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Comment Received From: Redwood Region Climate and Community Resilience Hub (CORE Hub)

Submitted On: 8/18/2025

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CORE Hub Comments on AB 3 Report 2 In-State Assembly, Supply Chain, and Workforce Feasibility Study

Thank you for the opportunity to submit comments on the Assembly Bill 3 Scoping and Literature Review for the In-State Assembly, Supply Chain, and Workforce Feasibility Study. Please find the attached comments from the Redwood Region Climate and Community Resilience Hub (CORE Hub). We look forward to the CEC working with leaders from across the Redwood Region to develop the report and thank you in advance for your collaboration on the effort.

Additional submitted attachment is included below.

August 18, 2025

California Energy Commission
Docket No. 25-AB-03
715 P Street
Sacramento, CA 95814

Submitted via Docket 25-AB-03

RE: Assembly Bill 3 Scoping and Literature Review for In-State Assembly, Supply Chain, and Workforce Feasibility Study

Dear Chair Hochschild and Commissioners,

The Redwood Region Climate and Community Resilience Hub ("CORE Hub") appreciates the opportunity to comment on **Assembly Bill 3 Report 2: In-State Assembly, Supply Chain, and Workforce Feasibility Study, and the associated Literature Review** in evaluating future offshore wind development in the State of California. The CORE Hub was established by regional leaders in climate resilience, mitigation, and adaptation. It is based at Humboldt Area and Wild Rivers Community Foundation, serving California Counties of Humboldt, Del Norte, and Trinity, as well as Curry County in Oregon. Our service area includes many Tribal Nations and Indigenous Communities, who have been stewards of the waters and lands here since time immemorial. Therefore, hosting offshore wind and related industrial developments in our Region requires remarkable care, consideration, and collaboration.

Our comments reference many strategies, programs, data, and successful efforts being advanced by a diversity of entities in our region. We are honored to lift up the good work of others from our communities and ask that the CEC and the State of California look to those partners as resources and collaborators as you move forward with this important work.

Executive Summary of Recommendations:

1. **Incorporate the following Seven Pillars for equitable and sustainable OSW WFSC as guiding principles** for collaborating with Host Regions, including the Redwood Region and Tribal Nations.
 1. **Tribal and Community Ownership**, to build regional wealth and enduring economic wellbeing.
 2. **Regional Youth and Young Adult (16-25) Opportunities**, to support and connect our region's youth as they mature into systems, particularly those that may experience barriers to career entry, and to strengthen the region's trajectory.
 3. **Training, Education, Certification, and Learning Support Systems**, to meet the specific interests and opportunities of our remote, underserved, low-income populations.

4. Innovative Financing and Funding Partnerships, to facilitate fair local participation in a globally competitive market.

5. Public Investments in Regional Infrastructure, to reduce burden and risk for siting economic activities jointly sought by the OSW industries and the Region.

6. Public Policies that Preference Host Regions and Tribal Nations, to level the economic playing field.

7. Enforceable Structures that Prioritize Safety and Mitigate Harm, to ensure long-term security and stewardship of the Region's residents and ecosystems.

2. **Support Regionally-Led Expertise and Priorities:** Many institutions, authorities, and leaders have undertaken research and regional assessments and have deeply engaged with community members. The CEC should prioritize these findings, the goals of their work, and regional expertise, and also engage the knowledge of communities typically left out of WFSC discussions. This includes but is not limited to:

- Schatz Energy Research Center Reports¹ (WFSC², North Coast Transmission³, Transmission Alternatives⁴)
- Pacific Offshore Wind Consortium Reports⁵
- Redwood Region RISE (Renewable and Resilient Energy⁶, Working Lands and Blue Economy Sector Strategies⁷)
- County of Humboldt Comprehensive Economic Development Strategy 2025-2030 (CEDS⁸) and Offshore Wind Supply Chain and Workforce Analysis (XODUS *forthcoming*)
- Humboldt County's WindLINK⁹ Program
- College of the Redwoods Master Plan¹⁰
- Many of the region's Tribal Nations and Community Organizations submitted comments on AB525 in 2024¹¹, and these priorities remain crucial for AB3

3. **Participate In-Person with Communities on CEC-Identified Gaps and a Learning Agenda.** It is mission-critical for the success of this work to co-design and participate in local activities and engagements with Tribes and community-based organizations. This will generate new insights and stimulate solutions crucial for the CEC-specific gaps that need to be evaluated and included in its final report.

A brief and incomplete list of concepts involves:

- A series of convenings with Tribal Nations and Enterprise Leads, workforce and supply chain experts, and state policymakers to identify pathways for new Tribal Businesses - including those that are environmentally sustainable and minimize impacts on natural resources.
- Facilitate structured sessions with maritime businesses, port authorities, Tribal natural resources and fisheries, and social impact investors to co-design an ocean stewardship workforce.
- Lead workshops with educational and training institutions such as College of the Redwoods and Cal Poly Humboldt to identify barriers for Opportunity Youth participation and possible policies and programs.

- Convene State Policymakers, researchers, and local BIPOC leaders to scope implementation pathways for equity and environmental justice opportunities in host Regions.
- Bring together State, Tribal, and Local entities with social and impact investors to determine easy-to-accelerate investment strategies, including Native and Regional CDFIs and other sources of funding.
- Conduct a series of consultations with regional entities providing wrap-around services necessary to enhance systems, safety, and training/educational infrastructure, and identify barriers and resolutions¹²
- Consult with Tribal Nations and Native American justice communities about the potential for newcomer and ongoing regional orientations, training, and history awareness programs, potentially in collaboration with new business activities.
- Conduct a series of activities with local and county governments within Humboldt, Trinity, and Del Norte Counties and their respective Humboldt and NORTEC Workforce Development Boards.
- Organize an event with local researchers, research centers, and academia in the Region, along with any of their research consultants or strategists, to facilitate the best opportunities for the CEC to address its Report 2 research gaps.

4. **Develop a Robust Understanding of the Redwood Regional Context as Imperative for Success.** It is essential for offshore wind development policies to result from a deep appreciation for the history of Tribal Nations and Local Communities and their visions for the future. This ensures that urgently needed climate action and renewable energy are done in a manner that benefits and uplifts the region from the beginning, and leverages existing and successful resources, organizations, programs, and talents. In brief:

The Redwood Region has built proven, place-based solutions and undertaken rigorous research to chart its future, guided by coalitions of local leaders and institutions — for example, the recent Redwood Region RISE/California Jobs First initiative¹³ and the Tribally led coalitions to remove destructive Klamath River dams and restore the basin¹⁴. The region is in a period of expansion and development that includes transforming the university into a Cal Poly model, landing the world's longest fiber-optic line and an enhanced broadband network, growing the aquaculture industry, and advancing microgrid as well as rural and Tribal energy innovations. Population shifts due to climate change, the pandemic, urban migration, and new regional opportunities are generating newfound interest on the North Coast. The Redwood Region is already a leader in climate change adaptation and mitigation, and serves as a living laboratory for emissions reductions through both built and natural systems.

Nevertheless, the region has endured devastating boom-and-bust cycles associated with extractive industries such as mining, logging, cannabis, and energy production developments, including dams. These industries exploited natural resources and people to primarily benefit those outside the region, resulting in significant environmental damage, violence, a legacy of underinvestment, and unfulfilled promises of restoration. Local Tribal Nations experienced land theft and state-sanctioned genocide, and continue to face some of the highest rates of Missing and Murdered Indigenous Peoples (MMIP) in the U.S., necessitating specific safety guardrails¹⁵ for future development. Today, our communities are constrained by gaps in infrastructure and community services, exacerbated by chronic underinvestment.

Therefore, should the Redwood Region become a host community for Federal and State Offshore Wind (OSW) Energy in California, **there must be a markedly different approach to OSW Workforce and Supply Chain Development (WFSC)**. One that accounts for this history, consequent current conditions, and aspirations of its people. This approach must prioritize reversing patterns of resource and community extraction, and instead set a new course of reinvestment and healing for the Region that leads to long-term, long-overdue prosperity. This will require investments in intergenerational wellbeing, which can transcend any one industry. We believe the strategies, examples, and models outlined on the following pages describe this new approach.

Sincerely,

A handwritten signature in black ink, appearing to read "Katerina Oskarsson". The signature is fluid and cursive, with a long horizontal stroke at the end.

Katerina Oskarsson, PhD
CORE Hub Executive in Residence

Endnotes

1. "Recent reports and publications," Schatz Energy Research Center, accessed August 1, 2025, <https://schatzcenter.org/publications/>
2. Tanner Etherton and Arne Jacobson, *California Floating Offshore Wind: Evaluating Workforce Analyses and Assessing Professional Labor* (Schatz Energy Research Center, 2025), <https://schatzcenter.org/docs/2025-OSW-R1-workforce-SchatzCenter.pdf>
3. Jim Zoellick et al., *Northern California and Southern Oregon Offshore Wind Transmission Study, Volume 1 (Revised)* (Schatz Energy Research Center, 2024), <https://schatzcenter.org/pubs/2023-OSW-R2.pdf>
4. Arne Jacobson and Jim Zoellick, *Transmission Alternatives for California North Coast Offshore Wind Volume 1: Executive Summary* (Schatz Energy Research Center, 2022), <https://schatzcenter.org/pubs/2022-OSW-R1.pdf>
5. "Reports," The Pacific Offshore Wind Consortium, updated 2025, <https://powc.us/reports/>
6. California Center for Rural Policy at Cal Poly Humboldt, "Renewable and Resilient Energy" in *Redwood Region RISE (Resilient Inclusive Sustainable Economy) Regional Plan Part 2* (California Center for Rural Policy at Cal Poly Humboldt, 2025), https://ccrp.humboldt.edu/sites/default/files/rrrise_regional_plan_part_2_renewable_and_resilient_energy_strategy_revised_may_2025.pdf
7. California Center for Rural Policy at Cal Poly Humboldt, "Working Lands and Blue Economy Sector Strategies" in *Redwood Region RISE (Resilient Inclusive Sustainable Economy) Regional Plan Part 2* (California Center for Rural Policy at Cal Poly Humboldt, 2025), https://ccrp.humboldt.edu/sites/default/files/rrrise_regional_plan_part_2_working_land_and_blue_economy_strategy_revised_may_2025.pdf
8. TPMA, *Humboldt County Comprehensive Economic Development Strategy 2025 - 2030* (County of Humboldt, 2025), <https://www.gohumco.com/DocumentCenter/View/985/2025-30-Humboldt-County-Comprehensive-Economic-Development-Strategy>
9. Humboldt County Administrative Office to Humboldt County Board of Supervisors, "Memorandum of Understanding between County of Humboldt Economic Development Division and Partner Agencies for WindLINK Program," April 23, 2024, <https://lostcoastoutpost.com/loco-media/loco-media/agendizer/attachment/12452/0.pdf>
10. College of the Redwoods, *Education Master Plan 2022-2032* (College of the Redwoods, 2022), https://www.redwoods.edu/fs/planning/documents/2022-2032_CR_EMP.pdf
11. "Docket Log" for Docket #17-MISC-01 *California Offshore Renewable Energy*, California Energy Commission, accessed August 1, 2025, <https://efiling.energy.ca.gov/Lists/DocketLog.aspx?docketnumber=17-MISC-01>
12. This might include such organizations as Northern California Indian Development Council, Jefferson Community Center, the Klamath River Promise Neighborhood coalition, Humboldt Network of Family Resource Centers and Family Resource Center of the Redwoods, Del Norte Child Care Council, and Changing Tides Family Services, and other exemplars.
13. "Redwood Region RISE (California Jobs First)," California Center for Rural Policy at Cal Poly Humboldt, accessed August 1, 2025, <https://ccrp.humboldt.edu/redwood-rise>
14. Liz Kimbrough, "Largest dam removal ever, driven by Tribes, kicks off Klamath River recovery," *Mongabay*, October 17, 2024, <https://news.mongabay.com/2024/10/largest-dam-removal-ever-driven-by-tribes-kicks-off-klamath-river-recovery/>
15. Abby Abinanti and Katherine Katcher, *How to Protect Native Women, Girls, and People in Humboldt & Del Norte County as Offshore Wind Enters the Region: MMIP Prevention Planning and Recommendations* (Yurok Tribal Court, 2023), <https://lostcoastoutpost.com/loco-media/loco-media/blog/post/37499/How%2Bto%2BPrevent%2BMMIP%2Band%2BProtect%2BNative%2BWomen%2BGirls%2Band%2BPeople%2Bin%2BHumboldt%2B%2BDe%2BNorte%2BCounty%2Bas%2BMajor%2BDevelopment%2BProjects%2BCome%2BInto%2Bthe%2BRegion27%2B%2528002%2529.pdf>

Redwood Region CORE Hub AB3 Report 2 Detailed Recommendations and Comments

We are grateful that the CEC is requesting a variety of feedback to complete the AB3 WFSC report requirements mandated by the California Legislature in AB525, for which we submitted comments in 2023. The Redwood Region paid in incalculable ways for California's growth, with Native American communities bearing grave, multigenerational harms including attempted erasure. We believe OSW Workforce and Supply Chain (WFSC) policies can help the State rebalance and reinvest in the region as it fulfills its renewable energy and economic goals. But only if policies are designed with the Region, and with deep intention and close collaboration.

