OCEAN Update

Oregon Coast Energy Alliance Network

General Update
Feature Presentation & Discussion:
Xodus Group – Tools for Integrating Community & Industry Interests

June 15, 2021

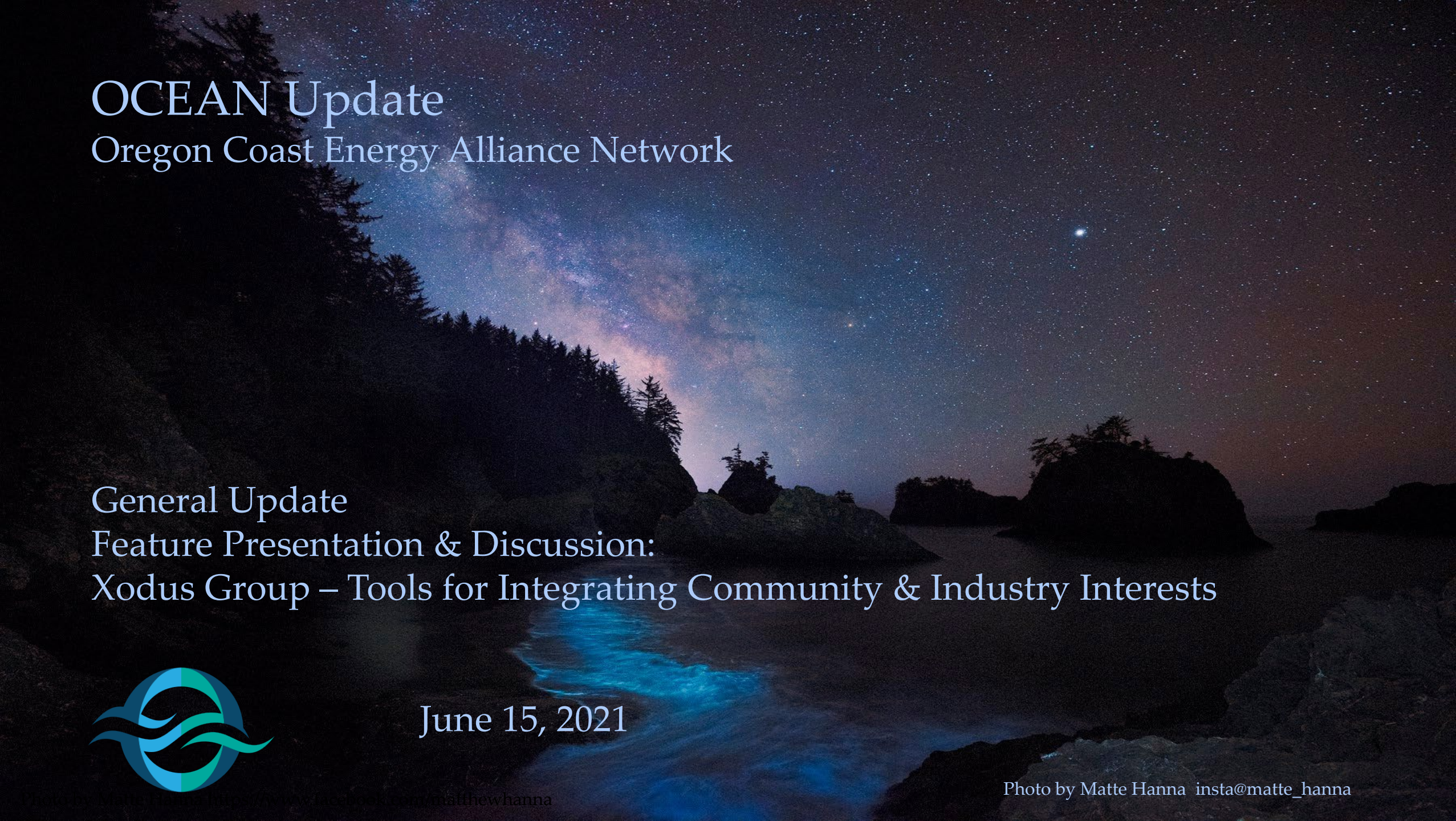
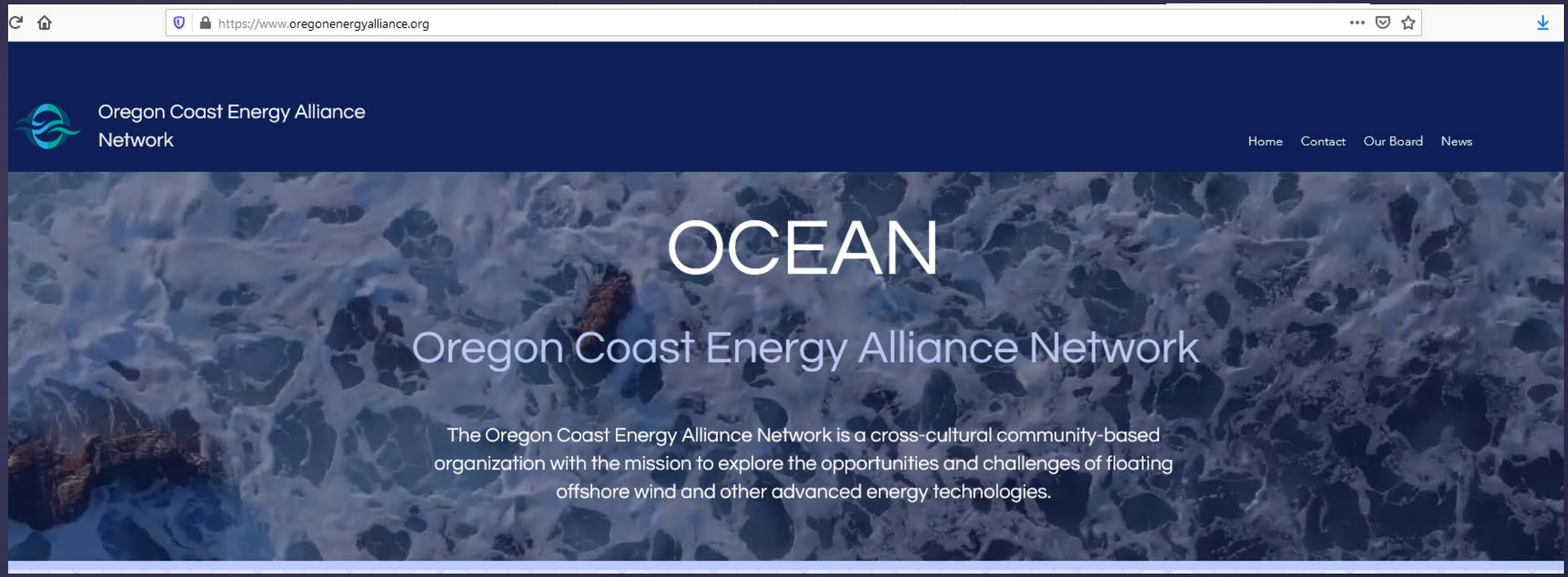


Photo by Matte Hanna insta@matte_hanna



OCEAN is a 501c3 non-profit formed in 2020 on the south coast of Oregon.

OCEAN's Board of Director seats are designed to represent a diversity of coastal stakeholder interests including;

Tribes, Labor, Fishing Communities, Maritime Commerce, Resilience, Manufacturing, Sustainable Development, Ports, Elected, Ecologic Conservation, Economic, Workforce & Supply Chain Development, Labor, Public, Investment, Climate Action, Recreation, Education, Housing & Social Equity

OCEAN is southern Oregon coast non-profit 501c3 organization

Promoting front-line, front-loaded stakeholder engagement designed around our coastal community perspective and interests.

Our goal is to inform and influence coastal energy projects and policies when they are in the earliest, formative stages to maximize the benefits to our coast's citizens, ecology, and economy

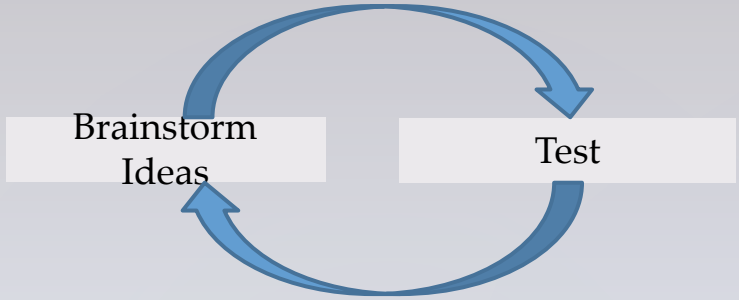
Our website is growing in response to questions and concerns we've received from coastal community members.

Do you have information or inquiries to add to the discussion? Let us know!

