

Pacific Offshore Wind Development: Community Desire in a Just Energy
Transition

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A thesis

submitted in partial fulfillment of the

requirements for the degree of

Master of Marine Affairs

University of Washington

2024

Committee:

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Program Authorized to Offer Degree:

School of Marine and Environmental Affairs

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Abstract

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Floating offshore wind development on the US Pacific Coast has arrived as the Bureau of Ocean Energy Management has completed the first lease auctions to allow developers to build new clean energy sources off the coast of California. The United States, and the international community, have set ambitious goals to build renewable energy and phase out fossil fuel use between now and 2050. Socioeconomic well-being is centered in the whole-of-government approach to offshore wind development. Utilizing a just transition framework has created new development requirements such as Community Benefit Agreements, and Project Labor Agreements, that try to keep development money in communities through job creation, workforce development, and climate adaptation and

mitigation projects. Interviews were conducted in Coos County, OR and Humboldt County, CA to understand the desires of local communities and what would be needed to create lasting and meaningful benefits for the area. Communities loved the environment, their families, the culture, and their rural lifestyle. They hoped development would provide family-wage jobs, an economic anchor industry, more affordable housing, and reduce poverty and homelessness. A just transition can be achieved by turning community desires into the metrics of success for community benefit agreements. Co-creation of community benefits, as a form of procedural justice, must center the communities vision of their future on the unique characteristics that give them pride and a deep love for the area. The success or failure of offshore wind development will be measured by whether the desires of the community are realized or left unmet.

Acknowledgements

To the people who supported me and allowed me to follow my interests, I would first like to thank Yoshitaka Ota for his continued support and funding of my research through the Ocean Nexus program. With a vision for a more equitable connection between humans and the ocean, I was introduced to many brilliant scholars through Yoshi who have dedicated their lives to creating a more just and accessible ocean for all. To my advisor Griff, you widened the world of environmental and indigenous justice for me, and your commitment to the people you conduct research with is an example for all researchers to follow. To my colleagues in the School of Marine and Environmental Affairs, thank you for the unique perspectives, endless inquiry, and all the laughs as we worked together to find the intersection between science and policy in the marine world. I would especially like to thank Reuben Martinez and Kurt Ellison for being partners in my offshore wind research, a sounding board for ideas, and for their friendship throughout our time at the University of Washington. To my family, I would never have made it here without your continued support and love, it takes a village to complete anything of worth in this world. And to my partner Jenna, without your strength, kind heart, and steadfast support I would not have completed this academic adventure, thank you for all your love.

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Introduction

Along the Pacific Coast, small towns dot the rugged coastline from San Francisco to Seattle. Built on fishing and logging, these extractive industries were foundational to the economy and construction of the Pacific Northwest (PNW). As traditional industries contracted due to over-exploitation of resources, mechanization of labor, and changes in demand, the west coast became more urban. The U.S. west coast is now defined by the tremendous growth of its tech sector titans: Microsoft, Apple, Amazon, Facebook, and Google. Economic opportunity has drawn the population towards urban centers while the decline of traditional industries has left the rural timber towns of the Pacific Coast struggling with fewer family wage jobs, consolidation of industries, and the economic challenges of supporting an aging population.

Now, the U.S. government, in an effort to tackle carbon emissions in the energy sector, has implemented a strategy to develop the largest floating offshore wind (FOSW) farms in the world off the coast of the small cities of Coos Bay, Oregon and Eureka, California. In this paper I will analyze the impacts of international and national climate and FOSW policy and its potential outcomes for the US Pacific Coast. The coastline between the region south of Humboldt Bay, California, and north of Coos Bay, Oregon, boasts the highest average annual wind speeds along

the Pacific Coast, and for brevity, I will call this area *the wind coast* in this paper. With the potential for billions of dollars of new investment and a reindustrialization of coastal timber communities we must ask: will these communities be revitalized by the benefits of renewable energy development or will they be left with negative environmental, and socioeconomic impacts while profits are funneled to the headquarters of large multinational corporations?

The government and developers have focused offshore wind (OSW) development benefits on the potential for good-paying jobs and a reduction of carbon emissions in the energy sector. But without provisions that require good-paying jobs or the sunsetting of carbon intensive electricity production, like coal and natural gas, the extractive economies that were typical of America's past energy infrastructure—jobs reliant on continued extraction, low diversity economies, and increased environmental impacts to local communities—will repeat themselves. US and international leaders have released dozens of executive orders, and passed laws that promote development goals that include specific targets for socioeconomic well-being in the transition to renewable energies. But operationalizing environmental justice and human rights in the development process requires the acceptance of communities to allow massive development projects by government and industry.

The goal of this research was to understand the potential impacts that community members think OSW development might have. But more importantly to understand community desires related to socioeconomic well-being, and what futures they imagine offshore wind development might provide. What do they love about the places they live in, and what do they love about the people they live with? What do they imagine in an idealized future for the

communities they call home? How do they imagine the potential benefits and harms of the offshore wind development that will soon loom over their pacific sunsets?

The just transition framework was developed by the labor movement and incorporated into international trade unions, where the demands for “permanent and regular flow of capital for social and collective investments” was promoted to correct the lack of social investment by markets (Silverman, 2004). This foundational requirement—social and collective investment—aligns workers with the environmental movement, in that basic human social needs will not be met unless we develop a sustainable economy (Abram et al., 2022). A just “transition to net-zero [carbon emissions] will be neither sustainable nor credible if it creates or worsens social inequalities.” (Abram et al., 2022) I argue that a just transition in these coastal communities is not possible without understanding community desire, and incorporating local desires into the consultation and engagement process, less we settle for developers' imagined futures. This will allow communities to both address current issues in the area, and build pathways to enact a more socially responsible development agenda. For this reason, I set out to interview community members along the wind coast, focusing on two rural counties whose natural harbors are the best suited to port development which could accommodate OSW development, Coos County, Oregon, and Humboldt County, California.

In the framework of a just transition, community defined benefits are a critical component of procedural justice, and can provide equity with new energy developments (McCauley & Heffron, 2018). However, there is little research regarding the desires of the wind coast communities, especially members who do not see themselves as directly impacted by

OSW. Fishermen and their trade groups, who are vocal about their concerns of exclusion from their historic fishing grounds, are well represented in the current discourse, but the local librarian, the retired lineman, and the contractor who live in these communities may not be engaged in this issue (Baumhardt, 2024; *Will Offshore Wind Be Good for Humboldt County, California?*, n.d.). Initially, there does not appear to be a direct throughline with OSW development to the activities of their daily lives. But early stakeholder engagement shows that communities are already worried about whether development will happen *with* them, or *to* them (*Will Offshore Wind Be Good for Humboldt County, California?*, n.d.).

I argue that it is of critical importance to incorporate the desires of local communities into the Community Benefit Agreements (CBAs) that are being offered through the OSW development process. Policy decisions can create wildly different ranges of domestic jobs, salaries, manufacturing siting locations, and community funds. Community desires must be allowed to shape the policies that will define the clean energy transition. A just energy transition is not possible without addressing the current issues within coastal communities, and allowing their vision of the future to drive, what may be, the largest investment in these communities over the next hundred years. Improving socioeconomic well-being of underinvested and overburdened communities, like those along the wind coast, is impossible if community desire is not incorporated into the metrics that measure the success of these CBAs.

Background

Federal and International Climate Policy

Paris Agreement

On January 20, 2021, the first day of President Biden's term, the president committed the US to rejoining the Paris Agreement ("The United States Officially Rejoins the Paris Agreement," n.d.). Article 1 of the Paris Agreement states that the best available science will be used to guide humanity towards a path that limits global warming. Article 2 (a) states,

Holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change. (Paris Agreement, 2015)

But beyond the global climate mitigation goal at its core, other important values, such as equitable access to development, eradication of poverty, and a just transition with quality jobs are included within the agreement.

Recognizing the need for an effective and progressive response to the urgent threat of climate change on the basis of the best available scientific knowledge... Emphasizing the intrinsic relationship that climate change actions, responses and impacts have with *equitable access to sustainable development and eradication of poverty*... Taking into account the imperatives of a *just transition of the workforce and the creation of decent work and quality jobs* in accordance with nationally defined development priorities. (Paris Agreement, 2015)

As understanding of the impacts of global development has increased, so has the awareness of the interconnectedness between development, socioeconomic well-being, ecological function, and equity. Now, the largest climate agreement in history, the Paris Accords, expresses the desire to tackle the climate crises without leaving communities behind, by building decent work, through quality jobs, and with the explicit goal of ending global poverty while developing a sustainable future. The Justice 40 Initiative is a US Federal continuation of the international climate framework that goes beyond climate goals alone, and towards climate

justice, environmental justice, and a just transition framework that promotes socioeconomic well-being.

Socioeconomic Policy Framing and the Justice 40 Initiative

On January 27, 2021 President Biden signed Executive Order 14008 *Tackling the Climate Crisis at Home and Abroad*. The order focused on its fight against climate change by incorporating good-paying union jobs, equitable clean energy, sustainable infrastructure development, and restoring evidence-based policymaking (*Tackling the Climate Crisis at Home and Abroad*, 2021). One of the most important aspects of the executive order was a focus on investments through the Justice 40 Initiative, created within the order. Those investments will be made in 7 program areas:

Climate change, clean energy and energy efficiency, clean transit, affordable and sustainable housing, training and workforce development, remediation and reduction of legacy pollution, and the development of critical clean water and wastewater infrastructure. (*Justice40 Initiative | Environmental Justice*, n.d., p. 40)

The Justice 40 Initiative has the goal of putting 40% percent of federal funding towards the above investment categories into communities that have been “marginalized by underinvestment and overburdened by pollution.” The initiative requires stakeholder consultation to enable meaningful involvement in determining the benefits of investments through the covered programs. To determine which communities meet the requirements to qualify as underinvested and overburdened the administration developed the Climate and Economic Justice Screening tool.

Much of the Pacific Coast that falls within the development for OSW meets the requirements to qualify for Justice 40 investments, including Coos Bay, Oregon and Eureka, California (Map 1).

Among these many initiatives we see a focus on the good-paying jobs that will be provided as the United States embarks on a clean energy transition. We also see a focus on economic opportunities to lift people out of poverty and into the middle class while focusing investments in local and underserved communities. Framing equity and justice as a key tenet of international, national, and state goals is a paradigm shift within the energy sector. This focus on socioeconomic well-being is a welcome change from the industrialization efforts of the past which were almost exclusively promoted as economic and job focused initiatives.

On President Biden's first day in office he made a commitment to center equity in the executive branch by issuing Executive Order 13985:

It is therefore the policy of my Administration that the Federal Government should pursue a comprehensive approach to advancing equity for all including people of color and others who have been historically underserved, marginalized, and adversely affected by persistent poverty and inequality (Exec. Order No. 13985, 2021)

Schlosberg's (2003) work on environmental justice connects the environmental justice movement beyond the common pollution narrative, and towards a more unified social justice movement.

Certainly, and at the very least, it should be clear that environmental justice means much more than a lack of equity in the distribution of environmental ills. More broadly, what the environmental justice movement demonstrates is the possibility of addressing different conceptions of justice simultaneously, and bringing numerous notions of justice into a singular political project.

The fight against climate change in the US has now been centered into this broader vision of environmental justice, where climate investments within the Inflation Reduction Act (IRA), and the Bipartisan Infrastructure Law (BIL) are required to use 40% of their funds towards broader socioeconomic development goals guided by the Justice 40 initiative.

The US committed to “The 2030 Agenda for Sustainable Development”, which include 17 Sustainable Development Goals (SDGs) and 169 individual targets, in 2015, signing along with all the United Nations Member States (*Transforming Our World: The 2030 Agenda for Sustainable Development* | *Department of Economic and Social Affairs*, n.d.). In 2023, the US again, “committed to the full implementation of [The] 2030 Agenda and the SDGs, at home and abroad,” (The White House, 2023). The SDGs are designed to be a set of goals that move towards improving the lives and well-being of the global citizenry. In relation to this paper, four socioeconomic goals stand out: SDG 1-No Poverty, SDG 7-Affordable and Clean Energy, SDG-8 Decent Work and Economic Growth, SDG-14-Life Below Water.

SDG-1: No Poverty, has the goal to eradicate poverty across the globe. SDG-7: Affordable and Clean Energy, aims to substantially increase the global mix of renewable energy resources. SDG-8: Decent Work and Economic Growth, aims to create sustainable economic growth employment and development through economic diversification, and technological upgrading and innovation. SDG-14: Life Below Water, aims to protect ocean ecosystems while promoting sustainable use of oceans and their resources, such as maintaining and sustaining small-scale fishers and markets (*Transforming Our World: The 2030 Agenda for Sustainable Development* | *Department of Economic and Social Affairs*, n.d.).

All of these SDGs intersect with US coastal OSW development and reinforce the socioeconomic priorities inherent in a just and sustainable development of marine renewable energies. These ideas are apparent in another growing global framework, the “blue economy”. The UN Department of Economic and Social Affairs illuminates how a blue economy supports SDGs.

The blue economy concept seeks to promote economic growth, social inclusion and preservation or improvement of livelihoods while at the same time ensuring environmental sustainability—all issues integral to the 2030 Agenda. So, to build a blue economy, we will need to put sustainability at its centre. This will require careful attention to all decisions and their cross-sectoral implications. We will need to ensure that policies do not undermine each other and that interlinkages are leveraged for the benefit of people, planet and prosperity. (*Diving into the Blue Economy* | UN DESA | United Nations Department of Economic and Social Affairs, n.d.)

The international goals for a sustainable economy revolve around these 17 SDGs, US national policies that reinforce SDGs through their complementary goals go beyond climate goals and towards a socioeconomic framing of human well-being, poverty reduction, affordable energy, decent work, and ocean ecosystem health. This socioeconomic framing defines the new paradigm of sustainable development required for a successful just transition to clean energy, including pacific OSW development.

However, recent research has shown that the equity considerations of the blue economy have been sidelined for the neo-liberal agenda of economic growth over building equity in marine spaces (Croft et al., 2024). OSW is dominated by large multinational corporations, many are members of the fossil fuel industry, who continue to contribute to the GHG emissions in our atmosphere. To operationalize equity in the blue economy Croft et al. (2024) has proposed four principles for achieving equity in the blue economy: 1) Achieving fairness, 2) preventing harm,

Map 1. Gray areas show census tracts that qualify for Justice 40 investment funds to help overburdened and underserved communities along the wind coast. Created with Climate and Economic Justice Screening Tool (*Explore the Map - Climate & Economic Justice Screening Tool*, n.d.).

