

Community Readiness Assessment for Ocean Renewable Energy in Coos County



May 2015

Final Report

Prepared for:
Oregon Wave Energy Trust

Prepared by:
Community Planning Workshop

A Program of the
Community Service Center



UNIVERSITY OF OREGON



Special Thanks & Acknowledgements

Community Planning Workshop wishes to thank the following individuals for their assistance with this project: Jason Busch, Cate Millar, Keith Tymchuck, Nick Edwards, Robin Hartmann, and David Porter.

We also thank all of the individuals that took the time to complete the Community Readiness Assessment survey, be interviewed, and participate in a focus group meeting.

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About the Community Planning Workshop

Community Planning Workshop (CPW) is one of the core programs of the University of Oregon's Community Service Center (CSC) (csc.uoregon.edu). Established in 1977, CPW provides students the opportunity to address planning and public policy problems for clients throughout Oregon. Students work in teams under the direction of faculty and Graduate Teaching Fellows to develop proposals, conduct research, analyze and evaluate alternatives, and make recommendations for possible solutions to planning problems in rural Oregon communities.

This project was sponsored by the U.S. Economic Development Administration (as part of the EDA's University Center program) and the Oregon Wave Energy Trust. The Economic Development Administration University Center at the University of Oregon is a partnership between the Community Service Center, the UO Economics Department, the Oregon Small Business Development Center Network, and UO faculty. EDAUC is partially funded through a grant from the U.S. Department of Commerce, Economic Development Administration.

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EXECUTIVE SUMMARY

This report presents a “community readiness assessment” of Coos County for development of Ocean Renewable Energy. A community readiness assessment for economic development evaluates a community’s readiness on different categories related to economic development. For the purposes of this study, a community readiness assessment does not evaluate if the community does or does not support the development. The assessment is based on (1) a review of academic and professional literature, (2) a targeted survey of economic and community development professionals and community leaders, (3) key person interviews, and (4) focus group meetings with community stakeholders. The Community Planning Workshop (CPW) used the results of the assessment to develop an action plan aimed at increasing community readiness for large-scale ocean renewable energy development in Coos County.

Background

In January 2013, the State of Oregon adopted the new Territorial Sea Plan (TSP) Part 5 that includes policies and maps governing renewable energy development in state waters. The adoption of the Territorial Sea Plan Part 5 allows the development of energy facilities in Oregon state waters. The TSP sets the stage for deployment of ocean energy technology on the South Coast. Ocean energy development has the potential for significant contributions to the local economy. A key question is whether the Coos County region is prepared to take advantage of the opportunity to develop ocean renewable energy.

A community readiness assessment for economic development evaluates a community on six general categories of economic development.¹ Each category contains a detailed set of metrics that are used to assess the level of readiness for each general category. This study applies the community readiness model to the coastal cities in Coos County, an Oregon community designated for ocean energy development by the Oregon Territorial Sea Plan. The study applies the theory of community readiness model focused on ocean renewable energy development in Coos County.

This study is narrow in scope in that it only assesses the region on the readiness metrics. It does not include an evaluation of the impacts or community views regarding ocean renewable energy. Specifically, this report does not focus on whether the community does or does not support ocean renewable energy development in Coos County. The Oregon Wave Energy Trust previously studied coastal resident’s perceptions of ocean renewable energy. DMH Research assessed Oregon coastal residents’ perceptions of and support for ocean wave energy through a scientific telephone survey (DHM Research). The study found that 78

¹ Community readiness for economic development covers six assessment categories: (1) economic development capacity; (2) infrastructure and services capacity; (3) workforce capacity; (4) community development capacity; (5) civic capacity; and (6) communication capacity.

percent of respondents support the development of ocean energy. Therefore, the purpose of this study was to understand if the Coos County region is ready for ocean renewable energy development and how to build community capacity to increase readiness for development in the region.

A secondary purpose of this study was to test the community readiness theory for economic development specifically for the ocean renewable energy industry. The study is a prototype that may be replicable for other ocean energy development areas and projects or other economic development projects.

This study is unique because it focuses on a community's readiness for a specific industry. This report does not focus on whether the community supports ocean renewable energy development. While this study does cover questions about the Coos County region's ability to support general economic growth, the focus of the assessment was on the region's ability to support the ocean renewable energy industry.

Key Findings

CPW concludes that the Coos County region is not completely ready for large-scale ocean energy development, but is ready for small-scale pilot projects—some of which are in the planning stages or underway. Many of the challenges identified by the ocean energy industry are already mitigated in the Coos County region given existing resources and infrastructure. However, the newness and rapidly evolving nature of the ocean renewable energy industry will continue to be a challenge.

Overall, the Coos County region is on its way to being ready for large-scale ocean renewable energy development. The region has many of the needed pieces in place for ocean renewable energy, but still has work to do to be a large-scale ocean renewable energy ready community:

1. Economic development is a high priority for the region; however, the ocean energy industry is not currently a high priority. Ocean energy development is not reflected in economic development plans and strategies; is not mentioned in comprehensive land use plans or other planning documents; and is not considered a target industry because many Coos County stakeholders do not understand the benefits and/or impacts of ocean renewable energy development;
2. The region has much of the needed infrastructure and services in place to support the ocean renewable energy industry, such as access to some manufacturers; transportation systems able to transport large items; and some needed port infrastructure. However, the region still needs infrastructure pieces that require large capital investments, such as large deployment vessels, a large port platform, large cranes on and off vessels, added transmission capacity to the electrical grid, infrastructure improvements to industrial sites along the coast, and municipal infrastructure upgrades to support the growth of the industry and community;

3. The region is highly capable of workforce training and education and can provide education to a potential ocean renewable energy workforce. Additionally, the Coos County region has an existing and capable workforce for manufacturing and marine careers. The Southwestern Oregon Community College and other education providers in the region provide workforce-training programs and could provide programs targeting skills needed to support ocean renewable energy;
4. Stakeholders believe the region has a culture of entrepreneurship that recognizes and rewards new ideas, innovation, partnerships, and collaboration. However, some community members oppose change and speak out against potential opportunities, sometimes driving the opportunity away. However, there are many if not more community members that do support change and want to see family wage jobs in the community. The ocean renewable energy industry has the potential to provide family wage jobs in the Coos County region and needs to continue to communicate the potential to the region;
5. Overall, the Coos County region community members are well informed about economic development activities. However, the community does not currently have a high level of support for the ocean energy industry. Some community members are beginning to recognize the need to support the ocean energy industry because of the benefits the industry can bring to the region in terms of local jobs and 'outside' dollars into the economy. In general, stakeholders in industries that use ocean resources are not 100% against ocean renewable energy development; in fact, most stakeholders support the responsible development of ocean renewable energy. To fully support ocean renewable energy development in the Coos County region, stakeholders want to understand the benefits and impacts of the industry.

Communication is important to the Coos County region regarding ocean renewable energy development. Community members do not know or understand the benefits of ocean renewable energy development and want to have open communication with the industry to understand the benefits and impacts. Due to negative experiences with other industries in the past, the region is skeptical of any new industry. Previous industries have resulted in unsuccessful projects, over-promises, and poor communications, which have affected the community's view of all industries approaching the community. Open, two-way communication is key to working with the Coos County region and gaining the trust of the community.

For example, Principle Power successfully communicates with the Coos County region while building the first pilot project in the region. The community supports Principle Power and points to the developer as an example of good communication between the industry and local stakeholders.

While CPW's assessment is that the Coos County region is not completely ready for large-scale ocean renewable energy development, it is making progress towards large-scale development with the first small-scale, Principle Power pilot project happening in the region. The industry has the potential for large-scale success if the region and the industry build additional capacity in the region. Therefore, large-

scale ocean renewable energy development is possible in the Coos County region in the future. If the region wants to maximize the value of this new industry to the local community and region, then the region needs to take steps to increase capacity and support for ocean renewable energy development.

While the assessment categories indicate areas for future capacity building, the areas are not mutually exclusive between the assessment categories. Many of the key readiness areas identified in the assessment involve future work and planning from the ocean renewable energy industry and industry advocates. Therefore, CPW identified the key capacity building areas for the Coos County region that cross the assessment categories evaluated in the community readiness assessment.

Key Areas for Capacity Building:

- 1. Economic development:** The Coos County region places economic development as a priority for the region; however, ocean renewable energy development is not considered a priority because the region does not know the benefits and impacts of this type of development. Building support for the ocean renewable energy industry is key to seeing the industry targeted as a high-priority and placed in economic development plans.
- 2. Infrastructure, services, and workforce:** The region has many infrastructure pieces in place to support ocean renewable energy development; however, additional infrastructure, services, and workforce investments are needed to support the industry. Many of these improvements are capital intensive and the region needs to know the benefits to the region and the specific investments required to support the industry to be able to make the needed improvements.
- 3. Siting and permitting process:** Local stakeholders are concerned about the siting of ocean renewable energy projects because it could affect commercial fishing, recreational uses, tourism, or view sheds. Local stakeholders support the responsible development of ocean renewable energy and want to be involved in the siting and permitting process to help mitigate these concerns. Identifying additional areas for involvement in the siting and permitting process could greatly improve the regions readiness for large-scale ocean renewable energy development.
- 4. Communication:** Communication is important to local stakeholders. Local stakeholders want to be involved in the development process and have open communications with the ocean energy industry. Principle Power's engagement with the Coos County region is an example of good communication and engagement with the local community. Continuing to communicate openly and identify additional areas for engagement is an important aspect to the success of ocean renewable energy development in the Coos County region.

Recommended Actions to Increase Community Readiness

The community readiness assessment identified areas for capacity building in the Coos County region. Many of the key readiness capacity building areas identified in the readiness assessment involve future work and planning from the ocean renewable energy industry and industry advocates. While the readiness assessment focused on six assessment categories, the capacity building areas are not mutually exclusive to the six categories.

Table S-1 summarizes a set of recommended strategies and actions to increase the Coos County region and ocean renewable energy industry's readiness for future developments. The action plan is the product of a collaborative process between the Community Planning Workshop (CPW) and Coos County stakeholders. The action plan focuses on strategies and actions that the Oregon Wave Energy Trust and the industry can help facilitate in the region either by being the coordinator of the action or providing support to the action coordinator.

Table S-1. Community Readiness Action Plan Matrix

Action	Coordinator	Support From	Involvement From
1. Economic Development: Development of ocean renewable energy is not an economic development priority for the region.			
1.1 Strategy: Identify the economic development impacts of ocean renewable energy development to the region.			
Action 1.1.1: Determine the economic development impacts to the local region.	Oregon Wave Energy Trust	Ocean renewable energy industry	Local Governments and Economic Development Organizations
Action 1.1.2: Communicate the results of Principle Power’s pilot project as a proof of concept project to demonstrate the technology and benefits to the region.	Principle Power	Oregon Wave Energy Trust	Economic Development Organizations
1.2 Strategy: Communicate the economic development impacts of ocean renewable energy to stakeholders.			
Action 1.2.1: Communicate the potential impacts (both positive and negative) of ocean renewable energy development to local stakeholders, such as economic development professionals, leaders, ocean users, and community groups.	Oregon Wave Energy Trust	Ocean renewable energy industry	Local Governments and Economic Development Organizations
Action 1.2.2: Identify a community champion to create a “community pull” for the ocean renewable energy industry.	Oregon Wave Energy Trust	Economic Development Organizations	Local Stakeholders
1.3 Strategy: Make ocean renewable energy an economic development priority for the region.			
Action 1.3.1: Work with the region to develop a template outlining the best practices for market entry.	Oregon Wave Energy Trust	Local Stakeholders, Economic Development Organizations, and Local Governments	Ocean renewable energy industry
Action 1.3.2: Include the ocean renewable energy industry in local economic development plans and strategies.	Local Governments and Economic Development Organizations	Oregon Wave Energy Trust	Local Stakeholders
2. Infrastructure, Services, and Workforce: The region has many infrastructure, services, and workforce assets needed for the ocean renewable energy industry but will not make additional capital investments without better understanding what is needed and the local benefits of ocean energy development.			
2.1 Strategy: Identify the infrastructure, services, and workforce needs of the ocean renewable energy industry.			

Action	Coordinator	Support From	Involvement From
Action 2.1.1: Work with the ocean renewable energy industry to understand the specific infrastructure, services, and workforce needs for each technology type.	Oregon Wave Energy Trust	Ocean renewable energy industry	Local Governments and Economic Development Organizations
Action 2.1.2: Work with the region to identify and develop key infrastructure and services that the region can provide.	Oregon Wave Energy Trust	Ocean renewable energy industry	Local Governments, Economic Development Organizations, and Education/Workforce Organizations
2.2 Strategy: Inventory the region's infrastructure, services, and workforce assets related to ocean renewable energy.			
Action 2.2.1: Work with the region to create an inventory of the region's infrastructure and services assets that the region has that would be necessary to support the industry.	Oregon Wave Energy Trust	Economic Development Organizations, and Education/Workforce Organizations	Local Governments, Education/Workforce Organizations, and Business Oregon
Action 2.2.2: Work with local education providers and workforce organizations to inventory education and training workforce programs as well as the region's skilled workforce needed to support the industry.	Oregon Wave Energy Trust	Education/Workforce Organizations	Economic Development Organizations
2.3 Strategy: Create an infrastructure, services, and workforce process to approve and make improvements.			
Action 2.3.1: Work with local agencies, such as city, county, and port agencies to identify a process with criteria to approve capital-intensive infrastructure improvements.	Local Governments and Ports	Oregon Wave Energy Trust	Economic Development Organizations and Local Stakeholders
Action 2.3.2: Work with the local education providers to identify new education and training workforce programs needed to support the industry.	Oregon Wave Energy Trust	Southwestern Oregon Community College and other education providers.	Ocean renewable energy industry
2.4 Strategy: Prioritize using local resources first.			
Action 2.4.1: Work with the ocean energy industry to prioritize using local resources when a need exists.	Oregon Wave Energy Trust	Local Governments and Economic Development Organizations	Local Stakeholders
Action 2.4.2: Work with the region to create a process for sourcing infrastructure, services, and workforce from outside the region.	Oregon Wave Energy Trust	Local Governments and Economic Development Organizations	Ocean renewable energy industry and Local Stakeholders
3. Siting and Permitting: Local stakeholders, specifically ocean users, are concerned about the siting of ocean renewable energy projects because of potential impacts.			

