

DOCKETED	
Docket Number:	19-IEPR-07
Project Title:	Electricity Sector
TN #:	229969-4
Document Title:	Using Available Data to Identify Offshore Wind Energy Areas
Description:	****SUPERSEDES TN 229912***Presentation by Jaime Jahncke, Point Blue Conservation Science
Filer:	Raquel Kravitz
Organization:	California Energy Commission
Submitter Role:	Commission Staff
Submission Date:	10/6/2019 4:40:51 PM
Docketed Date:	10/7/2019

Using Available Data to Identify Offshore Wind Energy Areas

Jaime Jahncke, Cotton Rockwood, Leo Salas and Nadav Nur from Point Blue Conservation Science
James Strittholt and Rebecca Degagne from Conservation Biology Institute

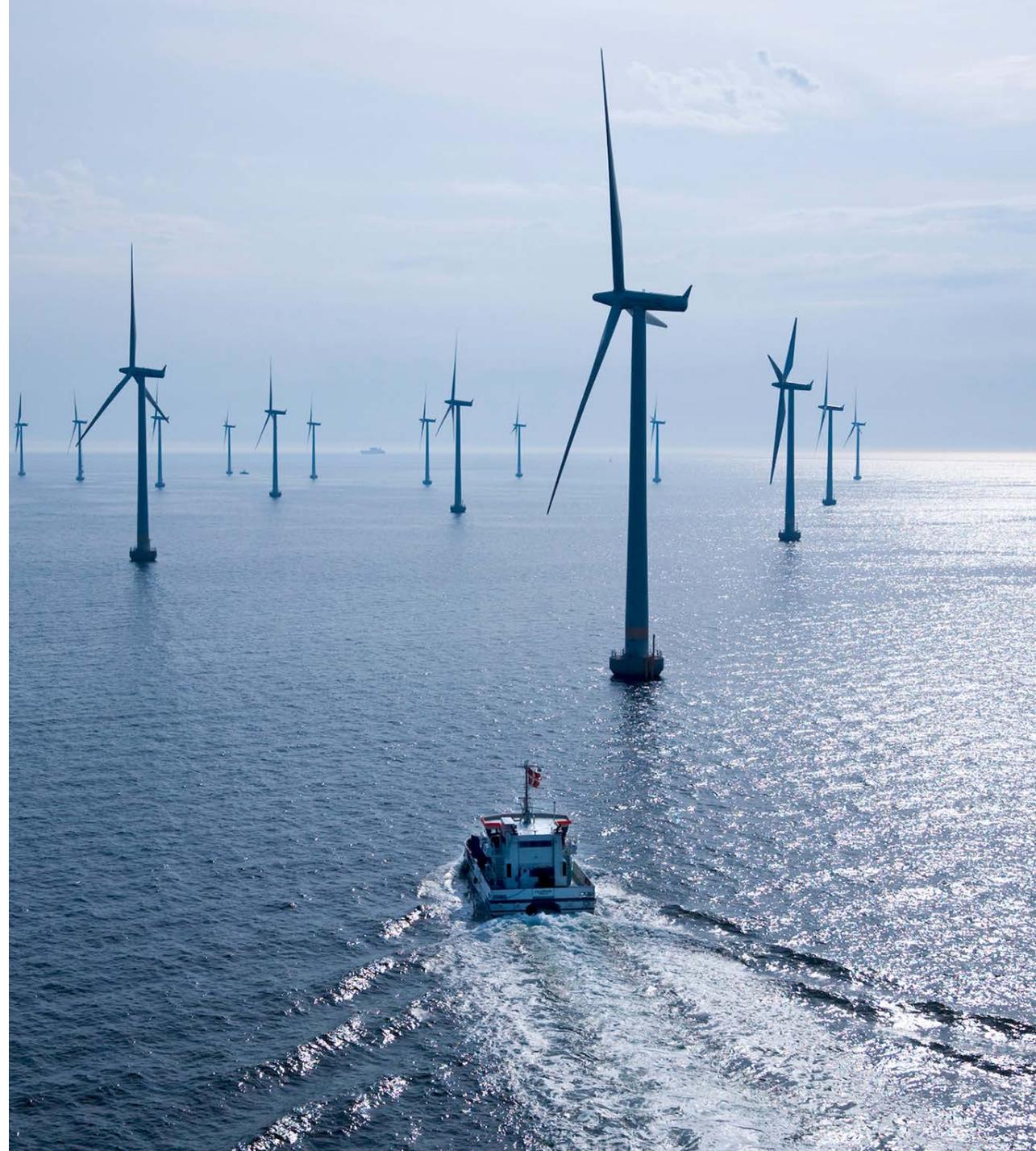
October 3, 2019

Stakeholders Need

- Transparent and objective analysis to identify siting locations
- Research to identify key data gaps
- Ability to update models with new data to inform managers
- Explicit incorporation and presentation of uncertainty

