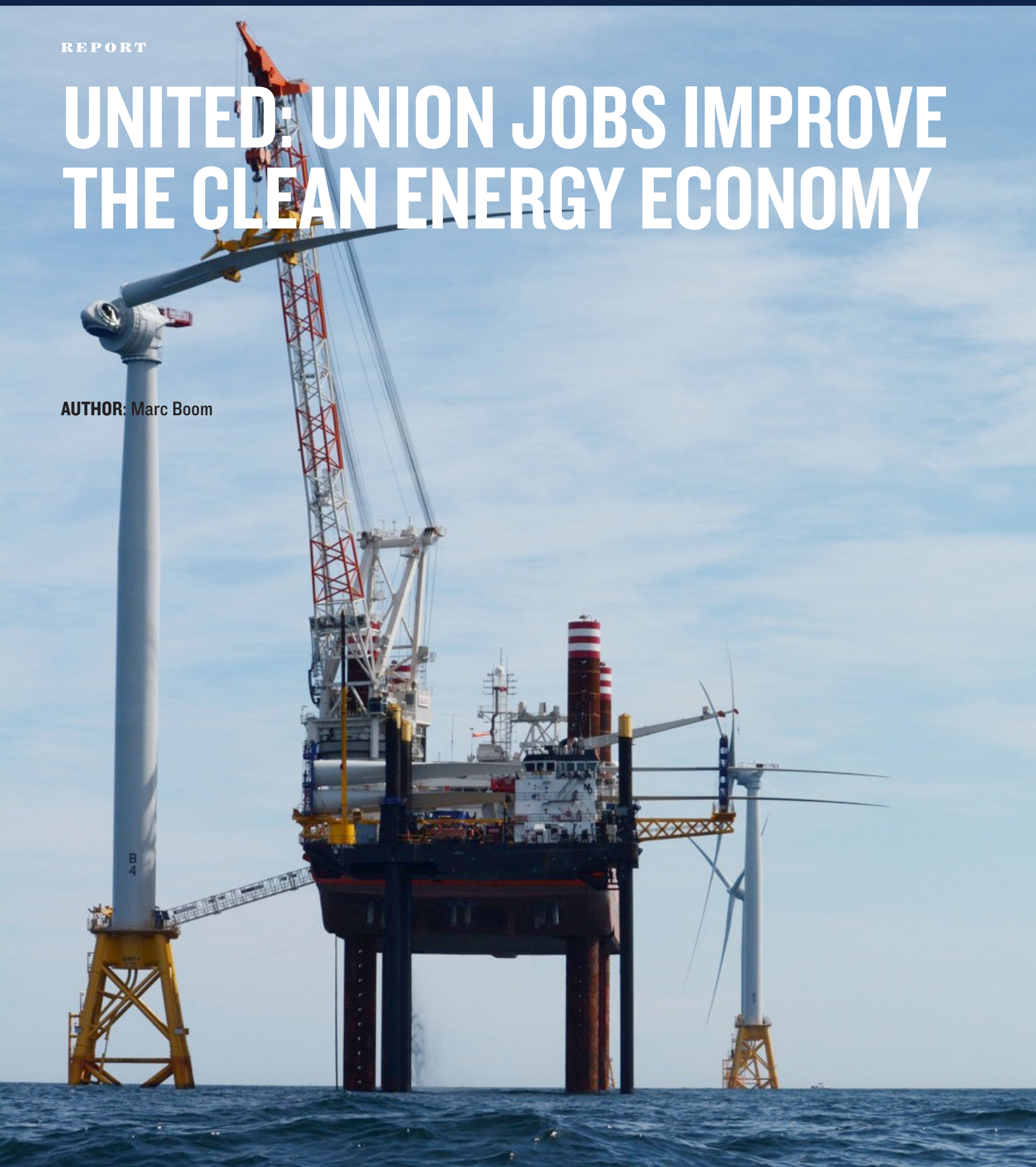




REPORT

# UNITED: UNION JOBS IMPROVE THE CLEAN ENERGY ECONOMY

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### About NRDC

NRDC is an international nonprofit environmental organization with more than 3 million members and online activists. Since 1970, our lawyers, scientists, and other environmental specialists have worked to protect the planet's wildlife and wild places and to ensure the rights of all people to clean air, clean water, and healthy communities. NRDC has offices in New York City, Washington, D.C., Los Angeles, San Francisco, Chicago, Montana, and Beijing. Visit us at [nrdc.org](http://nrdc.org).

