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# Finding the Nexus between Climate Action and Good Jobs

**A White Paper of the University of Oregon School of Law**
**Environmental and Natural Resources Law Center**
**Energy Law and Policy Project**
**And**
**The University of Oregon Labor Education and Research Center**

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## DISCLAIMER

## Acknowledgments

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## About this Paper

This white paper was created through the University of Oregon Environmental and Natural Resources Law (ENR) Center's Oceans, Coasts and Watersheds Project, an interdisciplinary research project focused on engaging the law to promote sustainability for ocean, coastal, and freshwater resources. This project was funded by Northlight.

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## About the ENR Center

As part of the ENR Center's mission of "engaging the law to support sustainability on earth," the ENR Center houses seven theme-based, interdisciplinary research projects that team law student enthusiasm with faculty expertise in an effort to bring intellectual energy to bear on some of the most challenging and cutting-edge environmental issues of our day. The seven interdisciplinary research projects are the Conservation Trust Project; the Energy Law and Policy Project; the Food Resiliency Project; the Global Environmental Democracy Project; the Native Environmental Sovereignty Project; the Oceans Coasts and Watersheds Project; and the Sustainable Land Use Project. Each academic year, the Center awards one-year fellowships to a select group of University of Oregon School of Law students to work with ENR faculty members on specific research projects within each of the theme-based, interdisciplinary research projects. The Energy Law & Policy Program explores innovative law and policy that promote a green energy future.

## About the Labor Education and Research Center

Since its inception in 1977, the Labor Education and Research Center at the University of Oregon has been dedicated to the presence of a strong, inclusive union movement as an integral element of a just and democratic society. By integrating education, research, and public service, our Labor Center helps to ensure that workers have the skills and support that they need to participate meaningfully in their workplaces and communities.

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## II. EXECUTIVE SUMMARY

Effectively responding to climate change requires that federal, state, and local governments act quickly to reduce carbon emissions and transition to a sustainable low-carbon economy. This transition is impacting business operations, government programs, transportation infrastructure, the energy grid, and consumer behavior. This report first describes the need for expanded collaboration across environmental and labor organizations, and the mechanisms for win-win policies. It then provides an overview of states across the country that are taking different approaches, and finally focuses in on the West Coast states. Recommendations for areas needing additional study and reporting are also provided in the conclusion.

The low-carbon transition directly impacts the workers, families, and communities that are participating, willingly or unwillingly, in this shift. Support from workers and affected communities is key to successful climate action plans and policies. While some workers and unions back the Green New Deal and other climate action plans, workers in oil and gas industries as well as other trades remain skeptical that there are meaningful opportunities for them in the renewable energy sector, and their concerns must be addressed as part of transition to the low-carbon economy.

Unions representing nurses, flight attendants, truckers, and public sector workers have come out in favor the Green New Deal or other major climate action plans. These unions support climate action when it can both create job opportunities as well as protect their members (e.g. construction workers, postal workers, firefighters, and nurses) whose jobs and home-lives are directly impacted by climate-induced extreme heat incidents, poor air quality, and extreme weather events.

However, other labor organizations are unlikely to support new programs, even those that aim to create jobs, if their constituents are not at the table during the design and development of climate action plans and policies. Richard Trumka (head of the over 12.5 million strong national AFL-CIO labor union federation) criticized the Green New Deal because "[labor unions] weren't part of the process, so the worker's interest wasn't really figured into it . . . We would want a whole bunch of changes made so that workers and our jobs are protected in the process."

As described later in this report, states are taking a variety of approaches to address climate change from statewide renewable energy targets to "mini green deals" and climate action plans. To achieve the massive shifts that a carbon neutral transition requires, it is vital that environmental advocates, policy makers, and worker-organizations collaborate on win-win solutions that are sustainable for the environment, communities, and the worker-based economy. Groups such as the Labor Network for Sustainability and the BlueGreen Alliance are working to connect labor organizations to climate action and to build bridges between environmental groups and labor union members. This strategy makes sense because workers and labor unions are more likely to endorse climate action if it has specific built-in provisions to create good family-wage jobs, allow for worker organizing, and provide training and transition support for workers in these emerging sectors.

## III. LABOR UNIONS AND CLIMATE ACTION

Labor unions use the power of collective action to create economic justice in the workplace. This includes advocacy for jobs that provide family wages, benefits, career ladders, and a respectful workplace for members. Unions are authorized by federal law to organize workers and negotiate collectively as workers with employers on wages, benefits and working conditions. Union activities also include engagement in national, state, and local public policy development. In the context of climate action and a transition to a low-carbon

economy, unions have staked out a variety of positions. The interests of utility workers are different than the interests of building trades, which are both vastly different than the interests of healthcare workers, emergency service providers, public sector workers, and grocery workers. Just like there is no single voice for what "environmentalists" are advocating, there is also no single voice or interest representing labor unions and other organizations that advocate for workers.

An example of a labor union whose workforce is threatened by the low-carbon transition is the Utility Workers Union of America, which has over has over 50,000 members working in the electric, gas, steam, water, and nuclear industries across the United States. Efforts to eliminate natural gas plants or phase out nuclear power and replace it with renewable electricity generation could jeopardize many of these high-paying jobs and threaten communities throughout the country. Workers in these long-established energy production jobs view the shift away from fossil fuels as an attack by environmentalists on their livelihoods. In a recent utility workers' industry magazine, John Duffy, the national vice president, characterized this fight as a war: "Our members in California locals 132, 482, and 522 are on the front lines in the war against natural gas. That war is referred to as electrification." In addition to job loss, Duffy raised concerns about rising energy costs for low-wage consumers if low-cost energy sources such as natural gas are phased out.

Historically, policy makers and environmental organizations have made only vague promises of new jobs and funding for workforce training programs without clear deliverables. As a result, unions distrust voluntary efforts, unfocused training programs, and undefined job creation. The way to address this high level of distrust is to work with labor upfront, not as an afterthought. Policy developers must respond to affected workers' concerns and provide opportunities for meaningful input on policy proposals. More dialog is needed about how to meet concerns, and to incorporate mandated labor standards such as prevailing wages, benefits, and incentives to provide economic benefits to workers during this transition. As explained by Neil Hartman, Legislative and Political Director for the Washington State building trades Association:

By investing time up front to develop relationships and trust, we can hit a triple bottom line making sure that economic growth, clean development, and jobs all come together. There are a lot of different ways that policies can be developed to find environmental benefits with a broader movement perspective that includes both sides.

Washington State's experience with the challenges and ultimate success of building coalitions of workers and environmental organizations to support climate action is detailed later in this report. Other states including California, Oregon, and New Mexico have made headway in bringing together stakeholders on win-win solutions to reduce carbon emissions, assist with transitioning workers impacted by the loss of oil and gas jobs, and set high bars for labor standards in the creation of new job opportunities.

## IV. HIGH-ROAD JOBS: WHAT THAT MEANS AND WHY IT MATTERS

High-road jobs provide family wages, benefits, career ladders, and job training opportunities. But the benefits go beyond the worker. From a policy perspective, high-road jobs increase worker productivity and job satisfaction while reducing dependency on taxpayer-funded social safety nets. The families of employees who are paid a living wage and receive health benefits are less likely to rely on social safety nets such as Medicaid, Supplemental Nutrition Assistance Program (SNAP) benefits, or other taxpayer-funded subsidies. Setting higher labor standards also enables unionized workplaces (and other employers who provide comparable wages and benefits) to be competitive bidders on projects because they are not under-bid by employers that rely on contingent workforces or cut corners on safety and compliance with

wage and hour laws. A report by the American Sustainable Business Council found that "values-based business leaders say incentives would help them adopt more high-road practices—and they believe incentives and regulations are needed to motivate other firms in their industries."
An explanation of common mechanisms for states to incorporate high-road labor standards into construction, development, and manufacturing jobs is provided in the following section. Additionally, University of Oregon law students provided a detailed examination of opportunities for high-road labor standards in federal renewable energy policies in a recent report published by the University of Oregon Environmental & Natural Resources Law Center.

