	Funding Amount	Match
EPC-25-035	Alliance for Sustainable Energy, LLC	$3,249,955	$1,782,378
EPC-25-037	Integral Consulting Inc.	$3,000,000	$1,210,395
EPC-25-038	Sofar Ocean Technologies, Inc.	$2,993,427	$749,895
	Total	**$9,243,382**	**$3,742,668**

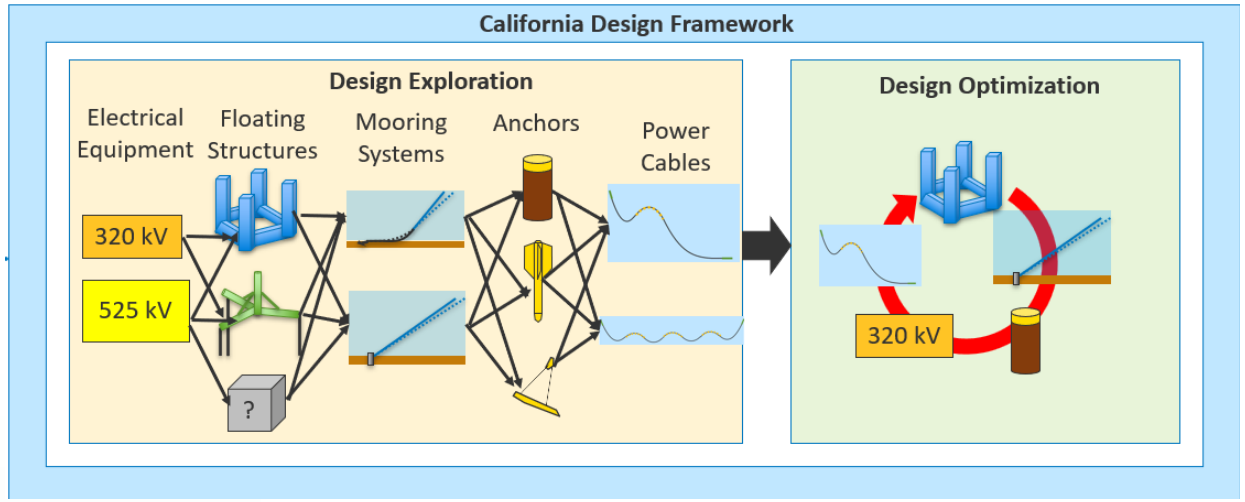
Alliance for Sustainable Energy, LLC

Project Focus: Develop a standardized open-source concept design for offshore substations

Benefits:

- Minimize environmental impacts
- Lower ratepayer costs
- Increase grid reliability
- Aligns with MOU between California and Norway (April 2024)

Funding Amount: $3,249,955



Source: National Renewable Energy Laboratory

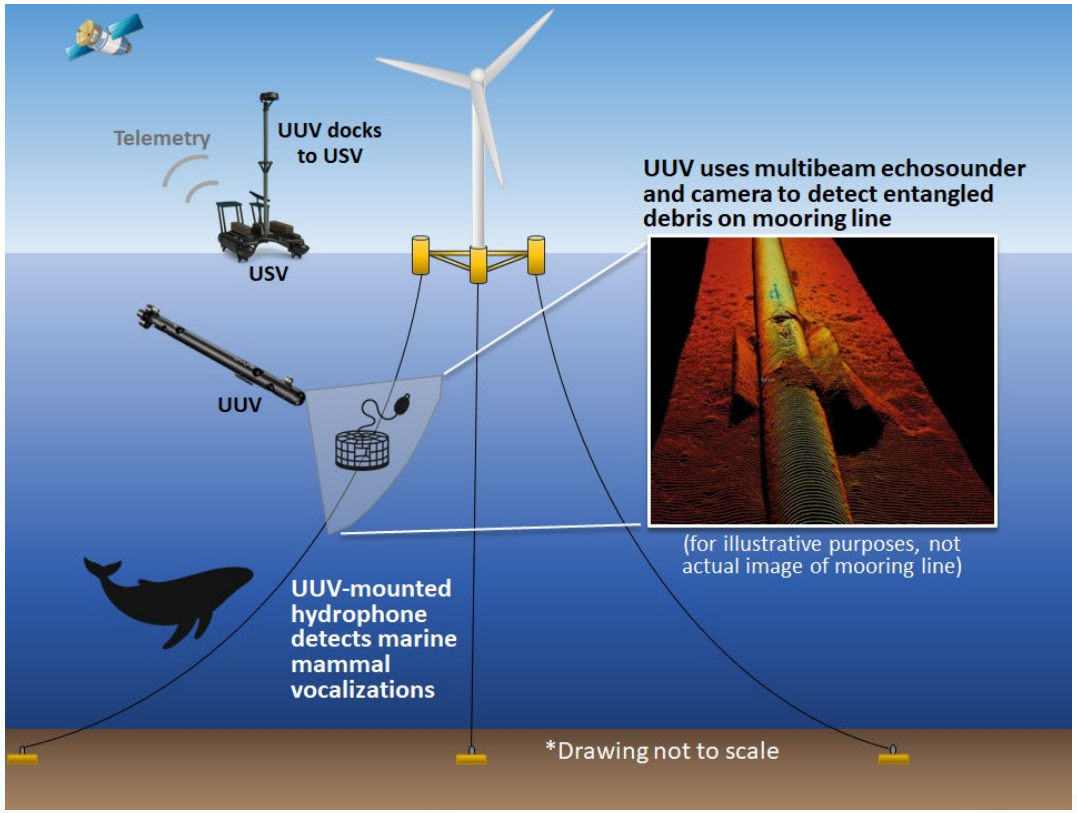
Integral Consulting Inc.