Oregonenergyalliance.org

TRADITIONAL Project Proponent Public Involvement Model

Moving at the speed of must



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	Drivers/ Need Statement	Brainstorm/ Test	Socialization "First Contact"	Formal Proposal	EIS	Litigation
Project Pliability[1]	High	High	Medium	Low	Low	Low
External Participation[2]	Low	Low	Low	Medium	High	High

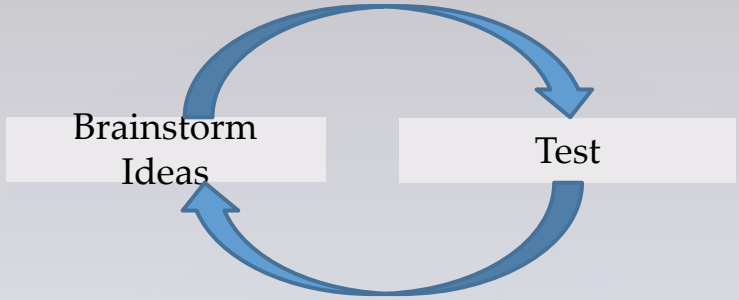
High
Medium
Low

[1]willingness of project proponents to explore the widest range of alternatives
[2]ability and avenues exist for outside parties to exert influence

Courtesy W. Henry, PSU graduate student

O.C.E.A.N. Public Involvement Model

Moving at the speed of trust



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High
Medium
Low

[1]willingness of project proponents to explore the widest range of alternatives
[2]ability and avenues exist for outside parties to exert influence

Courtesy W. Henry, PSU graduate student

Seeking Sponsors for OCEAN's Adaptive Outreach Plan

Strategy: Curate Civil Conversations about Energy Planning & Development

- Facilitate Engagement and Understanding between Coastal Communities and Clean Energy Industry
- Tabling, Coffee Talks & "Drinking Civilly" in local watering holes
- Service, Commerce & other NG Organization Presentations
- Continued Monthly Webinar Updates
- Adjust Engagement per Community Feedback

Outreach

OSW Briefing Updates Presented to:

Oregon Public Ports
Oregon Legislators
Ocean Policy Advisory Council
Kalmiopsis & Portland Audobon
Oregon Regional Solutions
Port of Brookings Harbor
Association of Oregon Counties
PNW Crabbers and Towers
Community Renewable Energy Association, Executive Board
Surfrider Oregon
Curry County Commissioners

Panelist: Strategies for community engagement and communication:

Offshore Wind: East & West Coast Implementation Summit

Panelist: Strategies for PNW clean energy transistion:

Lewis and Clark Air Quality & Climate Change Conference – The keys to Clean Transition

Panel Moderator: Project Development

Renewable Power to Fuels Symposium August 16, 2021 Tacoma WA

watch Renewable Hydrogen Alliance site for registration https://renewableh2.org/

Advocacy

Oregon Public Utility Commission (OPUC) :

Advocating for Coastal Geographic Equity and Energy Security

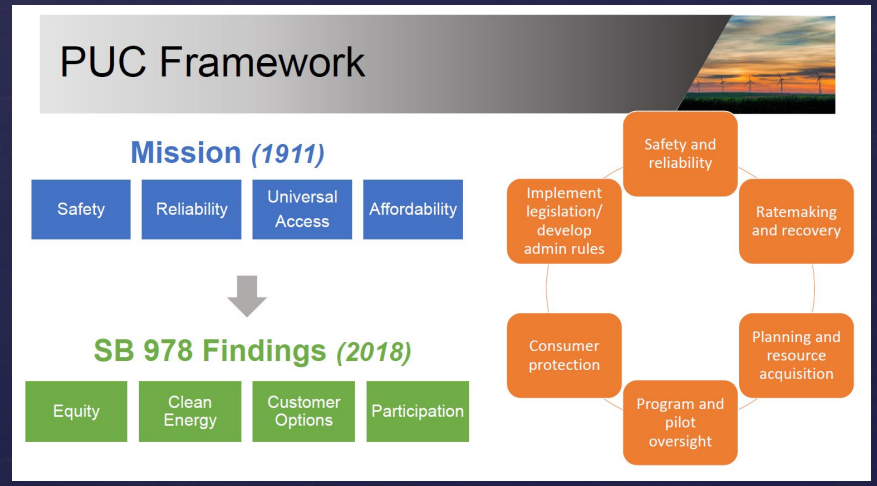
Pacific Power Distribution System Planning Workshops to update the program are underway!
https://www.pacificorp.com/energy/oregon-distribution-system-planning.html

#1 May 24th Workshop – overview of draft plan and invitation to provide input

Pacific Power Public Workshop #2	Tuesday, June 29, 2021	10 a.m. - 12 p.m. PDT
Pacific Power Public Workshop #3	Friday, July 30, 2021	1 p.m. - 3 p.m. PDT
Pacific Power Public Workshop #4	Tuesday, Aug 24, 2021	10 a.m. - 12 p.m. PDT

Supporting Pacific Ocean Energy Trust (POET) engagement in other OPUC dockets -

- Staff Education
- Capacity
- Resource Adequacy
- Integrated Resource Planning



Advocacy

Middlebury Institute: https://www.middlebury.edu/institute/academics/centers-initiatives/center-blue-economy/ocean-climate-action-summit

- **Ocean-Based Climate Solutions Act, HR8632:** This comprehensive bill includes protections for oceans, coasts, rivers and lake systems, while promoting sustainable job opportunities and renewable offshore energy. We seek co-sponsors and passage in the House, and a companion bill in the Senate.

- **Protects and restores "blue carbon" ecosystems•**
- **Promotes offshore wind energy and research while prohibiting offshore fossil fuel activity•**
- **Promotes climate-ready fisheries and eliminates fishing subsidies in trade agreements•**
- **Enhances the fuel efficiency of our fishing vessel fleet•**
- **Establishes a climate and fisheries research and management program•**
- **Creates a restorative ocean aquaculture research and policy program•**
- **Amends the Coastal Barrier Resource Act and the Coastal Zone Management Act•**
- **Promotes climate resiliency of Insular Areas•**
- **Protects marine mammals through vessel speed programs•**
- **Addresses U.N. Sustainable Development Goal #14, to conserve and sustainably use the ocean•**
- **Expands climate mitigation efforts in the Arctic•**
- **Promotes coastal resiliency through living shorelines, coastal community adaptation, and more•**
- **Establishes a grant program for projects that promote resilient coastlines and fisheries •**
- **Researches, forecasts, and mitigates ocean acidification and harmful algal blooms•**
- **Codifies Regional Ocean Partnerships, enhances ocean data collection and monitoring, and creates a centralized website for resiliency grants•**
- **Addresses greenhouse gas pollution from shipping vessels•**
- **Requires studies on deep sea mining, blue carbon, Great Lake and ocean climate impacts, high seas fishing, public access to coasts, stressors on estuarine environments, black carbon, marine protected areas, and marine biodiversity•**
- **To become a cosponsor or obtain more information, please contact Casey.MacLean@mail.house.gov.**

Pacific Northwest Federal Delegation Priorities

Advocacy

Ocean Based Climate Solutions Act

Western Grid Modeling and Transmission Planning via National Labs

Low Frequency/ High Consequence Event inclusion in Resource Adequacy Planning & Procurement

Fenceline Community Engagement

CoExistence by Design: opportunities for OSW planning, deployment and operations to result in Net Benefits to our West Coast fishing fleets and communities.

OCEAN thanks Davis Write Tremain (DWT) for ProBono legal council in this arena!