### A. Locally Prevailing Wage and Fringe Benefits

Prevailing wage agreements require that a project or program pay workers the prevailing wage and benefits for that industry and/or location. Prevailing wages are among the most well established labor standards for providing adequate family wage jobs for publicly funded construction, transportation, and development projects. Federal and state prevailing wage laws establish wage floors for different types of skilled construction work on public construction projects, and have been linked to higher incomes and stronger career training institutions for blue-collar construction workers. As a result, prevailing wages measurably boost construction worker salaries, increase homeownership, and build wealth for the middle class.

Federal prevailing wage rates are intended to ensure that government-funded projects pay a wage commensurate with local wages for experienced workers. Several Federal laws establish baseline labor standards for public works projects. Specifically, the Davis Bacon Act (DBA), the Walsh-Healey Public Contracts Act (PCA), and the McNamara-O'Hara Service Contract Act (SCA) impose labor standards for all sectors of employment including construction, manufacturing, and services. However, the DBA imposes stronger standards by requiring locally "prevailing wages" and applies to all "federally funded" projects through "related acts"—not just contracts with the government. The prevailing wage for the covered occupations is determined by the U.S. Department of Labor through periodic surveys of wages paid in both union and non-union labor in those occupations in surrounding areas. The surveys also include typical benefits that are paid.

Many states have adopted their own versions of prevailing wage laws, referred to as "Little Davis-Bacon" laws, for public projects funded with state dollars. States set their own dollar thresholds, standards for type of projects that fall under the law, and how the prevailing wages are calculated. For example, Washington uses union wages as reflected in collective bargaining agreements to set its prevailing wage rate for certain non-residential public works projects. And California has expanded its prevailing wage laws to include renewable energy projects and power purchase agreements, even for those that are privately funded.

### B. Project Labor Agreements

A project labor agreement (PLA) is a pre-hire collective bargaining agreement with one or more labor organizations that establishes the terms and conditions of employment for a specific construction project. The federal government established the use of project labor agreements for construction projects through executive order in 2009. The regulations for PLAs require that these agreements set mutually binding procedures to resolve labor disputes, establish procedures for selecting subcontractors, negotiate guarantees against strikes and lockouts, and typically require employers to agree to use union labor, pay prevailing wages, and provide benefits. In addition, many state laws require developers to engage in PLAs for publicly funded construction projects, as discussed in the states overview section of this report.

### C. Apprenticeship Programs – Career Ladders to Good Jobs

Having an adequate supply of skilled and trained workers is critical to development of renewable energy and the low-carbon economy. According to the 2020 U.S. Energy and Employment report, during the fourth quarter of 2019, energy efficiency jobs were in high demand with up to 50% of employers reporting difficulty in hiring in manufacturing, construction, sales, and services. Also in 2019 employment in electric power grid technologies grew for natural gas, solar, wind, CHP, hydro, bioenergy, and geothermal while declining in coal-fired and nuclear generation. As a result of these shifts, renewable energy jobs grew by 177,000 jobs between 2015 and 2019 while coal fire generation jobs declined by 13,000 in 2018 and 2019.

Apprenticeship programs are the bedrock of skills development for all types of construction trades, including the renewable energy, energy efficiency, and low-carbon infrastructure sectors. Apprenticeships are industry-funded, "learn-while-you-earn" models that combine on-the-job training, with job-related instruction tied to the attainment of national skills standards. The model also involves progressive increases in an apprentice's skills and wages. Apprenticeship programs typically last between one and six years and include full time work placements combined with classroom education. After completing the program apprentices take written and hands-on exams to graduate to the journey level. Journey people are licensed to work in the trade independently, without supervision. They also earn recognized credentials and may receive college credits that can lead to an associate or bachelor's degree.

Entry into some trade apprenticeship programs, especially union-run programs, can be highly competitive. Pre-apprenticeship programs provide an important first step for high school graduates to start their career path by preparing individuals to enter and succeed in apprenticeship program. Pre-apprenticeship programs promote a diverse and skilled workforce and prepare participants to meet the basic qualifications for entry into an apprenticeship, through:

- An approved training curriculum based on industry standards,
- Educational and pre-vocational services,
- Hands-on training in a simulated lab experience or through volunteer opportunities, and
- Assistance in applying to Apprenticeship programs.

Apprenticeship programs are run by sponsors that administer the training program and match apprentices with workplaces for the paid training. States certify both union and non-union apprenticeship programs, which provide workforce training and career track job placement. Non-union sponsors include individual large employers or industry and business groups and often partner with community colleges.

Many trade unions act as sponsors for apprenticeship programs; including electricians, plumbers, pipefitters, roofers, and sheet metal workers. Union-affiliated Apprenticeship programs can offer their apprentices and journeypeople job opportunities across workplaces and help them to evolve their skills and respond to employment trends such as renewable energy jobs, change. A comparison of union versus non-union electrician apprenticeship programs shows that the union programs provide more job security, higher wages, and career development through union halls. In Oregon, union apprenticeship programs train the majority of workers in the construction trades and have been shown to better serve women and minorities than non-union apprenticeship programs.

### D. Community Benefits Agreements

Community benefits agreements (CBAs) bring together all of the benefits of prevailing wage laws, apprenticeship programs for a skilled workforce, and the pre-hire project labor agreements. CBAs provide a mechanism for stakeholders in a project to jointly identify win-win solutions through legally binding agreement. These agreements can engage community organizations, developers, labor unions, and local officials to craft customized plans with provisions for wages, working conditions, local hires, and transition of workers to newly created jobs. CBAs can go beyond state and federal labor mandates and through negotiation and civic engagement help promote inclusiveness, transparency, and enforceability. By holding hearings and getting input upfront from affected communities, CBAs can increase public support and prevent work stoppages due to labor disagreements and conflicts with citizen groups.

In the following sections, this report will highlight how states are addressing the needs of workers and creating a fair and equitable transition to the low-carbon economy.

## V. OVERVIEW OF STATE CLIMATE ACTION THAT INCLUDES LABOR STANDARDS

At the state level, legislation addressing renewable energy and climate change can reflect community values that simultaneously promote clean energy and responsible labor practices. These win-win situations can be easier to navigate at the state level than the Federal level because of the relative responsiveness of legislators to their local constituents. This opportunity, alongside proposed energy transition and carbon reduction goals, can create new policies that address climate change in an equitable way. Bills that include a broader range of labor targets, such as job training programs, union components, wage components, financial mechanisms, and "just transition" provisions, may be more robust in the face of a changing climate and shifting energy markets. That is, legislation that addresses the characteristics and needs of its workforce provides a more comprehensive approach to making high quality jobs accessible for workers while combating climate change. Moving from an extractive economy and exploited workforce, in this view, readily enables a regenerative economy that supports both a low carbon economy and a revitalized workforce.

The response to these looming changes in our energy systems and workforces have not moved across the nation in a uniform wave, but rather have appeared piecemeal, one state at a time. While aggressive action and novel approaches are well underway in the coastal and more populous states, other regions see less progressive action, if any action at all. The differences in legislation and proposed legislation from state to state underscore the need for creativity in approaching viable clean energy and labor transitions.