Action	Coordinator	Support From	Involvement From
3.1 Strategy: Include a voluntary local component in siting decisions.			
Action 3.1.1: Work with ocean renewable energy developers to include a voluntary local component to the siting and permitting decisions.	Oregon Wave Energy Trust	Ocean renewable energy industry	Local stakeholders, Local Governments, and Economic Development Organizations
Action 3.1.2: Develop a community-accepted strategy for the outer continental shelf.	Oregon Wave Energy Trust	Local Stakeholders and Local Governments	Ocean renewable energy industry
Action 3.1.3: Engage and/or collaborate with ocean users in siting and permitting decisions.	Oregon Wave Energy Trust	Ocean renewable energy industry	Local stakeholders and Local Government
3.2 Strategy: Create locally accepted siting and permitting locations.			
Action 3.2.1: Work with ocean user groups to create a map of predetermined acceptable sites for ocean energy development.	Oregon Wave Energy Trust	Local stakeholders	Ocean renewable energy industry
4. Communication: Local stakeholders believe communication is the most crucial aspect of ocean renewable energy development in the region. However, many stakeholders are concerned about communication between the industry and stakeholders. Local stakeholders want open communication between the industry and the community.			
4.1 Strategy: Engage with the local community before proposing a development project.			
Action 4.1.1: Use existing local groups and communication networks to spread information. For example, continue to work with Southern Oregon Ocean Resource Coalition (SOORC) to engage with ocean users and the marine industry.	Oregon Wave Energy Trust	Ocean renewable energy industry	Local community groups and local stakeholders
Action 4.1.2: Engage in regular and open conversations between industry and community to ensure both are heard and engaged	Oregon Wave Energy Trust	Ocean renewable energy industry	Local stakeholders, Local Government, and Economic Development Organizations
4.2 Strategy: Create an open communication process between the industry and local stakeholders, especially ocean users.			
Action 4.2.1: Work with the region to create a communication pathway for developers. For example, identify important community contacts, such as economic development professionals, elected officials, and ocean users to contact.	Oregon Wave Energy Trust	Local Governments and Economic Development Organizations	Local stakeholders and community groups
Action 4.2.2: Identify an industry contact within the local community.	Oregon Wave Energy Trust	Ocean renewable energy industry	Economic Development Organizations and Local stakeholders

Source: Community Planning Workshop

Implementation

The Action Plan to increase community readiness for ocean renewable energy development is only as effective as the community's ability to implement the actions. Implementation requires commitment, capacity, and coordination. For effective implementation, the action plan needs a "champion"—a person or an organization responsible for ensuring commitment, capacity, and coordination.

OWET's mission is to help "to responsibly develop ocean energy by connecting stakeholders, supporting research and development, and engaging in public outreach and policy work" (Oregon Wave Energy Trust). CPW believes OWET can serve as the "champion" for the community readiness action plan and help coordinate the actions outlined in the plan. For effective implementation, OWET will need to form partnerships with the other organizations mentioned within the action plan—ocean renewable energy industry, local stakeholders, local government, economic development organizations, education providers, ocean users, etc. Without partnerships and coordination between the organizations involved, the plan will likely fail.

To implement the action plan, OWET is responsible for overall coordination, launching action items, and monitoring progress. OWET will work with community partners to help facilitate and provide support on action items assigned to other organizations. Additionally, community partners need to help OWET and provide support on all action items.

CHAPTER I: INTRODUCTION

This report presents a “community readiness assessment” of Coos County for development of Ocean Renewable Energy. A community readiness assessment for economic development evaluates a community’s readiness on different categories related to economic development. A community readiness assessment does not evaluate if the community does or does not support the development. The assessment is based on (1) a review of academic and professional literature, (2) a targeted survey of economic and community development professionals and community leaders, (3) key person interviews, and (4) focus group meetings with community stakeholders. The Community Planning Workshop (CPW) used the results of the assessment to develop an action plan aimed at increasing community readiness for large-scale ocean renewable energy development in Coos County.²

Background

In January 2013, the State of Oregon adopted the new Territorial Sea Plan Part 5.³ Part 5 of the Territorial Sea Plan includes policies and maps governing renewable energy development in state waters. Specifically, the plan identifies four sites designated as Renewable Energy Facility Site Suitability Areas (REFSSA). The report identified these sites as ideal for wave energy technology based on “access to electrical grid connections, access to deep-water ports and service ports, ocean bottom type, bathymetry, and avoidance of conflict with ocean resources and the users of those resources” (Oregon Wave Energy Trust, 2013). Renewable energy companies will be encouraged to develop these areas first. In addition, the report identifies Resources and Uses Management Areas (RUMA) available for ocean energy development.

It is important to understand if the communities are ready for ocean energy development; however, all of the decision factors for identifying the four REFSSAs focus only on technical and environmental feasibility and do not address community readiness.

The adoption of the Territorial Sea Plan Part 5 allows the development of energy facilities in Oregon state waters. OWET is in the process of gaining entitlements for pilot projects on the North Coast (Clatsop County) in partnership with the Oregon Military Department. Other regions of the coast where identified development zones exist may not be as ready for development of wave energy.

In summary, the TSP sets the stage for deployment of ocean energy technology on the South Coast. Ocean energy development has the potential for significant contributions to the local economy. A key question is whether the Coos County region is prepared to accommodate development of ocean renewable energy.

² This study used Coos County as the geographic scope. Thus, we refer to the study area as “Coos County” which includes all of the organizations that are involved in economic and community development in the County, including the county government.

³ http://www.oregon.gov/LCD/OCMP/pages/ocean_tsp.aspx

Purpose and Scope of this Study

The primary purpose of this study is to evaluate the Coos County region's readiness for large-scale development of renewable ocean energy. Community readiness is a theoretical model used to understand a community's level of readiness for implementing a specific project or program.⁴ Because communities are at different levels of capacity and different stages of readiness for implementing programs, understanding a community's level of readiness is an important factor in determining whether a program will be effective and supported by the community.

A community readiness assessment for economic development evaluates a community on six general categories of economic development. Each category contains a detailed set of metrics that are used to assess the level of readiness for each general category.

Purpose, Scope, and Methods

This study applies the community readiness model to coastal cities in the Coos County region, which has areas designated for ocean energy development by the Oregon Territorial Sea Plan. The study applies the theory of community readiness model focused ocean renewable energy in the Coos County.

Ocean renewable energy includes wind and wave technology. Ocean wind energy technology operates in the same basic manner as on-land wind turbines (Bureau of Ocean Energy Management). As the wind blows, it flows over the blades of wind turbines, causing the turbine blades to spin. The turbines are connected to a drive shaft that turns an electric generator to produce electricity. Offshore wind turbines are used to harness the energy of strong, consistent winds that are found over the ocean. Wind technologies are designed to be installed in the near shore, offshore, and far offshore locations.

Wind over the ocean also creates waves along the shoreline. Ocean waves contain tremendous energy potential (Bureau of Ocean Energy Management). Ocean wave energy technology devices extract energy from the surface motion of ocean waves or from pressure fluctuations below the surface and create usable electricity. Wave energy technologies are intended to be installed at or near the water's surface.

The study is based on a scorecard assessment tool that includes specific metrics for each of the community readiness categories related ocean renewable energy development. The assessment evaluates the Coos County region on six assessment categories: (1) economic development capacity; (2) infrastructure and services capacity; (3) workforce capacity; (4) community development capacity; (5) civic capacity; and (6) communication.

The readiness assessment is a technical study that does not assess community views on whether ocean renewable energy should be developed or not. Rather

⁴ In its initial conception, community readiness was a theoretical model created by the Tri-Ethnic Center for Prevention Research, at Colorado State University, to understand a community's level of readiness for implementing a community alcohol and drug abuse prevention program.

than focusing on community views of ocean renewable energy development in the Coos County region, this assessment focuses on the economic development capacity and infrastructure needed for ocean renewable energy development. The assessment is largely based on local economic development and community leader perceptions of Coos County's level of community readiness for ocean renewable energy development.

Ultimately, this study aims to understand if Coos County is ready to develop large-scale ocean renewable energy along its coast.

CPW conducted the community readiness assessment through the following activities:

- Conducted a literature review of the community readiness theory;
- Reviewed the key challenges facing the ocean renewable energy industry;
- Identified six economic development assessment metrics;
- Administered an online assessment of local economic development professionals and other key stakeholders;
- Interviewed local stakeholders about their perception of ocean renewable energy development; and
- Held stakeholder meetings to identify actions to increase the region's readiness for ocean renewable energy development.

Organization of this Report

This report includes six chapters:

- **Chapter 2: Ocean Renewable Energy** explains the context of ocean renewable energy in the United States and in Oregon. This chapter also details the current challenges facing the ocean energy industry and provides lessons learned from an ocean energy project in Cape Cod.
- **Chapter 3: Coos County's Readiness** explains the findings from the Coos County region's readiness assessment. This chapter also outlines areas for capacity building within the Coos County region and the implications for the ocean renewable energy industry.
- **Chapter 4: Action Plan** provides an action plan for the Coos County region to increase readiness for ocean renewable energy development.

This report also includes three appendices:

- **Appendix A:** Community Readiness for Economic Development
- **Appendix B:** Assessment Tool Findings
- **Appendix C:** Works Cited

CHAPTER 2: OCEAN RENEWABLE ENERGY

This chapter provides an overview of ocean renewable energy development in Oregon. It explains the potential for ocean renewable energy development and identifies the areas for development in Coos County Oregon. Additionally, this chapter explains the key challenges facing the ocean renewable energy industry.

Planning for Ocean Renewable Energy

There is tremendous energy in ocean waves and the ocean represents a largely untapped renewable energy resource. The ocean is an appealing energy source because of its ability to provide large amounts of clean, renewable energy (PCCI, INC., 2009). The United States' coasts have the potential to supply abundant quantities of renewable energy (Bureau of Ocean Energy Management). Moreover, the Pacific Northwest is a key ocean energy development area because it is one of only a few areas in the world with abundant wave power resources (Bureau of Ocean Energy Management). In short, the renewable energy industry is also a potential economic development strategy for the country.

Oregon's Territorial Sea Plan (TSP) identifies areas for ocean renewable energy development. The areas identified in the TSP cover three miles from the Oregon coast; however, the remaining ocean areas outside the territorial sea—known as the outer continental shelf—are also ideal for ocean renewable energy development. Currently, the outer continental shelf has not gone through a planning process, such as the Territorial Sea Plan, to identify areas for ocean renewable energy development. At this time, all areas of the outer continental shelf are open for development.

In Oregon

Oregon is at the forefront in reducing energy use and promoting renewable alternatives to fossil fuels (Kitzhaber). The State of Oregon supports ocean energy and believes it is important to Oregon's future because of its ability to support a stable, healthy electrical grid, future electricity needs, and sustainability goals as well as create jobs and energy independence on Oregon's coast (Oregon Wave Energy Trust). The development of ocean energy in Oregon can help build resiliency into the State's communities and economy (Kitzhaber).

Oregon's ocean resource, available infrastructure, and political support from the state make Oregon optimal for ocean renewable energy testing and development. Ocean renewable energy development, however, has potential to conflict with other ocean users—particularly the \$178 million coastal fishing industry. Thus, it is important for Oregon to develop the ocean energy industry wisely and carefully.

Oregon's South Coast

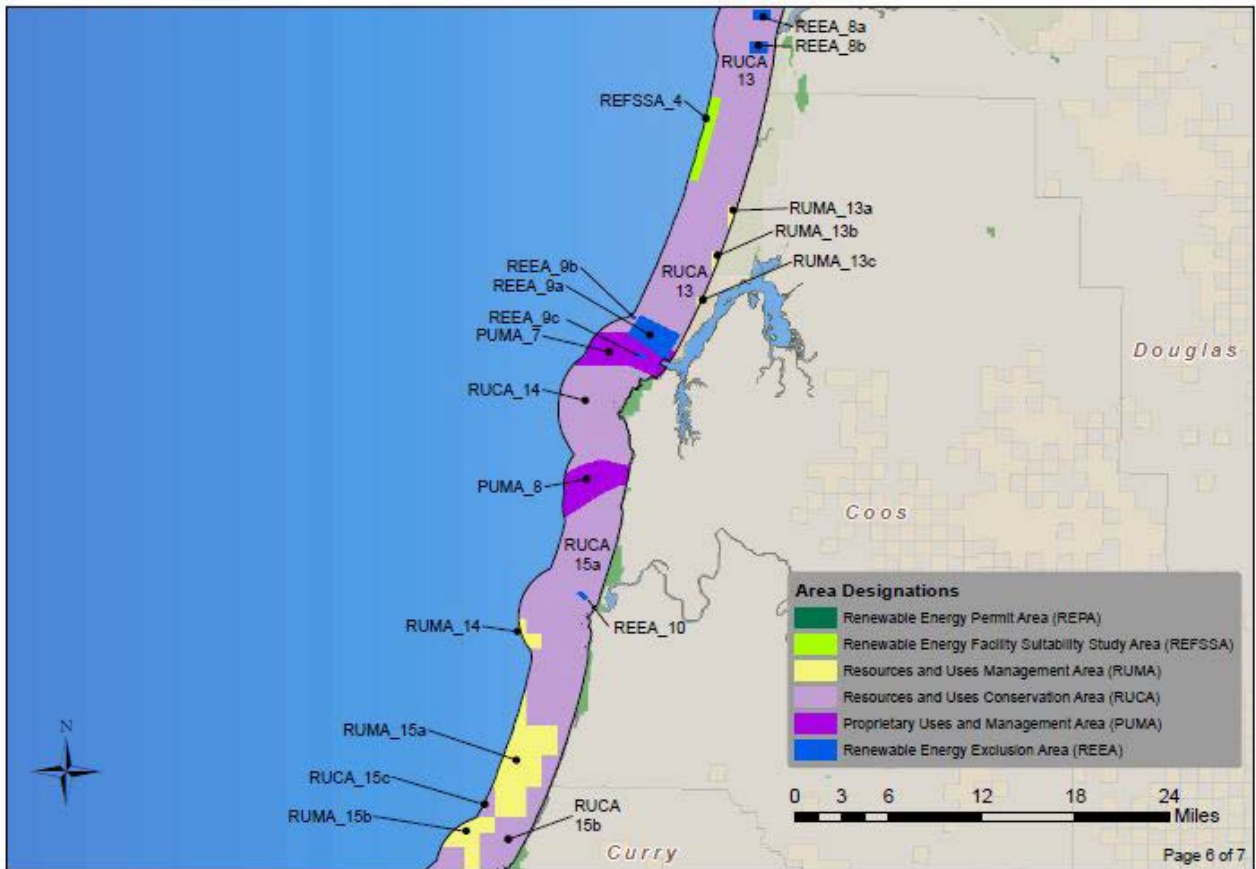
The Pacific Northwest is as a key ocean energy development area because of its abundant ocean resources and existing infrastructure. In January 2013, the State of

Oregon adopted the new Territorial Sea Plan (Part 5) (Oregon Wave Energy Trust, 2013). Part 5 of the Territorial Sea Plan includes policies and maps governing renewable energy development in state waters.