Regional Planning

Tracking and providing comment on NWPP draft as presented at Power Council webinars:

- https://www.nwcouncil.org/meeting/power-committee-work-session-webinars-june-15-2021
- Tuesday registration: https://register.gotowebinar.com/register/7282388081989240588
- Wednesday registration: https://register.gotowebinar.com/register/6753804464005702924
- Power Committee Work Session Webinars

OCEAN is Advocating for

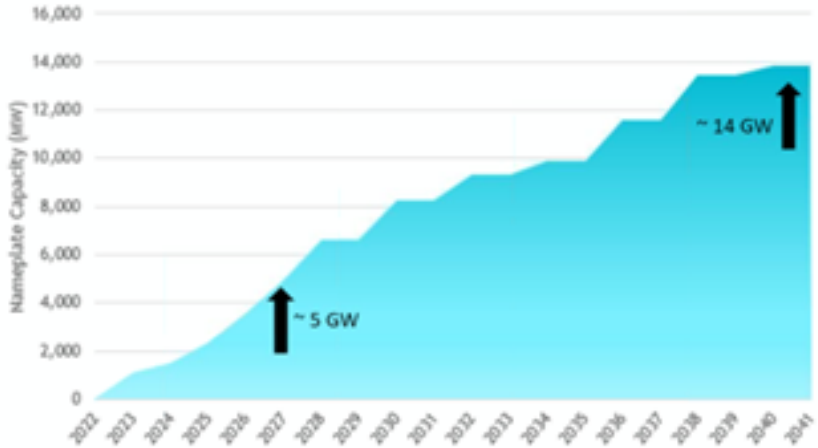
- OSW as emerging technology
- Inclusion of Low Frequency High Consequence Events in future planning

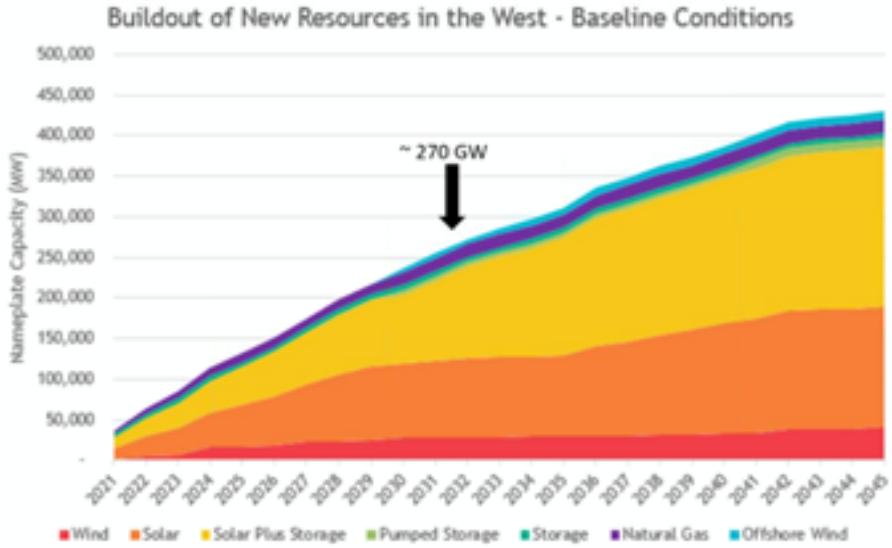
THE 2021 NORTHWEST POWER PLAN
FOR A SECURE & AFFORDABLE ENERGY FUTURE

Draft plan: We need massive new resources

Potential Buildout* of New Resources – Region & WECC

Roughly 5 GW of new renewable resources acquired in Pacific Northwest (Power Act Region) in the action plan period





Roughly 200 GW of new resources acquired across the WECC by 2028
(For reference, the installed nameplate capacity in 2020 was ~270 GW)

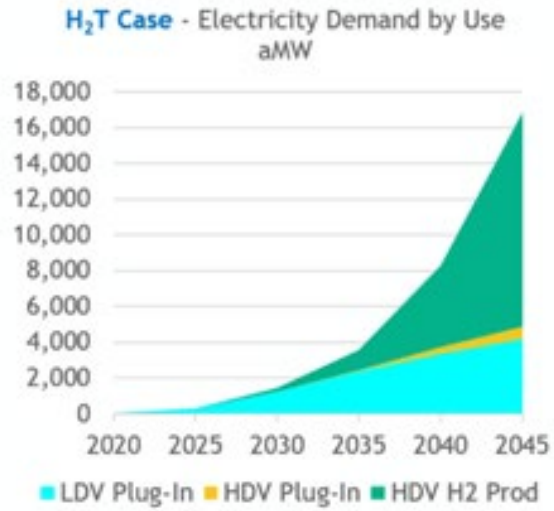
*Analyses from draft 2021 Power Plan, baseline conditions

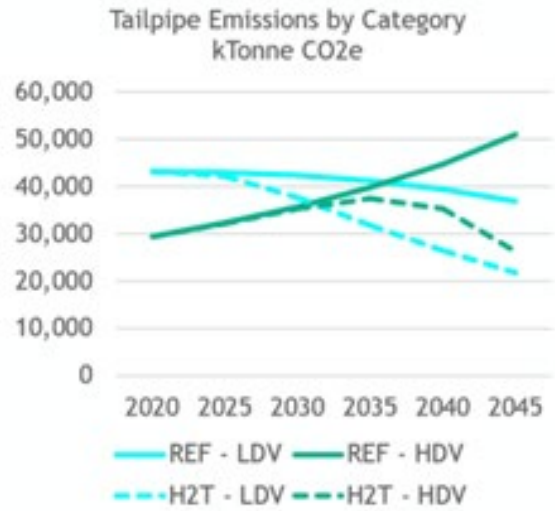
THE 2021 NORTHWEST POWER PLAN

THE 2021 NORTHWEST POWER PLAN
FOR A SECURE & AFFORDABLE ENERGY FUTURE

Draft plan: Population, Transportation Electrification and Renewable Hydrogen substantially increase demands

More Results

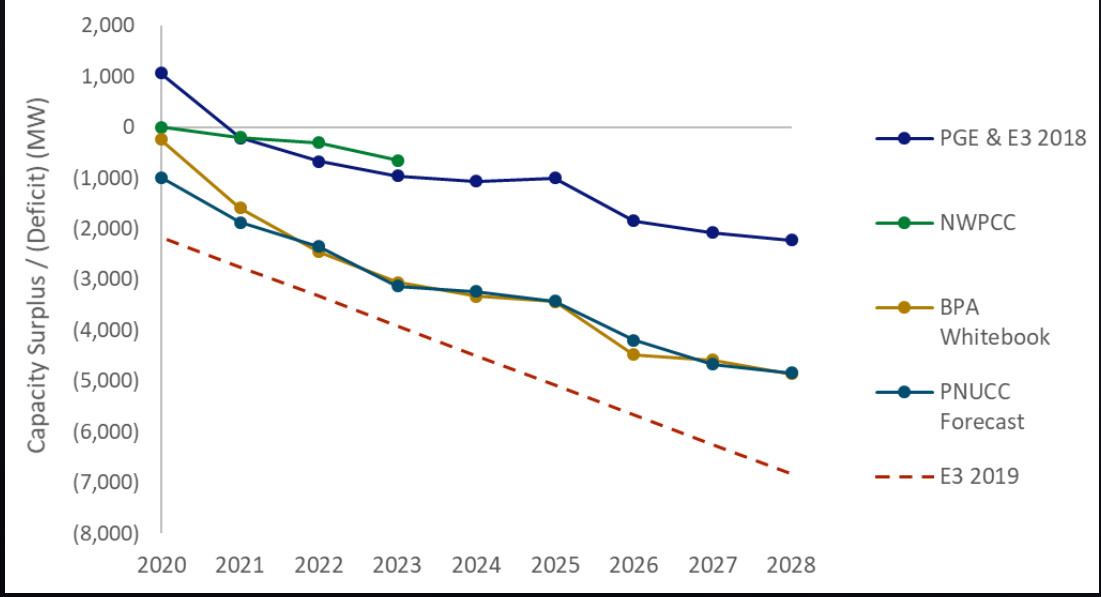




- Reliability is the NWPP focus

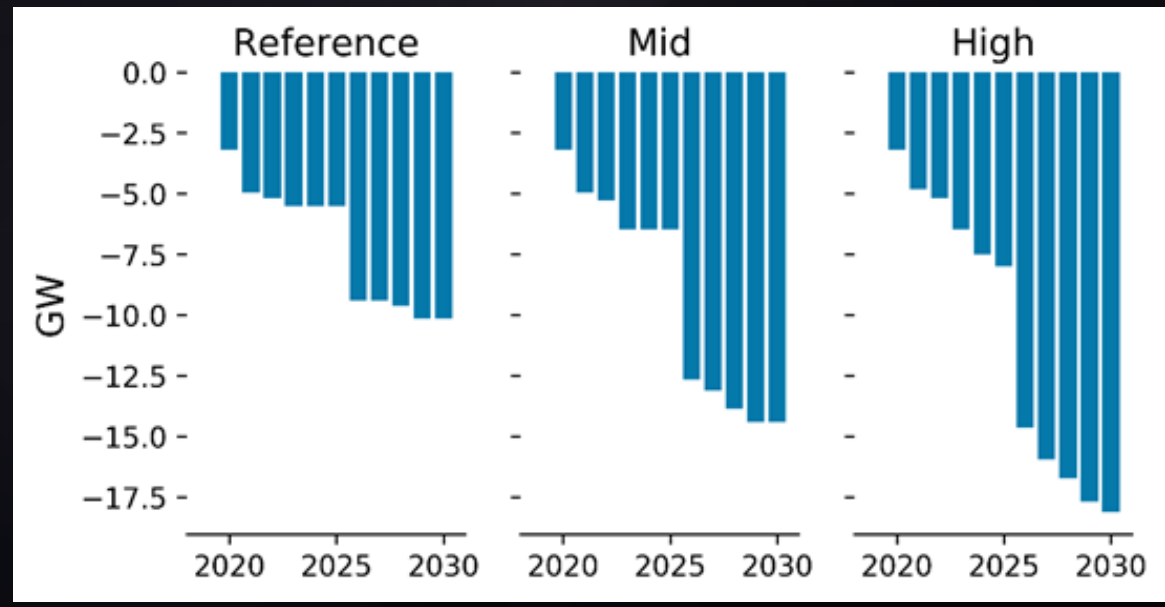
MULTIPLE STUDIES AGREE THAT THE NW IS APPROACHING A PERIOD OF CAPACITY SHORTFALLS