### A. Integrating a Just Transition

One of the core concepts that combines climate action with sustainable and equitable job creation is the just transition. The notion of justice is central to law and policy, but the very word takes on a new meaning in the context of a transitioning workforce in the face of climate change. There are at least two lenses from which to view the just transition. The first is from the historical environmental justice perspective where we must make sure that as changes are implemented, the benefits are shared by groups that have faced discrimination and disproportionately negative impacts from development. The second definition focuses on the loss of well paying, often union, jobs in oil and gas industries, transportation, or other high carbon-emitting industries. This definition acknowledges the need to assist displaced workers and the opportunity to create equally good jobs in the emerging low-carbon economy.

It is especially important to listen to impacted communities and work with them to intentionally create opportunities for low income, rural, and communities of color. The

Climate Justice Alliance, for example, defines "just transition" as a principled transition from one system to a new one which empowers, redresses past harms, and creates powerful relationships for the future among communities who have historically been marginalized. This organization in particular is dedicated to challenging the economic status quo by organizing communities on the front lines of climate change. As such, their perspective is relevant when pulling apart the terminology and ideology at the center of this evolving conversation. Community benefits agreements are an example of how a broad base of community organizations can come together to form agreements with developers of new construction projects or manufacturing plants. These agreements can benefit local workers, schools, and natural areas that may otherwise be harmed by the development.

The second category of just transition focuses heavily on the jobs being created in the "Green" or low-carbon economy and making sure that they feature family wage jobs, benefits, training, and career ladders. Often new jobs are touted as a goldmine under the Green New Deal and similar state laws as the vision of the new economy. However, are these new jobs providing equivalent replacements for the high paying union jobs in the oil and gas fields? It raises the question of whether workers will support the transition to the new renewable energy and electrification jobs or suffer community disruption and economic disaster, as has been the case with past "job training" initiatives? Is there adequate job training that matches workers' skills with job placement in new industries? Do the new jobs pay family wages and benefits and provide career ladders? Are there policies and incentives to facilitate union representation of these workers to secure these benefits? Unless policies are intentionally put in place, the new jobs are unlikely to pay well or provide opportunities for family wage earners. Many of these considerations are not specifically addressed in new state laws. Therefore, community engagement with rulemaking and implementation will remain key to the success of this transition.

Following here are examples of states that have taken a variety of approaches to addressing climate change and related job growth opportunities. First, we consider actions and proposals in New York, Maryland, and Minnesota, which feature a variety of options and tools that states can utilize to enhance the workforce while also addressing critical climate needs. This win-win relationship can take many shapes, giving legislatures the ability to make prudent decisions based on the best of the available opportunities. Renewable energy jobs, strategic investment instruments, and emissions reductions targets, for example, are all forward looking. That is, each of these components of legislation have their own capacity to promote just transition by creating high quality jobs in a low carbon economy not just for the time being, but well into the future.

### B. State Approaches Across the Country

Next this report considers the various approaches to reconciling historic economic drivers with the challenge of climate change and opportunities for incentivizing a low-carbon future. While some of the Northeast states are developing progressive proposals, other state legislatures, especially those that are heavily dependent on fossil fuels, have not advanced climate legislation, much less proposals that support the just transition and high quality jobs. In early April of 2020, for example, Kentucky, South Dakota, and West Virginia had all moved to pass legislation prohibiting protests of fossil fuel projects. However, other states that are rich in fossil fuels have taken a different approach, including Colorado and New Mexico that have moved forward with renewable energy expansion and transition plans.

#### *i. New York*

In July of 2019, New York adopted a comprehensive approach when the Climate Leadership and Community Protection Act

(CLCPA) was signed into law. As the name indicates, the Act codifies the climate action goals of state leaders such as renewable energy development and greenhouse gas emissions studies, as well as "community protection." Addressing this second pillar of the Act, the legislature took several steps to ensure that good jobs and a prepared workforce remain the focal point of climate progress in New York. For instance, the Climate Action Council will serve as a committee for not only drafting plans for emission reductions across various economic sectors, but also as a platform for a Climate Justice Working Group (CJWG).

The Climate Justice Working Group is tasked with several distinct purposes throughout the CLCPA. Notably, the CJWG will ensure that the just transition targets of the Climate Action Council are met with respect to disadvantaged communities. This includes a provision that sets a target for disadvantaged communities to receive 40% of the benefits from state climate programs. While the exact details of these benefits are unspecified, the working group is directed to make recommendations to state agencies and authorities, who are responsible for consulting the working group regarding their investments. The Climate Justice Working Group is also authorized to conduct studies and make public reports with recommendations to the Climate Action Council. Through these mechanisms, investments and benefits for community workforces can be assessed on different levels. The costs and benefits of accelerating clean energy growth will necessarily be addressed by such provisions, which aim to include historically underrepresented stakeholders in the planning phase of climate action.

Related to its obligations for studying and assessing community benefits and consultation, the Climate Justice Working Group is also responsible for identifying areas for job creation in a low-carbon economy. Just as the broader Climate Action Council will be identifying strategies for carbon and greenhouse gas reduction, the Climate Justice Working Group will enhance the state's understanding of other sectors. "The just transition working group is hereby authorized and directed to conduct a study of and report on: [t]he number of jobs created to counter climate change, which shall include but not be limited to the energy sector, building sector, transportation sector, and working lands sector..." The Act also specifies targets for reducing greenhouse gas emissions to 60% of 1990 levels by 2030 and 15% of 1990 levels by 2050. Additional investments in existing solar programs, coupled with an exploration of community distributed generation may coincide with job growth.

Despite the merits of this groundbreaking act, it is not without its deficiencies. Mentions of workforce preparedness and job training programs are scarce in the CLCP. The most substantial mention of this still leaves the reader with inadequate information regarding expectations for the transitioning workforce:

The just transition working group is hereby authorized and directed to conduct a study of and report on: The number of jobs created to counter climate change...The projection of the inventory of jobs needed and the skills and training required to meet the demand of jobs to counter climate change; and [w]orkforce disruption due to community transitions from a low carbon economy."

While the Act does not leave these details out entirely, it is unclear how the State will address job training. It may be inferred that the onus is on the Climate Justice Working Group and the Climate Action Council to both study the issue and provide recommendations along with the reports on job markets and impacted communities. The State may also set out further guidance in subsequent rulemaking.

A second notable gap in this Act is in the category of labor and union components. While other states have mandated project labor agreements and community benefits agreements this language is nowhere to be found in the CLCPA. However, the bill was drafted as a compromise. In order to attain the immense benefits proposed by the Act –

heralded as some of the most aggressive pollution reduction in the nation – compromise is inevitable when over 180 advocacy organizations and grassroots groups have stake in this situation. Still, the labor components that were left out were significant. Safety nets for displaced fossil fuel workers, fair wage requirements, and apprenticeship language are absent from the enacted law, leaving uncertainty in these areas.

### *ii. Maryland*

In 2019, Maryland adopted the Clean Energy Jobs Act (CEJA), which like the New York CLCPA contains innovative provisions to address climate change. The bill passed through the state's House and Senate into its final form in early April, advancing without the signature of Governor Larry Hogan. The CEJA places a strong focus on renewable energy, increasing Maryland's Renewable Portfolio Standard (RPS) to 50% by 2030, with 14.5% of the RPS to be reserved for the solar sector by 2028. This increase represents the capacity to support approximately 20,000 jobs in the solar industry, and thousands more in onshore and offshore wind opportunities. By taking explicit and direct actions toward high quality job promotion in the low carbon economy, the bill addresses a wide variety of components to promote a skilled workforce in a transitioning economy.

Maryland's CEJA establishes the Strategic Energy Investment Fund and allocates 50% of its funds to small, minority-owned, women-owned, and veteran-owned businesses participating in the clean energy industry. The bill continues to direct other financial incentives toward these historically disadvantaged groups, promoting participation in the clean energy workforce.

