



JUST AND EQUITABLE TRANSITION STATE POLICY FRAMEWORK

 UNITED STATES
CLIMATE ALLIANCE



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ABOUT THIS DOCUMENT

The United States Climate Alliance (USCA) commissioned BlueGreen Alliance to produce the Just and Equitable Transition State Policy Framework and its accompanying Resource Guide. These documents were prepared with guidance and significant contributions from the USCA Just Transition & Equity Working Group, which includes staff from various state government agencies and offices. Not all states in the Alliance participated in this process. These documents are not meant to represent a policy plan for the Alliance or any Alliance states, but are designed to serve as reference for states as they contemplate policies to support workers and communities through energy transitions.

ACKNOWLEDGEMENTS

We are grateful to the organizations who shared their expertise to this work, including USCA Just Transition & Equity Working Group members and multiple staff from state government agencies and offices across the nation.

We also acknowledge and thank the entire BlueGreen Alliance team and many BlueGreen Alliance coalition partners who researched, documented, and compiled the extensive list of policies, best practices, and examples in these documents.

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The BlueGreen Alliance unites labor unions and environmental organizations to solve today's environmental challenges in ways that create and maintain quality jobs and build a clean, thriving, and equitable economy.

We are guided by the principle that we can no longer choose between good jobs and a clean environment—that the actions we take to create quality jobs and to protect working people and the environment must go hand-in-hand, and that together, we will build clean, thriving and fair economy.

Our efforts center on the immediate need to develop commonsense solutions that protect the environment and create and maintain quality, family-sustaining jobs across the economy. Our staff and supporters:

- design public policies, perform research, and run public education and advocacy campaigns to advocate for practical solutions;
- facilitate dialogue between environmentalists, union members and other stakeholders;
- and educate America's labor union members and environmentalists about the economic and environmental impacts of climate change and the job-creating opportunities of environmental protections.

UNITED STATES CLIMATE ALLIANCE

The United States Climate Alliance is a bipartisan coalition of governors committed to reducing greenhouse gas emissions consistent with the goals of the Paris Agreement. Smart, coordinated state action can ensure that the United States continues to contribute to the global effort to address climate change. Each member state commits to:

- Reducing collective net GHG emissions at least 26-28 percent by 2025 and 50-52 percent by 2030, both below 2005 levels, and collectively achieving overall net-zero GHG emissions as soon as practicable, and no later than 2050.
- Accelerating new and existing policies to reduce GHG pollution, building resilience to the impacts of climate change, and promoting clean energy deployment at the state and federal level.
- Centering equity, environmental justice, and a just economic transition in their efforts to achieve their climate goals and create high-quality jobs.
- Tracking and reporting progress to the global community in appropriate settings, including when the world convenes to take stock of the Paris Agreement.

JUST AND EQUITABLE TRANSITION STATE POLICY FRAMEWORK

The United States is rapidly experiencing an energy transition. The energy transition stands to significantly change how we think about and use energy, modify long-established roles and systems, and impact workers and economies. For these changes to materialize in ways that are beneficial to all, they must be managed and well-planned.

To meet our national climate goals, the United States will need to shift away from burning fossil fuels and develop massive amounts of clean energy sources. The massive investment in clean energy required to do this creates tremendous opportunities. If states design their policies and investments correctly, the manufacturing, installation, maintenance, and retrofits driven by the transition are likely to create a significant number of new, clean, family-sustaining union jobs. As these opportunities are realized, it's equally important that states do not leave behind workers and communities that have powered our nation for generations.

To improve equity, policy should make sure the jobs of the future are family-sustaining, attainable for people who have been historically excluded, and are aligned with plans to create resilient communities. Policy that contemplates ways energy transition benefits can be felt across multiple industry sectors will impact the greatest number of people and communities. Additionally, finding opportunities so that the benefits of transition are realized by people most in need is necessary to ensure communities across the country remain—or become—economically vibrant places to live and work.

We must also recognize that energy and fossil fuel production are primary drivers of many local economies. These industries are often some of a few that offer family-sustaining wages and benefits, especially in many rural areas. Single-industry dependence is common across regions, with implications that reach deep into surrounding communities—including across state lines. The federal government also plays key roles in fully realizing the opportunity. State policy is not a substitute for federal policy—ideally, they are complementary. Well-designed state efforts, in step with federal efforts, can support energy workers and fossil-dependent communities as we transition to a cleaner, safer, and healthier economy.

Economic transitions are not new to the United States. The country has a long record of transition from which our present day economy and communities have evolved. This framework highlights a snapshot-in-time of some of the latest thinking from states on transition best practices and recommends policies and strategies for states to improve local transition outcomes. This reflects what we know today but also anticipates that best practices will evolve as investments in clean energy, economic diversification, and economic development activities are implemented and tested in transitioning areas.

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HOW TO USE THIS DOCUMENT

This toolkit should support states that want to build just and equitable transition policy by providing a variety of examples, ideas, and best practices to reference. As such, the toolkit and resource guide are not meant to be read through like a report, but rather used as a reference to inform state policy development. How you interact with this document may differ from state to state or person to person depending on the intended policy goals.

This toolkit and the accompanying resource guide is presented with the following goals:

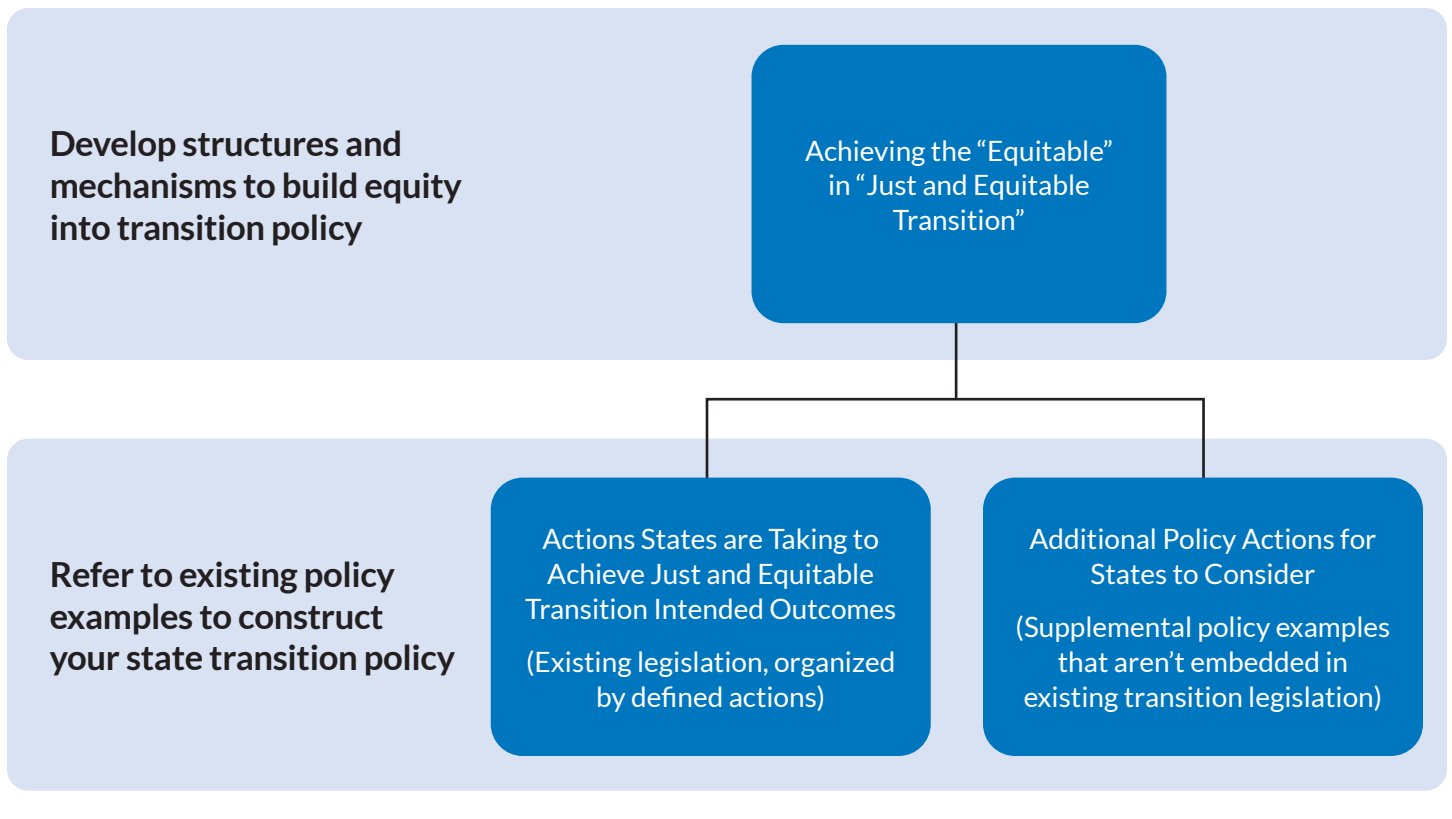
- Guide the development of state policies to advance energy transitions that expand economic growth, create high-quality jobs, support impacted workers and communities, and protect the environment in both rural and urban communities.
- Provide model pathways for state policymakers to improve equity, justice, and opportunity for workers and their families.
- Highlight methods states can employ to enable and elevate stakeholder engagement.
- Forward tools, ideas, and best practices for states to develop systems that support workers and communities through energy transitions, both immediate, and long-term.

We envision states using this toolkit in a variety of ways. The structure of the toolkit assumes that states may refer to individual sections of this toolkit to meet their needs. However, we imagine many users desire step-by-step directions. We recommend:

- **Step 1:** We assume that all states will work to ground their Just and Equitable Transition policy work in practices and systems that build and rely upon equitable principles. States should ensure that all aspects of policy and state systems are intentionally inclusive. Begin by referencing example strategies in the section titled, *Achieving the “Equitable” in “Just and Equitable Transition.”*

- **Step 2:** Next, we assume states will desire to refer to legislative initiatives that have passed and are in process. The section titled, *Legislative Actions States are Taking to Achieve Just and Equitable Transition Intended Outcomes* breaks down existing policies into actions, allowing policymakers to fully understand various important aspects of existing state policy.
- **Step 3:** Recognizing that states have distinct differences, and that policy addressing the energy transition is both new and complex, we include an additional section for states to reference, titled *Additional Strategies for States to Consider*. This section includes several strategies and best practices that have been referenced by transition experts in various ways as possible ingredients to Just and Equitable Transition. By no means is this section comprehensive; however, each of the curated lists of strategies has been cited multiple times in transition studies and research. These strategies are organized by the intended Just and Equitable Transition principle outcome they work toward achieving.
- **Step 4:** Last, we include two additional sections, *Multistate Strategies*, and *Federal Support for State & Local Strategies*. These sections provide additional example policy approaches and opportunities available at the federal level that states may wish to refer to and think about. Again, these examples are not intended to be comprehensive, but are tightly curated policy ingredients that have been previously cited in studies and research on Just and Equitable Transition.

The below diagram visualizes the structure of this document:



Additional policy considerations

Multi-State Strategies

Federal Support for State & Local Strategies

The toolkit, developed in partnership with the BlueGreen Alliance, is structured around four guiding principles (and desired outcomes) of Just and Equitable Transition, originated by the US Climate Alliance (USCA) Just Transition and Equity Working Group.

- Principle One: Transition to a clean energy future and regenerative economy
- Principle Two: Enable and elevate worker and community voices through stakeholder engagement and collaborative planning processes
- Principle Three: Ensure an equitable, inclusive, and sustainable workforce, including access to high-quality jobs and support for impacted workers
- Principle Four: Achieve community health, longevity and resilience

About the Accompanying Resource Guide:

The toolkit offers myriad examples and strategies for building just transition legislation. The accompanying resource guide features frequently asked just transition questions; a shorter, more curated list of policy examples; case studies from just transition communities; and a source list of everything mentioned in the toolkit footnotes. If you want to dive deeper into a topic or have unanswered questions, visit the resource guide to find reports, academic papers, and other informational sources that compliment the examples listed in the toolkit.

JUST TRANSITION BACKGROUND

The following toolkit builds upon work by the United States Climate Alliance and incorporates policy recommendations from the BlueGreen Alliance's National Energy Transition framework¹ and the Just Transition Fund's National Economic Transition platform.² Policy recommendations within this document are informed by efforts of the Appalachian Regional Commission (ARC),³ and work by other states working through how to achieve Just and Equitable Transition.

Ultimately, an equitable and just energy transition can benefit workers and improve communities through creation of new jobs, opening new markets, improving public health, and mitigating climate change. In regions that depend upon the tax base, jobs, and primary revenues of fossil fuels, the energy transition may impact nearly every aspect of society—not just jobs and revenues. The nationwide energy transition will require new thinking and innovation in a wide range of areas, including the development of new technology, economic diversification, expanding entrepreneurship, addressing environmental justice, and improving historically inequitable practices. The national energy transition is expected to be complex and wide-ranging, and will require careful policy to address the needs of government, industries, communities, and individuals. This toolkit's purpose is to help state governments identify opportunities to enact meaningful, directed policy to maximize benefits and minimize pitfalls of transition.

Can the Energy Transition be Addressed by Private Industry Alone?

Certainly, companies who have historically benefited from production and use of energy have critical responsibility in energy transitions. However, because the market and policy forces causing change within energy industries are often highly complex, history shows that no single entity (private industry, labor unions, local governments, or philanthropic organizations, etc.) is equipped to fully identify and address the economic, social, and environmental issues that materialize during transition. Therefore, cooperative transition-management efforts between industry, government, residents, labor, environmental activists, fenceline or overburdened communities, and other impacted parties are needed to achieve the best outcomes.

Why are States Important to Transition?

Transition effects and benefits are rarely confined to towns or cities, but instead can extend across regions and state boundaries. State policies and resources can operate across jurisdictions, provide assistance where it's needed, fill in resource gaps between local agencies, and help capacity-constrained local governments. States can also facilitate access to outside resources from the federal government or philanthropic organizations. States also stand to be beneficiaries of well-planned transition through economic growth and improved regional resiliency.

DEFINITIONS

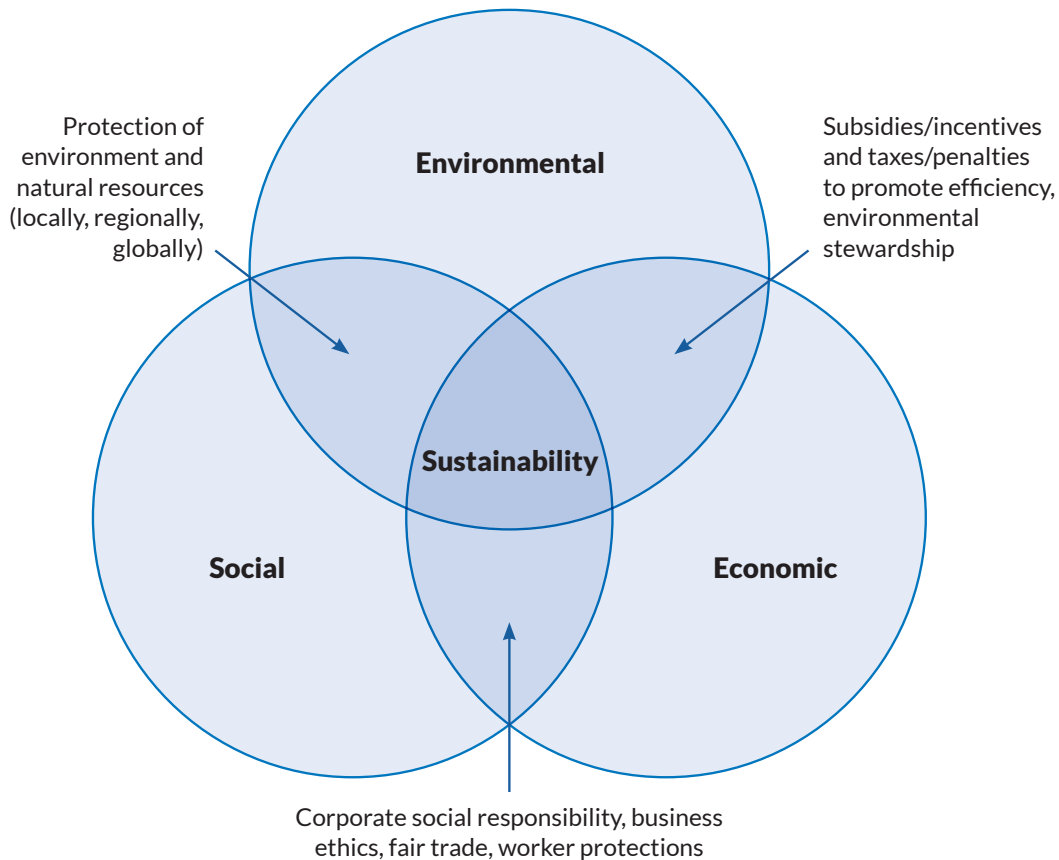
For the purposes of this framework, we provide the following definitions of key terminology. We recognize that many terms used here may have additional meaning to various state agencies, local agencies, policymakers, and practitioners. The following definitions apply to this framework:

- **Disadvantaged Communities:** Defined by the state of California as “the areas throughout California [or your respective state] which most suffer from a combination of economic, health, and environmental burdens. These burdens include poverty, high unemployment, air and water pollution, presence of hazardous wastes as well as high incidence of asthma and heart disease.”⁴
- **Environmental Justice:** Defined by the U.S. Environmental Protection Agency (EPA) as “the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.”⁵
- **Environmental Quality:** Safe air, land, and water conditions. A high level of environmental quality either improves the health of people, or does not present any negative health consequences to people. An environment free of hazards, such as secondhand smoke, carbon monoxide, allergens, lead, and toxic chemicals are examples of high environmental quality. Sites with low environmental quality cause disease and other health problems due to pollution or similar hazardous conditions.
- **Equity:** The absence of avoidable or remediable differences among groups of people, whether those groups are defined socially, economically, demographically, or geographically.
- **Fenceline Communities (or Overburdened Communities):** Those living in closest proximity to polluting industrial facilities who are disproportionately at risk of acute harm from an accident as well as are affected by chronic health problems from exposures to toxins, economic vulnerability due to low home values and other obstacles, and psychological impacts of living in constant danger. Due to systemic inequities, they are generally communities of color and low-income folk whose neighborhoods often lack basic infrastructure to support them and who will be increasingly vulnerable as our climate deteriorates.
- **Good Jobs/Family-Supporting Jobs:** Those that pay at least the local median annual earnings for full-time workers and provide employer-sponsored benefits.⁶
- **Initial Risk Capital Funds:** Funds that invest in things that are beyond accepted margins of risk of conventional lenders. Transition communities are inherently riskier for banks to lend in, thereby making it harder for businesses and organizations to get access to loans. Initial risk capital can lessen that risk, allowing other financial institutions and investors to be more able to lend money.
- **Robust Labor Standards:** Policies or rulemaking that utilize “best value employment” metrics and have positive impacts on the long-term economic viability of communities. Using the definition of “best value employment metrics” from Colorado Revised Statutes. § 40-2-129 as projects that include:
 - The availability of training programs, including training through apprenticeship programs registered with the United States department of labor’s office of apprenticeship or by state apprenticeship councils recognized by that office;
 - Employment of Colorado [or your respective state] labor as compared to importation of out-of-state workers;
 - Long-term career opportunities; and
 - Industry-standard wages, health care, and pension benefits.⁷
- **Securitization:** In the context of coal power plant retirement, securitization is a financing tool, akin to refinancing a mortgage. Securitization refinances the existing customer obligation to pay a utility’s return on equity and debt with a bond at a lower interest rate.

- **Social Equity:** Defined by Norman J. Johnson and James H Svara in *Justice for All: Promoting Social Equity in Public Administration (Transformational Trends in Governance and Democracy)*, as “the redress of injustices and remediation of damages that were previously incurred; the full incorporation of all segments of the community in the political process; and measures to prevent inequities by addressing those concerns on the front end of the policy process.”⁸ These efforts include expanding opportunities for and promoting equal access to public services, providing equal service quality, ensuring procedural fairness, and striving for equal outcomes in areas such as education, health, and employment.
- **Sustainability:** The University of California, Los Angeles (UCLA) Sustainability Committee defines sustainability as “the integration of environmental health, social equity, and economic vitality in order to create thriving, healthy, diverse and resilient communities for

this generation and generations to come. The practice of sustainability recognizes how these issues are interconnected and requires a systems approach and an acknowledgement of complexity.”