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# Introduction

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Americans face the consequences of climate change every day, from raging wildfires and extreme weather events to the health impacts of a hotter planet such as increased heat illness, illnesses caused by air and water pollution, infectious diseases, and challenges to mental health. The climate crisis demands massive, immediate action and a transition away from fossil fuels. However, the move to an inclusive economy based on clean energy raises critical questions about our workforce. Unions especially are wondering how American workers can prosper as we take steps to combat climate change. High-quality union jobs are already declining; can this trend be reversed as we further transition to a clean economy?

Addressing climate change and creating high-quality jobs can go hand in hand. As President Biden said when speaking to a joint session of Congress, “For too long, we’ve failed to use the most important word when it comes to meeting the climate crisis: *jobs*. Jobs. Jobs. For me, when I think *climate change*, I think *jobs*.”<sup>1</sup> In fact, the clean economy is already here and is increasingly being shaped by unions and their members. Across the country, growing numbers of union members are on the front lines of the clean energy and energy efficiency sectors, helping to reduce pollution and health hazards for millions of Americans.

This report highlights several stories that illustrate the ways in which prioritizing high-quality union jobs in the clean economy has produced better outcomes for workers and for the environment. In particular, the stories below demonstrate that unions and their members are fundamental to a successful transition to clean energy. Strong unions help industries aggregate the recruitment and training capacity we need to shift to a cleaner, healthier economy. For example, partnerships between the electrical workers’ union and utilities building clean energy generation facilities are already helping to onboard the highly skilled workers needed in that growing sector. By representing the interests of workers in these industries, unions help make sure that clean jobs are family sustaining, with career pathways that retain quality workers. Equally important, strong unions can partner with clean industries to build long-term strategies for growth and publicly advocate for greater investment and regulatory support for a pro-climate, pro-worker future.

The powerful narratives below are just a handful of examples of how unions are powering the clean energy economy and how the clean energy economy is supporting good union jobs. Throughout these accounts—describing a large-scale solar project built with union labor, job-creating wind farms, school energy efficiency efforts, and more—unions are helping deliver high-quality work, scale, and speed to the communities served by these projects. In many cases, unions are fighting for the interests of underserved communities, whether by retrofitting public schools, replacing old water lines, or expanding transit access. Unions and their members are key actors in their neighborhoods and cities, and by working together with environmental groups, industry, and government, they are already building a clean economy today.

At the same time, the successes demonstrated in this paper are not universal. As we work to expand the clean energy economy and grow more jobs in all of its sectors, we must build on this foundation to ensure that the jobs being created are good union jobs that can sustain a family, and that these jobs are accessible to all.

## UNIONS BENEFIT WORKERS ACROSS THE BOARD

According to E2 (Environmental Entrepreneurs), an affiliate of NRDC, annual employment in the clean energy industry grew in each of the five years prior to the pandemic.<sup>2</sup> There were around three million clean energy workers nationwide at the end of 2020 despite the sector losing 300,000 jobs due to COVID-19. These workers are widely dispersed throughout the country; more than 99 percent of U.S. counties are home to clean energy jobs.

Moreover, clean energy jobs are good paying jobs. The median wage for solar energy is \$24.48 an hour, while the median wage for wind and grid modernization jobs is more than \$25 an hour. Energy efficiency jobs, the largest employer in the nation's energy sector, pay a median hourly wage of \$24.44, about 28 percent above the national median. Clean energy wages compare favorably with extraction jobs in coal, fossil gas, and petroleum fuels, which pay an average of \$23.89 an hour.<sup>3</sup>

