High Road Training Partnership – Offshore Wind

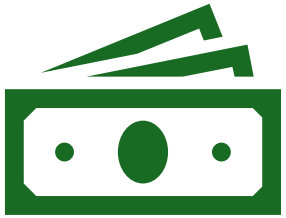
Tribal Apprenticeship/
Pre-apprenticeship Program

Overview

- The Central Coast of California is poised to become a hub for the emerging offshore wind industry in the state.
- The wind farms, expected to start operations by 2030, could collectively produce up to 6 gigawatts of renewable energy - enough to power around 3.5 million homes. This aligns with California's goal of generating 25 gigawatts from offshore wind by 2045.
- State and federal agencies, along with the lease winners, are collaborating with local stakeholders on planning for infrastructure needs, workforce training, supply chain development, and community engagement to ensure the Central Coast can capitalize on the offshore wind industry while mitigating impacts.

HRTP Program

Job training in collaboration with Workforce Development Board



Program funded by a grant awarded to the Workforce Development Board

Focus on Job training

Introduction

Overview of CADEMO project

- CADEMO - A 200 MW pilot floating offshore wind project
- A larger 3 GW commercial-scale project off Morro Bay
- Economic impacts are estimated using the JEDI (Jobs and Economic Development Impact) model for different scenarios of project costs and local supply chain/workforce utilization.

CADEMO Project Impacts

- Construction Phase (over 3 years):922-1,511 job-years created
- $81-$140 million in earnings
- $203-$344 million in economic output
- $114-$188 million increase in GDP

Operations Phase (annually): 23-42 permanent jobs

- $2-$3.3 million in earnings
- $5.6-$10.5 million in economic output
- $3.1-$5.4 million increase in GDP

CADEMO Project

- Development of a floating offshore wind (OSW) project.
- Located Offshore from Vandenberg Space Force Base in Santa Barbara County.
- Goal: Establish a test case for the “high road” concept in labor-management cooperation and community benefits.

Program Development

ICF Involvement

- Feasibility study for apprenticeship/pre-apprenticeship and internship opportunities.
- Collaboration with SLO Partners, California community colleges on the central coast, and potential employers.

Core Team Members

- Michael Specchierla, SLO Partners
- Rob Collier, CADEMO
- Victoria Conner, EconAlliance
- Alejandra Mahoney, EconAlliance
- Holly Nolan Chavez, South Central Coast Regional Consortium

Commercial Morro Bay Impacts

Commercial Morro Bay Project Impacts

Construction Phase: 6,900-14,956 job-years created

- $571-$1,232 million in earnings
- $1.7-$3.7 billion in economic output
- $839-$1,797 million increase in GDP

Operations Phase (annually):398-684 permanent jobs

- $30.5-$54.6 million in earnings
- $89-$173 million in economic output
- $48-$90 million increase in GDP

Local Supply Chain Utilization Impact

Impacts are highly dependent on the level of local supply chain and workforce utilized

As California's offshore wind industry matures, economic impacts could more than double from increased local content

Potential Benefits of Offshore Wind

The potential benefits of offshore wind energy for the Central Coast of California include:

Economic Benefits:

A 3-gigawatt wind farm off Morro Bay could generate an estimated 650 well-paying jobs and $262 million in annual economic impact for San Luis Obispo and Santa Barbara counties.

Developing a specialized wind port on the Central Coast as a hub for offshore wind jobs and supply chain could bring significant economic opportunities to the region.

The offshore wind industry promises new jobs in manufacturing, assembly, operations, maintenance, and supporting industries.

Energy Production:

The offshore wind areas leased off San Luis Obispo County have the potential to produce up to 6 gigawatts of renewable energy, enough to power around 3.5 million homes.

Offshore winds are strongest in the evening when energy demand peaks, complementing solar production and enhancing renewable electricity reliability.

Offshore winds reach their peak during summer months when state energy use is highest due to air conditioning.