- **Sustainable Development:** “Our Common Future” (also known as the Brundtland Report) by the World Commission on Environment and Development in 1987 defined sustainable development as “Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.” Sustainable development calls for concerted efforts towards building an inclusive, sustainable, and resilient future for people and the planet. For sustainable development to be achieved, it is crucial to coordinate three core elements: economic growth, social inclusion, and environmental protection. This construct is often represented by the following Venn diagram:



GUIDING PRINCIPLES AND JUST AND EQUITABLE TRANSITION INTENDED OUTCOMES

USCA states called for the development of a toolkit to help them consider strategies and provide a path toward achieving a Just and Equitable Transition in their communities.

The USCA Just Transition & Equity Working Group kick-started this process by establishing four principles to guide the desired outcomes of transition:

- 1. Transition to a clean energy future and regenerative economy**
- 2. Enable and elevate worker and community voices through stakeholder engagement and collaborative planning processes**
- 3. Ensure an equitable, inclusive, and sustainable workforce, including access to high-quality jobs and support for impacted workers**
- 4. Achieve community health, longevity, and resilience**

This toolkit is structured around these desired outcomes. Every state is unique in its challenges and how it will approach transition policy. However, the principles above are likely to apply across all member states. This toolkit will allow states to focus on each of the above outcomes individually or collectively, selecting from existing policy strategies to custom-tailor their own transition policies.

ACHIEVING THE “EQUITABLE” IN “JUST AND EQUITABLE TRANSITION”

The energy transition will bring opportunities for states to improve equity in communities.

Equity, as used in this document, requires the establishment of processes that will be fair and just in both process and results. The Race Matters Institute⁹ states, “The route to achieving equity will not be accomplished through treating everyone equally. It will be achieved by treating everyone equitably, or justly according to their circumstances.” It is the duty of states to understand and identify where inequity exists, identify its causes and roots, and take prescribed policy and systemic actions to direct the benefits of the energy transition to the communities and individuals who need those benefits most.

States can help improve equity in transitioning regions by assisting to establish systems that give every individual in transitioning communities what they need to fully engage in and influence transitions. This can include a wide array of initiatives, such as transition planning, supporting economic diversification and creation of family-sustaining jobs for everyone, or cleaning up contaminated sites to eliminate harmful health effects caused by pollution.

Additionally, states should ensure that all aspects of a representative government truly represent people equitably. Broad representation of diverse people is needed on boards, commissions, committees, and across government. Diverse representation should include people from impacted communities, cross geographies, races, genders, incomes, abilities, cultures, and professional backgrounds. Doing so will ensure that states can adequately understand how best to ensure all people are set up to succeed, and so states can direct benefits and support where they are needed most.

States should look for opportunities to build long-term equitable practices into government. One strategy is to ensure that economic development planning aims to direct people and communities in need and equips communities with the tools and skills to build durable

economies. States may employ a measure to encourage and allow workers to unionize, improving working conditions, pay, and defined benefits. Another strategy is to develop frameworks that support community sustainability.

In every action states take to support Just and Equitable Transition, it’s important to build into policy and programs the mechanisms necessary to understand and adapt to the needs of diverse populations. These mechanisms will be different in every state and region, however, there are several strategies that may be widely common.

A few of the equity strategies being employed by states are included below.

Improving Equity Through Robust Stakeholder Engagement

Local stakeholder engagement is fundamentally critical to successful transition planning and to ensuring equitable outcomes are achieved. Communities must work together and incorporate all community members’ voices in any process used to identify what the future will look like and how they will emerge from transition. Well-informed plans for economic development, social improvements, and environmental quality guide future decision making, allow strategic and timely investments to happen, and maximize communities’ ability to remain or become sustainable, vibrant places.

Effective stakeholder engagement requires considerable planning, multiple alternative engagement formats, and giving stakeholders adequate time and opportunity to engage. Equitable outcomes are achieved when decision making considers all community member voices. Transition policy presents an opportunity to not only

decrease emissions but also increase equitable outcomes by diversifying engagement and leadership, broadening opportunity, and addressing the concerns shared by communities impacted by the transition to a carbon neutral economy, both those on the frontlines as well as those who have been disproportionately burdened by past action. Fostering diverse leadership and community input to develop climate and clean energy solutions can result in more durable and widely beneficial policies that increase community resilience and vitality.

Planning for Stakeholder Engagement

States can help communities by planning and facilitating stakeholder engagement that is structured to receive guidance and feedback from all community members.

Often, public meetings are set up with rows of chairs for members of the public, lined up to face a panel of outside experts and a single microphone for the audience to use to voice their opinions. As a result, meetings of this format can devolve into experts talking at the audience and only a select few individuals from the audience dominating the conversation back to the experts. The power dynamic in this stakeholder engagement format is unbalanced as the power in the room exists with the experts and a select few speakers in the audience. This stakeholder engagement method is unproductive, inauthentic, reinforces inequitable decision making, and can often reinforce a preconceived outcome. Instead of encouraging authentic engagement, many audience members leave this situation feeling unheard, skeptical, or frustrated.

Balancing the power in the room equally across all participants achieves improved outcomes by ensuring that each individual's thoughts and needs are incorporated, while ensuring that a few individuals do not dominate discussions, disproportionately weighting plans and outcomes to focus on only their issues. Meeting formats, such as the World Cafe Method¹⁰, balance power in meetings and allow all attendees equal opportunity for their opinions and desires to be heard. Community-based participatory research¹¹ models also have proven records of success, ensuring that stakeholders are fully engaged through all aspects of processes, from design, data collection, data analysis, dissemination and action. States can assist transition

communities by helping pull together the necessary materials, renting an appropriate facility, providing child care, offering food, reimbursing attendees for costs they incur to attend, and bringing facilitators trained in equitable meeting structures to guide meetings and record input from participants.

Alternative Stakeholder Engagement Methodologies

Public meetings are not the only way to solicit information from stakeholders. States can work around barriers by finding new ways to engage with stakeholders. Engaging in small group or individual discussions, in comfortable and easily accessible locations, allowing online participation, or joining existing community discussions to include additional people are a few possible examples states can employ.

States should consider the breadth of barriers that may prevent people from engaging with transition planning processes, and work to minimize them through alternative engagement strategies. Barriers may include residents' inability or unwillingness to attend public meetings, believing they don't have any expertise to offer, or feeling anxious or intimidated when speaking in front of others. Other barriers, such as not having access to adequate language interpretation, sign language interpretation, child care, transportation or other assistance can be mitigated by seeking to understand when those services are needed, providing them, and setting engagements up to be appropriately productive.

States can improve feedback from stakeholders in transition planning processes by establishing multiple methods for soliciting and recording stakeholder input. Bringing key partners to communities to identify community desires through creative approaches can strengthen local planning efforts. Approaches can include encouraging storytelling, community organizing, or shared oral histories that identify ways to improve equity for residents.

Following are a few programs that have overcome barriers and approached stakeholder engagement in new, innovative ways to incorporate diverse populations:

- **History Colorado's Museum of Memory Initiative**¹²
This initiative is administered by History Colorado, a state agency charged with maintaining Colorado's historic archives and preservation programs. The Museum of Memory Initiative, developed by History Colorado, brings community members together to explore shared memories of neighborhoods. Through this activity, deep insight into community dynamics, systemic problems, and community strengths are exposed. Once this insight is exposed, processes to create goals and objectives to address challenges and improve upon strengths can be focused, strategic, and well-informed. History Colorado describes the initiative, "Museum of Memory improves participation in civic life by building more inclusive narratives of all the many people and ways that contribute to the fabric of a community. This initiative is based on the idea that when people see themselves as the creators and makers of their own history, they also come to see themselves as the writers of their own destinies."
- **The Colorado Trust Community Partnerships Program**¹³
This initiative of the Colorado Trust, a health equity organization, developed a community organizing process to cultivate community leadership, support communities to take collective action to improve conditions, and facilitate communication. The program has demonstrated success in multiple communities, uncovering community strengths and systemic problems that can be incorporated in economic development, social systems, and environmental planning.
- **Partners Advancing Climate Equity (PACE)**¹⁴
PACE is a capacity-building program for frontline community leaders from across California to connect with peers, take their skills to the next level, and catalyze transformative change. PACE focuses on increasing the capacity of leaders in California's communities to advance community-driven, equitable climate solutions at the pace and scale demanded by climate change and ongoing injustices.

- **ClimateXChange - Investing in a Better Massachusetts Research Project**¹⁵

This research project in Massachusetts interviewed stakeholders and identified key strategies for investment programs, including centering the needs and voices of frontline communities, not repeating historical inequities within systems, increasing social mobility, building on existing successful programs, and fostering community leadership and empowerment. States may look to this study to identify alternative engagement opportunities.

Giving Stakeholders Adequate Time and Opportunity to Engage

Stakeholder engagement best practices regularly note the importance of making meetings accessible, geographically convenient, holding meetings at numerous times of day, providing food and childcare, and other inclusion strategies can result in increased stakeholder engagement.

Providing these supports can be cost-prohibitive for local communities. States can help by covering these costs, and budgeting sufficient resources to allow stakeholder engagement to be robust, inclusive, and accessible to all. Paying for meeting facilitator costs, facility rental, and all the associated costs of robust stakeholder engagement is a strategy that states can offer to facilitate community planning without disrupting power balances. Overall, allowing plans to reflect the diversity of communities and budgeting sufficient time for regional stakeholders from across all walks of life to fully participate in feedback processes remain critical to ensuring equitable inclusion.

Repeated stakeholder engagement—including before plans are developed, throughout plan development, and after plans are finalized—is important to building well-informed plans that incorporate the full range of worker and community input.

Improving Equity Through Diverse and Inclusive Representation

To improve equity, state government—in all its forms and structures—must be both diverse and inclusive.

Ensuring Boards and Commissions are Diverse

The various characteristics that differentiate us from each other affect our view of the world and our ways of relating to our surroundings and each other. By ensuring boards and commissions are diverse, states will gain access to different perspectives that can better inform the decision-making of these committees. Diverse representation includes ensuring people of different races, genders, incomes, abilities, cultures, ages, and backgrounds—to name a few characteristics—are included as representatives. States can ensure that appointed boards and commissions are diverse and representative of energy transition communities by instituting diversity and transition community geographic representation requirements for their makeup.

Recruiting and Hiring Diverse and Representative Staff

The makeup of state employees should also reflect the diversity of state populations. States may institute practices and procedures that encourage and support inclusive worker recruitment and diversity hiring. Staff that support or assist transitioning workers or communities may better serve needs if they include people from transition-affected places and share a broad array of experiences and perspectives with people from transitioning areas.

Ensuring State Staff and Contractors are Trained in Principles of Equity and Inclusion

Equity and inclusion, unfortunately, has not been taught in many post-secondary curricula. State agency staff

and contractors may benefit from mandatory equity and inclusion training, provided and updated regularly. States may dedicate budgets to include training in ongoing workforce development programs, as well as employee and contractor onboarding, and also hire staff with a specific emphasis in developing and maintaining equitable principles in human resource practices across state agencies.

Improving Equity Through Inclusive Economic Development

Economic development planning determines how regional economies will evolve and form through identification of key industry sectors regions can support. Economic development planning during times of economic, environmental, and social change is critical to Just and Equitable Transitions theory.

To ensure regions fully embrace the range and scope of potential economic development opportunity, and to ensure that economies work for all residents, stakeholders must shape economic development planning from across all incomes, races, genders, professions, and cultures in regions. Additionally, the *practice* of economic development, wherein business is fostered locally, must likewise be inclusive and open to all.

Economic Gardening is an economic development construct that has emerged as the most open, inclusive model, with demonstrated success of economic growth nationwide.¹⁶ States can assist communities by enlisting teams of experts, including those from the National Center for Economic Gardening, to work with local businesses in transition communities to help them expand and grow their sales across broader markets. Mounting evidence suggests that growing business and entrepreneurialism from within the community is a faster, more economical, and more equitable economic development strategy than recruiting businesses to locate in communities.

Improving Equity Through Unionization

Racial, gender, and other inequities in workplaces can affect workers' pay, benefits, and how long they remain in their jobs. Unions utilize collective bargaining processes to improve equity in workplaces. Through collective bargaining, unions have bargained for pay equity reviews and adjustments, salary history bans, and pay transparency provisions.¹⁷ These measures are some of the most substantive actions to address inequality.¹⁸

The Center for American Progress provides eleven strategies states can employ to strengthen their support for unionization:¹⁹

1. Strengthen public sector unions;
2. Repeal 'right-to-work' laws;
3. Allow workers not covered under the National Labor Relations Act to unionize and collectively bargain;
4. Protect workers in nontraditional work arrangements;
5. Create workers' boards to establish industry-wide standards;
6. Ensure that government spending creates good jobs;
7. Give workers a voice in setting and enforcing public health standards;
8. Take actions to enforce workplace standards;
9. Protect workers who speak up about violations;
10. Involve worker organizations to improve workforce training; and
11. Partner with unions to ensure that workers understand and can access workplace benefits.

Improving Equity Through Community Sustainability Measures

Multiple factors lead to systemic inequity in communities. Health, environmental, and economic crises disproportionately impact overburdened and vulnerable communities. Addressing the root stress points together can be a means to improve equity.

Recent work by the International City/County Management Association (ICMA) and Arizona State University²⁰ finds and provides case examples where social equity can be achieved through improving community sustainability. ICMA's key findings indicate that governments can meaningfully improve sustainability and social equity by establishing holistic community sustainability efforts, crossing multiple government departments and/or agencies, and in partnership with community organizations.²¹ The energy transition, in particular, opens a unique opportunity for states to help communities achieve sustainability goals, thereby improving community-wide equity.

States can assist communities in this effort by bringing regional partners together, by equipping local government with resources to plan for and address community sustainability, and by directing state agencies to cooperate with local government to balance and improve each of the three pillars of sustainable development:²²

1. Economic systems;
2. Social systems; and
3. The environment.

The study affirms, "a community that is economically vibrant and protects its environment is still not sustainable if it marginalizes and lays the costs of its policies primarily on those members who are least able to bear them or if it excludes those members from taking advantage of the benefits of sustainability. Social, economic, and political inclusion are needed to maintain viable communities."

LEGISLATIVE ACTIONS STATES ARE TAKING TO ACHIEVE JUST AND EQUITABLE TRANSITION INTENDED OUTCOMES

Several states have taken legislative action to address Just and Equitable Transition. Largely focused on closures of coal mines and power plants, six states have passed transition legislation while an additional seven states have introduced legislation. Analyzing the approaches states have taken reveals eight over-arching actions, which a growing body of academic research²³ reinforces as policy approaches.²⁴

- **Action 1: Avoid job losses**
- **Action 2: Define and agree upon a timeline when a transition is planned or expected**
- **Action 3: Develop cooperation and collaboration among workers, unions, employers, community leaders, families, and all levels of government**
- **Action 4: Equip regions with necessary resources to allow them to adequately plan for and implement their transition strategies**
- **Action 5: Establish programs of support for impacted workers and their families to improve outcomes**
- **Action 6: Streamline state resources to assist workers and communities**
- **Action 7: Support long-term regional economic development efforts**
- **Action 8: Ensure positive health and environmental outcomes**

The legislative actions taken by states are summarized below as a table matrix. Each of the state legislative actions works to achieve one or more of the USCA Principles (intended outcomes), as depicted below:

Outcomes: USCA Principle #	Actions	2011		2015		2019				2020				2021			
		WA SB5769	NY S6408-C	CO SB19-236	CO HB19-1314	NM SB0489	NY S6599	WA SB5116	MN 2021 Omnibus	CO HB21-1149	CO HB21-1290	CO HB21-1324	NM SB112	VA SB1247			
1, 3, 4	Action 1: Avoid job losses				X	X								X			
1, 3, 4	Incentivize or mandate re-hire of impacted workers																
1, 3, 4	Incentivize or mandate hire of disproportionately impacted people																
1, 3	Action 2: Define and agree upon a timeline				X	X											
1, 3	Require advance notice of closures															X	
1, 3	Cause creation of studies or reports to estimate timing and impacts			X	X											X	
1, 2, 3	Develop agreed-upon timelines for transition	X															
2	Require public meetings prior to closures																
1, 3, 4	Action 3: Develop cooperation and collaboration																
1, 2, 3, 4	Creation of transition plans				X	X											
1, 2, 3, 4	Convening of stakeholders	X															
4	Action 4: Equip regions with necessary resources																
1, 2, 3, 4	Consider or establish funding for tax revenue replacement		X	X													
1, 2, 3, 4	Allocation of technical assistance to local stakeholders																
2, 3	Action 5: Establish programs of support for impacted workers and their families to improve outcomes																
2, 3, 4	Consider or establish wage supplements for impacted workers						X										
2, 3, 4	Consider or establish wrap-around services for impacted workers																
2, 3, 4	Consider or establish training for impacted workers																
1, 2, 3, 4	Action 6: Streamline state resources to assist workers and communities																
1, 2, 3, 4	Community engagement to assist local access to resources																
1, 2, 3, 4	Creation of government structures to coordinate actions																
1, 2, 3, 4	Local economic development funding or assistance	X															
1, 2, 3, 4	Incentivize or fund local infrastructure improvement	X															
1, 2, 3, 4	Incentivize or mandate community reinvestment	X															
1, 2, 3, 4	Create business & entrepreneurial supports for impacted workers																
3, 4	Action 8: Ensure positive health and environmental outcomes																
3, 4	Incentivize or mandate investment in disproportionately impacted areas																
3, 4	Additional reporting or funding for site cleanup	X		X													

Shortly before this document was prepared, Illinois passed SB2408, the Energy Transition Act. The bill was designed to move the State of Illinois to 100% clean energy, support a responsible transition away from carbon-intense power generation, and spur further diversity and inclusion in the renewable energy industry. Due to timing, this toolkit does not include an analysis of SB2408.

ACTION 1:

Avoid job losses

Society, the environment, and the economy can benefit by avoiding job losses. Identifying creative ways to mitigate job losses, like realigning duties of workers to use their training and skills at the same pay and with the same benefits, can reduce the impacts of fossil fuel facility closures while repositioning communities to thrive long into the future. For example, training and hiring mine workers to reclaim mines, while ensuring their pay and benefits stay intact, can extend their employment and make use of their skills in new ways. Similarly, utility investments in new, clean technology that repurpose fossil utility sites (including pilot projects), leveraging workers' skills and training them to operate the new technology can result in job retention, reduce pollution, improve the local tax base, and even create additional jobs.

Workers' skills may transfer to other industries, and can expand possibilities for job creation. For example, fossil fuels workers' skills may make them highly attractive to clean manufacturers, forest management companies, or construction trades. States, in partnership with industry, can facilitate ways to create jobs that re-employ workers, protect workers' salaries and benefits, create new family-sustaining jobs, and set communities up for long-term economic gain.

This is unlikely to happen on its own. Policymakers must recognize that a one-to-one replacement of fossil fuels jobs with clean energy jobs in fossil fuels communities is unlikely to occur organically. Even in regions where a one-to-one replacement of jobs is plausible; the timeline of new job creation is unlikely to align with fossil facility closures, putting workers and their families at risk. States and regional partners can, however, work together in partnership with industry to carefully plan for logical transitions in ways that can be beneficial to workers, communities, and employers.

States are taking actions to keep workers in their communities, protect their wages and benefits, and protect communities' tax base by avoiding job loss. These approaches include:

Incentivize or mandate rehire of impacted workers

- **Colorado 2019 House Bill 19-1314**²⁵
HB19-1314 requires utilities planning to close a facility to provide the Colorado Public Utilities Commission with a workforce transition plan, including details of how many jobs will be retained or eliminated, how many workers will be placed in new work at the utility, how many will retire early, and how many workers whose employment will end without being offered other employment.
- **Colorado House Bill 21-1324**²⁶
HB21-1324 instructed the Colorado Public Utilities Commission to prioritize utility investment in new electric generation and storage technology in communities where existing facilities will be retired. The bill requires utilities to disclose in their workforce transition plans (which were required to be developed under previous legislation—[Colorado SB19-236](#)) how the new technological investment will improve workforce transition and the impacted community tax base.
- **New Mexico 2019 Senate Bill 489**²⁷
To ensure that New Mexico utilities re-invest in transition communities, this bill requires replacement power resources to be placed in the school districts where abandoned facilities are located (taking system reliability into consideration).