Climate Goals and Tensions in Relation to Equitable Development

When the IPCC modeled the scenarios to keep temperatures below 1.5-2 degrees Celsius, they found no possible pathways that did not nearly eliminate fossil fuel carbon emission by 2050 (Calvin et al., 2023). No goal is more important to mitigate global heating than transitioning off fossil fuels, and decarbonizing our energy and transportation systems. This is the critical scientific foundation that has prompted the global just energy transition.

With ambitious net-zero carbon goals of the federal government, the hard math of completing these targets comes into view. The National Renewable Energy Lab (NREL) has estimated that the US will need 2 terawatts (TW) of renewable electricity generation capacity by 2035 and a doubling, to tripling, of all electrical transmission systems across the country. (Denholm et al., 2022). All scenarios that were modeled by NREL have 60%-80% of all new energy generation as solar and wind (Denholm et al., 2022). To reach a fully clean energy electrification of the US by 2035 will require 70-145 gigawatts/year of new electricity generation capacity, which is a 4 fold increase in current annual deployments.

When viewed through this lens the first few projects on the Pacific Coast seem small, at only 15 GW by 2035. But these FOSW projects represent an important technological development as offshore wind has the potential to deliver 4 TW of capacity of the US, enough to completely supplant all fossil fuels for electricity generation (Global Offshore Wind Report 2023, 2024). Being a first mover in commercial scale offshore wind would put the US in a place

of leadership within the global market, which added 9.8 GW in 2023, for a total global capacity of 67.4 GW, with China leading the world with 31.5 GW. (Global Offshore Wind Report 2023, 2024)

The largest developments of FOSW were recently completed in Norway (88 MW), China (7.5 MW) and Spain (2 MW). The burgeoning FOSW industry not only allows the US to enter a new energy market, but to pave the way in bringing equity into the energy transition by following through with the, “comprehensive approach to advancing equity” set forth by the Biden administration. The scale of the investment necessary to accomplish decarbonizing the US energy system is immense, estimated to be between \$1.7-\$2.4 trillion per year until 2050 (Calvin et al., 2023). With the immense speed and the unprecedented scale required to mobilize workers of many sectors and manufacturers scaling production to mitigate climate change, the energy transition relies on developers who have overlooked the socioeconomic concerns of communities for decades. Can community priorities be incorporated into just transition development paradigms, or will governments ignore local concerns, and their own commitments, to bring equity into sustainable development in the name of speed?

Federal OSW and It’s Potential in a Just Transition

On March 29th, 2021 the Biden administration convened and announced three federal goals to:

1. Advance ambitious wind energy projects to create good-paying, union jobs.
2. Investing in American infrastructure to strengthen the domestic supply chain and deploy offshore wind energy.
3. Supporting critical research and development and data-sharing. (“Biden Administration Jumpstarts Offshore Wind Energy Projects to Create Jobs”, 2021)

In addition to the stated ambitions, they set discrete goals of 30 gigawatts (GW) of OSW by 2030 while protecting biodiversity and 44,000 workers in the OSW industry. The aim of this power generation is to supply 10 million American homes with electricity and avoid millions of metric tons of CO2 emissions. The US 2050 goal for OSW is 110 GW of OSW energy capacity, which could support 77,000 jobs. The administration announced millions in funding for OSW research on 15 projects, mainly in the Northeast US, partnering with industry on data-sharing, ocean mapping, and ocean monitoring. There was also \$1 million in funding through NOAA Sea Grant, Department of Energy (DOE), Department of Commerce (DOC) and the NOAA Northeast Fisheries Science Center. The aim of this grant funding was to improve the understanding of OSW development impacts on stakeholders, “including fishing and coastal communities.” (“Biden Administration Jumpstarts Offshore Wind Energy Projects to Create Jobs”, 2021)

Gina McCarthy, the National Climate Advisor spoke at the gathering, and focused the effort on jobs, and a pathway into the middle class through the nascent offshore wind industry.

President Biden has declared very clearly that when he thinks of climate, he thinks of people and jobs—good-paying, union jobs. That’s because President Biden believes we have an enormous opportunity in front of us to not only address the threats of climate change, but use it as a chance to create millions of good-paying, union jobs that will fuel America’s economic recovery, rebuild the middle class, and make sure we bounce back from the crises we face. Nowhere is the scale of that opportunity clearer than for offshore wind. This commitment to a new, untapped industry will create pathways to the middle class for people from all backgrounds and communities. (“Biden Administration Jumpstarts Offshore Wind Energy Projects to Create Jobs”, 2021)

Deb Haaland, Secretary of the Interior linked offshore wind development to combat inequity.

The climate crisis disproportionately impacts communities of color and low-income families. As our country faces the interlocking challenges of a global

pandemic, economic downturn, racial injustice, and the climate crisis – we have to transition to a brighter future for everyone. (“Biden Administration Jumpstarts Offshore Wind Energy Projects to Create Jobs”, 2021)

Pete Buttigieg, the Secretary of Transportation, expressed a desire to create good paying jobs, address climate change and invest in ports.

The Biden-Harris Administration is taking actions that show how creating jobs and addressing climate change can and must go hand in hand. Today’s announcement makes a critical investment in our nation’s ports, which in turn builds up the resilience and sustainability of America’s economy. (“Biden Administration Jumpstarts Offshore Wind Energy Projects to Create Jobs”, 2021)

These comments show that the goals of OSW development in the US, beyond tackling the emissions reductions required to mitigate climate change are; creating good-paying jobs, building pathways to the middle class, building supply chains and ports to support OSW, and supporting all Americans and communities impacted by the climate crisis and clean energy transition.

Net-Zero Carbon Energy Goals

On December 8, 2021 President Biden signed Executive Order 14057, “Catalyzing Clean Energy Industries and Jobs Through Federal Sustainability”. Using a “whole of government approach” the Biden administration has set an agenda to enact the clean energy transition required to meet the commitments within the Paris Agreement by promising:

- 100 percent carbon pollution-free electricity (CFE) by 2030, at least half of which will be locally supplied clean energy to meet 24/7 demand;
- Net-zero emissions from overall federal operations by 2050, including a 65 percent emissions reduction by 2030.
- Building a climate- and sustainability-focused workforce;
- Advancing environmental justice and equity. (The White House, 2021)

These firm clean energy commitments placed the OSW goals from earlier in 2021 as one piece within the broad decarbonization framework being developed by the federal government. Again, clean energy development sits alongside a socioeconomic framing of climate workforce development, and environmental justice.

Pacific Offshore Wind and the Floating Windshot Initiative

On September 15, 2022 the Biden Administration announced the Floating Offshore Windshot Initiative, one of the DOE's Energy Earthshot™ programs to invest in clean energy development, increase industrial capacity, and lower the “costs of floating technologies by more than 70% by 2035, to \$45 per megawatt-hour.” (Biden-Harris Administration Announces New Actions to Expand U.S. Offshore Wind Energy, 2022) The development goal of 15 GW of FOSW capacity by 2035 for the US was set. Unlike fixed-bottom offshore wind, FOSW is a nascent technology representing less than .5% of the global installed capacity. Investing in FOSW allows the US to develop new offshore wind technologies and could provide a greater return on investment for industry by engaging in the new frontier of OSW development. FOSW will enable the deeper waters off the steep continental shelves of the world to be developed, which will enable the west coast of America to become a large renewable energy source for the US.

The Floating Offshore Wind Shot will promote ocean co-use, protect biodiversity, and advance environmental justice—including by making sure the benefits of offshore wind deployment reach underserved communities, in support of President Biden's Justice40 Initiative. (Biden-Harris Administration Announces New Actions to Expand U.S. Offshore Wind Energy, 2022)

The Whitehouse statement also prioritizes local and underserved community goals, and again emphasizes the federal objectives of addressing climate change, jobs, and improving local economies.

States, Tribes, coastal communities, and ocean users will continue to play a key role throughout the process to ensure that in meeting our climate goals, we create good-paying union jobs and support economic opportunities in local and underserved communities. (Biden-Harris Administration Announces New Actions to Expand U.S. Offshore Wind Energy, 2022)

Pacific Offshore Wind Development Begins

On December 22, 2022 five lease areas were auctioned by the Bureau of Ocean Energy Management (BOEM) during the Pacific Wind Lease Sale 1 auction (PACW-1) resulting in 5 companies winning the right to study and develop the first areas in Pacific Federal waters that could generate offshore wind energy. The auction generated \$757.1 million and included a *Multiple-Factor Bidding Auction* system unique to California. The bidding credits will lead to investment in offshore wind supply chain, workforce development, Native nations, communities, and ocean users of the lease areas. The areas have the potential to produce 4.6 gigawatts of offshore wind energy, and produce enough to power 1.5 million homes.

| <u>Provisional Winner</u> | <u>Lease Area</u> | <u>Acres</u> | <u>High Bid</u> |
|--|--------------------------|---------------------|------------------------|
| RWE Offshore Wind Holdings, LLC | OCS-P 0561 | 63,338 | \$157,700,000 |
| California North Floating, LLC | OCS-P 0562 | 69,031 | \$173,800,000 |
| Equinor Wind US, LLC | OCS-P 0563 | 80,062 | \$130,000,000 |
| Central California Offshore Wind, LLC | OCS-P 0564 | 80,418 | \$150,300,000 |

| | | | |
|-----------------------------------|------------|--------|---------------|
| Invenergy California Offshore LLC | OCS-P 0565 | 80,418 | \$145,300,000 |
|-----------------------------------|------------|--------|---------------|

Table 1: The winners of the December 2022 BOEM offshore auction. Bolded entries are in the Humboldt study area. Table modified from Biden-Harris Administration Announces Winners of California Offshore Wind Energy Auction release.

The PACW-1 lease bidding credits for the Humboldt Wind Energy Area total \$99,450,000. This money will be split into three pools, workforce and supply chain development (20%), impacted lease area users (5%) and impacted communities (5%).

California Offshore Wind Policy

The state of California mandated a renewable energy future when it passed Senate Bill 100, the 100 Percent Clean Energy Act of 2018 (Commission, 6-1-2024). This bill requires 100% of electricity sales to end-user customers and state agencies to be renewable energy or zero-carbon by 2045. This is one of the most ambitious energy goals in the United States, and would require an estimated tripling capacity of energy between 2022 and 2045. SB 100 initially estimated 10 GW of offshore wind energy would be incorporated by 2045. Those estimates would soon be revised upwards.

On September 23, 2021 Governor Newsom signed Assembly Bill 525 (AB 525) into law, requiring the California Energy Commission to evaluate and develop a plan for offshore wind energy deployment in the federal waters off the state of California (Offshore Wind Energy

Development off the California Coast, 2022). The aim of the bill was to set achievable targets for offshore wind capacity by 2030 and 2045. The report issued on August 1, 2022 recommended a target range of 2-5 GW of capacity by 2030, and 25 GW of offshore wind capacity by 2045. These targets would require over 1600 turbines to be installed over the next 2

decades. Currently offshore wind prices remain high compared to photovoltaic sources, but power generation remains much more consistent throughout the course of a day, which can help balance the electricity grid, especially as California becomes more reliant on renewable energy sources and the diurnal characteristics of photovoltaic renewables. The National Renewable Energy Lab (NREL), has estimated that offshore wind potential on the California Outer Continental Shelf (OCLS) is around 201 GW (Optis et al., 2020). This means these early goals may only be the beginning of massive buildout of renewable energy in federal waters over the next century.

Pacific Wind Coast from Deindustrialization to Reindustrialization.

Pacific Northwest Timber Legacy

The history of forestry in the Pacific Northwest (PNW) has to begin with its original caretakers, the Indigenous peoples. Native nations of the Pacific Northwest have sustainably managed the forests and lands for thousands of years, cedar was used to build longhouses, canoes, and clothing (Long et al., 2021). Indigenous forest management practices, like controlled burns conducted by the Yurok people in Humboldt County, stimulated berry production, weaving material growth, and large timbers suitable for canoes (Long et al., 2021). Western settlers claimed a plethora of natural resources on arrival that began a gold and timber rush which lasted over 100 years (Robbins, 2011).

In the second half of the 20th century, repercussions of timber industrialization were felt through lower salmon returns, degraded streams and estuaries, and the decline of the Northern Spotted Owl. As forestry management practices changed after the Second World War, logging area was curtailed by the US Forest Service, and state forestry agencies. After the listing of the

Northern Spotted Owl and other endangered species, court injunctions caused the cessation of timber harvest in 10 million hectares of federal forest lands in the early 1990s (Spies et al., 2019). The Northwest Forest Plan was implemented in 1994 to sustainably manage the federal forests that stretch from San Francisco, California to the Washington-Canada border. The North-South boundary set by the Northwest Forest Plan, north of San Francisco, California along the coast to Washington states Canadian border, will define the extent of my definition of the PNW coast.

In Humboldt County, California, logging and fishing peaked in 1979. However, logging employment had been contracting since the 1950s (*Forty Years of Spotted Owls? A Longitudinal Analysis of Logging Industry Job Losses - William R. Freudenburg, Lisa J. Wilson, Daniel J. O'Leary, 1998*, n.d.). The symbolic end of the logging industry began in 1990, with a three month protest movement called the “Redwood Summer.” After over 95% of old growth redwoods had been logged, Earth First! and the Industrial Workers of the World utilized tree sit-ins, disarmed machinery, and protested to slow or stop further destruction of old growth forests. A parallel movement sprung to action with California Proposition 130, a ballot measure that proposed placing tighter restrictions on logging and providing a mechanism to use public funds for the purchase of “ancient forests” to preserve wildlife habitat. The Redwood Summer activists predicted a rush of timber felling before the ballot and took action to protect the forest. The bill failed, but continued pressure through protest and lawsuits alleging inadequate environmental impact assessments, slowed old growth logging. This led to the eventual sale of the disputed forests to the government in 1999, establishing the [Headwaters Forest Reserve](#) (*Programs*, 2024).

Today Humboldt County has a ~18% poverty rate, even though it has a large state university, a burgeoning art and recreation scene, and substantial tourism with Redwood National Park just a few miles away (*SAIPE*, 2024). With decreased forest area available to harvest, smaller fish stocks, and the mechanization of extractive industries, the economy of the area has moved towards cannabis, healthcare, retail services, and public employment. In 2022, Humboldt County gross timber sales were \$99 million, dwarfed by cannabis cultivation sales of \$310 million (*Humboldt County Economic Forecast*, 2023). The switch to a service economy in the US has reduced heavy industry and manufacturing across the country, with logging and fishing bearing the brunt of job losses in the coastal PNW.