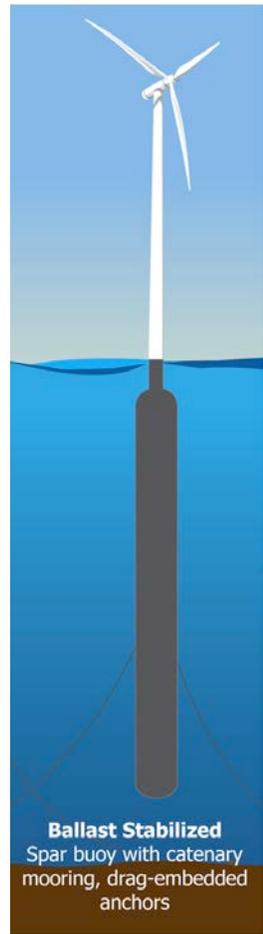
Goal

To promote transparent and objective decision-making around the selection of locations and types of renewable energy development.



Background

There are ~700 data layers to inform energy siting that need to be synthesized



California Offshore Wind Energy Gateway

In support of the Intergovernmental Renewable Energy Task Force

powered by DATA BASIN

Search by keyword or location

Get Started Explore Create

What is the California Offshore Wind Energy Gateway?

What can I do?

How do I start exploring?

The Offshore Renewable Wind Energy Gateway assembles geospatial information on ocean wind resources, ecological and natural resources, ocean commercial and recreational uses and community values. This information will help identify areas off of California that are potentially suitable for wind energy generation. [read more](#)

West Coast USA Federal and State Marine Protected Areas

California Offshore Wind Resources

Central California Offshore Use Zones

Central California Offshore Geology and Wind Technology Depth Zones

Central California Offshore Biological Resources

Seabird Spring Survey Compilation: Observations from various surveys ...