Improving union density in the clean energy sector would further improve pay and benefits for its workers and increase the likelihood that a clean energy job is a high-quality one that can support a family. For example, clean energy jobs currently offer lower hourly wages than traditional construction and utility jobs, which are heavily unionized. According to the Economic Policy Institute, unions raise wages by roughly 20 percent and increase overall compensation by about 28 percent.<sup>4</sup> Unions also reduce pay inequality, because they raise wages more for low- and middle-wage workers than for higher-wage workers.<sup>5</sup> Additionally, having high union density in a sector improves wages, benefits, and conditions across the board; the impact of unions on total nonunion wages is almost as large as the impact on total union wages.<sup>6</sup>

The link between union density and improved economic equality has been well documented.<sup>7</sup> Evidence also indicates that union growth may have a positive impact on racial and gender equity. It's true that in the past, union workers were predominantly white men—a trend created by overtly racist policy choices designed to exclude black and brown workers from collective bargaining rights.<sup>8</sup>

However, as of 2016, roughly 65 percent, or 10.6 million of the 16.3 million workers covered by a union contract, are women and/or people of color.<sup>9</sup> Today, a Black worker is more likely to belong to a union than a white worker, and a 2012 study from the National Institutes of Health concluded that if union membership levels were as high at that time as they were in the 1970s, then the weekly wage gap between Blacks and whites would be as much as 30 percent smaller among women and 3 to 4 percent smaller among men.<sup>10</sup>

In addition to helping address economic inequality, some unions are also becoming a stronger force for social justice, addressing racial equity and systemic racism. For example, the Service Employees International Union created its Racial Justice Center in 2017 to provide resources on this issue to its members.<sup>11</sup> The American Federation of Teachers (AFT) issued a lengthy report on racial equity in education in 2016.<sup>12</sup> And in 2020, the American Federation of Labor and Congress of Industrial Organizations (AFL-CIO) created a new task force to fight for racial justice.<sup>13</sup> Of course the diversity of unions varies greatly across the country, but these are positive steps to address diversity, equity and inclusion in unions and, one hopes, a collective sign of even greater improvements in the future that will ensure a welcoming and inclusive environment for every worker.



# I. Union Experience Saves Money and Reduces GHG Emissions

© Courtesy of the International Association of Heat and Frost Insulators and Allied Workers



Union workers are some of the best trained and most experienced in their trades. Unions spend millions of their own funds to run their training programs, and union apprenticeships are often longer and more thorough than average. The combination of training and the on-site experience needed to advance from apprentice to journeyman ensures that these workers will be highly proficient in their field. Especially when it comes to emerging clean energy industries, we should draw on union expertise in worker training, project management, and problem solving to navigate these new industries efficiently. Doing so will help ensure that clean energy projects remain cost effective and are completed on time.

## PUBLIC SCHOOL IN GROVEPORT, OHIO: DRAWING ON UNION EXPERIENCE TO BUILD BETTER AND CLEANER

President Biden’s American Jobs Plan calls for investing \$100 billion to upgrade and build new public schools, reducing their greenhouse gas emissions and transforming them into places that build community resilience with green space, clean air, and safe areas in which to gather during emergencies.<sup>14</sup> Part of this effort is improving the efficiency of school buildings, which has been shown to cut energy use, save school districts and taxpayers money, and create the opportunity for high-quality union jobs.

This was certainly the case in the Groveport Madison school district, outside Columbus, Ohio. Ohio has been in the vanguard of improving school energy efficiency, with more than 340 school buildings across the state certified through the U.S. Green Building Council’s LEED for Schools program.<sup>15</sup> When Groveport Madison decided to construct its first new high school building in 50 years, energy efficiency was a top priority. The International Association of Heat and Frost Insulators and Allied Workers (Insulators Union) Local 50 won the contract to do the insulation work after using an educational video to remind the school board of the economic and environmental benefits of high-quality, properly installed mechanical insulation for heating and cooling pipes and systems.<sup>16</sup> Properly installed, this insulation can last for the lifetime of a building.

According to leaders from the Insulators Union, nonunion contractors often sell an inferior product that will create greater long-term costs. “The [nonunion] contractor is going to cut corners,” said Tom Williams, organizing director for Local 50. “They’ll use a three-quarter-inch wrap where 2-inch is called for. It might be cheaper when

An Insulators 50 Union worker on the job.

you install it, but you pay down the road in higher heating and cooling costs. ‘Value engineering’ is actually the opposite of what it sounds like.”