Incentivize or mandate hire of disproportionately impacted people

- **Colorado House Bill 21-1149**²⁸
HB21-1149 directed that newly-developed funding under the Strengthening Photovoltaic and Renewable Careers workforce development program should prioritize workers affected by downturns in industry and disproportionately affected individuals. The legislation encourages apprenticeship programs as an avenue to train workers.
- **New Mexico Senate Bill 112**²⁹
SB 112 instructs the Sustainable Economy Advisory Council to draft a plan to implement recommendations from the "New Mexico Clean Energy Workforce Development Study," published

by the Workforce Solutions Department in 2020 and expand access to jobs with family-sustaining wages and benefits, prioritizing disproportionately impacted communities.

ACTION 2:

Define and agree upon a timeline when a transition is planned or expected

Sometimes, transitions are expected and planned. Germany's Ruhr region is widely cited as a model example of a planned energy transition, largely because no workers lost their jobs during the closure of coal power plants and mines. One of the key take-aways from the regional transition effort away from coal in Germany was the importance to "set a phase-out date for coal as early as possible, followed by an agreed and consensual, timeline-based transition strategy. Setting a clear timeline with a binding and ambitious phase-out date for coal provides certainty to investors; avoiding the creation of stranded assets and lowering the overall costs of the transition."³⁰

When a transition can not be anticipated, agreeing upon a timeline for recovery can allow efficient alignment of resource deployment. For example, communities recovering from hurricanes often set timelines for recovery, identifying key milestones that trigger different phases of recovery action. This measured approach hastens recovery and improves outcomes. If transition timelines are constantly changing, the systems established by states to support workers and communities and to improve environmental conditions can quickly fall out of sync with each other. Timelines for transitions can naturally evolve, but working from a mutually-agreed upon timeline reduces the potential for programs and services to fall out of sync.

Transition policy approaches states have taken to set agreed-upon transition timelines include:

Advance notice of closures

- **Colorado 2019 House Bill 1314**³¹
HB19-1314 added a requirement for utilities to create workforce transition plans at least six months in advance of planned closures of facilities. Transition plans must be submitted to the Colorado Public Utilities Commission, detailing workforce implications of closure and the actions the utility plans to take to compensate.
- **Virginia 2021 Senate Bill 1247**³²
This bill requires that electric utilities proposing to close a power plant that generates carbon dioxide must notify local government and potentially impacted agencies of their plans to retire the facility, hold public hearings, disclose workforce transition assistance information, and communicate what the proposed next use of the facility will be.

Creation of studies or reports to estimate timing and impacts

- **Colorado Senate Bill 19-236**³³
Colorado legislators enacted SB19-236 in 2019. The bill ordered electric utilities proposing to retire a power plant to develop workforce transition plans and develop compensation plans for local governments set to lose tax revenues upon closure of a coal power plant.
- **Colorado House Bill 19-1314**³⁴
This 2019 legislation ordered the creation of a statewide Just Transition Plan. The plan was required to identify existing resources within state agencies that could be leveraged to assist workers and communities, make recommendations for new state resources needed, identify existing local and federal resources that could be leveraged, and propose suggestions that would better align state, federal, and local resources and programs to support transitioning workers and communities. The bill also required an advisory committee to define a series of worker benefits, including unemployment, wage differential, and training benefits, make recommendations to establish funding programs to support workers and communities through grant making and programming, including in conjunction

with other organizations, and to identify potential costs of the committee.

- **New York Senate Bill S6599**³⁵
New York’s 2019 Senate Bill S6599 created a 22-member Just Transition Working Group and six advisory panels tasked with making recommendations to the State’s Climate Action Council and drafting a scoping plan to transform New York’s economy, create new jobs, and stimulate industry and innovation while building more resilient communities. The bill also tasked the Just Transition Working Group to help identify ways to prepare New York’s workforce for the transition to renewable energy.
- **Virginia Senate Bill 1247**³⁶
Virginia’s 2021 legislation requires electric utilities to submit a facility retirement study for its carbon-emitting facilities and disclose the study to relevant localities and state agencies as part of an integrated resource plan.

Timelines for transition

- **Washington Senate Bill 5769**³⁷
In 2011, Washington’s legislature enacted Senate Bill 5769, ordering the closure of the coal-fired Centralia Generating Station by 2025. The bill required transition assistance expenditures to be reviewed and approved by the local economic development council, local officials, power plant workers, and the utility. It also required the electric utility to develop a closure and remediation plan for the power plant, including demonstrating a financial plan to decommission the plant.

ACTION 3:

Develop cooperation and collaboration among workers, unions, employers, community leaders, families, and all levels of government

Including all stakeholders and voices of the people impacted throughout the decision-making process is essential. Stakeholder engagement that facilitates inclusion of opinions and recommendations from those who traditionally do not participate in community meetings results in improved information, which then drives improved decision-making. Transition policy approaches states have taken to encourage collaboration include:

Public meetings prior to closures

- **Virginia 2021 Senate Bill 1247**³⁸
Virginia’s 2021 legislation, SB1247, requires electric utilities proposing to close a power plant that generates carbon dioxide to notify local government and potentially impacted agencies of their plans to retire the facility, to hold public hearings, to disclose workforce transition assistance information, and to communicate what the proposed next use of the facility will be.

Transition plans

- **Colorado 2019 House Bill 19-1314**³⁹
HB19-1314 ordered the creation of a statewide Just Transition Plan. The plan identified existing resources within state agencies that could be leveraged to assist workers and communities, make recommendations for new state resources needed, identify existing local and federal resources that could be leveraged, and propose suggestions that would better align state, federal, and local resources and programs to support transitioning workers and

communities. The bill also required an advisory committee to define a series of worker benefits, including unemployment, wage differential, and training benefits, make recommendations to establish funding programs to support workers and communities through grantmaking and programming, including in conjunction with other organizations, and to identify potential costs of the committee.

■ **New Mexico Senate Bill 489**⁴⁰

New Mexico's 2019 legislation, SB0489, required the Indian affairs department to develop an Indian affairs assistance plan to assist tribal and native people in communities where power plants were set to close. Similarly, the legislation also required the creation of economic diversification and development plans and a displaced workers' plan. The bill required public planning processes in transition communities to inform the use of money in the fund, to shape economic diversification and development efforts, and to inform the displaced worker plan. The bill ordered state agencies to engage in consultation with Indian nations, tribes, and pueblos pursuant to the New Mexico Tribal Collaboration Act.

■ **New Mexico Senate Bill 112**⁴¹

New Mexico expanded the scope of transition planning in 2021 by establishing a Sustainable Economy Advisory Council in the state's economic development department with representation from disproportionately impacted communities, business groups, tribal governments, employees of public entities, and others. The council was directed to diversify the state economy by replacing jobs and tax revenue losses that have occurred due to declines in the fossil fuels industry. The bill directed the council to prepare a strategic plan, updated annually through 2027, to transition the state economy away from reliance on natural resource extraction.

An amendment to the legislation further instructs the council to draft a plan to implement recommendations from the "New Mexico Clean Energy Workforce Development Study," published by the Workforce Solutions Department in 2020, and expand access to jobs with family-sustaining wages and benefits, prioritizing disproportionately impacted communities.

■ **New York Senate Bill S6599**⁴²

New York's 2019 legislation created a Climate Action Council and six advisory panels tasked with making recommendations to the State's Climate Action Council and drafting a scoping plan to transform New York's economy, create new jobs, and stimulate industry and innovation while building more resilient communities. The bill also tasked the Just Transition Working Group to help identify ways to prepare New York's workforce for the transition to renewable energy.

Stakeholder Convening

■ **Washington Senate Bill 5769**⁴³

Washington's 2011 bill required transition assistance expenditures to be reviewed and approved by key stakeholders in the community where a power plant was set to retire, including the local economic development council, local officials, power plant workers, and the utility.

■ **Colorado House Bill 19-1314**⁴⁴

This 2019 legislation created a Just Transition Advisory Committee composed of various experts, representatives of labor, representatives from affected communities, representatives from electric utilities, and representatives from state agencies. The committee was tasked with creating a statewide Just Transition Plan, as well as providing guidance to the Office of Just Transition also created by the bill.

■ **New Mexico Senate Bill 489**⁴⁵

New Mexico's 2019 legislation, SB0489, required the Indian affairs department to develop an Indian affairs assistance plan to assist tribal and native people in communities where power plants were set to close. Similarly, the legislation also required the creation of an economic diversification and development plan and a displaced workers plan. The bill required public planning processes in transition communities to inform the use of money in the fund, to shape economic diversification and development efforts, and to inform the displaced workers plan. The bill ordered state agencies to engage in consultation with Indian nations, tribes, and pueblos pursuant to the New Mexico Tribal Collaboration Act.

- **New York Senate Bill 6599**⁴⁶
New York’s legislature passed A.8429/S.6599 in 2019 which includes direction to appoint members to the state Climate Action Council. The working group is instructed to guide the state in carrying out its climate targets while ensuring that environmental justice provisions such as clean energy spending, green jobs, and affordable resources are enforced and distributed equitably to low-income communities of color.
- **Washington Senate Bill 5116**⁴⁷
Washington’s SB5116 2019 legislation creates an energy strategy advisory committee—whose members include impacted stakeholders—to review the state’s energy strategy every eight years. The legislation also requires state agencies to identify disproportionately affected communities within which electric utilities must address environmental and economic benefits.
- **New Mexico Senate Bill 112**⁴⁸
New Mexico’s 2021 SB112 legislation established a Sustainable Economy Advisory Council in the state’s economic development department with representation from disproportionately impacted communities, business groups, tribal governments, and employees of public entities, among others. The council was directed to diversify the state economy by replacing jobs and tax revenue losses that have occurred due to declines in the fossil fuels industry. The bill directed the council to prepare a strategic plan, updated annually through 2027, to transition the state economy away from reliance on natural resource extraction. The legislation further instructs the council to draft a plan to implement recommendations from the “New Mexico Clean Energy Workforce Development Study,” published by the Workforce Solutions Department in 2020 and expand access to jobs with family-sustaining wages and benefits, prioritizing disproportionately impacted communities.

ACTION 4:

Equip regions with necessary resources to allow them to adequately plan for and implement their transition strategies

Transitions and economic development must be locally-developed and locally-driven because each region is unique, and no better experts exist than local residents in shaping the future for their community. However, lack of resources often constrains local communities from being able to develop or drive their transitions and economic development efforts. Data from transition and economic development efforts nationwide illustrate that locally-driven planning and implementation of economic diversification and development, societal improvement, and environmental gain is most successful and sustainable when provided adequate resources. States can play an important role in providing resources for communities, both financial and technical. Colorado’s Just Transition Action Plan⁴⁹ recommends creating state grants to build capacity to develop and implement local transition strategies. States can also support local processes by bringing outside facilitation experts that can play a neutral role in navigating community planning.

Approaches states have taken to provide resources for local regions include:

Funding for tax revenue replacement

- **New York Senate Bill S6408C**⁵⁰
2016 legislation in New York created the Electric Generation Facility Cessation Mitigation Program that allocates up to five years of funding replacement of up to 80% of lost property taxes incurred from the retirement of coal power plants for local government agencies.
- **Colorado Senate Bill 19-236**⁵¹
The bill created the ability for electric utilities to leverage ratepayer-backed securitization financing

(essentially shifting existing debt to free up resources) to fund transition activities, programs, and tax replacement. The bill also ordered electric utilities to develop compensation plans for local governments that lost tax revenues upon closure of a coal power plant.

Technical assistance to local stakeholders

- **Colorado House Bill 21-1290**⁵²
The Colorado legislature enacted HB21-1290 in 2021, which dedicated \$8 million in funding toward assisting transition communities. The funding was directed to expand communities' capacities, including through hiring local staff to work on transition, pursue grant funding, and conduct economic development activities.

ACTION 5:

Establish programs of support for impacted workers and their families to improve outcomes

Transition to a clean energy economy may be unbalanced or materialize along different timelines. For example, some impacted workers face difficulties being placed back in high-quality, union jobs with health and retirement benefits. Other times, a gap between their current job and future job occurs. Either way, displaced workers require services and support to bridge the gap between the benefits of their past employment and the realities of their new one.

The BlueGreen Alliance's National Energy Transition Framework⁵³ describes various worker supports that aid this transition. While the BlueGreen Alliance directed this framework at the federal government, states may utilize these strategies to address gaps in federal programs, including:

- Wage replacement or a wage differential (as proposed in the Colorado Just Transition Action Plan);⁵⁴
- Education benefits for workers to attend workforce programs, community colleges, vocational education, or postsecondary education;
- Connecting workers with employment through on-the-job training models, including State and U.S. Department of Labor (DOL)-certified apprenticeship programs;
- Investing in wrap-around workforce development programs that include income support during training, healthcare, transportation, childcare, career planning, and other critical services that often prevent workers from completing job training programs and obtain credentials needed for in-demand jobs;
- Requiring companies to issue longer periods of advanced closure notices and help prepare for transition. In addition, States may require utilities and other companies that enact mass layoffs in one location while hiring in another to work directly with dislocated workers to create workforce transition plans, which should prioritize creating pathways for these workers into new jobs elsewhere within the utility or company, including any necessary reskilling for such jobs; and
- Relocation assistance for workers.

Transition policy approaches states have taken to establish transition support for workers affected by energy transition include:

Wage supplements for impacted workers

- **Colorado House Bill 19-1314**⁵⁵
During the process of drafting a statewide Just Transition Plan, an advisory committee must: recommend a series of worker benefits, including unemployment, wage differential, and training benefits; make recommendations to establish funding programs to support workers and communities through grantmaking and programming; and identify potential costs of these recommendations.

Wrap-around services for impacted workers

- **Colorado House Bill 21-1290**⁵⁶
The bill applied \$15 million in funding from post-COVID-19 unanticipated state revenues toward recommendations from the State's Just Transition Action Plan. The grant funding, awarded to community organizations or entities partnering with the State of Colorado's Office of Just Transition, included \$7 million directed toward assisting impacted workers and \$8 million directed toward assisting transition communities. Programs and services eligible for funding in the bill included tuition assistance, relocation assistance, and financial planning services for workers whose job will not be replaced.

Training for impacted workers

- **Colorado Senate Bill 19-236**⁵⁷
The 2019 legislation requires regulated Colorado electric utilities to create an apprenticeship or training program for any zero-carbon generation or storage facilities to which coal power plant workers can transfer.
- **New Mexico Senate Bill 489**⁵⁸
By allowing utilities to securitize retiring generation assets through energy transition bonds (commonly known as securitization), any savings achieved by the utility can be applied toward severance and job training costs for displaced workers.
- **Minnesota 2021 Omnibus Spending Bill**⁵⁹
Minnesota enacted a 2021 omnibus bill containing direction to establish an Energy Transition Legacy Office in the Department of Employment and Economic Development to assist communities and workers experiencing economic dislocation as a result of the retirement of an electric generating plant. Duties of the office include administration of programs to support impacted communities and impacted workers, coordination of local/state/federal resources, and delivery of programs and resources to impacted communities and workers including training.

- **Colorado House Bill 21-1149**⁶⁰
HB21-1149 directed that newly-developed funding under the Strengthening Photovoltaic and Renewable Careers workforce development program should prioritize workers affected by downturns in industry and disproportionately affected individuals. The legislation encourages apprenticeship programs as an avenue to train workers.
- **Colorado House Bill 21-1290**⁶¹
HB21-1290 allocated \$15 million in grant funding dedicated to community and worker support recommendations from the state's Just Transition Action Plan. Portions of the funding allowed apprenticeship programs to qualify for funding to construct or properly equip facilities for apprenticeship training in transition communities. Additionally, the bill allowed workers to apply for tuition reimbursement from the funding.

ACTION 6:

Streamline state resources to assist workers and communities

Efficiencies exist when state agencies simplify and improve access to existing programs across all of government. Tracking existing state grant programs can be onerous for resource-constrained local entities. Streamlining funding and technical assistance application processes, improving inter-agency collaboration, better aligning state programs with federal programs, and establishing new programs that fill gaps identified by communities all improve service delivery to communities and workers.

Approaches states have taken to better use existing programs and resources include:

Assist local access to resources

- **Colorado House Bill 19-1314**⁶²
This 2019 legislation ordered the creation of a Just Transition Advisory Committee, composed of various experts, representatives of labor, representatives from affected communities, representatives from electric utilities, and representatives from state agencies. The committee was tasked with creating a statewide Just Transition Plan and providing guidance to the Office of Just Transition, which was also created by the bill. One of the first actions the committee undertook was in-depth engagement with members of transition communities, energy workers, and regional elected leaders. The bill ordered the committee to identify gaps and inefficiencies and to recommend alignments between—and improvements to—state programs and services.

Government structures to coordinate actions

- **Colorado House Bill 19-1314**⁶³
This 2019 legislation created an Office of Just Transition required to identify state agency program gaps and inefficiencies and to work with state agencies to improve alignment between existing state programs and services to better serve transition communities and workers.
- **New York Senate Bill S6599**⁶⁴
New York's 2019 Senate Bill S6599 created a new State Climate Action Council composed of leadership from multiple state agencies. The bill instructed the council to dedicate funding and resources to communities.
- **New Mexico Senate Bill 112**⁶⁵
New Mexico 2021 SB112 created a Sustainable Economy Advisory Council in the state's Economic Development Department with representation from disproportionately impacted communities, business groups, tribal governments, employees of public entities, and others. The council was directed to diversify the state economy by replacing jobs and tax revenue losses that have occurred due to declines in the fossil fuels industry. The bill directed the council to prepare a strategic plan, updated annually through 2027, to transition the state economy away from

reliance on natural resource extraction. The council was also instructed to draft a plan to implement recommendations from the New Mexico Clean Energy Workforce Development Study—published by the Workforce Solutions Department in 2020—and expand access to jobs with family-sustaining wages and benefits, prioritizing disproportionately impacted communities.

ACTION 7:

Support long-term regional economic development efforts

Business expansion presents the greatest potential for job growth in many communities. States can utilize existing programs to prioritize support for employers to grow and diversify economic sectors, creating family sustaining jobs and building more resilient communities.

Coupling state economic development incentives with employment retention and re-skilling initiatives can promote social stability and enable workers to remain in their communities. Investing in business and entrepreneurship development programs, such as employing services from the [National Center for Economic Gardening](#),⁶⁶ to accelerate local business expansion may also help long term regional development efforts. This program works extensively with established businesses and leverages advanced tools and methodologies to help businesses expand and create new jobs.

The establishment of Green Banks, developing initial risk capital funds, or dedicating tax credits to qualifying manufacturers to establish or on-shore manufacturing may also facilitate new investment in transitioning regions.

Approaches states have taken to strengthen local economic diversification and development include:

Local economic development

- **Washington Senate Bill 5769**⁶⁷
In 2011, Washington’s legislature enacted Senate Bill 5769 requiring an electric utility planning to close a coal generation facility to fund \$30 million for local energy efficiency and economic development plus \$25 million additional toward projects that will yield economic development, environmental benefits, or energy technology improvements.
- **New Mexico Senate Bill 489**⁶⁸
New Mexico’s 2019 legislation, Senate Bill 489, created economic diversification and development plans and a displaced workers’ plan. The bill required public planning processes in transition communities to inform the use of money in the fund to shape economic diversification and development efforts and to inform the displaced workers’ plan.
- **Minnesota 2021 Omnibus Spending Bill**⁶⁹
Minnesota enacted a 2021 omnibus bill containing direction to establish an Energy Transition Legacy Office in the Department of Employment and Economic Development to assist communities and workers experiencing economic dislocation as a result of the retirement of an electric generating plant. Duties of the office include establishment and implementation of economic support programs, including, but not limited to, property tax revenue replacement, community energy transition programs, and economic development tools for impacted communities and impacted workers.
- **Colorado House Bill 21-1290**⁷⁰
The Colorado legislature enacted HB21-1290 in 2021, which dedicated \$8 million in funding toward assisting transition communities. The funding was directed to expand communities’ capacities, including through hiring local staff to work on transition, pursue grant funding, and conduct economic development activities.

Local infrastructure improvement

- **Washington Senate Bill 5769**⁷¹
In 2011, Washington’s legislature enacted Senate Bill 5769 requiring an electric utility planning to close a coal generation facility to fund \$30 million for local energy efficiency and economic development plus

\$25 million additional toward projects that will yield economic development, environmental benefits, or energy technology improvements.