NW Capacity Surplus / Deficit in Recent Studies



Note: WECC also publishes a resource adequacy assessment, but it focuses only on summer, whereas resource adequacy is primarily a winter issue for the Northwest

US WECC Coal Retirement Scenarios

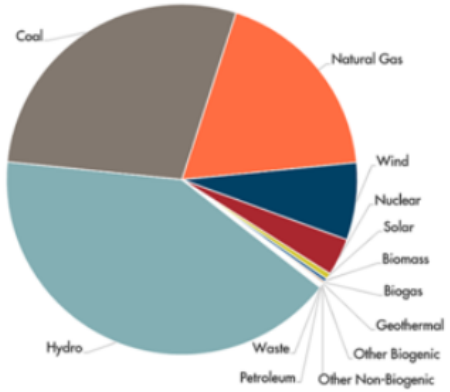


Note: Coal retirement scenarios developed by NWPP IRP Team. From research of announced and potential retirements from across the US WECC.

Where Does Oregon's Coastal Energy Fit into the Regional Energy Discussion?

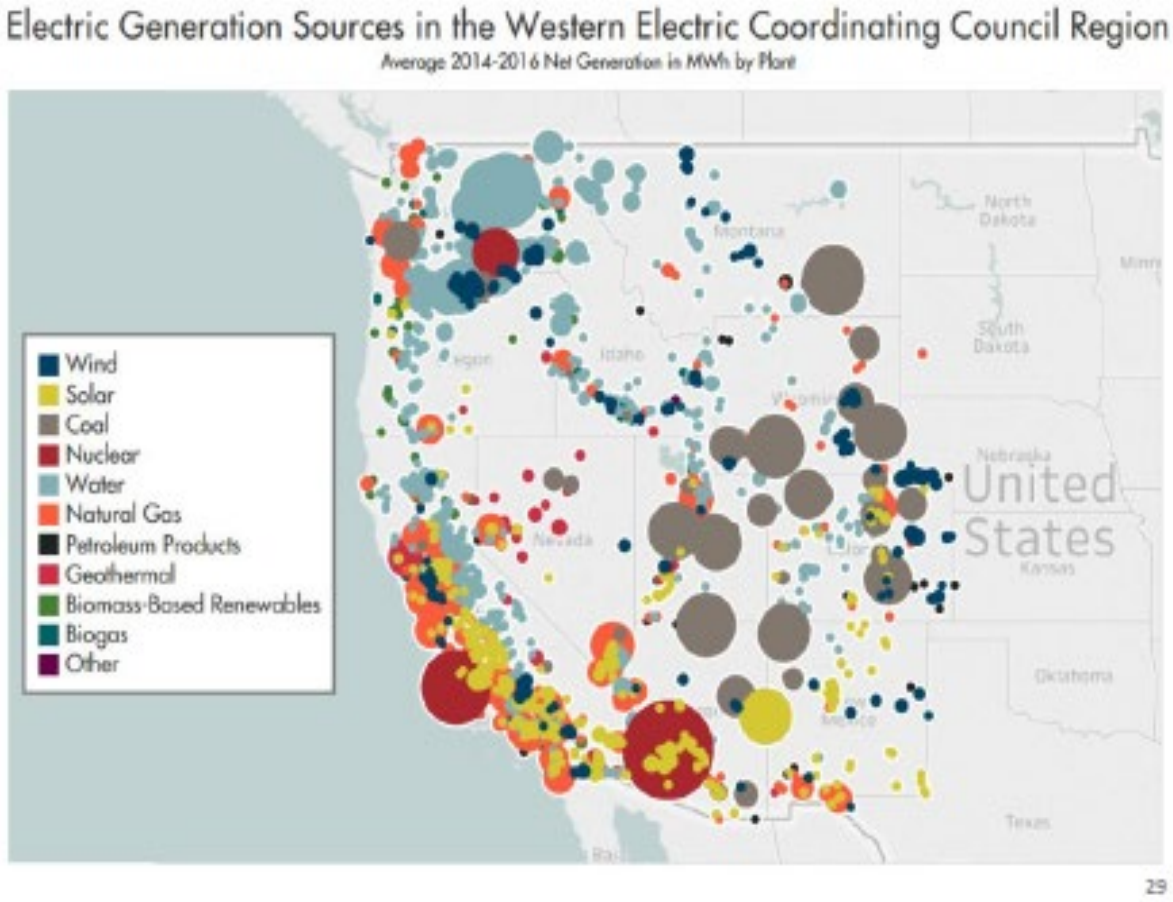
Oregon is an Energy Importer

Electricity



41.1% Hydropower
28.4% Coal
18.5% Natural Gas
7.1% Wind
3.4% Nuclear
.54% Solar
.33% Biomass
.16% Biogas
.12% Geothermal

Where Oregon's Electricity Comes From



OREGON DEPARTMENT OF ENERGY

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almost half of which is from non-renewable generation capacity

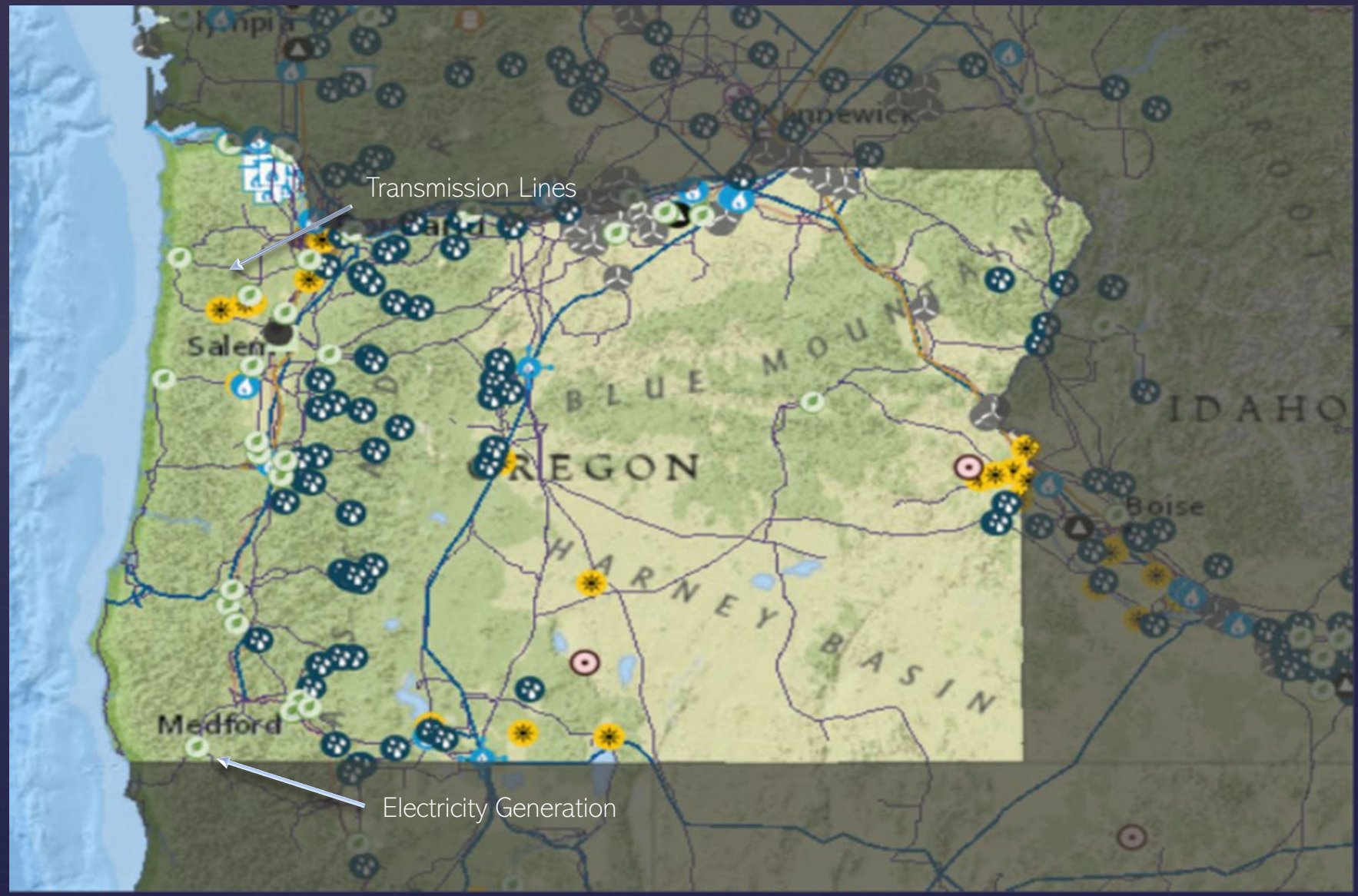
Oregon's Coastal Communities
rely on Imported Energy to meet our most basic needs