Local 50 provided quality and cost-effective professional insulation work that enhanced energy efficiency and saved the school district money.<sup>17</sup> “Installing high-efficiency mechanical systems and insulating them properly was part of the sustainable green building design,” says the business manager for Local 50, Dan Poteet. While installation costs for such systems carry a premium, the energy cost savings from such projects eventually pays that extra cost back, sometimes in a matter of months.<sup>18</sup> In fact, the school district reported that over the first year of operation, the new building saved them nearly \$80,000 in energy expenses, despite its being 100,000 square feet larger than the old high school. These are savings that can be reinvested in a better education for students.<sup>19</sup>

“Our slogan is that we’ve been green for over 100 years,” said the Insulators Union’s general president, Greg Revard. “The experience in Ohio is replicated again and again all over North America. When school districts weigh the high-quality option against the cheaper alternatives, they regularly conclude that paying a bit more up front pays off big-time in the end.”

Between August 2015 and the completion of the school in August 2018, the project netted Local 50 some 12,000 hours of insulation work, translating to the equivalent of about 12 job-years for its members (a job-year is one full-time job lasting one year).<sup>20</sup> The union is poised to turn this success into even more jobs in the future. Local 50 is now bidding on seven other schools in the area, and its reputation for on-time, on-budget, high-quality work has spread. Recently, a \$730 million expansion project at Nationwide Children’s Hospital in Columbus included specifications for workers trained in a certified apprenticeship program—such as the one offered by Local 50—showing momentum for efficiency projects completed by highly trained union workers.<sup>21</sup>

Renovating public buildings like schools, hospitals, universities, and municipal structures represents a huge opportunity in Ohio. Reducing energy use in this sector by just 20 percent in Ohio has been predicted to create or sustain 30,000 job years, reduce energy costs by \$5.5 billion, and save more than 70,000 gigawatt-hours of energy by 2030.<sup>22</sup>

Local 50 is getting ahead of a potential boom in building retrofits in Ohio and nationwide by aggressively marketing its work quality. At the same time, its members are setting an example for other school districts across the country, demonstrating why investing in high-quality union efficiency work is a smart long-term decision that supports local jobs, saves energy costs, and cuts down on pollution.

## *II. Working With Unions From the Start Leads to Long-Term Economic and Environmental Benefits*

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We need to move quickly in the coming months and years to reduce greenhouse gas emissions if we want to avert the worst impacts of climate change. The environmental benefits of clean energy are clear and significant, but they are not always sufficient to win community support. Ensuring from the outset that clean energy projects come with high-quality local jobs and economic growth can enhance labor and community support. That in turn can help speed deployment, which is essential to meeting the clean energy goals we must reach to effectively address our climate challenges.

Environmental and community advocates, lawmakers, and developers should start working with unions early in the project development process, not as an afterthought. Working with unions to understand how their members can help both a project and the surrounding community succeed is critical to building the cleaner, fairer economy we need. Enlisting unions in mapping out our clean energy future means increased labor support for these projects, a greater density of union jobs in the clean energy sector, and less pollution.

### **BLOCK ISLAND WIND FARM: LAYING THE GROUNDWORK FOR FUTURE UNION JOBS IN OFFSHORE WIND**

The Block Island Wind Farm in Rhode Island is first commercial offshore wind facility in the United States.<sup>23</sup> Electric power cooperatives are private, member-owned and -operated, nonprofit companies that deliver electricity to their customers or members.<sup>24</sup> Union workers from nine different unions began constructing the Block Island Wind Farm in 2015, and energy from the project came online in 2016.