- **New Mexico Senate Bill 489**⁷²
By allowing utilities to securitize retiring generation assets through energy transition bonds (commonly known as securitization), any savings achieved by the utility can be applied toward severance and job training costs for displaced workers.
- **Colorado House Bill 21-1290**⁷³
The Colorado legislature enacted HB21-1290 in 2021, which dedicated \$8 million in funding toward assisting transition communities. The funding was directed to expand communities’ capacities—including through hiring local staff to work on transition—pursue grant funding, and conduct economic development activities.
- **Colorado House Bill 21-1324**⁷⁴
HB21-1324 instructed the Colorado Public Utilities Commission to prioritize utility investment in new electric generation and storage technology in communities where existing facilities will be retired. The bill requires utilities to disclose in their workforce transition plans—which were required to be developed under previous legislation—[Colorado SB19-236](#)—how the new technology investment will improve workforce transition and the impacted community tax base.

Community reinvestment

- **Washington Senate Bill 5769**⁷⁵
In 2011, Washington’s legislature enacted Senate Bill 5769, requiring an electric utility planning to close a coal generation facility to fund \$30 million for local energy efficiency and economic development, plus \$25 million additional toward projects that will yield economic development, environmental benefits, or energy technology improvements.
- **Colorado Senate Bill 19-236**⁷⁶
Colorado legislators enacted SB19-236 in 2019. The bill created the ability for electric utilities to leverage ratepayer-backed securitization financing—essentially shifting existing debt to free up resources—to fund transition activities, new programs, or tax replacement in transition

communities. The bill also ordered electric utilities to develop compensation plans for local governments that lost tax revenues upon closure of a coal power plant.

- **New Mexico 2019 Senate Bill 489**⁷⁷
New Mexico's 2019 SB 489 legislation requires the location of replacement power resources to be placed in the school district where abandoned facilities are located, taking into consideration system reliability. This measure ensures New Mexico utilities re-invest in transition communities. The bill also creates three new funds—managed by the Indian Affairs Department, Economic Development Department, and the Department of Workforce Solutions—to be used to assist communities affected by abandoned coal plants and displaced workers. If a utility issues energy transition bonds, the bill requires some of the bond proceeds to be transferred to these funds.
- **Colorado House Bill 21-1324**⁷⁸
HB21-1324 instructed the Colorado Public Utilities Commission to prioritize utility investment in new electric generation and storage technology in communities where existing facilities will be retired. The bill requires utilities to disclose in their workforce transition plans—which were required to be developed under previous legislation—[Colorado SB19-236](#)—how the new technology investment will improve workforce transition and the impacted community tax base.

Business & entrepreneurial supports

- **Minnesota 2021 Omnibus Spending Bill**⁷⁹
Minnesota enacted a 2021 omnibus bill containing direction to establish an Energy Transition Legacy Office in the Department of Employment and Economic Development to assist communities and workers experiencing economic dislocation as a result of the retirement of an electric generating plant. Duties of the office include establishment and implementation of economic support programs, including, but not limited to, property tax revenue replacement, community energy transition programs, and economic development tools for impacted communities and impacted workers.

ACTION 8:

Ensure positive health and environmental outcomes

Environmental remediation of previous industrial facilities is an opportunity to put people to work—including those who have worked on-site. Environmental reclamation can extend workers' careers, set them up for new career opportunities, and improve the health of fenceline and overburdened communities.

States can establish policy and/or incentives to prioritize hiring of local community members under the terms of any existing union contracts or employment agreements. Additionally, states can utilize efforts to inventory and plug orphaned and abandoned wells at prevailing wage rates and require that industrial facilities be fully decommissioned to clean up coal ash waste, asbestos, soil, and groundwater contamination, reducing long term exposure and risk to community members.

Approaches states have taken to ensure positive health and environmental outcomes include:

Investment in disproportionately impacted areas

- **New York Senate Bill 6599**⁸⁰
New York's legislature passed A.8429/S.6599 in 2019, which included direction to appoint members to the state Climate Justice Working Group. The working group is instructed to guide the state in carrying out its climate targets while ensuring that environmental justice provisions such as clean energy spending, green jobs, and affordable resources are enforced and distributed equitably to low-income communities of color.

Site cleanup

- **Washington Senate Bill 5769**⁸¹
In 2011, Washington’s legislature enacted Senate Bill 5769, ordering the closure of the coal-fired Centralia Generating Station by 2025. The bill required the electric utility to develop a closure and remediation plan for the power plant, including a financial plan to decommission and clean up the plant location.
- **Colorado Senate Bill 19-236**⁸²
Colorado legislators enacted SB19-236 in 2019. The bill created the ability for electric utilities to leverage ratepayer-backed securitization financing—essentially shifting existing debt to free up resources—to fund transition activities, including site cleanup upon plant closure.
- **New Mexico Senate Bill 489**⁸³
New Mexico’s legislature passed Senate Bill 489 in 2019. By allowing utilities to securitize retiring generation assets through energy transition bonds—commonly known as securitization—savings achieved by the utility is specifically allowed to be applied toward coal plant decommissioning and site reclamation.

ADDITIONAL STRATEGIES FOR STATES TO CONSIDER

The following section details additional strategies that states may consider. These strategies are a broad set of examples, separate from the Just and Equitable Transition-specific legislation actions above that states have passed thus far.

Because these strategies are wide-ranging, many are not specifically aimed at Just and Equitable Transition. However, each strategy below achieves or creatively takes action toward achieving one (or many) of the guiding principles developed by the USCA Just Transition and Equity Working Group.

Strategies listed below include state legislative actions, executive actions, legislation that was introduced but not passed, local and federal approaches, and examples from other countries. These policy actions may be valuable to states as potential precedents or examples to draw from as they look to assemble creative approaches to addressing Just and Equitable Transition. The following policies and strategies are not exhaustive, as many states are developing or implementing policies and programs with strong equity components that may not be captured in this toolkit.

To help identify where these strategies come from, we have color-coded them as follows:

- State Laws - Legislative
- State Proposed Legislation
- ▲ State Executive Order or Administrative Action
- Local-level Legislation
- ▲ Local-level Programs/Administrative Action
- ▲ Policy from a Non-Profit Organization
- Federal Laws
- Federal Proposed Legislation
- ▲ Federal Programs/Administrative Action
- ▲ Other Best Practices
- ▲ International Examples

PRINCIPLE ONE:

Policies that support the transition to a clean energy future and regenerative economy

Climate change necessitates swift policy action to eliminate large-scale sources of greenhouse gas emissions. The following groups of policies have served as foundational catalysts to transition communities away from fossil fuels and cultivate a healthier and more sustainable future.⁸⁴

■ Renewable Energy Standards/ Renewable Portfolio Standards⁸⁵

Currently, 30 states, Washington, D.C., and three territories have established some level of Renewable Portfolio Standard (RPS). California, Colorado, Hawaii, Maine, Maryland, Massachusetts, Nevada, New Mexico, New Jersey, New York, Oregon, Vermont, Virginia, Washington, as well as Washington, D.C., Puerto Rico, and the Virgin Islands have all established requirements of 50% or greater.

■ ▲ Greenhouse gas reduction targets⁸⁶

Twenty-two states have established statewide GHG reduction goals via legislation or through executive orders, with 14 states targeting net-zero GHG emissions by midcentury.”

Including equity in environmental legislation

Alliance states have committed to advancing equity, environmental justice, and a just economic transition as part of their approach to climate change. Overburdened communities must be centered in energy policy to rectify the historic environmental pollution and negative public health impacts of fossil fuel energy production that fenceline or overburdened communities and low-income people have faced. Although the EPA offers an environmental justice screen, a number of states have adopted their respective equity screens to inform local energy policy, especially in regards to siting for new infrastructure or energy projects.

▲ The Initiative for Energy Justice “Justice in 100 Scorecard”

This policy tool proposes rigorous evaluation for policymakers to perform before passing RPS and other energy policies to ensure that equity is centered in policy development. The group highlights the importance of assessing the degree to which marginalized communities have participated in the policymaking process and whether the energy policy includes means to make energy more accessible and affordable for marginalized communities.⁸⁷

▲ California: CalEnviroScreen Tool⁸⁸

Available online: <https://oehha.ca.gov/calenviroscreen>. The mapping tool was developed by the Office of Environmental Health Hazard Assessment (OEHHA) and the state’s Environmental Protection Agency (CalEPA) to allow state policymakers to identify communities that experience higher pollution burdens, environmental degradation, economic marginalization, and/or other vulnerabilities. The tool combines environmental, health, and socioeconomic information to assign a numerical score to different census tracts around the state.

▲ Washington Environmental Health Disparities Map

Introduced early in 2021 by the Department of Health, the interactive mapping tool combines data on the environmental health, social vulnerability, and climate risks facing a community, assigning them a score out of ten. The project aims to help utilities center environmental health equity and advance environmental justice priorities as the state transitions to cleaner

energy generation in accordance with the Clean Energy Transformation Act (2019).⁸⁹

**For more information on best practices when developing or utilizing an equity screen for energy policy, see the Resource Guide for documents from the Evergreen Collaborative and The National Wildlife Federation evaluating the effectiveness of Environmental Justice Screens and offering best practices.*

PRINCIPLE TWO:

Policies that enable and elevate worker and community voices

States are embracing the importance of ensuring that workers and communities drive their transition. States have taken actions to elevate worker and community voices through various initiatives. Below are some of the ways states have worked to do so:

■ Colorado HB21-1266⁹⁰

Colorado lawmakers passed HB21-1266, the Environmental Justice Act, which commits to strengthening environmental justice and prioritizes reducing environmental and health harms in disproportionately impacted communities. The Environmental Justice Act makes the advancement of environmental justice a priority for all state policies and creates an Environmental Justice Action Task Force, an Environmental Justice Advisory Board, and an Environmental Justice Ombudsperson. The Environmental Justice Action Task Force will include 27 representatives from state agencies, tribal governments, disproportionately impacted communities, and organizations focused on environmental justice, worker interests, energy industries, local government, and public health agencies. The Environmental Justice Advisory Board will implement a Community Impact Cash Fund to provide grants for environmental mitigation projects in disproportionately impacted communities, and the Environmental Justice Ombudsperson will establish a process to address community complaints. The Environmental Justice Act defines disproportionately impacted communities and requires the Air Quality Control Commission (AQCC) to strengthen engagement

with disproportionately impacted communities on matters related to air quality.

■ California AB 617 (2017)⁹¹

This 2017 expansion to the state's cap-and-trade program tasked the California Air Resources Board (CARB) to convene with environmental justice groups, industries, and other stakeholders and develop a strategy to reduce toxic air pollution in vulnerable, marginalized communities.

■ Virginia House Bill 1042⁹²

Virginia House Bill 1042 established the Council on Environmental Justice to advise the governor, provide recommendations intended to protect vulnerable communities from disproportionate impacts of pollution, and provide such communities meaningful involvement in the decision-making process.

▲ Pennsylvania Development of Equity Principles to Guide Investments in Regional Greenhouse Gas Initiative⁹³

The agency partnered with the Delta Institute to engage with impacted communities and workers to identify ways to ensure a just and equitable transition for all Pennsylvania residents and developed a set of principles that will help guide the development of the final Regional Greenhouse Gas Initiative regulatory process.

▲ New Jersey's Offshore Wind Solicitation #2⁹⁴

Issued in September 2020, the state's offshore wind solicitation includes the following equity requirements:

- A description of an economic development plan to include diversity and inclusion initiatives as part of the training program and hiring practices;
- Planned, in-state spending that will support environmental justice communities by providing jobs, grants, training programs, or environmental benefit projects to address historical and cumulative impacts in economically disadvantaged communities;
- Participation in workforce development programs—particularly for environmental justice communities.

■ New York State 2021 Budget Bill - Section 224-D⁹⁵

New York State lawmakers added a requirement that contractors building renewable energy resources over 1MW in nameplate capacity must negotiate a Project Labor Agreement (PLA) or similar labor agreement. Requiring a PLA ensures that contractors will pay workers a fair wage, that the worksite will be safe for workers, and that local workers and/or disadvantaged workers will benefit from the work. Hiring in-state workers is also a measure to ensure state expenditures benefit state residents and workers.

■ Maine LD 1682⁹⁶

Maine's 2021 legislation requires the Public Utilities Commission to incorporate equity considerations into decision-making. The legislation also directs the state to develop definitions for environmental justice and methods for incorporating equity into policy decisions.

■ Rhode Island Senate Bill 78⁹⁷

Rhode Island's 2021 Senate Bill 78 directs its climate council to address environmental justice populations and identify opportunities to create an equitable transition in its submitted emissions reductions plans to the state.

■ Washington State Healthy Environment for All (HEAL) Act (SB 5141)⁹⁸

Washington state agencies enacted recommendations from the governor's environmental justice task force to put environmental justice at the forefront of Washington's strategic plans, programs, community engagement, and spending decisions. It also requires state agencies to conduct environmental justice assessments to see what agency actions could help overburdened communities.

■ California AB 1628: Environmental Justice⁹⁹

This 2019 legislation revised the definition of "environmental justice," expanding upon the prior definition of "fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies." The new definition orders the meaningful involvement of people of all races, cultures, incomes, and national origins with respect to the above listed governmental actions and adds that "environmental justice" should also involve "the

availability of a healthy environment for all people such that the effects of pollution are not disproportionately borne by any particular populations or communities.”

■ California AB 1550: Greenhouse Gases—Investment Plan, Disadvantaged Communities¹⁰⁰

AB 1550, enacted in the 2016 legislative session, requires a statewide greenhouse gas investment plan to allocate:

- A minimum of 25% of the available funds raised must be delegated to projects located within and benefiting individuals living in disadvantaged communities;
- An additional minimum of 5% to projects that benefit low-income households or to projects located within, and benefiting individuals living in, low-income communities located anywhere in the state, and;
- An additional minimum of 5% either to projects that benefit low-income households that are outside of, but within a half-mile of disadvantaged communities, or to projects located within the boundaries of and benefiting individuals living in low-income communities that are outside of but within a half-mile of disadvantaged communities.

■ CA SB 351: Climate change—Transformative Climate Communities Program¹⁰¹

The Transformative Climate Communities Program, created by previous legislation, is administered by the Strategic Growth Council. The council awards competitive grants to specified eligible entities to develop and implement neighborhood-level transformative climate community plans that include greenhouse gas emissions reduction projects that provide local economic, environmental, and health benefits to disadvantaged communities, as defined. SB351 expands upon the existing legislation to require the council to consider applications for projects undertaken in unincorporated areas of a county.

■ Virginia Clean Economy Act (SB851)¹⁰²

This bill established that low-income and disadvantaged communities should receive preference for both siting and job training for new renewable energy projects. The legislation also instituted low-income bill caps to prevent high costs from being borne by ratepayers. It also required that offshore wind projects in Virginia must give local workers hiring preference in their construction.

▲ Virginia Department of Environmental Quality (DEQ) Directs \$20 million from Volkswagen Trust funds to Clean Air Communities Program¹⁰³

The program funds electrification projects for heavy transport and freight, prioritizing projects located in Virginia’s low-income communities, communities of color, or communities listed on the EPA’s 2020 Diesel Emissions Reduction Act Priority List.

▲ Virginia Environmental Justice Study¹⁰⁴

Virginia completed an environmental justice study in 2020 and, as a result, will create a new Office of Environmental Justice to turn the study’s recommendations into an action plan.

■ New Jersey Bill S232 (EJ Law)¹⁰⁵

The Department of Environmental Protection (DEP) is required to evaluate certain facilities’ environmental and public health stressors on overburdened communities when reviewing certain permit applications. “Overburdened community” means any census block group, as determined in accordance with the most recent United States Census, in which: (1) at least 35% of the households qualify as low-income households; (2) at least 40% of the residents identify as minority or as members of a State-recognized tribal community; or (3) at least 40% of the households have limited English proficiency. The bill requires permit applicants to transmit an environmental justice impact statement.

▲ New Jersey State Agency Guidance¹⁰⁶

New Jersey’s Governor Phil Murphy released guidance for all executive branches and state agencies to apply the principles of environmental justice to their operations and assess their impacts on environmental justice communities.

▲ Oregon Climate Equity Blueprint¹⁰⁷

The blueprint provides a set of best practices to guide government decisions and tools for programmatic staff to apply an “equity lens” as they design state agency policies, processes, and programs to address climate change. The blueprint was developed as part of the 2020 Climate Change Adaptation Framework (CCAF) update and can also serve as a stand-alone document to support agency staff in applying climate equity tools in their everyday work.

▲ Vermont's Guiding Principles for a Just Transition¹⁰⁸

The Just Transitions Subcommittee of Vermont's Climate Council developed guiding principles and an equity scoring rubric to frame the policy actions considered in the state's 2021 climate action plan. The guidance includes key definitions, indicators, and questions.

PRINCIPLE THREE:

Policies that ensure an equitable, inclusive, and sustainable workforce, including access to high-quality jobs and support for impacted workers

The energy transition presents an opportunity for regions to plan for and build new, diversified, and inclusive economies that afford an opportunity for all people. This includes those who have taken part in the fossil energy economy and those who have not. To achieve this, communities and workers will require various levels of support. Actions to prevent workers from losing income and benefits, encouraging unionization, investing in education, and enhancing wrap-around services for people are among some of the strategies states may take.

Alert employees of closures or layoffs

For many workers, the transition to clean energy seems like a possibility that may materialize in the distant future or like a last resort solution.¹⁰⁹ Giving workers time to adjust to the reality of site closure allows them opportunities to make plans for the economic, social, and cultural changes they may face.

Encouraging industry to support employees in transition through advanced notice and other protections gives

workers the time and resources they need to find a new job. The following are examples of site closure strategies used to protect employees.

● S. 2938 - Fair Warning Act of 2019¹¹⁰

Status: 11/ 21/19 Read twice and referred to the Committee on Health, Education, Labor, and Pensions.

This bill bars an employer from ordering a site closing or mass layoff until 90 calendar days after the employer has served written notice of such an order to each representative of the affected employees, the U.S. Department of Labor (DOL), the governor of the state where the site closing or mass layoff is to occur, and the state or entity designated by the state to carry out rapid response activities.

DOL shall maintain a guide of benefits and services that may be available to affected employees, including unemployment compensation, trade adjustment assistance, COBRA continuation coverage, and early access to training services and other services, including counseling services.

▲ Sweden Employment Protection Act of 1982¹¹¹

Under Article 11, the notice period for workers can be up to six months, depending on how long the employee has worked at the company. These workers are also connected to job counseling centers created in partnership with trade unions that provide financial support and career advice. As a result of early notice and support, about 90% of Swedish workers find reemployment within a year. In the United States, only about 70% of displaced workers will find reemployment within a year, and they are more likely to see large wage reductions in their reemployment.¹¹²

▲ Nokia Bridge Program:¹¹³

Nokia was Finland's biggest employer until 2012 when it started laying off workers and restructuring the company. Employees around the world were given a minimum of six months advanced warning before they lost their jobs. Furthermore, the company introduced a strategy to transition workers by providing them with support to find a new job like training, career services, or assistance starting new companies as well as financial support while they did not have salaries. Of the 5,000 employees who received grants and support, 400 new

companies were started around the world—many with multiple ex-Nokia employees building companies or apps together.

Provide on-the-job training to ready employees for new careers

By announcing transition plans early, employers can provide workers with training on the job that will help them secure long-term employment. Developing targeted sector-based training partnerships can build worker skills in alignment with local economic development and transition goals.

■ Colorado Sector Partnership: SB14-205¹¹⁴

Colorado’s legislature instructed state agencies to build regional sector-based training partnerships to improve workforce training to fill the needs of private industry. The bill caused multiple state agencies to work together to ensure the state’s talent pipeline development infrastructure includes processes to hear the talent needs of expanding businesses, develop occupation-aligned curricula, and teach in-demand skills through state educational institutions in cooperation with union apprenticeship programs. Agencies developed an online toolkit that includes a sector partnership primer, guides for selecting and mobilizing target industries, a workbook to help conveners launch partnerships, self-assessment tools on partnership readiness and sustainability, and a key performance indicator dashboard to measure partnership outcomes.

■ Pennsylvania 2011 Act 67¹¹⁵

Pennsylvania’s legislature allocated funds to job training grants to develop employer and education partnerships and build industry-aligned training programs of high priority to the state. The bill encouraged the development of partnerships to aggregate multiple employers’ training and other human resources needs, assist training providers in aligning curricula and programs to meet industry demand, address workforce challenges faced by disadvantaged adults and youth, and create opportunities for incumbent workers across firms.