Articulating our executive summary of recommendations is this extensive set of recommendations and comments, which we hope provides a robust approach to an equitable WFSC strategy for the State of California.

Structure of Detailed Recommendations:

The Redwood Region Climate and Community Resilience Hub (CORE Hub) has organized detailed comments and recommendations for the AB3 Workforce and Supply Chain development into the following key sections to provide the CEC with critical insights for its report:

- A. **Strategies to advance our recommended seven pillars:** including examples, models, and potential solutions within the Redwood Region and across the nation to support AB3 objectives.
- B. **Methods to address CEC identified report gaps (items 9-13):** Key opportunities for State, Tribal, and Regional co-learning for responsible OSW WFSC development.
- C. **Mission Critical Collaborations for Engaging with Host Region:** Tribal and regional historic and cultural context, necessitating a co-development approach for OSW WFSC.
- D. **Literature Review:** Additional resources to support ongoing AB3 analysis and research, categorized by topics of regional significance.

Section A: Seven Pillars of Healthy, Sustainable WFSC Development in the Redwood Region:

1. Tribal and Community Ownership, to build regional wealth and enduring economic wellbeing:

At the center of any long-term community prosperity is intergenerational economic equity. The Redwood Region's Tribes, local businesses, community organizations, and governing bodies participation in ownership of OSW industries—large and small—should be a shared priority of the State of California. Ahead of strategies for workers, ahead of bolstering exogenous supply chain enterprises, this first principle of durable economic participation should be investigated and resourced, as underscored by the Brookings Institution in its article titled "How Regions and States Can Use Strategic Sector Investments to Advance Supplier Diversity."¹

¹ Mayu Takeuchi and Joseph Parilla, "How regions and states can use strategic sector investments to advance supplier diversity," *Brookings Institute*, July 19, 2024, <https://www.brookings.edu/articles/how-regions-and-states-can-use-strategic-sector-investments-to-advance-supplier-diversity/>

The Urban Institute recently released a report called *Community Ownership and Self-Determination*². It defines “community ownership models” as enabling long-time residents, local workers, and representative community institutions to own community assets, shape how they function, and produce economic, environmental, social, and cultural benefits within their communities. These models help ensure that local land, real estate, businesses, and other community assets directly benefit residents.

Recent studies from the National Congress of American Indians (NCAI) explored themes of Tribal Enterprises and Ownership in its “Building Tribal Economies” research and outreach initiative³, finding that “the fundamental tasks facing Tribal Nations are to return tribal self-determination to its rightful place as the sole driver of economy building, develop their own vision of a vibrant, healthy economy, and then forge pathways to achieve that vision.” In discussing the purpose of these economies, the NCAI toolkit⁴ determined that “Tribal Nation’s economy-building approach fosters a whole far greater than the sum of the various economic development activities in which it chooses to invest its people, resources, ingenuity, and time.”

In the Redwood Region, Tribal Nations are leaders in a multitude of economic enterprises formed through different business structures.⁵ Examples include forestry, home manufacturing, recreation, food and beverage, trucking and equipment, environmental restoration, technology, and many other areas. Over the past decades, these Tribal enterprises have become a vital component of the North Coast economy. Now, they provide a key link to an equitable workforce and supply chain, should that be desired and the industry advance.⁶

Recommendations: We strongly recommend that the CEC and the State of California:

- a. Engage directly in State government to Tribal government consultation to determine interests, preferences, and priority opportunities for OSW supply chain ownership.
- b. Collaborate with host regions to determine how to advance Workforce and Supply Chain goals through regional ownership structures and investments.
- c. Establish a research agenda to focus on this topic, which includes investigating domestic and international models, evaluating approaches to capitalize, incentivize, and methods to mentor and securitize these enterprises for OSW.
- d. Identify and determine how to accelerate specific opportunities for host-region ownership and enterprise development sourced from key regional studies such as Schatz Energy Research Center, Humboldt County CEDS and Xodus studies.
- e. Establish a Host-Region enterprise development fund utilizing Proposition 4 California Climate Bond to provide capital, bonding, licensing, and other investment support.

2. Regional Youth and Young Adult (16-25) Opportunities, to support and connect our region’s youth as they mature into systems, particularly those that may experience barriers to

² Rebecca Marx, Brett Theodos, and Tené Traylor, *Community Ownership and Self-Determination: Case Studies from Atlanta, Boston, Lisjan Territory, and New Orleans* (Urban Institute, 2025),

https://www.urban.org/sites/default/files/2025-05/Community_Ownership_and_Self-Determination.pdf

³ “Building Tribal Economies Toolkit,” National Congress of American Indians, accessed August 1, 2025,

<https://www.ncai.org/section/econotoolkit>

⁴ “Building Tribal Economies Toolkit,” National Congress of American Indians.

⁵ “Choosing a Tribal Business Structure,” U.S. Department of Interior Bureau of Indian Affairs, accessed August 5, 2025.

<https://www.bia.gov/service/starting-business/choosing-tribal-business-structure#:~:text=needs%20and%20circumstances-.IRA%20Section%2017%20Corporation.the%20Secretary%20of%20the%20Interior>.

⁶ Examples of Tribal Enterprises include, but aren’t limited to, the Yurok Tribe’s [Per-geesh Construction Company](#) and the Hoopa Valley Tribe’s [Acorn Connected](#).

career entry; and to strengthen the region's overall trajectory. This is central to ensuring that local communities can benefit from the economic opportunities of offshore wind over the long term. California State WFSC strategies must drive investments *now* in youth and young adults aged 16–25. There is a critical window of opportunity to strengthen the region's long-term workforce capacity through leveraging existing successful programs and to prevent further displacement of local youth and young workers in the regional economy.

This work involves closely partnering with Regional businesses and institutions to design and implement community-appropriate internships, mentorships, and entry-level job opportunities while coordinating with organizations engaged in ensuring holistic success, as evidenced by the Del Norte Building Healthy Communities program⁷ and initiatives of the Northern California Indian Development Council (NCIDC).⁸ These priority communities are emphasized in Humboldt County Workforce Development Board's plan.⁹ We emphasize the need to grow universal pathways and skillsets that are applicable to a diverse set of opportunities and regional demands, ultimately helping to stabilize economic cycles and ensure holistic local economies.

The region's aging population and shrinking youth demographic threaten to widen the gap between labor demand and local capacity, potentially requiring an influx of transient or permanent workers to meet offshore wind's workforce needs.¹⁰ Targeted investments in this age group now—through mentorship, training grants, and partnerships with existing state programs—will ensure that local young people are prepared for and included in this growing sector, rather than pushed out of it.

Although most offshore wind jobs do not require a college degree, they often demand technical training or apprenticeships, underscoring the need to expand regional access to vocational education, scholarships, and pre-apprenticeship pathways.¹¹

Ages 16 to 25 represent a critical window for investment—a time when resourcing young people's interests, talents, and connection to community can set young people on a path toward economic stability and meaningful careers. Now is the time to invest—through mentorship, training grants, and partnerships with state programs—to ensure local youth are prepared for and included in emerging sectors. Promising state and national models include:

- YouthBuild: A national program for 16–24-year-olds who are out of school and work, combining high school completion with job training in fields like construction, healthcare, and tech.¹²
- California Conservation Corps (CCC): Provides paid work experience in conservation and emergency response, along with education and career development, and has a regional site in Southern Humboldt at Fortuna, CA.¹³

⁷ "Del Norte County, California," Aspen Institute Form for Community Solutions, accessed August 1, 2025, <https://www.aspencommunitysolutions.org/del-norte-county-california/>

⁸ "Supplemental Youth Employment and Training Program," Northern California Indian Development Council, accessed August 1, 2025, <https://www.ncidc.org/supplemental-youth-employment-and-training-program>

⁹ P. Murphy, *Humboldt County Workforce Development Board Local Plan: Program Years 2025-2028* (Humboldt County Workforce Development Board), <https://www.gohumco.com/DocumentCenter/View/984/2025-2028-Humboldt-Local-Plan>

¹⁰ Xodus, *Humboldt Supply Chain and Workforce Assessment: Redwood Region Offshore Wind Roadmap* (County of Humboldt, 2025), 12-13, <https://humboldt.gov/CivicAlerts.aspx?AID=5569>

¹¹ Ibid., 12.

¹² "YouthBuild," U.S. Department of Labor, Employment and Training Administration, accessed August 1, 2025, <https://www.dol.gov/agencies/eta/youth/youthbuild>

¹³ "About Us," California Conservation Corps, accessed August 1, 2025, <https://ccc.ca.gov/about-us/>

- In the Portland metro area, nine public agencies have formed a formal collaboration to implement a shared approach to diversifying their construction workforce. This approach, known as the Construction Career Pathways Framework (CCPF)¹⁴, provides high-level guidance for public owners dedicated to meeting the region's growing construction needs through a diverse workforce. CCPF emphasizes cross-sector collaboration by engaging public agencies, labor organizations, community-based groups, contractors, and educational institutions to achieve a broad regional impact. Each agency, based on its specific size and capacity, establishes individual thresholds for meeting diversity goals. The Framework focuses on seven key actions for public owners: setting clear diversity goals, defining project thresholds, tracking progress, creating workforce agreements, implementing on-site anti-harassment and culture-change strategies, investing collectively in supportive services, and fostering regional collaboration to build a robust, diverse workforce.
- Urban Assembly New York Harbor School: A public high school offering seven CTE pathways in maritime careers, including aquaculture, marine biology, and ocean engineering. In partnership with the Billion Oyster Project, students gain real-world experience and industry certifications.¹⁵

In the Redwood Region, scalable programs are already in place:

- Modeled after other nationally recognized efforts, the Multi-Craft Core Curriculum (MC3) program is part of a collaborative Career Technical Education (CTE) offering in partnership with the Building and Construction Trades Council of Humboldt and Del Norte Counties, Cal-Poly Humboldt and Jefferson Center, which provides pre-apprenticeship training designed to prepare young adult learners. Having been deployed at the Harbor Occupational Center in San Pedro with the the Los Angeles Unified School district for union building-trades careers previously,¹⁶ the MC3 curriculum covers industry essentials, including construction safety (OSHA 10), trade math, blueprint reading, hand and power tool use, labor history, diversity and inclusion, and green building practices. Students who complete the program earn an MC3 Certificate of Completion—making them eligible for registered union apprenticeships in trades like welding, plumbing, electrical, operating engineers, and other related occupations.¹⁷