Specifically, the plan identifies four sites designated as Renewable Energy Facility Site Suitability Areas (REFSSA). The report identified these sites as ideal for ocean energy technology based on “access to electrical grid connections, access to deep-water ports and service ports, ocean bottom type, bathymetry, and avoidance of conflict with ocean resources and the users of those resources” (Oregon Wave Energy Trust, 2013). Renewable energy companies will be encouraged to develop these areas first. In addition, the report identifies Resources and Uses Management Areas (RUMA) available for ocean energy development. Notably, all of the decision factors for identifying the four REFSSAs focus only on technical and environmental feasibility and do not address community readiness. Thus, it is important to understand if the communities are ready for ocean energy development.

The adoption of the Oregon Territorial Sea Plan Part 5 allows the development of Oregon state waters. The Territorial Sea Plan identifies specific areas off the coast of Coos County as suitable for ocean wave energy, making Coos County a prime location to test the theory of community readiness (Figure 2-1).

Figure 1-1. Territorial Sea Plan Part 5 – Coos County Renewable Energy Areas



Source: Oregon Territorial Sea Plan, Part 5: Use of the Territorial Sea for the Development of Renewable Energy Facilities or Other Related Structures, Equipment or Facilities.

Ocean Energy Industry

The ocean energy industry is in its infancy compared to the wind and solar energy industries (ECONorthwest, 2009). Many ocean renewable energy technologies have not been deployed on a large scale and are in the early stages of development. Due to the infancy of the industry and lack of developments within the United States, the industry faces many challenges to development. For the successful development of ocean energy in the nation and in Oregon, these key challenges need to be overcome (U.S. Department of Energy: Energy Efficiency & Renewable Energy, 2011):

1. **Infrastructure:** The ocean renewable energy industry requires specific infrastructure needs to be successful. These needs include grid connection and operation, specialized ocean vessels, special portside infrastructure, and undersea electricity transmission lines. Many coastal communities do not have all of these infrastructure pieces in place, which significantly increases the risk and uncertainty for ocean energy developers as well as increases development costs (U.S. Department of Energy: Energy Efficiency & Renewable Energy, 2011).
2. **Siting and Permitting:** The ocean renewable energy industry requires industrial zoned land and buildings along the coast for development. Additionally, each segment of the ocean energy industry has different siting needs and it is important to understand the needs of the industry segment for each development. While communities do not have specifically established sites or permitting processes for ocean energy development, ground based support operations do not appear to pose any unique land use or permitting challenges and should be easily accommodated within processes defined in local comprehensive land use plans and development codes. The bigger challenge is that ocean energy policy on all levels—local, state, and federal—are difficult to navigate and create unique permitting challenges for the siting of specific projects. These challenges increase the cost of development and damage the development of the supply chain and other supporting infrastructure (U.S. Department of Energy: Energy Efficiency & Renewable Energy, 2011).
3. **Financing:** The development of an ocean energy facility requires significant capital investments for each project. These costs are difficult for developers to bear alone causing public financial support and/or private support necessary to the viability of any project (U.S. Department of Energy: Energy Efficiency & Renewable Energy, 2011).
4. **Public Support:** Public acceptance of ocean renewable energy is crucial to the development of ocean energy and the long-term success of the industry. Public support is needed for financial support, infrastructure improvements, siting, and permitting of the ocean energy industry (U.S. Department of Energy: Energy Efficiency & Renewable Energy, 2011).
5. **Stakeholder Support:** Stakeholder support for ocean renewable energy is also crucial to development and industry success—particularly for other

ocean users. Ocean energy development can potentially compete with stakeholders' other interests such as fishing, recreation, view shed, navigation, tourism, and military uses. Stakeholders will have concerns that need to be addressed and may try to stop ocean energy development. Without stakeholder support, ocean energy development will most likely be unsuccessful (U.S. Department of Energy: Energy Efficiency & Renewable Energy, 2011).

6. **Workforce:** A workforce skilled in all areas of ocean renewable energy technology, such as engineering, manufacturing, and maintenance, is crucial to the development of ocean renewable energy facilities. Not all coastal communities have a skilled workforce in these areas making it difficult for ocean energy developers to find employees for their operations. Workforce development focusing on curricula for ocean renewable energy and associated fields is needed (U.S. Department of Energy: Energy Efficiency & Renewable Energy, 2011).

All of these challenges need to be addressed for ocean energy development to be successful on a broad scale. If ocean energy development begins without the proper support system in place, projects, and ultimately, the industry, has a higher chance of delay and/or failure.

CHAPTER 3: COOS COUNTY'S READINESS FOR OCEAN RENEWABLE ENERGY

This chapter explains the findings of the readiness assessment for ocean renewable energy development in Coos County Oregon. CPW conducted the readiness assessment through:

- An online assessment of economic development and public works professionals in the Coos County region covering questions in the six assessment categories—Economic Development; Infrastructure and Services; Workforce; Community Development; Civic Capacity; and Communication;
- Stakeholder interviews with Coos County stakeholders about their perspectives on ocean renewable energy development; and
- Focus group meetings with local stakeholders to identify actions to increase readiness for ocean renewable energy development in Coos County.

Following is a description of the six assessment categories and specific metrics used to measure economic development readiness for this study.

1. Economic Development Capacity: evaluates the community's ability for economic development. Questions cover topics such as the community's economic development vision, economic development plan, business incentives, access to financial capital, and economic development groups and programs.
2. Infrastructure and Services Capacity: evaluates the community's existing infrastructure and services, as well as the capacity for growth. Questions cover topics such as public services, access to modes of transportation, telephone and Internet access, number of large users utilities can handle, and availability of land and buildings.
3. Workforce Capacity: evaluates the community's existing workforce and the community's ability to educate the workforce. Metrics cover topics such as availability of capable and productive workforce, organizations providing education, job shadow and internship programs, and entrepreneurship programs.
4. Community Development Capacity: evaluates the community's capacity for community development. Metrics include topics such as public transportation, community members' view of the community, and quality of life, comprehensive land use plans.
5. Civic Capacity: evaluates the community's civic capacity for economic development. Metrics cover community support and commitment for economic development. The evaluation also evaluates how informed the

community is about economic development and their involvement in economic development efforts.

6. Communication Capacity: evaluates the community's capacity for communication. Evaluation covers the level and type of communication between the ocean renewable energy industry and local stakeholders. The evaluation also identifies the best way(s) to engage with local stakeholders in the region.

Overall Community Readiness

CPW concludes that the Coos County region is not completely ready for large-scale ocean energy development, but is ready for small-scale pilot projects. Many of the challenges identified by the ocean energy industry are already mitigated in the Coos County region given existing resources and infrastructure. However, the newness and rapidly evolving nature of the ocean renewable energy industry will continue to be a challenge. Detailed results from the online assessment tool are included in Appendix B.

By averaging the readiness scores from all assessment categories, the Coos County region receives a community readiness score of 5; the preparation stage (Table 3-1). The region is in the preparation stage of readiness for large-scale ocean renewable energy. This means the region is not ready for large-scale ocean energy development currently but has capacity in place to begin preparing for development by building additional capacity to support the industry. The region can also develop pilot projects, such as the Principle Power project currently being developed in Coos County.

Table 3-1. Coos County's Readiness for Ocean Renewable Energy Development

Assessment Metric	Readiness Score	Readiness Stage
Economic Development	4	Preplanning
Infrastructure and Services	5	Preparation
Workforce	6	Initiation
Community Development	5.5	Preparation/Initiation
Civic	5	Preparation
Communication	4	Preplanning
Ocean Renewable Energy Readiness	5	Preparation

Source: Community Planning Workshop

Assessment Metric Key Findings

Each assessment metric also received a community readiness score. The readiness score for each assessment metric indicates where capacity building is needed within that metric. The community readiness score also indicates the areas where Coos County has a higher-level readiness as compared to other metrics.

The Coos County region is at the preplanning stage or above for all assessment categories related to ocean energy development. Each category has stable areas and areas for capacity building.

Economic Development Capacity

The readiness assessment covered questions about Coos County's economic development capacity in general and for ocean renewable energy development. Questions covered four topics: (1) economic development as a priority, (2) financial resources, (3) land and buildings, and (4) economic development plans.

Overall, by averaging the readiness score for the economic development categories, Coos County receives an economic development readiness score of four (Table 3-2). The readiness score indicates that the Coos County region has the necessary pieces and support in place to begin planning for large-scale ocean renewable energy development.

Table 3-2. Coos County Economic Development Readiness

Category	Readiness Score	Readiness Stage
Priority	5	Preparation
Financial Resources	4	Preplanning
Land and Buildings	4	Preplanning
Economic Development Plans	3	Vague Awareness
Economic Development	4	Preplanning

Source: Community Planning Workshop

According to the online assessment and stakeholder interviews, economic development is a high priority for the region; however, the ocean energy industry is not currently a high priority. Ocean energy development is not reflected in economic development plans and strategies in the region and ocean renewable energy is not mentioned in comprehensive land use plans or other planning documents. Additionally, at this time the region does not consider ocean renewable energy a target industry. While the region has available industrial land and buildings and financial incentives for businesses neither are focused on ocean renewable energy.

Stakeholders interviewed indicated the primary reason the ocean energy industry is not a high priority is because of lack of information from the industry. The region currently focuses most of its attention on the retention and expansion of existing businesses and industries. A common perception and concern is that ocean renewable energy will interrupt existing economic development activities that already bring millions of dollars into the economy; therefore, those activities receive the most attention. For example, the local fishing industry brings millions of dollars into the local economy and continues to be a high priority for the region.

Input from stakeholders was clear: before the region can or will consider making ocean energy development a high priority, they need to understand the benefits to their local community and the potential effects on the existing industries already in the region. Stakeholders cited the following economic development topics regarding ocean renewable energy for further understanding:

- Economic benefits to the local region
- Number of potential jobs and associated wages

- Long-term viability of the industry
- Costs associated with development
- Costs of energy developed
- Economic impacts on existing industries
- Benefits to existing industries in the region

Additionally, the siting and permitting process is a concern for the region. For the region to consider ocean renewable energy development an economic development priority they need to understand and embrace the siting and permitting process for development in the ocean. While siting and permitting is currently not an industry or a local process, opportunities exist for the industry and community to work together more closely when navigating the Federal process.

Infrastructure and Services Capacity

The readiness assessment covered questions regarding Coos County’s infrastructure and services capacity for ocean renewable energy development. Questions covered five topics: (1) manufacturing, (2) transportation, (3) port infrastructure, (4) utilities, and (5) infrastructure improvements.

Overall, by averaging the readiness score for infrastructure and services categories, Coos County receives an infrastructure and services readiness score of five (Table 3-3). The readiness score indicates that the Coos County region has begun the process of preparing for ocean renewable energy development.

Table 3-3. Coos County Infrastructure and Services Readiness

Category	Readiness Score	Readiness Stage
Manufacturing	5	Preparation
Transportation	7	Stabilization
Port Infrastructure	6	Initiation
Utilities	4	Preplanning
Infrastructure Improvements	5	Preparation
Infrastructure and Services	5	Preparation

Source: Community Planning Workshop

The ocean renewable energy industry requires access to a variety of infrastructure and services to support the industry, such as manufacturing services, a transportation system able to transport large pieces, port infrastructure, and access to the power grid.

According to the online assessment and stakeholder interviews, the region has much of the needed infrastructure and services in place to support the ocean renewable energy industry. The region has stable access to marine manufacturing services due to its support of existing marine industries. The region also has access to a concrete manufacturer, indicating the region is stable in this area. The region has other manufacturing services but it is still unclear the specific manufacturing services the industry needs. Different ocean energy technologies require different manufacturing and other infrastructure needs.

The regions' roadway and railroad can support the transportation of large items and access sites along the coast. The Port's infrastructure can also support the transportation of large items with existing barges and tug boat services offered through local businesses. The Port also has a dock and mooring site available for use as well as industrial land along the coast for onshore activities. The ocean renewable energy industry will require larger pieces of infrastructure not currently available through the Port; however, these infrastructure pieces require large capital investments, such as large deployment vessels, a large port platform, and large cranes on and off vessels.

The cities and county in the region also have the infrastructure capacity to support general growth and development in the region. While the cities and county have infrastructure improvement plans, the plans do not target improvements to support the ocean energy industry. This is in part because the types of needed improvements to support ocean renewable energy are unclear at this time. Additionally, the region's electrical grid is capable of supporting ocean renewable energy, but may need added transmission capacity depending on the amount of electricity generated.