Just 200 miles north of Humboldt, along Highway 101, Coos County, Oregon had a consolidation of timber producers in the second half of the 20th century. In the 1970s, the southern Oregon coast boasted dozens of sawmills—today there are only two (*Western Forester Jan/Feb/March 2021 – SAF – Society of American Foresters – Northwest Region*, n.d.). This decline is not unique to Oregon—in the western United States close to 40% of logging jobs were lost between 1997 and 2017, and the trend has continued into the present day (He et al., 2021). Coos County lost another 16% of lumber jobs from 2019-2023, the highest of any sector in the county (*Bureau of Labor Statistics Data*, n.d.). Though mechanization and efficiency improvements are the main reasons for the industry's decline, now demographics of the regions play a large role in employment contraction (Freudenburg et al., 1998; He et al., 2021).

Between 2002 and 2022 the 65+ age demographic in Coos County has gone up 51%, as the prime working age demographic of 35-49 has decreased 19% (*Coos County, OR Population*

by Year, Race, & More, 2024). The rural coastal areas lack dynamism in the local economy which has led to the exodus of young Americans toward the metro areas which have higher pay, more social services, centers of culture and art, and more people of their age.

Looking at the economies of these communities we see that the business sectors seem to have diversified. However, the diversity of the economy can come about in different ways.

Stedman, Patriquin and Parkins (2012) noted,

...diversity may increase in two contrasting ways: the first (what community development practitioners usually have in mind) is adding additional sectors to an already strong economy. In contrast to this “additive diversity” is “diversity by attrition”: locales that lose a dominant sector may become statistically more diverse but experience negative outcomes.

Though the economy of Coos Bay may look more diverse, in the sense the job sectors are more balanced, it also has lost significant jobs in one of its highest paying sectors, forestry. For young residents poverty is high, and the ease of obtaining a good paying job, which was common during lumber's heyday, has diminished (Table 2). Now, new entrants into the lumber industry can expect salaries that are generally in line with other industries, instead of the higher wage jobs that provided family wage salaries in the past (He et al., 2021). With high injury rates, comparable salaries in other fields, and continued mechanization and consolidation of the timber industry, the prospects for a young professional within the field don't seem as alluring as they once did (He et al., 2021).

The consolidation of industry led to fewer choices between companies, and fewer family wage jobs in a sector that still has higher than average earnings within Coos Bay to this day.

Now as young professionals look for good-paying jobs, they think of the urban centers along the west coast, such as San Francisco, Portland, and Seattle, the spoils of tech jobs, and the industries that support the tech titans present in those areas.

PNW OSW Energy Opportunity, and Reindustrialization

As the U.S. moves towards new clean energy sources, the wind blown Pacific Coast has become a target for offshore wind energy developments. The Biden-Harris administration has set targets of 15GW of floating offshore wind by 2035, and up to 110GW of total offshore wind capacity by 2050 (The White House, 2021a). This new industry has the potential to create the blue collar family wage jobs lost during the decline of the timber and fishing industries.

According to the research by a Net-Zero Northwest study, if the Pacific Northwest develops the electrical capacity to reach net zero carbon emissions by 2050, there would be a 17% increase in jobs in the energy sector by 2030 (*Job Quality in a Net-Zero Future*, n.d.). Currently, loggers in Coos County make ~\$55,000 per year, while electricians and linemen make between \$74,000-\$114,00 a year. These family wage jobs could help offset the skyrocketing price of housing across these communities. The range of pay of electrical utility workers is much closer to the needed earnings (~\$83,000) to allow workers and families to purchase homes in the region without being housing burdened (defined by the federal government as >30% of income going to housing cost).

Not only could energy jobs be better paying but many of the components and facilities necessary for construction would have to be built at the ports due to their massive size. This

would encourage economic growth in the construction and engineering sectors as well as bolster union jobs in the maritime and machining industries. The Pacific Northwest National Laboratory recently completed a study that estimated a net economic benefit to northern California and southern Oregon between \$127 million to \$6 billion (*An Offshore Wind Energy Development Strategy to Maximize Electrical System Benefits in Southern Oregon and Northern California*, n.d.). The combined real GDP of Coos and Humboldt Counties is \$8 billion. This might not be an addition to the economy of these areas but a wholesale regional transformation.

Wind Coast Policy Choice, Community Values

On January 23rd, 2024, U.S. Senators Alex Padilla and Laphonza Butler of California, and Representative Jared Huffman (D-Calif. 02) announced a federal grant for \$426.7 million, with Crowley (a private maritime company) matching that amount to fund the Humboldt Bay Offshore Wind MVP (Minimum Viable Port) project (“Padilla, Butler, Huffman Announce Over \$425 Million for Humboldt Bay Offshore Wind Infrastructure,” n.d.). This \$853 million investment will allow the first FOSW integration port on the west coast, with a planned completion in 2028-2029. The port estimates it will be able to integrate one floating turbine per week after completion, enabling the offshore wind energy goals of California and the US to reach fruition (CALLAHAN, 2024).

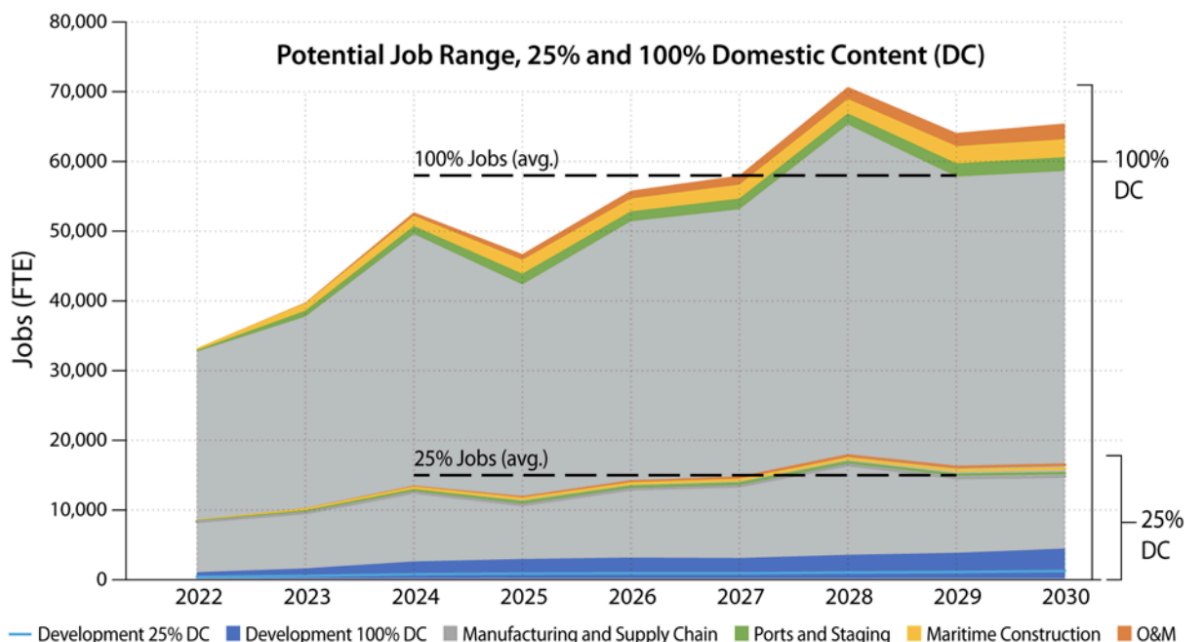


Figure ES-2. Potential job estimates across industry segments to support a project pipeline of 30 gigawatts of offshore wind energy by 2030, assuming a domestic workforce lower bound of 25% and an upper bound of 100%. Also shows a range of average employment each year between 2024 and 2030.

Figure 2. NREL U.S. Offshore Wind Workforce Assessment, Domestic content requirements create a range of job estimates between 15,000 and 58,000 jobs. Figure ES-2 (Stefek et al., 2022)

Though many of the decisions about offshore wind reside at the federal level these projects will not succeed without the buy-in of local communities. Because FOSW still has technical and engineering challenges before construction can begin, the West Coast has been given time to engage in meaningful consultation with local communities to center their values during this new offshore wind opportunity. We must not squander that opportunity. By centering benefits on the most important issues in these communities like housing affordability, community involvement, jobs, and funding flexibility we can lay the groundwork for a just energy transition along the Pacific Coast.

With the potential for hundreds of jobs, and a stable industrial manufacturing base on the horizon, many are rightly excited that offshore wind could revitalize the economy of the region. But to avoid the increases in poverty, drug addiction, environmental degradation, and community dissolution during the decline of past extractive regimes (lumber and fishing) careful consideration must be made about where facilities will be built, how to train local residents, and where tax revenues will be allocated.

Perhaps the largest policy consideration, in terms of generating community wealth, will be manufacturing siting and domestic worker requirements. The National Renewable Energy Laboratory released estimates for job growth in the offshore wind sector to meet the US offshore wind targets by 2030. Manufacturing and supply chain are estimated to make up 85% of jobs in the sector (Stefek et al., 2022). They are also the jobs that will likely be the most stable over time, as installation jobs will eventually end in the region as the nearest construction sites are completed.

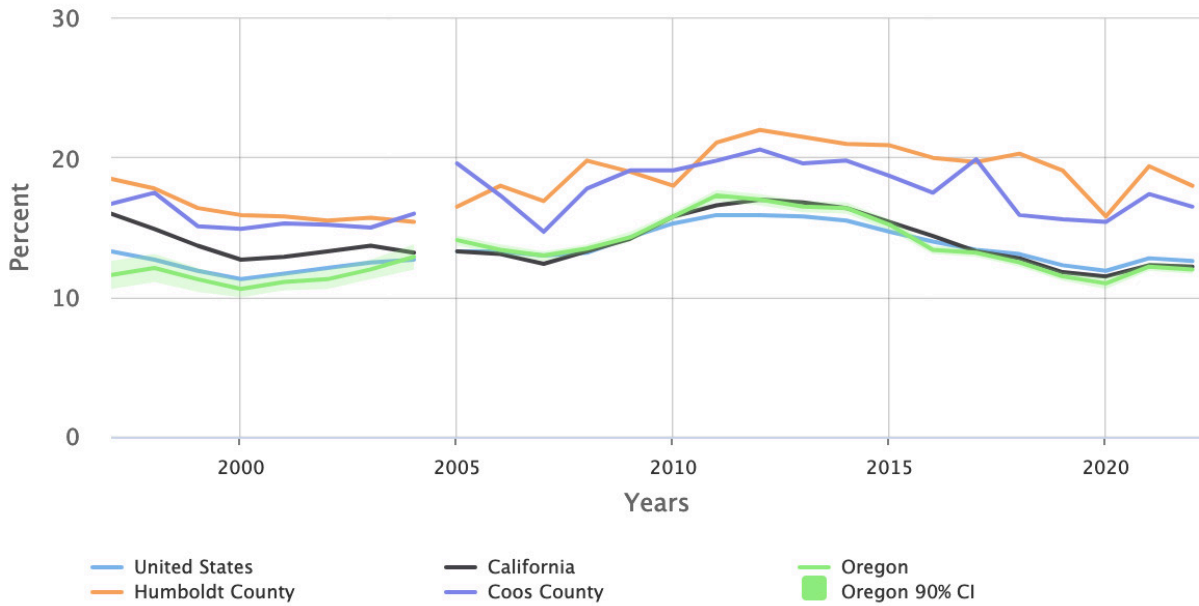
Domestic content requirements create a huge amount of uncertainty in the total American jobs as NREL estimates 15,000 manufacturing jobs on 25% domestic content and 58,000 jobs based on 100% domestic content scenarios (Figure 2)(Stefek et al., 2022) . Balancing the benefits of domestic jobs with the benefits of accelerating our clean energy buildout by utilizing foreign offshore wind supply chains will be one of the most important political challenges in this sector. If a technical workforce cannot be trained to match the manufacturing and operations needs to meet our renewable energy goals we may lose out on both the jobs and the benefits of lower energy prices, reduced pollution, and new tax revenues to address current community priorities.

Poverty along the Wind Coast

The U.S. has the second highest rate of poverty as measured by the metrics of the Organisation for Economic Co-operation and Development (OECD) at 18%, among a group of 38 of the most developed countries in the world (*Inequality - Poverty Rate - OECD Data*, 2024). Simultaneously, the U.S. is the largest economy in world history, and one of the richest. Along the wind coast poverty remains elevated (14.6%-34.5%) compared to the US (12.6%) and to its host states. Oregon has a poverty rate of 12.1% and California 12.2%, according to the U.S. Census 2022 American Community Survey 5 Year Estimates (*U.S. Census Bureau QuickFacts*, 2024). Meanwhile, the rural counties of Coos County, Oregon, and Humboldt County, California have rates of poverty of 16.1% and 18.4% respectively (Fig. 3). Poverty has remained intractable over the last few decades, and has steadily remained above state and US averages going back to at least 1995 (Figure 3) (*SAIPE*, 2024).

| Label | Coos County | Coos Bay | Humboldt County | Arcata | Eureka | Oregon | California | US |
|-------------------------------|-------------|----------|-----------------|----------|----------|-----------|------------|-------------|
| Population | 63,848 | 15,993 | 133,985 | 18,845 | 26,561 | 4,233,358 | 38,307,718 | 325,521,470 |
| Below Poverty Level | 16.10% | 14.60% | 18.40% | 34.50% | 19.30% | 12.10% | 12.20% | 12.60% |
| <18 years Below Poverty Level | 24.60% | 23.20% | 20.20% | 32.40% | 22.10% | 13.80% | 15.30% | 16.30% |
| 18-64 years | 17.20% | 15.10% | 19.80% | 39.40% | 20.20% | 12.30% | 11.20% | 11.70% |
| 65+ years | 8.10% | 6.60% | 12.50% | 8.80% | 13.00% | 9.90% | 11.80% | 10.90% |
| Median Household Income | \$57,563 | \$57,563 | \$57,883 | \$43,444 | \$51,971 | \$75,657 | \$91,551 | \$74,755 |

Percent of Population in Poverty 1997-2022



Source: U.S. Census Bureau, Small Area Income and Poverty Estimates.

Figure 3. Poverty along the Wind Coast. Source: U.S. Census Bureau, SAIPE 2024

Homelessness

The U.S. Department of Housing and Urban Development has created the The Continuum of Care Program which “is designed to promote a community-wide commitment to the goal of ending homelessness.” (24 CFR Part 578) The program has created a Continuum of Care area for Humboldt County (CA-522), which has the highest homeless rate in the entire United States at 121 per 10,000 residents as of 2022 . California, the highest rate of homelessness for a state is 44, with Oregon the third highest at 42, and Washington sixth at 33. The west coast has been dealing with elevated homelessness for years, and many cities have declared states of emergency trying to address the crisis (Homelessness, n.d.).