¹⁴ Oregon Metro, *Construction Career Pathways Framework: A Case Study in Job Creation for a Just Society* (Oregon Metro, 2022), <https://www.oregonmetro.gov/sites/default/files/2022/06/03/Construction-Career-Pathways-Framework-case-study-20220603.pdf>

¹⁵ "Who We Are," New York Harbor School, accessed August 1, 2025, <https://www.newyorkharborschool.org/who-we-are>

¹⁶ "MC3 students become the first to complete the program!" Los Angeles Unified School District Division of Adult and Career Education, October 12, 2023, <https://adulted.lausd.org/apps/news/article/1829373#:~:text=It's%20history%20in%20the%20making,MC3%20team%20at%20Harbor%20OC.>

¹⁷ "Construction (MC3)," Los Angeles Unified School District Harbor Occupational Center, accessed August 1, 2025, <https://harboroccupational.lausd.org/apps/pages/MC3>

- A paid Tribal pre-apprenticeship program that serves the Blue Lake Rancheria, Hoopa Valley, Karuk, and Yurok Tribal communities, preparing participants to enter and succeed in a registered apprenticeship program and/or a career in the electrical field. Students are paid a \$5000 stipend following successful completion, retain their safety equipment, CPR training, and introductions tools, electrical and construction drawing, circuitry, concepts of working with Tribal Nations and Unions, and workplace safety.¹⁸
- Youth Training Academy (YTA): A summer program for youth ages 15–24, created through collaboration among Cal Poly Humboldt, College of the Redwoods, and Building Healthy Communities. YTA offers paid, hands-on career exploration in seven local pathways, including early childhood education, healthcare, food access, media, ecotourism, and leadership. It aligns with local workforce needs and creates accessible employment pathways.¹⁹
- Tribal Internship Programs: Various Tribal Nations have developed robust, paid internship programs for high school and college students in various subject areas, including STEM, natural resources, energy, housing, and more. These programs offer important professional development skills to Tribal youth, support long-term institutional sustainability by avoiding brain drain and building a knowledgeable workforce, and provide pathways for young people to build careers while remaining in their ancestral homelands.²⁰
- College of the Redwoods (CR): Collaborates with partners on early college access through the Academy of the Redwoods and hands-on training in health, media, and entrepreneurship via the Del Norte and Tribal Lands Opportunity Youth Initiative. With campuses in rural and Tribal communities, CR bridges students to education and careers rooted in their communities.²¹ Furthermore, College of the Redwoods and CalPoly Humboldt²² offer programs to train incarcerated individuals in the Pelican Bay State Penitentiary, based in Del Norte County. These transition programs are exemplary models for training and present crucial opportunities for CA to build into WF strategies, as demonstrated by the Maryland Department of Labor.²³
- SMART Workforce Center: A rural-centered program focusing on vocational training and job placement assistance, with a unique summer program - E3 (Experience, Education, Employment) for high school juniors, seniors, and recent graduates.²⁴

¹⁸ “Pre-Apprenticeships for Low Voltage Electricians,” Blue Lake Rancheria, accessed August 5, 2025. <https://www.bluelakerancheria-nsn.gov/electricians-program/>

¹⁹ Sharon et al., *Empowering Youth Leadership*.

²⁰ For examples of these internship programs, see the Wiyot Tribe’s [Summer Youth Employment Program](#), the Karuk Tribe’s [College Student Internship Program](#), or the [Blue Lake Rancheria’s Field Study Initiative](#).

²¹ “About Us,” Academy of the Redwoods, accessed August 1, 2025, <https://www.fortunahigh.org/o/ar/page/about-us>

²² Calmatters, “Once A Notoriously Violent Prison, It’s Now Home to a First-of-its-kind Education Program,” *Calexico Chronicle*, November 14, 2024, <https://calexicochronicle.com/2024/11/12/it-used-to-be-a-notoriously-violent-prison-now-its-home-to-a-first-of-its-kind-education-program/>

²³ Vero Bourg-Meyer and Sam Schacht, *Offshore Wind and Equity: State of the States Report* (Clean Energy States Alliance, 2022), 25, <https://www.cesa.org/wp-content/uploads/Offshore-Wind-and-Equity.pdf>

²⁴ “Home,” SMART Workforce Center website, accessed August 5, 2025. <https://www.thesmartcenter.biz/>

- Coastal Connections: This resource center for youth ages 14 to 25 is run by the County of Del Norte and offers job search support, classes, leadership opportunities, and creative outlets/skill development.²⁵

The successful strategies outlined above can be leveraged to close structural gaps that present barriers to youth career pathway participation. A 2021 Brookings study found that over 4 million youth ages 16–24 are out of school and work, and another 7 million are in low-wage jobs with limited mobility.²⁶ Only 60% of students in two- or four-year programs complete their degrees within six years, and disconnection from school and work increases after age 26.²⁷ The COVID-19 pandemic worsened these trends, with youth unemployment nearing 10% in 2021 and college enrollment dropping sharply—leaving over 10 million young adults uncertain about their futures.²⁸ Approximately 50% of 11th graders in Del Norte and Humboldt self-report that they are academically motivated.²⁹ In Del Norte and Tribal Lands (DNATL), most high school students surveyed expressed a desire to attend college, but few believed it was a realistic goal.³⁰

Recommendations: We strongly recommend that the CEC and the State of California:

- Increase and build upon successful Tribal Internship Programs, such as exemplified above, as critical to workforce development pipelines. This includes STEM, energy, ecology, and trades, but should expand into all of the pipelines necessary for the field, including education, governance, business and project management, finance, and healthcare.
- Implement diversity hiring goals for businesses in offshore and related sectors requiring a certain percentage of new hires to come from low-income communities, underrepresented groups, and Tribal Nations.³¹
- Build strong partnerships among Tribal Nations, public agencies, private industry, and educational institutions to deliver accessible, comprehensive workforce training.³²
- Programs should include dual enrollment, early career exploration, and modular, stackable credentials that let youth build skills over time, with tuition reimbursement available for related degrees and certifications tied to in-state employment commitments.³³
- Increase host region pre-apprenticeship and apprenticeship programs and technical education opportunities, including public and industry investment, such as the

²⁵ “Coastal Connections,” County of Del Norte, accessed August 5, 2025.

<https://www.co.del-norte.ca.us/CoastalConnections>

²⁶ Martha Ross et al., “American Rescue Plan funds can jump-start stalled opportunities for youth,” *Brookings Metro*, October 27, 2021,

<https://www.brookings.edu/articles/american-rescue-plan-funds-can-jump-start-stalled-opportunities-for-youth/>

²⁷ Ibid.

²⁸ Ibid.

²⁹ “Public Dashboards,” California Department of Education, California School Climate, Health and Learning Surveys, Accessed August 5, 2025,

<https://calschls.org/reports-data/public-dashboards/f882f1e2-dfc0-4448-b90b-f49cef6e6d3f/>.

³⁰ Isadora Sharon et al., *Case Study Brief: Empowering Youth Leadership on Health and Well Being* (California Center for Rural Policy at Cal Poly Humboldt, 2021),

[brief.empowering_youth_leadershiphttps://ccrp.humboldt.edu/sites/default/files/brief.empowering_youth_leadership.pdf](https://ccrp.humboldt.edu/sites/default/files/brief.empowering_youth_leadership.pdf)

³¹ California Center for Rural Policy at Cal Poly Humboldt, *Redwood Region RISE (Resilient Inclusive Sustainable Economy) Regional Plan Part 2* (California Center for Rural Policy at Cal Poly Humboldt, 2025), 63-66,

https://ccrp.humboldt.edu/sites/default/files/rrrise_regional_plan_part_2_revised_may_2025-.pdf

³² Xodus, *Humboldt Supply Chain and Workforce Assessment*.

³³ California Center for Rural Policy at Cal Poly Humboldt, *RRRISE Regional Plan Part 2*, 62-66.

aforementioned examples. Although most forecasts for OSW job opportunities do not cite 4-year degrees, they do specify apprenticeship training as a prerequisite.³⁴

- f. Invest in equitable access through wraparound supports like childcare, transportation, mental health services, and financial aid —especially for youth in rural and disinvested communities.³⁵
- g. Ensure training is culturally responsive and forward-looking, covering core renewable energy skills in high demand and transferable skills occupations as well as in emerging areas like digital energy tools, smart grids, and circular economy practices. Ongoing mentorship, upskilling, and inclusion efforts will be essential to developing a resilient and diverse workforce.³⁶
- h. Establish a Regional Funding Collaborative to strategically invest in training, outreach, wrap-around services and other retention strategies for diverse workers in the region.
- i. Coordinate on developing and delivering a respectful workplace and anti-harassment training curriculum across projects and jurisdictions.
- j. Coordinate on public tracking and data sharing on achieving workforce goals on projects including alignment on software to monitor labor demographics and other data components on projects.
- k. Establish a Renewable Energy Job Corps offering guaranteed wages at least 150% of the local minimum and access to union-led apprenticeships in solar, wind, and grid modernization. It also includes transition support for fossil fuel workers—such as paid retraining, relocation assistance, and guaranteed job placement through partnerships with utilities and renewable energy firms.³⁷

3. Training, Education, Certification, and Learning Support Systems, to meet the specific needs of the Region's remote, underserved, low-income populations, it is essential to engage early and intentionally with the region's education institutions, which will be best positioned for the training needs to come. Continuing and growing the state's investment in these institutions is imperative. This includes Cal Poly Humboldt³⁸ with deep technical and cultural expertise such as with the COMPASS Indian Natural Resources, Science, and Engineering Program (COMPASS INRSEP)³⁹, the Schatz Energy Research Center⁴⁰, newly launched mechanical engineering program, and as a partner in the Multicraft Core Curriculum (MC3) pre-apprenticeship program⁴¹; the College of the Redwoods⁴² specializing in workforce and professional pathways, and Tribally focused organizations such the California Indian Manpower Consortia with initiatives such as the High Road Training Project⁴³.

The Redwood Region, with a population of approximately 136,000 and a labor force of about 60,000, has a unique opportunity to become a leader in renewable energy workforce development, particularly through offshore wind. The region is home to a Native American

³⁴ Xodus, *Humboldt Supply Chain and Workforce Assessment*, 18.

³⁵ California Center for Rural Policy at Cal Poly Humboldt, *RRRISE Regional Plan Part 2*, 140-142.

³⁶ *Ibid.*, 62-63.

³⁷ *Ibid.*, 66.