via

Constrained Transmission Lines

through

Catastrophe Prone Routes

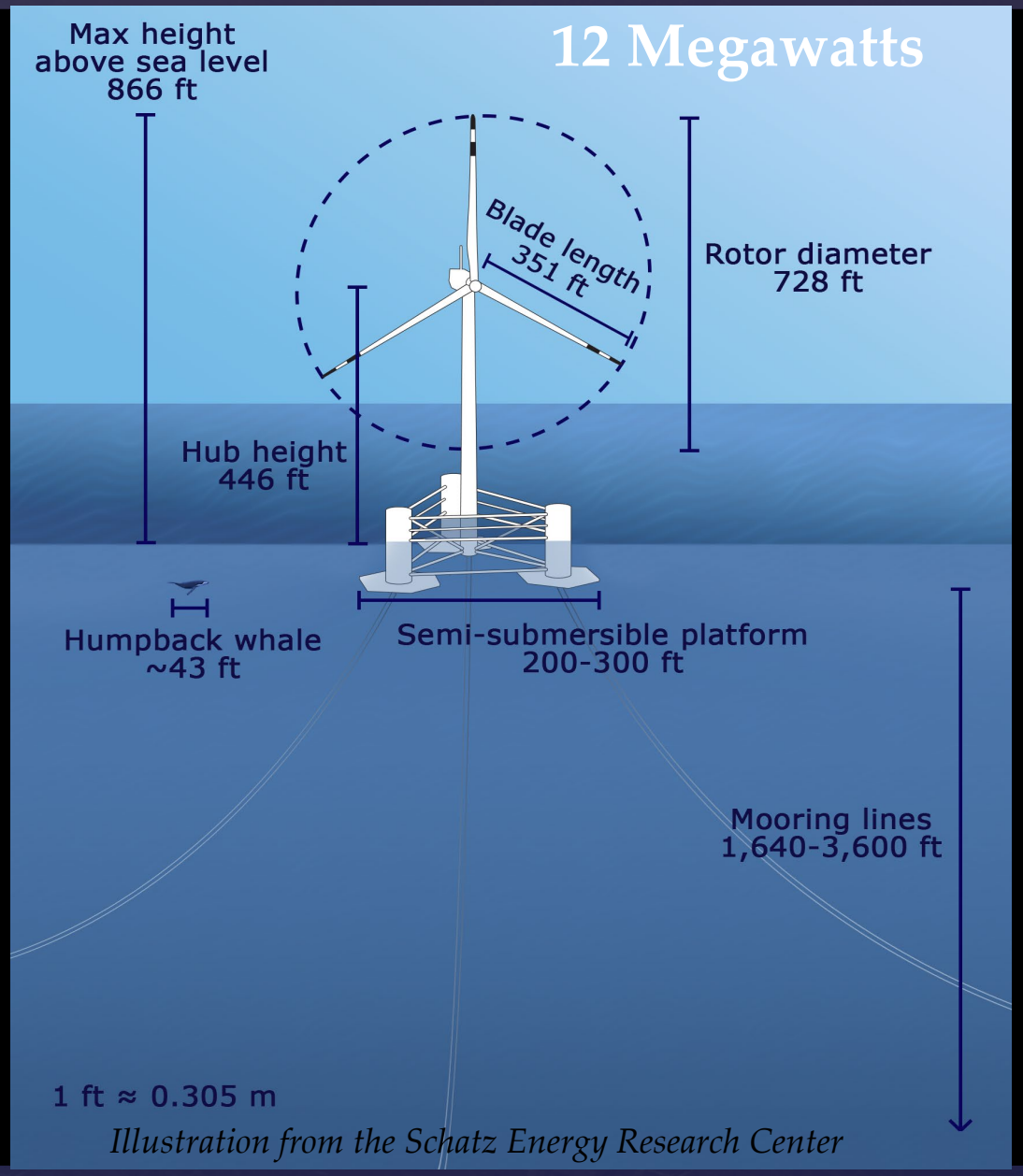


Oregon Coastal Communities are Being Hit First and Hardest by Climate Change

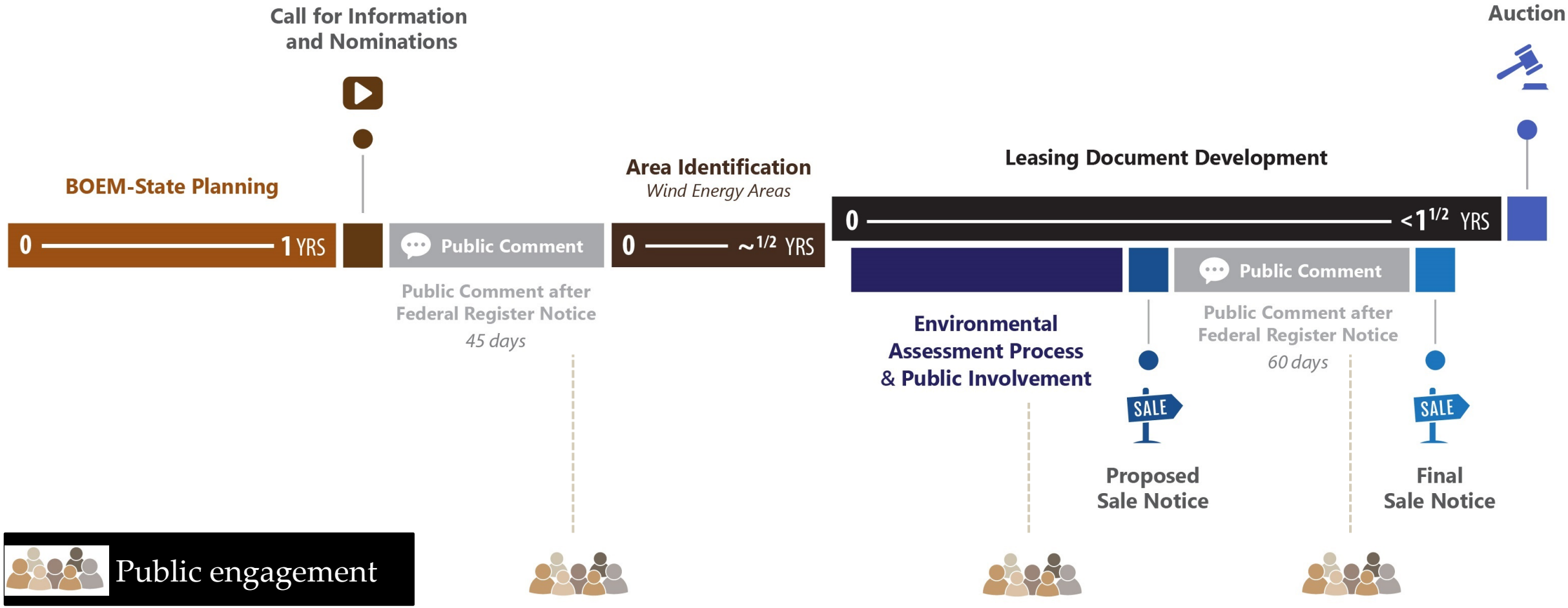
Oregon's Coastal Communities will be without energy for 3-6 months
(or longer if the I-5 Corridor populations are heavily impacted) after a Cascadia 9.0 event

BOEM's Oregon Task Force is identifying Wind Energy Areas, potentially suitable for Floating Offshore Wind (FOW) Turbine deployment.

FOW can operate deep waters and be located to minimize conflicts with shipping, fishing & viewsheds.