■ U.S. Department of Defense (DOD): Solar Ready Vets program via SkillBridge¹¹⁶

SkillBridge provides training during the last 180 days of service to gain work experience—industry-specific training, apprenticeships, and/or internships—that can translate into civilian careers. The Solar Ready Vets program focuses on training exiting service members to become solar installers. Students leave the program with entry-level PV installation credentials from the North American Board of Certified Energy Practitioners (NABCEP) and the opportunity to interview for a variety of jobs at actual solar companies.¹¹⁷

● S. 538 Investing in American Workers Act¹¹⁸

Status: Proposed 2/25/19 and referred to the Committee on Finance

Created a business-related tax credit for employers who increase expenditures on worker training. Specifically, the tax credit is meant to fund the attainment of a postsecondary credential by the employee as a result of an apprenticeship program, training authorized under Workforce Innovation and Opportunity Act, a course authorized by an educational institution, or a program administered by an employer or trade organization.

Develop just and equitable transition plans

▲ California Governor’s Executive Order: N-79-20¹¹⁹

In September 2020, Governor Newsom signed Executive Order N-79-20 directing the Governor’s Office of Planning and Research to partner with the California Labor and Workforce Development Agency to develop a Just Transition Roadmap.

California’s Just Transition Roadmap provides a framework for California’s economic recovery that recognizes global and statewide shifts in key industries and regional economies likely to result from a transition to carbon neutrality. The roadmap recognizes that a truly just transition will require an integrated approach to labor, workforce, and economic policy that prioritizes job quality as a key pathway to both equity and competitiveness. The roadmap lays out that transitions must focus both on communities and workers that rely

heavily on fossil fuels or other traditional industries and on creating economic opportunity for disadvantaged communities most burdened by the climate crisis.

California's roadmap describes five foundational elements toward achieving a just transition:

1. Diversifying the economy and creating or retaining high-quality jobs;
2. Creating or expanding education and training pathways into those jobs;
3. Planning the transition of specific industries (e.g., phased restructuring and redeployment);
4. Creating and enhancing safety net programs for workers and communities; and
5. Creating or expanding inclusive and diverse stakeholder processes to implement all of the above.

California's roadmap builds upon a report from the University of California Berkeley's Labor Center, "Putting California on the High Road: A Jobs and Climate Action Plan for 2030."¹²⁰ This document offers a vision for integrating economic and workforce development into major climate policies and programs in order to help achieve the state's climate goals of achieving greenhouse gas reduction targets by 2030 and transitioning to a carbon-neutral economy by 2045.

More information on California's "High Road" policies can be found in the Resource Guide.

▲ Colorado Just Transition Action Plan¹²¹

Colorado Office of Just Transition released its legislatively required just transition plan in 2020, which outlines 29 actions the state should take to assist communities and workers that will be negatively impacted by the state's transition away from coal electric power.

Create an office to address worker issues and needs

Most of the current just transition legislation passed in states includes creating a just transition office to manage the vast array of policies and issues that arise throughout the transition process. These offices can be physical centers located within transition communities or bureaucratic resources at the state level.

Community-based just transition centers

Offices on the ground in a community experiencing transition can provide active support tailored to local workers impacted by changes in the labor market and more easily oversee any transition-related funding or policy mandates that an area may receive from a state just transition office as well as other public or private sources.

■ Navajo Green Economy Fund and Commission¹²²

In 2009, the Navajo Tribal Council passed Green Jobs Legislation, creating the Green Economy Fund and Commission to support those impacted by the closure of the Black Mesa power plants operated by Peabody Coal Company. The commission established a green business incubator to support Navajo-owned businesses and forward projects like the Black Mesa Solar Project. Although the commission started with intentions to support the community and grow the local economy, Dr. Andrew Curley, a member of the Navajo Nation and an Assistant Professor at the University of North Carolina at Chapel Hill, argues that the Navajo Green Jobs movement represents a failure to transition the tribe and its workers.¹²³ He details the failures of the commission, noting the ways they undermined existing government structure and idealized entrepreneurship as the only means to transition. Thus, instead of pursuing a just transition that would benefit the health and safety of the community, the tribe bought an aging coal mine and extended a 50-year lease with a coal-fired power plant.

■ Colorado: Region 10 League for Economic Assistance and Planning¹²⁴

A publicly-funded non-profit council serving six county governments in partnership with the U.S. Economic Development Administration, this organization provides

a variety of services to communities in Region Ten (Delta, Gunnison, Montrose, Ouray, Hinsdale, and San Miguel County), including senior services, small business services, and community economic development planning. Development and planning services are primarily in the form of leadership, capacity building, and technical assistance. Examples of projects include monthly trainings to improve business strategies, connecting small businesses to applicable grants, hosting community meetings about state transportation plans, or developing a regional economic development plan.

■ West Virginia Brownfields Assistance Centers¹²⁵

In an effort to provide more comprehensive assistance to communities, the West Virginia Legislature created two centers to promote and coordinate the development of brownfield properties through training and technical assistance, such as facilitating site preparation efforts, engaging community involvement, and helping communities with grant writing and leveraging project funding. A large portion of their work deals with connecting communities to available funding to assist with locally-driven projects.

■ Soil and Water Conservation Districts¹²⁶

There are over 3,000 of these local governing boards across the country. Established under state law, Conservation Districts carry out natural resource management projects and encourage cooperation between landowners and operators to achieve conservation goals. As a result of their local presence, they are able to coordinate funding to support locally-driven solutions for a community's unique natural resource issues, including farm and ranch land conservation, wetlands restoration, soil erosion control during construction projects, etc.¹²⁷

■ Portland Clean Energy Community Benefits Fund (PCEF)¹²⁸

Formed as a result of a local ballot measure in 2018, the program provides funding for climate action that advances racial and social justice. Funds may be used for projects relating to clean energy and renewable energy, energy efficiency, regenerative agriculture, green infrastructure, clean energy jobs training, and any program relating to both greenhouse gas reduction and promoting economic, social, and environmental justice. A nine-member Grand

Committee makes funding recommendations as a part of the city's Bureau of Planning and Sustainability. Members must reflect the diversity of the city and include two residents from environmental justice neighborhoods. The city boasts that the fund is the "first-ever climate-fund created and led by communities of color, PCEF is for and by the community."

State Offices of Just Transition

States can provide administrative support to local transition communities by creating a state office to manage transition. They can also influence just transition outcomes through the actions mediated in public utilities commissions or other similar governing bodies.

▲ New Jersey Governor's Executive Order No. 221¹²⁹

The executive order establishes a state Office of Climate Action and the Green Economy tasked with designing a green economy strategy that accelerates a just and equitable transition in the state. It also directs each executive branch agency to assist or supply information as needed and to coordinate with the office.

■ Colorado Office of Just Transition¹³⁰

Established by Colorado House Bill 19-1314 along with the Just Transition Advisory Committee (JATC), the Office of Just Transition was tasked with working with JATC to develop a just transition action plan for the state, focusing in particular on communities and workers that will be impacted by the closure of the eight coal power plants and six coal mines in Colorado. The Office is also responsible for just transition program administration, engaging in relevant administrative proceedings, and recommending legislative changes.

Enact regulatory actions through Public Utilities Commissions

■ Public Utilities Commissions (PUCs) and Public Service Commissions (PSCs)

Public utilities are major producers and consumers of energy and fuels. Any policies made by a PUC that changes the way utilities operate can significantly impact the workers and communities where they operate as well as actors throughout their supply chains. Thus, states can influence just transition policy by expanding the mandates of their public utilities commission to create provisions that support workers and communities impacted by changes in demand for fossil fuels at all points on the supply chain.

■ Integrated Resource Plans (IRPs)

Public utilities commissions can support a just transition by incorporating displaced workers and impacted communities into their energy planning processes. Most PUCs require utilities to file IRPs periodically. The plans traditionally evaluate existing resources, forecast future demand in the next five to twenty years, and identify new resource options to meet future demand at a minimal cost. IRPs can also encourage utilities to account for other policy objectives. PUCs can use the IRP process and other energy planning processes to encourage utilities to consider and support workers and communities in transition.

■ New York's 2019 Climate Leadership and Community Protection Act¹³¹

Instructs New York State agencies, authorities, and entities to invest to ensure that disadvantaged communities receive at least 35% of the overall benefits of spending on clean energy and energy efficiency projects and programs. This directive includes state-run public utilities, such as the Long Island Power Authority (LIPA). In June of 2021, LIPA and its agent PSEG Long Island began work developing their 2022 IRP and set identifying benefits to disadvantaged communities to meet the directive as a key objective of their IRP process.¹³²

Strengthen training, certification, apprenticeship, and/or educational opportunities that provide direct pathways to jobs.

Well-funded, targeted training and education can provide pathways to new family-supporting jobs for impacted workers and those from disadvantaged communities and upgrade incumbent workers' skills. Training and education can aid with the goal of creating the skilled workforce needed to sustain a low-emission economy.

Match industry needs and skill requirements with education/training providers to inspire the development of industry-relevant coursework.

For example, due to a decline in the number of electricity industry workforce training programs, the electricity sector has experienced a gap in the young and experienced workforce needed to replace the skilled workers that are now retiring.¹³³ If the employers who reported these gaps in the workforce coordinated with colleges and universities, they could create a curriculum that benefits both the student who can exit with in-demand skills and the employer who can be sure they are hiring a skilled workforce.

■ Colorado Sector Partnership: SB14-205¹³⁴

Colorado's legislature instructed state agencies to build regional sector-based training partnerships to improve workforce training to fill the needs of private industry. The bill caused multiple state agencies to work together to ensure the state's talent pipeline development infrastructure includes processes to hear the talent needs of expanding businesses, develop occupation-aligned curricula, and teach in-demand skills through state educational institutions in cooperation with union apprenticeship programs. Agencies developed intensive technical assistance, including an online toolkit that includes a sector partnership primer, guides for selecting and mobilizing target industries, a workbook to help conveners launch partnerships, self-assessment tools on partnership readiness and sustainability, and a key performance indicator dashboard to measure partnership outcomes.

■ Pennsylvania 2011 Act 67¹³⁵

Pennsylvania’s legislature allocated funds to job training grants to develop employer/education partnerships and build industry-aligned training programs of high priority to the state. The bill encouraged the development of partnerships to aggregate training and other human resources needs of multiple employers, assist training providers in aligning curricula and programs to meet industry demand, address workforce challenges faced by disadvantaged adults and youth, and create opportunities for incumbent workers across firms.

■ South Carolina: Apprenticeship Carolina¹³⁶

Gaining national attention for the broad range of programs offered (manufacturing, construction technologies, energy and utilities, healthcare, information technology, tourism and service industries, and transportation distribution and logistics), this apprenticeship program is available at all 16 community colleges in the state. Utilizing apprenticeship consultants, companies are encouraged to inform the creation of programs at community colleges so that training leads students directly to in-demand career pathways.

● S.2334 21st Century Energy Workforce Act¹³⁷

Status: Introduced 7/30/19 and referred to the Committee on Energy and Natural Resources, then was placed on Senate Legislative Calendar on 10/24/19

Proposes the establishment of a “21st Century Energy Workforce Advisory Board” within the DOE to encourage the expansion of a skilled energy workforce through two main initiatives. First, the board would be tasked with providing workforce training and development program information to potential employees. The board would also improve energy and manufacturing-related training programs with the help of secondary schools, institutions of higher education—including community colleges and minority-serving institutions—workforce development, labor management, and industry organizations.

● S.2393 Clean Energy Jobs Act of 2019¹³⁸

Status: Introduced 7/31/19 and referred to the Committee on Energy and Natural Resources where it was amended and placed on the Legislative Calendar under General use. It was then reported to the Senate 1/28/20.

A nationwide education and training improvement program for energy-related industries will be carried out by the DOE. The program should focus on increasing skilled workers from underrepresented groups and connecting them with industries currently experiencing or expecting to face worker shortages.

● S. 1743 Coal Community Empowerment Act¹³⁹

Status: Introduced 8/3/2017 and referred to the Committee on Finance

Establishes support for “Coal Community Zones,” defined as those communities that have either lost at least 50 out of 20,000 employed workers or had at least 5% of their employment in coal mining from 2011-2015. Taxpayers in that zone receive a variety of tax benefits as well as grants from the DOL and the Department of Education (DoEd) for education and training programs for in-demand industries.

Encourage the expansion of apprenticeship programs to increase meaningful opportunities to learn industry-specific skills in an in-demand, union-backed trade

Apprenticeship programs provide employers with a pipeline of loyal, skilled employees and allow potential workers to gain necessary skills while working in the industry. For the renewable energy sector, apprenticeships can encourage workers to join a new trade and build a skilled workforce.¹⁴⁰

● S. 342 Working On Rewarding and Keeping Employees Resilient (WORKER) Act¹⁴¹

Status: Introduced 2/22/21 and referred to the Committee on Health, Education, Labor, and Pensions

The bill proposes bolstering STEM education in elementary and secondary schools through grants awarded by the DoEd and calls for the expansion of collaborative programs with registered apprenticeships and colleges.

■ **Many states¹⁴² offer tax credits or funding to employers who hire workers from apprenticeship programs.**

In Montana, employers are eligible for a \$750 tax credit when they hire workers from the Montana Registered Apprenticeship unit.¹⁴³ Additionally, employers who sponsor apprenticeship programs in Massachusetts can receive tax credits worth 50% of wages paid to each apprentice.¹⁴⁴ The Iowa Apprenticeship Act made funds available for covering the cost of conducting and maintaining an apprenticeship program.¹⁴⁵

▲ **Florida High Tech Corridor¹⁴⁶**

Sponsored by the University of Central Florida (UCF), the University of South Florida (USF), and the University of Florida (UF), the program connects tech companies with university research resources and students to train in the industry. The program offers research grants for companies, incubators for students, and partnerships that support inventors. The goal of the program remains to inspire more technology innovation and provide students with training and connections in the technology industry.

Expand employment opportunities in sustainable energy jobs to historically disadvantaged and/or excluded groups

The growing list of in-demand skills that will benefit a renewable energy grid and sustainable economy can be viewed as an opportunity to include historically excluded communities in the development of this new energy system and economy.

■ **DOE Outreach Programs¹⁴⁷**

The electricity sector has historically employed a smaller percentage of women and people of color than the national average due to historic exclusion from STEM positions and a lack of access to curricula relating to STEM and electrical training. DOE programs such as the Minorities in Energy Initiative (2013), the Minority Serving Institutes Partnership Program and the Cybersecurity Consortium at Historically Black Colleges and Universities (2012), Clean Energy Education & Empowerment Initiative (2010) to address gender diversity, and the ten-week training programs offered through Mickey Leland Energy Fellowship Program

(1995) are all efforts to meet the historic lack of access to energy jobs.

■ **Massachusetts S.9 An Act Creating a Next Generation Roadmap for Massachusetts Climate Policy¹⁴⁸**

This comprehensive energy and climate policy, which includes requirements energy efficiency and expansion of renewable energy, serves to update the 2008 Global Warming Solutions Act. Notably, it allocates \$12 million in extra funds for the budget of the Clean Energy Center, a publicly-funded economic development agency, dedicated to clean energy workforce development. The extra funding aims to expand the job training and opportunities in the clean energy workforce for minority groups and/or members of environmental justice communities as well as increase grant money awarded to minority- and women-owned small businesses.

■ **S. 1244 Civilian Climate Corps (CCC) for Jobs and Justice Act 2021¹⁴⁹**

Status: Introduced to the Senate 4/20/2021, Read twice and referred to the Committee on Finance.

The bill would create a Civilian Climate Corps program within AmeriCorps to complete projects with the goal of making communities more resilient to climate change and helping them transition to a clean energy economy. Examples of project areas include implementing conservation projects, helping communities recover from climate disasters, and enabling a transition to renewable energy. The act emphasizes creating a diverse and equitable group of participants and prioritizes projects in environmental justice communities. Corps members will also receive education and training with local institutions (the act aims for partnerships with labor groups such as apprenticeship programs) to provide career pathways to union jobs or other “good jobs.”

● **H.R.1315 Blue Collar to Green Collar Jobs Development Act¹⁵⁰**

Status: Introduced 2/22/19 and referred to the Committee on Education and Labor and to the Committee on Energy and Commerce. Referred to the Subcommittee on Energy where it was considered and marked up before being forwarded to the Committee on Energy and Commerce where it was amended.

Directs DOE to establish training and education programs for energy related fields with special attention

paid to increasing the number of skilled workers from underrepresented groups. The bill also aims to provide grants to businesses to pay employees wages while they receive training for jobs relating to renewable energy, energy efficiency, or grid modernization.

State support for workers in training or seeking employment

States can facilitate reemployment efforts by eliminating obstacles to education faced by older workers, displaced workers, and/or working parents.

■ DOL, Workforce Innovation and Opportunity Act (WIOA):¹⁵¹

The programs created through this legislation provide job search assistance and training opportunities with federal grant money given to states. The act outlines six core programs targeting different groups: the Adult program, the Dislocated Worker program, the Youth program, the Adult Education and Family Literacy Act program, the Wagner-Peyser Act Employment Service program, and the Vocational Rehabilitation program.

■ Colorado Works Subsidized Training & Employment Program (CW STEP)¹⁵²

The program provides job seekers who are already receiving “Colorado Works” benefits (the state’s TANF program) with opportunities to gain permanent, family supporting jobs. Support from STEP includes subsidized employment/transitional jobs to encourage the development of workplace skills and work history, on-the-job training with the goal of full employment in the position, as well as access to apprenticeship and internships to increase a job seeker’s skills and connections.

Provide childcare to make educational opportunities more accessible to student-parents

Childcare, or lack thereof, can hinder a parents’ ability to seek out job training, certification programs, or higher education due to money and time constraints.¹⁵³

▲ California, Los Angeles Valley College (LAVC) Family Resource Center:¹⁵⁴

A public-private partnership receiving funding from the City of Los Angeles and the State of California, the

organization offers a variety of wrap-around services to support student-parents as they pursue higher education and enter or reenter the workforce. Housed on-site at Los Angeles Valley College, the center provides family support services, including mental health counseling, drop-in child care, child-friendly study lounges, tutoring, infant-toddler playgroups, parenting classes, academic counseling, school supplies, textbook support, baby supplies, career-readiness and stress reduction workshops, a food pantry, and social services referrals. The goal of the center remains to reduce the obstacles that many student-parents face in obtaining higher education and economic mobility, focusing on providing these support services to underserved populations.

■ Child Care Access Means Parents in School (CCAMPIS)¹⁵⁵

This federal grant program assists with the costs associated with child care services for low income student parents eligible for Pell Grants. The money is awarded to higher education institutions to distribute to eligible students.

■ Strengthening Working Families Initiative¹⁵⁶

This federal grant program supports 14 public-private partnerships working to reduce barriers to child care for student parents in training programs related to information technology, healthcare, advanced manufacturing, financial services and educational services. The program aims to increase the technical skills of American workers to reduce reliance on temporary visa programs.

Create community career service organizations

Career services tailored to specific community needs—like displaced fossil fuel workers within a certain region—can provide job seekers with the resources they need to find employment and connect them to key training opportunities.

▲ Women Helping Women- Irving, CA¹⁵⁷

The non-profit serves jobs seekers facing barriers to finding and keeping jobs, especially women who have survived domestic abuse, were human trafficking victims, have been formerly incarcerated, or have experienced housing insecurity as well as foster youth. Some of the programs offered include a transportation program to

ensure those who don't have access to a vehicle or other reliable forms of transportation can come to programs or workshops, attend job interviews, and get to-and-from work for the first two weeks of employment. The organization also offers robust employment readiness services including resume building and opportunities to develop workplace soft skills.

■ **United Auto Workers (UAW) Lordstown Transition Center**¹⁵⁸

In 2018, General Motors and three other auto industry suppliers in northeastern Ohio issued notices announcing layoffs that year. These layoffs affected nearly 1,700 workers. The Ohio Department of Job and Family Services (ODJFS) applied for and received a two-year \$1.75 million National Dislocated Worker Grant from DOL to assist affected workers. The grant funded several activities including operating a Transition Center at the union hall of UAW Local 1112 in Trumbull County near the Lordstown GM plant. The transition center operated by staff from ODJFS, who provided case management, employment counseling, workshops, career planning, and job placement services to affected workers. The grant also funded pre-apprenticeship training for laid-off workers, and incentives to employers who hire affected workers who completed ApprenticeOhio programs.

Offer free community college tuition to educate workers in transition and ready them for in-demand careers

Offering tuition support gives more students access to skilled careers like those in the energy sector and other green economy positions, which then strengthens the workforce and aids in the transition to a sustainable economy.