³⁸ "Home," Cal Poly Humboldt, accessed August 1, 2025, <https://www.humboldt.edu/>

³⁹ "Indian Natural Resources, Science & Engineering Program," Cal Poly Humboldt, accessed August 1, 2025, <https://www.humboldt.edu/compass/programs/inrsep>

⁴⁰ "Home," Schatz Energy Research Center, accessed August 1, 2025, <https://schatzcenter.org/>

⁴¹ "Multi-Craft Core Curriculum (MC3)," Building and Construction Trades Council of Humboldt and Del Norte Counties, accessed August 1, 2025, <https://buildingtradeshdn.com/apprenticeship/mc3/>

⁴² "Academic Pathways," College of the Redwoods, accessed August 1, 2025, <https://www.redwoods.edu/academics/index.php>

⁴³ "High Road Training Project," Northern California Indian Development Council, accessed August 1, 2025, <https://www.ncidc.org/event/high-road-training-project>

population nearly four times the state average and has a long-standing legacy of environmental stewardship and climate resilience, led by Tribal communities engaged in environmental restoration, cultural preservation, and sustainable development. This cultural foundation provides a strong base for climate workforce development. However, counties in the region face structural barriers, including higher-than-average unemployment rates and lower levels of bachelor's degree attainment compared to the rest of California, underscoring the urgency of building inclusive and scalable workforce systems.⁴⁴

Offshore wind development represents one of the region's most significant renewable energy career creation opportunities. While hundreds of workers will be needed depending on project scale, only 12% of the current workforce is employed in occupations directly transferable to offshore wind.⁴⁵ Training gaps remain acute in critical trades, and meeting these demands will require coordinated investment in upskilling and apprenticeships, particularly in the Building Trades, Maritime Trades, and Manufacturing Trade Professional categories—sectors that will see the largest workforce demand.

Full economic participation of local communities in the Redwood Region requires workforce readiness efforts across multiple phases of offshore wind development, including grid-scale power generation, terminal sites development, parts manufacturing, turbine assembly, and long-term operations and maintenance. Many of these roles will fall under Project Labor Agreements (PLAs) and be filled by union labor. However, the relatively low number of local apprenticeship programs and low regional unionization rates could make it difficult to staff projects locally. Strategic integration of apprenticeships into smaller infrastructure upgrades—such as port modernization or microgrid projects—can help prepare a pipeline of local journeymen well in advance of large-scale offshore wind construction.⁴⁶

In the Redwood Region, women comprise half of the working-age population—offering a major opportunity to build a more inclusive renewable energy workforce. However, there is limited research on the economic experiences of young and adult women, especially women from Tribal Nations, in the area. More on-the-ground research is needed to understand their specific opportunities, aspirations, and barriers in order to design effective, equity-focused renewable energy workforce strategies. Nationally, persistent gender disparities continue to limit women's participation in the renewable energy sector—especially in wind, where they make up just 21% of the workforce.⁴⁷ Occupational segregation in the renewables economy also mirrors overall patterns in these jobs: women hold only 29% of manufacturing jobs⁴⁸, and just 3-5% of the hands-on construction roles like electricians, plumbers, and laborers.⁴⁹ In the Redwood Region, women workers—especially young women—represent a key opportunity to build a more inclusive local renewables workforce. However, there is little understanding of their experiences in accessing training, navigating career pathways, or the barriers they face in securing quality jobs.

⁴⁴ Xodus, *Humboldt Supply Chain and Workforce Assessment*, 11-12.

⁴⁵ Ibid, 16.

⁴⁶ Ibid., 28-29.

⁴⁷ Rabia Ferroukhi, Michael Renner, and Celia Garcia-Baños, *Wind Energy, A Gender Perspective* (International Renewable Energy Agency, 2020), 20, https://www.irena.org/-/media/Files/IRENA/Agency/Publication/2020/Jan/IRENA_Wind_gender_2020.pdf

⁴⁸ Lynda Laughlin and Cheridan Christnacht, "Women in Manufacturing", *Census Blogs* (United States Census Bureau), October 3, 2017, <https://www.census.gov/newsroom/blogs/random-samplings/2017/10/women-manufacturing.html>

⁴⁹ Anirban Basu and Joseph Natarrelli, "Beyond the Glass Ceiling? Women in Construction at All-time High with Further Growth Ahead," CBIZ, March 6, 2025, <https://www.cbiz.com/insights/article/beyond-the-glass-ceiling-women-in-construction-at-all-time-high-with-further-growth-ahead>

Targeted workforce development efforts must reach remote, underserved, and low-income communities to ensure local communities can benefit from access to these emerging career pathways. To scale this effort effectively, the region must build upon early partnerships between institutions like Cal Poly Humboldt, the College of the Redwoods, and the Yurok Tribe. These three entities have signed a Memorandum of Understanding to coordinate and expand training capacity, aiming to ensure the highest possible level of local workforce utilization in offshore wind development. This model—linking higher education, Tribal leadership, and local labor—should be expanded to support underrepresented groups and grow local training infrastructure. Additionally, union leaders have expressed that statewide worker supply is strong, but the creation of a regional training center would help ensure that the Redwood Region benefits directly from renewable energy investment.

Redwood RISE (Resilient Inclusive Sustainable Economy)(RRRISE) is part of California’s Jobs First initiative, a statewide effort to accelerate inclusive, community-driven economic development and create high-quality jobs aligned with the state’s climate and equity goals.⁵⁰ In the Redwood Region, Redwood Region RISE focuses specifically on growing the renewable energy sector—offshore wind, solar, battery storage, and microgrids—by building a strong, locally rooted energy workforce. The initiative centers equity by prioritizing Tribal Nations, underserved rural communities, and dislocated workers, and works to expand access to career pathways through targeted training, union partnerships, and wraparound services like childcare and transportation. By aligning workforce strategies with economic and infrastructure investments, Redwood Region RISE aims to support a just transition, create quality jobs, and establish the region as a hub for green innovation.

The construction sector is a key driver of high-road workforce development in Humboldt County, with strong partnerships supporting pathways to quality jobs.⁵¹ The Breaking Barriers Partnership with the Westside Community Improvement Association provides formerly incarcerated and unhoused individuals with job training and support to enter the construction field.⁵²

Recommendations: We strongly recommend that the CEC and the State of California:

- a. Develop a Local-First Hiring Program, ensuring that apprenticeship requirements are utilized in smaller-scale projects, such as planned port or infrastructure upgrades, or building microgrids, and will build up workforce capacity.⁵³
- b. Conduct a regional assessment of gender disparities in offshore wind related occupations and the specific barriers facing women, trans and nonbinary people, especially those from Tribal Nations and low-income and remote regions.
- c. Conduct a regional assessment of existing training capacity and relevance and pursue opportunities for a joint trades training center located in the Redwood Region in partnership with and housed at an existing local organization/entity.⁵⁴ Build upon important Tribal Nation workforce centers such as the Ta’m Resilience Campus at Blue Lake Rancheria.⁵⁵

⁵⁰ “Redwood Region RISE’s Regional Roadmap,” California Center for Rural Policy at Cal Poly Humboldt, accessed August 1, 2025, <https://ccrp.humboldt.edu/regional-roadmap%20>

⁵¹ Peggy Murphy, *Humboldt County Workforce Development Board Regional Plan: Program Years 2025-2028* (Humboldt County Workforce Development Board), 23, <https://www.gohumco.com/DocumentCenter/View/983/2025-2028-North-Coast-Regional-Plan>

⁵² Ibid.

⁵³ Xodus, *Humboldt Supply Chain and Workforce Assessment*, 44.

⁵⁴ Ibid., 43-44.

⁵⁵ “Ta’m Resilience Campus,” Blue Lake Rancheria, accessed August 1, 2025, <https://www.bluelakerancheria-nsn.gov/departments/tam-resilience-campus/>

- d. Expand offshore wind educational partnerships. Further the Region's specialized curricula and certification programs through partnerships with local colleges, maritime businesses and interest groups, and developers.⁵⁶
- e. Invest in hiring requirements and training opportunities with wrap-around services for low-income communities, women, trans and nonbinary people in offshore wind trades and STEM careers with a focus on remote and Tribal communities.⁵⁷
- f. Invest in safe and reliable transportation infrastructure to support training and employment access.⁵⁸
- g. Strengthen Regional Business Degrees, including Cal Poly Humboldt's BS in Business Administration, addition of a robust and accredited MBA program with strong financial and managerial streams, and ample transfer pathways and certificate programs from College of the Redwoods.

4. Innovative Financing and Funding Partnerships, to facilitate fair local participation in a globally competitive market, new investing avenues must be opened to capitalize local and Tribal ventures, to reduce risks for first-time local entrepreneurs and their investing partners, and create access to new ways for the region to secure finance, both public and private, to support OSW industry supply chains. Impact Investing⁵⁹ is one key avenue that has a robust marketplace and analysis, as are social and environmental impact municipal bonds⁶⁰. A recent Forbes article headlines "Why Native Communities are the Future of Impact Investing," citing millions of dollars in economic impact for every dollar invested through a Native CDFI.⁶¹

A Regional Inclusive Growth Network for small and mid-sized communities could be a source of best practices for a California-wide OSW WFSC leadership network in collaboration with statewide and national impact investors to determine priority opportunities for social impact finance. CDFIs, intermediaries to facilitate grant and loan programs, and pooled funding to support early and predevelopment phases of WFSC business development are also crucial for early-stage and equitable growth.⁶² Regional financial institutions such as North Edge Financing⁶³ (a CDFI) and the Humboldt Area and Wild Rivers Community Foundation⁶⁴ have proven capacities in these intermediary lending and pooled funding supports.

As investments seek steady opportunities, one magnet includes the Redwood Region RISE/CA Jobs First Initiative⁶⁵. This community-led work aligns insights, recommendations, and strategic

⁵⁶ Eddie Ahn et al., *California Offshore Wind: Winding Up for Economic Growth & Environmental Equity* (Brightline Defense, 2020), 5-9, <https://static1.squarespace.com/static/62a3cf9943d092298cc7dec6/t/637c124e877a1774bd66c8dc/1669075544016/Brightline-OffshoreWind-Report-12-6-2020.pdf>

⁵⁷ Ibid., 7.

⁵⁸ California Center for Rural Policy at Cal Poly Humboldt, *RRRISE Regional Plan Part 2*, 135-140.

⁵⁹ Jessica Jeffers, Tianshu Lyu, and Kelly Posenau, "The risk and return of impact investing funds," *Journal of Financial Economics* 161 (November 2024): <https://doi.org/10.1016/j.jfineco.2024.103928>

⁶⁰ William J. Delahunty, "Investing in Municipal Bonds with High Positive Impact," *Calvert Insights* (blog), January 7, 2025, <https://www.calvert.com/insights/blog/investing-in-municipal-bonds-with-high-positive-impact.html>

⁶¹ Oweesta, "Why Native Communities are the Future of Impact Investing," *Forbes*, May 7, 2025, <https://www.forbes.com/sites/forbeseq/2025/05/07/why-native-communities-are-the-future-of-impact-investing/>

⁶² Joseph Parilla, Mayu Takeuchi, and Xavier de Souza Briggs, "How business leaders and civic partners in small and midsized U.S. cities can advance racial equity and inclusive economic growth," *Brookings*, June, 10, 2024, <https://www.brookings.edu/articles/how-business-leaders-and-civic-partners-in-small-and-midsized-u-s-cities-can-advance-racial-equity-and-inclusive-economic-growth/>

⁶³ "Business Financing and Community Development," North Edge Financing, accessed August 1, 2025, <https://www.northedgefinancing.org/>

⁶⁴ "Mission Investing & Local Loans," Humboldt Area and Wild Rivers Community Foundation, accessed August 1, 2025, <https://hafoundation.org/lending/>

⁶⁵ "Redwood Region RISE (California Jobs First)."

priorities that more than 1000 community members collaborated together to define. Their work proposes a definition for equitable, inclusive growth, and they have experienced cross-sector leaders ready to facilitate project implementation. The State has a role in driving public, private, and philanthropic investments and finance toward these project-ready efforts, many of which are clear pathways to WFSC and industry goals. Likewise, several Tribal initiatives are central to equitable, culturally responsive WFSC climate and energy efforts. Examples of these efforts include the Schatz Energy Research Center TERAS program⁶⁶ in partnership with the Yurok, Hoopa, Blue Lake, and Karuk Tribes, the Tribal Marine Stewards Network⁶⁷, and the Dishgamu Land Trust⁶⁸. Finally, the region's small businesses and business leadership organizations, such as Chambers of Commerce, are key to realizing secondary and tertiary WFSC opportunities. Efforts such as WindLINK⁶⁹ have been mobilized to support this growth in responsible, regionally appropriate, and culturally aligned ways—important signals for sound investments. The State should capitalize on these efforts to attract good investing partners.

