



Roundtable Offshore Wind Energy Roadmap

February 20th - 21st 2025



OCMP

Oregon Coastal
Management Program

Questions? Public Comment?

At any time (during a meeting or in between) submit a question or public comment:

→ **QR Code**

→ Or via our Google Form:

<https://forms.gle/MgI4vhn4VYa8YEwYA>

→ Or email:

dlcd.OSVRoadmap@DLCD.oregon.gov



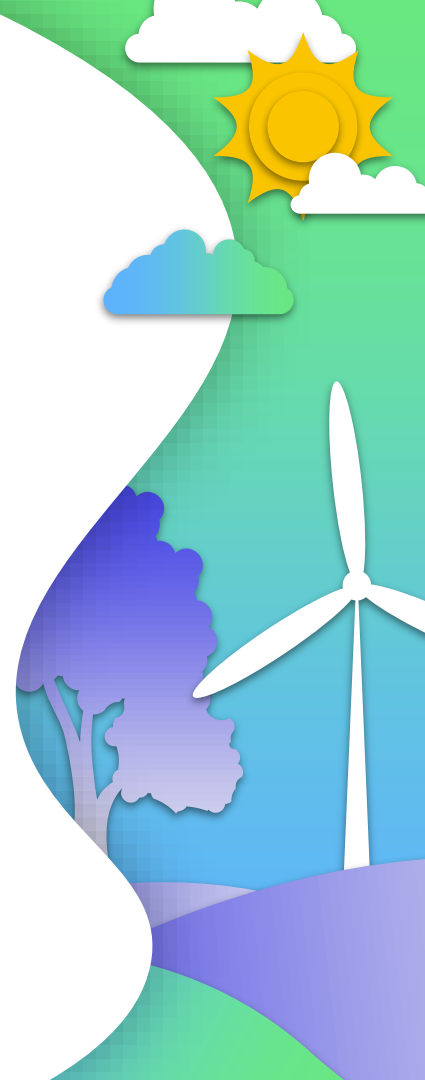
Welcoming and Agenda Overview

01 Roadmap schedule
and process
updates

02 Effects, Policies,
and Gaps recap

03 Visual Effects &
Policy
Considerations
Recap

04 Public Comment
Part 1



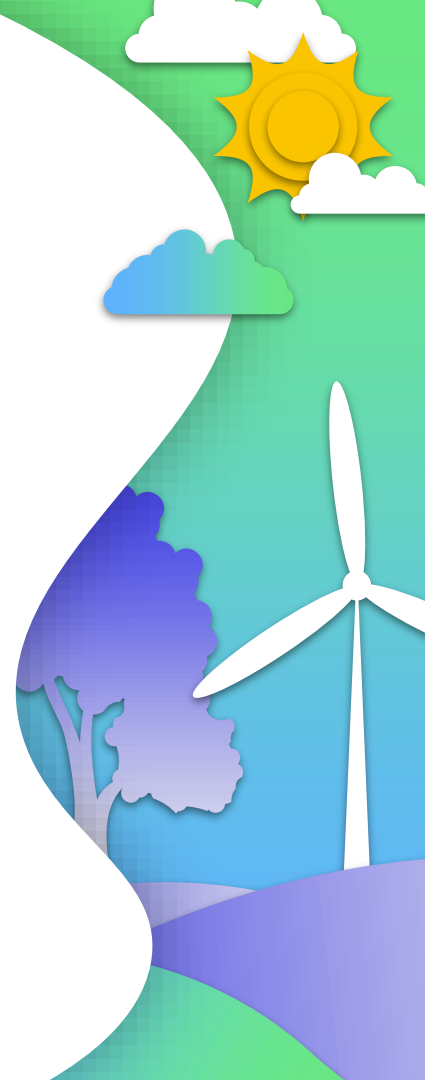
Welcoming and Agenda Overview

05 Workgroups: Gaps
in Enforceable
Policies

06 Workgroups
Reporting out

07 Workgroups:
Engagement
Expectations

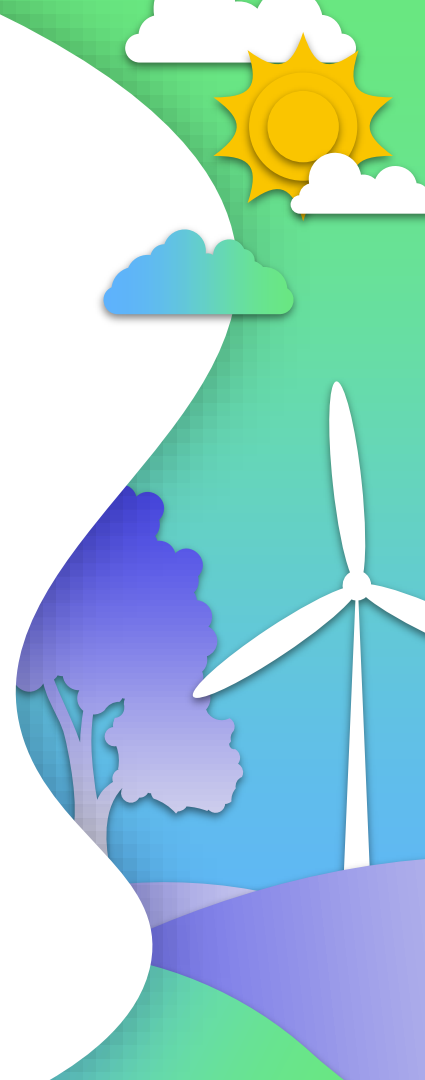
08 Workgroups
Reporting out



Welcoming and Agenda Overview

09 Public Comment
Part 2

10 Wrap-Up and
Reflections





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Management Program

Offshore Wind Energy Roadmap:

Looking for Policy Gaps

February 20-21, 2025



From Effects to Standards



Goals for this Topic

- Show where effects of interest connect to existing policies
- Understand where we need to focus attention on further research or possible Roadmap recommendations
- Connect back to the concept of how Oregon standards are considered in any future offshore wind development and approval processes.



Caveats to today's topic and the latest effects table

- Fast Turnaround
 - Agency and local government review of policies is still underway.
 - Some potential gap areas still in question
 - Iterative product subject to learning
- Legal review assistance of the staff policy identifications is needed
 - Seeking DOJ review for the next iteration
 - Opportunity to clarify questions
- Federal laws provide additional protections
- Purpose is to support conversation and find potential gap areas to investigate further



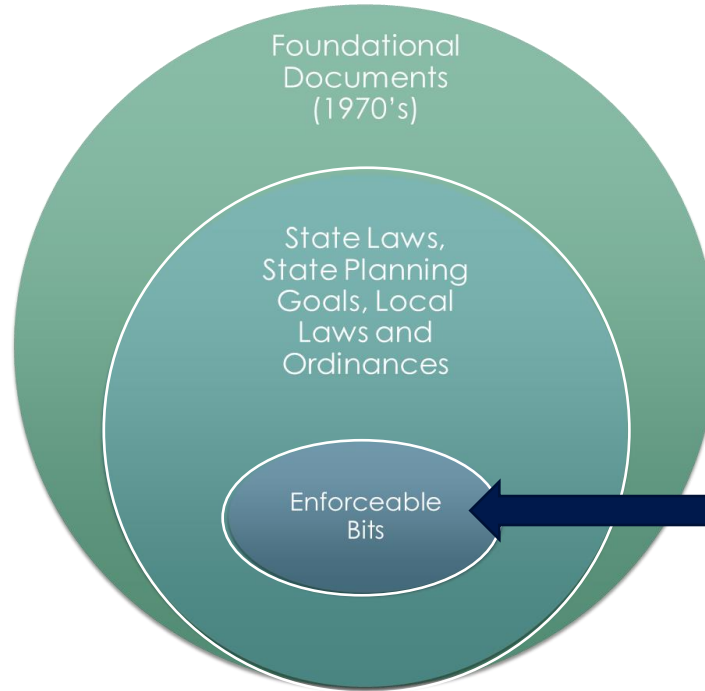
General comments on the Effects Table after our December meeting:

- This effects table is best served as a “policy gap” or “knowledge gap” identifier and a way to steer policy development and research agendas.
- This table is not helpful for identifying cumulative effects. Perhaps to help with this we could divide effects into geographic regions rather than categories like Soils/Water/Habitat. Cumulative effects could be identified in categories like “Near Shore/Estuary” / “0-3 Nautical Miles from Shore” / “3+ Nautical Miles from Shore” / etc.
- The energy market involves a fair amount of choice. If these effects lead to too stringent conditions for offshore wind developers, the energy market as a whole will shift to California off-shore wind and/or current fossil fuels or hydroelectric markets.
- The human effects table can serve as a balance to the environmental effects. Meaning, positive economic impacts (jobs, CBAs) balance negative impacts to water quality, habitat, etc.
- It was suggested to add a column for “Temporal Scale” for each effect. “As with identifying the enforceable policy, identifying when the effect needs to be addressed assists in the prioritization of concerns. For example: viewsheds are addressed in planning / water quality impacts are assessed throughout planning to operations / etc.”



Consistency Reviews Rely on ‘Enforceable Policies’

- Not all statute sections are enforceable policies
- Not all local codes are enforceable policies.



Must be approved by NOAA to be used in consistency review

For a full list of Oregon's Enforceable Policies, visit:



Enforceable Policies

Enforceable Policies shall:

1. Be legally binding
2. Contain clear and sufficient standards
3. Not already be federally preempted
4. Not regulate federal agencies, lands, or waters
5. Not discriminate against a particular user or agency.
6. Not hinder the national interest or CZMA objectives
7. Not incorporate other policies or requirements by reference.