BOEM BUREAU OF OCEAN ENERGY MANAGEMENT

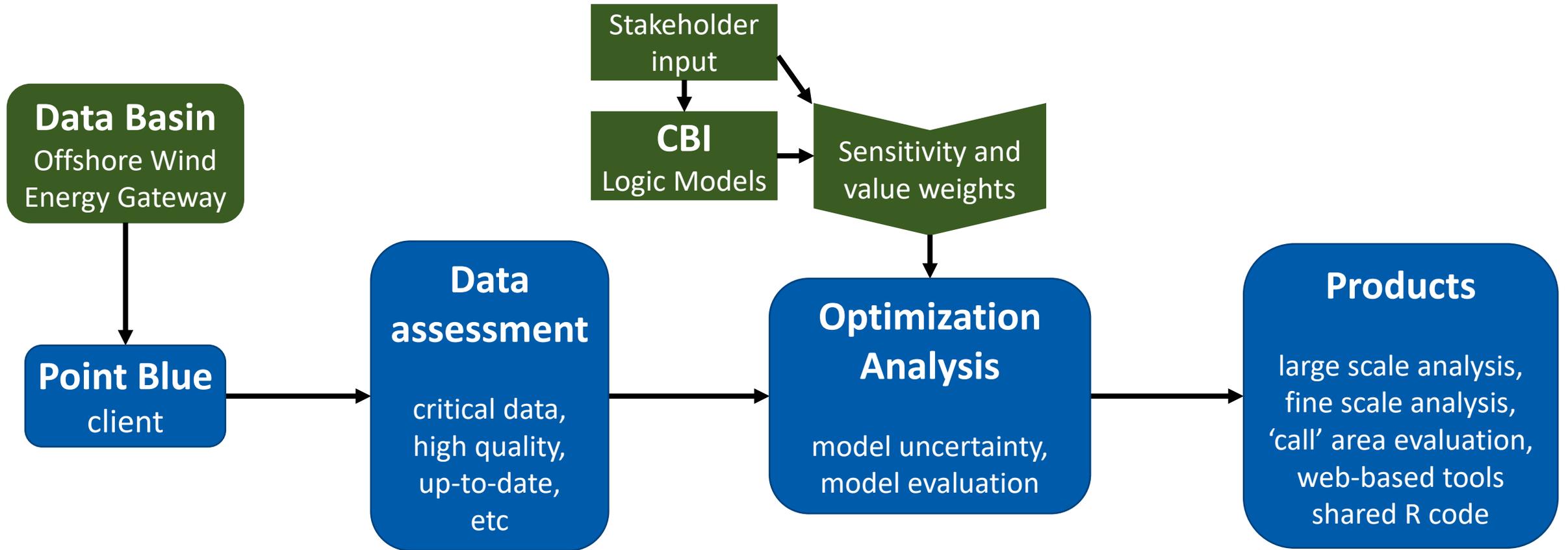
CALIFORNIA OFFSHORE WIND ENERGY COMMISSION

STATE OF CALIFORNIA ENERGY COMMISSION

Objectives

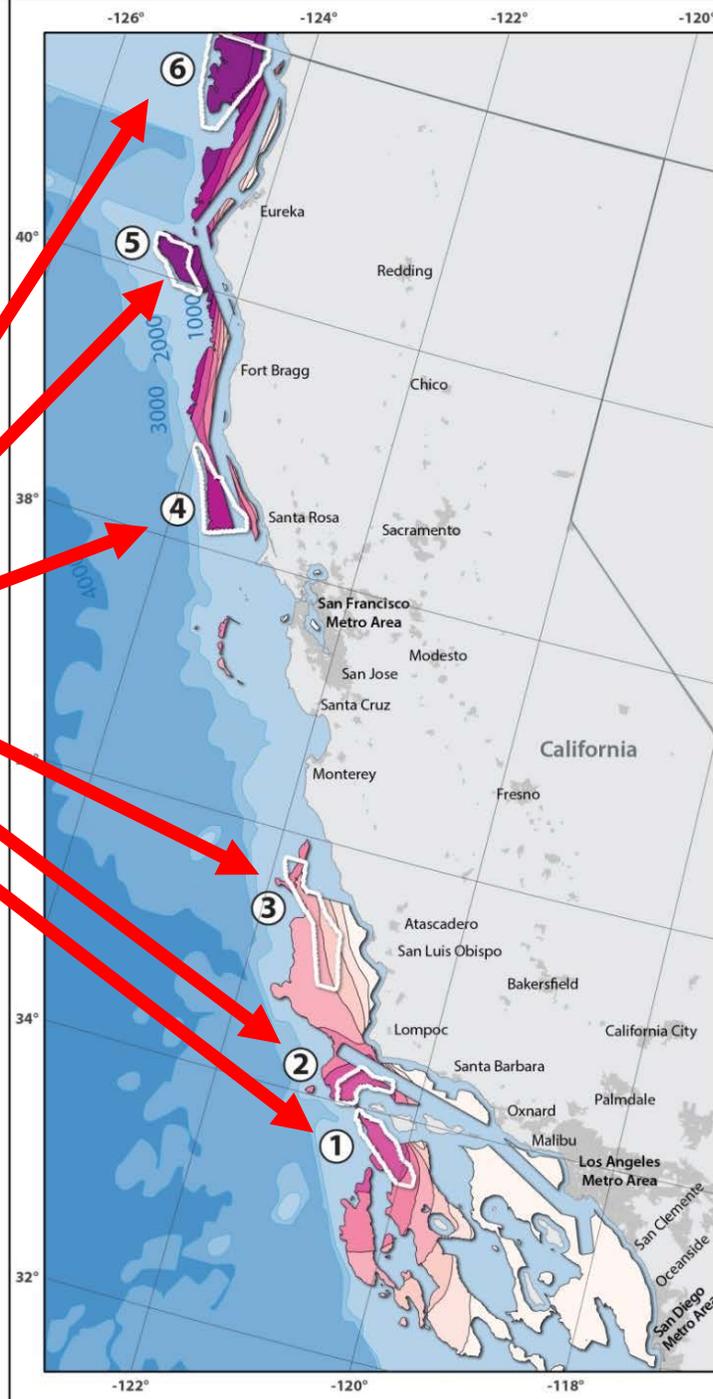
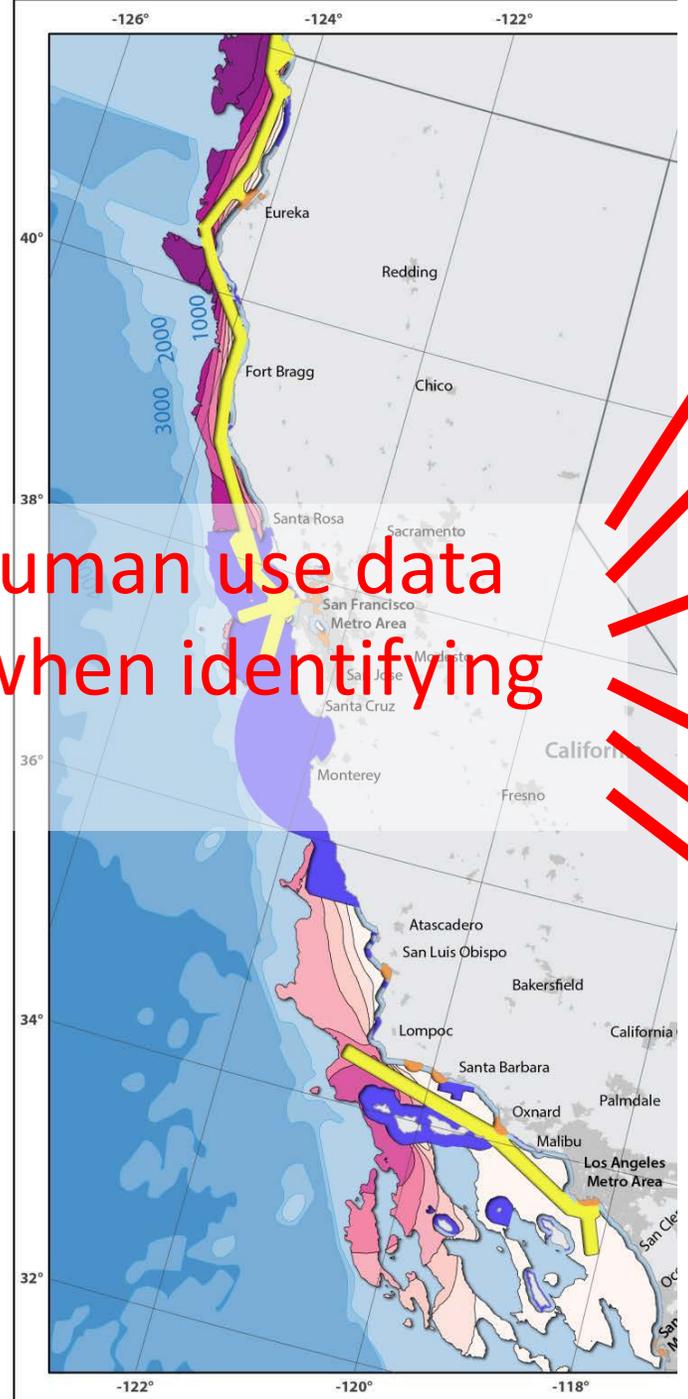
1. **Identify suitable locations** for marine renewable energy siting using existing body of information compiled in ‘Data Basin’,
2. Provide the foundation for lease selection by **identifying data priorities and gaps, and evaluating conflicts and trade-offs.**
3. **Examine offshore wind “call” areas** identified by BOEM and additional candidate areas for potential development.
4. **Disseminate results** of data quality and spatial optimization analysis to agency managers, industry, and other stakeholders.

Approach

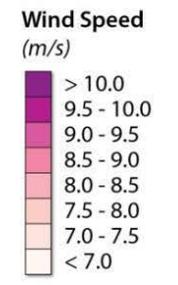




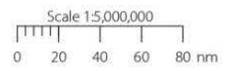
No wildlife and human use data was considered when identifying these areas



Offshore Wind Resource Speed (m/s) at 100 meters



This map was developed with funding and support from the Bureau of Ocean Energy Management. The map shows annual average coastal offshore wind speeds where ocean depth is 1,000 meters or less, and distance from shore is 3 nautical miles or more. The offshore wind resource data were originally estimated by AWS Truepower at a 100m hub-height. Wind speeds less than 7 m/s are not included in estimates of the technical resource.