Stakeholders believe the region could make infrastructure improvements for the industry in terms of Port infrastructure, utility infrastructure, and municipal infrastructure. However, these improvements are capital intensive and the region will not consider making improvements until (1) the industry demonstrates the benefits to the region, (2) specific infrastructure improvements are cited for the ocean energy development and technology in their region, (3) the ocean energy developer makes a commitment to the region, and (4) the impact on current infrastructure.

Workforce Capacity

The readiness assessment covered questions about Coos County's workforce capacity for ocean renewable energy development careers. Questions covered four topics: (1) education providers, (2) mechanical and electrical, (3) manufacturing, and (4) maritime.

Overall, by averaging the readiness score for the workforce capacity categories, Coos County receives a workforce capacity readiness score of six (Table 3-4). The readiness score indicates that the Coos County region has the capacity to initiate a capable workforce as well as workforce training programs.

Table 3-4. Coos County Workforce Capacity Readiness

Category	Readiness Score	Readiness Stage
Education Provider	7	Stabilization
Mechanical and Electrical	6	Initiation
Manufacturing	6	Initiation
Maritime	4	Preplanning
Workforce	6	Initiation

Source: Community Planning Workshop

The region is highly capable of workforce training and education and can provide education to a potential ocean renewable energy workforce. The Coos County region has an existing and capable workforce of mechanical and electrical engineers, and manufacturing fabricators and welder, as well as the ability to train a workforce for these careers. However, the region does not have as large of a workforce skilled in the other manufacturing areas (mechanical and electrical equipment maintenance, replacement, and repair, electrical component design and manufacturing, and advanced concrete manufacturing) nor as many existing programs to train a workforce in these areas. The region has a workforce of able-bodied seamen, capable ocean divers, and maritime vessel operations. While the Coos County region has a workforce with maritime skills, fewer programs exist to train a future workforce. The Southwestern Oregon Community College and other education providers in the region provide workforce-training programs and could provide programs targeting skills needed to support ocean renewable energy.

Stakeholders interviewed agree there is a skilled workforce in the region to generally support the ocean energy industry. Additionally, the stakeholders believe it is important for the industry to think local when hiring for the ocean renewable energy development projects. To ensure the region has the workforce necessary, the Southwestern Oregon Community College and other education providers can create training programs to train the regions workforce. However, until the industry identifies the exact workforce needed the region will not invest in new education and training programs for the industry.

Community Development Capacity

The readiness assessment covered questions about Coos County’s community development capacity in general and for ocean renewable energy development. Questions covered two topics: overall community development capacity and ocean energy community development capacity.

Overall, by averaging the readiness score for the workforce capacity categories, Coos County receives a community development capacity readiness score of 5.5 (Table 3-5). The readiness score indicates that the Coos County region is in between preparing for ocean renewable energy and being able to initiate a development.

Table 3-5. Coos County Community Development Readiness

Category	Readiness Score	Readiness Stage
Overall Capacity	6	Initiation
Ocean Energy Capacity	5	Preparation
Community Development	5.5	Preparation/Initiation

Source: Community Planning Workshop

Many local stakeholders do not believe the Coos County region has a clear community development vision for the present and future. However, the region feels a sense of pride and attachment to the community and is optimistic about its future. Additionally, stakeholders believe the region can see a project through to completion.

The Coos County region has a recognized community and economic development group with structures and procedures that sustain positive action in the community. The Coos County region also cooperates with neighboring communities on economic development efforts.

Stakeholders believe the region has a culture of entrepreneurship that recognizes and rewards new ideas, innovation, partnerships, and collaboration. However, some community members oppose change, especially community members who are happy with the status quo. These community members tend to speak out against potential opportunities, sometimes driving the opportunity away. However, there are many if not more community members that do support change and want to see family wage jobs in the community.

It is important to listen to concerned stakeholders but it is also equally, if not more important, to listen to the majority of community members when evaluating support for a project. In this case, community members support change and family wage jobs as well as ocean renewable energy development. The Oregon Wave Energy Trust previously studied coastal resident’s perceptions of ocean renewable energy. DMH Research assessed Oregon coastal residents’ perceptions of and support for ocean wave energy through a scientific telephone survey (DHM Research). The study found that 78 percent of respondents support the development of ocean energy.

Generally, stakeholders agree the Coos County region can support growth associated with the ocean renewable energy industry.

Civic Capacity

The readiness assessment covered questions about Coos County’s civic capacity in general and for ocean renewable energy development. Questions covered two topics: (1) economic development process, and (2) support.

Overall, by averaging the readiness score for the workforce capacity categories, Coos County receives a civic capacity readiness score of 5 (Table 3-6). The readiness score indicates that the Coos County region is in preparation stage of gaining community support for ocean renewable energy.

Table 3-6. Coos County Civic Capacity Readiness

Category	Readiness Score	Readiness Stage
Economic Development Process	6	Initiation
Support	4	Peplanning
Civic Capacity	5	Preparation

Source: Community Planning Workshop

Overall, the Coos County region community members are well informed about economic development activities. The region’s economic development process is open to community members and community members participate; however, more work exists to enable community members to participate in all of the regions’ economic development projects. The Coos County region community supports

economic development activities in general and are receptive to new industry; however, the community does not have a high level of support for the ocean energy industry. Some community members are beginning to recognize the need to support the ocean energy industry. In general, stakeholders are not 100% against ocean renewable energy development; however, for them to support the industry they need to understand the benefits and impacts to their region.

In order to understand the region's civic capacity, it is important to understand the perspectives of the region. CPW worked with local stakeholders to understand their perspectives and concerns regarding ocean renewable energy development. CPW identified five groups of stakeholders: ocean users, local governments, utility companies, ocean energy industry, and other stakeholders.

- 1. Ocean Users:** Ocean users include commercial fishermen and recreational ocean users. It is important to note that commercial fisherman and recreational users also include those who do not live directly in the Coos County region. For example, commercial fishermen from Alaska also fish in the Coos County region.

These stakeholders are primarily concerned with the siting and permitting process of ocean renewable energy developments and the associated impacts. Commercial fishermen are concerned with the location of ocean energy devices because it can potentially interfere with prime fishing locations and therefore cause negative economic impacts on the industry. Recreational ocean users are also concerned with the siting of ocean energy devices because it can interfere with recreational activities. All ocean users are concerned with the restricted access caused by ocean renewable energy development.

Ocean users also support the responsible development of the ocean renewable energy industry. While ocean users do have concerns about development in the region, they also recognize the benefits the industry can bring to the local community. Therefore, many ocean users are cautiously supportive of ocean renewable energy development but also concerned about the impacts on their uses of the ocean. This stakeholder group aims to find a way for everyone to exist in the Coos County region with a win-win situation.

- 2. Local Governments:** Local governments' main focus is on the benefits and impacts to their community from large-scale ocean renewable energy development. Local governments want to know the economic impacts on their region: jobs and associated wages, benefits to the community, negative impacts on existing industries, etc. Local governments are also concerned with the impact on existing infrastructure and ensuring their jurisdiction can appropriately support development.

Overall, local governments focus on providing positive impacts and benefits for the public good. If the ocean renewable energy industry could provide positive benefits to the region, such as family-wage jobs and growth to the local economy, it is reasonable that local governments would support the

ocean renewable energy industry. However, at this time, most local governments are neutral until there is further information about the impacts and benefits of the ocean renewable energy industry.

- 3. Utility Companies:** Utility companies are concerned with providing low-risk, reliable electricity to their consumers. Currently local utility companies categorize ocean renewable energy technology as high-risk because the technology is new and evolving quickly. For example, if the technology does not produce enough electricity the utility company has to purchase high-cost electricity from other providers.

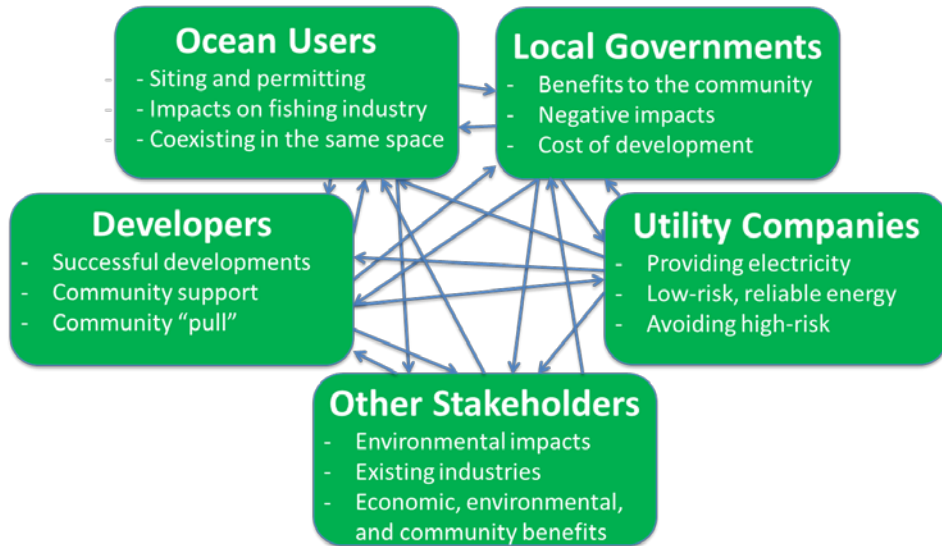
Therefore, utility companies are cautiously supportive of ocean renewable energy technologies, but currently are not investing in the technology. These local utility companies are monitoring the progress of the technology and waiting for the technology to decrease in risk and increase in reliable electricity generation. Overall, local utility companies are cautiously supportive of ocean renewable energy technologies, but will most likely become more supportive as the technologies are proven in pilot projects.

- 4. Ocean energy developers:** Ocean renewable energy technology and project developers are concerned with having a successful development in a community. Some technology developers have a business plan to sell their technology to local utility companies, while others will hire a developer to complete the project development. In general, both types of developers are concerned with having community support for their developments. Developers want to develop in a community that wants and supports the ocean renewable energy industry. As stated by a developer, community pull for the industry is better than an industry push.

- 5. Other Stakeholders:** Other stakeholders exist in the Coos County region. Their perspectives cover a wide range. Some stakeholders are concerned with the environmental impacts, view shed impacts, and tourism impacts. However, the Coos County region also has stakeholders that support the ocean renewable energy industry because of the associated economic, environmental, and community benefits to the region. Regardless of the perspective, all stakeholders want to understand the benefits and impacts of ocean renewable energy development in their region.

The five stakeholder groups identified above are all connected through their perspectives regarding ocean renewable energy development in Coos County. Figure 3-1 shows these connections between the five stakeholder groups.

Figure 3-1. Coos County Stakeholder Analysis and Connections



Source: Community Planning Workshop

Communication

Communication is important to the Coos County region regarding ocean renewable energy development. Community members do not know or understand the benefits of ocean renewable energy development and want to have open communication with the industry to understand the benefits and impacts.

Due to negative experiences with other industries in the past, the region is skeptical of any new industry. Previous industries have resulted in unsuccessful projects, over-promises, and poor communications, which have affected the community's view of all industries approaching the community. Open, two-way communication is key to working with the Coos County region and gaining the trust of the community.

It is important to note that there are developers who have communicated well with the Coos County region. For example, Principle Power worked with the local commercial fishing community to determine an acceptable ocean site for development. The Submarine Cable Council and the Liquefied Natural Gas project are other examples of successful communication with the region. The community supports Principle Power and points to the developer as an example of good communication between the industry and local stakeholders.

The ocean renewable energy industry and advocates have been communicating with the local region. To increase understanding about ocean renewable energy, the industry and the community must continue communicating together. Communication is a two-way street and the community must communicate openly and actively with the industry if the community wants to better understand benefits and impacts of the industry to be able to make an informed decisions regarding support of the industry. Additionally, the industry and industry advocates must continue communicating with local stakeholders and building relationships based on trust and understanding.

Key Findings

Overall, the Coos County region is on its way to being ready for large-scale ocean renewable energy development. The region has many of the needed pieces in place for ocean renewable energy, but still has work to do to be a large-scale ocean renewable energy ready community:

1. Economic development is a high priority for the region; however, the ocean energy industry is not currently a high priority. Ocean energy development is not reflected in economic development plans and strategies; not mentioned in comprehensive land use plans or other planning documents; and is not considered a target industry because many Coos County stakeholders do not understand the benefits and/or impacts of ocean renewable energy development;
2. The region has much of the needed infrastructure and services in place to support the ocean renewable energy industry, such as access to some manufacturers; transportation systems able to transport large items; and some needed port infrastructure. However, the region still needs infrastructure pieces that require large capital investments, such as large deployment vessels, a large port platform, large cranes on and off vessels, added transmission capacity to the electrical grid, infrastructure improvements to industrial sites along the coast, and municipal infrastructure upgrades to support the growth of the industry and community;
3. The region is highly capable of workforce training and education and can provide education to a potential ocean renewable energy workforce. Additionally, the Coos County region has an existing and capable workforce for manufacturing and marine careers. The Southwestern Oregon Community College and other education providers in the region provide workforce-training programs and could provide programs targeting skills needed to support ocean renewable energy;
4. Stakeholders believe the region has a culture of entrepreneurship that recognizes and rewards new ideas, innovation, partnerships, and collaboration. However, some community members oppose change and speak out against potential opportunities, sometimes driving the opportunity away. However, there are many—if not a majority of—community members that do support change and want to see family wage jobs in the community. The ocean renewable energy industry has the potential to provide family wage jobs in the Coos County region and needs to continue to communicate the potential to the region;
5. Overall, the Coos County region community members are well informed about economic development activities. However, the community does not have a high level of support for the ocean energy industry. Some community members are beginning to recognize the need to support the ocean energy industry because of the benefits the industry can bring to the region in terms of local jobs and ‘outside’ dollars into the economy. In

general, stakeholders are not 100% against ocean renewable energy development, in fact, most stakeholders support the responsible development of ocean renewable energy. To fully support ocean renewable energy development in the Coos County region, stakeholders want to understand the benefits and impacts of the industry; and

6. Communication is important to the Coos County region regarding ocean renewable energy development. Community members do not know or understand the benefits of ocean renewable energy development and want to have open communication with the industry to understand the benefits and impacts. To increase understanding about ocean renewable energy, the industry and the community must continue communicating together. Communication is a two-way street and the community must communicate openly and actively with the industry if the community wants to better understand benefits and impacts of the industry to be able to make an informed decisions regarding support of the industry. Additionally, the industry and industry advocates must continue communicating with local stakeholders and building relationships based on trust and understanding.