Approximately 300 union members worked on the project, setting an important precedent for union involvement in future offshore wind projects.<sup>25</sup> According to a report from the Workforce Development Institute, the workforce included “more than 200 skilled construction and trades workers from across nine distinct labor unions, including carpenters, electrical workers, ironworkers, plumbers, pipefitters, and stevedores.”<sup>26</sup> Assembly and installation of the project also required more than 100 unionized logistics workers for the transport of turbine components and crews—including truck drivers, captains, and crew for tugs, barges, crew boats, and project-monitoring vessels.<sup>27</sup>

The wind power facility generates approximately 125 gigawatt-hours of clean energy a year, enough to serve approximately 17,000 households, and has reduced electric costs by 40 percent on Block Island.<sup>28</sup> The project “will also offset 800,000 tons of carbon dioxide emissions over its estimated operational life of more than 20 years, which is equivalent to taking 150,000 cars off the road for one year,” according to a report prepared for the power technology industry.<sup>29</sup>

The International Brotherhood of Electrical Workers (IBEW) Local 99 believes this project is just the beginning of a promising new wave of clean energy-related union jobs. “The real prize was not the five turbines,” said Paul MacDonald, Local 99’s legislative director. “I look at that as a demonstration project. The real prize is what’s going to come.”

Since its work on the Block Island project, the IBEW has been heavily involved in the expansion of ground and offshore wind energy infrastructure, working to ensure that unions have a place in the wind energy industry.<sup>30</sup> The union has three aims: 1) to train workers in renewable technologies, 2) to push renewable energy companies to allow workers to organize, and 3) to help pass legislation that helps workers in the fossil fuel industry transition to high-quality union jobs in clean energy as the market shifts away from oil, gas, and coal.<sup>31</sup> The IBEW’s advocacy, along with similar efforts by other building trades unions, has paid off in recent months. North America’s Building Trades Unions (NABTU) has come to an agreement with the largest wind developer operating in the United States, the Danish company Ørsted, to develop a plan to transition U.S. union construction workers into the offshore wind industry.<sup>32</sup>

According to NABTU, “As part of this national framework, Ørsted, along with their partners, will work together with the building trades’ unions to identify the skills necessary to accelerate an offshore wind construction workforce. The groups will match those needs against the available workforce, timelines, scopes of work, and certification requirements to fulfill Ørsted’s pipeline of projects down the East Coast, creating expansive job opportunities in a brand-new American industry for years to come and raising economics for a just transition in the renewable sector.”<sup>33</sup>

The success of the Block Island Wind Farm was not assured from the outset but instead required cooperation and partnership among a diverse coalition of labor, environmental groups, industry, and key government



officials. NRDC was a key member of this coalition, which also included the Rhode Island AFL-CIO, the Rhode Island Building Trades Council, the National Wildlife Federation, the Sierra Club, the Environmental League of Rhode Island, and others.

Of the coalition's success, George Nee, president of the Rhode Island AFL-CIO, said, "When you look at this, you see history, you see success, and you see perseverance. This is labor, business, government, and the environmental movement getting together to do what's right for jobs, what's right for the environment, and what's right for our kids and grandkids."<sup>34</sup>

In March 2021, the Biden administration announced its plan to encourage development of 30 gigawatts of offshore wind projects by 2030. A fact sheet released by the White House estimated this would lead to "more than 44,000 workers employed in offshore wind by 2030 and nearly 33,000 additional jobs in communities supported by offshore wind activity. It will also generate enough power to meet the demand of more than 10 million American homes for a year, and avoid 78 million metric tons of CO<sub>2</sub> emissions."<sup>35</sup>

The Block Island Wind Farm provides an important and replicable model for using wind energy to create and invest in high-quality unions jobs across the country. For example, shortly after the release of the Biden administration plan, the nation's first large-scale offshore wind project, Vineyard Wind, had its permit approved. Following the pattern set by Block Island, this 800-megawatt project has a labor agreement with the Massachusetts Building Trades Council to ensure that the 3,600 jobs created by the project provide middle-class wages and benefits.<sup>36</sup>

## CLIMATE JOBS NEW YORK: LABOR GROUPS ADVOCATE FOR OFFSHORE WIND INVESTMENTS IN NEW YORK

In New York State, 12 unions established a coalition, Climate Jobs New York (CJNY), to advocate for high-quality clean energy jobs. CJNY developed a plan to spur robust offshore wind development in the state and then worked hand-in-hand with environmental advocates to support passage of the landmark Climate Leadership and Community Protection Act, which will deliver thousands of clean energy jobs to union members. Because labor unions were involved early in developing the clean energy plan, rather than joining the discussion after a plan was created, union members turned out in large numbers to support the bill, providing crucial pressure needed to turn it into law.