Recommendations: We strongly recommend that the CEC and the State of California:

- a. Develop a State-Region RRRISE/CA Jobs first intensive collaboration with Impact Investors to surface priorities for investment surfaced through the plan.
- b. Establish a CEC research agenda to surface existing and aligned Tribal priorities for climate investment aligned with WFSC goals and determine pathways for partnership and investment.
- c. Convene philanthropic and social impact investors within the Redwood Region to discuss specific OSW WFSC opportunities for investment aligned with items (a) and (b) above.
- d. Help determine pathways to derisk local/municipal/Tribal debt burdens, such as improving bond ratings or guarantees that accelerate public projects and trigger second and third tier WFSC aligned investments.
- e. Collaborate with the Region on projects that require impact investment, finance, and predevelopment, and provide a special assistance fund to support readiness; develop engagements with local businesses and organizers such as WindLINK and investment technical assistant providers.
- f. With recent federal retreats and repeals for climate-related grant programs, philanthropic, private-sector, and State grants will be essential to advance crucial projects, with the State playing a key role to articulate regional priorities.
- g. Create an OSW Women, Minority, Veteran Owned Business start-up incubator and tax incentive program, as modeled by the State of Maryland in initiatives such as the Maryland Offshore Wind Business Development Fund.⁷⁰

5. Public Investments in Regional Infrastructure, the OSW industry, and economic activities, including all workforce and supply chain activities, have prerequisite investments in long-overdue infrastructure systems. This cannot be emphasized enough; it is inexorably linked to any desired outcomes in WFSC, as well as the overall industry.

⁶⁶ Schatz Center, "DOE funding enables a transformative energy solution for rural Northern California tribes," Schatz Energy Research Center, August 6, 2024, <https://schatzcenter.org/2024/08/teras/>

⁶⁷ "Who We Are," Tribal Marine Stewards Network, accessed August 1, 2025, <https://tribalsmn.org/who-we-are/>

⁶⁸ "Dishgamu Humboldt Community Land Trust," Wiyot Tribe, accessed August 1, 2025, <https://www.wiyot.us/350/Dishgamu-Humboldt-Community-Land-Trust>

⁶⁹ Humboldt County Administrative Office to Humboldt County Board of Supervisors, "Memorandum of Understanding."

⁷⁰ Bourg-Meyer and Schacht, *Offshore Wind and Equity*, 17.

Direct systems of equitable and resilient energy transmission and distribution, affordable and low-income housing, water treatment systems, roadway upgrades, health and child care systems, and region-wide access to reliable and high-speed internet, well expressed in Del Norte County's CEDS Plan⁷¹, are crucial. When these requirements are taken together, they necessitate investment in planning, zoning, and updated support for local governments. Crucial and detailed research by the County of Humboldt's Economic Development⁷² Division, supported by the firm Xodus, provides specific recommendations to be released shortly.

Rebuilding the Region's infrastructure for inclusive growth and to bolster the WFSC goals of the state will require a "whole of governments" approach among federal, state, and local authorities and in partnerships with Tribal Nations, often across entities that lack a history of collaboration and co-investment. But there are effective models. For example, during the Biden Presidential Administration, Rapid Response Teams⁷³ were deployed to support fossil fuel transitioning communities to renewable energy. Beyond grants, these teams helped with capacity building, community facilitation, coordination across federal and state governments, and compliance. Another such program, the Strong Cities Strong Communities⁷⁴ federal program, concentrated an all of government approach in distressed communities. This focused approach for OSW host communities should be deployed by California and the CEC immediately to coordinate on public investments and support local authorities.

Additionally, specific infrastructure investments should be considered threshold needs for minimum viability, industry standards, and community safeguarding. (We discuss our recommendations for Port readiness in our separate AB3 letter). This first includes regional transmission and distribution improvements that ensure safe delivery of renewable energy to Tribal Nations and remote communities of the Redwood Region. The Schatz Energy Research Center⁷⁵ has undertaken significant research⁷⁶ on this topic and viable options⁷⁷, and it is imperative that the CEC, CPUC, and related authorities coordinate to implement distribution throughout the region. Analysis with local institutional providers on how to close healthcare gaps will be an important part of the Report - with particular focus on medical capacity to respond to major industrial accidents, as well as availability of choiceful pregnancy care for women and pregnancy carrying people.⁷⁸ Infrastructure for roadways and transportation is another key threshold to meet, with limited interstate and highway commercial routes and many local roadways inadequate for projected demands, and susceptible to climate change and natural disaster hazards. Increased housing across all types—single, multi-family, senior, student, Tribal- is another vital condition. Tribal housing development authorities in the region

⁷¹ Crescent City Harbor District, City of Crescent City, and County of Del Norte, *Del Norte County Comprehensive Economic Development Strategic Plan, 2019 - 2024* (City of Crescent City, 2020), <https://www.crescentcity.org/media/Community-Development/Del%20Norte%20County%20CEDS%20021220%20FINAL%20DRAFT.pdf>

⁷² County Administrative Department, "Humboldt County and Xodus Join Forces to Propel West Coast Offshore Wind Development," County of Humboldt, June 6, 2024, <https://humboldt.gov/CivicAlerts.aspx?AID=5569>

⁷³ "Federal Working Group Announces Establishment of Rapid Response Team to Support Energy Communities in the Four Corners," U.S. Department of Energy, August 25, 2022, <https://www.energy.gov/articles/federal-working-group-announces-establishment-rapid-response-team-support-energy>

⁷⁴ "Strong Cities, Strong Communities," Urban Institute, accessed August 1, 2025, <https://www.urban.org/policy-centers/research-action-lab/projects/strong-cities-strong-communities>

⁷⁵ "Research," Schatz Energy Research Center, accessed August 1, 2025, <https://schatzcenter.org/research/>

⁷⁶ Zoellick et al., *Northern California and Southern Oregon Offshore Wind Transmission Study*.

⁷⁷ Jacobson and Jim Zoellick, *Transmission Alternatives for California North Coast Offshore Wind*.

⁷⁸ Ryan Burns, Providence's Effort to Back Out of Emergency Abortion Care Agreement Would Put Humboldt Women 'Back in Harms' Way,' AG's Office Argues in Latest Court Filing, accessed August 14, 2025, <https://lostcoastoutpost.com/2025/aug/11/putting-women-humboldt-county-back-harms-way-ags-o/>.

have led crucial work in the region, such as with Wiyot Housing⁷⁹, Tolowa Dee-ni' Housing⁸⁰, and Yurok Recovery and Wellness Housing⁸¹, but more low-income developers, incentives, and public investments are urgently needed to meet OSW WFSC goals. Water, sanitation and sewer infrastructure comes hand-in-hand with all of these systems. The unique regional climate and environmental conditions require technical and executional capabilities, aligned with efforts such as the North Coast Tribal Chairmen's Association⁸², Humboldt County Climate Action Plan⁸³, Trinity County's General Plan⁸⁴, CalTrans North Coast Climate Action Plan⁸⁵, Del Norte County's Strategic Plan⁸⁶, and various North State County Associations of Governments⁸⁷. These are only a few examples of the Region's important governance plans and entities describing detailed infrastructure needs.

Of particular note is the need for infrastructure in community colleges and training sites. For example, the College of the Redwoods is often discussed as vital to the OSW WFSC development goals, but without acknowledging its need for student housing, laboratories and workshops, equipment, training and staging sites, and more in its Humboldt and Del Norte Campuses. Predevelopment analysis and strategy alignment with College of the Redwoods, in conjunction with its education master plan⁸⁸ for infrastructure, is therefore essential. Likewise, with Cal Poly Humboldt⁸⁹ and San Luis Obispo, research and laboratory infrastructure needs.

Recommendations: We strongly recommend that the CEC and the State of California:

- a. Design and implement a whole-of-government approach to OSW host regions leveraging best practices from effective governmental models, aligning cross-agency technical assistance, priority grantmaking, local government resources, and accelerated Prop 4 Climate investments.
- b. Design a statewide partnerships and mentorship program to support the region's goals of affordable housing and cultivation of Tribal and nonprofit housing developers with increased incentives and support for Tribal Housing Authorities.
- c. Support regional community colleges and technical training providers with essential funding and incentives to accelerate building and construction trades for community infrastructure needs.
- d. Accelerate regional distribution and microgrid resourcing for transmission to Tribal and remote host regions with urgency, leveraging Prop 4 Climate Bond.

⁷⁹ "Housing Projects," Wiyot Tribe, accessed August 1, 2025, <https://www.wiyot.us/464/Housing-Projects>.

⁸⁰ "Mvn'-dvn (Housing Division)," Tolowa Dee-ni' Nation, accessed August 1, 2025, <https://www.tolowa.gov/173/Mvn-dvn-Housing-Division>

⁸¹ "Yurok Tribe to Receive \$26.4 Million for Regional Wellness Center," Yurok Tribe, May 12, 2025, <https://www.yuroktribe.org/post/yurok-tribe-to-receive-26-4-million-for-regional-wellness-center>

⁸² "Northern California Tribal Chairmen's Association," California Tribal Chairpersons' Association, accessed August 1, 2025, <https://catribalchairs.org/services/>

⁸³ "Humboldt Regional Climate Action Plan," County of Humboldt, accessed August 1, 2025, <https://humboldt.gov.org/2464/Humboldt-Regional-Climate-Action-Plan>

⁸⁴ "General Plan 2050: Inspire Trinity," Trinity County, accessed August 1, 2025, <https://trinity2050.com/>

⁸⁵ "North Coast Climate Action," California Department of Transportation, accessed August 1, 2025, <https://www.northcoastclimateaction.org/>

⁸⁶ County of Del Norte, *Del Norte County Organizational Strategic Plan 2024-2029* (County of Del Norte, 2024), <https://county-del-norte-ca-clear.doc.cleargov.com/438/>

⁸⁷ "About Us," North State Super Region, accessed August 1, 2025, <https://superregion.org/>

⁸⁸ College of the Redwoods, *Education Master Plan*.

⁸⁹ "Infrastructure Projects," Cal Poly Humboldt, accessed August 1, 2025, <https://www.humboldt.edu/about/polytechnic/infrastructure-projects>.

- e. Collaborate with Oregon in ensuring FERC rules continue to support disadvantaged regions, including Tribes and communities across interstate transmission systems in the Northern CA and Southern OR areas, as modeled by east coast states in 2022.⁹⁰

6. Public Policies that Preference Host Regions and Tribal Nations, to level the economic playing field, will require closely partnering with the State of California to set smart, equitable and fair public policies as new industry is chartered, as underscored by the Roosevelt Institute⁹¹. For example, setting procurement goals to prioritize sourcing goods and services from Tribally owned, minority-owned, and other underrepresented businesses in all contracts and subcontracts associated with offshore wind development. Additionally, establishing binding levels for local workforce hires from underrepresented communities, including women and Tribal members, and Tribal Benefit Agreements⁹², particularly when projects gain public or State resources. These practices are known to strengthen communities hosting large industries.