Project Focus: Detect and mitigate marine entanglements and perform environmental and structural health monitoring of offshore

Benefits:

- Minimize risks to marine life
- Lower costs
- Faster timeline for clean generation

Funding Amount: $3,000,000



Source: Integral Consulting Inc.

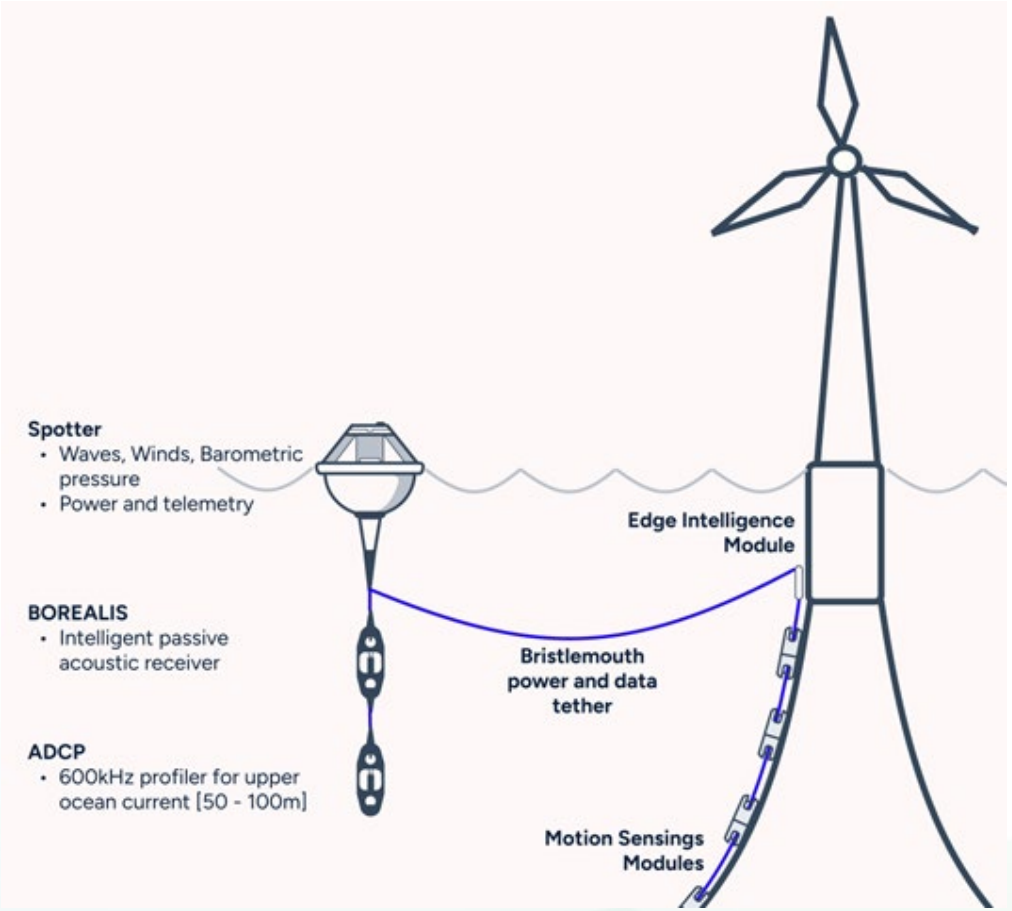
Sofar Ocean Technologies, Inc.

Project Focus: Detect marine entanglements and perform structural health monitoring of floating offshore wind infrastructure

Benefits:

- Minimize risks to marine life
- Lower costs
- Increased safety and reliability

Funding Amount: $2,993,427



Source: Sofar Ocean Technologies, Inc.

Staff Recommendation

- Adopt staff's recommendations that the proposed agreements are exempt from CEQA
- Approve three agreements (EPC-25-035, EPC-25-037, EPC-25-038) for a total funding of $9,243,382