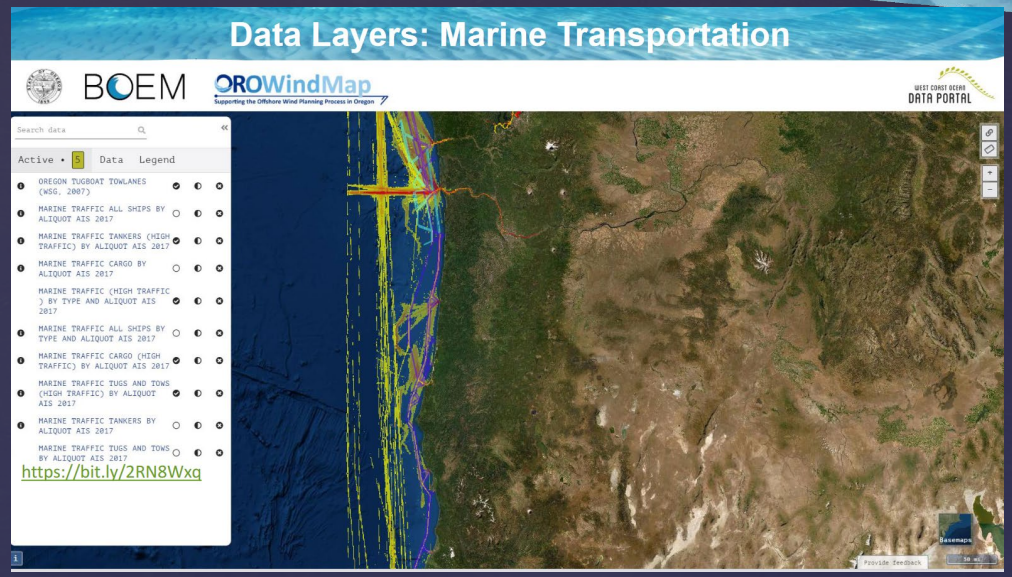
Oregon Planning and Public Input Opportunities Prior to a Lease Auction



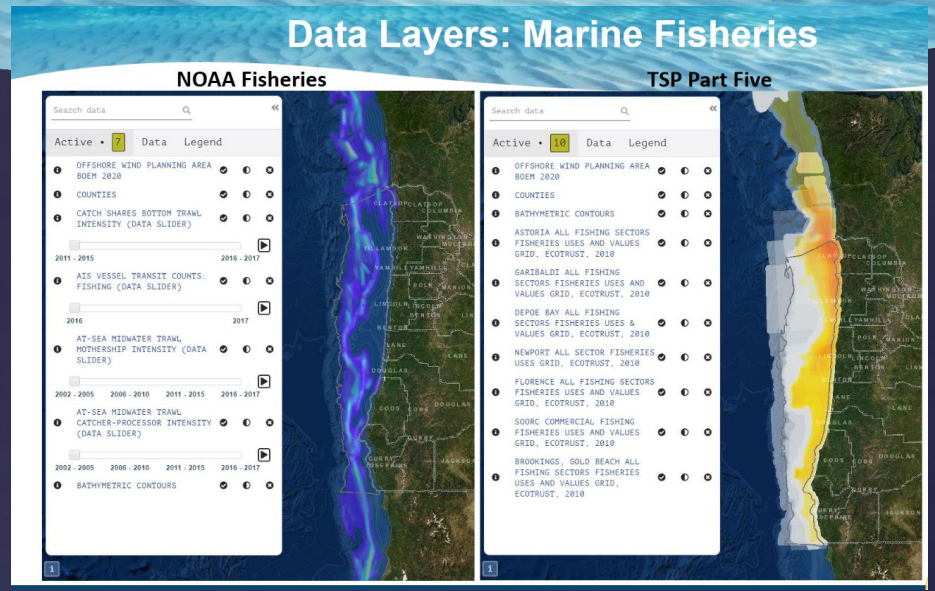
*A lease provides the lessee the right to submit a Site Assessment Plan (SAP) and a Construction and Operations Plan (COP) for technical and environmental review and approval. A lease does not, by itself, authorize any activity within the leased area.