Oregon's Enforceable Policies

State Policy

Statewide Land Use Planning Goals

Forest Lands

Natural Hazards

Coastal Shorelands

Ocean Resources

Estuarine Resources

Beaches & Dunes

Natural Resources,
Scenic & Historic
Areas

Oregon Administrative Rules

Land Conservation & Development

Water Quality
Standards

Wildlife

Other

Geographic Location
Description: Offshore
Renewable Energy

Territorial Sea Plan,
Parts 2-5

Oregon Revised Statutes

Dredge & Fill

Fish, Wildlife,
& Plants

Air & Water

Oil, Gas, & Mining

Development

Energy

Ocean & Wetlands

Waste Systems

Local Policy

County Policies

Comprehensive Plans

Land Use Regulations

Estuary Management Plans

City Policies

Comprehensive Plans

Zoning Ordinances

Estuary Management Plans

Key Enforceable Policies

Statewide Planning Goals

- 1: Citizen Involvement
- 5: Natural Resources, Scenic and Historic Areas, and Open Spaces
- 6: Air, Water, and Land Resources Quality
- 7: Natural Hazards
- 16: Estuarine Resources
- 17: Coastal Shorelands
- 18: Beaches and Dunes
- 19: Ocean Resources

Local Govt Plans and Codes

Territorial Sea Plan

Oregon Administrative Rules

- OAR 141-125: Authorizing Special Uses, State Lands
- OAR 141-140: Placement of Ocean Energy
- OAR 141-142: Marine Reserves and Protected Areas
- OAR 340-141: Oil Spills
- OAR 340-143: Ballast Water Management
- OAR 635-012: Fish Passage Criteria and Mitigation
- OAR 635-100: Threatened or Endangered Species
- OAR 635-415: Fish and Wildlife Habitat Mitigation
- OAR 736-020: Ocean Shore Permit Standards

Oregon Revised Statutes

- ORS 196: Removal-Fill & Ocean Resources
- ORS 273: State Lands Generally
- ORS 274: Submersible and Submerged Lands
- ORS 358: Archaeological Objects and Sites
- ORS 390: OPRD Ocean Shores
- ORS 465: Hazardous Waste and Materials
- ORS 468A: Air Quality
- ORS 468B: Water Quality
- ORS 496: Wildlife Policy
- ORS 506: Commercial Fishing and Fisheries
- ORS 509: Additional Fishery Requirements
- ORS 757.963-966 (2021): Wildfire Protection Plans for Utilities
- ORS 783: Ballast Water



Regulatory Summary Chart for Offshore Wind

Authority	Agency	Project	Process and Timeline	Decision Type	Appeal
Federal Regulatory	BOEM	Construction & Operations Plan	EIS: Draft – Final – Supplemental	Approval to Develop	Federal District Court
	US Army Corps	§ 404 (CWA) § 10 (RHA)	Joint Permit Application	Permit Permit	
Federal Consult	NMFS	Magnuson Stevens & MMPA		Biological Opinion	N/A
	USFWS	ESA Consultation		Biological Opinion	N/A
State/Fed Delegated Authority	DEQ	§ 401 CWA Beneficial Use	30-day notice 1 Yr. Decision	§ 401 Certification	Circuit Court
	DLCD/OCMP	Consistency Certification + NDI	30-day notice 6 Months Decision	Federal Consistency	Sec. of Commerce
State Agency Regulatory Authority	DSL	Removal-Fill	20-45 day Notice	Permit	State Land Board
		Proprietary Lease		Lease	State Land Board
	OPRD	Ocean Shore	60 days unless appealed	Permit	OPRC
State Consult	ODFW			Consultation	N/A
	ODOE			Consultation	N/A
Local	City or County	Permit (Conditional Use)	Findings	Land Use	Land Use Board of Appeals

Tribal Cultural and Archeological Gaps:

Survey Feedback

- Gaps in policies protecting tribal cultural sites and viewsheds:
 - There is limited policy language addressing offshore wind's impact on culturally significant viewsheds.
 - There is uncertainty about whether existing protections apply to offshore wind transmission lines and related infrastructure.
- Need for stronger tribal engagement and inclusion in planning:
 - Offshore wind planning should involve both in-state and out-of-state tribes with treaty rights or cultural ties to Oregon's coastal areas.
 - There is no structured process ensuring tribal concerns are addressed at all decision-making levels.
 - Tribes will need to have a leadership role whenever there are tradeoffs to be made



Environmental Effects:

Survey Feedback

- Goal 19 does not cover renewable energy impacts.
 - TSP Part 4 does not expressly consider offshore wind compared to wave energy
- Seabirds and migratory species are not explicitly protected. And maybe not benthic habitats.
 - Oregon's biodiversity policies do not cover birds that forage in state waters but migrate from elsewhere.



Environmental Effects: Survey Feedback

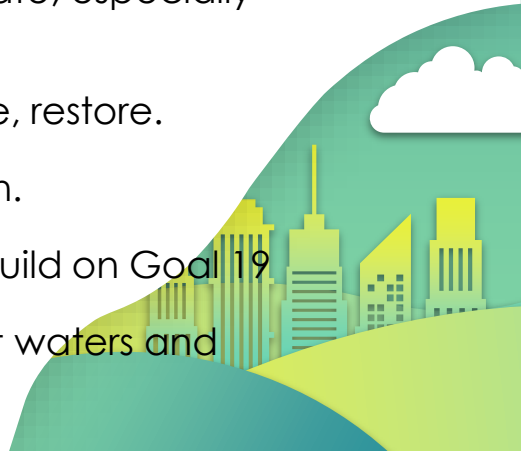
- No adaptive management or mitigation requirements.
 - There are no enforceable policies ensuring continuous monitoring and response to new environmental data.
 - Existing enforceable policies are vague
 - Include protections for habitat connectivity/ecosystem integrity
 - OAR 635-415 related to habitat loss mitigation seems inadequate, especially for seabirds

CA Pub Res Code 30230 includes maintain, enhance, and where feasible, restore.

NJ Admin Code 7:7-9.6(a) lists specific resources or habitats for protection.

WA Rev Code 43.143.030 creates use-based standards that could help build on Goal 19

NC 15A N.C. Admin Code 7M.0403 has siting criteria for use of public trust waters and adjacent lands could have provisions for environmental effects



Environmental Effects:

Survey Feedback

- No clear policies for transmission line siting.
 - Goals 17 & 18 protect shorelines but do not specifically regulate offshore wind cables.
- Goal 16 does not mention increased shipping and associated air pollution



Social, Economic and Community Effects:

Survey Feedback

- Lack of policy ensuring local economic benefits:
 - Local and regional economies/workers benefit from offshore wind development.
 - Goal 9 (economic development) is not enforceable in this context.
 - Maybe include requirements similar to HB 3382 rulemaking that require proof of funding and breakdown of job #s/economic plans?
- Short-term nature of job creation:
 - Most jobs from offshore wind projects are temporary (construction phase), with no clear plan for long-term employment in local communities.
 - There are no clear policies addressing workforce transitions after construction ends.
- Unclear funding and economic sustainability measures:
 - There are no enforceable policies ensuring financial stability for local communities affected by offshore wind development.



**Offshore Wind Energy
Policy Assessment
(in progress)**

LOCAL

Local Communities

November 2024 – February 2025

- **Columbia County**
- **Clatsop County** and Cities of Astoria, Cannon Beach, Gearhart, Seaside, Warrenton
- **Tillamook County** and Cities of Bay City, Garibaldi, Manzanita, Rockaway Beach, Tillamook
- **Lincoln County** and Cities of Lincoln City, Newport, Toledo, Waldport, Yachats
- **Lane County** and City of Florence
- **Douglas County** and City of Reedsport
- **Coos County** and Cities of Coos Bay, North Bend, Bandon

April 2025

- **Curry County** and Cities of Brookings, Gold Beach



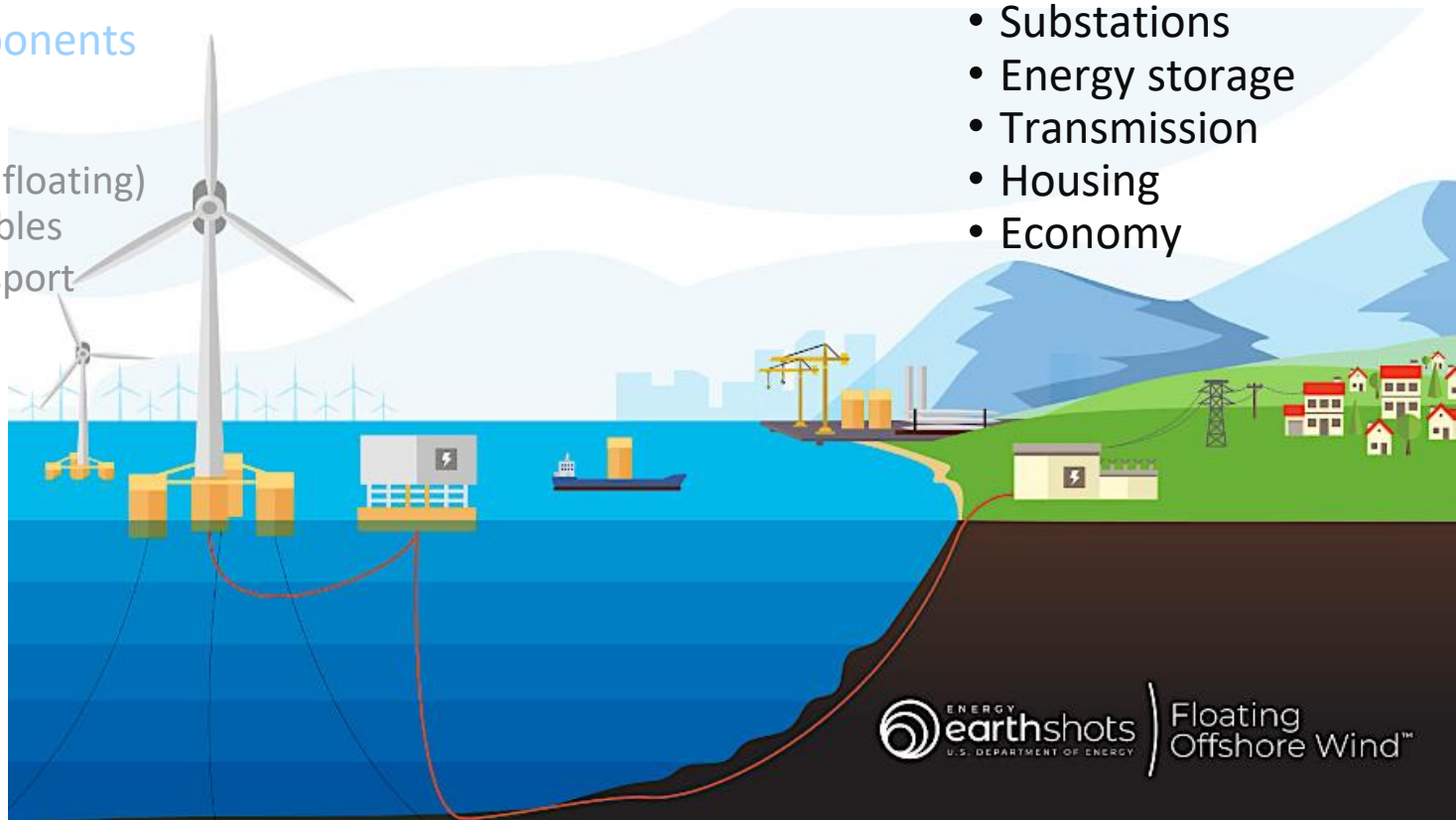
Effects to Coastal Uses or Resources

Offshore Components

- Turbines
- Moorings
- Substations (floating)
- Undersea cables
- Marine transport

Onshore Components

- Port Development
- Cable Landing
- Substations
- Energy storage
- Transmission
- Housing
- Economy