The CEJA also amends Maryland's Labor and Employment law to establish the Clean Energy Workforce Account to fund pre-apprenticeship job training programs, and youth apprenticeship programs. The objective of these programs are to use best practices for curriculum to engage and prepare young workers to enter and succeed in apprenticeship programs. Training programs may include pre-vocational support services and educational opportunities to prepare people to enter a registered apprenticeship program following training. These programs will be geared toward renewable energy, energy efficiency, energy storage, resource conservation, and transportation. Clearly stated, "[t]he youth apprenticeship jobs training programs and the registered apprenticeship jobs training programs must prepare workers for careers in the solar and wind sectors of the clean energy industry."

Under these programs, the bill includes a preference (with limited exceptions) for workforce training grantees that use or supply American manufactured goods, and the initiation of project labor agreements. This language seems to allow for project labor agreements under a broad range of training programs, not just construction. In addition, certain listed offshore wind project applications require community benefit agreements to be in place for an application to be approved by the Public Service Commission. While the bill lacks further labor-specific components, a focus on high quality jobs in the renewable sectors remains central to this bill. This is evidenced by the requirements of the community benefit agreements, which prioritize opportunities for small, women and minority owned, local businesses, promotion of training opportunities, and a commitment to adhering to prevailing wages. Ultimately, Maryland's bill takes broad action, balancing various responsibilities to the workforce and climate.

### *iii. Minnesota*

In April of 2019, the Minnesota state legislature introduced the "Minnesota Green New Deal Act," coinciding with the activist trend that activated many concerned citizens nationwide. Taking its foundation from the Intergovernmental Panel on Climate Change (IPCC), the proposed bill begins by setting an urgent goal – achieving zero greenhouse gas

(GHG) emissions by the year 2030. This ambitious target is bolstered by a myriad of strong provisions tied to greenhouse gas emission reductions, and clean energy labor practices to support that goal. As of this writing, these innovative ideas are only aspirational, as the bill has yet to be passed. The language of the bill promotes a future in which Minnesotans have access to high quality jobs by striving to include all Minnesotans in the clean energy economy.

Benefits under this subdivision include but are not limited to:

(1) the creation of high-quality jobs in Minnesota that pay wages that support families;
(2) recognition of the rights of workers to organize and unionize;
(3) ensuring workers have the necessary tools, opportunities, and economic assistance to adapt successfully during the energy transition, particularly in communities that host retiring power plants or that contain historically marginalized and underrepresented populations...

A Climate Change Advisory Committee would be created by the passage of this bill to convene a complex cross section of stakeholders. Notably, the language of the proposed bill recognizes the importance of providing assistance to marginalized and low-income communities. "The commissioner must approve job training programs in occupations that are heavily represented in industries that produce green products and services, and must target the programs to youth, communities of color, indigenous people, individuals with low incomes, workers in fossil fuel industries, and released prisoners."

Should Minnesota's bill be enacted, job training programs will be implemented in industries related to manufacturing, production, installation, repair, and maintenance of green products and services. These products and services cover a wide range of activity including renewable energy production, energy efficiency measures, pollution reduction, natural resource conservation and management, environmental compliance, and more. This is intended to aid working communities by providing a skilled workforce ready for jobs, while paving the way for the rest of the state to make progress in its GHG reductions, transportation modernization, and efficient use of the financial instruments included in the proposed legislation. Minnesota's well-rounded approach takes a holistic view of solutions that encompass both the labor and clean energy components of just transition.

Next, we look at the states where a large segment of the economy is derived from fossil fuels production and/or processing. The top producing states for crude oil as shown by barrels of production per year are: Texas (1,609,075), North Dakota (461,531), New Mexico (248,958),
Oklahoma (200,685), and Colorado (177,817). The top gas producing states based on production in 2019 include Texas, Pennsylvania, West Virginia, New Mexico, Louisiana, and Ohio. Most of these states have not adopted legislation in recent years to reduce carbon emissions and address climate change. For example, West Virginia's energy related legislation provided new tax breaks for coal-fired generation and natural gas storage and transportation. West Virginia also rejected bills to make residential solar power purchase agreements more accessible and provide for a "just transition" bill related to coal and timber jobs. However, as described below, some states are developing new responses to address climate change and seize opportunities from renewable energy development.

### *iv. Colorado*

Colorado is an interesting example because it has a long history of fossil fuel production but is also rich in renewable energy resources. In addition to crude oil production, Colorado holds significant natural gas and coal reserves. Almost 4% of the U.S. total crude oil production takes place in Colorado, which also holds significant crude oil and natural gas

reserves. In 2004, Colorado became the first state with a voter-approved renewable portfolio standard (RPS). The requirements have increased several times over the years. Then in 2019, Governor Polis laid out a bold set of priorities and benchmarks in The Governor's Roadmap to 100% Renewable Energy by 2040 and Bold Climate Action. Elements of this plan include increased vehicle electrification, modernizing and transitioning the public utility infrastructure to support 100% renewable energy sources, and efforts to ensure that the new green jobs are quality jobs that benefit local communities.

Seven new laws were passed in 2019 to begin implementing the Governor's Roadmap. Among them are statutes pertaining to renewable energy and utility clean energy plans, which provides that such plans must address the potential need for workforce transition and community assistance plans. Community assistance plans are funding mechanisms paid for by the Utility to impacted communities to subsidize the loss of property tax and other revenue from the decommissioning of the power generation plant. Workforce transition plans require the utility to assess and publicly disclose the impact on loss of jobs and mitigating factors such as job placement and job training. On its face the law does not guarantee remuneration to workers or set a high bar for the quality of the replacement positions offered to displaced workers.

### *v. New Mexico*

In 2019 New Mexico adopted landmark legislation, the Energy Transition Act (ETA), which sets statewide renewable energy standards and establishes a pathway for a low-carbon energy transition away from coal. This bill also provides an important framework for workforce training and transition assistance to affected communities. It phases out coal plants and carbon-producing sources with a goal of zero-carbon standards for investor-owned utilities by 2045 and rural electric cooperatives by 2050. The Act also is noteworthy because it includes $40 million for new economic development funding and retraining for plant and mine workers in San Juan County. In addition, it explicitly addresses the need to support local schools through ensuring that replacement facilities are located in the same community as decommissioned sites. For example, new power facilities will be sited in the Four Corners area after the San Juan Generating Station closes.

The ETA was supported and developed by a coalition of community groups, labor unions, energy groups, and advocates as well as support by Governor Grisham. The Nature Conservancy engaged legislators and constituents in discussions and policy development around New Mexico's clean energy future. This bipartisan effort to support for the ETA is likely to provide a durable framework because it already has buy-in from diverse stakeholders.

### *vi. North Dakota*

In North Dakota, the focus seems to be on carbon sequestration attempts instead of development of renewable energy infrastructure, economic transition, and a move away from oil and gas. This is not surprising given the state's heavy reliance on the fossil fuel industries. North Dakota's oil and gas economy alone contributed to 1% of the United States' GDP in the first half of the last decade, and production has only grown since then. In 2019, the state was pumping 1,424,625 barrels of oil per day, and over 2.8 billion cubic feet of natural gas daily, setting new all-time high production records. Nonetheless, a small electrical cooperative is vying for a new carbon-capture program for its coal burning plant in a bid to extend the plant's lifetime by another 25 years. On its face, this is not a climate solution nor does it include the same benefits to the workforce demonstrated in the previously mentioned pieces of climate legislation. Furthermore, the U.S. Energy Information Administration forecasts carbon capture's price point at 40% higher than solar installations, and 125% higher than new wind projects.