The research division of housing company Zillow has found inflection points related to housing costs, where when communities pay 32% of their income on rent there is an increase in the rate of homelessness (Glynn et al., 2021). Homelessness, once thought of as mainly an urban phenomenon, is being reevaluated as a symptom of housing cost burden. Housing cost-burdened and severely cost-burdened households—30% and 50% of income going to housing respectively—has reached all-time highs in the US in 2022, reaching over 50% of all renters meeting one of those definitions(*America’s Rental Housing 2024*, 2024). American’s are rightly afraid that the housing crisis is turning into a larger homelessness crisis.

The Housing Crisis

In southern Oregon, the Home Price Index (HPI) has increased from below \$150,000 in 2011, to \$350,000 in 2023, a 133% increase in price (*U.S. Census Bureau QuickFacts*, n.d.). Meanwhile, wages have not kept pace, with a Median Household Income (MHI) of \$36,500 in 2011, growing to \$56,000 in 2022, a 53% increase (Figure 4.). Similar housing prices to wage

ratios are found all along the Pacific Coast, with MHI increasing 45% and HPI 83% in Humboldt County, CA over the same period. To avoid being “housing burdened” residents would need to make ~\$83,000 per year, a 48% wage increase in MHI to afford the average mortgage payment for an average home. If we look from 2000-2022 we see that HPI has increased 212% in Humboldt County and 214% in Coos County (Figure 4). Meanwhile, MHI has increased 80% in Humboldt County, and 75% in Coos County (Figure 4).

Each year the American dream of homeownership slips further away. The “Seattleization” of the west coast housing market, defined by rapid increases in income and housing prices, has been mirrored in rural communities as well, but without the income gains of the high wage tech industry jobs of a west coast urban center.

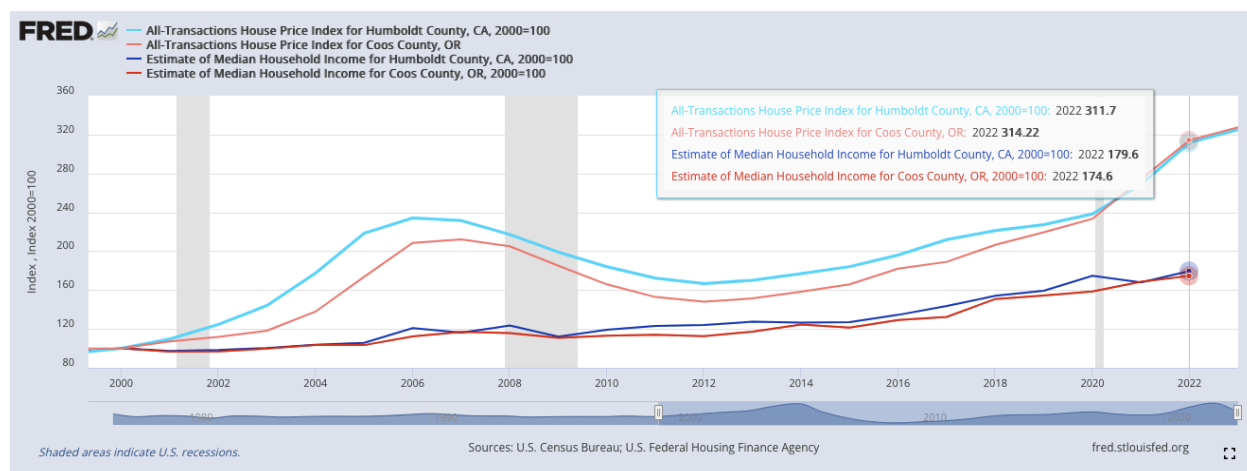


Figure 4. Housing Price Index and Median House Income for Coos County, OR and Humboldt County, CA, Levelized to 100 in 2000. (U.S. Federal Housing Finance Agency, 1976)

The Clean Energy Transition Institute has done research on rural community defined decarbonization and found affordable housing to be the number one concern, along with community involvement, associated with building decarbonization in rural and Native communities (Fig. 5)(*Community-Defined Decarbonization*, n.d.) . Development initiatives and

policies therefore need to provide flexibility of funding mechanisms for community benefit plans and allow the desires of the community to drive investment.

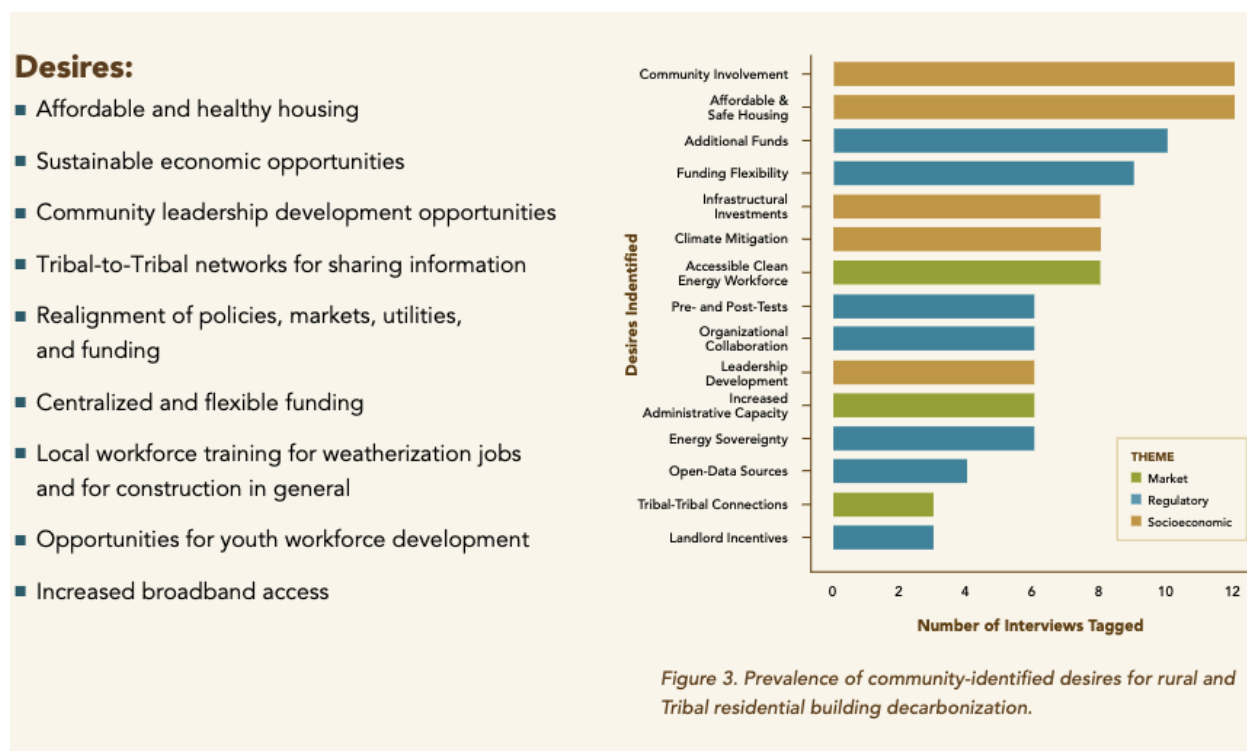


Figure 5: CETI Community-Defined Decarbonization Key Findings Figure 3. A bar graph of community desires expressed by interviewees highlighting affordable and healthy housing and community involvement as top priorities for rural communities. *Figure courtesy of Clean Energy Transition Institute, shared with permission. (Community-Defined Decarbonization, n.d.)*

A glimmer of economic hope can be caught on the waves of the Pacific Ocean, flashing atop the crest of a new reindustrialization wave headed toward the region. As the US tries to reduce its fossil fuel use to decelerate climate change, offshore wind energy has the potential to provide family wage jobs and economic growth along the Pacific Coast, and CBAs could be the legally binding mechanism that drives new investment into affordable housing and other community defined priorities of the wind coast.

CBA for a Just Transition?

Community Benefit Agreements for Offshore Wind Development

With a US goal to center a just transition in the OSW development system, BOEM has developed legal binding agreements within their lease auctions to create an investment mechanism that can have socioeconomic benefits beyond the typical development paradigm. BOEM has jurisdiction over the US Outer Continental Shelf and all of the developments over 3 miles offshore have to be approved by BOEM.

The most common type of benefit comes through Multi-Factor Credits that allow developers to defer part of the cost of the lease to be used for the development of Community Benefits Agreements (CBAs) or Workforce Training and Supply Chain Development projects. The types of agreements have varied over time and continue to change as BOEM tailors the lease auctions through public feedback, business feedback, and state participation. Usually, BOEM sets some of these auction bidding credit guidelines in the Proposed Sales Notice (PSN) and then modifies them after public comment for the Final Sales Notice (FSN). Some of the mechanisms included in BOEM leasing agreements that provide developer credits are: CBAs, General CBAs, Lease Area Use CBAs, Power Purchasing Agreements (PPAs), Government Authority, Fishing Mitigation, and Project Labor Agreements (PLA). All of these agreements are tools that will help create economic opportunities for equitable development.

Applying Community Benefit Agreements

CBAs have the ability to empower local communities by negotiating with developers and the Federal government the priorities of their constituents. OSW development will require tremendous growth in the US OSW workforce and supply chain and will have impacts on the

local environment. CBAs have the ability to mitigate harms and empower local communities by investing in community priorities. Typically, communities agree to support the development when they agree to a CBA. Categories of investment from CBAs include:

- Funding for community programs
- Direct payments to residents
- Workforce development and hiring
- Education and training
- Affordable housing
- Environmental mitigation
- Infrastructure (broadband, recreation centers) (Offshore Wind Community Benefit Agreements in California)

Lease Area Use CBAs in the BOEM California PACW-1 Auction established:

“One or more communities, stakeholder groups, or Tribal entities whose use of the geographic space of the Lease Area, or whose use of resources harvested from that geographic space, is expected to be impacted by the Lessee’s potential offshore wind Development.” (*Pacific Wind Lease Sale 1 (PACW-1) for Commercial Leasing for Wind Power on the Outer Continental Shelf in California-Final Sale Notice, 2022*)

Lease Area Use CBAs will be used to establish agreements with fishing companies, tourism companies, and other users of the space where OSW will be built. The “Fishing Mitigation Credit” used in the Gulf of Mexico auction should be considered a limited scope Lease Area Use CBA, as it is an industry specific version of the same concept, benefiting users of the ocean space.

General CBAs are defined in the PACW-1 Auction as:

One or more communities, Tribes, or stakeholder groups that are expected to be affected by the potential impacts on the marine, coastal, and/or human environment (such as impacts on visual or cultural resources) from activities resulting from lease development that are not otherwise addressed by the Lease Area Use CBA.” (*Pacific Wind Lease Sale 1 (PACW-1) for Commercial Leasing for Wind Power on the Outer Continental Shelf in California-Final Sale Notice, 2022*)

Developers can also benefit from these by negotiating interconnection locations for their electricity cables, and securing property that would be required for onshoring equipment or operations. (Offshore Wind Community Benefit Agreements in California) The potential to hold onto bidding money and allocate capital toward other expenses until CBAs have been finalized also gives developers more liquidity during the development process.

Vineyard Wind 1- The First Commercial Scale U.S. OSW Farm

Vineyard Wind 1 and Community Benefit Agreements and Multi-Factor Bidding.

The Vineyard Wind 1 project is the first commercial scale project that has delivered electricity in the U.S and also the first to include a Community Benefits Agreement (CBA) Plan (*Vineyard Power, n.d.*). The agreement was signed with Vineyard Power Coop and aimed to create local jobs, and a facility for construction operations and maintenance in Vineyard Haven harbor. This CBA allowed the Vineyard Wind developers to use a 10% CBA bidding credit offered in the BOEM Atlantic Wind Lease Sale 4 auction (79 FR 70545). The auction also allowed a 25% Power Purchasing Agreement (PPA) bidding credit based on the amount of power purchased from a buyer.

This “Multi-Factor Bidding” credit system would become a common BOEM mechanism to promote legally binding contracts for local Community Benefit Organizations (CBOs) as more auctions were proposed over the years. This allowed developers to submit a non-monetary package plan describing CBAs, PPAs, workforce and supply chain investments, and Project Labor Agreements (PLAs) and reduce the cash payment for the initial leasing cost of the Wind Energy Areas (WEAs) offered for lease. The reduced cash payment allowed the developers to invest in the outlined plans as those developments scaled over the project's duration.

Vineyard Wind 1 Project Labor Agreements

The first industrial scale OSW farm in the US is Vineyard Wind 1, located 16 miles off the coast of Massachusetts near Martha's Vineyard. Recently completed in April, 2024, the 806 megawatt (MW) project was also the first, with a Project Labor Agreement (PLA). PLAs are designed to guarantee union jobs and local benefits for construction projects. In July 2021, the PLA was signed guaranteeing 500 union jobs throughout the project's construction.

Today’s Project Labor Agreement is a major breakthrough for climate action, good-paying union jobs, and equity in Massachusetts and America. We’re at the dawn of a new future – powered by the winds off our shores and the fierce urgency to combat our climate crisis,” said Senator Edward J. Markey. (*Building Trades Unions and Vineyard Wind Sign Historic Project Labor Agreement | U.S. Senator Ed Markey of Massachusetts*, n.d.)

The agreement was successful, providing 937 union jobs over two years of construction, and is projected to save customers \$1.4 billion dollars over the next 20 years (*Avangrid, CIP Announce First Power from Nation-Leading Vineyard Wind 1 Project*, 2024).

The lease for the Vineyard Wind 1 was won on April 1, 2015 by a joint venture between Copenhagen Infrastructure Partners and Iberdrola. The project was granted approval to build on May 11, 2021 and energy began flowing from the project on January 2, 2024 with final turbine installations expected to be completed by the end of 2024.

Labor has largely been supportive of OSW development across the U.S. Frank Callahan, President of Massachusetts Building Trades Council announced

The signing of this Project Labor Agreement sets the standard for Off-Shore Wind and other renewable energy projects across our country. We can Build Back Better with renewable energy AND create union jobs at the same time. (*Building Trades Unions and Vineyard Wind Sign Historic Project Labor Agreement | U.S. Senator Ed Markey of Massachusetts, n.d.*)

Priority Setting in OSW Community Benefit Agreements

The priorities of communities differ based on needs and desires related to their unique cultures, backgrounds, and geography. The ability to center benefits on community needs relies on the ability to effectively respond to the demands of the communities impacted by OSW development. BOEM has changed CBAs over time and by region. The differences within the lease options show how BOEM can tailor priorities to local needs.

The BOEM Pacific Wind Lease Sale 1 (PACW-1) process outlined the three categories of Community Benefit Agreements (CBAs) in the Final Sale Notice (FSN) before the the December 22, 2022 Auction date (*Pacific Wind Lease Sale 1 (PACW-1) for Commercial Leasing for Wind Power on the Outer Continental Shelf in California-Final Sale Notice, 2022*). Developers have

the option to qualify for one or more bidding credits in three categories up to a certain percentage of the bid's total value.