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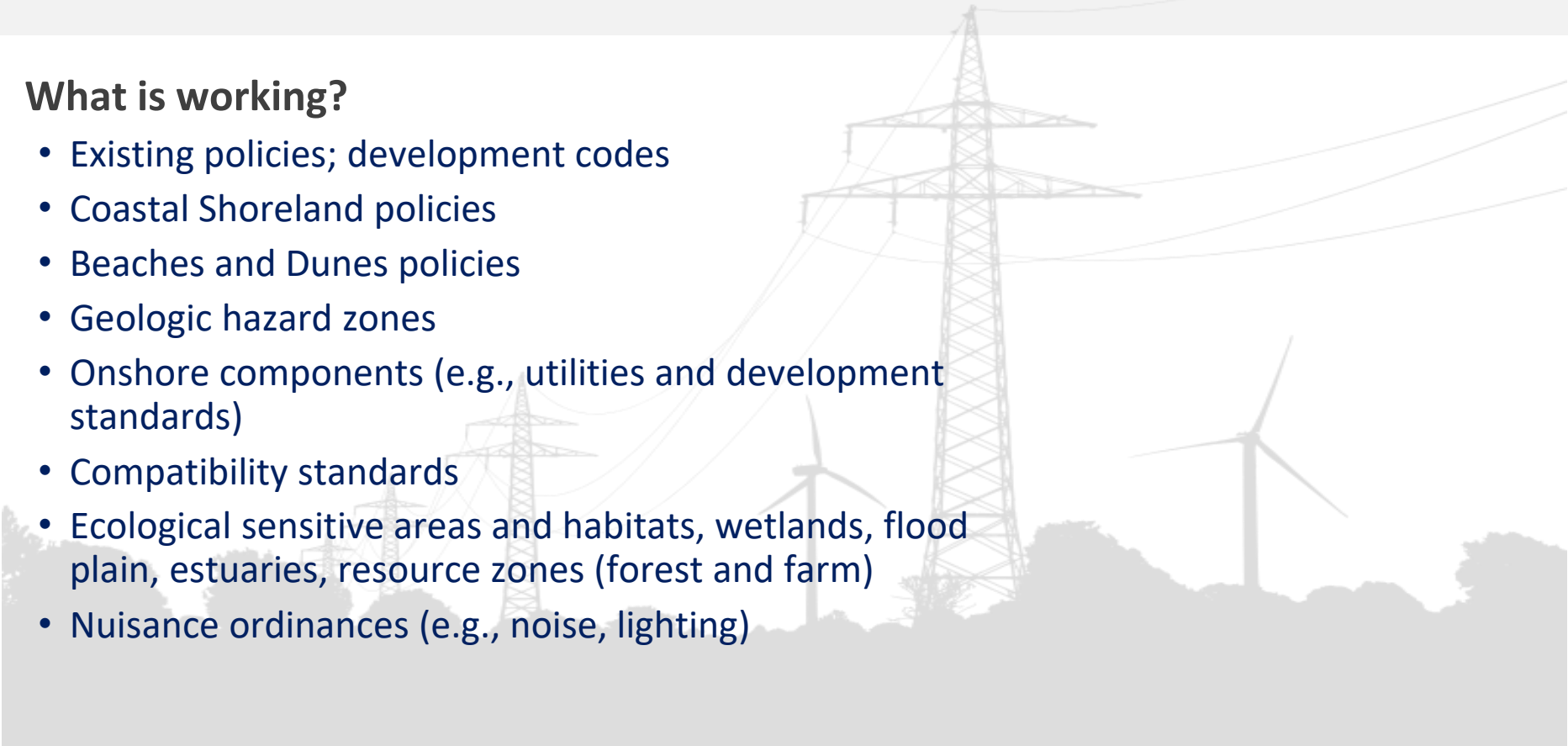
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“Stuff That Works”

What is working?

- Existing policies; development codes
- Coastal Shoreland policies
- Beaches and Dunes policies
- Geologic hazard zones
- Onshore components (e.g., utilities and development standards)
- Compatibility standards
- Ecological sensitive areas and habitats, wetlands, flood plain, estuaries, resource zones (forest and farm)
- Nuisance ordinances (e.g., noise, lighting)



Potential Gaps

- Comprehensive Plan policies need updating
- Estuary policies should be checked against meeting EP standards (mandatory language)
- Cable landing provisions lacking in some areas
- Battery energy storage (grid-scale) terminology
- Hazard response plans and debris disposal
- Decommissioning and waste (all phases)
- Economic development policies
- Workforce housing and infrastructure policies

Other Comments

What else?

- Community education and outreach
- Desire for new industry and other economic development (mostly)
 - Responsible development with community engagement
 - Ocean view sensitivity
 - Workforce housing and infrastructure
 - Land availability
 - Community benefit agreements
 - Preserve local review
- Power resiliency
- Fire dangers with onshore components
- Prioritize cable landing locations (also separate or collocate)
- Technical resources, model codes or policy recommendations

**Offshore Wind Energy
Policy Assessment
(in progress)**

STATE

State Agencies

Department of Agriculture

Department of Aviation

Department of Energy

Department of Environmental Quality

Department of Fish and Wildlife

Department of Forestry

Department of Geology and Mineral Industries

Department of Land Conservation and Development

Department of State Lands

Parks and Recreation Department

State Marine Board

Public Utility Commission



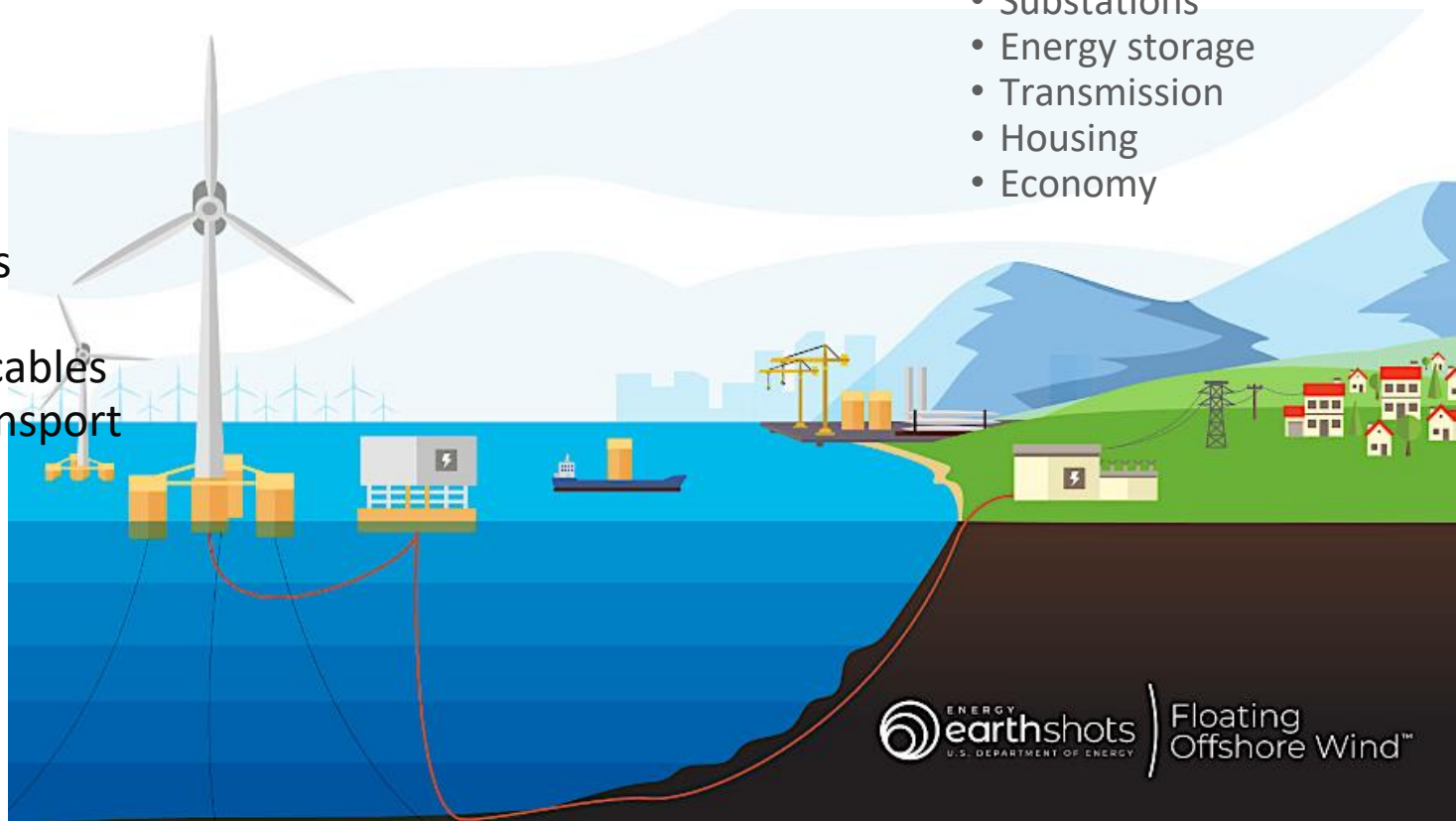
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Goal 19 Ocean Resources

“conserve marine resources and ecological functions for the purpose of providing long-term ecological, economic, and social values and benefits and to give higher priority to the protection of renewable marine resources--i.e., living marine organisms--than to the development of non-renewable ocean resources.”

http://www.lcd.state.or.us/LCD/goals.shtml#Statewide_Planning_Goals



Goal 19 Implementation

State and federal agencies shall carry out actions that are reasonably likely to affect ocean resources and uses of the Oregon territorial sea in such a manner as to:

- a. maintain and, where appropriate, restore the long-term benefits derived from renewable marine resources;
- b. protect:
 - 1. renewable marine resources— i.e., living marine organisms—from adverse effects of development of non-renewable resources, uses of the ocean floor, or other actions;
 - 2. the biological diversity of marine life and the functional integrity of the marine ecosystem;
 - 3. important marine habitat, including estuarine habitat, which are areas and associated biologic communities that are [see policy for full list];
 - 4. areas important to fisheries, which are: [see policy for full list]
- c. Agencies, through programs, approvals, and other actions, shall
 - 1. protect and encourage the beneficial uses of ocean resources— such as navigation, food production, recreation, aesthetic enjoyment, and uses of the seafloor—provided that such activities do not adversely affect the resources protected in subsection 1., above; avoid, to the extent possible, adverse effects on or operational conflicts with other ocean uses and activities; and
 - 2. comply with applicable requirements of the Oregon Territorial Sea Plan.



Goal 19 Info Needs

INFORMATION AND EFFECTS ASSESSMENT REQUIRED

Prior to taking an action that is likely to affect ocean resources or uses of Oregon's territorial sea, state and federal agencies shall assess the [reasonably foreseeable adverse effects of the action](#) as required in the Oregon Territorial Sea Plan. The effects assessment shall also address reasonably foreseeable adverse effects on Oregon's estuaries and shorelands as required by Statewide Planning Goal 16, Estuarine Resources; Goal 17, Coastal Shorelands; and Goal 18, Beaches and Dunes.



ORS 496.012 – Wildlife Policy

ORS 506.109 – Food Fish Management Policy

“Wildlife shall be managed to prevent serious depletion of any indigenous species and to provide the optimum recreational and aesthetic benefits for present and future generations of the citizens of this state. .”

“Food fish shall be managed to provide the optimum economic, commercial, recreational and aesthetic benefits for present and future generations of the citizens of this state.”