The Climate Leadership and Community Protection Act raises the bar for climate action and high-quality jobs. It set a carbon reduction goal of 85 percent below 1990 levels by 2050, requires 70 percent of electricity to come from

renewable sources like wind and solar by 2030, and has important requirements for community benefits and labor standards that will keep environmental justice and labor advocates meaningfully engaged in the climate planning process.<sup>37</sup> Since its passage, this legislation has already led to contracts for two large offshore wind farms off the Long Island coast.

Because of labor's continued engagement in the climate planning process, the state added a preference to its competitive solicitation for development proposals for projects with Project Labor Agreements (PLAs)—essentially contracts that establish the terms and conditions of employment on a project and ensure that labor is supplied by union halls. Both of the Long Island projects will be built by workers from the state's building trade unions. One of these, Sunrise Wind, is a joint project between Ørsted and Eversource, a New England energy company based in Boston. Construction is slated to begin in 2022 and is expected to support approximately 800 jobs.<sup>38</sup> The other, Empire Wind, is a project of Equinor, formerly the Norwegian State Oil Company (Statoil), and is also projected to support 800 jobs.

John R. Durso, president of the Long Island Federation of Labor, AFL-CIO said of these two projects, "This is an opportunity to develop good union jobs in an emerging industry. With the announcement of finalized contracts, we have taken another historic step on the journey to creating good union jobs, growing our economy, and continuing the necessary fight against climate change."<sup>39</sup>

In addition to the direct jobs created by construction, offshore wind projects have the potential to create thousands of other jobs directly and indirectly related to the projects. These include operation and maintenance of the facilities after construction, manufacturing the components and materials that go into the projects, monitoring the marine wildlife near the wind farms, and running local businesses that provide goods and services near the projects themselves.

Ørsted has also committed to investing up and down the wind energy supply chain in New York, creating new opportunities for unions in the state. The company will build an operations and maintenance hub on Long Island to serve all Ørsted wind projects in the region; this hub is expected to support 100 permanent jobs over the 25-year life of the projects.<sup>40</sup> Furthermore, Ørsted will be investing \$10 million in seed funding to create a National Offshore Wind Training Center in partnership with Suffolk County Community College.<sup>41</sup> The company also committed to performing secondary steel fabrication in the region around Albany and to supporting the Upper Hudson Valley Workforce Development Fund, which will provide training for New Yorkers who want to join the offshore wind industry.<sup>42</sup>

CJNY continues to build on its initial legislative success. Realizing that more needed to be done to ensure that clean energy jobs are high-quality union jobs, the coalition successfully inserted a provision in the fiscal year 2022 New York State budget resolution to create a Renewable Energy Jobs Standard. This standard will require prevailing wages (that is, wage rates based on government surveys of wages and benefits actually paid to various classifications of construction workers in the community) as well as PLAs for construction on renewable-energy projects of 5 megawatts or larger. It also requires that system owners on projects of 5 megawatts or more enter into labor peace agreements (which prevent anti-union activities by management and disruptive activities by workers) for operations and maintenance work, requires that these projects buy American steel and iron where feasible, and incentivizes procurement of New York State-produced renewable energy equipment and supplies.<sup>43</sup>

NRDC's New York policy and legislative director, Rich Schrader, praises the passage of this provision. "Connecting renewable energy projects with livable wage standards in New York is a win-win for the environment, for workers, and for the economic recovery of the state," he says. "Promoting clean energy is essential to meeting the state's climate goals, and working men and women supporting that fight deserve good opportunities and equitable treatment."<sup>44</sup>

Because CJNY came out in support of climate action early, the coalition of labor unions has been included in the state's clean energy planning and is securing good jobs for union workers throughout the clean energy economy. Offshore wind development has been successful so far and can be used as a model for state investments in solar energy, public transportation, and renovation of buildings for energy efficiency.

### *III. Alliances Between Labor and Environmental Groups Lead to Beneficial Outcomes for All*

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Though they have not always been natural partners on energy policy in the past, labor unions and environmental groups today are working hand-in-hand to achieve more together than either could alone.