The three credit types are:

- 1) Workforce Training and Supply Chain Development (20%),
- 2) Lease Area Use CBA (5%),
- 3) General CBA (5%).

By submitting plans for all three benefit types a developer could lower their cash bid by 30% at the time of auction. Not including a category would lower the total percentage that would be available as a bidding credit. For example, if a developer submitted workforce training plans but no General CBA plans or Lease Area Use CBAs they would only be able to use 20% bidding credits.

In Table 3 below, some examples of how different bidding credits and agreements have been defined and applied are shown between 2015 and 2024. The changing mix of benefit types shows that BOEM policy is changing in response to growing understanding of what works, public comment feedback, and the differing needs of the communities where OSW is moving forward.

| Table 3. BOEM Offshore Wind CBA and Development Bidding Credit Categories. Source: BOEM FSN and PSN. | | | | | | | | |
|--|-------------------|-------------|-----|-----|---|--------------------|----------------------|---------------------------|
| BOEM Lease Auction | Auction Date | General CBA | PPA | PLA | Workforce Training and Supply Chain Development | Lease Area Use CBA | Government Authority | Fishing Mitigation Credit |
| ATLW-4/Massachusetts | January 29, 2015 | 10% | 25% | Yes | No | No | No | No |
| ATLW-6/New York | December 15, 2016 | No | No | No | No | No | 10% | No |
| ATLW-9/North Carolina | May 11, 2022 | No | No | Rec | 20% | No | No | No |
| PACW-1/California | December 6, 2022 | 5% | No | Rec | 20% | 5% | No | No |
| GOMW-1/ Texas | August 29, 2023 | No | No | Rec | 20% | No | No | 10% |
| PACW-2 / Oregon | TBD | 5% | No | Rec | 15% | 5% | No | No |

BOEM recently completed the Gulf of Mexico Proposed Sale Notice of GOMW-2, which has bidding credits of 18% for workforce training and supply chain development, as well as a 7% bidding credit for “Fisheries Compensatory Mitigation Fund” (*Gulf of Mexico Wind Lease Sale (GOMW-2) for Commercial Leasing for Wind Power on the Outer Continental Shelf Offshore in the Gulf of Mexico-Proposed Sale Notice*, 2024). This Fishing Compensatory Mitigation Fund addresses gear lost or damaged and lost fishing income within the “lease or project areas.”

What is interesting about both GOMW-2 and PACW-2 PSNs is a reduction in the total credit allotted in comparison to GOMW-1 and PACW-1, the prior auctions for the Gulf of Mexico, and Pacific regions. This suggests that either, BOEM thinks that CBAs and other bidding credits auction prices have dissuaded participation (which could lower final bidding price) or that they believe a higher bidding price would be a negative for the American people, reasoning developers would pass down lower electricity costs with lower lease costs. This argument does not stand up to scrutiny however, as this is a credit that would transfer money to local communities rather than to federal coffers. It is likely public comment and state input will lift the CBAs and other Multi-Factor Bidding Credits higher in the future or allow room for new types of benefits to be considered. The FSN of these areas should be watched closely in the future to maximize the potential benefits for local communities.

These changes in the credit reflect different priorities and in different regions and have changed between the Proposed Sale Notice and the Final Sale Notice. This shows that the public comment process is having an effect on the BOEM auction process and changing the terms to adapt to the priorities of each region.

Strengthening CBAs for a Just Transition

CBAs have been one mechanism to achieve more equity in OSW, but do they go far enough and are there weaknesses in the current process?

Consultation by BOEM with Native nations has been an abject failure, and The National Congress of American Indians passed Resolution #ECWS-23-005 on February 23, 2023, demanding a “halt [to] all scoping and permitting for offshore wind projects until completion of a

comprehensive and transparent procedure adequately protecting Tribal environmental and sovereign interests is developed and implemented.” (Ebarb, n.d.) This demand to halt scoping and permitting, has gone unheeded and the Confederated Tribes of Coos, Lower Umpqua and Siuslaw Indians went on to publish their immense displeasure with BOEMs consultation process, proclaiming it “Green Colonialism.” (*TRIBE PASSES RESOLUTION OPPOSING OFFSHORE WIND ENERGY DEVELOPMENT, CITING IMPACTS TO FISHERIES, CULTURAL RESOURCES, AND HERITAGE - Confederated Tribes of Coos, Lower Umpqua and Siuslaw Indians, n.d.*)”

With clear evidence that the consultation process is not considered appropriate to meet the demands of community members, we can look at the foundational tenets of a just transition for guidance. Using a just transition framework demands applying (1) procedural justice, (2) distributive justice, and (3) restorative justice (Schlosberg, 2003).

Procedural justice approaches have been shown to promote justice demands, and create pathways for long-term engagement (McCauley & Heffron, 2018). Capacity building and location based interventions have enabled successful consultations around the world. Tribes are not protesting CBAs, they are protesting the process used to engage with BOEM to negotiate CBAs. Fundamentally, they are protesting the priority setting process that BOEM is using to steer CBAs toward community desires. Without considerable effort put towards restoring relationships with Tribes and communities, CBAs will fail.

Distributive justice, the allotment of benefits or harms to communities, can only be equitably apportioned if procedural efforts are successful. Therefore, procedural justice efforts must be effective for distributional justice to have perceived benefits by communities. Marques et al. (2015) found that the perception of procedural justice increased the acceptance of impacted local communities towards projects regardless of initial attitude toward development. Building procedural justice and meaningful community consultation will be key to enabling the just transition and OSW development.

By framing the just energy transition of the wind coast around the desires of local communities we can begin a process of co-creation, between researchers, communities, developers, and the government that enables community led visions of their future to dictate the distributional justice parameters that enable socioeconomic well-being.

This project aims to conduct research in a way that enables procedural justice to promote community sovereignty and steer OSW CBA discourse toward the desires and needs of the community rather than developers or the government. Understanding historical socioeconomic disparities in the community—a lack of family-wage jobs, poverty, and increasing housing unaffordability—allows the application of the third tenet of a just transition, restorative justice. Restorative justice was developed in the just transition movement of the trade unions in the 1970-1980s and demands that communities that are impacted or displaced by development or retrenchment of industries, be compensated (Abraham, 2017). Restorative justice in the case of offshore wind will have to mitigate the impacts of OSW development, and simultaneously address the legacy impacts of deindustrialization of the wind coast.

Methods (2-4pg)

Semi-Structured Interviews for a Just Transition

I had the opportunity to interview citizens of Coos County, Oregon and Humboldt County California about what they believed were the current challenges and opportunities for the region. I chose this region because of the massive federal initiative to upgrade ports to accommodate the construction of thousands of offshore wind turbines, each taller than the iconic redwood trees of the region.

Wanting to center the communities that will be impacted most by OSW development, a framework of a just transition is used, which aims to give voice to impacted communities that will bear the burden of the reindustrialization of the PNW communities that will deploy OSW. The communities of Coos County, Oregon—centered in Coos Bay, Oregon—and Humboldt County, California—centered in Eureka, California, make up the population centers that will harbor the OSW ports and factories of the region I have dubbed the “wind coast”.

Community benefits have become a common component of renewable energy development, but concerns of how large developers engage with communities, and the ‘trust’ and ‘fairness’ of developers' stakeholder engagement remain a challenge for community acceptance (Aitken, 2010). Participation in the community benefit development process has been shown to increase public acceptance of development and create a greater sense of ‘fairness’ (Marques et al., 2015). When consultation is viewed as a placating mechanism to develop community support, the benefits, like financial incentives, themselves may be viewed as transactional (Cass

et al., 2010). And when consultation is implemented poorly, can be viewed as counterproductive or even a form of bribery (Bristow et al., 2012; Cass et al., 2010).

For governments to meet their clean energy targets, and avoid community opposition, governments and developers have conducted public engagement, but standardized approaches to community engagement are viewed as lacking, with some going as far as saying current consultation amounts to “green colonialism.” (Aitken, 2010; *TRIBE PASSES RESOLUTION OPPOSING OFFSHORE WIND ENERGY DEVELOPMENT, CITING IMPACTS TO FISHERIES, CULTURAL RESOURCES, AND HERITAGE - Confederated Tribes of Coos, Lower Umpqua and Siuslaw Indians*, n.d.)

An institutional and standardized approach to community engagement does not allow the different communication preferences of disparate communities to fully engage. Participatory or collaborative decision making beyond formal consultation is being used to build community acceptance and enhance community benefits (Caballero et al., 2023). OSW and other lower energy density renewable technologies are particularly vulnerable to public opposition, because of large geographic footprints required to equal fossil fuel plant outputs, and lead to a much larger affected population that might be opposed to construction.

To move beyond a transactional benefit structure, which could be negatively interpreted, a desire based framework to interviewing participants was used to understand their ideal outcomes for OSW development in the communities of the wind coast. Though questions about community problems and harms were present, a damage-centered research framework was not the goal. Instead, a “desire-based framework” that elevates wisdom and hope, as championed by

Craig Gingrich-Philbrook (2005) and Eve Tuck (2009), was used to understand their thoughts on community health and future developments. The ethnography of the area is important to understand, as much of what communities desire is a reflection of what gives them pride and satisfaction within their communities already. Desire based research can avoid the common practices of damage centered research, where people are forced to relive the problems within their communities with the hope that researchers can elevate harms into restitution, redress, and a better understanding of your current and past struggles by presenting them to outsiders. But, a damage centered paradigm only allows redress if you relive your darkest fears, and deepest regrets, further exploiting the already underserved and overburdened populations of study (Tuck, 2009).

By avoiding harm based research and elevating desire based work, the methods of this research themselves can help with a just transition, as the principles, process, and practice of understanding community vision is a goal within the just transition framework. The importance of research like this lies in “Co-creation,” where researchers and communities work together to uncover and address complex issues at a scale and a timeframe that promotes responsiveness (Cizek & Uricchio, 2022 p.36). Cizek and Uricchio (2022) reinforce the idea that in co-creation a “ecosystem of practices across many disciplines [can] redefine the public good, civic trust and the commons.” Co-creation acknowledges a world where we can share space between human, and nonhuman beings and “navigate the uncharted changes sweeping the planet.”

Semi-Structured interviews were conducted in September, 2023 with 8 participants, 4 from Humboldt County, California, and 4 from Coos County, Oregon. Interviews were conducted predominantly in-person, with 2 being remote via zoom and the phone. The interviews were recorded with an Android based voice recorder after interviewees gave their

consent. Interview duration was scheduled for 45 minutes to one hour, with many participants enjoying a longer conversation and all were happy to be available for followup email. Interviews were conducted at a location that was convenient to participants—one at a participant's home, at work, and in coffee shops, and on the docks in the local community. Interviews measured between 37 minutes, and 1 hour and 25 minutes, with the average length being 59 minutes. Interviewees were given a document presenting the basic line of inquiry and were conducted in reference to a guiding document that allowed for the conversation to flow from topic to topic and wander into subjects of the participants interest.

Interviews were also coded using Atlas.ti software. Nearly, two hundred codes were whittled down to 22 that represented community perception of local and OSW issues to provide simple qualitative data to frame the frequency of participants' responses. I proposed an anonymous representation of participants, though all seemed comfortable disclosing their names if requested. I have used a descriptive moniker to assign identity to each participant. Interview data has been analyzed through an inductive approach, and grouped into themes to discuss similarities and differences between participants. Interview responses have been lightly edited to enhance clarity.

Interview Participants

After reaching out to my one contact in my study area, I began asking my existing network for contacts who may be interested in participating in this research. This approach is called the snowball method in ethnographic research, and can develop a greater understanding of how communities are connected within your study area (Given, 2008, p. 745). Though 6 of the

participants were found this way, I had hoped to find fisherman or community development members but was informed that all of my contacts in the fishing industry along the Wind Coast were not interested in speaking. So the remainder of participants were found by wandering the docks of Humboldt Bay, and downtown Coos Bay. Below is a short description of participants' occupational and personal history within the study area.

| Table 4: Interview Participants | | |
|--|------------------|---|
| Participant | Location | History |
| The Wind Advocate | Coos Bay, Oregon | A long time resident and descended from 2 Native nations along the Wind Coast, the Wind Advocate grew up in the Coos County area and logged after high school in Coos and Douglas Counties. After graduating from University of Oregon he moved back to the adjoining cities of Coos Bay and North Bend, Oregon to work as a longshoreman for the timber industry. After leaving the timber industry he worked as a grant writer and cultural director for Tribes of the region before starting an offshore wind advocacy group and working on green energy development in Southern Oregon. |
| The Developer | Coos Bay, Oregon | Attended college at UC Berkeley and obtained a Forest Management degree before being hired by Weyerhaeuser to work in Coos Bay, Oregon and the surrounding area. After 35 years of forestry and logging work—including people relations, planning, new projects, and aquaculture—he joined the North Bend city government in planning. After that, he worked in economic development for Coos Bay for the next 16 years. |
| The Librarian | Coos Bay, Oregon | Spent the last 10 years working for the Coos Bay library system after obtaining a degree in Library Science in Portland. Before that he lived in Seaside, Oregon where he fell in love with the environment of the Oregon coast. Originally from Arizona, and proud of his Argentinian |

| | | |
|----------------------|----------------------|---|
| | | heritage he is proud to work with the Hispanic community of Coos County. |
| The Lineman | Myrtle Point, Oregon | A longtime resident of the Southern Oregon coast, the lineman grew up in logging camps around Port Orford, Oregon. For many years he served in the lumber industry and in local mills. He has lived in Myrtle Point, Oregon since 1979 and never lived more than 70 miles from Coos Bay. After his career in timber he transitioned to the utilities sector as a lineman and served the rest of his career for Coos Curry Electric servicing the communities energy grid. The lineman proudly served in the Vietnam War, and now spends his retirement in service to the VFW, mentoring wrestling coaches, and helping with school track meets. |
| The Planner | Eureka, California | Moved to Eureka in 2003 to attend college, started a family and is happily raising 2 children. Started a career in urban planning in 2005 and was a Community Development Director for years before starting a consulting firm doing similar work. Now he works on planning for the Port and has no intention of leaving the area he now calls home. |
| The Oysterman | Eureka, California | Moved to Eureka, California in 1990 from the Bay Area to attend college. He started working for the Oyster Seed Company in 1992 and has stayed in the shellfish industry ever since. An entrepreneur, he owns his oyster operation and a local restaurant serving his harvest. |
| The Environmentalist | Arcata, California | Moved to Arcata in 1979 to attend college and received a degree in Environmental Resource Engineering with a speciality in energy resources. After college they worked in tech, local toxics consulting, Louisiana Pacific Corp—the local paper mill—and was the Humboldt County Director of Planning for over a decade. Now he lives in Bayside, CA just outside Arcata. |

| | | |
|-------------|------------------------|---|
| The Builder | Bayside, California | Originally from San Jose, California, and after years of his teachers telling him he had to move to Humboldt County, he moved in 1981 to attend Cal Poly Humboldt, then Humboldt State University. After falling in love with the culture and environment of the region he stayed. Now he spends his time split between Arcata, California and Petrolia, California and is a commercial builder/contractor. |
|-------------|------------------------|---|

Results and Discussion

Interviewees loved the rural character of their communities; a beautiful environment, little traffic, soaring coastal cliffs and forests for hiking, hunting, biking, and enjoying the local flora and fauna. Many expressed a desire for greater economic opportunity, family wage jobs, increased transit and healthcare options, and autonomy for the community to chart its own path separate from federal and state politics—which they believe often casts them as second class citizens in policy discussion. Some interviewees had their children leave the area for jobs and education opportunities that were unavailable in the region, which has led to the dissolution of the traditional close knit intergenerational communities that were once common in this area.