Territorial Sea Plan Part Five

Ecological Resource Protection Standards

- TSP Part 5, Policy B.4.g. Special Resources and Use Review Standards. 3) Ecological Resources Protection Standard. The state shall protect living marine organisms, the biological diversity of marine life, the functional integrity of the marine ecosystem, important marine habitat and associated biological communities by using the following ecological resource protection standards to evaluate marine renewable energy project proposals.
- [in specified areas]: Renewable energy facilities shall have no significant adverse effect on ecological resources of concern.
- Definition of Significant Adverse Effect: degradation in ecosystem function and integrity (including but not limited to direct habitat damage, burial of habitat, habitat erosion, reduction in biological diversity) or degradation of living marine organisms (including but not limited to abundance, individual growth, density, species diversity, species behavior)



Part Five - Cumulative and Adaptive

Cumulative Effects. Evaluate the cumulative effects of a project, including the shoreland component, in conjunction with effects of any prior phases of the project, past projects, other current projects, and probable future projects.¹³ The evaluation shall analyze the biological, ecological, physical, and socioeconomic effects of the renewable energy facility development and of other renewable energy facility projects along the Oregon coast, while also taking into account the effects of existing and future human activities and the regional effects of global climate change.

Adaptive Management Plan. An adaptive management plan to provide a mechanism for incorporating new findings and new technologies into the operation and management of the project. The adaptive management plan shall include performance standards that are based on results of the resource inventory and effects evaluation and incorporated in the study design of the monitoring plan as described in paragraph C.3.c (Monitoring Plan).



Part Five - Ocean Uses

Recreational Resources Standards. The state shall protect recreational resources as a beneficial use of the territorial sea. The standards for recreational resources shall be applied to all renewable energy facility projects throughout the territorial sea, unless otherwise provided by the plan. A determination of impact is based on the inventory of recreational uses contained in the map (Part Five, Appendix B).

Agreements: Applicants shall communicate with traditional ocean users and stakeholders with an interest in the area of the proposed project to address issues of concern. Applicants are encouraged to memorialize agreements with those ocean users and stakeholders on specific actions, including conducting the adaptive management and monitoring plan, that the applicant is required to perform.



Part Five - Ocean Uses

Fisheries Use Protection Standards. The regulating agencies shall protect areas important to fisheries using the following use protection standards to evaluate the impact an individual renewable energy facility would have on fisheries use.

- i. **Minimize the displacement of fishers** from traditional fishing areas, and the related impact on the travel distance and routing required to fish in alternative areas;
- ii. **Minimize the compaction of fishing effort** caused by the reduction in the areas normally accessible to fishers;
- iii. **Minimize the economic impact resulting from the reduction in area available** for commercial and recreational fishing for the affected sectors and ports.
- iv. **Mitigate possible hazards to navigation** and, provide practicable opportunities for vessel transit, at the project location.
- v. Limit the number and size of projects that are located in an area to **minimize the impact on a particular port or sector of the fishing industry**. Consider the distribution of projects and their cumulative effects based on the criteria listed in (i) through (iv).



Part Five - Operations, Decommissioning, Contingencies

Decommissioning Plan: An applicant shall provide a plan to restore the natural characteristics of the site to the extent practicable by describing the facilities to be removed . . .

Contingency Plan: A plan to describe how the facility operator will respond to emergencies caused by a structural or equipment failure due to human error, weather, geologic or other natural event. The plan shall include a description of the types of equipment, vessels and personnel that would be deployed, the chain of command or management structure for managing the facility repairs, recovery or other forms of remedial action, and the process and timeline for notification of state and federal authorities.

Project Operation Plan An operation plan is required that describes, at a minimum, information regarding the routine environmental monitoring, safety management and emergency response procedures, facility inspections, and the decommissioning of the project. The operation plan shall explain the procedures and mechanisms that will be employed so that the facility will comply with regulatory standards and other conditions of permit or license approval related to water and air quality, environmental protection and mitigation, facility maintenance and safety, operational failure and incident reporting. An operation plan shall include the following information



Territorial Sea Plan Part Four

An applicant for a project or development action within or affecting the Oregon Territorial Sea shall:

Design and site projects and infrastructure responsibly such that proposed seafloor development actions will maintain and protect to the maximum extent practicable, natural resources, ecosystem integrity, marine habitat, and areas important to fisheries, navigation, recreation, and aesthetic enjoyment from adverse effects that may be caused by said development actions. For purposes of this section, 'Maintain and protect' requires mitigation, in order of priority (Avoid, Minimize, Rectify, Reduce or eliminate over time, Compensate).



OAR 141-083

(DSL rules for cable easements)

Easements for cables shall be located so as to:

- (a) Protect the public trust values of commerce (including fiber optic and other cable transmissions), navigation, fishing, and recreation;
- (b) Conserve living marine and other seabed resources; and
- (c) Avoid or reduce conflicts with other ocean users and industries.
- (d) Comply with all applicable local, state, and federal laws including Statewide Planning Goal 19.



OAR 141-083

(DSL rules for cable easements)

All cables are to be buried using the best available proven technology whenever Territorial Sea bottom conditions permit to a sufficient depth to minimize conflicts with other ocean users and industries and recognizing the potential need to retrieve the cable for repair or removal.

If determined necessary by the Division in consultation with the easement holder and other interested parties, and if permitted by the applicable federal agency(ies) regulating the cable, the easement holder shall remove the cable from the state-owned submerged and submersible land within one (1) year following the termination of use of the cable or expiration of the easement.

Easement holders shall inspect cables to ensure that they remain both within the area authorized by the easement and buried.



ORS 390 – OPRD, Ocean Shores

390.235: A person may not excavate or alter an archaeological site on public lands, make an exploratory excavation on public lands to determine the presence of an archaeological site, or remove from public lands any material of an archaeological, historical, prehistorical or anthropological nature without first obtaining a permit issued by the State Parks and Recreation Department.



Federal Consistency Effects Information

(b) State agency objections that are based on sufficient information to evaluate the applicant's consistency certification shall describe how the proposed activity is inconsistent with specific enforceable policies of the management program. The objection may describe alternative measures (if they exist) which, if adopted by the applicant, may permit the proposed activity to be conducted in a manner consistent with the enforceable policies of the management program.

(c) **A State agency objection may be based upon a determination that the applicant has failed, following a written State agency request, to supply the information required pursuant to [§ 930.58](#) or other information necessary for the State agency to determine consistency.** If the State agency objects on the grounds of insufficient information, the objection shall describe the nature of the information requested and the necessity of having such information to determine the consistency of the activity with the management program. The objection may describe alternative measures (if they exist) which, if adopted by the applicant, may permit the proposed activity to be conducted in a manner consistent with the enforceable policies of the management program.



“Stuff That Works”

What appears to be working?

- Statewide Planning Goal 19
- Territorial Sea Plan
- Archaeological, historic, and cultural site standards
- Ecological protection standards
- Wildlife and habitat mitigation policies
- Threatened and endangered species
- Food fish, fish screening, fish passage policies
- Ocean shores policies
- Removal-fill standards
- Water and air quality
- Ballast water
- Submersible and submerged lands
- Public Utility Commission energy rates and reliability standards

Potential Gaps & Concerns

Environmental

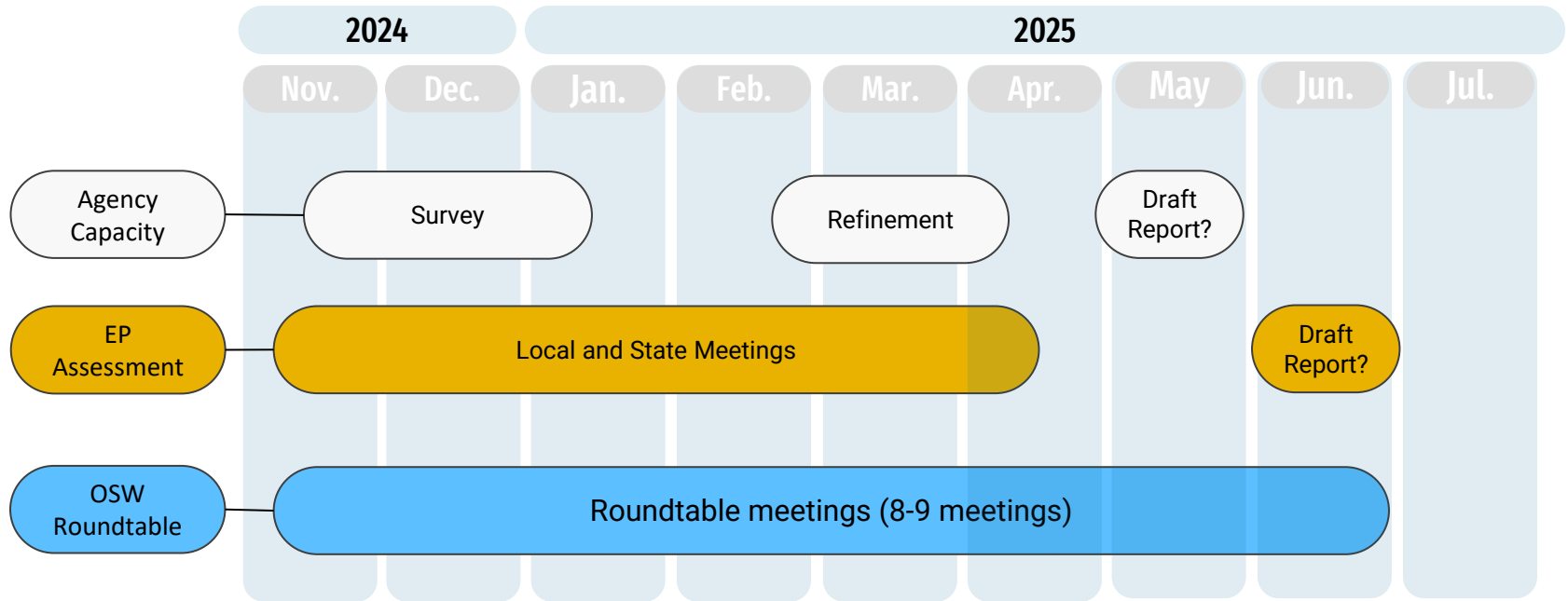
- TSP Part Five
 - Ecological resource standard spatially limited
 - Vessel operation impacts are not explicitly called out
 - Consider whether protection standards should have seasonal considerations
 - Define the role of mitigation in the definition of “Significant Adverse Effect for Ecological Resource Protection
 - Consider broadening Part Five to include survey activities preceding a facility
 - Standards related to siting in areas of geologic instability
 - Waste disposition plan to support feasibility of decommissioning plans
- Cables
 - Separation standards
 - Decommissioning and removal with Emergency Response Plan
- Clarify how [water quality standards](#) apply in federal waters, separate from ecological effects
- [Invasive species or biofouling](#) rules applicable to ocean waters
- [Rules and regulations not already included as enforceable policies or could be strengthened](#) (e.g., wildlife conservation strategies, Marine Protected Areas, Food Fish Management Policy, sensitive species rule, threatened and endangered list, geologic hazard area avoidance)
- [Guidance](#) on what constitutes best available data and when to acquire it

Potential Gap Areas

Socioeconomic

- Tribal uses and/or resources in onshore areas
- Sacred Tribal views role in visual resource policies?
- Economic or tourism effect policies (e.g., benefits vs. costs)
- Port Space protection policies for boating (see California policy)
- Unclear if effects on maritime transportation are addressed
- Minimizing impact to existing human uses in Coastal Zone and requiring net benefit to marine economic sector (see Rhode Island policy)
- Apply fisheries use protection standards to project phases not under part 5
- Labor and workforce standards as federal consistency EPs (HB 4080, HB 2021)
- Housing impacts
- Decommissioning, recovery, and emergency response plan requirements

Adjusted Assessment Timeline



Tribal Cultural and Archeological Gaps:

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 - There are no enforceable policies ensuring continuous monitoring and response to new environmental data.
 - Existing enforceable policies are vague
 - Include protections for habitat connectivity/ecosystem integrity
 - OAR 635-415 related to habitat loss mitigation seems inadequate, especially for seabirds

CA Pub Res Code 30230 includes maintain, enhance, and where feasible, restore.