The Coos County region is not completely ready for large-scale ocean renewable energy development, but is making progress towards large-scale development with the first small-scale, Principle Power pilot project happening in the region. The industry has the potential for large-scale success if the region and the industry build additional capacity in the region. Therefore, large-scale ocean renewable energy development is possible in the Coos County region in the future. If the region wants to maximize the value of this new industry to the local community and region, then the region needs to take steps to increase capacity and support for ocean renewable energy development.

While the assessment categories indicate areas for future capacity building, the areas are not mutually exclusive between the assessment categories. Many of the key readiness areas identified in the readiness assessment involve future work and planning from the ocean renewable energy industry and industry advocates. Therefore, CPW identified the key capacity building areas for the Coos County region that cross the assessment categories evaluated in the community readiness assessment.

Key Areas for Capacity Building:

1. **Economic development:** The Coos County region places economic development as a priority for the region; however, ocean renewable energy development is not considered a priority because the region does not know the benefits and impacts of this type of development. Building support for the ocean renewable energy industry is key to seeing the industry targeted as a high-priority and placed in economic development plans.
2. **Infrastructure, services, and workforce:** The region has many infrastructure pieces in place to support ocean renewable energy development; however, additional infrastructure, services, and

workforce investments are needed to support the industry. Many of these improvements are capital intensive and the region needs to know the benefits to the region and the specific investments required to support the industry to be able to make the needed improvements.

- 3. Siting and permitting process:** Local stakeholders are concerned about the siting of ocean renewable energy projects because it could affect commercial fishing, recreational uses, tourism, or view sheds. Local stakeholders support the responsible development of ocean renewable energy and want to be involved in the siting and permitting process to help mitigate these concerns. Identifying additional areas for involvement in the siting and permitting process could greatly improve the regions readiness for large-scale ocean renewable energy development.
- 4. Communication:** Communication is important to local stakeholders. Local stakeholders want to be involved in the development process and have open communications with the ocean energy industry. Principle Power's engagement with the Coos County region is an example of good communication and engagement with the local community. Continuing to communicate openly and identify additional areas for engagement is an important aspect to the success of ocean renewable energy development in the Coos County region.

Chapter 4 presents recommended strategies to increase Coos County's readiness for ocean renewable energy development in the key areas for capacity building.

CHAPTER 4: ACTION PLAN FOR INCREASING COMMUNITY READINESS

The community readiness assessment identified areas for capacity building in the Coos County region. Many of the key readiness capacity building areas identified in the readiness assessment involve future work and planning from the ocean renewable energy industry and industry advocates. While the readiness assessment focused on six assessment categories, the capacity building areas are not mutually exclusive to the six categories. CPW identified four areas for capacity building spanning the six assessment categories:

1. Economic development
2. Infrastructure, services, and workforce
3. Siting and permitting process
4. Communication

This chapter provides a set of recommended strategies and actions to increase the Coos County region and ocean renewable energy industry's readiness for future development. The action plan is the product of a collaborative process between the Community Planning Workshop (CPW) and Coos County stakeholders. To gather insights for the action plan, CPW interviewed local stakeholders and conducted two stakeholder meetings to discuss the readiness assessment findings and identify actions to increase the region's readiness. The content of this chapter provides an issue statement for each capacity building area and strategies and actions to address the issue. The action plan included in this chapter focuses on strategies and actions that the Oregon Wave Energy Trust can help facilitate in the region either by being the coordinator on the action or providing support to the action coordinator.

The development of ocean renewable energy development in the Coos County region involves five stakeholder groups: (1) ocean users, (2) local governments, (3) utility companies, (4) ocean energy developers, and (5) other stakeholders. The process of ocean renewable energy development in Coos County is complicated because of the many stakeholder groups involved in the development. The Oregon Wave Energy Trust can help to facilitate development in the region through the involvement of these five stakeholder groups.

The Oregon Wave Energy Trust (OWET) is a nonprofit, public-private partnership working toward developing responsible ocean energy. OWET wants to facilitate the process of developing ocean energy in some, or all, of the four areas identified in the Oregon Territorial Sea Plan.

Implementation

The Action Plan to increase community readiness for ocean renewable energy development is only as effective as the community's ability to implement the actions. Implementation requires commitment, capacity, and coordination. For

effective implementation, the action plan needs a “champion”—a person or an organization responsible for ensuring commitment, capacity, and coordination.

OWET’s mission is to help “to responsibly develop ocean energy by connecting stakeholders, supporting research and development, and engaging in public outreach and policy work” (Oregon Wave Energy Trust). CPW believes OWET can serve as the “champion” for the community readiness action plan and help coordinate the actions outlined in the plan. For effective implementation, OWET will need to form partnerships with the other organizations mentioned within the action plan—ocean renewable energy industry, local stakeholders, local government, economic development organizations, education providers, ocean users, etc. Without partnerships and coordination between the organizations involved, the plan will likely fail.

To implement the action plan, OWET is responsible for overall coordination, launching action items, and monitoring progress. OWET will work with community partners to help facilitate and provide support on action items assigned to other organizations. Additionally, community partners must help OWET and provide support on action items assigned to OWET.

Recommended Strategies and Actions

I. Economic Development

Issue 1: Development of ocean renewable energy is not an economic development priority for the region.

The Coos County region places economic development as a priority for the region; however, ocean renewable energy development is not considered a priority because the region does not know the benefits and impacts of this type of development.

I.1 Strategy: Identify the economic development impacts of ocean renewable energy development to the region.

Action 1.1.1: Determine the economic development impacts to the local region.

Rationale: The ocean energy industry is not an economic development priority because the region does not know the economic development benefits, impacts, or value proposition. Before the region will make the industry an economic development priority the region must identify the impacts to the region.

Description: The industry should identify the impacts of ocean renewable energy, including but not limited to the following areas:

- Number of jobs and associated wages
- Long-term viability of the industry
- Costs associated with development
- Costs of energy developed

- Economic impacts on existing industries
- Benefits to existing industries in the region

Who: Coordinator: Oregon Wave Energy Trust
 Support from: Ocean renewable energy industry
 Involvement from: Local Governments and Economic Development Organizations

Outcome: The action will result in a set of identified impacts from the ocean renewable energy industry and associated development. The impacts should include positive, negative, and unintended impacts. By clearly identifying the impacts of ocean renewable energy the region will better understand and be able to make an informed decision about ocean renewable energy in the region.

Action 1.1.2: Communicate the results of Principle Power’s pilot project as a proof of concept project to demonstrate the technology and benefits to the region.

Rationale: The region does not know or understand the benefits of ocean renewable energy development to the region from the different types of ocean renewable energy technology. By using a proof of concept project from the region, or case studies of other developments in the United States or around the world, the region will better understand ocean renewable energy development.

Description: Principle Power’s pilot project can serve as a proof of concept project in the region to demonstrate the benefits and impacts of the technology. The industry can also use case studies from developments in other locations to demonstrate the impacts and benefits.

Who: Coordinator: Principle Power
 Support from: Oregon Wave Energy Trust
 Involvement from: Economic Development Organizations

Outcome: The action will result in information gathered from the Principle Power pilot project that will help the ocean renewable energy industry demonstrate the benefits and impacts of development.

I.2 Strategy: Communicate the economic development impacts of ocean renewable energy to stakeholders.

Action 1.2.1: Communicate the potential impacts (both positive and negative) of ocean renewable energy development to local stakeholders, such as economic development professionals, leaders, ocean users, and community groups.

Rationale: Local stakeholder groups, specifically those that can influence the development process, want and need to understand the impacts of the industry before making ocean renewable energy development a regional economic development priority.

Description: After identifying the impacts of ocean renewable energy development, the industry can communicate the information to local stakeholders through informational handouts, one-on-one meetings, and informational sessions.

Who: Coordinator: Oregon Wave Energy Trust
Support from: Ocean renewable energy industry
Involvement from: Local Governments and Economic Development Organizations

Outcome: The action will result in information sharing between the ocean renewable energy industry and local stakeholders. By receiving additional information about the industry, the stakeholders can make an informed decision about supporting the large-scale development of ocean renewable energy along their coast.

Action 1.2.2.: Identify a community champion to create a “community pull” for the ocean renewable energy industry.

Rationale: The region does not know the impacts of ocean renewable energy in their community. However, the region prefers to receive information from trusted professionals and community members in the region.

Description: The ocean renewable energy industry needs to find a local stakeholder who can be a champion for the industry. The local champion will meet with stakeholders and other community members to share information about ocean renewable energy. The champion can also serve as a communication channel between the region and the industry.

Who: Coordinator: Oregon Wave Energy Trust
Support from: Economic Development Organizations
Involvement from: Local Stakeholders

Outcome: The action will result in a local champion of the ocean energy industry who will work with local stakeholders and serve as a “community pull” for the ocean energy industry.

I.3 Strategy: Make ocean renewable energy an economic development priority for the region.

Action 1.3.1: Work with the region to develop a template outlining the best practices for market entry.

Rationale: Local stakeholders mentioned the concept of being a good community partner throughout the stakeholder interviews and meetings. Being a good community partner means entering the community in a successful way and staying involved in the community throughout the development process. The region

needs to develop best practices for market entry for the ocean renewable energy industry.

Description: Local stakeholders in the region should develop a definition and template of best practices for market entry. The template can include information such as procedural steps to engage local stakeholders for siting and permitting, sourcing locally, supporting local activities and initiatives, and the region's expectations.

Who: Coordinator: Oregon Wave Energy Trust
Support from: Local Stakeholders, Economic Development Organizations, and Local Governments
Involvement from: Ocean renewable energy industry

Outcome: The action will result in a template with articulated criteria and expectations from local stakeholders for the ocean renewable energy industry when working in the region.

Action 1.3.2: Include the ocean renewable energy industry in local economic development plans and strategies.

Rationale: The ocean renewable energy industry needs to be represented in local economic development plans and strategies to be treated as an economic development priority.

Description: The local government agencies and economic development organizations include the ocean renewable energy industry in local economic development plans and strategies.

Who: Coordinator: Local governments and economic development organizations.
Support from: Oregon Wave Energy Trust
Involvement from: Local stakeholders

Outcome: The ocean renewable energy industry is included in local economic development plans and strategies and therefore is treated as an economic development priority.

2. Infrastructure, Services, and Workforce

Issue 2: The region has many infrastructure, services, and workforce assets needed for the ocean renewable energy industry but cannot make additional capital investments without better understanding what is needed and the local benefits of ocean energy development.

The region has many infrastructure pieces in place to support ocean renewable energy development; however, additional infrastructure, services, and workforce investments are needed to support the industry. These improvements are capital intensive and the region cannot make these improvements before understanding

the benefits to the region and the specific investments required to support the industry.

2.1 Strategy: Identify the infrastructure, services, and workforce needs of the ocean renewable energy industry.

Action 2.1.1: Work with the ocean renewable energy industry to understand the specific infrastructure, services, and workforce needs for each technology type.

Rationale: The region has many of the infrastructure, services, and workforce assets needed by the ocean renewable energy industry; however, the region will not make additional capital investments until the industry can identify what it needs.

Description: The industry identifies the specific infrastructure requirements, manufacturing services, and workforce needs for each type of ocean renewable energy technology and development.

Who: Coordinator: Oregon Wave Energy Trust
Support from: Ocean renewable energy industry
Involvement from: Local Governments and Economic Development Organizations

Outcome: The industry will communicate its infrastructure, services, and workforce needs to the region.

Action 2.1.2: Work with the region to identify and develop key infrastructure and services that the region can provide.

Rationale: While the region prefers to provide all of the industry's infrastructure, services, and workforce needs, some will need to be met from outside resources.

Description: The industry should articulate to the region the infrastructure, services, and workforce they can and want to source from the region. By identifying the areas the region can provide, the region can make informed infrastructure, services, and workforce improvements.

Who: Coordinator: Oregon Wave Energy Trust
Support from: Ocean renewable energy industry
Involvement from: Local Governments, Economic Development Organizations, and Education/Workforce Organizations

Outcome: The action will result in a list of infrastructure, services, and workforce needs the region can provide to the ocean renewable energy industry.

2.2 Strategy: Inventory the region's infrastructure, services, and workforce assets related to ocean renewable energy.

Action 2.2.1: Work with the region to create an inventory of the region's infrastructure and services assets that the region has that would be necessary to support the industry.

Rationale: It is important to the region that the ocean renewable energy industry source as much of its needs from within the region. It is important for the region to inventory its infrastructure and services to understand what the region can offer the ocean renewable energy industry. The inventory will also serve as an important economic development tool for other industries.

Description: The region develops an inventory of port infrastructure, utility infrastructure, manufacturing services, skilled workforce, training programs, resources, etc. required for ocean renewable energy development. The region can keep the inventory as an internal tool and/or share the inventory with interested developers and industries.

Who: Coordinator: Oregon Wave Energy Trust
Support from: Economic Development Organizations, and Education/Workforce Organizations
Involvement from: Local Governments, Education/Workforce Organizations, and Business Oregon

Outcome: The action will result in an inventory of the region's infrastructure, services, and workforce that the region can use for all economic development activities.

Action 2.2.2: Work with local education providers and workforce organizations to inventory education and training workforce programs as well as the region's skilled workforce needed to support the industry.