■ **Funding for Community College**¹⁵⁹

Students who meet eligibility requirements (some grants are only available at specific schools, to full-time students, or for graduates of high schools in that state and others have residency requirements) can go to certain community colleges without having to pay for a portion of tuition in 20 states¹⁶⁰ via tuition scholarship grants funded by state or city governments. Some programs cover the tuition remaining after financial aid (known as "last dollar" programs) while others, like

"California Promise," waive tuition to all eligible students regardless of any additional funding, aid, or grants awarded. States could also extend eligibility to those experiencing job loss or in need of skill development as a result of transition.

Tailor public assistance to meet the unique needs of impacted workers

Although a variety of public assistance programs already exist for workers impacted by unemployment or trade policy, workers impacted by coal facility closures and energy transition can benefit from public assistance packages that reflect the unique needs dictated by their employment history, site details/owner, and location's culture (town, city, neighborhood, etc.).

● **S.1486 Prioritizing Our Workers Act:**¹⁶¹

Status: Introduced to the Senate 5/15/19 and referred to the Committee on Health, Education, Labor, and Pensions 2019

Allows pensions to be considered administrative expenses in bankruptcy proceedings to ensure that employees can withdraw funds even if the company goes bankrupt.

● **S.2737 Stop Looting American Pensions Act**¹⁶²

Status: Introduced into the Senate on 10/30/19 and referred to the Committee on the Judiciary

Revises bankruptcy requirements to give more protections for employee pay and pensions and places restrictions on executive pay.

● **H.R.397 Rehabilitation for Multiemployer Pensions Act**¹⁶³

Status: Passed in the House of Representatives on 7/24/19, read for a second time in the Senate 12/19/19 and placed on Senate Legislative Calendar under General Orders

Creates Pension Rehabilitation Administration and a related trust fund to provide loans for pension plans. Although this bill was not passed, pieces of it were incorporated into H.R. 1865: Further Consolidated Appropriations Act, 2020.

● **S. 4306 Marshall Plan for Coal Country Act**¹⁶⁴

Status: Introduced to the Senate 7/23/19 and referred to the Committee on Finance

Forwards two proposals to support displaced coal workers and their communities including allocating Medicare benefits to individuals who lost their job at a coal mine or coal power plant and expanding the scope of the Abandoned Mine Reclamation Fund to include economic revitalization, diversification, and development as well as reclamation and restoration of natural resources impacted by coal mining.

Linking Public Assistance Eligibility

Persons in need of public assistance are likely not well served by a single program alone. For example, someone experiencing food insecurity likely also struggles to pay for other essentials such as childcare and transportation. The benefit of a program like the Supplemental Nutrition Assistance Program (SNAP) can be magnified by connecting recipients with child care assistance and transportation assistance, which increases recipients' ability to work. Yet there is often significant time, bureaucratic, and other barriers to enrolling in public assistance. Programs can remove these frictions and streamline the enrollment process by linking eligibility across programs, where enrollment in one program makes the recipient automatically eligible for other programs.

■ Transit Assistance Program (TAP) Twin Cities, MN¹⁶⁵

Provides discounted transportation fares (\$1 per ride at all times) for people receiving public benefits or if experiencing housing insecurity (must provide certain eligibility requirements). Applicants simply provide proof of enrollment in public benefits and other programs such as SNAP, the Special Supplemental Nutrition Program for Women, Infants and Children (WIC), Free-Reduced Lunch, Unemployment Insurance, Public Housing Certificates, or Section 8 Vouchers, etc. to receive a TAP fare card.

■ Health Coverage Tax Credit¹⁶⁶

Individuals who are eligible for the Trade Adjustment Assistance Program—which supports workers who are displaced due to shifts in U.S. trade policies—can apply to receive a federal tax credit to offset monthly health care premiums.

■ American Rescue Plan: Zero-Cost Health Insurance for Persons Receiving Unemployment Compensation¹⁶⁷

Anyone who received unemployment income for at least one week in 2021 may be eligible—along with those in their household—to receive a tax credit to cover monthly health care premiums for certain plans. The proposal aims to provide high-quality health care even if a person does not have access to Medicaid.

■ Texas Workforce Commission (TWC), Child Care Subsidy Program¹⁶⁸

At the Federal level, the Child Care and Development Fund provides funding to states under a block grant to cover the cost of child care for low-income families. The program requires eligible parents to be actively working, attending job training, or pursuing education which can limit the impact of the program. This year, the TWC extended the child care subsidy program to unemployed parents for three months while they seek employment.¹⁶⁹ By combining the impact of unemployment compensation with child care subsidy, concerns over child care do not have to burden Texas job seekers.

Divorce the provision of key benefits from the workplaces via portable benefits

Portable benefits allow employees to maintain benefits such as health care or pensions despite their employment status. As more workers enter into “non-traditional” work—or are displaced from a career with robust benefits—portable benefits allow workers to maintain some stability even in the face of employment uncertainty.¹⁷⁰

■ New York: Black Car Fund¹⁷¹

This state-funded non-profit provides benefits, job protections, and applicable training to for-hire car drivers, who are traditionally classified as independent contractors. The fund grants drivers access to workers' compensation coverage and some health care benefits as a result of a mandatory passenger surcharge.

■ Secure Choice Retirement Savings Programs¹⁷²

The program provides portable individual retirement account (IRA) savings accounts to employees to ensure the endurance of benefits despite job changes. Some version of a state-facilitated retirement savings program for private sector workers is currently available in California, Illinois, Oregon, Washington, New Mexico, Virginia, Maine, New York, New Jersey, and Massachusetts and are set to roll out in Connecticut, Maryland, Vermont, and Colorado.¹⁷³

● Washington State House of Representatives: HB1601 The Universal Worker Protections Act¹⁷⁴

Status: Introduced 1/25/19 and died in committee, reintroduced 1/13/20 without being passed

Outlines comprehensive labor protections including the establishment of the Employee Fair Classification Act to prevent misclassification as an independent contractor; worker boards to set industry-specific labor standards such as a minimum pay rate; a portable benefits fund to provide health insurance, paid time off, and retirement benefits; and protections against retaliation of workers.

● S.541 Portable Benefits for Independent Workers Pilot Program Act¹⁷⁵

Status: Introduced in the Senate on 2/25/19 and referred to the Committee on Health, Education, Labor, and Pensions

Requires DOL to experiment with providing portable benefits by awarding grants to states, local governments, or nonprofit organizations and then evaluating the outcome of the awards.

Institute robust labor standards

Jobs represent more than just a source of income. When a skilled fossil fuel worker loses their job, they also stand to lose a community, a lifestyle, and a part of their identity. Replacing these more intangible benefits of a job can take time and specialized resources.¹⁷⁶ Transition from fossil fuel jobs with comprehensive benefits and support from unions must include placing workers in jobs with family-supporting wages and job security. Just transition policies should aim to increase the labor standards for all jobs at the state level to make job transition easier for former fossil fuel workers.¹⁷⁷

Alternative careers have the potential to be as appealing as fossil fuel jobs if they provide workers with increased job security, livable wages, and comprehensive benefits. Additionally, including labor as a voice in any just transition legislation or renewable energy project negotiations ensures that workers' needs are fully represented and codified into just transition legislation. In the end, simply transitioning fossil fuel workers to new jobs only means so much unless the jobs offer family-supporting wages, benefits, and job security.

The following are comprehensive state energy statutes that require robust labor standards to be included into the acquisition, construction, maintenance, and/or permit application phase of energy-related projects—especially in regards to renewable energy projects.

■ Colorado Public Utilities Commission Reauthorization Act (2019)¹⁷⁸

Workforce Provisions: *Project labor agreements, local hire, apprenticeship utilization, prevailing wage*

The act added requirements to the scope of the PUC's authority relating to clean energy planning, energy impact bonds, and wholesale electric cooperative resource planning.¹⁷⁹ Section 40-2-129 directs the PUC to evaluate proposals for new energy construction based on objective project employment metrics including the availability of training and apprenticeship programs, long-term career opportunities, industry standard wages, health care, and pension benefits as well as the employment of Colorado labor instead of the importation of out-of-state (and most likely non-union) workers. Additionally, Section 7 changed criteria used by the PUC to evaluate new electricity generation permits or acquisitions to utilize best value employment metrics including the payment of industry-standard wages. Utilities may opt to use a PLA in lieu of providing the required best value employment metrics.

■ Oregon Clean Energy Jobs¹⁸⁰

Workforce Provisions: *Apprenticeship Utilization, Prevailing Wage and Worker Benefits, Targeted Hire, Organizing Rights and Negative Determination*

This clean energy bill establishes a series of climate change mitigation policies including the development of good-paying clean energy jobs, expanding solar power, improving energy efficiency, increasing affordable housing, and creating more green

transportation options. Projects must include “strong labor standards” such as requirements that workers are paid the prevailing wage compared to similar types of jobs and provision of job training opportunities and comprehensive benefits. The bill also focuses on creating apprenticeship and workforce development opportunities for women, people of color, veterans, and people with disabilities.¹⁸¹

■ **Washington Clean Energy Transformation Act (2019)**¹⁸²

Workforce Provisions: *Project Labor Agreement, Prevailing Wage and Worker Benefits, Local Hire, Targeted Hire, Apprenticeship Utilization, Organizing Rights and Negative Determination*

Under Section 18 of the act, any renewable energy project certified by the Washington State Department of Labor and Industries developed under a community workforce agreement or project labor agreement qualifies for a 100 percent sales tax exemption. This section also sets forth a 50% sales tax exemption for projects that include contracts with or procurement from entities that have a history of compliance with wage and hour laws; are women, minority, or veteran-owned businesses; utilize apprenticeships; and prioritize hiring workers living in the area where the project is being constructed.

■ **Maryland SB 516 Clean Energy Jobs Act**¹⁸³

Workforce Provisions: *Project Labor Agreements, Community Benefit Agreement, Apprenticeship Utilization, Prevailing Wage and Worker Benefits, Targeted Hire*

Utilizing funds from the Strategic Energy Investment Fund, the act creates a Clean Energy Workforce Account to award grants for workforce development programs (pre-apprenticeship and apprenticeship training) in the clean energy industry. In order to qualify for workforce training and development grants, clean energy projects must initiate a project labor agreement. The bill also requires any approved clean energy projects to employ a community benefit agreement which requires the inclusion of workplace safety, prevailing wages, and career training opportunities (targeted for local residents, veterans, women, and minorities), among other benefits for the community impacted by the project and its workers.

Local First Source hiring programs

The following cities maintain programs to connect industry with local job seekers.

▲ **Alameda County, CA**¹⁸⁴

First Source Program connects Alameda County (Career Centers in Alameda, Hayward, Newark, Oakland, and Dublin) residents to employment opportunities by providing a list of local candidates to any eligible contractor (any supplier awarded a contract over \$100,000 is automatically qualified to use the First Source hiring process).

▲ **City of Berkeley, CA:**

Offers both a First Source program for residents 18 and older as well as a YouthWorks program to connect residents 14-25 years old to employment opportunities.¹⁸⁵

▲ **Philadelphia, PA**¹⁸⁶

Via an Amendment to Title 17, “Contracts and Procurement,” of The Philadelphia Code, the city created a registry of city residents to be accessed for filling “new, entry level jobs created as a direct or indirect result of Financial Assistance.”

▲ **Denver, CO**¹⁸⁷

A first source hiring program created through Denver Urban Renewal Authority (DURA), creates preferential employment and training opportunities for low-income Denver residents and requires any DURA-approved developers with Redevelopment Agreements to participate in the First Source program.

First Source hiring agreements and targeted hire

The following policies focus on ensuring that energy-related projects include provisions that keep jobs and revenues in the state and benefit local communities by targeting local job seekers and/or those from a specific group for employment.

■ California Clean Energy and Pollution Reduction Act (2015)¹⁸⁸

The act increased the renewable portfolio standard and required the PUC to implement a responsible contract policy that resulted in a 2018 decision to apply workforce standards to utility energy efficiency programs. These standards were then used as a starting point to increase hiring of disadvantaged workers—defined as those who are low income, lack a high school degree, were formerly incarcerated, are single parents, are chronically unemployed, are former foster children, have limited English proficiency, were referred from other similar programs, or live in a disadvantaged zip code—and tracking of workplace participation of disadvantaged workers to inform training and skill requirements.

■ Maryland Offshore Wind Energy Act¹⁸⁹

Section 1 establishes a process for accessing project applications that requires bidders to demonstrate the extent to which their proposal provides for the use of skilled labor and outreach to apprenticeship programs.

■ Virginia Clean Economy Act (SB851)¹⁹⁰

Enacted in 2020, this act established that low-income/disadvantaged communities shall receive preference for both siting and job training for new renewable energy projects. The legislation also instituted low-income bill caps to prevent high costs to be borne by ratepayers and required that offshore wind projects in Virginia must give local workers hiring preference in their construction.

Responsible employer standards

■ California Clean Energy and Pollution Reduction Act (2015)¹⁹¹

The act increased the renewable energy portfolio standard in the state, which then accelerated energy efficiency program targets. To improve the quality of retrofitting projects, the act also required the PUC to develop a responsible contractor policy to be implemented in energy efficiency programs.

Access and inclusion policies including project labor agreements (PLAs), community workforce agreements,¹⁹² and public sector jobs retention and creation

The following policies require industries applying for energy project bids to work with unions and communities to create contracts that benefit both workers and communities.

■ New York State 2021 Budget Bill - Section 224-D¹⁹³

New York State lawmakers added a requirement that contractors building renewable energy resources over 5MW in size must negotiate a PLA or another comparable agreement. Requiring a PLA ensures that contractors will pay workers an appropriate wage, that the worksite will be safe for workers, and that local workers and/or disadvantaged workers will benefit from the work. Hiring in-state workers is also a measure to ensure state expenditures benefit state residents and workers.

■ Connecticut Public Act No.19-71 An Act Concerning the Procurement of Energy Derived from Offshore Wind¹⁹⁴

When a prior bill authorized the state to purchase 2,000 MW of offshore wind energy, the act outlined labor standards that must be included in bids for the state contracts including requiring bidders to commit to offering prevailing wages and negotiate a project labor agreement and designing an evaluation process to prioritize projects with economic benefits for local communities.

■ Vineyard Wind and Southeastern Massachusetts Building Trades Council PLA¹⁹⁵

In July 2021, Vineyard Wind and Southeastern Massachusetts Building Trades Council signed a project labor agreement for an industrial-scale offshore wind project in the United States. Through the agreement between the unions and Vineyard Wind, \$500,000 will be allocated to a special fund designed to bolster pre-apprenticeship and recruitment programs. One such program, “Building Pathways South,” will create opportunities for low-income residents, particularly in underserved communities, to both work on the Vineyard Wind project and to achieve family-sustaining careers in the union construction industry. The terms of the agreement will ensure that a majority of the workforce be from local communities (Bristol, Plymouth, Barnstable, and Dukes Counties) in addition to setting concrete hiring targets for women and people of color. Through this agreement, Vineyard Wind has also pledged to appoint an Accountability Officer to facilitate an Access and Opportunity Committee and to ensure that contractors are meeting hiring requirements in addition to promoting an inclusive workplace.

■ Maryland Clean Energy Jobs Act SB516¹⁹⁶

Maryland’s Clean Energy Jobs Act established a Clean Energy Workforce Account, funded from the Strategic Energy Investment Fund, to provide grants to support workforce development programs that provide pre-apprenticeship and apprenticeship training in the clean energy industry. In order to be eligible for a grant, a program must first initiate a PLA. Approved projects must also initiate a Community Benefit Agreement. Community Benefit Agreements under the bill are required to “promote increased opportunities for local businesses and small, minority, women-owned, and veteran-owned businesses in the clean energy industry, ensures the timely, safe, and efficient completion of the project by facilitating a steady supply of highly skilled craft workers who shall be paid prevailing wage rate rates, promotes safe completion of the project by ensuring that at least 80% of the craft workers on the project have completed an occupational safety and health administration 10-hour or 30-hour course, promotes career training opportunities in the construction industry for local residents, veterans,

women, and minorities, provides for best efforts and effective outreach to obtain, as a goal, the use of a workforce including minorities, to the extent practicable, and reflects a 21st-century labor-management approach based on cooperation, harmony, and partnership.”

Prevention of worker misclassification

Misclassifying workers—or the common, illegal practice of classifying workers as independent contractors whose work does not actually apply as such—allows employers to effectively avoid providing appropriate worker protections and can impede the implementation of climate mitigation policy. For example, in the trucking industry, companies try to classify drivers as independent contractors instead of employees forcing drivers, rather than the trucking companies for which they work, to take on the costs of retrofitting fleets to make them more energy efficient. Since the costs of climate mitigation technology is usually an economic burden most drivers cannot bear alone, the policies then go unadopted.¹⁹⁷ The construction sector is also known for misclassifying workers in order to pass large workers’ compensation insurance premiums on to individual workers. In the context of just transition, workers who are misclassified as independent contractors become “ineligible for unemployment insurance, workers’ compensation, minimum wage, and overtime,”¹⁹⁸ all important benefits for displaced workers who might be transitioning from one job to another. They are also left to pay the full FICA tax and purchase their own health insurance. Misclassification could undermine just transition targets by making climate mitigation policies harder to implement and putting workers’ benefits at risk.

■ State ABC Tests

Currently, the best way to combat misclassification is through the adoption of the “ABC Test” and increased enforcement of wage laws to prevent misclassification. Under this test, a worker is an independent contractor if their work is completed without the direction/control of the employer (Absence of control), performed independently of the usual course of the employer’s business (Business of the worker), done by a person with their own independent business engaged in that kind of work (Customarily engaged).¹⁹⁹ So far, 27 states have adopted the “ABC Test” into their labor laws to discourage misclassification.

States that have adopted the ABC test for unemployment insurance eligibility and/or wage and hour protections

State	ABC for unemployment insurance	ABC for wage/hour/other
Alaska	Yes	
California	Yes	Yes
Connecticut	Yes	Yes
Delaware	Yes	
District of Columbia	Yes for construction	Yes for construction
Hawaii	Yes	
Illinois	Yes	Yes for construction
Indiana	Yes	
Louisiana	Yes	
Maine	Yes	
Maryland	Yes	Yes for construction and landscaping
Massachusetts	Yes	Yes
Nebraska	Yes	Yes
Nevada	Yes	
New Hampshire	Yes	
New Jersey	Yes	Yes
New Mexico	Yes	
New York	Yes for construction	Yes for construction
Vermont	Yes	Yes
Washington	Yes	
West Virginia	Yes	

Source: *Worker Classification: Employee Status Under the National Labor Relations Act, the Fair Labor Standards Act, and the ABC Test* (CRS 2021).

Economic Policy Institute

PRINCIPLE FOUR:

Policies that achieve community health, longevity, and resilience

Creating healthy, sustainable, and resilient communities sits at the core of just transition efforts.²⁰⁰ Opportunities for improved efficiencies, economic vitality, public health, and environmental conditions must be achieved together for a truly just transition.

Community benefits for clean energy investments

The transition away from fossil fuel energy will require significant investments in new clean energy infrastructure. Projects without policies and strategies that give consideration to host communities can have unintended impacts on individuals and the environment. Instead, strategies such as project **community benefits agreements (CBAs)** can be used to guarantee that project developers mitigate any negative impacts and provide certain amenities and other benefits to the community. Besides CBAs, other community benefits programs can ensure that communities economically benefit from investments in clean energy.

Developing tools to evaluate equity in decision-making:

- ▲ Federal, Environmental Protection Agency: <https://www.epa.gov/ejscreen>
- Maryland, EJScreen Mapper: <https://p1.cgis.umd.edu/mdejscreen/>
- Seattle, WA Climate Challenges Atlas: http://www.futurewise.org/assets/card_images/Futurewise-Climate-Challenges-Atlas-2017.pdf
- Cuyahoga County, OH Vulnerability Assessment Map: <https://countyplanning.maps.arcgis.com/apps/webappviewer/index>.

■ **New York Host Community Benefit Program**²⁰¹

In February of 2021, the New York State Public Service Commission approved this program as part of a legislative effort to improve and accelerate the development of large-scale renewable energy projects. Structured as a bill credit to individual ratepayers, the program is funded by fees on owners of renewable energy facilities with capacities greater than 25 MW, with fees set at \$500 per MW for solar and \$1000 per MW for wind. Fees are collected for the first 10 years of a project's operation, and distributed equally among all residential utility ratepayers living in the same municipality where the facility is located.²⁰² The legislation which authorized the program, New York's Accelerated Renewable Energy Growth and Community Benefit Act,²⁰³ also includes provisions to increase community participation in the clean energy project review process.