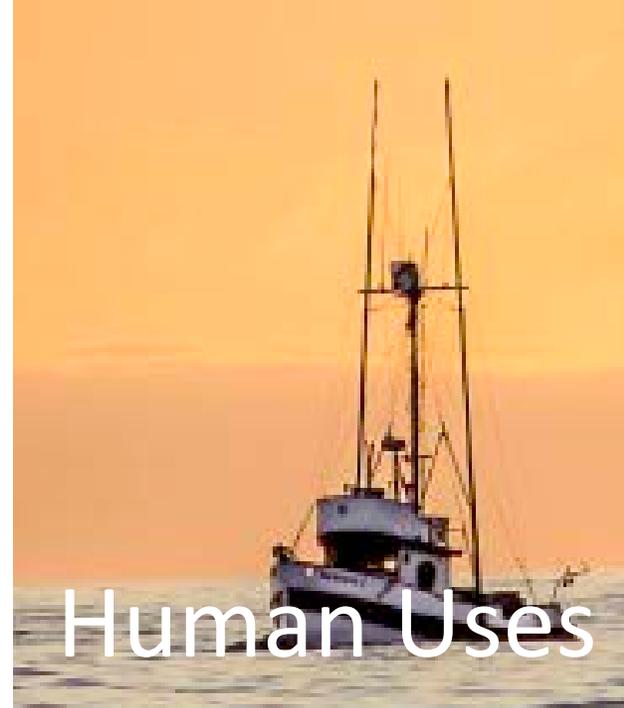


Billy J. Roberts | December 7, 2015



What is Critical Data?

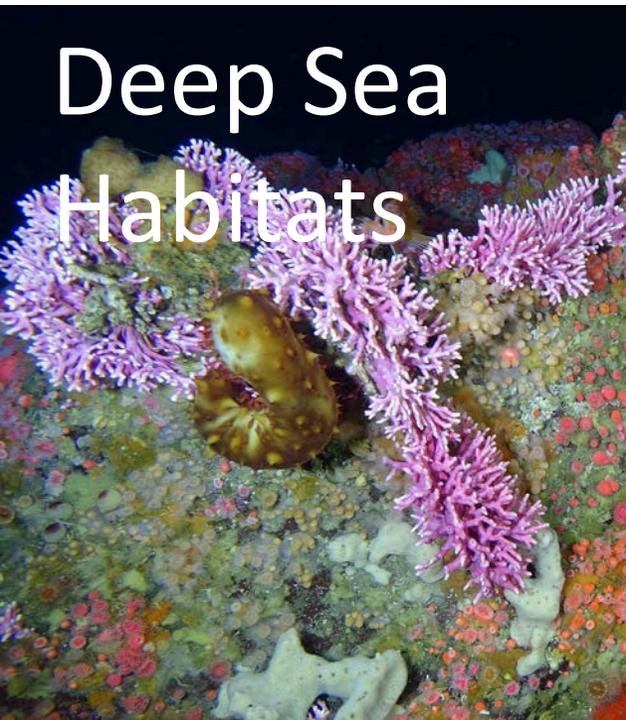
Define “key science-based datasets” in the context of the project.



Human Uses



Cultural Res.



Deep Sea Habitats



Fish



Seabirds



Whales

Deliverables

Large scale analysis

Maps identifying locations along the west coast that maximize energy production and minimize potential environmental impacts and conflicts with human use.



Deliverables

Fine scale analysis and 'Call' area evaluation

Maps showing data availability and report evaluating the data types, quality, resolution and extent of time series available in main identified sites from large scale analysis and 'call' areas identified by BOEM.



Outcome

Recommendations on offshore wind energy siting guided by and based on a comprehensive and transparent analysis of data included in the California Offshore Wind Energy Gateway.

Analysis includes: 1) **quantification of impacts** to habitats, species and ocean uses, 2) **accounts for offshore energy potential** in a statistically rigorous framework derived from the perspectives of multiple stakeholders, 3) **provides explicit measures of uncertainty** and risks through transparent analysis.



Point Blue
Conservation
Science

Thank You



OCEAN
PROTECTION
COUNCIL

GORDON AND BETTY
MOORE
FOUNDATION

THE David &
Lucile Packard
Foundation