NJ Admin Code 7:7-9.6(a) lists specific resources or habitats for protection.

WA Rev Code 43.143.030 creates use-based standards that could help build on Goal 19

NC 15A N.C. Admin Code 7M.0403 has siting criteria for use of public trust waters and adjacent lands could have provisions for environmental effects



Environmental Effects:

Survey Feedback

- No clear policies for transmission line siting.
 - Goals 17 & 18 protect shorelines but do not specifically regulate offshore wind cables.
- Goal 16 does not mention increased shipping and associated air pollution



Social, Economic and Community Effects:

Survey Feedback

- Lack of policy ensuring local economic benefits:
 - Local and regional economies/workers benefit from offshore wind development.
 - Goal 9 (economic development) is not enforceable in this context.
 - Maybe include requirements similar to HB 3382 rulemaking that require proof of funding and breakdown of job #s/economic plans?
- Short-term nature of job creation:
 - Most jobs from offshore wind projects are temporary (construction phase), with no clear plan for long-term employment in local communities.
 - There are no clear policies addressing workforce transitions after construction ends.
- Unclear funding and economic sustainability measures:
 - There are no enforceable policies ensuring financial stability for local communities affected by offshore wind development.



Visual Effects, Enforceable Policies and Gaps:

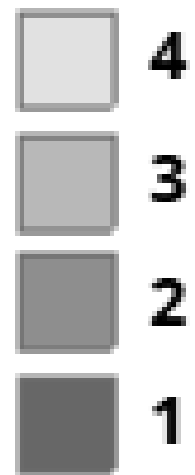
A deeper dive



- i. Class I: The objective of this class is to preserve the existing character of the seascape. This class provides for natural ecological changes; however, it does not preclude very limited development activity. The level of change to the characteristic seascape must be very low and may not attract attention.
- ii. Class II: The objective of this class is to retain the existing character of the seascape. The level of change to the characteristic seascape must be low. Development activities may be seen, and may attract minimal attention, but may not dominate the view of the casual observer.
- iii. Class III: The objective of this class is to partially retain the existing character of the seascape. The level of change to the characteristic seascape may be moderate. Development activities may be seen, and may attract attention but may not dominate the view of the casual observer.
- iv. Class IV: The objective of this class is to provide for development activities which require major modifications of the existing character of the seascape. The level of change to the characteristic seascape can be high. These development activities may dominate the view and be the major focus of viewer attention. However, every attempt shall be made to minimize the impact of these activities through careful location, minimal disturbance, and repeating the basic elements.



Scenic Class Value Viewsheds in Territorial Sea Plan Part Five



First Rough Cut of Class 1 Viewshed Update Based on Taller Structures

Red Dots = Class A Viewpoints (Class 1 Viewsheds)

Pink = How far a person could see to “zero height” of horizon.

Purple = 320 ft hub height visible (5 MW turbine)

Blue = 493 ft hub height visible (15 MW turbine)

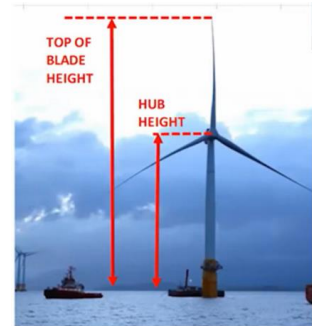
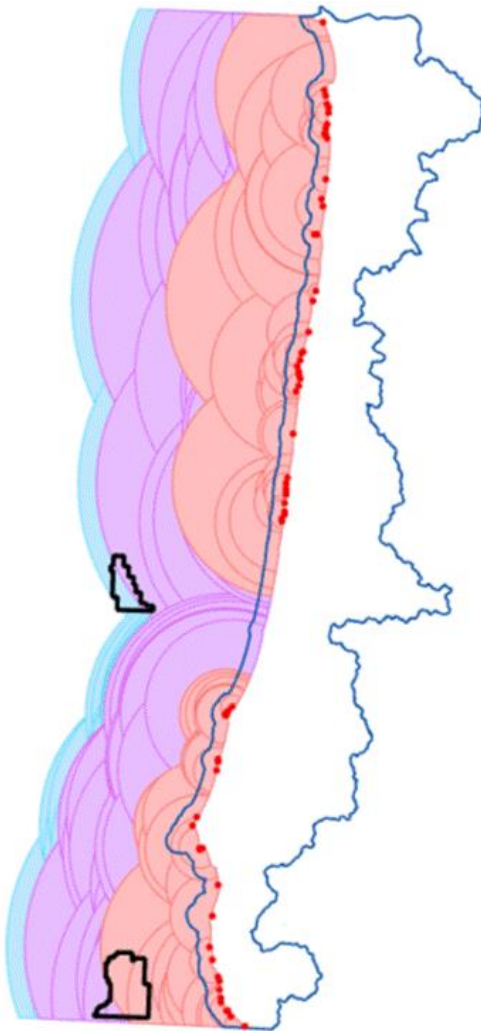
Additional Info:

DLCD Staff GIS product, not vetted for use in rulemaking.

Accounts for earth curvature effect.

Accounts for elevation of the individual viewpoints.

Does not account for view obstructions from land forms



Contrast Criteria

(To be considered by the Joint Agency Review Team during project review to determine level of visual impact)

- Distance from viewpoint
- Angle of observation
- Length of time project is in view
- Relative size or scale
- Season of use
- Light conditions
- Spatial Relationships
- Atmospheric conditions
- Motion, lights, and color
- Associated shore-based facilities

Note on the following slides:

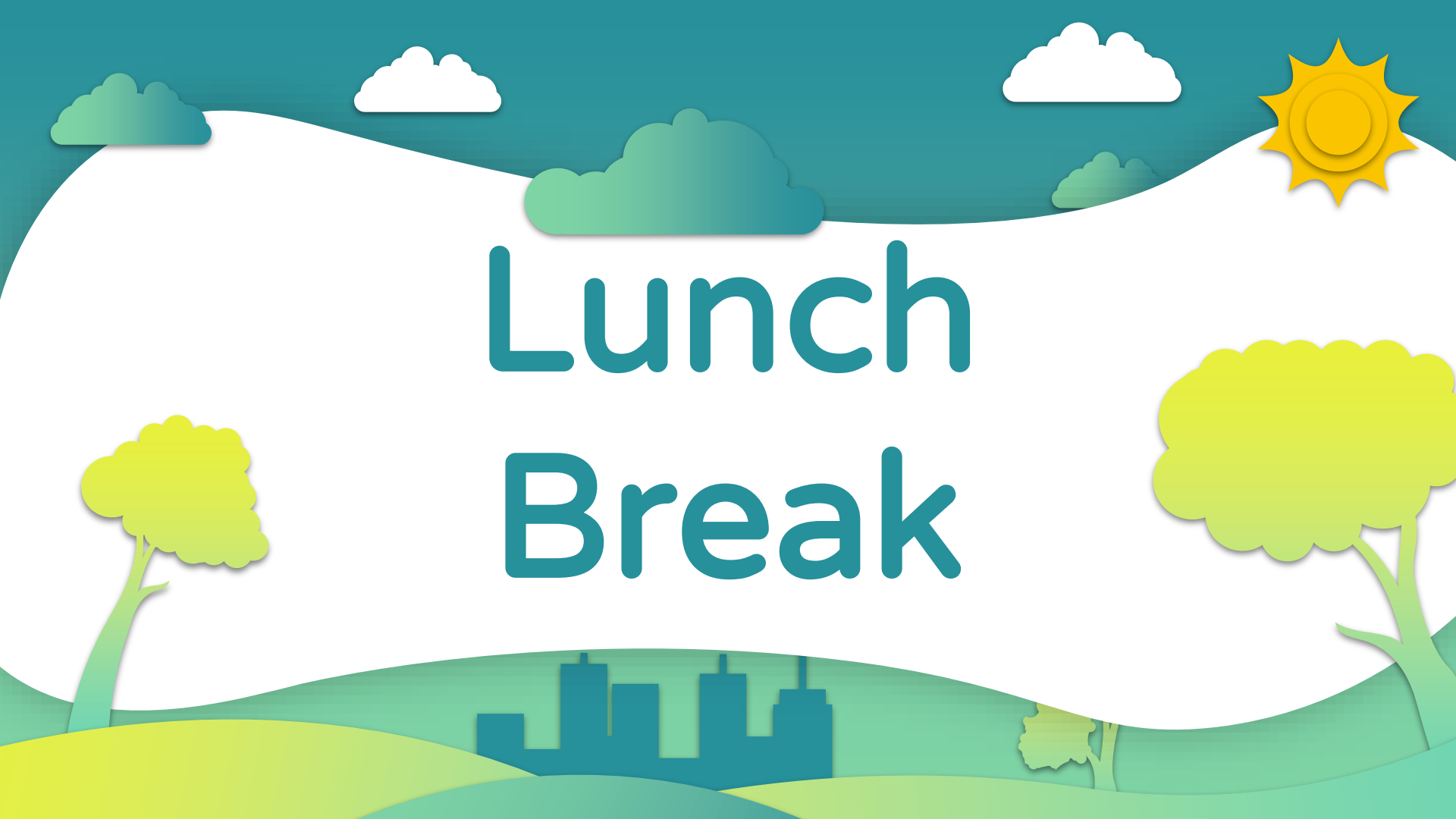
The visual simulations shown on the following slides originate from work commissioned by the Bureau of Ocean Energy Management in support of the wind energy lease siting process for offshore Oregon in 2023-2024. In order to actually represent the size and visibility of a potential project, the viewer of the simulation must follow certain instructions described with the original materials. The slides shown here are included for illustration purposes and are not intended to represent what a person would actually see, based on factors such as lighting, distance of the viewer from the screen, and other factors.

For more information and viewing instructions, visit the BOEM visual simulation webpage at: <https://www.boem.gov/renewable-energy/state-activities/oregon-offshore-wind-visual-simulation>



www.boem.gov/renewable-energy/state-activities/oregon-offshore-wind-visual-simulation





Lunch Break

Enforceable Policies and Gaps:

Groups Work on:

Small group rotation focusing on:

WHERE ARE THE GAPS IN ENFORCEABLE POLICIES?