■ **New York 2019 Climate Leadership and Community Protection Act**²⁰⁴

The act instructs New York State agencies, authorities, and entities to invest to ensure that disadvantaged communities receive at least 35% of the overall benefits of spending on clean energy and energy efficiency projects and programs.

■ **Portland, Oregon Clean Energy Community Benefits Fund**²⁰⁵

Created in 2018 by local ballot measure, this program provides grants to projects that simultaneously relate to reducing greenhouse gas emissions and promoting economic, social, and environmental justice. The program meets the funding needs of locally scaled projects that directly impact communities through projects relating to clean energy, energy efficiency, clean infrastructure, clean energy jobs training, and regenerative agriculture. Grants are both large and small, distributed from a pool of up to \$61 million annually, and financed by a tax on large retailers. The program prioritizes awarding these grants to disadvantaged populations including low-income people, people of color, people with disabilities, and chronically underemployed people. Guiding the program is a grant review community required to reflect these priority populations and the diversity of Portland residents in its membership.

■ **California Castle Wind offshore wind project**²⁰⁶

An offshore wind farm was planned for the coast of Central California near the community of Morro Bay. In 2018 Castle Wind, an offshore wind developer, entered into an exclusive CBA with the Morro Bay City Council community to maximize the benefits and minimize the harm of the project to the local community. Specific commitments by Castle Wind include hiring qualified local residents, establishing internships and trainee programs at local education institutions, establishing a maintenance and monitoring facility, and promoting local business where possible. In addition to this agreement, Castle Wind also entered into a Mutual Benefits Agreement with the Morro Bay Commercial Fishermen's Organization and the Port San Luis Commercial Fishermen's Association to reduce the impact of the project on local commercial fishermen.

Community-owned clean energy

Another approach to driving the benefits of clean energy investments to communities is to increase community ownership of clean energy systems. Shared renewables programs such as community solar expand access to the benefits of solar power system ownership to people who are unable to host an on-site system.²⁰⁷ **Federal and state incentives and assistance for residential solar** can help homeowners purchase and install solar power systems on their own homes, lowering their energy bills. These types of programs allow community members to invest in or subscribe to a community solar installation and receive credits on their electric utility bill.

■ **California Community Solar Pilot Program**²⁰⁸

Part of California's Low-Income Weatherization Program, this program was created in 2018 to expand access to solar energy for households whose existing low-income programs have failed to serve, such as renters. At launch, the program allocated up to \$5 million in funding for two or more community solar projects that serve low-income or disadvantaged communities.

■ **New York State Solar for All Program**²⁰⁹

In 2018, the New York State Energy Research and Development Authority launched this program awarding contracts to nine projects across the state to serve 7,000 low-income households in the program's first phase.

Eligible households—those with incomes below 60% of the state median—who are accepted to the program can subscribe to a community solar project at no cost. Subscribers receive a bill credit on their electric utility bill for the project's energy production commensurate with their share in the project. The credit is estimated to be \$10 a month on average and can be received in addition to other bill discounts subscribers receive.

Land remediation and redevelopment

Millions of sites across the U.S. have been rendered extremely polluted as a result of fossil fuel-intensive energy practices and industrial activity. These hazardous conditions threaten ecosystems, community water sources, public health, and local economies with the human costs being disproportionately borne by communities of color as a result of the legacy of environmental racism.²¹⁰

Energy-producing communities, which have historically hosted coal mining, oil and gas production, fossil fuel-fired power plants and other fossil fuel operations, unfairly bear the cost of the closing of facilities and mitigating their legacies of pollution. The communities most exposed to these polluted sites also experience most of the losses of jobs, tax revenues, and economic activity. Remediation efforts can improve public health by removing hazardous pollutants, boost the local economy via temporary employment on remediation projects and increased property values, and return the land to a safe condition for new uses.²¹¹

Federal remediation programs

The federal government supports remediation efforts through the management of several remediation programs. Unfortunately, many federal remediation programs lack funding to support the recent increase in remediation needs stemming from recent fossil fuels facility closures.

■ Superfund Program²¹²

The EPA has regulatory power over contaminated sites (nominated by state and local governments to be added to the National Priority's List after EPA evaluation) and is authorized to identify responsible parties who

are liable to pay for the site's cleanup. As originally contemplated in the statute, when no such responsible party can be identified, the Superfund would provide funding for the cleanup. The Superfund tax, which used to funnel money to the fund via petroleum, chemical, and corporate taxes on companies creating pollution, expired in 1995, leaving a huge funding gap. As a result, when EPA takes responsibility for sites with unidentified polluters, companies that cannot pay for cleanup, or companies that no longer exist, project funding no longer comes from the Superfund, but rather from EPA's appropriations budget. In other words, taxpayers now bear the burden of paying for expensive site clean up costs.²¹³ Plus, this lack of sufficient funding for site cleanup has also stalled and slowed progress on a variety of projects.

■ Abandoned Mine Land (AML) Reclamation Program²¹⁴

The AML fund, financed by taxing mine operators based on the volume of production, provides resources for remediation efforts of abandoned mines led by state and local governments. Similarly to the Superfund program, the AML faces funding shortages that place benefits at risk. The fund has decreased from \$305 million in 2007 to \$197 million in 2016, leaving a gap in the money needed to address high-priority health and safety coal mine reclamation, especially in Appalachia.²¹⁵ In February 2020, the U.S. Department of Interior (DOI) announced an increase in grant money of more than \$170 million, which could help states—as well as Hopi, Navajo, and Crow tribal communities—to catch up on payments.²¹⁶

■ Brownfields and Land Revitalization Program²¹⁷

Also managed by the EPA, this program helps state and local governments and communities to remediate polluted sites by offering tax credits to land developers and small grants to governments. These grants fund activities including environmental assessments, cleanup, job training, and research and technical assistance services.²¹⁸

■ Defense Environmental Restoration Program²¹⁹

An example of a federal program that addresses the impact of a particular industry on communities, this program operated by the DOD conducts cleanups at active installations, Formerly Used Defense Sites, and Base Realignment and Closure locations.

● H.R.2156 - Revitalizing the Economy of Coal Communities by Leveraging Local Activities and Investing More (RECLAIM) Act of 2019²²⁰

Status: Introduced 4/9/2019, referred to and amended by the House Committee on Natural Resources, placed on the Union Calendar No. 176 10/4/2019

Proposed the expansion of the Abandoned Mine Reclamation Fund to designate funds for economic revitalization, diversification, and development from reclamation and restoration of land and water resources impacted by coal mining.

State remediation programs

To provide the benefits of remediation to just transition communities, states can prioritize the use of federal funds in communities disproportionately burdened by energy transition and assist communities in accessing federal resources for remediation. States can also replicate federal programs using state funds.

■ West Virginia Brownfields Assistance Centers²²¹

In 2005, the West Virginia Legislature created target communities in need of support for remediation and redevelopment of local brownfields. Two centers were hosted by Marshall University and West Virginia University to serve West Virginia's southern and northern counties, respectively. The centers promote innovative redevelopment of brownfield sites by providing training, technical assistance, education, and community engagement services for community-driven remediation efforts. Small grants have also been awarded as seed funding to overcome immediate barriers in the redevelopment process.

■ Minnesota Pollution Control Agency (MPCA) Environmental Justice Framework²²²

In 2015, the MPCA adopted this framework as its vision and strategy for embedding environmental justice principles into the agency's work. The framework includes strategies for centering environmental justice in its land remediation programs and activities.²²³ Examples of these strategies include:

- After nine out of the ten new sites MPCA added to the Superfund list were located in areas of concern for environmental justice, the agency conducted more extensive community outreach on these sites.

- When the MPCA revised its soil contamination cleanup policy, it held an additional meeting in a diverse neighborhood for the public, as opposed to only technical stakeholders.
- In its work on harmful vapor intrusions, the MPCA is prioritizing sensitive populations and environmental justice communities.

Equitable energy efficiency and electrification assistance

In addition to investments in clean energy production and transmission infrastructure, homes and businesses need to be upgraded to maximize the environmental and economic benefits of clean energy. Most residential and commercial buildings in the U.S. use fossil fuels in equipment and appliances—such as furnaces, boilers, and ovens—to perform essential functions, including space heating, water heating, and cooking.²²⁴ Upgrading homes and businesses with newer, more energy-efficient or electric equipment and appliances can reduce energy consumption and reduce the burden of high energy bills. Other energy efficiency improvements such as sealing, insulation, windows, doors, skylights, and lighting can deliver savings to households and businesses through reduced energy consumption.²²⁵

The high upfront costs of energy efficiency and electric equipment upgrades pose a challenge to low-income, disadvantaged, and historically energy-producing communities. Many low-income households and small businesses are also renters whose landlords see little incentive to invest in electrification and energy efficiency upgrades to their properties since energy bills are largely borne by the tenant.²²⁶ These communities face the risk of ever higher energy bills as they bear a greater share of the burden of paying for stranded and aging fossil fuel energy infrastructure as wealthier communities fully transition to electricity.²²⁷

Upgrading and electrifying the millions of homes and businesses that consume fossil fuels for a variety of end uses is an enormous and complex policy challenge. It is nevertheless worth tackling because the residential and commercial sectors collectively account for 40% of national energy consumption²²⁸, and the energy used in buildings affects people's daily lives. Many resources exist to help the general public, but states can do more

to support low-income, disadvantaged, and historically energy-producing communities in overcoming barriers to energy transition in their homes and businesses.

■ Maryland EmPOWER Limited Income Energy Efficiency Program²²⁹

This program provides energy efficiency services including energy audits and installation of materials and equipment for energy efficiency upgrades at no cost to eligible households. Eligibility for this program is determined through maximum household income thresholds varying with household size. Home improvements covered by the program include insulation, water heating system improvements, lighting retrofits, furnace system maintenance, refrigeration retrofits, and other health and safety equipment.

■ California Solar on Multifamily Affordable Housing Program²³⁰

Launched in 2019 with the goal of ensuring low-income tenants have equal access to the cost-saving benefits of clean energy, this program provides financial incentives for installing solar photovoltaic energy systems on eligible multifamily affordable housing. Landlords receive no-cost technical assistance and incentives to offset the cost of installing solar energy systems on their properties. Landlords also enter into legally-binding agreements to ensure the economic benefits of the program go to the tenants and that rents will not increase. Tenants receive benefits in the form of energy credits on their electric utility bills. This approach takes a step in addressing the issue of split incentives for electrification and energy efficiency investments in rental properties by providing a financial incentive to property owners while also imposing protections to ensure tenants see the energy cost savings.

■ Weatherization Assistance Program²³¹

Managed by the DOE and administered by the states, this program funds weatherization services, which make homes more energy efficient with the goal of reducing energy bills and improving health and safety. This program aims to focus benefits to low-income families by using eligibility requirements, including maximum household income varying with household size, receiving SSI or TANF, as well as giving preference to households with older, disabled, and child members. The DOE provides grants to states who contract with

local organizations to deliver weatherization services to low-income households.

■ Low Income Home Energy Assistance Program (LIHEAP)²³²

LIHEAP is a federal program managed by the U.S. Department of Health and Human Services (HHS) that provides funding to assist low-income—and especially energy-cost burdened—households meet their immediate energy needs. Funding is provided in the form of block grants to states as well as grants for leveraging non-federal resources, innovative programs, and emergency situations. States can use their LIHEAP funds to assist with heating and cooling costs, and up to 15% for weatherization assistance, or up to 25% with a waiver.

Improving local infrastructure

Strong local infrastructure can promote economic development and increase a community's resilience to environmental, health, economic, and social challenges.

Internet connectivity

■ H.R.748, Coronavirus Aid, Relief, and Economic Security (CARES) Act, 2020²³³ and H.R.1319, American Rescue Plan Act, 2021²³⁴

Passed in 2020 to provide economic support during the COVID-19 pandemic, the CARES Act included a \$150 billion Coronavirus Relief Fund for state, local, and tribal governments to navigate the impacts of the pandemic. The follow-up American Rescue Plan Act passed in 2021 included \$350 billion in funding for COVID-19 relief. The COVID-19 pandemic highlighted the importance of internet access and especially broadband connectivity for community resilience. For example, home internet enabled digital learning and telehealth when social distancing guidelines prevented in-person services. Many people without home internet also relied on complimentary Wi-Fi in public spaces and businesses, many of which were closed or restricted during the pandemic. States have used funding made available through federal legislation to increase internet connectivity through programs such as providing hotspots and internet-connective devices for students, hotspots to vulnerable populations for telehealth, 24/7

public Wi-Fi access points, and residential broadband infrastructure.²³⁵

■ National Telecommunications and Information Administration (NTIA) Broadband Infrastructure Program²³⁶

Established through the Consolidated Appropriations Act of 2021, this program managed by the U.S. Department of Commerce (DOC) awards grants to partnerships of states and local governments and fixed broadband service providers. The program aims to fund projects that expand service to the greatest number of households and are most cost-effective in eligible service areas. In 2021, \$288 million in grant funding was made available under the program.²³⁷

■ Minnesota Border-to-Border Broadband Development Grant Program²³⁸

This program was created in 2014 to use state resources to encourage new and existing broadband service providers to build out broadband infrastructure in unserved and underserved areas. Program grants can go to fund up to 50% of the cost of eligible broadband development projects such as last-mile and middle-mile infrastructure serving eligible areas. The Office of Broadband Development maintains a map of unserved and underserved areas based on access to 25 mbps and 100 mbps download speed broadband service, respectively. The grant process also includes consideration for a project's economic development potential and community impact.

▲ Chattanooga, TN Gig Broadband²³⁹

Chattanooga was once one of the most heavily polluted cities in the country thanks to a railroad, tannery, and heavy metal foundries. When the railroad closed and the city transitioned away from industry, it established a government-owned fiber-based internet available to the entire city. Residents still have to pay for the service, but the network reaches all residents. Through this infrastructure development—made possible through a grant from the DOE²⁴⁰—, the city was able to attract a variety of tech businesses—the creation of between 2,800 and 5,200 new jobs can be tied to the creation of the gig network.²⁴¹ The influx of funds and businesses led to other city improvement projects such as cleaning up the river and expanding outdoor tourism, another key feature of the city's transition.

Other communities followed the Chattanooga example, including Concord, MA, which voted to build a smart grid and fiber-optic network in 2009 and have continued to expand the town's fiber connections.²⁴² In fact, 82 cities and towns²⁴³ across the United States have built government-owned fiber-optic internet infrastructure—a huge step in connecting citizens to services and connecting the community to possible economic opportunities.

■ The Peoples Rural Telephone Cooperative (PRTC) Kentucky²⁴⁴

As a result of loans from the U.S. Department of Agriculture (USDA) and “Obama-era stimulus” in the form of government loans and grants, the PRTC developed broadband access throughout two of the most impoverished counties in the state, Jackson and Owsley.²⁴⁵ After establishing the internet access, the CEO of PRTC worked with state unemployment programs and a job-training non-profit organization—Teleworks USA—to develop internet-based jobs in the region. This collaboration resulted in a program that provides three months of free internet service to anyone who completes a workshop at Teleworks USA. Five years after the program started, more than 600 remote jobs were created.

Education, health, and government services

■ USDA Secure Rural Schools Program²⁴⁶

The program provides critical funding for schools, roads, and other municipal services in over 700 counties across the U.S. and Puerto Rico. Since 1908, a portion of Forest Service funds generated from activities such as grazing and timber production has been distributed to eligible communities to help maintain local roads and schools. In 2000, Congress passed legislation to stabilize these funds, which had been declining for decades. Funds are divided into three categories: roads and schools, projects on federal lands, and county projects. Under federal law, counties containing national forests receive a portion of the revenue from certain land uses and activities. Historically timber sales have been the largest source of this revenue. When federal timber sales began to decline substantially in the 1990s, these counties received significantly reduced payments and faced budget shortfalls. Congress passed the Secure Rural Schools and Community Self-Determination Act of 2000

to stabilize county revenues. Counties can opt to receive a revenue-sharing payment or a Secure Rural Schools payment, which is determined by a formula that factors historical revenues, area of eligible forest lands, and county incomes. Payments are more stable because they are based on historical revenues, but overall payments do decline by 5% each year as a sunset provision.

▲ **Canada Climate Action Incentive Fund MUSH Retrofit Stream**²⁴⁷

Municipal buildings, universities, schools, and hospitals (MUSH) form an integral part of a community's infrastructure, both as part of its built environment and as places where essential community services are provided. This stream of funding as part of Canada's Climate Action Incentive Fund supports energy efficiency improvements and retrofits for MUSH facilities in Saskatchewan, Manitoba, Ontario, and New Brunswick. In its first round of funding for 2019-2020, the program prioritized funding for energy efficiency projects in schools. National allocations were made of approximately CAD 2 million to New Brunswick, CAD 5 million to Manitoba, CAD 12 million to Saskatchewan, and CAD 40.8 million to Ontario. Interested local projects work with their provincial government to apply for program funding.

■ **Health Professional Shortage Areas²⁴⁸ and Medically Underserved Areas and Populations²⁴⁹**

Identifying communities facing shortages of healthcare services can provide valuable insights states can use to focus investments in improving access to healthcare. The Health Resources and Services Administration (HRSA) maintains a database of medically underserved areas and populations. The criteria HRSA uses to identify these areas and populations include inadequate numbers of primary care providers, high infant mortality, high poverty, and high elderly population. The HRSA also maintains a list of areas, populations, and facilities identified as facing a health professionals shortage. Federal health programs use these designations to direct resources from federal health programs. States can use these designations to direct resources from any state-level health programs.

Water, power, waste, and other utilities

■ **USDA Rural Utilities Service**²⁵⁰

This service provides funding for critical infrastructure and infrastructure improvements in rural communities. The service administers three district funding programs. The Water and Environmental Program (WEP) provides loans and grants for drinking water, sanitary sewer, solid waste, and storm drainage facilities. The Electric Program provides loans and loan guarantees to finance the construction or improvement of electricity distribution, transmission, and generation facilities in rural areas, as well as demand-side management, energy efficiency, and renewable energy systems. The Telecommunications Program provides funding for the deployment of telecommunications infrastructure in rural communities, with the goal of reliability and affordability comparable to that available in non-rural parts of the United States.

■ **Water Infrastructure Improvements for the Nation (WIIN) Act Grants for Small, Underserved, and Disadvantaged Communities**²⁵¹

This grant program is intended to help public water systems in eligible underserved communities meet Safe Drinking Water Act (SDWA) standards. Eligible projects are necessary for systems to meet SDWA standards and directly and primarily benefit underserved communities. In addition to system improvement projects, grants can fund household water quality testing. Grants are awarded to states as well as to projects that serve American Indian and Alaska Native communities. Eligible communities include small communities with populations less than 10,000 and lacking capacity, underserved communities, those lacking access to regulatory compliant drinking water or wastewater services, and disadvantaged communities as defined by the state based on affordability criteria.

Economic development and diversification

The economic impact of energy transition is felt not only at the level of individual workers but also at the community level. Due to the nature of siting and extraction, many transition communities are rural areas

that present very specific challenges when transitioning from dependence on the fossil fuel industry.²⁵² For example, geographic isolation from state government resources coupled with limited local capacity for decision making can reduce the impact of just transition legislation passed at the state level.²⁵³ The decline of fossil fuel-related activity ripples across communities, potentially causing significant disruption even when displaced workers are connected to new employment. To mitigate these disruptions, policymakers can undertake focused, strategic investment of both time and money in historically fossil fuel-dependent communities to help individuals maintain their quality of life and to build communities that can participate in a clean energy-powered economy.

For more on the issues facing rural transition communities, see the “How can communities gain agency over their own transition?” and “What challenges do communities face?” sections of the FAQs in the Resource Guide.

Targeted economic development remains one way to transition communities once dependent on fossil fuels. A wide range of policy strategies exist including:

- Technical assistance and capacity building for local governments and organizations;
- Financial support for locally driven initiatives;
- Financial support for local businesses;
- Building out and improving local infrastructure; and
- Community enrichment and economic development planning.

The following are examples of policies that employ more than one of these community development strategies.

▲ **Rural Development Hubs - Aspen Institute**²⁵⁴

The Aspen Institute’s report, “Rural Development Hubs, Strengthening America’s Rural Innovation Infrastructure,” highlights ways to support and encourage entities that exist throughout the nation, serving as the main players advancing an asset-based, wealth-building approach to rural community and economic development. They are visible actors in rural America designing and implementing efforts that simultaneously increase and improve the assets that are fundamental to current and future prosperity, increase the local ownership and control of those assets, and include low-income people, places, and firms in the

design of their efforts—and in the benefits. Hubs focus on all the critical ingredients in a region’s system that either advance or impede prosperity—the integrated range of social, economic, health, and environmental conditions needed for people and places to thrive, and promise to significantly improve energy transition outcomes for communities.