*vii. Pennsylvania:*

Despite the ubiquitous strength of the fossil fuel industry, external pressures such as the East Coast's Regional Greenhouse Gas Initiative (RGGI) have begun to awaken lawmakers to the necessity of getting on board. This was how Pennsylvania Governor Tom Wolf explained the situation, noting that he would like to see collaboration in the legislature before stepping in line with nine of the state's neighbors who have opted into the RGGI. The RGGI is a market based approach to capping and reducing emissions in the region by implementing a mandatory carbon budget in an effort to drive down emissions. Pennsylvania's House Democratic caucus acknowledged that the chances of any sort of climate change legislation in the coming session is slight. Pennsylvania's Secretary for the Department of Environmental Protection has likened addressing climate change to "turning the aircraft carrier," remarking on the practical and political challenges that accompany turning the state's policies in the right direction. This, however, is an indicator that the state agency is making an attempt to orchestrate efforts to act in response to, or in preparation of, climate change impacts. For the time being, however, Republicans in the state legislature have shown more interest in passing a package of bills known as "Energize PA" which aim to expand natural gas production in the state as its primary reduction of carbon emissions.

## V. FOCUS ON THE WEST COAST STATES

The west-coast states of California, Oregon, and Washington have been innovative collaborators, working both independently and together to address climate change, job growth and economic policies. For example the Pacific Coast Collaborative, which also includes British Columbia, was established in 2008 to "create a job-rich and innovative economy that benefits all residents and leads the world in fighting climate change." In 2018, PCC members renewed their commitment to investing in resilience for local communities and expanding the renewable energy and low carbon infrastructure: "PCC members will identify successful programs and approaches that are leading to enhanced resilience outcomes and specific opportunities for regional collaboration on key issues such as: mobilization of public and private resources to increase community-level climate resilience, integration of climate resilience into jurisdiction-level policies, and infrastructure finance, among others."

West coast mayors in Los Angeles, Portland, Seattle and other cities also have joined with their governors to oppose efforts by the Trump Administration to weaken the Clean Power Plan and to take concerted action despite the President's withdrawal of the United States from the Paris Climate Accord. The following sections focus in on individual state and municipal efforts in California, Oregon, and Washington to integrate climate action with just transitions and high quality job creation.

### A. California

California is an innovative leader in addressing climate change, with direct and indirect impacts on job quality as the economy shifts toward renewable energy and electrification. In addition to legislative and regulatory actions, utilities, unions, business collaborations, and nonprofit organizations are also promoting good jobs and the just transition to a low-carbon economy.

This section first explores some of the major legislative and public programs taking action on climate change, while also promoting good jobs. It describes the state's renewable portfolio standard (RPS) program, followed by a brief introduction of California's cap-and-trade legislation, and important provisions in California's Labor Code. This section will subsequently examine the ballot initiative implemented in the state to redirect funds towards creating green jobs. Lastly, this section will address a longstanding California

law intended to ensure an equitable transition for workers as well as relevant local actions and the emerging California Green New deal proposal.

One of California's most long running climate change solutions is encompassed in its RPS. The state established the RPS program in 2002 with the passage of Senate Bill (SB) 1078. The program required renewable resources to serve 20% of electricity retail sales by 2017. The California RPS program went through two additional changes that increased requirements. In 2015, through SB 350, California mandated a 50% RPS by 2030. A subsequent bill in 2018, SB 100, raised the RPS again to 60% by 2030 and mandated that carbon-free resources generate all of the state's electricity by 2045.

The RPS catalyzed a substantial increase in renewable energy generation capacity in California. Between 2002 and 2015, the state added 11,234 megawatts of new RPS-compliant generation capacity. It's been estimated that the RPS created almost 7,500 blue-collar construction job-years (over 15 million job hours) in the San Joaquin Valley. As explained by researchers at the U.C. Berkeley Labor Center: "A combination of state policies helps to ensure that these new jobs provide quality careers. Most utility-scale renewable energy installations in California have been governed by collectively-bargained project labor agreements (PLAs), which require prevailing wage rates, benefits (e.g., pension and healthcare contributions), and employer contributions for training."

California's cap-and-trade program is also a model for other states looking to drive the green economy and job growth. The program was initially authorized in Assembly Bill (AB) 32, also known as the California Global Warming Solutions Act of 2006, which set a statewide carbon limit for 2020. In 2016, the California State Legislature passed an extension to the program in SB 32, requiring a 40% reduction in statewide greenhouse gas emissions from 1990's emissions levels by 2030. The cap-and-trade program shifts demand for labor as it limits greenhouse gas emissions from major polluters such as utilities, refineries, and other large industrial facilities. The cap-and-trade program enables businesses to choose between trading allowances or buying offsets and reducing their greenhouse gas emissions. The program has caused job losses in some pollutant heavy industries, but also created substantial job growth through labor-intensive investment, resulting in positive net employment from the program.

California's prevailing wage laws have progressed hand-in-hand with climate focused legislation. In 2012, SB 136 amended California Labor Code § 1720.6 to require the prevailing wage law to apply to Power Purchase Agreements (PPA) when the generating resource is built on public property and supplies more than half the power back to the public property owner. This new definition provides that prevailing wage law includes any construction work, even when done under private contract, when the work is "performed in connection with the construction or maintenance of renewable energy generating capacity or energy efficiency improvements."

Californians have also leveraged the ballot initiative process to facilitate a just transition to clean energy. California Proposition 39, also known as the California Clean Energy Jobs Act (CCEJA), provided funding to local education districts for energy efficiency projects and training to reduce the use of fossil fuels. CCEJA and the implementing provisions of SB 73 provided for an annual transfer of $550 million from California's General Fund into a Clean Energy Job Creation Fund for five fiscal years from 2013-2018. The program also aimed to "create good-paying energy efficiency and clean energy jobs in California," as well as support training and employment for youth and veterans. The California Energy Commission reported that the program awarded more than $1.7 billion to schools for planning and installing energy efficiency upgrades and clean energy generation measures.

There are three components of Proposition 39's energy efficiency retrofit and clean energy

program: the K-12 program, the Community College Program, and the California Conservation Corps program. Over 80% of the program's funding went to the K-12 program. According to the Citizen Oversight Board created by SB 73, the entire program is responsible for 19,812 new jobs after a direct investment of $1.481 billion. The board's report discusses the distribution of hours worked in the K-12 program and found that 18% of total hours worked were completed by apprentices. Overall, the program produced positive benefits including creation of meaningful jobs capable of supporting families for construction workers and key training opportunities for apprentices.

California's scheme for decommissioning nuclear facilities is another example of regulations that have preserved well-paying jobs with benefits. California Assembly Bill 4686 was adopted in 1988, and included language relating to the transition of utility operators employed at nuclear facilities following the decommissioning or closure of a power plant. The bill requires each utility closing a nuclear facility to assist "in finding comparable alternative employment opportunities for its employees who become unemployed as the result of decommissioning . . . ."

In 2016, the Diablo Canyon Nuclear Facility, owned by Pacific Gas & Electric (PG&E) closed in compliance with California's RPS. Subsequently, PG&E entered into an agreement with the International Brotherhood of Electrical Workers (IBEW) Local 1245, the Coalition of California Utility employees, Friends of the Earth, Natural Resources Defense Council, Environment California, and the Alliance for Nuclear Responsibility. The agreement permits Diablo Canyon to operate until 2025, but allows PG&E to abandon the relicensing process for the facility. The agreement also contains three different employee programs offered to PG&E's operators at Diablo Canyon. This three-pronged approach included an employee severance program, a retention program, and a retraining and development program to facilitate redeployment of a portion of plant personnel elsewhere within the company.