Table Topics

Territorial Sea Plan Part 5

Community, labor, and economic development

Cultural resources

Environment and energy



Enforceable Policies and Gaps: Reporting out

...



Engagement Expectations:

Groups Work on:

Small group rotation focusing on:

- WHAT ARE THE IMPORTANT PROCESS PRINCIPLES AT EACH STAGE?
- WHAT NEEDS TO HAPPEN NEXT?



Engagement Expectations:

An inclusive, community-centered process (informal work group):

1. Committing to be data-driven and transparent
2. Understanding that uncertainties will remain and cannot all be eliminated.
3. Applying a definition of equity that is consistent with related state and federal initiatives.
4. Align federal and state goals
5. Create more accessible opportunities for communities to be involved, over time, in ways that cultivate mutual respect (e.g., in multiple engagement formats and languages)
6. Include voices from the entire Oregon coast across generations from youth to elders
7. Consult meaningfully with federally recognized Tribes and cultivate long-term relationships
8. Support community visioning and planning processes
9. Provide ongoing and accessible community education



Engagement Expectations:

Survey Feedback

- Lack of enforceable policies for meaningful public engagement:
 - Existing policies, such as Goal 19, mention public involvement but do not require active participation or decision-making influence.
 - Public participation is not explicitly required under enforceable policies (especially goals 17 and 18).
 - Goal 1 is not an enforceable policy (p1, paragraph 1) and neither is Goal 7 (Section A2)
- Limited engagement with local elected officials
- Challenges in communicating potential community impacts:
 - The public lacks clear information on what offshore wind development might mean for their communities (e.g., transmission locations, port use, visual impact).
 - Misinformation and uncertainty about offshore wind further complicate engagement efforts.
- Need for iterative stakeholder feedback loops:
 - Engagement processes need to be continuous, with multiple opportunities for input rather than one-time consultations.



Engagement Expectations:

Groups Work on:

Small group rotation focusing on:

- WHAT ARE THE IMPORTANT PROCESS PRINCIPLES AT EACH STAGE?
 - Planning/leasing, Siting.design, Construction, Operations, Decommissioning
- WHAT NEEDS TO HAPPEN NEXT?

Think about who needs to be informed, consulted, or share in decision making?

Think about who is doing the convening?

Think about how engagement should happen?

Think about why engagement should happen?

Think about ways you would know engagement is happening well?



Engagement Expectations: Reporting out

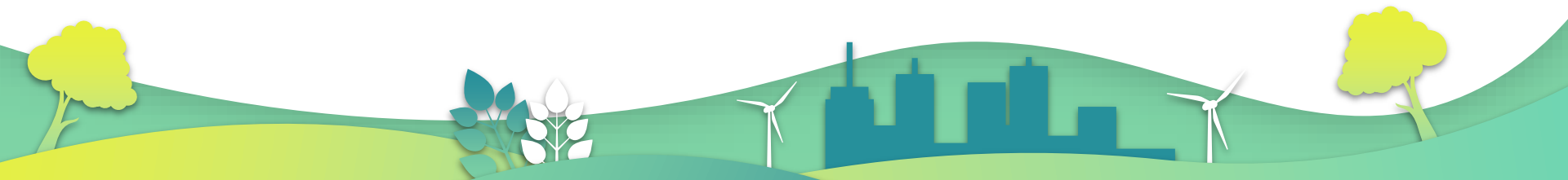
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Public Comment Part 2



Wrap-Up and Reflections



Questions? Public Comment?

At any time (during a meeting or in between) submit a question or public comment:

→ **QR Code**

→ Or via our Google Form:

<https://forms.gle/MgI4vhn4VYa8YEwYA>

→ Or email:

dlcd.OSVRoadmap@DLCD.oregon.gov





Let's Continue ...
February 21st, 2025

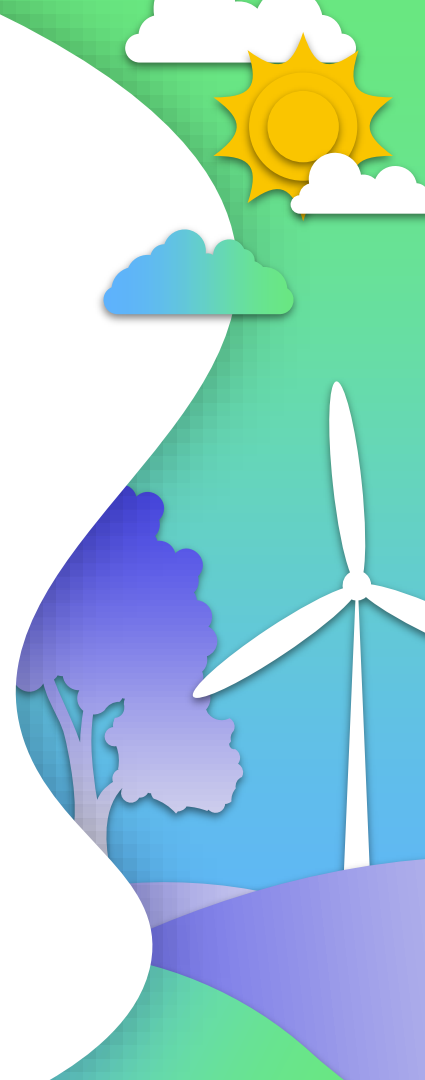
Welcoming and Agenda Overview

01 Energy Part 2

02 Exit Ramps &
Adaptive
Management
SMALL GROUPS

03 Exit Ramps &
Adaptive
Management -
FULL GROUP

04 **UPDATES**



Public Comment Part I



FINAL Wrap-Up and Reflections



Reflections and Observations from Industry Conversations

- Regulatory certainty drives investment.
- Concern that the Roadmap could create more barriers or limits to OSW
- Supply chain could include Asia projects. Port development a good start
- Regional Energy Market is a goal - “Grid bigger than the weather”
- Transmission improvement is a goal
- The memo that halted OSW leasing may have a political solution, but we will see.
- What costs should go to the ratepayer? (research, port development, benefit/compensation agreements)
- California has ~10 GW of lease potential and 7.6 GW of procurement need.



“What needs to happen in Oregon?”

- Increase attention and support from state leadership - need a “market signal”
- Need a procurement strategy:
 - Fix the fragmented procurement “paper route”
 - PUC 2-year resource planning can’t get us to a rate case for 10-12 years from now.
 - Data centers could be a stable buyer.
 - A procurement mandate from the state would de-risk investments
 - Merge leasing and offtake (buyer), plus permit? All in one?
 - Combine procurement and supply chain investment?
- Would love to see support for offshore wind for its own sake - clean, reliable, resilient - without requiring that it solve other problems.
- Supply chain seems to be a safe place to put effort right now.
- Concerns that the Roadmap process is not informed by more offshore wind industry expertise.
- Looking to feel trusted and invited to the table.



Other observations from an industry focus group conversation on 2/19

- Roadmap can be asking how we can maximize the benefits from offshore wind
- Be clear about what this is a Roadmap to. Let's define success and pave a path to get there.
- Opportunity to align regionally and have standards meet federal expectations.
- Can't be just kind of into offshore wind. Have to be decisive as a guiding principle for the Roadmap. Trying to do something too big to vacillate. Statements of certainty will bring developers.
- Consider that "Standards" can also mean standards that ultimately lead to successful deployment of offshore wind. (e.g., capacity for agencies, open data sharing and research collaboration, strategic investments)
- If we get broad enough consensus about how to get there, it can speak to the Governor to say let's go out and do this, but developers have to perform.



Other observations from an industry focus group conversation on 2/19

- There is significant workforce, supply chain, and economic development that can accrue to Oregon. Not just community benefits. The roadmap has to show the value.
 - Q: Who can define this in a way people can believe?
- You can't escape from the hard conversations, you have to have them and get through them. Have to have a plan to have those conversations now.
- There is interest in repairing damage of historical examples by engaging early. Don't want to just check the box.
- Recommendation that the State keep an open public process throughout all pieces of the permitting process, e.g., survey activities



Oregon Energy Strategy Modeling Meeting 1/31/25

View the January 31st ODOE Energy Strategy Model meeting and supporting materials here:

<https://www.oregon.gov/energy/Data-and-Reports/Pages/Oregon-Energy-Strategy-Engagement.aspx>

Note: the following slides are reproduced from the presentations posted at the address above. Please refer to the original presentations for additional slides and information.



MODELING THE ENERGY SYSTEM

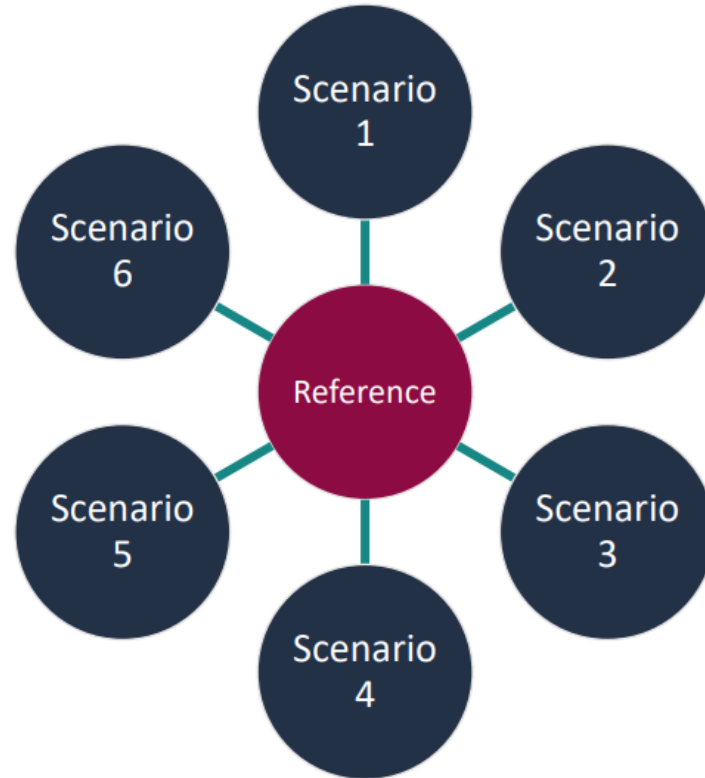
- Economy-wide model:
electricity, transportation
fuels, direct use fuels
- View of interactions across
these sectors
- Insights into tradeoffs
between different pathways
to inform recommendations



MODEL DESIGN

All scenarios start with existing energy-related policies.

All scenarios end with achieving Oregon's *energy* and *climate* goals.



WHAT THE ANALYSIS DOES AND DOESN'T DO

DOES

- Create an understanding of tradeoffs between different pathways to inform recommendations to meet Oregon's energy policy objectives
- Integrate detailed electricity sector modeling and fuels supply for an economy-wide perspective
- Foundation for complementary analysis: effect on household budgets, air quality and health, jobs, and priority areas relating to equity and environmental justice.