A multi-year effort with the Clean Energy States Alliance⁹³ (CESA), focused on how states and regional NGOs can collaborate for equitable transitions, will release its findings soon. The forthcoming report includes case studies for achieving procurement, local labor targets, and public sector methods for binding industry contracts to benefit host regions. A 2022 CESA OSW and Equity report⁹⁴ describes a multi-state analysis for achieving equity through myriad public policies ranging from power purchase agreements, to women and minority owned supply chain participation levels, to equitable transmission reforms. We urge the State of California and the CEC to enact tools such as these, which could lead to equitable outcomes, as further illustrated in Brightline Defense's workforce study, where local policies doubled outcomes beyond standard employer good faith laws.⁹⁵ In doing so, collaborating closely with host regions to determine which models best serve their communities is a necessary approach for success.

Recommendations: We strongly recommend that the CEC and the State of California:

- a. Establish policies and programs for OSW Tribal Nation supply chain; and OSW Tribal Nation workforce, which may include bidding criteria or weighted points; preferred contract eligibility and payment terms; training and vocational scholarships and expense support; paid apprenticeship and preapprenticeship programs, based on the counsel and direction of Tribal Nations.
- b. Adopt a California "whole of government approach" to OSW host regions to design policies, programs, and investments and to remove barriers, which is appropriately staffed, skilled, and empowered by agencies and the Governor's Office leadership.
- c. Create a mechanism for the OSW industry revenue-sharing for regional prosperity.
- d. Establish a "non-extraction" policy to ensure OSW renewable energy is distributed first and at sufficient levels of growth to Tribes and communities in host regions, as well as

⁹⁰ Bourg-Meyer and Schacht, *Offshore Wind and Equity*.

⁹¹ Isabel Estevez, *Using Industrial Policy for Productive Transformation: Three Lessons from Development Economics for US Industrial Strategy* (Roosevelt Institute, 2023), https://rooseveltinstitute.org/wp-content/uploads/2023/05/RI_Using-Industrial-Policy-for-Productive-Transformation_Brief_202305.pdf

⁹² Kate R. Finn, Maranda Compton, and Melanie Matteliano, *Tribal Benefit Agreements: Designing for Sovereignty* (Tallgrass Institute, 2025), <https://www.colorado.edu/program/tallgrass/media/875>

⁹³ "Offshore Wind Accelerator," Clean Energy States Alliance, accessed August 1, 2025, <https://www.cesa.org/projects/offshore-wind-accelerator/>

⁹⁴ Bourg-Meyer and Schacht, *Offshore Wind and Equity*.

⁹⁵ Brightline Defense, *Putting Local Hire to Work* (Brightline Defense Project, 2012), 3, <https://static1.squarespace.com/static/62a3cf9943d092298cc7dec6/t/6414fe8e6dc6483b1c54b9fa/1679097489983/2-Brightline+PuttingLocalHireToWork+final.pdf>

ensuring regional ratepayer preferencing or discounts to the region's low-income residents, as was initiated in Massachusetts by the Dept. of Energy Resources.⁹⁶

- e. Establish Local and regional spending and procurement policies involving OSW contracts, ensuring second, third, and fourth-tier OSW procurement opportunities do not leak out of host regions when sited within.
- f. Create a multi-year competitive grant preferencing program, with host region criteria advantaging submissions dedicated to WFSC goals.
- g. Establish a public policy for permanent regional workforce and supply chain participation levels, with specific targets within job classifications, and establish a statewide reporting and auditing system.

7. Enforceable Structures that Prioritize Safety and Mitigate Harm, to ensure long-term security and stewardship of the Region's residents and ecosystems, workforce and supply chain development efforts must be grounded in enforceable structures that prioritize human safety, uphold Tribal sovereignty, and mitigate ecological and community harm. As the offshore wind industry expands, its impacts on human, marine, and coastal environments remain at the forefront of our communities. The Redwood Region has long paid the price for California's economic growth, with Native American communities bearing multigenerational trauma from land theft, forced removal, and extractive industries. To mitigate harms while building a high-road workforce pipeline and supply chain, any OSW development must include enforceable, culturally grounded protections for the Redwood Region and be designed with meaningful community participation.

OSW industrial development portends the arrival of external or non-resident workers. Data show this is of particular danger to Native communities—especially women, girls, and two-spirit individuals. Acts of violence, human trafficking, and epidemic levels of Missing and Murdered Indigenous People are correlated to industry development and transient workforces targeting Native Americans. Tribal Governments have cited these issues as a crisis, advancing important guardrails and requirements for protection. We believe these guardrails should be adopted as standards for the Redwood Region and for the State of California for the safety of communities. Additionally, to avoid replicating models that have exploited local and Tribal lands and resources, the workforce and supply chain buildout for offshore wind must be rooted in community repair. This requires more than acknowledging state-sanctioned violence, land dispossession, and structural underinvestment, but actively designing OSW WFSC policies to overcome those impacts. Both the State and developers must work closely with and fund host communities to develop binding and transparent community agreements that treat social infrastructure, including housing, childcare, healthcare, emergency plans and resources, and civic engagement capacity, as essential safety and harm mitigation investments. The collaborative letter submitted for AB3 Report 1 for Port Readiness details further recommendations.

Mitigating ecological harm is also essential for all renewable WFSC industries rooted in genuine concern for planetary health and climate change. Siting the Wind Energy Area, Humboldt Bay Wind Terminal, and any related industrial supply chain components off and on the coast of one of the most important bioregions of the world requires the highest standards of protection and an abundance of care. Regional maritime businesses, Tribal fisheries, local environmental protection groups, and many of the Region's residents whose current way of life depends on a thriving ecology have elevated concerns and requested closer collaboration at early stages so that their livelihoods are not jeopardized by OSW industries. Therefore, avoidance, mitigation,

⁹⁶ Bourg-Meyer and Schacht, *Offshore Wind and Equity*, 16.

minimization, and monitoring (AMMM) measures and means of adaptive management for industrial supply chain development should be specifically tailored for host regions. AMMM measures should be adopted early and in partnership with independent and Tribal research entities. In order to assess the priorities and risks associated with AMMM measures, it is imperative that offshore wind industrial supply chain projects undergo full California Environmental Quality Act (CEQA) and National Environmental Quality Act (NEPA) environmental review processes with leadership and co-management by Tribal Nations. Projects colocated or placed in close proximity to other offshore wind projects, which is noted as likely in the final AB525 Plan, must cite cumulative impacts of combined projects assessed and AMMM measures applied accordingly.

Recommendations: We strongly recommend that the CEC and the State of California:

- a. Prioritize addressing the MMIP crisis and help ensure community safety by incorporating recommendations issued by the Yurok Tribal Court, in their 2023 report⁹⁷ into AB3 Report 2. This includes the following key components: strong, multi-faceted, and comprehensive community benefit agreements; developers' commitments to both pre-development and ongoing meetings with Native communities; extensive background checks for workers; monitoring safety in employee housing; access to transportation for Tribal people living near development sites; tagging company vehicles; conducting employee training; coordination with local and Tribal law enforcement; supporting victim and social services; sourcing employees locally; enforcing an employee code of conduct; and whistleblower protections.
- b. In partnership with Tribal Nations and Tribally serving organizations, conduct OSW industry newcomer business orientations and awareness training on MMIP, Native American history, and related safety topics within the region. Engage with the many resources, Tribal experts, and reports available⁹⁸.
- c. To uphold public safety and protect Tribal communities, developers must work closely with Tribal and local law enforcement entities. Report 2 should recommend increased investment in Tribal law enforcement capacity, including personnel, training, and interagency coordination. Developers' and supply chain business safety plans must also align with and respect Tribal judicial systems, ensuring that Tribes retain jurisdiction over incidents occurring on or near their lands. Early and ongoing consultation with Tribes is essential to developing culturally informed public safety strategies and is a key component of Free, Prior, and Informed Consent (FPIC), which has emerged internationally as a best practice for infrastructure projects affecting Indigenous lands – on and off reservation.
- d. Ensure full compliance with CEQA and NEPA across all offshore wind-related development. Environment Impact Reports (EIRs) must evaluate the “whole of the action,” including related supply chain and workforce development activities, and be coordinated with local, state, and federal permitting agencies. All AMMM measures should be co-developed with Tribal Nations and impacted communities.

⁹⁷ Abby Abinanti and Katherine Katcher, *How to Protect Native Women, Girls, and People*.

⁹⁸ Reports include *To' Kee Skuy' Soo Ney-Wo-Chek' I Will See You Again in a Good Way Progress Report* from the Yurok Tribal Court, resources from the National Inquiry into Missing and Murdered Indigenous Women and Girls, “Responsible Resource Development and Prevention of Sex Trafficking: Safeguarding Native Women and Children on the Fort Berthold Reservation” in the *Harvard Journal of Law & Gender*, and Biden Presidential Executive Order 14053 titled “Improving Public Safety and Criminal Justice for Native Americans and Addressing the Crisis of Missing or Murdered Indigenous People”

- e. Adopt robust monitoring and adaptive management measures. Initiate baseline environmental monitoring early and continue it throughout the construction and operation life of all offshore wind-related development, including the supply chain. Monitoring, paired with clearly defined mitigation triggers when pollution thresholds are exceeded, should cover marine life, air and water quality, soil contamination, and impacts to frontline communities. To ensure accountability and long-term enforceability, these measures should be integrated into the procurement standard and performance matrix.
- f. Make decommissioning and post-industry transition regulations immediately, requiring legally binding agreements that span the full lifecycle of offshore wind-related industries, including decommissioning and site restoration. Employ enforceable industry commitments and clearly defined roles for developers, business owners, regulators, and other entities with set-aside and/or bonded resources.
- g. Support social and critical human infrastructure to mitigate further harm by addressing the Region's 'disadvantaged,' 'underrepresented,' or 'environmental justice communities' including the (i) a lack of clean, reliable electricity, broadband, transportation, and other infrastructure; (ii) a lack of access to health, childcare and other social services; (iii) a lack of high-quality educational and other career technical opportunities for youth; (iv) a lack of access to healthy food; and (v) a growing housing shortage at all income levels.
- h. Given the nascent nature of the industry and the newness of floating OSW, an independent State Ombudsman should be commissioned to address community concerns, issues arising within host communities, and industry practices associated with safety.

Section B: Methods to address CEC identified report gaps (items 9-13):

The CEC identified five important gaps in its research as barriers to fulfilling the AB3 WFSC reports, numbered 9 through 13 in its docketed request for comments. We believe there are several approaches that support the State in learning about this information from the Redwood Region as a host community, from the particular groups identified by the CEC, and to generate knowledge and recommendations together for the final report.

(9) "Develop recommendations for incorporating equity and environmental justice in economically and environmentally sustainable supply chain development"

Possible Methods:

1. Leverage our recommended Seven Pillars of healthy WFSC development as drivers of equity, environmental justice, and sustainability goals, while benefiting from local leadership and alignment.
2. Ensure regular, in-region engagement, expert-facilitated workshops, and co-design.
3. Use the data, research, and strategies developed by host regions, Tribes, and CBOs actively involved in serving these communities.
4. Prioritize early public investments in equity and environmental justice as defined here, and do not leave outcomes to private industry to fulfill through downstream benefit agreements.

(10) "Coordinate with tribal governments to develop recommendations for tribal workforce development opportunities"

Possible Methods:

1. In-region workshops and direct government-to-government consultations, supported by retained Native American legal experts and technical assistance providers.
2. Undertake feasibility and investment analysis that supports direct consultations, with the support of technical assistance, to develop culturally appropriate workforce strategies.
3. In close coordination with Tribal Nations, invest in growing partnerships for interconnected development opportunities (e.g., distributed energy resources, construction).
4. Provide multi-year grant and general operating support for Tribal staff for coordination and participation in these efforts.

(11) “Consult with environmental and environmental justice groups, fisheries groups, labor unions, including manufacturing, transportation, maritime, and longshore unions, oceangoing vessel operators, the commercial maritime industry, public port authorities, and business groups to develop recommendations for workforce development opportunities.”