Features: Technical assistance and capacity building, community enrichment and economic development planning

■ **Economic Adjustment Assistance Program (EAA)**²⁵⁵

Administered by the Economic Development Administration, the program provides comprehensive support to regions experiencing adverse economic changes such as plant closures. This program is designed to be flexible and can fund a variety of activities. In addition to technical assistance, the program offers a few kinds of grants to grow local economies. *Strategy grants* can be used to fund the development of economic development strategies. *Implementation grants* can be used to fund the execution of activities identified in economic development strategies including infrastructure development and rehabilitation and equipping of facilities. *Revolving loan fund grants* may be used to establish or recapitalize revolving loan funds that make loans to businesses that cannot obtain financing from traditional banks.²⁵⁶

Features: Technical assistance, Funding for local initiatives

■ **Partnerships for Opportunity and Workforce and Economic Revitalization (POWER) Initiative**²⁵⁷

This federal program through the Appalachian Regional Council (ARC) focuses federal resources to support communities impacted by job losses in coal mining, coal-fired power plant operations, and coal-related supply chains due to shifts in energy production. By bringing together resources and funding opportunities across many federal agencies and programs, as well as disbursing funds that Congress appropriated specifically for ARC, the initiative aims to build the capacity of Appalachian coal communities across 13 states. Since 2015, this work has brought over \$238 million in investment to the Appalachian region.²⁵⁸

Features: Technical assistance, Funding for local initiatives

■ Rural Business-Cooperative Service²⁵⁹

Managed by the USDA, the service operates programs that help businesses grow and train people living in rural areas for work. The business programs work with community-based organizations to provide financial backing and technical assistance to stimulate business and create economic growth. Cooperative programs help rural residents form new cooperatives and improve existing ones through education and technical assistance. Energy programs provide funding for energy audits, renewable energy development assistance, energy efficiency improvements, and renewable energy system installation.

Features: Technical assistance, Funding for local initiatives, Funding for local businesses

▲ British Columbia, Canada: Rural Dividend Fund²⁶⁰

Managed by the Ministry of Forests, Lands, Natural Resources, and Rural Development, the fund provides support to workers and communities impacted by closures of natural resource development operations, such as logging. Disruptions to British Columbia's forestry industry caused by devastating wildfires in 2017 and 2018 resulted in permanent, indefinite, or temporary closures in forestry operations throughout the province. These closures displaced over 2,400 workers across more than 17 rural communities. In response, up to \$25 million is distributed annually to fund projects that increase community resilience, support economic development and diversification, build capacity to respond to economic challenges, and help communities pursue innovative economic opportunities. Communities—both indigenous and non-indigenous—with populations smaller than 25,000 are eligible for the program. In addition to Rural Dividend funds, the government dedicated \$65 million to fund programs, including early retirement, short-term alternative employment, skills training, job placement coordination, and other supports to workers and families.

Features: Technical assistance and capacity building, Financial support for locally driven initiatives, Community enrichment and economic development planning

Technical assistance and capacity building for local governments and organizations

■ USDA Rural Economic Area Partnership Program (REAP Zones)²⁶¹

The program was established to address critical issues constraining economic development in rural areas, including geographic isolation and historical dependence on natural resources and agriculture. REAP Zones are responsible for developing a strategic economic development plan through a comprehensive community-led process and seeking resources to implement the strategic plan. USDA provides modest funding to REAP Zones for planning activities and augments these funds with community development technical assistance.

■ Coordinated Rural Opportunities Plan (CROP)²⁶²

The Sacramento Area Council of Governments created the program with the goal of supporting local planning for a regional agricultural strategy. The project connects agricultural communities and their expertise with urban research and investment resources to form the Rural-Urban Connections Strategy (RUCS). Having a rural-urban connections strategy has sparked conversations about transportation, land-use, agriculture, and water management across the region.

Financial support for locally driven initiatives and/or businesses

■ Workforce Opportunity for Rural Communities (WORC) Initiative²⁶³

This DOL initiative helps align workforce development efforts with existing economic development strategies in rural communities impacted by economic transition. The initiative provides grants to impacted communities to fund the development of community workforce development solutions in alignment with existing economic development strategies and community partnerships. Funds can be used to provide workforce development services that prepare dislocated workers, new workforce entrants, and incumbent workers for good in-demand jobs.

▲ NetWork Kansas²⁶⁴

Established through the Kansas Economic Growth Act of 2004, the nonprofit organization serves as a network of business resources (“expertise, education, and economic”) available to support entrepreneurs and small businesses owners to grow successful businesses across the state. The program relies on local leaders in each community to make loans available to new businesses. Donors receive an income tax credit of 75% for their donation (a donation of \$1,000 results in a \$750 credit off a business’s state income tax liability).

▲ Massachusetts Clean Energy Center²⁶⁵

A publicly funded organization, the center provides investment funding and technical support to start clean energy companies in Massachusetts. The goal of the project is to connect policy-makers, clean energy employers, innovators, schools, and more to foster the next generation of clean energy ideas. Already, the state is ranked first in the nation for highest percentage of clean energy workers per capita and for median clean energy wage.

▲ Mountain Association (MACED)²⁶⁶

Eight community organizations in Eastern Kentucky and Southwestern Virginia came together to establish the Mountain Association for Community Economic Development in 1976. The organization provides business support and training, loans and investment capital, plus advice and financing for energy efficiency and renewable energy. The organization focuses on encouraging renewable energy development, resource conservation, and entrepreneurship to build a more resilient and sustainable region.

Community enrichment and economic development

■ Minnesota Community Energy Transition Grant²⁶⁷

This program, managed by the Department of Employment and Economic Development (DEED), provides grants for communities that host a coal, natural gas, or nuclear facility that is scheduled for decommissioning. The program assists communities in the transition away from economic dependence

on these facilities by offering funding for direct assistance to displaced workers, boosting the local property tax base, and development of alternative economic development strategies. In 2021, the state awarded nearly \$2 million to five local governments for transition projects. For example, the city of Becker was awarded a \$455,000 grant to fund sewer and water infrastructure improvement planning needed to grow the “Becker Business Park” and support new businesses in anticipation of the phased shutdown of the Sherco Power Plant beginning in 2023.²⁶⁸

■ Portland, Oregon Clean Energy Community Benefits Fund²⁶⁹

Created in 2018 by local ballot measure, this program provides grants to projects that simultaneously relate to reducing greenhouse gas emissions and promoting economic, social, and environmental justice. The criteria for grant awards include projects relating to clean energy, energy efficiency, clean infrastructure, clean energy jobs training, and regenerative agriculture. Among currently implemented policy strategies, this program stands out for focusing its benefits to priority populations including low-income people, people of color, people with disabilities, and chronically underemployed people. The program is also guided by a grant review community that reflects these priority populations and the diversity of Portland residents. Grants are both large and small, distributed from a pool of up to \$61 million annually, and financed by a tax on large retailers. Entrepreneurial programs at land grant universities can promote rural entrepreneurship and economic development by offering students internships, as well as the exposure and experience that inspire new business innovation.

▲ The Iowa State Agricultural Entrepreneurship Program²⁷⁰

Founded in 2005, the program offers a capstone class on entrepreneurship in agriculture, places students in internships both domestically and internationally, and brings in experts, investors, and current agribusiness professionals with whom students can connect. The success of this program inspired the creation of many other similar programs in other states, as well as Greece and Tanzania.

▲ University of Nebraska Rural Future Institute²⁷¹

The institute connects students, faculty, and community leaders to develop business ideas, engage with communities, build up community leadership potential, improve regional food systems, and encourage “placemaking” or intentionally cultivating quality places for people to visit and live. The center offers fellowships for students which place them in the community to complete a summer project. Working to connect community members to grants and other resources available through the university, the organization builds stronger and more thriving rural communities.

▲ Florida High Tech Corridor²⁷²

Sponsored by the University of Central Florida (UCF), the University of South Florida (USF) and the University of Florida (UF), the institute connects tech companies with university research resources and students to train in the industry. The program offers research grants for companies, incubators for students, and partnerships that support inventors. The goal of the program remains to inspire more technology innovation and provide students with training and connections in the technology industry.

■ Eastern Maine Development Corporation (EMDC)²⁷³

The company provides loans for businesses, workforce development for individuals, and economic development and planning initiatives for communities. A recent initiative included researchers surveying residents and community organizations and holding focus groups to determine pressing policy initiatives in their communities. These conversations resulted in the creation of “Getting There Maine,” a website that connects people to rideshares to assuage transportation issues in rural Maine.²⁷⁴

● S. 2569 Appalachia Opportunity Grants Act of 2018²⁷⁵

Status: Read 3/19/2018 and referred to the Committee on Agriculture, Nutrition, and Forestry

Authorizes the USDA to award grants to convene groups of public and private organizations in the Appalachian region for economic and community impact projects with the goal of job creation, expansion of post-secondary

education, growth of tourism, improving public health, or upgrading infrastructure.

● H.R. 405 Creating Opportunities for Rural Economies Act (CORE)²⁷⁶

Status: Introduced 1/10/17 and referred to the House Committee on Ways and Means

Devotes 5% of the new markets tax credit to community development entities for investments, financial counseling, and other services in “distressed coal communities,” defined as either one of the “30 counties with the biggest employment decrease among coal operators over a specified time period or contiguous to a county that has the required decrease in employment, is located in the same state, and contains at least one low-income community.”

● H.R.4318 - Providing Recovery Opportunities & Mitigating Industry’s Shifting Economics (Promise) Act²⁷⁷

Status: Introduced 9/12/2019 and referred to the Committee on Natural Resources and the Committee on Education and Labor, 9/23/2019 referred to the subcommittee for Indigenous Peoples of the United States, then the Subcommittee on Energy and Mineral Resources, and finally, the Subcommittee on National Parks, Forests, and Public Lands

The bill establishes a series of resources for communities, businesses, and workers impacted by the closure of a federally-owned electric generating station, including a land reuse study conducted by the DOI, annual payments to local governments for loss of revenue, and demonstration projects for dislocated workers.

● S. 2028 Rural Jobs Act²⁷⁸

Status: 6/27/2019 read twice and referred to the Committee on Finance

Allocates funds for new markets tax credits investments in a designated rural jobs zone—an area comprised of low-income communities with populations not greater than 50,000 that are not adjacent to an urbanized area.

● **H.R.5762 - Transforming Hiring in Rural Industries and Vital Economies Act of 2020²⁷⁹**

Status: Introduced 2/5/2020 and referred to the House Committee on Agriculture, then referred to the Subcommittee on Commodity, Exchanges, Energy, and Credit

Creates the White House Rural Council to make recommendations and manage executive branch economic development projects in rural areas.

MULTISTATE STRATEGIES

State economies are deeply interconnected, especially since their supply chains can cross hundreds, if not thousands, of miles. Changes in demand or supply of fossil fuels or fossil fuel-based products in one state can affect workers and communities in other states. Changes in one state's policies can have similar spillover impacts on other states. Even local changes in one facility's operations can have impacts far away due to the long supply chains common in the energy sector. States can work together in various ways to ensure that all impacted workers and communities are considered, mitigate unintended consequences of policy changes, and maximize the benefit of shared transition strategies. States may also look for opportunities to encourage the federal government to provide resources, assist to recover losses, and target existing federal programs in more efficient ways to better serve transition communities.

The following are examples that may serve as precedent for multi-state transition policy strategies.

Approaches States have taken to work together:

Interstate policy alignment

States have joined together into compacts, associations, and other partnerships to collectively address shared policy challenges. Many of these partnerships are established between states in a relatively close geographic area to meet regional challenges that no state can solve alone. These partnerships facilitate collaborative development and adoption of shared policy. Interstate partnerships between affected states can help develop shared strategies for supporting all impacted workers in transition. States have already worked together to address many shared environmental challenges, and these approaches can serve as good examples for working together on a just transition.

▲ Pacific Coast Collaborative²⁸⁰

Formed in 2013 and expanded in 2016, the Pacific Coast Collaborative brings together the states and provinces of British Columbia, Washington, Oregon,

California and the cities of Vancouver, Seattle, Portland, San Francisco, Oakland, and Los Angeles to work on shared environmental, economic, and social goals. In 2013, the aforementioned states and provinces signed the Pacific Coast Action Plan on Climate and Energy, agreeing to lead on national and international climate change policy, reduce greenhouse gas emissions from the transportation sector, and invest in clean energy and climate-resilient infrastructure. In 2016, this agreement was updated in the Pacific Coast Climate Leadership Action Plan, which expanded on subnational leadership and climate-related oceanic changes, including acidification. In 2016, the aforementioned cities joined the Collaborative through the Pacific North America Climate Leadership Agreement, which addresses additional priorities including decarbonizing buildings, electric vehicle procurement and charging infrastructure, and waste prevention and recovery.

■ California Motor Vehicle Emissions Standards²⁸¹

The Clean Air Act allows California to seek authorization to create its own emissions standards for new motor vehicles, despite a preemption that prohibits most states from creating their own standard. However, the act does allow other states to adopt identical standards to those of California. By March of 2021, the number of states following California's standards was 14 with an additional 3 states moving to also adopt the standards. In 2019, the Trump administration rescinded California's waiver, an action that cast uncertainty over this arrangement, but the waiver is expected to be reinstated under the Biden administration.

■ Northeast States for Coordinated Air Use Management (NESCAUM)²⁸²

NESCAUM is an association of air quality agencies representing eight states in the northeastern United States. The association was established in 1967 to address air pollution problems from power plants that affected the New England region. The scope of the association's work expanded when New York and New Jersey joined in the 1970s and now addresses issues including air quality, climate, and energy.

■ State Hydrofluorocarbons (HFCs) Actions²⁸³

In 2018, the USCA committed to reducing hydrofluorocarbons and other potent greenhouse gases. HFCs are very potent greenhouse gases, with global warming potentials (GWP) thousands of times the GWP of carbon dioxide. State regulations can prohibit the use of HFCs in applications such as aerosols, insulation foams, building chillers, and stationary refrigeration, which have high risks of leakage into the atmosphere. By August of 2021, twelve states, all of which are USCA members, had finalized their HFCs rules.²⁸⁴ Other states may leverage the regulatory language of this initiative.

■ Regional Greenhouse Gas Initiative (RGGI)²⁸⁵

RGGI is a mandatory market-based greenhouse gas emissions reduction program uniting the efforts of 11 states in the northeastern and mid-Atlantic United States—with Pennsylvania expected to join in 2022. This program was established in 2009 to set a regional cap on the amount of CO₂ emissions from power plants and issue limited numbers of tradable CO₂ emissions allowances. Each individual state operates its own trading program, distributing allowances at auctions, and investing proceeds in regionally beneficial programs, including energy efficiency, renewable energy, and other greenhouse gas reduction programs.²⁸⁶

Utilities with impacts across state lines

▲ Arizona Public Service (APS) Just Transition Plan²⁸⁷

Impacted states and communities: New Mexico, Arizona, Navajo Nation, Hopi Tribe

In late 2020 APS, an electric public utility in Arizona filed for a \$144.45 million settlement package of community transition and economic development assistance to benefit the Navajo Nation, Hopi Tribe, and their communities, which have been or will be impacted by the closures of the coal-fired Navajo Generating Station (on Navajo land), Four Corners Generating Station (on Navajo land), and Cholla Power Plant (near both Navajo and Hopi land). Nicole Horseherder, the executive director of Tó Nizhóní Ání, a environmental non-profit that works to protect water and end fossil fuel use in Black Mesa, noted how Arizona has benefited from the

health and safety sacrifices made by the tribes where the power plants were located.²⁸⁸ If approved by the Arizona Corporation Commission (ACC), APS' Just Transition Plan would be the largest expenditure of its kind so far. As an outcome of its Integrated Resource Plan (IRP) process, APS has also been instructed by the ACC to give preference to coal-impacted communities in the siting of replacement power investments.²⁸⁹

See “Just Transition Case Studies” in the Resource Guide for more information and ACC ruling updates.

▲ Mohave Generating Station²⁹⁰

Impacted states and communities: Nevada, California, Navajo Nation, Hopi Tribe

The Mohave Generating Station was a coal-fired power plant located in Laughlin, NV and operated by the electric public utility, Southern California Edison (SCE). The coal used at Mohave was sourced from coal mining operations situated on tribal lands in the Black Mesa plateau in the Four Corners region of the United States. The Black Mesa coal mine was jointly owned by the Navajo Nation and Hopi Tribe and operated by Peabody Energy. Demand for Black Mesa coal for electricity generation at Mohave provided significant economic value to the Navajo and Hopi in the form of coal sales royalties. However, coal mining operations presented a slew of environmental and public health concerns for the tribes, including threatening water quality on Navajo and Hopi lands.

Operations at Mohave also posed numerous environmental hazards. In 1999, SCE entered a consent decree to install upgrades at Mohave to reduce emissions or shut down by 2005, when its water and coal contracts expired. Deeming it cost-prohibitive to continue operations, SCE permanently shut down Mohave in 2006. By 2002, the California Public Utilities Commission (CPUC), which regulates public utilities in the state of California, had already begun considering the economic impact of the potential closure of Mohave on the Navajo and Hopi. After Mohave shutdown, CPUC took up the issue of Mojave again as part of SCE's general rate case. A just transition coalition of environmentalists and grassroots Native American organizations formed and pushed CPUC to require SCE to set aside revenue from the sale of Mohave's acid rain allowances to assist the Navajo and Hopi. Ultimately, CPUC decided to use these funds to create a revolving fund to finance the deposits required in SCE's renewable energy

procurement process for clean energy projects that benefit the Hopi Tribe and Navajo Nation.

Regional economic development

States and communities can work together to develop strategies to meet their shared and/or regional environmental and economic challenges. Some multi-state economic development partnerships have been formed with the support of the federal government. Two of the following examples—the Appalachian Regional Commission and the Delta Regional Authority—are notable for their investment of federal funds in local communities, but they also work to provide technical assistance and information sharing on local economic development strategies across their regions.

▲ Appalachian Regional Commission (ARC)²⁹¹

ARC is a federal-state economic development partnership agency whose membership includes 13 Appalachian states (Alabama, Georgia, Kentucky, Maryland, Mississippi, New York, North Carolina, Ohio, Pennsylvania, South Carolina, Tennessee, Virginia, and West Virginia). The commission was formed in 1965 to address persistent economic disparities in the Appalachian region by investing in infrastructure, workforce development, and other economic development projects in 420 counties across the region. Since 1965, ARC has invested \$4.5 billion in the Appalachian region, attracting over \$10 billion in matching project funding. Congress appropriated a record \$180 million to ARC for the 2021 fiscal year.²⁹²

▲ Delta Regional Authority (DRA)²⁹³

DRA is a federal-state partnership whose membership includes the eight states of the Mississippi Delta region. As of its latest regional development plan, the authority's goals include improving workforce competitiveness, strengthening infrastructure, and building community capacity. Since its establishment in 2000, the Authority has made strategic investments of federal appropriations in Delta communities, prioritizing public infrastructure, transportation infrastructure, business, and workforce development. Between 2002 and 2018, the authority invested over \$200 million in Delta communities through its States' Economic Development Assistance Program (SEDAP), attracting over \$4.5 billion in other public and private investments.

Other cross-state partnerships have been formed from the local level up, as associations of local governments, nonprofits, and businesses.

▲ The Charlotte Regional Business Alliance²⁹⁴

An organization advocating for businesses in the Charlotte region covering 15 counties across North Carolina and South Carolina, the alliance was formed in 2018, merging the Charlotte Chamber of Commerce and the Charlotte Regional Partnership, a regional economic development organization. Its board of trustees and executive committee include representatives from the business community, nonprofit, and public sector. In addition to providing services to businesses located in or interested in expanding into the region, the alliance facilitates the Economic Development Advisory Council, composed of economic development leaders from each of the 15 counties. The group guides and assists in economic development strategies while also sharing best practices with one another.

▲ Quad Cities Chamber²⁹⁵

The chamber connects a network of business leaders from across the Quad Cities, a region covering six counties in Iowa and Illinois. In addition to providing services to member businesses and advocating for the business community in public policy, the chamber's Business and Economic Growth division drives economic development of the region through promotional marketing of the region and assistance in business site selection.

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