DOES NOT

- Forecast the future; it informs near-term decision-making in the face of uncertainty about meeting our energy policy objectives
- Serve the same purpose as utility modeling: NOT a transmission planning model or rate design exercise
- Focus on any single utility service territory
- Provide location-specific outputs for resources or transmission lines

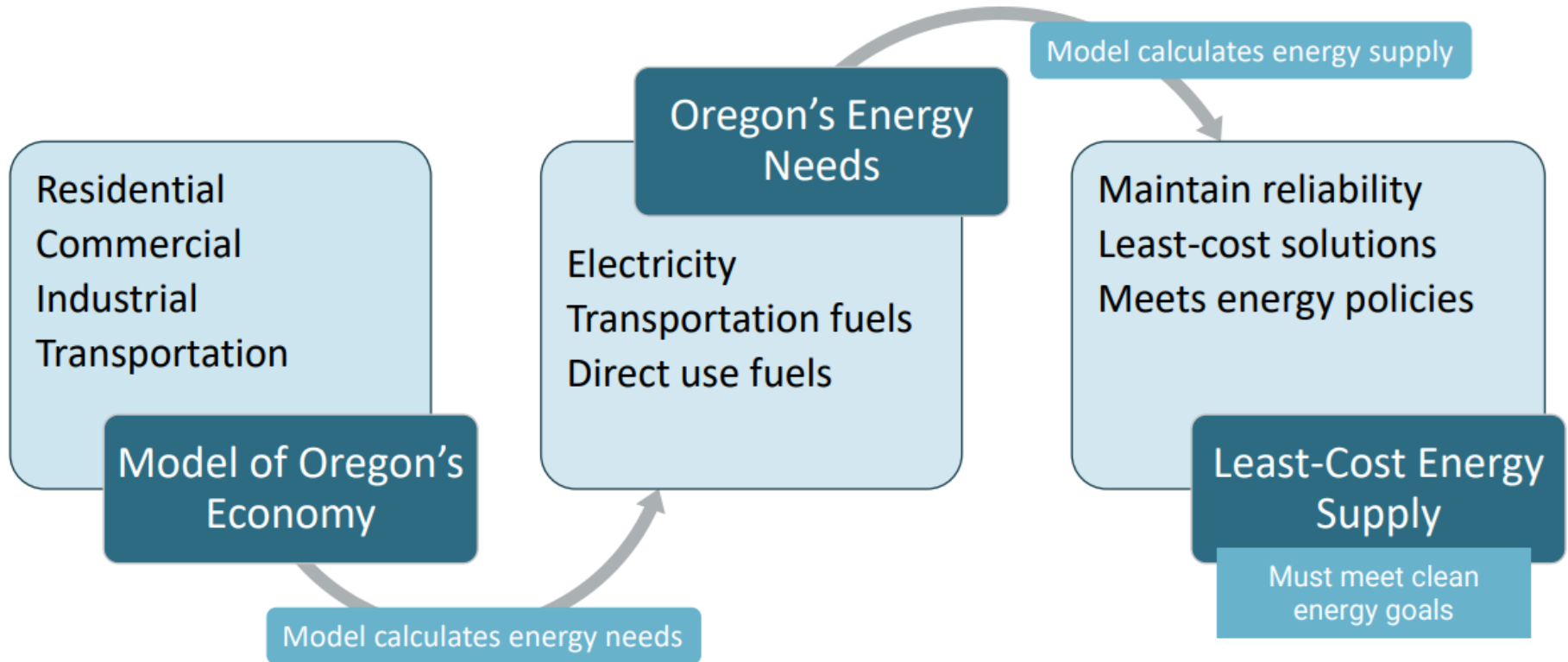
THE MODELING IS A TOOL

Insights are directional

- We are not forecasting the future
- Pathways to 2050 to inform near-term decisions
- Uncertainties: political, technological, economic



Overview of Modeling Approach



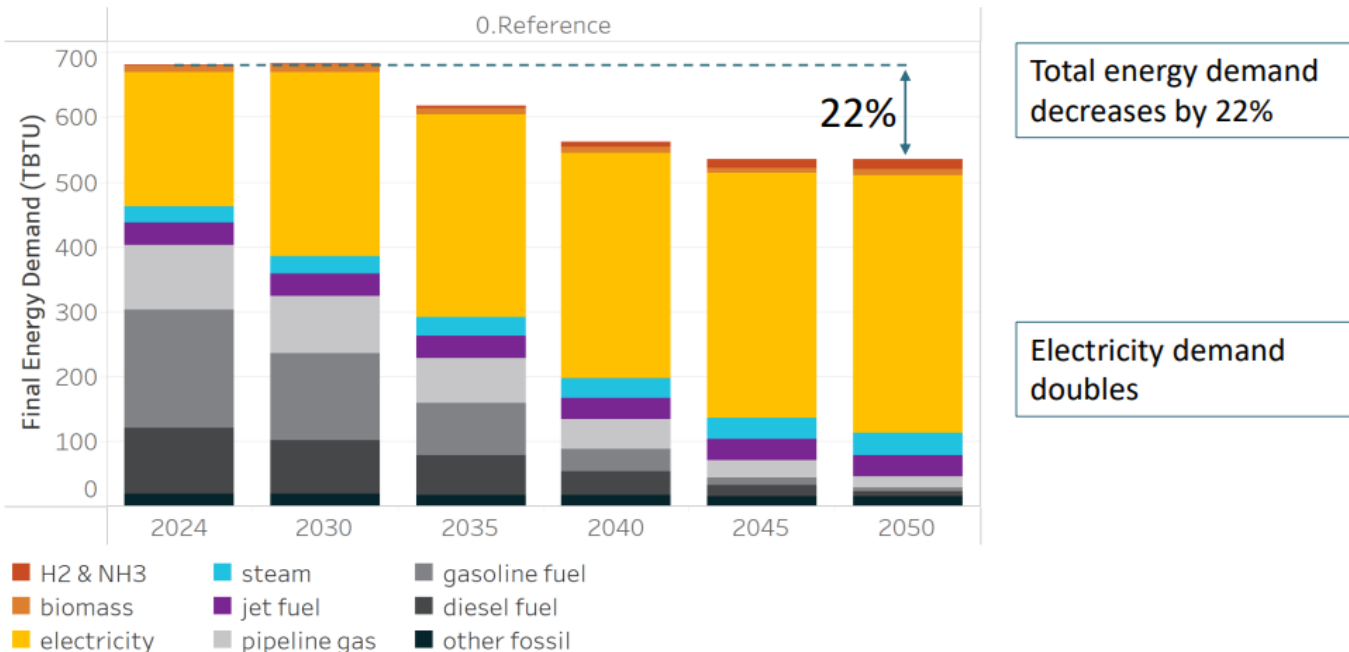
What If Scenarios and Assumptions

Reference. Least-cost way to achieve goals. All other scenarios build on the Reference by changing a key area:

1. What if **energy efficiency and building electrification** is delayed by 10 years?
2. What if full **transportation electrification** of medium- and heavy-duty vehicles is delayed 10 years, from 2040 to 2050?
3. What if there is **limited demand response** participation?
4. What if there is **limited utility-scale electricity generation** in Oregon?
5. What if there are higher levels of **rooftop solar and behind-the-meter storage** and **transmission is limited to reconductoring only** (no new build)?
6. What might an **alternative portfolio** of flexible resources for electricity reliability look like?

Demand for Energy Decreases While Demand for Electricity Increases

Energy Demand by Fuel in Oregon



Note: "other fossil" includes fuel oil, lpg, oil, coal, and petroleum coke. Steam is a heat input to many industrial processes. Like electricity, it can be generated from clean or dirty sources.

page 13

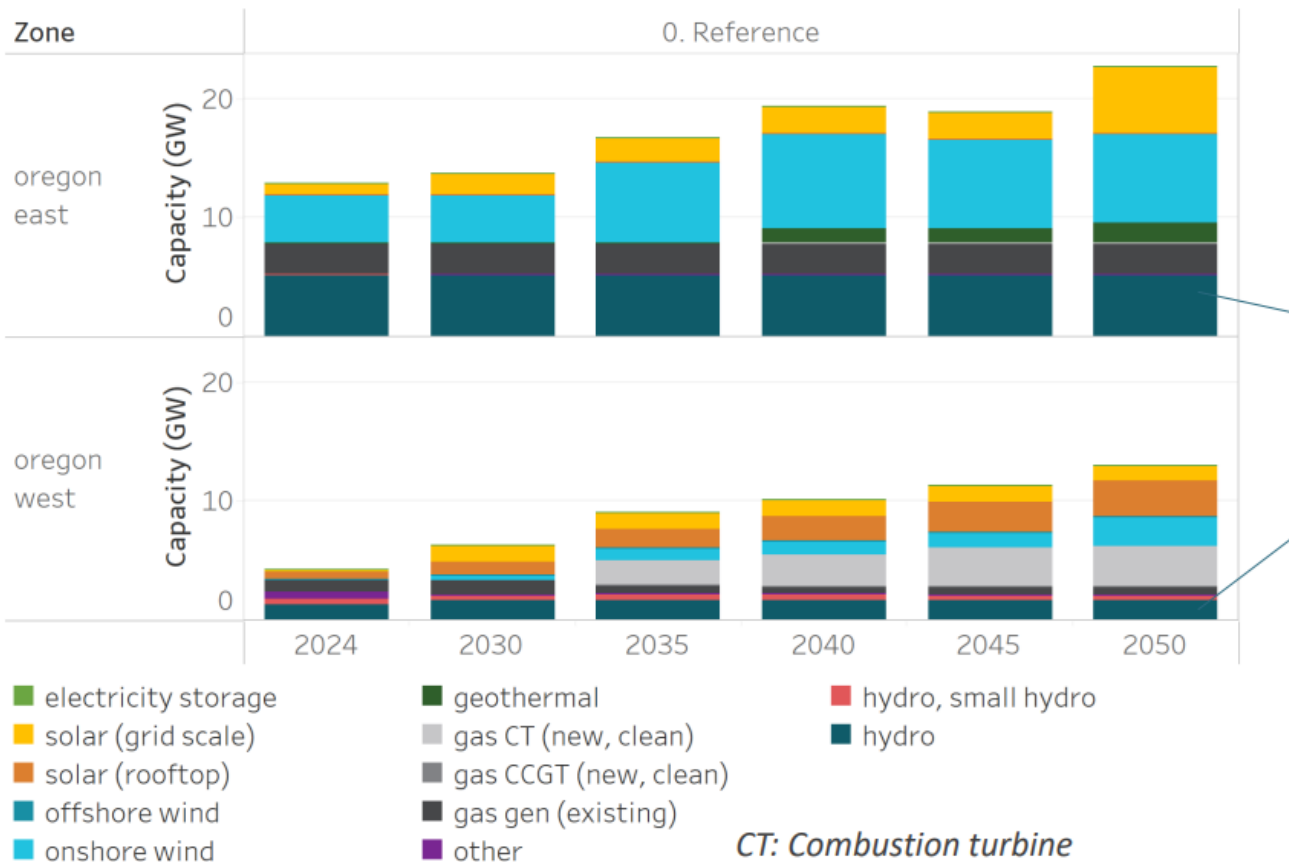
Oregon Needs More Electricity Infrastructure