California administrative agencies have also developed innovative programs to facilitate the shift away from fossil fuels. For example, the California Air Resources Board (CARB) voted in 2018 to mandate that all public transit agencies in the state operate zero emission transit buses by 2040. The agreement was the result of collaboration by a broad coalition of labor, environmental, and economic justice organizations. Transitioning to electric buses opened the door for organizations such as BlueGreen Alliance and Jobs to Move America (JMA) to promote jobs assembling these new buses and create economic opportunities for disadvantaged workers. BlueGreen Alliance and JMA worked with the California Department of General Services to put forward a master contract for manufacturing zero emission buses that incentivized bidders to provide high-quality, good paying jobs. All electric buses purchased under the contract need to meet all specifications of the master contract including labor standards.

CARB has supported this mandate and funds projects to assist with the transition. Accelerating interest in electric buses has driven expansion of domestic electric bus manufacturing, which was previously dominated by China, Sweden, and the Netherlands. For example, CARB awarded funding to the San Joaquin Valley Air Pollution Control District for the deployment of fifteen all-electric Proterra buses, as well as eleven Proterra depot chargers and four Proterra fast chargers. Proterra is a major manufacturer of electric buses proudly focused on fostering American innovation, labor, and compliance with the Buy American Act. The 1983 Buy American Act is a provision of the U.S. Surface Transportation Assistance Act requiring the government (subject to various exceptions) to purchase products "manufactured in the United States substantially all from articles, materials, or supplies mined, produced, or manufactured in the United States . . . . "

Proterra recently built a new manufacturing plant in southern California to meet the growing demand for its buses. Notably, Proterra did not resist the successful organizing campaign by United Steelworkers Local 675 to unionize the new plant's workforce. This union affiliation safeguards a well-trained workforce with high quality jobs. While the California plant is just one of Proterra's sites, it highlights the need to combine workers' interests with environmental concerns. Commenting on the successful union campaign, Proterra Executive Director Ryan Popple (formerly with Tesla Motors) stated, "If you can have environmental advocacy groups and labor advocacy groups aligned, I think you end up getting more done from a policy perspective."

The Los Angeles Department of Water and Power (LADWP), the largest municipal utility in the United States, took decisive action to incorporate high quality jobs as it transitions to an energy grid without fossil fuels. Two examples of local efforts to incorporate equitable labor standards are the LADWP's Utility Pre-Craft Trainee (UPCT) program and the LADWP Eland Solar Facility PPA.

The UPCT program is a collaboration between LADWP and the IBEW Local 18 with significant engagement by the community organization, RePower LA. The program has provided high quality jobs and career paths in an area of Los Angeles that was plagued by low-wage jobs and dirty energy generation. The UPCT functions as a pre-apprentice training program, paying trainees as they learn. Applicants accepted into the program work full-time servicing low-income residential customers by installing the equipment required to implement LADWP's weatherization policy. The pre-apprenticeship gives participants on-the-job training, classroom experience, and guaranteed full health benefits. Trainees receive online preparations for the civil service exams as well as work experience in a variety of roles with the utility. Upon completion of the UPCT program, trainees are hired into apprentice-level civil service positions. The UPCT program enables the trainee to pursue a career with sufficient benefits to provide for a family. Researchers analyzing the UPCT program found that 68.3% of trainees come from zip codes severely below the federal poverty line. Additionally, the trainees are a racially and ethnically diverse group, and over a third of trainees have children under the age of eighteen.

Solar panel installations have seen huge economic growth but concerns remain about whether the jobs created by such projects pay family wages, provide benefits and offer career advancement opportunities. On November 6, 2019, the LADWP Board of Commissioners received the final approval from the Los Angeles City Council to move forward with what will be the largest solar and energy storage project in the United States. The Eland Solar and Storage Center will provide power to both LADWP and Glendale Water and Power. This collaboration with 8minute Solar Energy will result in a 25-year long PPA, with 8minute Solar Energy building and owning the facility. The vote from LADWP Board of Commissioners only moved forward after 8minute Solar Energy finalized and signed a project labor agreement (PLA) with IBEW Local 428 in Kern County, California. Previous attempts to move for a vote failed to adequately address LADWP's concerns surrounding the lack of quality labor positions. The PLA ensures construction of the project will provide well-paid green jobs to Southern California, specifically the creation of 700 jobs over a fourteen-month period and the employment of forty long-term operations and maintenance staff after completion.

Joint Venture Silicon Valley's climate prosperity program is another example of a successful collaboration between the public and private sectors to create high-quality clean energy jobs. This program connects local governments, businesses, and institutions to implement climate solutions. It specifically recognizes the key role of the workforce in the transition. The resulting "greenprint" for Silicon Valley identifies opportunities for local businesses to grow and develop products and services that reduce dependence on fossil fuels. The climate prosperity program aims to

work from the conclusion of the Rockefeller Brothers Fund and Global Urban Development. They concluded in 2007 that, "the time has come to demonstrate that environment and the economy are not the antagonists they once seemed; that taking action against the threat of global warming at the community level not only reduces the economic costs of adaptation, but can actually stimulate economic growth."

In 2020, California continues to propose legislation to benefit workers in the transition to a green economy. The California State Legislature recently introduced AB 1839, an attempt by several assembly members to implement California's version of the Green New Deal. While early readings of the bill contain few details about how it would be implemented, it does contain language aimed at labor. Section 71442(b) reads, "[e]nsuring that the jobs created or maintained by climate policy are good, family-supporting jobs, safe and free from abuse, and that they provide career ladders, benefits, and protections for workers' rights to organize . . . ." The inclusion of this language suggests the bill's authors have an eye towards best labor practices in their attempts to address climate change.

### B. Oregon

Oregon has a long legacy of citizen engagement to bring about innovative public interest conservation policies. Notable achievements include the nation's first bottle bill, protection of public beach access, and a comprehensive land use planning system. More recently, business and policy makers have turned toward investments in clean energy programs as a response to the threat of carbon emissions and climate change. The 2016 Clean Energy and Coal Transition Act marked a significant step toward transitioning Oregon's major utilities to clean energy. Currently more than 55,000 Oregonians work in clean energy sector jobs including renewable energy, energy efficiency, and clean vehicles. Over 11,000 of these jobs are in rural areas, with the added potential benefit of stabilizing those economies, which have been impacted by the loss of timber, mining, and ranching jobs. Nonetheless, as discussed below, attempts to adopt a comprehensive carbon trading program to reduce overall emissions in Oregon have been stymied by opponents of these initiatives.

Oregon has been studying the problem of global warming since 2003, with the creation of the West Coast Global Warming Initiative. The following year, Governor Kulongoski established the Global Warming Advisory Group to develop recommendations for how Oregon can reduce its greenhouse gas emissions. Then in 2007 the Western Climate Initiative formed to address regional, multi-state solutions to climate change. Also in 2007, HB 3543 passed, creating Oregon-specific greenhouse gas reduction goals and creating the Global Warming Commission and the Oregon Climate Change Research Institute. An important milestone was in 2016, when the Oregon legislature passed the Clean Electricity and Coal Transition Act (Clean Electricity Act). The Clean Electricity Act doubled the State's commitment to clean energy to 50% new, renewable energy by 2040. This law is intended to reduce dependence on coal-fired power and stimulate investments in wind, solar, hydropower and other renewable energy sources. This law is also expected to drive job growth in these industries, particularly in rural Oregon, where wind and solar projects are most promising. The bill most directly impacts operations of the electrical companies Portland General Electric and Pacific Power by increasing the mandatory renewable energy portfolios, and protecting customers from excessive rate increases.

From 2017 through 2020, a wide coalition of legislators, climate activists, and labor organizations came together and supported the Clean Energy Jobs Bill (HB2020), which was designed to create a comprehensive cap and invest carbon pricing program. The bill set limits for major polluters, limiting their individual emissions to 25,000 metric tons or more of greenhouse gases per year to begin with, then declining emissions over subsequent years as new technologies and processes enabled further reductions. Major carbon emitters would pay for every ton of carbon

pollution released and the bill provided flexibility and incentives to cut emissions. These fees would then be used to invest in renewable energy projects such as solar installations, transportation projects, and job training programs. Nearly 60 organizations including farmworkers, environmental organizations, scientists and ecumenical groups signed on to support the bill.