Rationale: It is important to the region that the ocean renewable energy industry source as much of its employment needs from within the region. It is important for the region to inventory its workforce to understand what the region can offer the ocean renewable energy industry. The inventory will also serve as an important economic development tool for other industries.

Description: The region develops an inventory of existing workforce and training programs needed for ocean renewable energy development. The region can keep the inventory as an internal tool and/or share the inventory with interested developers and industries.

Who: Coordinator: Oregon Wave Energy Trust
Support from: Education/Workforce Organizations
Involvement from: Economic Development Organizations

Outcome: The action will result in an inventory of the region’s workforce that the region can use for all economic development activities.

2.3 Strategy: Create an infrastructure, services, and workforce process to approve and make improvements.

Action 2.3.1: Work with local agencies, such as city, county, and port agencies to identify a process with criteria to approve capital-intensive infrastructure improvements.

Rationale: The region appears to be willing to invest in infrastructure and services improvements to support the ocean renewable energy industry; however, the region will only undertake capital-intensive improvements if it is overall beneficial to the region. Therefore, the community should develop an infrastructure improvement process with criteria to use when evaluating improvement requests.

Description: The region will develop an infrastructure improvement process that outlines the approval criteria for infrastructure requests. The predetermined process will ensure fair treatment and transparency for the ocean renewable energy industry, or other industries requesting infrastructure improvements.

Who: Coordinator: Local Governments and Ports
Support from: Oregon Wave Energy Trust
Involvement from: Economic Development Organizations and Local Stakeholders

Outcome: The action will result in a predetermined and transparent process for infrastructure improvements.

Action 2.3.2: Work with the local education providers to identify new education and training workforce programs needed to support the industry.

Rationale: The region has a strong community college able to train a capable workforce for ocean renewable energy careers. The community college can also create new training programs when a need exists.

Description: Work with the local community college to create training programs to educate the local workforce for ocean renewable energy careers.

Who: Coordinator: Oregon Wave Energy Trust
Support from: Southwestern Oregon Community College and other education providers.
Involvement from: Ocean renewable energy industry

Outcome: The action will result in local training programs to train a future workforce for ocean renewable energy careers.

2.4 Strategy: Prioritize using local resources first.

Action 2.4.1: Work with the ocean energy industry to prioritize using local resources when a need exists.

Rationale: The region believes it is critical for the ocean renewable energy industry to prioritize sourcing infrastructure, services, and workforce needs locally before sourcing outside the region.

Description: Develop an informal agreement with the ocean renewable energy industry to prioritize sourcing infrastructure, services, and workforce needs locally first.

Who: Coordinator: Oregon Wave Energy Trust
Support from: Local Governments and Economic Development Organizations
Involvement from: Local Stakeholders

Outcome: The action will result in an agreement between the ocean renewable energy industry and the region to source locally first.

Action 2.4.2: Work with the region to create a process for sourcing infrastructure, services, and workforce from outside the region.

Rationale: The region prefers for all infrastructure, services, and workforce needs of the ocean renewable industry be met by local resources to the extent possible. However, the industry may need to source some things from outside the region. It is important for the region and the industry to create a mutually agreeable process for sourcing outside the region to avoid potential conflict.

Description: The industry and the region create an agreed upon agreement for sourcing infrastructure, services, and workforce outside of the region. This can include a directory or local service providers to be shared with ocean renewable energy developers.

Who: Coordinator: Oregon Wave Energy Trust
Support from: Local Governments and Economic Development Organizations
Involvement from: Ocean renewable energy industry and Local Stakeholders

Outcome: The action will result in a process for sourcing infrastructure, services, and workforce outside the region.

3. Siting and Permitting Engagement

It is important to clarify that siting is not something OWET or the state of Oregon have exclusive jurisdiction over. The complexity of siting suggests this topic may need to be explored in more depth collaboratively with OWET, regulatory agencies, industry representatives and community stakeholders.

Issue 3: Local stakeholders, specifically ocean users, are concerned about the siting of ocean renewable energy projects because of potential impacts.

Local stakeholders are concerned about the siting of ocean renewable energy projects because it could affect commercial fisherman, recreational uses, tourism, or view sheds. Local stakeholders want to be involved in the siting and permitting decisions to help mitigate these concerns.

3.1 Strategy: Include a voluntary local component in siting decisions.

Action 3.1.1: Work with ocean renewable energy developers to include a voluntary local component to the siting and permitting decisions.

Rationale: Local stakeholders feel they are not included in the siting and permitting process of ocean renewable energy developments. Although local stakeholders were involved in the Territorial Sea Plan process, many feel the region does not have ownership in the siting and permitting process. Including local stakeholders in the process can help to avoid conflict and delay. A key issue is that developing projects may not require any local government review, and as such, the community will not be included in decisions related to development. Voluntary engagement that developers would use as they propose projects could address most local concerns without adding another legal and bureaucratic step in the permitting process.

Description: Work with ocean renewable energy developers to include the input from local stakeholders in the siting and permitting process.

Who: Coordinator: Oregon Wave Energy Trust
Support from: Ocean renewable energy industry
Involvement from: Local stakeholders, Local Governments, and Economic Development Organizations

Outcome: The action will result in a process to include local stakeholders in the siting and permitting of ocean renewable energy developments.

Action 3.1.2: Advocate to the Federal Government for a community-accepted strategy for the outer continental shelf.

Rationale: Currently there is not a development plan for the outer continental shelf. This means that the ocean area outside of the territorial sea does not have a plan or designated areas for development. Local stakeholders are concerned with the siting and permitting process for the outer continental shelf, including the location and amount of development allowed in this area. This area is under federal jurisdiction, and the federal agencies that oversee uses will make determinations about what is allowable and the process for siting projects. The federal permitting process may not adequately reflect local issues and concerns.

Description: Because a formal plan does not exist for the outer continental shelf, the industry should work with other ocean users to develop voluntary local guidelines for responsible ocean energy development in the outer continental shelf area. This process should include steps to engage local stakeholders and other ocean users before developing in the outer continental shelf.

Who: Coordinator: Oregon Wave Energy Trust
Support from: Local Stakeholders and Local Governments
Involvement from: Ocean renewable energy industry

Outcome: The action will result in a voluntary industry process to engage local stakeholders before and during development in the outer continental shelf.

Action 3.1.3: Engage and/or collaborate with ocean users in siting and permitting decisions.

Rationale: Ocean users are concerned about the siting and permitting process of ocean renewable energy developments. These ocean users want to be included in the siting and permitting process by collaborating with developers to determine agreeable siting locations.

Description: The ocean renewable energy industry should develop an engagement process to use with ocean users and other stakeholders when siting locations for ocean renewable energy projects.

Who: Coordinator: Oregon Wave Energy Trust
Support from: Ocean renewable energy industry
Involvement from: Local stakeholders and Local Government

Outcome: The action will result in an engagement process for ocean renewable energy developers to use when working with local stakeholders on siting and permitting of ocean renewable energy projects.

3.2 Strategy: Create locally accepted siting and permitting locations.

Action 3.2.1: Work with ocean user groups to create a map of predetermined acceptable sites for ocean energy development.

Rationale: Local stakeholders are concerned on the location for ocean renewable energy developments. The stakeholders know the region the best and understand the areas where ocean renewable energy development is more acceptable. To aid in the siting and permitting process the region can create a local zoning map of predetermined sites for ocean renewable energy development.

Description: The region works with local stakeholders to identify areas in the ocean that stakeholders agree is acceptable for ocean renewable energy development. The map will identify areas that have the smallest impact on existing ocean users and other stakeholders. The map will help ocean renewable energy developers identify a location for development.

Who: Coordinator: Oregon Wave Energy Trust
Support from: Local stakeholders
Involvement from: Ocean renewable energy industry

Outcome: The action will result in a local map with predetermined sites for ocean renewable energy development. The map will aid ocean renewable energy developers when choosing a site for location and will help minimize conflicts during the siting and permitting process.

4. Communication

Issue 4: Local stakeholders believe communication is the most crucial aspect of ocean renewable energy development in the region. Local stakeholders want open communication between the industry and the community.

Communication is a crucial aspect to the success of ocean renewable energy development in Coos County. Local stakeholders want to be involved in the development process, but because of past projects from other industries in the region, are skeptical of the ocean renewable energy industry. The community and industry need to work together to form open lines of communication.

4.1 Strategy: Engage with the local community before proposing a development project.

Action 4.1.1: Use existing local groups and communication networks to spread information. For example, continue to work with Southern Oregon Ocean Resource Coalition (SOORC) to engage with ocean users and the marine industry.

Rationale: Local stakeholders indicated that the best way to communicate with the region is to use existing and trusted community groups. The best way to engage ocean users is to communicate with trusted and respected ocean users who can use existing networks to spread the industry's information. For example, in 1998 WCI Cable, Inc. entered into a cooperative agreement with Oregon fisherman to locate a new fiber-optic communications cable in the Pacific Ocean. The agreement outlined the duties and responsibilities of each group in regard to the fiber-optic project (Oregon Fisherman's Cable Committee).⁵

Description: When entering the region, the ocean renewable energy industry will identify community groups to use as communication channels. The industry will meet with the community group's leader or the community group together to discuss information regarding the proposed development. It is important that the industry engage with each of the community groups on an individual basis as opposed to open community meetings.

Who: Coordinator: Oregon Wave Energy Trust
Support from: Ocean renewable energy industry

Involvement from: Local community groups and local stakeholders

Outcome: The action will result in the ocean renewable energy industry engaging with local stakeholders in a process supported by the region.

Action 4.1.2: Engage in regular and open conversations between industry and community to ensure both are heard and engaged.

Rationale: The region wants the ocean renewable energy industry to communicate with the region throughout the process. The region has many examples to point to where industry representatives, from various industries, were not open and transparent during the development process. These instances have left the region skeptical to new development opportunities. It is important for the industry to build trust within the region by being transparent throughout the development process. Additionally, it is important for the community to communicate openly with the ocean renewable energy industry. Communication is a two-way street to ensure everyone is heard and engaged.

Description: The Ocean renewable energy industry and community communicate openly throughout development. This means the industry updates the region on progress throughout the

⁵ <http://www.ofcc.com>

development and the community articulates questions and concerns along the way.

Who: Coordinator: Oregon Wave Energy Trust
Support from: Ocean renewable energy industry
Involvement from: Local stakeholders, Local Government, and Economic Development Organizations

Outcome: The action will result in transparent communication between the industry and the region, likely resulting in increased regional trust between the industry and the community

4.2 Strategy: Create an open communication process between the industry and local stakeholders, especially ocean users.

Action 4.2.1: Work with the region to create a communication pathway for developers. For example, identify important community contacts, such as economic development professionals, elected officials, and ocean users to contact.

Rationale: Communication is important to the region. However, communication is a two-way street and the region can aid in the successful communication between the industry and the region by developing clear pathways for communication.

Description: The region develops a communication pathway for developers when engaging with the region. The communication pathway could include a contact tree or other clearly defined networks for communicating with specific stakeholder groups.

Who: Coordinator: Oregon Wave Energy Trust
Support from: Local Governments and Economic Development Organizations
Involvement from: Local stakeholders and community groups

Outcome: The action will result in a clear communication pathway for developers when engaging with the region.

Action 4.2.2: Identify an industry contact within the local community.

Rationale: Establishing an industry contact within the local community helps to integrate the industry into the region and demonstrates the industry's commitment to being a community partner.

Description: The industry will establish a local office with an industry contact. Local stakeholders expressed that having someone in the local community to engage and communicate with is the best way to enter the region. The industry and the Oregon Wave Energy Trust will identify a local contact in a local office to represent the industry in the Coos County region. The local contact may be from the industry, OWET, economic development organization, or another appropriate party.

Who: Coordinator: Oregon Wave Energy Trust Support from:
Ocean renewable energy industry
Involvement from: Economic Development Organizations and Local stakeholders

Outcome: The action will result in a local industry contact to engage with the region and establish the industry as a community partner.

APPENDIX A: COMMUNITY READINESS FOR ECONOMIC DEVELOPMENT

Appendix A provides an overview of the community readiness theory and model. It defines the stages of community readiness, describes how the model has been adapted to economic development, and discusses the approach used to conduct the community readiness assessment for ocean renewable energy development in Coos County.

What is Community Readiness?

Community readiness is a theoretical model created by the Tri-Ethnic Center for Prevention Research at Colorado State University to understand a community's level of readiness for implementing a community alcohol and drug abuse prevention program (Edwards, Jumper-Thurman, Plested, Oetting, & Swanson, 2000). Other disciplines now use the community readiness model to evaluate specific projects or programs. Because communities are at different levels of capacity and different stages of readiness for implementing programs, understanding a community's level of readiness is an important factor in determining whether a program will be effective and supported by the community. The community readiness model has nine stages of readiness:

1. No Awareness: The community and/or leaders have little or no recognition of the need for a program or project.
2. Denial: The community and/or leaders deny the need for a program or project.
3. Vague Awareness: The community and/or leaders have a general feeling that there is a need for a program or project.
4. Preplanning: The community and/or leaders begin to recognize the need for a program or project.
5. Preparation: The community and leaders are planning and focusing on practical details of a program or project.
6. Initiation: The community and leaders are starting to implement a program or project. The program or project is still viewed as a new effort.
7. Stabilization: The community and leaders are running one or two programs or projects. The programs or projects are viewed as stable.
8. Confirmation/Expansion: The community and leaders support expanding or improving efforts. The community and leaders are planning new efforts.
9. Professionalization: The community and leaders have sophisticated knowledge of the program(s) and/or project(s). High-trained staff run the programs, leaders are supportive, and community involvement is high.

The community readiness theory suggests that each community falls into a different stage of readiness and that stages of "readiness" can be measured. Communities undergo a community readiness assessment to determine the community's stage of readiness. The assessment evaluates a community on different categories identified for the specific program

or issue (Jumper-Thurman P. , Plested, Edwards, Helm, & Oetting, 2001). The original community readiness assessment evaluated six categories related to drug prevention. A level of readiness, from 1 to 9, is assigned to each category (Tri-Ethnic Center). The results from each category are then evaluated together to determine to community's overall stage of readiness.