https://offshorewind.westcoastoceans.org

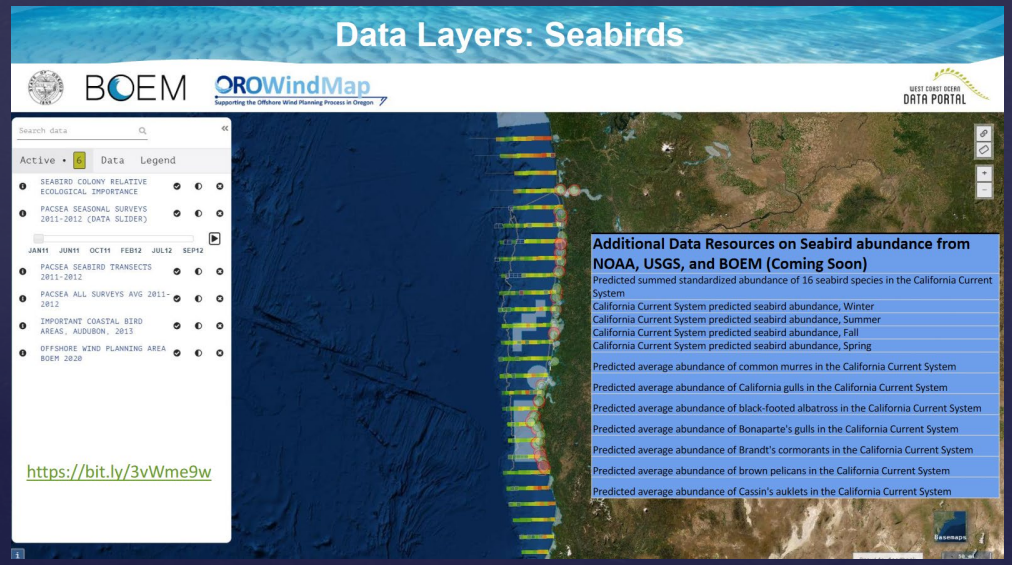
Data Layers: Marine Transportation



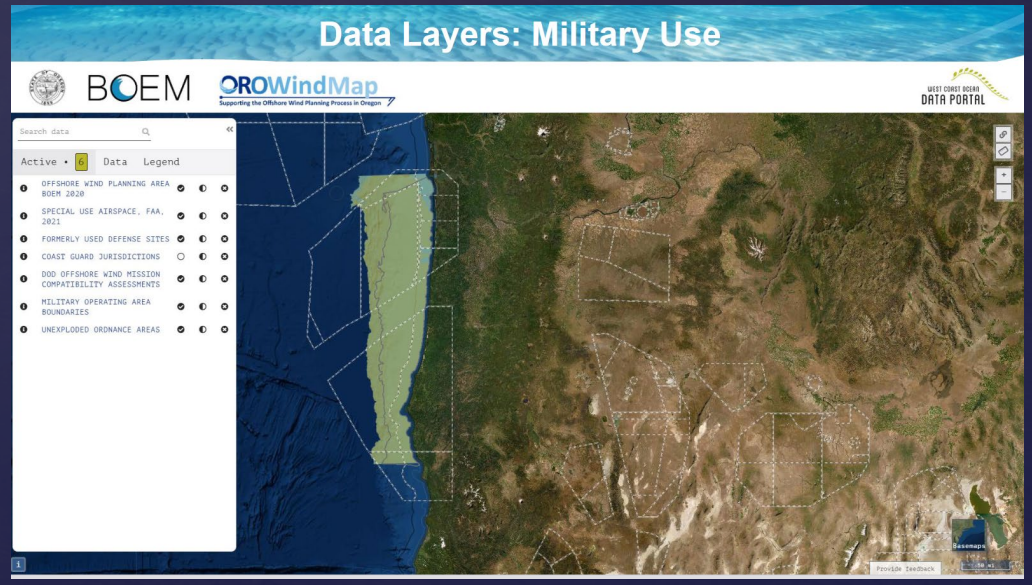
Data Layers: Marine Fisheries



Data Layers: Seabirds



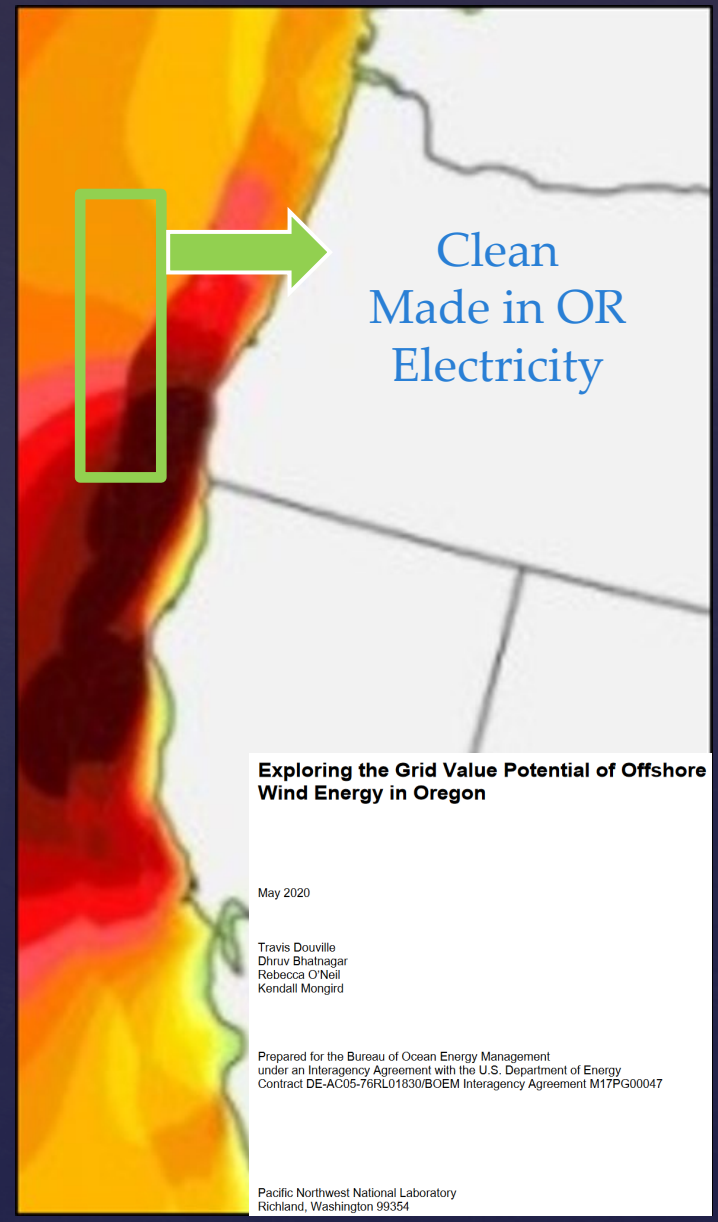
Data Layers: Military Use



Opportunity:
Oregon's Existing Transmission can Accommodate 2-3 GW of floating wind electricity

"Over 2 gigawatts of offshore wind can be carried by current transmission to strengthen coastal grids, allow for additional renewable energy integration from the east, and reduce power flows into Oregon without exporting significant power. "

https://www.boem.gov/sites/default/files/documents/regions/pacific-ocs-region/environmental-analysis/BOEM-2020-026.pdf



Exploring the Grid Value Potential of Offshore Wind Energy in Oregon

May 2020

Travis Douville
Dhruv Bhatnagar
Rebecca O'Neil
Kendall Mongird

Prepared for the Bureau of Ocean Energy Management
under an Interagency Agreement with the U.S. Department of Energy
Contract DE-AC05-76RL01830/BOEM Interagency Agreement M17PG00047

Pacific Northwest National Laboratory
Richland, Washington 99354

Opportunity:
Oregon's OSW resource offers complimentary contributions to Pacific Northwest Resource Adequacy

Pacific Northwest NATIONAL LABORATORY

Summary

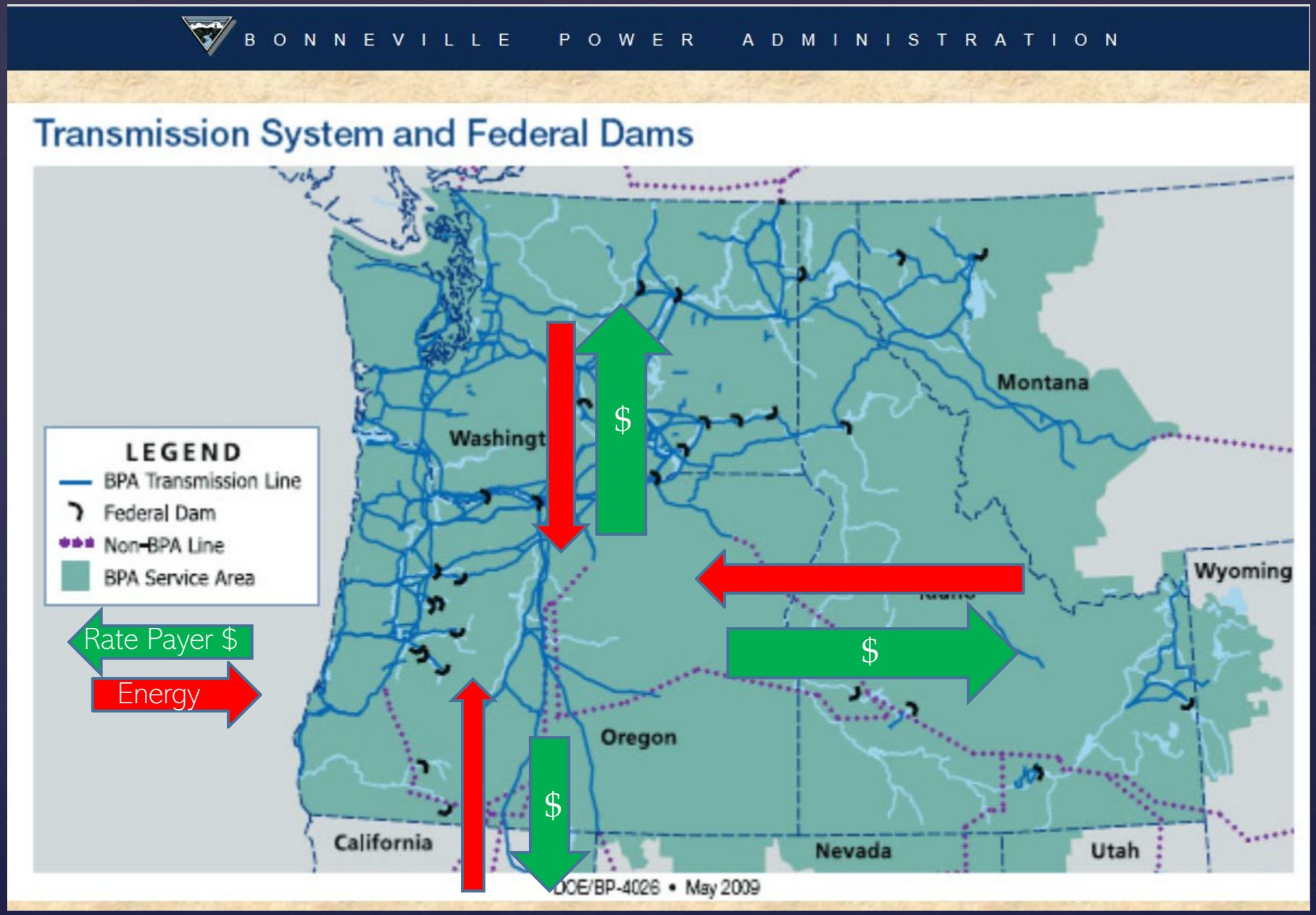
OSW complements regional clean energy sources

- Consistency of OSW speeds in late summer may benefit constrained hydropower
- OSW could help hydropower balance Gorge wind (and vice versa)
- OSW shows moderate complementarity with solar in winter when loads peak
- OSW indicates similar generation ramp rates to northwest "terrestrial" wind, smoother than WY wind