Analysis of the HB2020 by the Berkeley Economic Advising and Research group found that:

Oregon can meet its 2050 climate goals in ways that achieve higher aggregate economic growth and employment. More aggressive GHG mitigation pathways, reducing 2035 emissions 45% below 1990 levels, will confer greater benefits on the state economy, adding about 1% to GDP and about 17,000 new jobs. Sustaining these reductions to 80% below 1990 by 2050 would increase GDP over 2.5% and add about 50,000 new jobs.

Oftentimes state or federal environmental policies do not adequately address economic sustainability of new laws and the impacts on workers are only considered as remediation or an after-thought. HB2020 was unique because the interests of workers and labor unions were brought into the process early in development of the proposal. Public and private sector labor unions supported the bill, including the Oregon Building Trades Council, Oregon Nurses Association, AFSCME (American Federation of State, County, and Municipal Employees), SEIU (Service Employees International Union), and PCUN (The Oregon Farmworkers Union). Amendments to this bill added labor-friendly provisions such as:

- Payment of prevailing wages and healthcare benefits
- Required project labor agreements on construction projects valued at more than $200,000
- Participation in state registered apprenticeship programs
- Required bidders to demonstrate a history of material compliance with other labor and safety rules and requirements
- And establishment of enforceable goals for training and hiring members of impacted communities.

The bill's authors prioritized transportation projects that "promote low carbon economic development opportunities and the creation of jobs that sustain living wages." Similarly, the bill directed that investments from the Climate Investments Fund promote creation of jobs that sustain living wages. And construction projects over $50,000 under the Climate Investments Fund must pay prevailing wages for the location of the project and provide benefits, retirement, and apprenticeship opportunities. In order to promote best practices by construction contractors, the bill includes requirements for compliance with existing wage and hour laws and safety and health laws.

The bill was popular with a wide coalition of democratic legislators (who held a super-majority), environmental organizations, and labor advocates. Despite the worker-friendly provisions, the bill was subject to substantial opposition by local and national industries with high levels of emissions, rural Republican legislators, and the trucking industry. In addition to opposition from Republican lawmakers and certain industries, opposition to the cap and invest program came from some local and national environmental justice organizations. OPAL Environmental Justice Oregon was one of the signers to a letter to Oregon's Democratic Party leaders, which noted that "100% renewable portfolio standards or renewable energy mandates, investments in public transit, equitable transportation electrification, and direct regulation are proven and effective ways of reducing greenhouse gas emissions."

Republican senators left the state for the purpose of denying a quorum to vote on this bill. As a result, HB2020 expired at the end of the 2019 legislative session without action.

A similar proposal, Senate Bill 1530 was proposed during Oregon's 2020 session. The new bill incorporated provisions that would add protections for rural communities such as a job training fund and phased in protections from fuel emission cost increases for farmers

and some motorists. Initially, there were signs of broader support from agricultural groups including the Oregon Climate and Agriculture Network, which is a coalition of small farmers. On the other hand, a major timber industry group vigorously opposed the plan and demonstrated at the Capitol. Ultimately, this bill, like its predecessor HB2020, failed when Republic law makers again fled the state to prevent a quorum.

In response to the repeated Republican walk outs, Governor Brown issued Executive Order No. 20-04 on March 10, 2020. This order created what is commonly known as the Oregon Climate Action Plan and is a major step forward on a comprehensive statewide plan to address climate change. While its stated narrow purpose is to direct state agencies to take actions to reduce and regulate greenhouse gas emissions, the impact is considerably broader. It addresses transportation, energy production, equity, land use and food production and distribution. Unfortunately, some of the specific strong labor provisions found in the legislative proposals are absent from this order. However, the Governor's order does direct state agencies to "prioritize actions that will help vulnerable populations and impacted communities to adapt to climate change." Additionally, it creates a multi-agency workgroup to address impacts on local communities.

Despite the challenges at the state-wide level, the city of Portland, Oregon took decisive action in 2017 through adoption of an updated Climate Action Plan (Portland Plan). The new Portland Plan amended the City Code and set the goal of meeting 100 percent of community-wide electricity needs with clean renewable energy by 2035. It also affirmed the commitment to a just transition through creation of the Portland Clean Energy fund (PCEF) to promote equity and justice in the transition.

The specific charge of the PCEF is to ensure "that the City of Portland's Climate Action Plan is implemented in a manner that supports social, economic and environmental benefits for all Portlanders, including the development of a diverse and well-trained workforce and contractor pool in the field of clean energy." The PCEF provides for grants to nonprofit organizations to promote equity and assist underserved communities. The program is funded through a one-percent clean energy surcharge on the retail sales in Portland of large corporations with gross annual sales exceeding $1 billion nationally and $500,000 within Portland. PCEF project guidelines currently are in development by the PCEF board and informed by public hearings and working groups. Proposals include progressive guaranteed pay levels, workforce/contractor equity agreements, and other measures with at least 20% of the funding targeted toward apprenticeship programs and green job development.

The next opportunity for Oregon to adopt a state-wide climate policy will be at the ballot box in November 2020. Two initiatives have been approved for voters that propose phasing out carbon-based electrical sources. Initiatives 48 and 49 would require Oregon to produce all of its electricity using renewable energy and carbon-free sources by Jan. 1, 2045. The initiative proposals were initially rejected by the Secretary of State, as violating the single subject rule because the text included provisions to ensure high quality jobs and labor standards, as well as the carbon reduction provisions. A lawsuit filed by climate activists challenged this decision, however, both of the initiatives were upheld by an Oregon Court as compliant with the single-subject rule.

Future efforts to build coalitions between environmental advocates and labor organizations may develop as the opportunities develop to push policy agendas that are win-win with benefits to both environmental and economic sustainability. For example, Oregon's labor federation, the Oregon AFL-CIO, opposed the Secretary of State's single-subject ruling because it is in the interest of working Oregonians and communities to include labor protections in relevant laws. Oregon communities are increasingly forced to address challenges from climate change including increased wildfires, limited water resources, and mandated shifts to renewable energy development. Developing win-win solutions that create good jobs, sustainable

communities, and achieve carbon-reduction goals will depend on the ability to find common interests and build new coalitions. Groups that bring together disparate groups to build trust, such as the BlueGreen alliance, the Oregon Climate and Agriculture Network, and Renew Oregon are helping to pave the way.

### C. Washington

On May 7, 2019 Washington Governor Inslee signed into law Senate Bill 5116, more commonly referred to as the Clean Energy Transformation Act (CETA). This act calls for a transition of the state's electricity supply to one hundred percent carbon-neutral by 2030, and one hundred percent carbon-free by 2045. The goal of achieving a carbon-free electricity supply goes one step further than achieving carbon-neutrality. Carbon-neutrality requires the net carbon emissions in the state to equal zero. This approach allows for continued use of carbon emitting sources such as natural gas, so long as an equivalent amount of carbon dioxide is captured from the atmosphere through methods such as carbon sequestration. Carbon-free, on the other hand, requires gross carbon emissions to equal zero, removing fossil fuels as a potential source for electricity altogether.

The aims of this act go beyond shifting away from fossil fuels, calling for Washington to "[lead] the transition to a clean energy economy" that prioritizes the "maximization of family wage job creation." To advance these priorities, CETA creates a novel system of incentives where renewable energy producers receive higher financial benefits when they incorporate more substantial and durable provisions for high-quality jobs. The authors of CETA acknowledge that this will require more than just changing the sources of the state's electricity. The authors also acknowledge the interconnectedness between growth in the clean energy sector and growth in the jobs sector; notably, that clean energy creates more jobs per unit of energy than energy produced from fossil fuels sources.