Environmental Benefits:

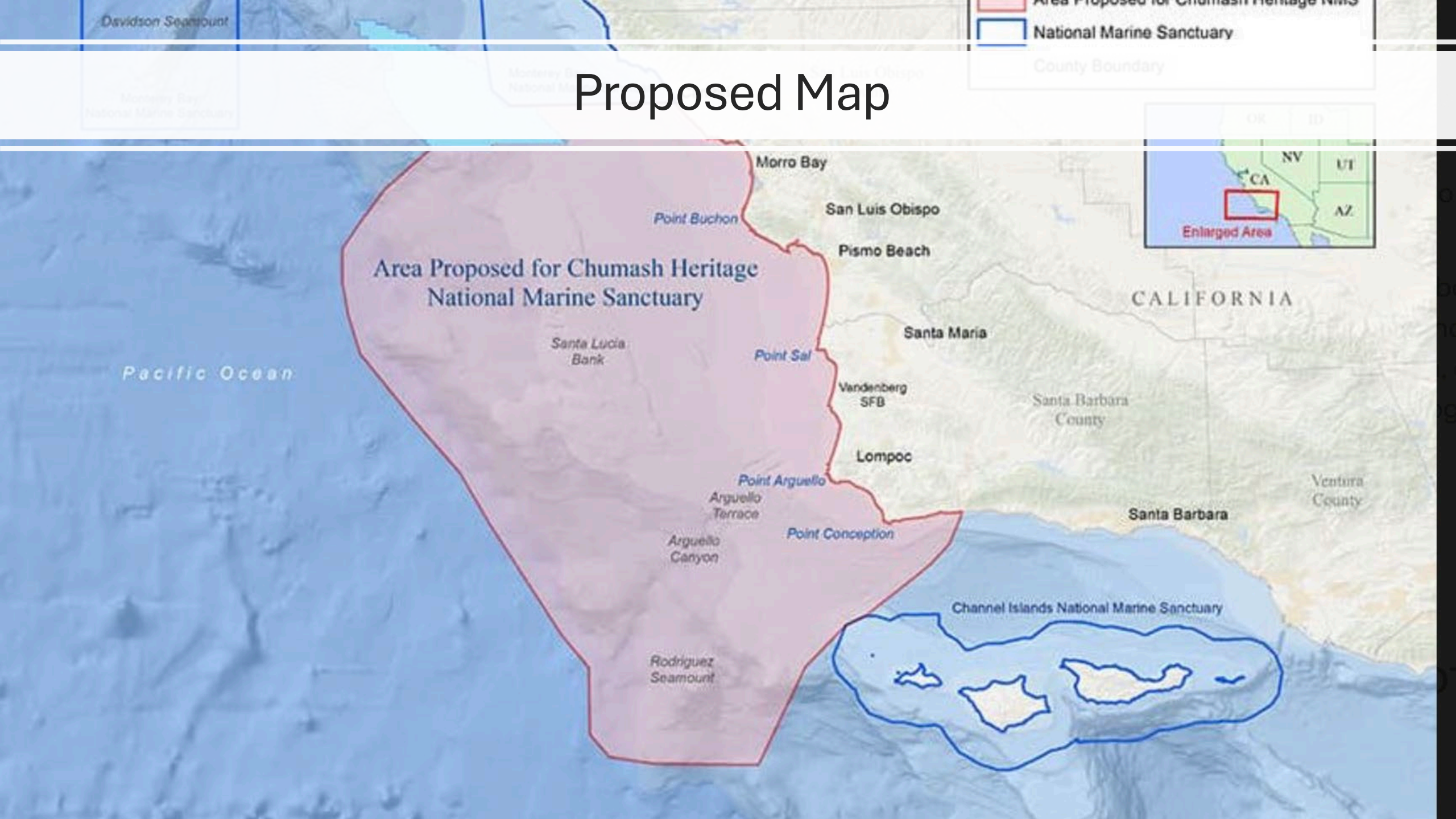
Offshore wind is a renewable energy source that can help California meet its goals of 60% renewable energy by 2030 and 100% by 2045 while reducing greenhouse gas emissions.

Offshore wind farms have less impact on land use compared to onshore wind or solar farms.

Tribal Marine Sanctuary

- The proposed Chumash Heritage National Marine Sanctuary is a planned national marine sanctuary along the central coast of California that aims to protect the region's rich marine ecosystems, cultural resources, and maritime heritage.
- The High Road Training Partnership will focus on job training, development, and placement for the Chumash Tribal community.

Proposed Map



HRTP/CADEMO Tribal Program: Environmental Analysis

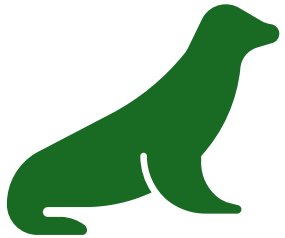
- Analysis of potential educational programs in the environmental management sector leading up to the construction and operation of offshore wind farm.
- Develop apprenticeship/pre-apprenticeship programs for environmental management careers.
- Support the proposed Chumash Heritage National Marine Sanctuary co-management goals.
- Meet CADEMO’s community benefits commitments to the Santa Ynez Band of Chumash Indians.