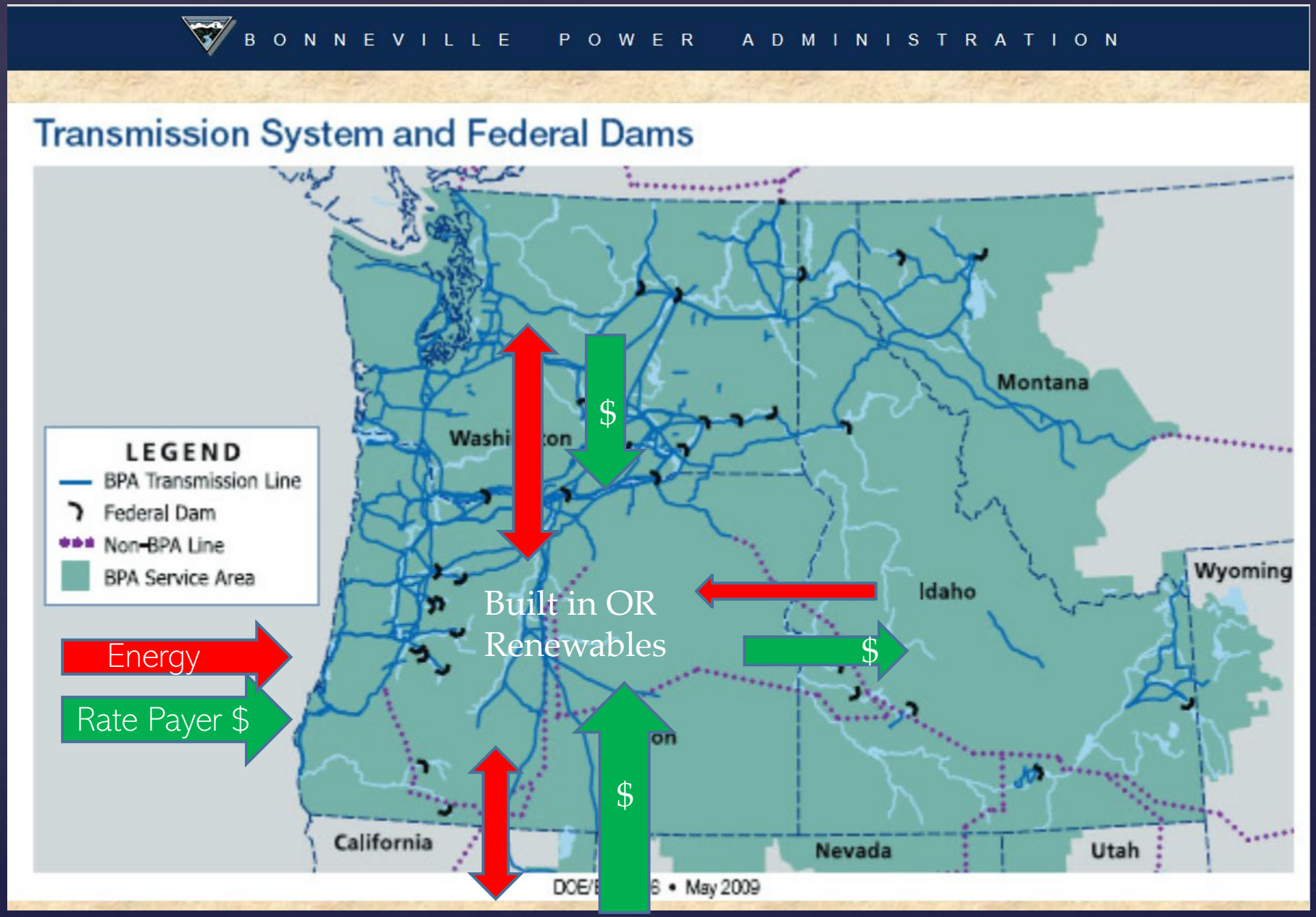
OSW naturally complements loads better than Northwest onshore wind

- Load complementarity is on par with solar in the winter, particularly for northern OSW locations
- Modest complementarity in the spring and summer
- OSW is largely uncorrelated with loads in the fall

Oregon in today's regional energy market:



Oregon's OSW opportunity for tomorrow's regional energy market:

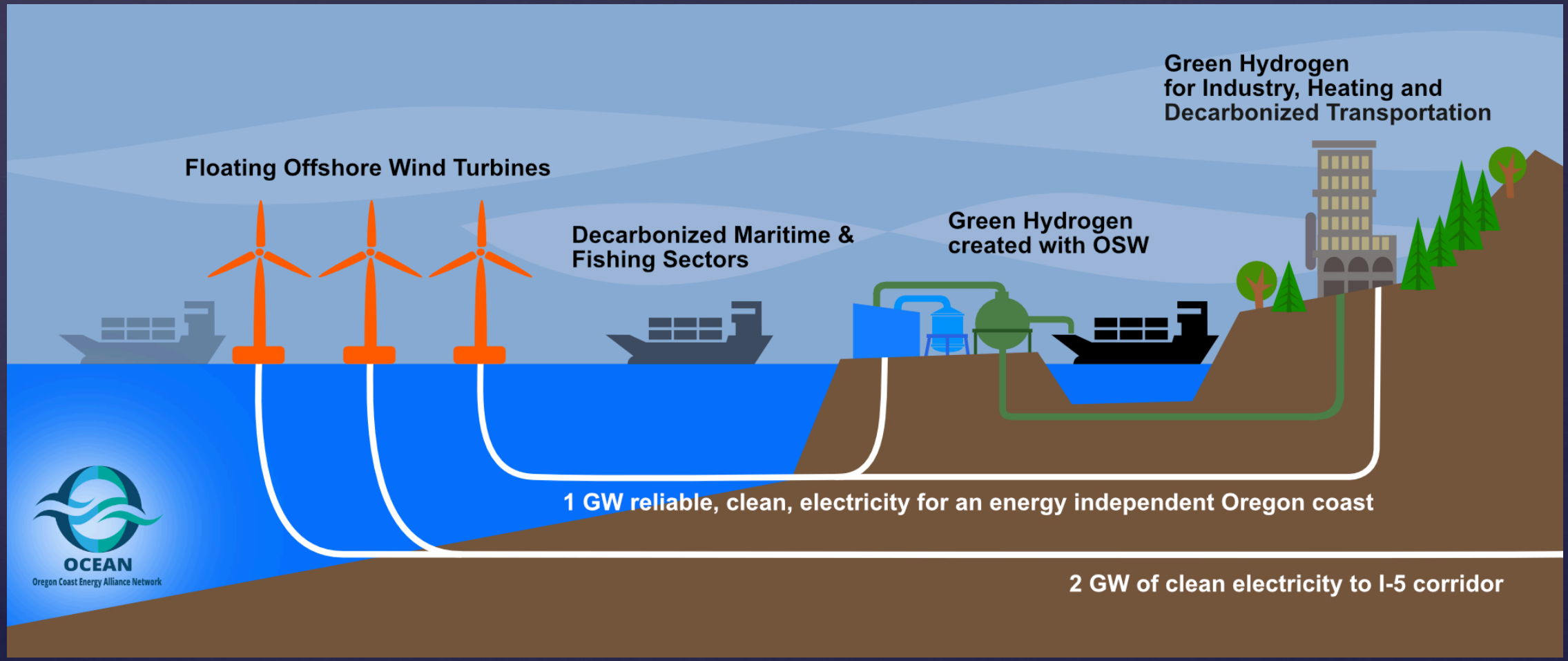


Opportunity:

Surplus Floating OSW, *when used to generate clean Renewable Hydrogen*,

supports the decarbonization of the transportation and maritime sectors and

poises Oregon for greater energy independence and clean economic diversity



Opportunity: Oregon Southern Ports are Poised to Contemplate Supply, Assembly and/or Service of Pacific Ocean OSW

Foreign-Trade Zone (FTZ)
Rural Renewal Energy Development Zones (RRED)

3 GW of OSW development would infuse $9 - $21 Billion Dollars into Oregon's economy

Potential Barriers to Oregon OSW Development:

Compatibility with other Beneficial Users:

Fishers

Shippers

Wildlife

Cultural

Long term High Voltage Deep Sea transmission to California market

State Legislation

- Passed: Regional Transmission Organization study bill
- Passed: Resource Adequacy Authority at OPUC
- Passed: Renewable Hydrogen study bill
- Passed: OSW planning bill
- Ways and Means: 100% Clean Energy

State Legislation

HB 2021 (Clean Energy)

In Revenue

Includes $50 Community Based Renewable Energy Fund –

Public Body or Federally Recognized Tribe

- Planning Grant, 100% up to $100k
- Construction Grant, 75% up to 20 MW
- Minimum 50% Priority Funding for Energy Resilience Projects – 100% up to $1M
- Development of Non Resilience Projects 50% up to $1M
- Environmental Justice Task Force ORS 182.538 determination of involvement by EJ Communities

OCEAN is Advocating for Build in State Requirements – *heavily influenced by the OSW opportunity*

https://olis.oregonlegislature.gov/liz/2021R1/Downloads/ProposedAmendment/20705

HB 3375

HB 3375 establishes a "goal of this state to plan for the development of up to 3 GW of floating offshore wind energy projects within the federal waters off the Oregon coast by 2030…in a manner that will maximize benefits to this state while minimizing conflicts between floating offshore wind energy, the ocean ecosystem and ocean users."

The bill directs Oregon's Department of Energy to:

1. Conduct a literature review on the benefits and challenges of integrating up to 3 GW of offshore wind into Oregon's electric grid by 2030.
2. Consult with other state, regional and national entities to gather input on the effects, including benefits and challenges, of integrating up to 3 GW of offshore wind on reliability, state renewable energy goals, jobs, equity, and resilience.
3. Hold public meetings with interested stakeholders to provide summary findings and to gather feedback on the benefits and challenges of integrating up to 3GW of offshore wind.
4. Provide a summary of key findings, including opportunities for future study and engagement, to Oregon's Legislative Body by September 2022.

Passed Unanimous House Floor 4/27/21: Carried by Smith DB. 56 – 0 – 4
Passed Senate Floor 6/10/21: Carried by Dembrow. 22 – 8 – 0

Broad Spectrum of Stakeholder Support for Proactive State Planning for up to 3 GW of OSW by 2030

Pursuing OCEAN's Vision of

CoExistence by Design

Through early stakeholder project design integration in the OSW sector.

Xodus Group