CETA's tiered model provides a tax remittance for projects beginning on or after January 1, 2020 through December 31, 2029. To be eligible for these tax exemptions, projects must generate at least one thousand watts of electricity through "fuel cells, wind, sun, biomass energy, tidal or wave energy, geothermal resources, or technology that converts otherwise lost energy from exhaust, as the principal source of power. . . ." The tax exemptions in CETA cover a portion of sales tax paid by purchasers for the installation of qualifying machinery and equipment for the development of generating facilities, but not the operation or maintenance of the facilities. Thus, the high-quality labor standards discussed below only pertain to the development stage of energy projects, not the lifetime of the project, with some exceptions for solar generation.

CETA's tiered approach to the tax exemptions provides higher valued exemptions for projects incorporating more, or more preferred, high-quality labor standards. In the first tier, developers may receive a fifty-percent remittance for qualifying projects and purchases if the Department of Labor and Industries (L&I) certifies that "the project includes procurement from and contracts with women, minority, or veteran owned businesses" and also includes "procurement from and contracts with entities that had a history of complying with federal and state wage and hour laws and regulations" as well as "apprenticeship utilization, and preferred entry for workers living in the area where the project is being constructed." Additionally, if the purchase is for machinery and equipment that is "used directly in the generation of electricity by a solar energy system" that is capable of generating between one hundred and five hundred kilowatts AC of electricity, then it may still qualify for some exemptions.

The first tier also provides that L&I may still certify a project built without one or more of the above standards where a good faith effort is made to meet the standards. This alternative pathway acknowledges a challenge to the development of high-quality labor

standards in this particular area of the economy. This "good-faith" pathway is indicative of the fact that many energy projects are developed in rural areas where access to a trained and diverse workforce may be more limited. Having a limited pool of qualified workers may make it difficult and cost prohibitive for project developers to access a local workforce with the necessary qualifications required under CETA.

CETA's second tier provides a seventy-five-percent remittance for qualifying projects and purchases if L&I certifies that the project complies with tier one and also "compensates workers at prevailing wage rates determined by local collective bargaining. In Washington, the prevailing wage is "the wage and benefit adjustments established in collective bargaining agreements for those trades or occupations where the most recently established prevailing wage rates were derived from a collective bargaining."

CETA's third tier provides that developers may receive a one-hundred-percent remittance for qualifying projects and purchases if L&I certifies that the project is "developed under a community workforce agreement or project labor agreement." Notably, while the second tier is additive, meaning the requirements of the first tier are incorporated into the second tier, the third tier is not additive. Prevailing wages, apprenticeships, and responsible bidder criteria are all examples of important but standard labor provisions. The project labor agreement (PLA) and community workforce agreement (CWA) language in tier three add a critical and unique component to CETA because these types of agreements allow participants to craft labor standards specifically to conditions unique to that project and location. The major trade groups involved in a project negotiate together with the contractor on wages, benefits, skilled labor, etc. and they often have a local hire or local training component. These agreements also allow the opportunity to bring in new ideas outside of the bargaining table and recognize potential unexplored benefits.

CETA passed nearly along party lines in both the Washington House and Senate, with only one democrat voting against the bill in the House. This final vote is consistent with the legislative history of the bill. Nearly all proposed amendments to the bill offered by republicans after its introduction into the Senate in January of 2019 were denied, while all amendments offered by democrats were approved. The first proposed Republican amendment in the Senate called for a removal of the tiered remittance rates for using various labor standards on clean energy projects. However, the majority of the disagreements surrounding this bill appear to center on the green-energy component of the bill, rather than the high-quality labor standards. The partisan nature of the bill raises the question of whether the inclusion of high-quality labor standards, along with support from labor groups, can garner bipartisan support for green-energy legislation.

The legislative history of CETA and earlier attempts to pass similar legislation in Washington reveal the benefits of including the labor voice early on in the formation of such policies. While there are large factions in the broader labor movement that have been interested in environmental issues, building trades and environmental organizations have frequently been on opposite sides of conservation and green energy proposals. This lack of cooperation creates obvious difficulties when trying to pass any legislation, especially green-energy legislation which implicates both sides so heavily.

One early effort to get green energy legislation which incorporated high-quality labor standards was Ballot Initiative 732 in 2016. This initiative was predominantly supported by environmental groups, such as the Audubon Society, but it was rejected 59.3% to 40.7%. In 2018, Ballot Initiative 1631, drafted by a broad coalition of labor, faith, social justice, health, tribal, and environmental justice groups, made it on the Washington ballot. This initiative again incorporated environmental and labor goals; however, the initiative did not garner the support necessary to pass.

CETA was a notable success in terms of combining environmental and labor objectives in a single bill. Neil Hartman, Political Director at Washington State Building Trades, has been a long-time proponent of building a coalition between labor and environmental interests, and was crucial to the development of CETA. The Building Trades put forward the tiered tax incentive idea, along with the specific requirements in each tier. There was also a long-term effort on the part of Washington Building Trades to bring environmental groups and labor groups together to support CETA. This process required identifying and understanding the goals that each group had and recognizing the mutual benefit that each group would gain through a shared support of CETA.

From the perspective of Neil Hartman, the success of CETA reminds us that it is possible to hit a triple bottom line. To achieve that goal, it's important to make sure that economic growth, clean development, and jobs all come together. While the passing of the Bill is important, what is equally important is successful implementation of the strategy set forth in CETA, which requires continuing conversation among different constituents. The conversation has continued through the rulemaking phase, which reflects the efforts of various state agencies to coordinate and support their responsibilities in implementing CETA. Phase one rulemaking is from July 2019 to December 2020. This phase of planning largely focused on issues such as developing guidelines for data collection, Energy Independence Act rulemaking, establishing a value for the social cost of greenhouse gas emissions, and reporting and demonstration of compliance. Phase two of the rulemaking process takes place from January 2021 to June 2022 and will focus on cumulative impact analysis rulemaking and carbon and electricity markets rulemaking. At the same time, groups such as the Climate Alliance for Clean Energy Jobs are seizing opportunities to develop and support high-quality jobs and community needs as part of the emerging low-carbon economy. Additionally, the Washington chapter of the BlueGreen Alliance is looking for more labor-environment mutual victories with its 2020 legislative priorities.

## VI. CONCLUSION AND AREAS FOR FURTHER INVESTIGATION

State and local governments are responding to economic and scientific evidence as well as public demands to address the impacts of climate change. Policy makers are called on to develop win-win solutions that promote the triple bottom line (environmental, economic, and community sustainability). More attention than ever is being paid to the just transition and creating high quality jobs with family-supporting wages, benefits, and career ladders in concert with renewable energy shifts and "green" or low-carbon economies.

Some additional areas for investigation that were outside the scope of this report include:

- The future of local hire and local buy preferences in light of decisions by the World Trade Organization that manufacturing preferences and tax incentives benefitting domestic production are unfair trade practices.

- Best practices and options for addressing racial and economic inequity in the just transition to a low-carbon economy. This issue is touched on in the present report, but its significance and the dynamic changes in this arena warrant a more thorough discussion.

- Creation of a database, GIS overlay, or other open-source means to track the many new and emerging climate action legislative proposals, adopted bills, action plans, and their provisions that beneficially impact workers.

- More economic analysis is needed to quantify the high-road jobs being created in the renewable energy, green construction and manufacturing, and

transportation sectors. State-level data showing which sectors show promise and what wages and benefits are being offered is important to demonstrate growth of good jobs as the economy shifts toward a low-carbon future.