- Even with aggressive levels of energy efficiency, the electricity sector must expand significantly
- The model selects transmission expansion as part of a least-cost portfolio
- The model selects a diverse mix of generation technologies as part of a least-cost portfolio



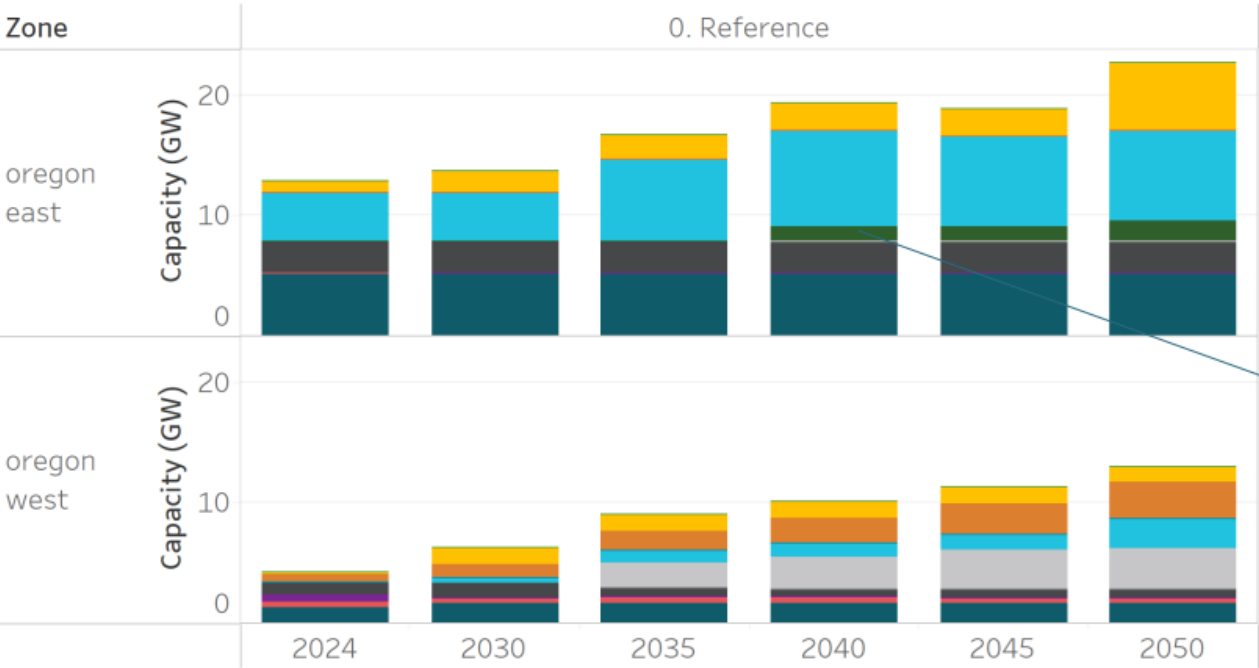
Credit: Paulo Esteves <https://stock.adobe.com/images/maintenance-in-a-high-voltage-electrical-substation/564704152>

Electricity Generating Capacity (GW)



CT: Combustion turbine
CCGT: Combined-cycle gas turbine

Electricity Generating Capacity (GW)



In 2040, enhanced geothermal comes onto the system

- electricity storage
- solar (grid scale)
- solar (rooftop)
- offshore wind
- onshore wind
- geothermal
- gas CT (new, clean)
- gas CCGT (new, clean)
- gas gen (existing)
- other
- hydro, small hydro
- hydro



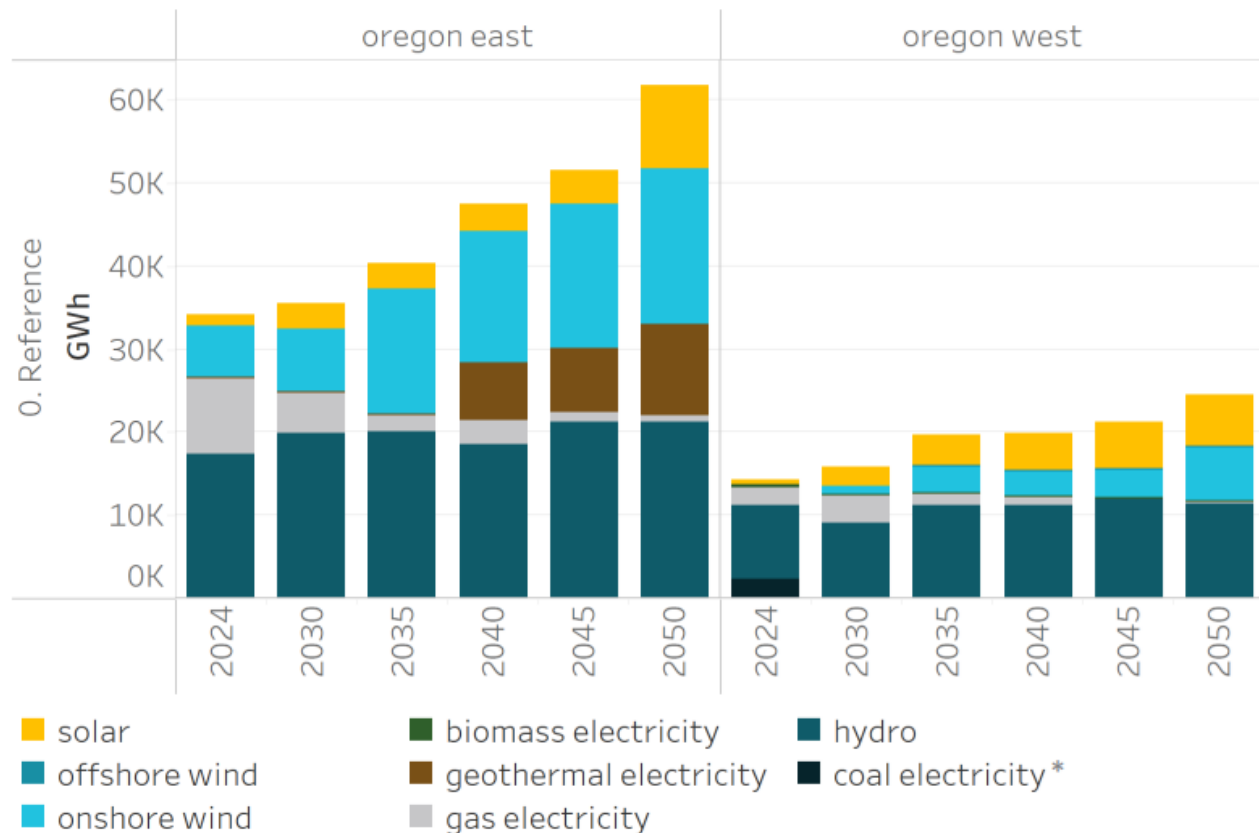
Electricity Generation from within Oregon (GWh)

2030

Still have some gas;
model built to hit
HB2021 targets

2040

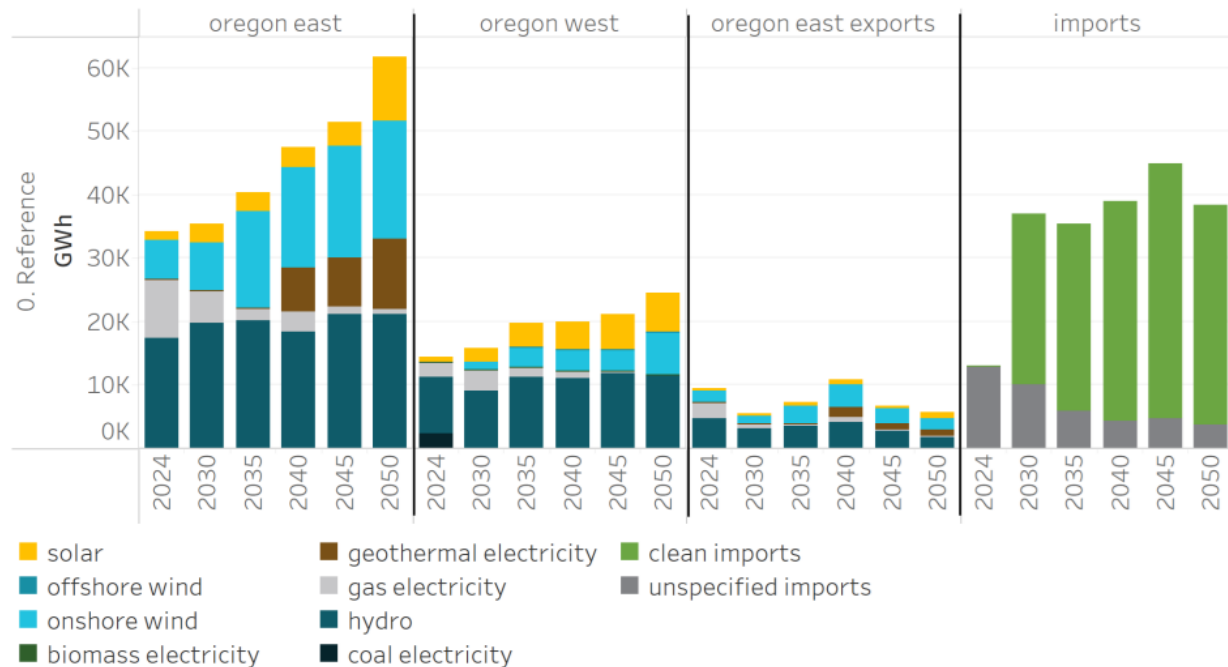
Enhanced geothermal
emerges as key
resource



Oregon Also Relies on Imported Electricity

- Oregon is part of a regional electricity system
- Even if we build more in-state resources like the model shows, we also need increasing levels of clean imported electricity
- Oregon exports power at times of surplus

Electricity Generation by Region



Oregon Energy Strategy Modeling Meeting 1/31/25

- Q: Jason Busch, Pacific Ocean Energy Trust and Renewable Hydrogen Alliance: Offshore wind appears to be non-existent in Oregon's plans. Why is that?
 - Jeremy: We included offshore wind in the model and priced it with the cost forecast that NREL has for offshore wind. The model did not pick it up as a major investment, based largely on transmission availability and other resource availability. We could put together a scenario showing offshore wind development, but from a price perspective, we haven't seen it coming in in any great quantity in the examined Scenarios.



What does this mean for the Roadmap?

- The answer to “Do we need the power?” is not “No.”
- The answer may be smaller than we thought (e.g., ~100 MW by 2040 in the reference case)
- The model assumes future energy sources that may or may not pan out (advanced geothermal, offshore wind)
- Imports that rely on a regional market that does not exist
- Other models have estimated higher OSW needs.
- Transmission capacity is needed to achieve least cost



Why choose offshore wind instead of other carbon-free power?

Reliability/Resiliency

When does this benefit offset cost? (who pays and who benefits from reliability?)

Affordable

Not in Oregon until 2040+, but maybe in CA sooner - If the grid was regionally "free trade" (RTO).

Jobs and Economic Development

Can benefit OR no matter who buys the power. If CA buys the power, do they want to share the opportunity?



Next Steps



EXTRA SLIDES