Relationship to Place

To begin each interview participants were asked to share a short personal history about their relationship to the area, their families history, and their job history. The first interviewee in Oregon, the Wind Advocate, worked in the logging industry starting in 1972. When I asked about community, the Wind Advocate made it seem like logging was the whole community.

It was the logging industry, and most of my friends and family members entered local corporations, logging operations or milling operations, including as time passed into the log export industry... In Coos County and Douglas County.

Three of the 8 participants were former loggers, and every participant recognized the history of logging within their communities along the wind coast. Many of the new jobs in the area were from casino development by local Tribes, with one in Coos Bay, Oregon even called “The Mill Casino.” But the industry had been in decline for many years, at least if measured in employment.

Lumber Jobs

In regard to lumber jobs the Librarian commented on lumber job availability, “Over the years the lumber jobs have dropped but our few local lumber agencies like Southport and Roseburg...They always have jobs. One of the problems was with the lumber places they require drug tests, and we have a lot of drug use in our area.” The relationship between drug use, which was correlated with unemployment by participants, exposed another layer of challenges posed by some of the social problems. The economic developer from Coos Bay, gave an anecdote of how a plethora of timber operators led to much greater job choice in the past.

I think probably the biggest thing that went on [in the past is] jobs were available for all that wanted to work, and you could step from one to another, in a way, you know, if you get upset with your logging crew, and you stood out with your hardhat and your carts. And within a day or so you were working for a different crew.

When I asked The Contractor if the lumber industry and fishing industries were bigger in Humboldt County in the past he emphatically stated, “Not just a little bigger, way bigger. Especially logging. That whole area was built on logging, at least for white people. It's all based on logging in the beginning.”

The resource extraction industries of timber and fishing that had built the region had clearly become less dominant, either through efficiency gains, over extraction, regulatory changes, or market demand. The oysterman who had lived in the area since 1992 had seen the decline himself. “All the wild catch fisheries. And then the timber industry has been a big one. Both of those are kind of on their, on their down climb, or they have declined.”

There was a clear understanding in both study areas that the economy had moved on from logging as the dominant player, but it’s history was everywhere, along the docks where exhibits of timber types were prominently displayed in the downtown port of Coos Bay, and in the Redwood National and State Parks, where old mills had been converted into park ranger facilities. Logging still has a significant impact on the local economies of the area, and is a defining characteristic of the culture of the region.

Changing Economy

Both Humboldt County and Coos County have many parallels, being founded as timber towns in the 1800s on Indigenous lands. But there are some differences as well. Humboldt has Cal Poly Humboldt which skews the demographics younger (8 years younger on average) and provides a highly educated workforce. Humboldt is a major cannabis producing area. The culture (formerly the counterculture) of the cannabis industry can be seen in local art stores and the tax base, as cannabis cultivation brings in three times the agricultural revenue of Timber in Humboldt County. So though Humboldt is slightly more diversified it still has essentially the same median income as Coos County.

In Humboldt the changing economy had been so pronounced that they coined a name for their economic transformation, “cowboy to cappuccino.”

Our community has gone through what some people glibly call the cowboy to cappuccino cultural transition, where we were a resource economy, timber fishing, primarily, and have shifted over to government services, which includes the university and all the resource agencies, which have grown considerably in the last 20 to 30 years here. Tourism area receives more tourist money than it used to. And, and marijuana has seen a gradual rise and now I dissent. But at one point, marijuana contributed something near 30% to 40% of our gross domestic product here and Humboldt that drove the service industry, primarily, but also a lot of suppliers to the marijuana industry. (The Environmentalist)

Other industries have grown within the region as well. Increased tourism was one of the most mentioned areas of growth in both communities. The Oysterman noticed AirBnB growth and some smaller recreational tourism businesses start-ups over the last 10-15 years. In Coos Bay entrepreneurship of local organic farms and dairies, coastal tourism, and a new brewery have increased the diversity of the local economy (The Developer).

California Cannabis and a New Anchor Industry

Humboldt County has a long history with the cannabis industry, first illegal and now legal (Meisel et al., 2023). This was a significant difference between Coos County and Humboldt County, though both areas had state legalization of recreational and medicinal cannabis products. Cannabis had been a cultural touchstone in the region for over 50 years when the “back-to-the-lander” movement brought cannabis cultivation into the hills of Northern California (Meisel et al., 2023). Eventually cannabis became more

organized and profitable, moving beyond its modern homesteading roots, and impacting the local economy.

[Cannabis] financed a lot of the culture, that is I guess the counterculture, like the McCall family and my wife works [to restore] the Salmon River that was severely impacted during the logging industry... cannabis funded a lot of really amazing things that bloomed in Humboldt County. (The Contractor)

The financial benefits of having a large industry in the area were reinforced by the environmentalist, and he acknowledged that many of the local businesses within Humboldt County were bankrolled by the profits of the cannabis industry.

But the Environmentalist spoke of some of the negative impacts of the cannabis industry, still federally illegal, and for that reason at risk federal seizure at any time. He worried that the kids of the region were still drawn to the quick money of the industry, and hoped that OSW could be the next industry spreading their profits into the local economy.

The idea of a new anchor for the local economy was not endemic to Humboldt, the same desire for an industry with good paying jobs, healthy profits, and the potential for both direct and indirect economic growth was expressed by interviewees in Coos County as well. The Planner mentioned that over the last 10 years, the Eureka, CA had invested in the art community and it had grown so much that artists now outnumbered the amount of people employed in the fishing industry. The desire for OSW to be the anchor tenet that reinvigorates communities was palpable throughout the interviews.

Community Pride, Satisfaction, and Love

To begin each interview participants were asked to share a short personal history about their relationship to the area, their families history, and their job history. Then with a brief history of their connection to the community they were asked “What parts of your community give you or you and your family pride or satisfaction?”

Environment

| Table 5. Community Pride, Satisfaction, and Love | | | |
|---|--------|---------|------------|
| Environment | Family | Culture | Rural Life |
| 8 | 5 | 4 | 4 |

The environment was the most important aspect of community pride and love along the wind coast (Table 5). Every participant expressed the importance of the natural environment to their quality of life in the area. The librarian enjoyed walking and skating along local trails, and said, “We like to see all the seals and different birds. Yes, a lot of sea lions and stuff out there. Elephant Seals, you see whales out there a lot too.”

The recreational opportunities provided by the environment also enhanced the area, with participants listing off at least a dozen different activities. The Planner proclaimed he loved “everything.”

Climate, geology. I like how rural it is. Have an eight minute commute to work. I never wait in traffic. You know, there's limited cultural opportunities, right? There's not a lot of theater and you know, it's not a lot of ballet but that's fine with me. I can go to the beach or go climbing or you know, go kayaking, paddleboarding. We drive 45 minutes inland in the summers and swim in the rivers. In the winter [we] drive to the same spot and go sledding. But when you come home, it's always between 50 and 60 degrees. It's pretty

nice. The people are super friendly, easy to get along with. It's got a lot going on for a community this size.

It is important to recognize the environment as a cultural keystone for the love and enjoyment of the communities of the wind coast. Its natural spoils connect all of the residents of the area and OSW should prioritize a least harm approach, and use funds to enhance climate adaptation and mitigation efforts to preserve this treasured asset.

When asked if nature was one of the main reasons the participants lived in the area, stories of the natural beauty shortly followed. The contractor loved the character that the wild coast provided living in Northern California, and he shared a recent anecdote showcasing his love of the wildlife of the area.

Right before you called my son and I were watching these two bucks just going at it horn to horn, and then yesterday morning he and his girlfriend, saw a mountain lion from their front porch basking in the sun, and it's not uncommon to see significant wildlife sightings. There's a golden eagle hanging out over our little field here next to the Mattole River. It's been hanging in here for a few days and it's pretty spectacular.

In each community, every interviewee expressed appreciation for, if not outright love of, the natural environment. Whether hunting, fishing, hiking, or working out in the woods, people loved the activities within, and jobs provided by the natural splendor of the wind coast.

Importantly, the love of the environment extends beyond land and into the natural harbors and the Pacific ocean.

For me with my occupation, it's just the natural beauty of it, the boat ride. You know, my office is pretty cool out in the middle of the bay. That's, that's for me. As far as you know, other people that I might talk to or chat with. They're mostly all here because of the natural beauty and it's not really that crowded, necessarily,

like It can be in the Bay Area. So, you know, it's not a sea of people. You can always go hide out if you need to. (The Oysterman)

Family

The Librarian in Coos County, who has spent 10 years in the community, found pride in his work, and a healthy love of the environment which focused his job search to the Oregon coast. But work also provided a connection to the local community and a sense of pride.

“So I think professionally, working in the library, with Hispanics, and also I'm involved with a local organization Coos Hispanic Allies. So I think that gives me a lot of pride. Like during the pandemic, we were able to provide a lot of economic relief to local Hispanic families who lost family members or just need to pay medical bills, that was really huge.

For the Wind Advocate his ancestral roots were connected to the area, and described his grandmother's Indian home as the “center of our universe.” The family conducted ceremony in nature and expressed deep gratitude towards the privacy and beauty of the area. The environment was permanently linked to his family's heritage. He said, “For me, as a parent, to see them naturally gravitate towards their Tribal identities, is really great.”

The Electrician raised his children in the area, and the majority of his family still had ties up and down the south Oregon coast. Deeply connected to the land, through years of logging and hunting, they also had volunteered within many groups and events within the area. It is clear that participants connected the upbringing of their children and the life events inherent in the task with the community, its culture, and the nature of the area. The Contractor had just enjoyed watching golden eagles above the family's home, fighting with another bird, the day before his interview. But it was clear he enjoyed it

even more because his son was visiting that morning, and they shared the moment together.

Culture and Rural Life

It was clear that many of the participants also appreciated the rural character of the area, as well as the libertarian and counterculture movements that had developed along the wind coast. The Contractor noted, “What I love about this community that's a big part of it, [the counterculture]. People love living on this wild North Coast.”

The Environmentalist loved the small rural town character of Humboldt County, the cultural identity of town and the gift of natural beauty bestowed upon the North California coast.

The natural environment and Norman Rockwell small town feel where everybody that's here is here by choice because they appreciate the community and its assets and gives a certain culture that an identity that everybody embraces so you feel loved here by your peeps, and it's one of the most gorgeous natural environments in the world.

Rural life often helps promote community cohesion, a smaller population is inherently able to interact with a larger percentage of the community. The common thread of community service was also present in the interviews. People volunteered for local causes, whether the elks club, Veterans of Foreign Wars, community outreach events, schools, and environmental protection groups. Research has found that anchor institutions, such as a strong industry tie or a medicine cluster, can enhance community resilience, especially if the institution helps support a robust economy (McAreavey, 2022). The fishing and timber industries likely buoyed these areas

for decades, until their eventual employment decline. The homesteading and cannabis culture in Humboldt County likely provides the same anchor . It is clear that even

Community Concerns and Desires

The problems, concerns, and challenges of the community lay bare the socioeconomic situation of the area (Table 6). Understanding these is important, as not only do they represent macroeconomic issues, but also unique local issues that define how residents view success or failure of community development. With this framing, concerns and problems also represent the desire to resolve issues within the community.

When interview participants were asked what problems their communities faced many responses revolved around socio economic issues such as the economy, jobs, housing affordability, homelessness, poverty.

When the Wind Advocate, a former worker in the lumber industry thought about the issues in Coos County began with the early industries of the area, “You know, the natural

| | |
|-------------------------|---|
| Jobs/Economic Diversity | 5 |
| Housing Affordability | 4 |
| Homelessness | 3 |
| Self Esteem | 2 |
| Youth Emigration | 2 |
| Health | 1 |
| Political Polarization | 1 |
| Poverty | 1 |

resources and the exploitation of those natural resources is what really has brought us to where we are today. Which is really, I think, a tragic story.”

Economy

When interviewing the Developer he initially expressed the importance of a diverse economy with multiple sectors being able to “buoy” the economy through economic shifts, or emergencies like COVID-19. The Wind Advocate articulated the desire to build cross-cultural initiatives that benefited all members of his community, supporting diverse relationships that enhance Tribal well-being, diversity of industry, and the promotion of a new, hopefully less environmentally damaging, OSW sector.

So for me, I have always been interested in diversifying the economy and providing other opportunity and upward mobility. And I want to do everything cross culturally, you know, if I can develop relationships between Native nations and industry, that is a win win. I will do that every time. In fact, I focus on that upfront. (Wind Advocate)

This desire to diversify arose from some troubling symptoms of a poor economy, and was expressed by the Lineman and the Wind Advocate when they identified family dissolution as a major concern.

The Lineman, who raised his family in Coos County said, “All three of my children had to leave because of work to get a family paying job. They had to leave and go elsewhere after they graduated from college. That's one of the problems.” He reinforced the idea that it was not just jobs but good paying jobs that was the issue, a moment later stating, “The other problem, I guess it would be just family wage jobs within the community or outlying areas, and they’re pretty much gone.”

The Wind Advocate expressed his distress with the economic conditions of Coos County saying, “We need to diversify the economy because the outward migration of our youth has affected a lot of different areas, you know, our societal fabric?” It was clear that economic distress and human suffering were linked in his mind when he said, “I think for all major civilizations trending in a direction, the world is going to collapse. And it's because people don't speak [out against the] violations of human rights.” This socioeconomic linking is important, as it links community sentiment to broader just transition goals, and also towards recognizing the importance of striving towards UN Sustainable Development Goals.