Benefits of Using the Community Readiness Model

The Community Readiness Model is an action-oriented approach to reaching identified community goals and objectives. The Community Readiness Model has several identified benefits (Tri-Ethnic Center for Prevention Research, 2014). These benefits include:

- Measuring a community's readiness on several dimensions to help focus initial efforts;
- Helping identify a community's weaknesses, strengths, and likely obstacles moving forward;
- Working within the community's culture to identify the appropriate actions for the community's level of readiness; and
- Aiding in identifying resources and partnerships to ensure success of the intervention.

The Community Readiness Model is unique because it allows researchers and practitioners to accurately describe the community's developmental level concerning a specific topic; provides the tools to help focus and direct community efforts toward a desired goal; and helps maximize resources while minimizing the chance of failure (Jumper-Thurman, Edwards, Plested, & Oetting, 2003).

How does Community Readiness relate to Economic Development?

Although the Community Readiness Theoretical Model originally evaluated drug and alcohol abuse programs, a variety of disciplines use the model today (Edwards, Jumper-Thurman, Plested, Oetting, & Swanson, 2000). The community development field has been moving towards a concept of community readiness for years and the economic development field has adapted the community readiness model to assess a community's readiness for economic development.

Community readiness for economic development gauges a community's readiness for economic development projects and identifies the community's stage of readiness to support economic growth. An economic development community readiness assessment:

1. Provides a basis for understanding how community dynamics relate to economic development; and
2. Provides information about a community's economic development readiness across different categories. This helps the community understand the level of economic development it is capable of undertaking effectively and documents areas needed to build capacity (Oregon Economic and Community Development Department , 2001).

Business Oregon (the Oregon Economic and Community Development Department) created a guidebook and readiness assessment tool to help communities assess their business and economic development capacity and to identify next steps in achieving their economic

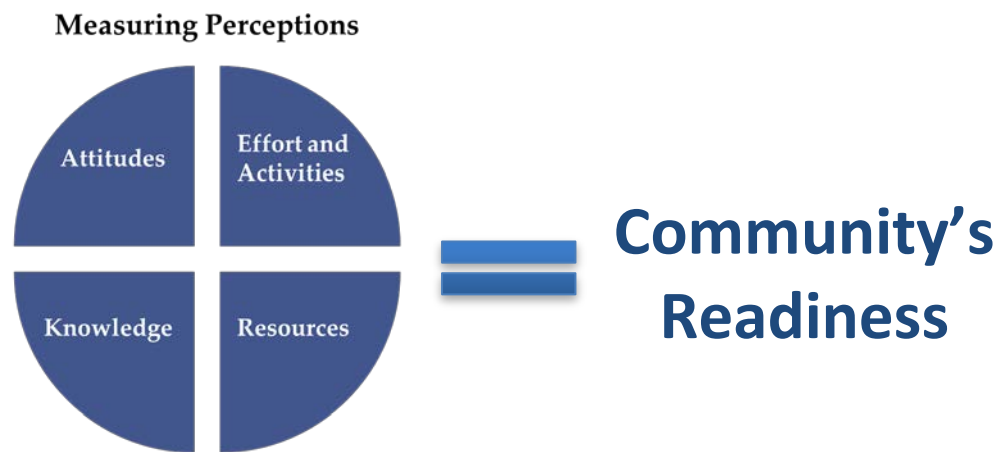
development goals. The following national and state departments and/or organizations have also adopted community readiness assessments for economic development:

- The National Association of Counties (National Association of Counties, 2004);
- Michigan (Pure Michigan, 2012);
- Arkansas (Entergy Arkansas, Inc.);
- Wyoming (Wyoming Business Council, 2010);
- Georgia (Georgia Institute of Technology Economic Development Institute, 2002);
- Nebraska (Nebraska Community Foundation , 2012);
- Louisiana (Lousianna State University College of Agriculture); and
- Parts of Canada (Grow Our Region).

Community Readiness Assessment

A community readiness assessment measures perceptions of stakeholders to assess a community's readiness along four dimensions (Figure A-1) (Tri-Ethnic Center for Prevention Research, 2014). The dimensions of community readiness are attitudes, knowledge, resources, and effort and activities.

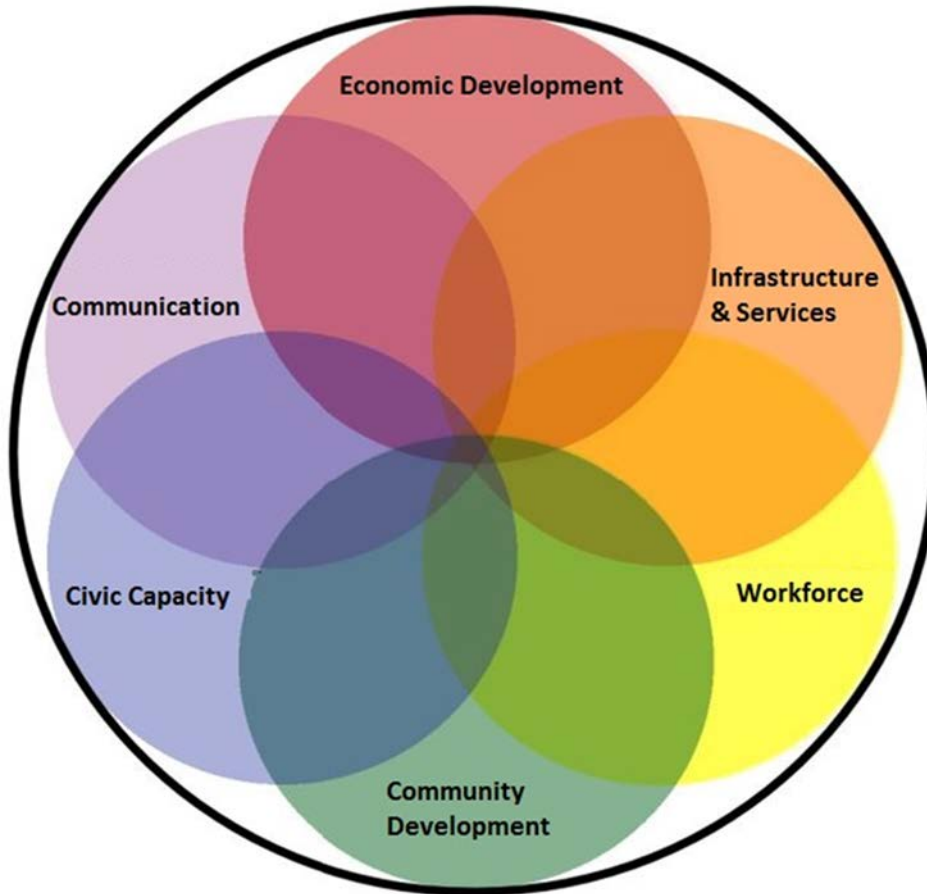
Figure A-1. Assessing Community Readiness



Source: Tri-Ethnic Center for Prevention Research

A community readiness assessment evaluates a community on different categories related to economic development. Each category contains detailed questions or statements used to understand the level of readiness for each category. The following are the categories identified from existing community assessment tools (Figure A-2).

Figure A-2. Economic Development Assessment Metrics



Source: Tri-Ethnic Center for Prevention Research; Adapted for Economic Development

Following is a description of the six assessment categories and specific metrics used to measure economic development readiness.

1. Economic Development Capacity: evaluates the community's ability for economic development. Questions cover topics such as the community's economic development vision, economic development plan, business incentives, access to financial capital, and economic development groups and programs.
2. Infrastructure and Services Capacity: evaluates the community's existing infrastructure and services, as well as the capacity for growth. Questions cover topics such as public services, access to modes of transportation, telephone and Internet access, number of large users utilities can handle, and availability of land and buildings.
3. Workforce Capacity: evaluates the community's existing workforce and the community's ability to educate the workforce. Metrics cover topics such as availability of capable and productive workforce, organizations providing education, job shadow and internship programs, and entrepreneurship programs.
4. Community Development Capacity: evaluates the community's capacity for community development. Metrics include topics such as public transportation,

community members' view of the community, and quality of life, comprehensive land use plans.

5. Civic Capacity: evaluates the community's civic capacity for economic development. Metrics cover community support and commitment for economic development. The evaluation also evaluates how informed the community is about economic development and their involvement in economic development efforts.
6. Communication Capacity: evaluates the community's capacity for communication. Evaluation covers the level and type of communication between the ocean renewable energy industry and local stakeholders. The evaluation also identifies the best way(s) to engage with local stakeholders in the region.

Action Planning

The purpose of the assessment isn't simply to understand readiness; it is to develop specific action steps to create a higher level of readiness. The Community Readiness Model uses the final readiness score to develop a plan of action for the community to implement the project (Tri-Ethnic Center for Prevention Research, 2014). The goal is to move the community from its current level of readiness to the next higher level of readiness. Movement to the next level of readiness can occur in different ways. For example, the community can focus on moving a category that received a low level of readiness score or the community can focus on moving all categories to the next level of readiness. Community members should be involved with developing strategies to move to the next level of readiness (Jumper-Thurman P. , Plested, Edwards, Foley, & Burnside, 2003).

Steps in Conducting a Community Readiness Assessment for Local Governments and Organizations

Local governments and organizations can adapt the Community Readiness Model and assessment tools to evaluate and identify a community's readiness for specific economic development projects and/or efforts. A potential starting point is to evaluate a community based on the six assessment metric categories: economic development capacity; infrastructure and service capacity; workforce capacity; community development capacity; civic capacity; and political capacity. Local governments and organizations can also add assessment metric categories specific to the economic development project. The evaluator can adapt the questions and measurements in each assessment metric category to evaluate the capacity for the identified project. For example for an ocean energy project, workforce capacity would evaluate a community's ability to educate a workforce for ocean energy careers.

Creating an assessment tool will allow local governments and organizations to identify a community's stage of readiness for economic development. This information will allow local governments and organizations to identify if the community is ready for a specific economic development project, if the community is almost ready and areas to focus capacity building, or if the community needs to begin the process of preparing for economic development. The community readiness framework and assessment tool can aid local governments, organizations, and the Economic Development Administration in developing economic development projects in the appropriate locations.

Potential Steps for Implementing a Community Readiness Assessment

This section outlines broad steps local governments and organizations could take to conduct a community readiness assessment. Each community assessed will require a customized strategy to account for community differences. The evaluator can use multiple assessment strategies during a community assessment. I recommend using a mixed strategy approach of combining a predetermined assessment tool with stakeholder interviews. This approach allows the evaluator to ask each key stakeholder/stakeholder group the same questions to receive a well-rounded viewpoint of the community.

The following steps are intended as a starting point:

Step 1. Determine Assessment Metrics

Before conducting a readiness assessment of a community, it is important to determine the assessment categories and associated evaluation questions for each category. Each community may require a different set of evaluation questions and assessment categories. Local governments and organizations could create an assessment tool or scorecard that is customizable for each economic development project.

Step 2. Determine Readiness Criteria

It is important to decide upfront the level of readiness considered acceptable for economic development. This can include identifying the overall stages of readiness and/or the stages for each assessment category considered acceptable for development. This step will help ensure the evaluation process is equitable and transparent for all projects and all communities.

Step 3. Identify Evaluator

The next step is to identify the individual or group conducting the assessment. CPW suggests having an outside organization conduct the community readiness assessment to help ensure objectivity. Local governments and organizations can have an outside organization conduct the assessment, hire a trained facilitator, or use an outside consultant.

Step 4. Identify Stakeholders

It is important to involve the community in the community readiness assessment to share their local knowledge. Identifying all possible stakeholders is important to help ensure all viewpoints are included in the assessment. In this step the evaluator, with the help of the local government or organization, should identify the stakeholders in the community regarding the economic development project, and invite the stakeholders to participate in the community readiness assessment.

Step 5. Conduct Assessment

After laying the foundation for the assessment by determining the assessment metrics and stakeholder groups, the responsible party is ready to conduct the community readiness assessment. The assessment uses the predetermined assessment tool to conduct the assessment with individual stakeholders and/or stakeholder groups. The responses from the stakeholder interviews are recorded for each category and each question.

Step 6. Compare Stakeholder Responses

The evaluator compares the stakeholder responses from each category upon completion of the assessment tool. This step identifies any discrepancies in answers between groups. Areas of discrepancy need either more discussion or future capacity building. The evaluator then assigns each category a readiness stage.

Step 7. Evaluate Community Readiness




The evaluator is ready to determine the overall community readiness based on the readiness stage from each assessment category. The evaluator looks at the information as a whole to determine the community's overall level of readiness for the economic development project ranging from no awareness to professionalization.

Step 8. Develop an Action Plan

Based on the community's stage of readiness and areas needing further capacity building, the local government or organization can develop a specific set of actions to address inadequacies.

APPENDIX B: ASSESSMENT TOOL FINDINGS

Please check the areas where you are knowledgeable. (Check all that apply.)