Possible Methods:

1. Collaborate with the region’s organizations focused on transitioning formerly incarcerated people to develop restorative training and workforce opportunities.
2. Develop a compensated, time-bound maritime advisory committee from across host regions to provide analysis and make recommendations, ensuring equitable Tribal participation if desired, similar to efforts in Massachusetts⁹⁹.
3. Determine federal maritime legal and structural barriers for local, regional, and Tribal participation in supply chain and ownership (e.g., Jones Act), evaluate alternative mechanisms such as partnerships, underwriting of bonding, vessel strategies¹⁰⁰. Retain independent external expertise and legal counsel to facilitate an alternative solution design workshop with community enterprises, with experienced analysts and moderators such as Brightline Defense¹⁰¹.
4. Determine critical research needs to address genuine concerns from the maritime community; commission with the majority of regional and host advisory councils and researchers, such as the Pacific Offshore Wind Consortium.

(12) “Develop recommendations for workforce development investments at community colleges, by the California Workforce Development Board for maritime and longshore workforces, at state universities, and in apprenticeship programs necessary to meet the workforce needs resulting from the in-state targets described in this section.”

Possible Methods:

1. Partner closely with California State Polytechnic Universities in host regions, Humboldt and San Luis Obispo, and the affiliated Pacific Offshore Wind Consortium¹⁰² to identify and accelerate action on key findings from their workforce and professional studies.
2. Support the College of the Redwoods’ capacity to grow applicable partnerships with trades and industry related to its strategic plans. Support a collaborative gap analysis and needs assessment.

⁹⁹ Bourg-Meyer and Schacht, *Offshore Wind and Equity*, 9.

¹⁰⁰ Xodus, *Humboldt Supply Chain and Workforce Assessment*.

¹⁰¹ Eddie Ahn et al., *California Offshore Wind*.

¹⁰² “Reports,” The Pacific Offshore Wind Consortium.

3. Establish collaborations and invest in academic-Tribal programs, building upon their strategies and priorities for maritime-related workforce. For example, the Yurok-CalPoly Humboldt-College of the Redwoods¹⁰³ and the CalPoly COMPASS and INRSEP programs.¹⁰⁴
4. Ensure collaboration directly and routinely with Regional Workforce Development Boards specifically, and invest in their leadership capacity and collaboration in early and crucial development times. While the CA WDB is an important statewide entity for a universal strategy, it is essential to coordinate with Humboldt, NORTEC, and San Luis Obispo and create means for the regional WDBs to collaborate on shared strategies.

(13) “Consult with building and construction trades councils to develop recommendations on the use of project labor agreements to achieve workforce development and apprenticeship goals”

Possible Methods:

1. Consult with each Tribal Nation in host regions to identify their policies, priorities, and perspectives involving project labor agreements to achieve WF and apprenticeship goals in advance of policy determinations.
2. Consult with local Building Trade Councils' leadership and membership to ensure local points of view and capacity are understood in advance of policy determinations.
3. Consult with labor regarding their ability and infrastructure to be on-site participants within the Region.
4. Consult with local and county governments within Humboldt, Trinity, and Del Norte Counties and their respective Humboldt and NORTEC Workforce Development Boards about project labor agreements.
5. Consult with entities noted above and community-based organizations to identify policy determinations for including equitable workforce practice commitments in community and Tribal agreements.

Section C: Mission Critical Requirements for State and CEC to collaborate with Tribes and Regional Communities for OSW WFSC, given the historic and cultural context.

Outsized federal and state actions have shaped and reshaped the Redwood Region, its people, and its ecosystem—and ultimately extracted economic, human, and natural resources. As stated earlier, it is imperative that California redesign its approach to renewable industrial-scale energy development to benefit communities that have borne these costs as it works to meet statewide goals. **Therefore, we strongly urge the CEC and State of California to consider it mission-critical to co-design the OSW industrial WFSC strategies with its Redwood Region host Tribes, communities, and officials.** Doing so means transparent collaboration, frequent in-person engagements, co-designed learning and workshops, and robust and respectful Tribal Nation consultation and co-management. We emphasize the region's history and conditions below to compel State officials to fulfill this responsibility:

Context: The Redwood Region is characterized by expansive areas of ocean, forested mountains, ecologically complex watersheds, and rugged river canyons that critically

¹⁰³ “Offshore Wind Workforce to be Trained by Cal Poly Humboldt, Yurok Tribe, and College of the Redwoods,” Cal Poly Humboldt, February 16, 2023, <https://now.humboldt.edu/news/offshore-wind-workforce-be-trained-cal-poly-humboldt-yurok-tribe-and-college-redwoods>

¹⁰⁴ “COMPASS,” Cal Poly Humboldt, accessed August 1, 2025, <https://www.humboldt.edu/compass>

support regional biological diversity. The major inland waterways include the Eel, Elk, Smith, Mad, Van Duzen, Mattole, Klamath, Scott, Shasta, Salmon, and Trinity Rivers and Cache and Redwood Creeks. This region consists of conifer forests and oak woodlands dissected by chaparral, riparian forests, and wetlands. The region also includes valley and foothill grassland and woodland communities, as well as coastal wetlands and marshlands. In contrast, along the coast, sandy beaches, incredibly rare dune forests, estuaries, lagoons, marshes, and open water bays support important habitat for shorebirds and provide nursery habitats for anadromous, oceanic, and near-shore fish. Humboldt Bay, California's second-largest estuary, is surrounded by an extraordinary dune ecosystem, and feeds into the freshwater streams and rivers which support production of anadromous salmonids, including steelhead and cutthroat trout, coho and Chinook salmon.

North Coast communities share a connection to and strong appreciation for the natural world. Our diverse region includes interconnected Tribal Nations and rural communities, and interdependent ecosystems and riverways. The region shares an appreciation and reliance on the ecosystem through key species, such as eelgrass, oysters, and salmon, for social, cultural, and economic purposes, which are threatened by climate change. The region's Indigenous Peoples and Tribal Nations have maintained deeply significant and reciprocal relationships with local lands, waters, and ecosystems since time immemorial. Tribal Nations, while facing region-wide infrastructure limitations, are internationally recognized for innovations in climate and energy resilience and natural resources management. The region's economy has traditionally relied on natural resources, yet continues to diversify. Our regional economy is driven by educational infrastructure, a career technical education system through the College of the Redwoods and Cal Poly Humboldt, and continuation of extractive industries, such as mining and logging.¹⁰⁵ Our rural transportation system is defined by a reliance on cars and limited mass transit, which threatens our natural environment through tailpipe emissions, and contributes to economic and health-related disparities with limited access to affordable transportation over long distances to access services. This current context demonstrates the region's economic, environmental, and cultural assets as well as opportunities to meet persistent needs.

As described throughout the preceding elements of our comments, the Redwood Region has innovative collaborations, committed leaders, and talented community members that are committed to this place thriving. There are strong efforts to support young people in connecting to opportunities, culture, and community. It is also true that the legacy of violent extractive industries, boom and bust economic cycles, and underinvestment in a primarily rural, Tribal region have created persistent gaps in social and economic infrastructure. These needs are rooted in gaps in: (i) clean, reliable electricity, broadband, transportation, and other infrastructure; (ii) access to health, childcare and other social services; (iii) high-quality educational and other career technical opportunities for youth; (iv) access to healthy food; and (v) housing at all income levels. Today, many communities throughout our North Coast region are considered 'disadvantaged,' 'underrepresented,' or 'environmental justice communities' due to the high proportion of low-income households and census tracts,^{106,107} census 'hard to reach'

¹⁰⁵ Earth Economics, *North Coast Healthy Watersheds and Vital Communities: Economic Analysis* (North Coast Resource Partnership, 2018),

https://northcoastresourcepartnership.org/site/assets/uploads/2018/06/NCRP_Report_GreenprintAnalysis_v1.pdf

¹⁰⁶ Connor McIntee to Matthias St. John, July 21, 2016, memorandum regarding Small Disadvantaged and Financial Hardship Determination for North Coast Region Communities, North Coast Regional Water Quality Control Board, https://www.waterboards.ca.gov/northcoast/water_issues/programs/environmental_justice/180921/160726_CPM_ef_Small_Disadvantaged_Communities_Memo_and_Attachments.pdf

¹⁰⁷ Low income communities and households are defined as the census tracts and households, respectively, that are either at or below 80% of the statewide median income, or at or below the threshold designated as low income by the California Department of Housing and Community Development 2016 state income limits.

communities,¹⁰⁸ and a high-density of Tribal Lands and Allotments.¹⁰⁹ Over 15% of Del Norte and Humboldt residents experience poverty.¹¹⁰ Humboldt County in particular, has a higher poverty rate than the California average.¹¹¹ 27.7% of people in Northern California's Tribal communities lived below the poverty line level in 2019.¹¹² Several Tribal Nations in the region have high rates of poverty and low median wages. According to the Yurok Tribe, 80% of their members live below the poverty line and have an annual income of just over \$11,000. The census tract for the Hoopa Valley Reservation has a 95% rate of poverty and 80.69% unemployment compared to other tracts in the state.¹¹³

Health and wellness disparities experienced by communities of color are important to understanding our region and investment recommendations made later in this document. The population of Humboldt and Del Norte Counties includes nearly 30% Black, Indigenous, and People of Color,¹¹⁴ and the average enrolled BIPOC student population in county schools is 46%. In Humboldt, 1 in 8 students come from homes where English is not the primary language.¹¹⁵ By contrast, white educators make up an average of 84% of the total teacher population. In Humboldt County, Indigenous students are suspended at a rate four times the state average for white students.¹¹⁶ Mortality rates for Native people in Humboldt County, ages 25-44, are 2-5 times higher than the general population, and the infant mortality rate is 2 times higher than the general population.¹¹⁷ Between 2001 and 2019, 45 hate crimes were reported,

¹⁰⁸ "The California Hard-to-Count Interactive Map," California Department of Finance Demographic Research Unit, 2020, <https://census.ca.gov/htc-map/>

¹⁰⁹ Tribal lands are defined as federally recognized Native American reservations and allotments per the California Native American Heritage Commission. The May 2022 Final SB 535 Disadvantaged Communities Designation by the CalEPA includes, and CPUC/CEC Disadvantaged Community Advisory Group Equity Framework include "Lands Under Federally Recognized Tribes" and "Tribal Lands" respectively as disadvantaged communities. Accessed July 2022 from https://calepa.ca.gov/wp-content/uploads/sites/6/2022/05/Updated-Disadvantaged-Communities-Designation-DAC-May-2022-Eng.a.hp_-1.pdf and

https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/energy-division/documents/infrastructure/disadvantaged-communities/dacag-equity-framework.pdf?sc_lang=en&hash=130F6FD0AEA89095CD0EAC455D0C60EE

¹¹⁰ "Quick Facts: Trinity County, CA; Del Norte County, CA; Humboldt County, CA," US Census Bureau. July 1, 2021, <https://www.census.gov/quickfacts/fact/table/trinitycountycalifornia,delnortecountycalifornia,humboldtcountycalifornia/PST045221>

¹¹¹ Sarah Bohn et al., *Factsheet: Poverty in California* (Public Policy Institute of California, 2025), https://www.pplic.org/wp-content/uploads/JTF_PovertyJTF.pdf

¹¹² Northern CA Indian Development Council, *2021 Community Needs Assessment* (Northern CA Indian Development Council, 2021), <https://www.ncidc.org/sites/default/files/48/csbgs/NCIDC%20Community%20Needs%20Assessment%202021%20Final.pdf>

¹¹³ "CalEnviroScreen: Poverty," Office of Environmental Health Hazard Assessment, 2021, <https://oehha.ca.gov/calenviroscreen/indicator/poverty>

¹¹⁴ U.S Census American Community Survey (2018). Accessed July 2022 from <https://data.census.gov/cedsci/> and Stepping Stone Diversity Consulting, *Baseline Racial Equity Report: Race and the Redwood Coast* (Stepping Stone Diversity Consulting, 2021)

¹¹⁵ Iridian Casarez, "Barriers to Care: Why Humboldt's Latinx Population is Being Hit Disproportionately Hard by COVID-19," *North Coast Journal*, July 12, 2020, <https://www.northcoastjournal.com/NewsBlog/archives/2020/07/12/barriers-to-care-why-humboldts-latinx-population-is-being-hit-disproportionately-hard-by-covid-19> and Stepping Stone Diversity Consulting, *Baseline Racial Equity Report*

¹¹⁶ Theodora Simon, Linnea Nelson, and Taylor Chambers, *Failing the Grade: The Status of Native American Education in Humboldt County* (ACLU Northern California, 2020), <https://www.aclunc.org/publications/failing-grade-status-native-american-education-humboldt-county> and Stepping Stone Diversity Consulting, *Baseline Racial Equity Report*.