The Wind Advocate chastised the paradigm of western development itself, and extractive industries like the timber industry focus on economic goals, and profit extraction, over the traditional or community focused lifestyles.

Well as an Indigenous [person], I've been frustrated and angry for a long time. And it's not just the timber industry. This story of right of discovery and manifest destiny and this tragedy has been created out of a Western civilization that has dominion over all things. I have never adopted that notion. But it has brought us to where we are in my opinion. (The Wind Advocate)

Unemployment in the area was mentioned by participants who served the local community, like the librarian, and the lineman who volunteered with the VFW, and both saw unemployment impact the people they knew. Some of the challenges of connecting people to jobs in a fractured information environment were mentioned as contributors to find jobs. Internet access is lower in the area, and the Librarian mentioned, even though Coos Bay is, “the biggest town on the [Southern Oregon] coast, we're still a small community.”

Humboldt County predicts that the majority of its job growth over the next few years will come in the public sector. Participants in Coos County also identified the public sector as a significant contributor to the area's economy. But, persistent underfunding, especially in Oregon, was mentioned. The librarian, working in the public sector, saw it daily.

A lot of us in this community, our organizations have become almost skeletal. Like, we need more employees. But we need more space. Yeah, we're hella busy. We could use more people, but we really don't have office space.“

Economic opportunity is foundational to the success of these towns, members, even if skeptical of capitalism itself, recognize its importance to keeping communities together, and providing the basic necessities of modern American life. Family-wage jobs, or good-paying jobs, are particularly important, as they allow families to grow, and afford more than the basics, but the ability to support dependents as well. Today, people in the area are struggling not only with poverty, but housing affordability without more family-wage jobs.

Housing, Homelessness, and Poverty

Each interviewee had different priorities for what they believed would help the community most, though most agreed a better economy would be beneficial, especially for keeping young people in the area. In contrast, there was near uniform agreement on the main issues these rural coastal communities faced, affordable housing, homelessness, and poverty. All interviewees expressed one, or a combination, of these concerns. Due to poverty's link on homelessness through housing affordability I have combined the results here.

Housing

The Planner's first thought when he considered what the community might need more of in terms of public funds was housing. He said, "I think one of the major challenges in the communities that we [have], almost everywhere, at least California, [we] are in need of housing, more housing." The Developer, when it came to the most apparent issues said, "You know, it's similar to other places, affordable housing, the homeless issue, how do you deal with that?" He explained efforts are being developed by housing authorities in the area, and they are working on policies to work through the "homelessness" issue. In communities along the wind coast strategies to address housing and homelessness are being tried, with varying degrees of success.

For the Librarian housing affordability topped the list of issues. But he was quick to mention the cost of housing itself, and the meteoric rise of houses in the area.

I would say housing is one of our major issues, lack of affordable housing and the value of homes has shot up kind of like Portland or something you know decades ago here in just a few years. So [we] just bought [a house] has almost tripled in three years. Which is insane for this area, because this area was cheap when I moved here in 2013. The houses on the street I lived on then a lot of them you can get for [\$150,000] or less. Now all those houses would be around [\$300,000] or more. (The Librarian)

Rapid housing price increases have put an economic squeeze on lower income individuals. Cost of living increases are dramatically rising as most people's largest monthly expense is housing. The Contractor saw the potential for an economic boom turning into an economic squeeze, forcing some to move out of the area. Many worried that people in the area already lived at the end of their means. The Planner recognized some of the geographic challenges to building in Eureka, with its steep hills, and protected forests, there is little area left for the preferred housing type of many, single family homes. The Oysterman recognized some of the tension between high cost housing and affordable housing, and worried that new high income earners from OSW

might outbid local government for prime real estate for building. He said, “they're just gonna build custom homes rather than try to do some more housing.”

I could see there's a massive influx of money into the county. A lot of people get priced out, you know, a lot of people that live kinda close to the bone here. Get priced out of being able to live here. (The Contractor)

Homelessness

Poverty and homelessness were often mentioned together, two intrinsically related symptoms of economic despair. When speaking on homelessness an air of sadness often came over the conversation, and worry, but rarely disdain. It seemed the participants knew there were larger social and economic issues at play. It may have also been the realization that everyone contributes to social and economic issues if you are a community member.

The homelessness [problem] is one that is just so in your face and prevalent, and it hurts the other ones kind of... come and go... what would be a bigger issue than homelessness, and poverty. (The Contractor)

The homelessness crisis in Humboldt was on top of mind for the Oysterman when we discussed what ills the community was dealing with. He also linked homelessness to social issues, like the unaddressed drug addiction and mental health problems in the community.

One of the major problems and all of the areas in California and many other spots is just like homeless folks, and, you know, people living in the bushes and that kind of thing. Yeah, I think that stems a lot from, you know, drug addiction and mental issues. (The Oysterman)

The Environmentalist thought the homelessness problem in Humboldt County was larger than it might otherwise be because of the fair climate, good welfare services, and favorable reputation within certain parts of the west coast homeless populations.

The Planner also thought the perception of homelessness was a bit exacerbated due to homeless services being centered in downtown Eureka. These two were both well connected with community governance, and knew how county social services funneled people in need of welfare services into the downtown core where those services were available.

So Eureka in particular and you know, the other communities around eureka tend to look down on the city of eureka. There's a lot of homeless, there's a lot of poverty, but I think that's because the county intentionally focuses homelessness into Eureka, channels it into Eureka. (The Planner)

Much of the conversation about housing and homelessness revolves around a tension between the current crises and how OSW could either help or harm the inhabitants of the wind coast. With the housing costs of the region already at historic highs, there are two choices, higher income jobs to afford higher prices, or lowering housing prices. Lowering housing prices could be achieved through supply side development, reducing regulations and taxes on building, or a larger cultural shift to view housing as a consumable rather than an asset class. With many Americans viewing housing as a part of the “American Dream” and also now an investment rather than a necessity, it may be hard to convince homeowners to devalue their largest asset.

It’s clear that when developing benefits for the community, housing affordability, homelessness, and poverty need to be discussed. Though outside the scope of direct impacts with OSW, everyone in the community is affected by these problems. Tailoring workforce development to support impoverished families could help lift people out of poverty through good-paying and long term jobs. Developing low cost housing can attack the homelessness problem through affordability. But housing is now often viewed as an asset rather than a necessity for human survival. An asset mindset limits the ability to

lower housing prices, as policies that might lower housing prices would be vehemently opposed by owners.

For the Librarian, finding healthy affordable food options was one of the main problems, and he correlated this with higher cancer rates in the area. Programs addressing this had been developed by the librarians including building out free food services and cooking lessons at the local co-op.

Potential Benefits of Offshore Wind Development

Offshore wind benefits will be diverse and could include jobs, infrastructure, investment funds, energy resiliency, and a reduction in carbon emissions and pollution. Each interviewee was posed the question, “What would you like OSW development to provide for your community?”

Jobs and Economy

The Wind Advocate first thought of the diversity of jobs that could be provided. Having studied OSW development he knew about the potential of Coos Bay to marshal the project forward and utilize the natural harbor the community possessed to be ready to take advantage of OSW development. Jobs and economic benefit was the most frequent response from participants (Table 7.) He believed it was the largest job opportunity the community had seen in decades.

When he thought of the impact on local residents he said,

Well, there's 74 different pathways for employment in virtually all of the fabrication, assembly and launching, that's union scale work, from everything from the laborers, to the concrete, to the mechanical engineers, to all of the above.

Okay, that's union scale. And it's an attractive number that doesn't exist here, except for [maybe] the longshoreman? (The Wind Advocate)

He viewed the longshoreman as the only large union scale workforce in the area with good paying jobs.

The Librarian pointed out that the local Tribally owned casinos were one of the largest new employers in the area, and the only large development over the

last decade. The Developer hoped for both “excellent” jobs being created and the development of a more resilient energy system through infrastructure development.

| Table 7. OSW Benefits | |
|---------------------------|---|
| Jobs and Economy | 7 |
| Climate Change Mitigation | 4 |
| Economic Diversity | 4 |
| Infrastructure Investment | 3 |

One of [the benefits] would be employment in a couple of different ways. I think we can be a construction area, especially with our short zip to open ocean. That would be an asset, and would be excellent jobs for those that have those skills and be part of it that way. I think the other thing we're missing, we don't really have a dual energy source into here. I mean, you got Pacific Power and Central Lincoln, PUD and so forth, but I don't think we have redundant systems electric wise. (The Developer)

The more knowledge of the scale of development, the higher the hopes that FOSW could become an anchor to the local economy for decades to come. Beyond an economic driver, people with greater information also conflated FOSW with a larger impact on climate change mitigation.

Climate

Half of the interviewees, when they thought about the benefits of OSW, thought about the climate crises as well. Though surprisingly, even though the national and international initiatives

driving OSW are focused on reducing fossil fuel emissions and working towards climate change mitigation, many participants thought of this as an economic development which would also increase jobs and taxes in the area first. Others thought of climate change as an existential crisis deserving of global action including FOSW development. The Environmentalist was in the later camp and approached development through a lens of lowering energy costs, and working to placate common concerns such as impacting viewsheds.

I think the approach we need to take is, just get cheaper than [fossil fuel] carbon, period. And that's why wind and energy and particularly floating terminals, because the wind resource is in real offshore areas, dwarfs that in shallow offshore areas. And the beauty is they're away from anybody. It can be Win Win from a NIMBY perspective.”

The former environmental planner and the planner did not mince words when it came to their thoughts on climate change, and both believed it was an existential crisis for humanity. The Wind Advocate shared this perspective and all three had the strongest sentiments toward promoting offshore wind. Their perspective focused on the global repercussions of inaction in regards to climate change, and acknowledged the perceived risks of climate change would materialize back at home if they didn't push to build FOSW along the wind coast.

I believe that climate change is worse [than] almost every other environmental challenge we've had, and that includes clean water, clean air, toxics, solid waste, you name it. And, you know, our system is so poverty stricken, that it can't rise to a challenge of this size, then, you know, you're looking at rewriting the history of the human race. (The Environmentalist)

Fisheries

The Wind Advocate hoped that the OSW farms would provide a refuge for over exploited fisheries on the Oregon coast, “I'm thinking, this wind turbine arrays are a refuge for [fish].”

The Oysterman thought beyond the traditional fisheries perspective and fell back on his expertise, aquaculture. Co-development with aquaculture could be a useful development that would go alongside OSW farms. “The only thing that I could see that might be kind of cool is as an aquaculture, is if those facilities that they do offshore, somehow, besides bringing in power, are able to produce food.” He thought that there were probably many different benefits that could be enabled if there was better coordination. “A lot of synergy that can happen. But everybody's so focused on their own thing. They don't think about collaborating in a lot of ways.”

Hope

The Developer, the Planner, the Environmentalist, and the Wind Advocate all expressed a desire to create a future of hope. Not just for economic opportunity, but to give the region a sense of purpose, and a global perspective on the opportunity in front of the population of the Wind Coast. The Wind Advocate hoped to move beyond the environmental destruction of the timber age and towards a greener tomorrow.

This is really a once in a generation opportunity...But one of the greatest prizes, in my mind, is creating hope for future generations. Just creating some hope that we can get beyond this tragic story... Really that's the driver, protecting the environment and being good stewards and restoring what we can but working together to really... Let's develop a model to where the community does really get behind addressing... this really threatening situation. (The Wind Advocate)

The Planner hoped that the global goal of combating climate change would bring hope and pride to the people of Eureka. The reindustrialization of Humboldt Bay, built on top of a foreclosed paper mill, was a symbolic development of the old dominant industry being replaced

by a new industrial age along the wind coast. The prospect of removing the “blight” of the abandoned factory to give hope to a new generation where a clean energy working waterfront provided a new imagined future for the region.

So yeah, to participate in the [reversal] of climate change, to be involved in manufacturing, you know, some of the most high-tech equipment in the world. Yeah, I mean sitting right here you'd be able to see them being manufactured, right? Yeah, like right there. On that site. All of the Eureka waterfront will be able to see them being manufactured. I would hope that would bring pride.

Offshore Wind Concerns

The other question posed related directly to offshore wind was, “What do you believe the potential harms of OSW energy will be?” To effectively enact a just transition, it is important to recognize the ability of development to inflict harm, and then to preserve the unique culture and environment along the wind coast to limit impacts on the important characteristics of communities. The Wind Advocate made it clear that without perceived community benefits beyond jobs, the prospect of acceptance is lower, “Crowley made it publicly known that there would be no community benefit agreement from their presence. It would be employment opportunities only.” This led many the Wind Advocate to view the interactions between Crowley and community members as transactional, and mainly self serving. This sentiment showed that the economic

| Table 8. OSW Concerns | |
|------------------------------|---|
| Lack of Information | 6 |
| Government Distrust | 6 |
| Money Leaves Community | 5 |
| Fisheries Impacts | 4 |
| Jobs Not Filled by Community | 3 |
| Environment | 3 |

development of the area is important, but not enough to win approval for these large projects without socioeconomic concerns being incorporated into planning OSW.

If not OSW then what else could deliver job diversification, climate mitigation, and the indirect benefits of these projects into these coastal towns? The Wind Advocate was also worried about the consequences of the alternative port development in Coos Bay, a containerization project that would involve significantly deeper dredging than the offshore wind project. This was the first mention of environmental impacts of OSW development during my interview process, and the area's history of coal mining and mill pollution was mentioned as being a potential final blow to the depleted salmon stocks if extensive dredging re-released toxic sediment from Coos Bay. Much of this concern though was hypothetical, which revealed the largest identified issue with OSW, a lack of information.

Unknowns, and a Lack of Information

There were 2 major concerns in a list of many (Table 8), but most are also subject to a lack of knowledge of OSW development. The Librarian insisted that, “First, I would want to know what the environmental impact is... What's it going to affect? Like, as far as marine life, dredging, you know, all that stuff? What's going to happen to my environment when this gets installed?”

The impacts of such large projects and the scale of construction are unprecedented in the area. With only one commercial OSW farm in the US they are rightly concerned, we only have foreign examples to work from. The Contractor was having trouble grappling with the scale of

development when he said, “I don't know wind energy. Maybe because it's in my backyard. [It] Feels so huge.”

When we discussed how people lacked information about the BOEM public comment process it illuminated the real issue, that people didn't know where, when, or how these public outreach efforts were being undertaken. When the Developer thought about this question he immediately considered the informational background of the community and their ability or inability to engage without some knowledge of what OSW development would entail.

Almost every participant had questions for me as I sought to understand community sentiment for OSW. Not only were there questions about jobs, scale, manufacturing, and environmental impact, but they also wondered how to interact with the information that is available. Where could you find information, and who was providing it?