#	Answer	Bar	Response	%
1	Economic Development Capacity: Knowledgeable about the Coos County Region's planning and economic development activities.		12	67%
2	Infrastructure Capacity: Knowledgeable about the Coos County Region's infrastructure and services; including port infrastructure such as barges and tugboats.		13	72%
3	Workforce Capacity: Knowledgeable about the Coos County Region's current and future workforce.		8	44%

Please indicate your level of agreement or disagreement with the following statements about the Coos County Region:

#	Question	Strongly Disagree	Disagree	Neither Disagree nor Agree	Agree	Strongly Agree	Total Responses	Mean
1	A. Economic development is a high priority.	0.00%	0.00%	0.00%	12.50%	87.50%	8	4.88
2	B. Financial resources are available for business and industrial development (revolving loan funds, venture capital, lending institutions, etc.).	0.00%	0.00%	25.00%	62.50%	12.50%	8	3.88
3	C. There is industrially zoned land ready to build or occupy at a reasonable market rate for ocean renewable energy shoreside development.	0.00%	0.00%	33.33%	50.00%	16.67%	6	3.83
4	D. There are industrially zoned buildings that are ready to occupy or renovate at a reasonable market rate for ocean renewable energy shoreside development.	0.00%	50.00%	25.00%	25.00%	0.00%	8	2.75
5	E. The region's Comprehensive Plans have significant impediments to ocean energy. For example: shoreside zoning that prohibits energy related infrastructure, such as a power line coming to shore.	25.00%	25.00%	25.00%	25.00%	0.00%	4	2.50

Please indicate the Coos County Region's need for the following items:

#	Question	Critical	Needed	Somewhat Needed	Not Needed	Total Responses	Mean
1	A. Financial incentives available to subsidize renewable ocean energy development.	14.29%	71.43%	0.00%	14.29%	7	2.14
2	B. Financial incentives to address the above market energy cost of ocean energy to	33.33%	50.00%	0.00%	16.67%	6	2.00
3	C. An economic development plan that targets the ocean energy industry.	0.00%	57.14%	28.57%	14.29%	7	2.57
4	D. An economic development plan that considers regional and statewide strategies and opportunities for ocean renewable energy.	0.00%	71.43%	14.29%	14.29%	7	2.43
5	E. A list of predetermined land available and approved for ocean renewable energy shoreside industrial needs.	14.29%	57.14%	14.29%	14.29%	7	2.29
6	F. A streamlined permitting process for shoreside ocean renewable energy development.	14.29%	57.14%	14.29%	14.29%	7	2.29

**Please indicate your level of agreement or disagreement with the following statements.
The Coos County Region:**

#	Question	Strongly Disagree	Disagree	Neither Disagree nor Agree	Agree	Strongly Agree	Don't Know	Total Responses	Mean
1	A. Has access within a reasonable distance to a concrete manufacturer capable of manufacturing large concrete forms while working with ocean energy developers to adapt and modify designs as changes occur..	0.00%	12.50%	0.00%	50.00%	12.50%	25.00%	8	4.38
2	B. Has access within a reasonable distance to a manufacturer that works with fiber-reinforced plastics (FRPs).	0.00%	25.00%	0.00%	37.50%	0.00%	37.50%	8	4.25
3	C. Has a transportation company within a reasonable distance able to transport large ocean renewable energy equipment and materials, such as large concrete and steel forms.	0.00%	0.00%	0.00%	62.50%	37.50%	0.00%	8	4.38
4	D. Has barges or tugboats capable of transporting large devices and components from manufacturing facilities	0.00%	0.00%	0.00%	62.50%	37.50%	0.00%	8	4.38
5	E. Has access within a reasonable distance to a steel manufacturer and fabricator capable of working with ocean energy developers to adapt and modify designs as changes occur.	0.00%	0.00%	12.50%	12.50%	25.00%	50.00%	8	5.13
6	F. Has access within a reasonable distance to a general-purpose machinery manufacturer able to manufacture customized parts and machinery for ocean renewable energy.	0.00%	12.50%	12.50%	25.00%	12.50%	37.50%	8	4.50
7	G. Has access within a reasonable distance to a power distribution and transformer equipment manufacturer capable of manufacturing customized equipment based on ocean energy developers'	0.00%	12.50%	12.50%	25.00%	0.00%	50.00%	8	4.63
8	H. Has access within a reasonable distance to a cable deployment vessel for use by the ocean renewable	0.00%	25.00%	0.00%	25.00%	12.50%	37.50%	8	4.38
9	I. Has access within a reasonable distance to a survey vessel to map out and determine bottom composition and	0.00%	0.00%	0.00%	75.00%	12.50%	12.50%	8	4.38
10	J. Has access within a reasonable distance to a manufacturer capable of manufacturing large high-pressure water pumps customized for ocean renewable energy.	0.00%	0.00%	14.29%	42.86%	0.00%	42.86%	7	4.71
11	K. Has a rail service able to ship large materials, such as large piping, with access to industrial land along the	0.00%	0.00%	0.00%	62.50%	37.50%	0.00%	8	4.38
12	L. Has a dock or mooring site available and appropriate for ocean renewable energy.	0.00%	0.00%	12.50%	25.00%	37.50%	25.00%	8	4.75
13	M. The electrical grid is capable of supporting additional energy generation.	0.00%	0.00%	12.50%	25.00%	25.00%	37.50%	8	4.88
14	N. The road system can support the transportation of large equipment, large concrete structures, and/or large	0.00%	0.00%	12.50%	62.50%	12.50%	12.50%	8	4.25

Please answer the following questions about the Coos County Region's Infrastructure and Services Capacity for ocean renewable energy development.

#	Question	Yes, we have been doing this/had this for over a year	Yes, we have been doing this/had this for less than a year	We are almost finished with this	We are actively making progress	We have made little progress to date	We are starting this soon	We are planning to do this	We are considering doing this	We have not considered this	We do not need this	Don't Know	Total Responses	Mean
1	A. The Coos County Region has taken steps to support infrastructure improvements and/or development for ocean renewable energy.	12.50%	0.00%	0.00%	12.50%	25.00%	12.50%	12.50%	12.50%	12.50%	0.00%	0.00%	8	5.63
2	B. The County has taken steps to support infrastructure improvements and/or development for ocean renewable energy.	12.50%	0.00%	0.00%	12.50%	0.00%	12.50%	12.50%	25.00%	12.50%	0.00%	12.50%	8	6.75
3	C. The Cities have taken steps to support infrastructure improvements and/or development for ocean renewable energy.	0.00%	0.00%	0.00%	0.00%	12.50%	0.00%	25.00%	12.50%	12.50%	0.00%	37.50%	8	8.63
4	D. Private and Public energy providers have taken steps for the electrical grid to support and connect to ocean energy generating facilities.	0.00%	0.00%	0.00%	25.00%	12.50%	0.00%	12.50%	0.00%	12.50%	0.00%	37.50%	8	7.75
5	E. Has an Infrastructure Development Plan (e.g. utilities, sites, buildings) to support Coos County growth and development.	12.50%	12.50%	0.00%	12.50%	0.00%	25.00%	0.00%	0.00%	12.50%	0.00%	25.00%	8	6.25
6	F. Has a capital improvement plan that identifies current utility capabilities and considers if current infrastructure allows for ocean renewable energy development.	0.00%	0.00%	0.00%	0.00%	0.00%	12.50%	0.00%	12.50%	25.00%	0.00%	50.00%	8	9.50

**Please indicate your level of agreement or disagreement with the following statements.
The Coos County Region:**

#	Question	Strongly Disagree	Disagree	Neither Disagree nor Agree	Agree	Strongly Agree	Don't Know	Total Responses	Mean
1	A. Has at least one organization providing or able to provide workforce education and training.	0.00%	0.00%	0.00%	33.33%	66.67%	0.00%	6	4.67
2	B. Has a workforce of local mechanical and electrical engineers.	0.00%	33.33%	0.00%	50.00%	0.00%	16.67%	6	3.67
3	C. Has a workforce of capable manufacturing fabricators.	0.00%	0.00%	16.67%	66.67%	16.67%	0.00%	6	4.00
4	D. Has a workforce of capable welders.	0.00%	0.00%	16.67%	66.67%	16.67%	0.00%	6	4.00
5	E. Has a workforce skilled in mechanical and electrical equipment maintenance, replacement, and repair.	0.00%	0.00%	16.67%	50.00%	0.00%	33.33%	6	4.50
6	F. Has a workforce skilled in electrical component design and manufacturing	0.00%	33.33%	16.67%	33.33%	0.00%	16.67%	6	3.50
7	G. Has a workforce skilled in advanced concrete product manufacturing	0.00%	33.33%	0.00%	50.00%	0.00%	16.67%	6	3.67
8	H. Has a workforce of certified able-bodied seamen.	0.00%	0.00%	33.33%	50.00%	0.00%	16.67%	6	4.00
9	I. Has a workforce for maritime vessel operations.	0.00%	0.00%	16.67%	66.67%	16.67%	0.00%	6	4.00
10	J. Has a workforce of capable ocean divers.	0.00%	33.33%	0.00%	50.00%	0.00%	16.67%	6	3.67

**Please answer the following questions about Workforce Capacity for ocean renewable energy development.
The Coos County Region:**

#	Question	Yes, we have been doing this/had this for over a year	Yes, we have been doing this/had this for less than a year	We are almost finished with this	We are actively making progress	We have made little progress to date	We are starting this soon	We are planning to do this	We are considering doing this	We have not considered this	We do not need this	Don't Know	Total Responses	Mean
1	A. Has a program to train a workforce of mechanical and electrical engineers.	16.67%	16.67%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	33.33%	0.00%	33.33%	6	7.17
2	B. Has a program to train a workforce of capable manufacturing fabricators.	66.67%	16.67%	0.00%	16.67%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	6	1.67
3	C. Has a program to train a workforce of capable welders.	66.67%	16.67%	0.00%	16.67%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	6	1.67
4	D. Has a program to train a workforce skilled in mechanical and electrical equipment maintenance, replacement, and repair.	16.67%	16.67%	0.00%	16.67%	0.00%	0.00%	0.00%	0.00%	33.33%	0.00%	16.67%	6	6.00
5	E. Has a program to train a workforce skilled in electrical component design and manufacturing.	0.00%	16.67%	0.00%	0.00%	33.33%	0.00%	0.00%	0.00%	33.33%	0.00%	16.67%	6	6.83
6	F. Has a program to train a workforce skilled in advanced concrete product manufacturing.	0.00%	16.67%	0.00%	16.67%	16.67%	0.00%	0.00%	0.00%	16.67%	0.00%	33.33%	6	7.00
7	G. Has a program to train a workforce of certified able-bodied seamen.	16.67%	0.00%	0.00%	16.67%	0.00%	0.00%	0.00%	16.67%	16.67%	0.00%	33.33%	6	7.33
8	H. Has a program to train a workforce for maritime vessel operations.	16.67%	16.67%	0.00%	0.00%	0.00%	0.00%	0.00%	16.67%	16.67%	0.00%	33.33%	6	7.00
9	I. Has a program to train a workforce of capable ocean divers.	0.00%	0.00%	0.00%	16.67%	0.00%	0.00%	0.00%	0.00%	33.33%	16.67%	33.33%	6	9.00

Please indicate your level of agreement or disagreement with the following statements. The Coos County Region:

#	Question	Strongly Disagree	Disagree	Neither Disagree nor Agree	Agree	Strongly Agree	Don't Know	Total Responses	Mean
1	A. Has a clear vision for the present and future.	15.38%	30.77%	23.08%	30.77%	0.00%	0.00%	13	2.69
2	B. Feels a sense of pride and attachment to the community and is optimistic about its future.	0.00%	0.00%	38.46%	30.77%	30.77%	0.00%	13	3.92
3	C. Has a culture of entrepreneurship that recognizes and rewards new ideas, innovation, partnerships, and collaboration.	0.00%	15.38%	15.38%	53.85%	15.38%	0.00%	13	3.69
4	D. Can see a project through to completion.	0.00%	0.00%	15.38%	61.54%	23.08%	0.00%	13	4.08
5	E. Can support growth associated with the ocean energy industry.	0.00%	0.00%	7.69%	38.46%	38.46%	15.38%	13	4.62
6	F. Has a recognized community and economic development group with structures and procedures that sustain positive action in the community.	0.00%	0.00%	7.69%	53.85%	38.46%	0.00%	13	4.31
7	G. Cooperates with neighboring communities on economic development efforts.	0.00%	7.69%	23.08%	38.46%	30.77%	0.00%	13	3.92
8	H. Has a comprehensive plan that includes areas for ocean renewable energy development.	7.69%	23.08%	0.00%	23.08%	0.00%	46.15%	13	4.23

Please indicate your level of agreement with the following statements. The Coos County Region:

#	Question	Strongly Disagree	Disagree	Neither Disagree nor Agree	Agree	Strongly Agree	Don't Know	Total Responses	Mean
1	A. Community members are well informed about economic development activities.	0.00%	15.38%	23.08%	61.54%	0.00%	0.00%	13	3.46
2	B. The community and economic development process is open and participatory; community members are willing to contribute and explore new ideas.	0.00%	7.69%	30.77%	38.46%	23.08%	0.00%	13	3.77
3	C. The region appropriately engages a diverse set of community stakeholders in economic development decisions.	0.00%	23.08%	7.69%	38.46%	30.77%	0.00%	13	3.77
4	D. Community members encourage and support economic development activities.	0.00%	7.69%	23.08%	61.54%	7.69%	0.00%	13	3.69
5	E. Community members are receptive to new industry.	7.69%	7.69%	7.69%	61.54%	15.38%	0.00%	13	3.69
6	F. Community members are receptive to the ocean energy industry.	0.00%	15.38%	30.77%	30.77%	7.69%	15.38%	13	3.77
7	G. Community members encourage the research and responsible development of ocean-based renewable energy.	0.00%	23.08%	38.46%	30.77%	0.00%	7.69%	13	3.31
8	H. Community members support ocean renewable energy development in Coos County.	0.00%	15.38%	30.77%	30.77%	7.69%	15.38%	13	3.77
9	I. Community members support overall economic growth in Coos County.	0.00%	7.69%	15.38%	38.46%	38.46%	0.00%	13	4.08
10	J. Community members support the creation of an ocean renewable energy cluster in Oregon.	0.00%	15.38%	23.08%	23.08%	7.69%	30.77%	13	4.15

Overall, in your opinion, how prepared or unprepared is the Coos County Region to support ocean renewable energy development.

#	Answer	Bar	Response	%
1	Very unprepared		0	0%
2	Unprepared		1	8%
3	Neither prepared nor unprepared		8	62%
4	Prepared		3	23%
5	Very prepared		1	8%
6	Don't know		0	0%
	Total		13	

APPENDIX C: WORK CITED

Following is a list of works cited in this report:

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