Program Rationale

Immediate Need

Focus on environmental analysis and management in the lead-up to Offshore Wind Operation.

Alignment with CADEMO's community benefits agreement (CBA) and job creation commitments to the Chumash.



Tribal Co-Management Goals

Promote Chumash co-management of marine conservation areas and the proposed Chumash Heritage National Marine Sanctuary (CHMNS)

Incorporate Traditional Ecological Knowledge (TEK) in management decisions.

Identified Career Pathways

Potential positions

- GIS Specialist
- Drone Operator/Data Management Specialist
- Biological Field Technician
- Cultural Resources Field Technician
- Marketing/Graphic Design

Geographic Information Systems (GIS) Specialist

No bachelor’s degree is required, GIS certification useful.

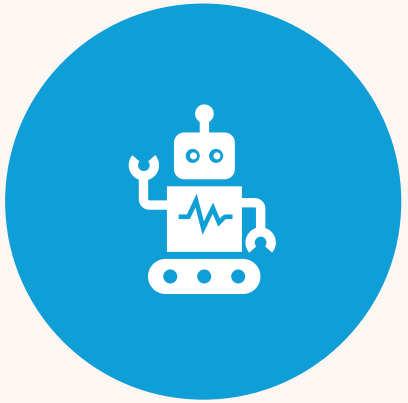
Opportunities for career advancement to management.

Extensive use of GIS for offshore wind and marine sanctuary analysis.

Drone Operator/Data Management

FAA CERTIFICATION REQUIRED FOR DRONE OPERATION.

MANAGING LARGE ENVIRONMENTAL DATA SETS IS AN IN-DEMAND SKILL SET.



INCREASING USE OF DRONES FOR ENVIRONMENTAL SURVEYS.

Biological Field Technician

Entry level field work under senior staff supervision is permissible.

Associate’s degree provides a foundation, bachelor’s/master’s needed for advancement.

Can perform monitoring roles during offshore wind construction.

Cultural Resources Field Technician

Includes terrestrial archology, historic architecture specialist, and marine archeology, (marine fieldwork requires diving certification).

Job duties include assessments and monitoring during construction.

Entry level positions will likely require an associate degree

Advancement beyond fieldwork requires a bachelor’s degree.

Marketing/graphic design

POTENTIAL CAREER PATH AT ENVIRONMENTAL CONSULTING FIRMS.

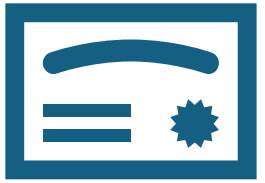
MOST REPORTS CREATED BY THESE FIRMS REQUIRE EXTENSIVE GRAPHIC SUPPORT.

THESE POSITIONS REQUIRE ADDITIONAL INVESTIGATION WITH EMPLOYERS.

Existing course offerings

Central Coast community colleges offer relevant classes/programs.

Opportunities to leverage existing curricula.



Potential for new certificate programs.

Regional programs by college

College	GIS	Drone Operator/ Data Management	Biological Field Tech	Cultural Resources Field Tech	Marketing/ Graphic Design
Allan Hancock College		X	X	X	X
Antelope Valley College	X	X	X		X
College of the Canyons		X	X	X	X
Cuesta College	X		X	X	X
Moorpark College	X		X	X	X
Oxnard College	X		X	X	
Santa Barbara City College	X	X	X	X	X
Ventura College	X	X	X	X	X

Potential Employers

ENVIRONMENTAL CONSULTING FIRMS INTERESTED IN PARTICIPATING.

OFFSHORE WIND LEASEHOLDERS MAY HAVE OPPORTUNITIES.

COMMITMENT TO DIVERSITY AND LOCAL WORKFORCE UTILIZATION.

Summary

Promising career paths identified for apprenticeship programs.

Leverage existing education resources and employer needs.

Supports CADEMO’s workforce commitments and marine co-management goals.

Next Steps

Employer Engagement

Follow-up with potential employers (RINCON, WSP, Stantec).

Discuss program structure, MOUs, and employee demand.

Educational Institution Collaboration

Further discussions with community college leadership.

Deep dive into relevant course offerings.

Develop internship program.

Conclusion

Summary

Importance of the apprenticeship/pre-apprenticeship, Work Based Learning opportunities for the Chumash community.

Contribution to the OSW and marine environmental management sectors.

Call to Action

Encourage collaboration and support from regional stakeholders.

Highlight the long-term benefits for the community and environment.

Questions and Answers