Distrust of Government and Engagement Process

Many of the interviewees saw federal and local government initiatives as mandates without community involvement. This was more prevalent in Oregon but also came up in discussions with Californians. Sentiment verged on resentful, and nefarious when implying that consultation was done after decisions had already been made about the communities future.

Well, they did it way before anybody really knew what was going on, before the attention was drawn out. You know what I mean? And so when it really came, when the rubber met the road, and the people that were going to be affected actually figured out how they were going to be affected, it was too late because all the decision makers, beware of the central planners, they have already made a decision. (The Oysterman)

Another common complaint was that after the participation process many participants felt as if they were not heard, and their recommendations did meaningfully

influence the topics being discussed. The oysterman commented that this led to “apathetic sentiment.”

I think in general, there is such an apathy or apathy, apathetic sentiment, because no matter what you do, when you do your public comments, like a different board meetings and things like that, it seems most often to fall upon deaf ears. Yeah, so after so much of that, you kind of get discouraged.

The Contractor mentioned the recent rebranding of Cal Poly Humboldt and the new expansions for the university. Much of the community viewed it as being rammed through, and again the community consultation process was viewed as an afterthought in the development planning for the university.

The Developer delivered a scathing anecdote of his personal experience with the Jordan Cove Liquid Natural Gas Project development process, and the wasted time invested over the years trying to move forward with the project. This project represented Coos Bay's prior large-scale energy opportunity. The Developer drew parallels to the public outreach of that project and other community engagement processes. After hundreds of hours of community consultation, numerous meetings, and promises of local benefits the project was canceled. The Librarian mentioned that environmental activists had been against the project, but the nail in the coffin was a realization that there would be very few permanent jobs if the project was completed. After all of the community participation, much of it by volunteers, the Developer worried that there is a certain degree of disbelief that these projects will materialize, “so do I want to reinvest another few hundred hours?”

Cost, Electricity and Housing

The Lineman and The Developer were both worried about increasing costs of electricity with these new more expensive projects. They thought it unfair that new development might be more expensive than the cheap electricity they have from hydropower in Oregon.

“Yeah, the other one being too is these alternatives are not cheap. And electricity generated by wind or wave or whatever it happens to be, is quite a bit more expensive than hydro, which is interesting.”

Two of the participants worried that new high paying jobs in OSW might exacerbate the housing crisis. They assumed pay would be high enough they could build new custom homes, or rent the existing housing stock that was already unaffordable for many within the community. The potential exists to drive all prices higher with an influx of high paying job opportunities along the wind coast.

Fishing Impacts

Fishing impacts suffered from the same lack of information that OSW development is inevitable with new technologies. There is almost no translatable knowledge from global FOSW, as there are only a few small installations that are at most 1/20th the size of the planned wind farms along the wind coast. The Oysterman, Lineman, Developer, and the Wind Advocate all mentioned the uncertainty of OSW related to fishing stocks. Another concern was the exclusion of fishing boats within those grounds, and the lack of information on the potential expansion of FOSW farms. The Developer said, “there's a concern of, I don't really know why you picked such a huge area.” However, some participants thought the exclusion of fishermen could enhance fishing stocks by creating a nursery for small fish, and that a lower fishing pressure in those areas could create spillover of more fish into the surrounding area over time.

Jobs and Money Leaving Community

There were also concerns of the ability of community members to fill jobs for OSW development. Would the skills required for this work be available in the community or would the positions be outsourced to non-residents? Though workforce development is a known CBA type it is not known if outsiders would still enroll into local programs to gain skills and experience reducing the impact for underemployed residents. There are also concerns about the temporality of jobs. Will there only be jobs in the phase or will there be long lasting permanent jobs?

Recent experience with the Jordan Cove LNG project illuminates some of the concerns inherent in a large energy development. When I asked the Librarian if he thought there might be benefits for OSW in the area he responded,

I can't answer this question when I don't know about the jobs. So with LNG, I didn't think anybody in my community was probably going to get a job there. It's going to be contractors building a pipeline of 10 guys. Where we're gonna build, they're gonna build apartments for these people to come from other communities, work during the week, take that money back to their communities where they live. That was my impression of LNG. So yeah, my question before I can answer this, is the money [for] this is going to generate locally via jobs. Are those implementation jobs or ongoing jobs throughout the lifecycle of the wind energy.
(The Librarian)

The Lineman also shared the concern that money would leave the community, and believed it was likely that it would. The other concern was the amount of money that stayed in the community through ownership. Would wind energy profits be extracted to external

ownership like the profits of the timber industry when it went up to the headquarters of Weyerhouser in Seattle, rather than stay in local communities? Without more knowledge of the ownership structure of OSW ventures it is harder for communities to buy-in to wind farm development.

OSW Planning Process and Community Benefit Agreements

OSW planning has taken various approaches. Some tightly define stakeholders, others more broadly and do outreach through CBAs to create lasting and impactful benefits for local citizens. Utilizing my just transition framework I wanted to ask what people thought about their relationship to the OSW planning process. If the process of developing benefits is viewed as unjust, the resulting benefits would be as well. Community engagement begins with the question of defining stakeholders, so did they consider themselves stakeholders or not? Each interviewee was asked, “Who should decide what types of projects Community Benefit Agreements fund?”

The Contractor, the planner, the environmentalist, the developer thought the elected officials of the area should lead on the issue of where CBAs should direct their funds. The Planner hoped for an advisory board to help guide CBA funds in Eureka and Humboldt County.

The Wind Advocate argued for a more powerful presence of the community's perspective, where community voice was heard in the consultation process.

Well, that research needs to be different than what established NGOs are engaged in. Because there's no community voice. No, it is not really analyzing the needs of the community. It is following a mission statement or a status quo approach and, and really suffocating, I think, the voice of the people. (Wind Advocate)

I think early communication is sort of critical. Back before I'm asking anything of you, let me tell you about whatever. Let me get your questions as to how things fit together. And a couple of ways to approach that. (The Developer)

When the Developer was asked if there was a better way to engage with communities when deciding what should be undertaken, he did not prefer the public comment approach. What he had seen work before was focused meetings with experts, where they divided groups up into tables to discuss the different issues individually. At the end of the discussion the ideas were brought back together and participants continued to work through interconnected issues.

So you've got, you know, in the room, maybe six different informational pieces going on, and maps, and you give people the opportunity to talk directly to, you know, your equipment guy or who's around. And I think you get, get more dialogue going on that way. I think the next step I saw the city of North Bend use, which I thought was a smart piece it got around strictly in public hearing. What they did was put people at different tables, there were like eight people that tables and here were the items being discussed. Let's go through the data. (The Developer)

Many expressed the importance of face to face interaction, realizing that social media and other digital communication efforts felt impersonal, and more polarizing. Speaking face to face was viewed as less confrontational and more productive. Community engagement was viewed as paramount, as communities would experience the impacts. Federal and foreign entities were frequently viewed with disdain, and uninterested in the actual impacts to local communities.

Every single community member should have a say. Yeah, it's my opinion. I think the community that's that close to it should be the community where every

member of that community has a say. I don't think somebody in Finland should have a say, sure of what happens with this wind shore thing three miles from Coos Bay I also don't think the federal government should really have a say. I mean, I know. I know, they have to approve things, and stuff like this. But for me, this is a very, this is gonna have a very local impact. (The Librarian)

The Librarian thought community benefits could serve the most good if it was used for preventative health, and addressing transportation issues that people seeking health care specialists out of town could benefit from. One instance stood out. During the COVID pandemic the bus route to Roseburg, home to the VA facilities and other medical specialists, was closed for two years. This left the people who could not afford cars stranded without medical service unless they could find a ride from a friend or community member. The lack of public transportation was now affecting community health.

The Environmentalist has faith in the government institutions of Humboldt county, having worked with them for many years. And he emphasized a need to not reinvent the wheel but use the existing infrastructure to funnel development money from CBAs and taxes towards community needs. Ideally, a mix of experienced decision makers and community voices will be considered. Not every member of the community will be an expert in the particular issues of OSW development, but neither will elected officials. By working in collaboration with each other the best outcomes can be achieved. Here again, co-creating the preferred outcomes of CBAs allows decision makers the flexibility to negotiate with government and industry while staying focused on community desire for lasting and meaningful benefits for society.

Community Engagement

The Builder recognized one of the great challenges in the OSW development goals, the conflict between the immediacy of the need to decarbonize and the responsibility to involve as much of the community as possible. “It seems like it's getting better as far as engaging the community and that's a double edged sword because It's gonna take longer to get everyone's input.”

When I asked interviewees about the public comment process they found the meetings to often be unhelpful, and a sounding board for aggrieved parties. Participants also noted that constant public engagement is time consuming, requires personal research, and is mentally draining.

No, I think a lot of people, they don't have the bandwidth to consider these kinds of things. You know, they're, they're trying to figure out how they're going to make your rent payment. And feed their families. And the kinds of issues or yeah, they're just outside of their bandwidth. (The Contractor)

The Librarian believed every member of the community was a stakeholder, and that if the public wanted to be engaged they did have an opportunity to become involved in the engagement process. Six of the eight participants viewed themselves as a stakeholder in the development process. Surprisingly, the participants with the most involvement and knowledge of OSW development believed they may reap the benefits of FOSW, but were not necessarily direct stakeholders. These two had significant experience in community engagement in their prior work capacities, and perhaps a better understanding of the realities of having to define what communities may be impacted by the development process in more legal and technocratic terms.

The librarian also believed that without proper consultation, and full community engagement, OSW development was dead in the water. So who did he think had to be consulted?

Every member of my community otherwise, it seems pointless. And you know, if you guys want to sell this to this community, you're going to need the buy-in from every member of this community to convince you know, This is rural southern Oregon. It's a different animal. (The Librarian)

Leadership and Co-Creation

An important statement regarding leadership was made by the Environmentalist, as he worried that without a strong leader a project this large may never get off the ground, even if federal and local politicians are for it right now.

There's a need. It's locally on this project. And this kind of goes to the stakeholder issue is, **is there needs to be someone that is looked at as an honest broker, with leadership associated with this project.** And it's leadership that will drive the most appropriate messaging that is important to bring a community along with something of this scale, and you often don't see that leadership from the politicians, because they have their hand up, waiting to see which way the winds gonna blow. And leadership could cost them. And you often don't see that amongst the technocrats, the planning directors and the project managers that are embedded within the cities in the county and, and, for example, a harbor district, because they're not paid to be leaders to the community, and they're not paid to be messaging to the community, they got a job to do every day. And so you get this huge vacuum.

Given everything above, development processes and CBAs can be tailored to community identified needs if they incorporate outreach and capacity building into information sessions and public engagement processes. Focusing on underserved, and underinvested communities is the only way to address the historic and persistent socioeconomic issues that impact these coastal communities. What better way to prove to the community the value of OSW development than by taking meaningful actions that

address their current issues. The government could ameliorate concerns about the unprecedented scale of the clean energy transition by utilizing new collaborative outreach methods, and co-creation of benefits designed for communities by communities.

Co-creation, with a focus on a future where community desires are centered into the outcomes of community benefit plans, is where procedural justice and distributional justice intersect to create the foundation of a just transition.

However, the government cannot create a just community vision of the future, it can only enable it through better outreach, more transparency, information sharing, and responding to community desires by incorporating them into the development process and policies for OSW. Local leadership, driven by grass-roots activism, and a focus on the lasting infrastructure investments that can enable a more prosperous future for the wind coast, will have to provide an uncompromising bedrock of the just transition. Leadership can enable a just energy transition along the wind coast by leaning into the values underlying the communities, love of, and pride for, their rural towns. By focusing their advocacy on what they hold dear—the environment, culture, families, and rural character—the community-defined metrics of a just transition can enable a new wave of equity along the wind coast. Turning community concerns into the moral convictions that demand an end to poverty and homelessness, access to affordable housing, and good-paying jobs, the visions for their future can be realized.

Conclusion

When we consider all the engagement, leadership, and buy-in required to move projects like these FOSW farms forward in an equitable manner, it seems it will take a decade or more to get off the ground. The only commercial OSW development up and running in the US, Vineyard Wind 1, will have taken 9 years, 2015-2024, from lease to completion to build out 804 MW of power. That doesn't include the effort and years of planning before the lease auction, which puts the total timeline for Vineyard Winds 1 at about 17 years. The global transition to renewable energies is the single most important mitigation effort to eliminate fossil fuel combustion, and slow climate change. Without it, the Paris Accords and all the individual national commitments to limit global warming are impossible. Thinking of the speed at which we need to erect these offshore monoliths, each over a thousand feet tall, The Wind Advocate's words resonate. A Tribal member who has spent his whole life on the South Oregon coast, and is fighting to build a new industry that might protect the land he loves for his children told me, "WE ARE OUT OF TIME."

The consequences of slow action will be trillions of dollars of economic damage due to climate change related natural disasters (Tol, 2018). Vulnerable coastal populations are threatened with sea-level rise, infrastructure destroyed in ever more powerful storms, water and food scarcity, and increasing poverty and displacement. Global heating has the potential to exacerbate current issues for overburdened and underinvested communities all over the world, tragically in the areas that have contributed the least amount of carbon emissions which drive the climate crisis. Critically, co-creating community benefit plans in parallel with the design and

implementation of OSW development allows progress to be made on both fronts, simultaneously, to accelerate the just energy transition.

The reframing of renewable energy development as the just energy transition is an important milestone in the growing global realization that socioeconomic well-being is directly linked to the success of climate change mitigation. The ability of the world to collaborate with, invest in, and lean on the knowledge and abilities of local communities is the only path towards a just and sustainable future for humankind. A foundational tenet of the just energy transition must be addressing community desires, as they represent some of the most humane and just priorities available for decision makers as plans are made for the investments available during the energy transition. Centering community desire into the CBA consultation process gives back agency to populations that have become apathetic to global and national dictates. Co-creation can positively shift perception of the OSW consultation processes, from a process that is often viewed as uncaring and out of touch, or simply a corporate and government box checking exercise, to one that provides lasting and meaningful benefits to the wind coast.

The vision of our future should not be decided in New York, Brussels, or Washington DC, but by the communities that work in service to each other every day, the ones that will be impacted by the tremendous scale of the renewable energy boom. The politicians and technocrats that aim for sustainable development and justice, must realize that those terms mean something different to each community due to their unique history, and connection to place. A just transition along the wind coast means respecting and incorporating community desires into the infrastructure of the future. Infrastructure manifests as the physical structure to support critical

needs such as: water, transportation, and energy, but also as the social structure of justice, with policy, law, culture, jobs, and education. Therefore, it is just as important to build long lasting policy changes into infrastructure development to support the flourishing of society, as it is to build the physical infrastructure that can help alleviate the pollution and injustice that was built into the extractive infrastructure development paradigms of the past.

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