¹¹⁷ Humboldt County Department of Health & Human Services, Public Health, *2018 Humboldt County Community Health Assessment* (Humboldt County, 2018), <https://humboldt.gov/DocumentCenter/View/71701/2018-Community-Health-Assessment-PDF> and Stepping Stone Diversity Consulting. (2021) *Baseline Racial Equity Report*.

which is known to be a significant underrepresentation of people's experiences.¹¹⁸ Humboldt County also ranks the 5th highest county in the state for Black/white segregation.¹¹⁹ While disparities are significant, there are also key innovations happening here to help heal this place, led by Black, Indigenous, and People of Color. For example, there is a growing Indigenous land back movement, demonstrated by the Wiyot Tribe's successful negotiation with the City of Eureka for the return of Tuluwat Island to the Tribe. The largest dam removal project in US history, on the Klamath River, has been led by Indigenous leaders and Tribal Nations from this region. Humboldt Asians and Pacific Islanders in Solidarity connects the community, celebrates culture, works to daylight past historical atrocities, and influences land use and policy decisions in state and local government. There are many more examples of creativity, resilience, and innovative change. The stories of communities here are rich, complex, and important for California policymakers to take into consideration as they shape processes for this next phase of historically significant development.

Paradoxically to the vast expanse of land on the North Coast, residents in our region grapple with an existential housing shortage and an affordability crisis. Humboldt and Del Norte County residents spend an average of 39% and 38% of their income on housing, respectively.¹²⁰ Rental vacancy rates in Humboldt County were as low as 4.2%, indicating limited availability and housing insecurity. Furthermore, the number of people experiencing houselessness in Humboldt County is nearly five times the national average. This is likely an underestimate given data collection challenges.¹²¹ The Region's communities have both a high need for affordable housing and face barriers to access. While new industries like offshore wind have the potential to be regional assets, they will place further burdens on what little housing stock there is, causing displacement and harmful ripple effects through the region, particularly for underrepresented communities. Investments in housing development will be critical to the success of new industries in the region.

Infrastructure needs are great in our region. Many areas are located at the remote end of the existing electrical grid, which imposes challenges on electricity supply stability.¹²² In addition to acute electricity reliability issues, the region's transmission infrastructure now faces additional risks from the increasing frequency and intensity of extreme weather.¹²³ Other major infrastructure challenges in the North Coast region include aging water treatment systems¹²⁴

¹¹⁸ California Department of Justice Open Justice program. Accessed July 2022, from <https://openjustice.doj.ca.gov/arrests/offenses> and Stepping Stone Diversity Consulting, *Baseline Racial Equity Report*

¹¹⁹ "County: Humboldt, CA," County Health Rankings & Roadmaps, 2019, <https://www.countyhealthrankings.org/app/california/2019/rankings/humboldt/county/outcomes/overall/snapshot> and Stepping Stone Diversity Consulting, *Baseline Racial Equity Report*.

¹²⁰ CA Department of Housing and Community Development, *California's Housing Future: Challenges and Opportunities, Final Statewide Housing Assessment 2025* (CA Department of Housing and Community Development, 2018), https://www.hcd.ca.gov/policy-research/plans-reports/docs/sha_final_combined.pdf

¹²¹ Humboldt County Department of Health & Human Services, Public Health, *2018 Humboldt County Community Health Assessment*.

¹²² Jim Zoellick, *Humboldt County General Plan 2025 Energy Element Background Technical Report*, (Schatz Energy Research Center, 2005), <https://humboldt.gov/DocumentCenter/View/63211/Humboldt-County-General-Plan-Energy-Element-Background-Technical-Report-2005-PDF>

¹²³ Earth Economics, *North Coast Healthy Watersheds and Vital Communities*.

¹²⁴ Water managers and users in North Coast counties have highlighted aging water treatment systems as a key challenge that must be addressed, and where technical assistance is needed. North Coast Resource Partnership, *Disadvantaged Community & Tribal Needs Assessment Survey & Interview Summary* (North Coast Resource Partnership, 2019), https://northcoastresourcepartnership.org/site/assets/uploads/2019/07/NCRP_DACTI_Needs_Assessment_Summary_2019.pdf

and a need for widespread internet access,¹²⁵ with rural residents disproportionately lacking internet connectivity.¹²⁶ In addition to these issues, communities immediately surrounding the port, including Manila, Samoa, and Fairhaven, experience deteriorating road conditions, which will be worsened through offshore wind traffic. New industry and residents may exacerbate existing burdens on North Coast communities, especially the underserved.

In addition to infrastructure gaps, Tribal Nations in the region face threats to the safety of their communities. Tribal communities, who were displaced from their land, had their natural resources stolen, and experienced murder and other atrocities, face continued harm. California has the 5th highest rate of Missing and Murdered Indigenous People (MMIP) in the United States, with 1/3 of all cases in California occurring in Del Norte, Humboldt, and Mendocino Counties¹²⁷.

Both inland and coastal Tribal Nations¹²⁸ rely on natural resources that will be impacted by offshore wind development, particularly salmon and other anadromous fish in Humboldt Bay and rivers fed by and immediately to the north and south of the Bay for commercial, cultural, and sustenance fishing. However, members of Tribal Nations experience difficulty obtaining salmon, over time, because salmon runs are increasingly threatened, endangered, or at risk.¹²⁹ For Tribes and other entities that rely on fisheries for subsistence, access to even a small quantity of fish is important for food security and to the continuance of cultural traditions.¹³⁰ These fisheries are at risk of potential further impacts by offshore wind energy and related infrastructure development in Humboldt Bay, as well as the larger context of climate change.

As discussed above, our rural and Tribal region is notably different from areas where California may have permitted large-scale industrial development. In particular, economic opportunity, the lack of existing infrastructure, established workforce development programs for emerging jobs, and other landside supports such as housing, healthcare, child care services, and environmental restoration and protection must be addressed in culturally and contextual appropriate ways.

Based on this context and history, designing equitable, environmentally-just, and Tribally-led strategies **requires the CEC to conduct this work in-region and with our communities**. Together we can develop methodologies to resolve the gaps that the CEC report identified and create opportunities to harness the extensive indigenous and community knowledge and skill for appropriate place-based approaches. **This is the only path for California to accomplish this work in a sustainable, just, and equitable way and achieve its ambitious WFSC goals.**

Mission Critical Collaborations for Engaging with Host Region, to inform the development and implementation of AB3 Report:

¹²⁵ Currently, only 83.5% of Del Norte County residents have broadband connections, which leaves many residents without access to this critical resource necessary for much of our daily lives."Quick Facts: Trinity County, CA; Del Norte County, CA; Humboldt County, CA," U.S. Census Bureau.

¹²⁶ North Coast Resource Partnership, *Healthy Watersheds*.

¹²⁷ Abby Abinanti et al., *To' Kee Skuy' Soo Ney-Wo-Chek' I Will See You Again in a Good Way Progress Report* (Yurok Tribal Court and Sovereign Bodies Institute, 2020)
https://www.sovereign-bodies.org/_files/ugd/6b33f7_c7031acf738f4f05a0bd46bf96486e58.pdf

¹²⁸ 43 U.S.C. § 1331; <https://www.law.cornell.edu/uscode/text/43/1331#i>

¹²⁹ Fraser Shilling et al., *California Tribes Fish-Use* (State Water Resources Control Board and the US Environmental Protection Agency, 2014),

https://www.waterboards.ca.gov/water_issues/programs/mercury/docs/tribes_%20fish_use.pdf

¹³⁰ Bureau of Ocean Energy Management to California Coastal Commission, January 24, 2022, regarding Consistency Determination No: CD-0001-22, p.78,

<https://documents.coastal.ca.gov/assets/upcoming-projects/offshore-wind/Th8a-4-2022%20adopted%20findings.pdf>

1. Conduct a series of convenings with Tribal Nations and Enterprise Leads, workforce and supply chain experts, and state policymakers to identify pathways for new Tribal Businesses.
2. Facilitate structured sessions with maritime businesses, port authorities, Tribal natural resources and fisheries, and social impact investors to co-design an ocean stewardship workforce.
3. Lead workshops with educational and training institutions such as College of the Redwoods and Cal Poly Humboldt to identify barriers for Opportunity Youth participation and possible policies and programs.
4. Convene State Policymakers, researchers, and local BIPOC leaders to scope implementation pathways for equity and environmental justice opportunities in host Regions.
5. Bring together State, Tribal and Local entities with social and impact investors to determine easy to accelerate investment strategies, including Native and Regional CDFIs and other sources of funding.
6. Consult with Tribal Nations and Native American justice communities about the potential for newcomer and ongoing regional orientations, training, and history awareness programs, potentially in collaboration with other new business activities.
7. Conduct a series of engagements with regional entities providing wrap-around services necessary to enhance systems, safety, and training/educational infrastructure, and identify barriers and resolutions.
8. Conduct a series of activities with local and county governments within Humboldt, Trinity, and Del Norte Counties and their respective Humboldt and NORTEC Workforce Development Boards.
9. Organize an event with local researchers, research centers, and academic centers in the Region, along with any of their research consultants or strategists, to facilitate the best opportunities for the CEC to address its Report 2 research gaps.

Section D: Additional Resources for AB3 Literature Reviews

We appreciate the Aspen Group's efforts in identifying, classifying, and indexing pertinent literature for the CEC to complete its AB3 studies. We think it is crucial to submit regional studies, reports, and strategies, as well as models from elsewhere, which amplify the aforementioned recommendations. We appreciate that the CEC's Literature Review will be ongoing, with the opportunity to routinely submit/update. Recommended resources included below is not a comprehensive list.

Topic: Human and Ecological Safety

1. Katcher, K, and Abinanti, A. [*How to Protect Native Women, Girls, and People in Humboldt & Del Norte County as Offshore Wind Enters the Region: MMIP Prevention Planning and Recommendations*](#). 2023. Yurok Tribal Court Report, Published by Lost Coast Outpost.
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In Conclusion

We are grateful that the CEC is requesting this feedback to complete the AB3 WFSC report requirements, as mandated by the California Legislature in AB525. We believe OSW Workforce and Supply Chain (WFSC) policies can help the State rebalance and reinvest in the Redwood Region while simultaneously fulfilling renewable energy and economic goals. We trust our recommendations, the majority of which were originally developed by other entities in the region, provide the CEC with critical data and insights to complete the final report. We look forward to working with you in that process.

Redwood Region Climate and Community Resilience Hub ([CORE Hub](#)) August, 2025