#### **SOLAR IN OHIO: WORKING WITH UNIONS TO DESIGN THE CLEAN ENERGY ECONOMY**

In many states across the country, utility-scale solar projects (generally those greater than 1 megawatt) have provided local unions with opportunities to secure valuable work for their members. However, Ohio has developed relatively few utility-scale solar projects over the past 10 years. That's started to change. More than 7,000 megawatts of new projects have either been approved or are currently being considered by the Ohio Power Siting Board, and these projects are expected to bring more than 54,000 construction jobs to the state.<sup>45</sup> This translates to some 16 million to 20 million work hours for the Ohio building trades workforce over the next several years.<sup>46</sup>

While large utilities and unions have long-standing relationships, most utility-scale solar projects are being advanced by private developers who do not have a history of working with unions and often tend to think union workers are too expensive to hire. To address this problem, the IBEW joined forces with NRDC, the Ohio State Building and Construction Trades Council, the Ohio AFL-CIO, and the BlueGreen Alliance to advocate for solar development across the state and to ensure that these jobs will be high-quality union jobs.

Steve Crum, an international representative of the IBEW's 4th District, said of Ohio's solar potential, "With all of the positives that utility-scale solar can bring to our communities—jobs, revenue, increased energy independence—Ohio should embrace this solar development. Many of the proposed projects," he continued, "are concentrated in rural areas of Ohio where many IBEW members live and work. We need these jobs right here in Ohio."<sup>47</sup> IBEW is making sure its 20,000 workers in Ohio are ready to build these new sites if given the chance.



IBEW Local 683 worker installing solar panels.



More than 20 of the locals in the state and in bordering West Virginia sponsor training centers for apprentices and journeymen to learn about solar power generation, transmission, energy efficiency, instrumentation, and electrical construction.<sup>48</sup>

Thanks to the collaboration between these unions and NRDC, IBEW and its contractors have started building relationships with key developers in the state. In one project, 10 IBEW workers were involved in installing solar on two of Kent State University's regional campuses.<sup>49</sup> In another, the developer of Ohio's first utility-scale solar project turned to IBEW Local 212 when problems began to arise. The 200-megawatt Hillcrest Solar Farm started construction in 2020 using nonunion workers. Ultimately, the project relied on 60 IBEW workers from Local 212 to keep the project on schedule. Turning to IBEW for a qualified workforce also helped the project secure key incentives by hiring 80 percent of their workforce from within Ohio (as required by Ohio's Payment in Lieu of Taxes program).

Examples like these are just the beginning of the story. There are more than 30 similar projects pending before the Siting Board today, and more are expected. IBEW is committed to continuing its support for additional solar development in Ohio and the high-quality jobs this will bring. For example, the NRDC Action Fund and IBEW teamed up to build the public support needed to pass Columbus's plan to pursue a 100 percent local renewable energy goal for the city. Across the state, IBEW members have testified in public hearings for every solar project currently pending before the Siting Board. At a hearing for the proposed 100-megawatt New Market solar facility 40 miles east of Cincinnati, Daniel Shirey, business manager of IBEW Local 575, said the following:

"In addition to the over 100 good-paying construction jobs, I believe this project will create a lot of tax revenue for the local communities, be good for the economy, and I also believe it is one step toward energy independence that would be good for national security. On behalf of the IBEW, I lend my full support for all the positive impacts that it will create for the community, the environment, and the nation."

The Siting Board approved the New Market project in early April 2021, and IBEW won a PLA on the work, ensuring that its members will be building this important solar array.

The New Market project was created thanks in part to a partnership with the Bloomberg American Cities Climate Challenge, of which NRDC is a partner, the World Resources Institute, and the Rocky Mountain Institute's Renewables Accelerator. When finished, New Market will feature more than 300,000 solar panels that will provide enough clean energy to reduce the region's annual carbon

emissions by 158,000 tons—the equivalent of removing 30,000 cars from the road.<sup>50</sup> IBEW is also partnering with Cincinnati State to implement a workforce skills and hiring program that will put Cincinnati residents to work on the project.<sup>51</sup>

The Ohio Power Siting Board recently issued decisions on three other solar projects—Madison Fields, Yellowbud, and Big Plain—that will mean additional opportunities for high-quality jobs. At the hearing for the 180-megawatt Madison Fields solar project, Tim Strewn, an electrician with Local 683, said this:

"The estimated hundreds of jobs that will be created during the construction phase of this project are important for our community. It is my hope that these jobs will be good union jobs. Utility-scale solar projects like Madison Fields bring with them the opportunity for lifelong careers in the construction field. I can speak from my experience that my career as a journeyman electrician with Local 683 has provided for my family and allowed me to live comfortably in this community."<sup>52</sup>

The growing partnership between unions and private solar developers in Ohio is the result of labor and environmental groups working together to serve common interests. Forming this strong union/environmental alliance before the coming solar boom in Ohio will certainly mean more high-quality union jobs from the beginning and continued strong union support for increased solar energy in the future.

## **PROTERRA BUSES IN LOS ANGELES: AN ALLIANCE TO BENEFIT COMMUNITIES**

In Los Angeles, an unlikely alliance between the United Steelworkers, a union that represents many of the nation's oil and petrochemical refinery workers, and Proterra, a Silicon Valley-backed electric bus and battery startup, has brought high-quality union jobs to a community that has suffered from chronic underinvestment and underemployment.

Buses are a large source of pollution in the United States. The nation's fleet of more than 65,000 transit buses and 408,000 school buses emit an average of 7.3 million tons of greenhouse gases annually; they also spew fine particles that can be inhaled and harm our health.<sup>53</sup> Every day diesel buses travel through communities and expose families to these toxic pollutants, which are responsible for 27,000 heart attacks, 14,500 hospitalizations, and 2.4 million lost workdays each year among adults.<sup>54</sup> Electrifying these buses is an important step in achieving our zero-emissions transportation goals, and it can be achieved through the public procurement process, which can require labor standards as a requirement to receive funds.





Union employees working in a Proterra manufacturing plant.

Thanks to advances in technology and environmental policy, a large-scale changeover to zero-emission vehicles (ZEV) such as electric buses is becoming a more achievable goal. For example, orders for electric school buses are expanding as school districts across the country recognize the health benefits for drivers and students in addition to the yearly projected \$2,000 savings per bus in fuel costs and \$4,400 savings per bus on maintenance.<sup>55</sup> Industry analysis predicts that the U.S. market for ZEV buses is likely to expand dramatically in coming years, reaching an annual growth rate of up to 24 percent by 2025.<sup>56</sup> Switching to electric buses represents a huge opportunity to cut pollution and improve the health of bus drivers, riders, students, and communities and an opportunity to create thousands of high-quality jobs building new buses.

The United Steelworkers Union (USW) recognized the need to get in on the ground floor of this new market. USW has already embraced the clean economy at the national and local levels, helping create the BlueGreen Alliance in 2006 to support joint action on climate change, advocating for the adoption of a 2010 AFL-CIO resolution that committed the nation's premier labor federation to climate action, and playing a key role in the Solidarity for Climate Action plan.<sup>57</sup> On a local level, as part of the Jobs to Move America coalition, USW persuaded the Los Angeles Metropolitan Transportation Authority (as well as other transit agencies around the country) to give additional consideration to bids from companies that can bring enhanced benefits to communities, rather than value low-cost bids above all else.

Though originally unsure of USW as a partner, environmental groups vouched for the union and encouraged Proterra to sit down to with its representatives. As a result of the USW/Proterra partnership, drivetrain factory workers at Proterra's Southern California facility joined the local union, and a community benefits agreement was reached whereby Proterra will train and hire local workers from communities facing significant barriers to employment and place them in long-term, high-quality careers.<sup>58</sup> Proterra received a \$646,345 grant from the state to create this training program in conjunction with the Miguel Contreras Foundation; in return the company agreed to draw more than half of its new hires at this facility from disadvantaged communities.<sup>59</sup> Ultimately, Proterra will end up with a well-trained workforce better positioned to secure public contracts to supply electric buses to city transit agencies and school districts across the country.

According to Proterra CEO Ryan Popple, "Because of the position that a lot of the labor unions have taken from an environmental perspective, I found that we were more aligned than opposed. If you can have environmental advocacy groups and labor advocacy groups aligned, I think you end up getting more done from a policy perspective."<sup>60</sup>

But the story of good jobs and electric buses doesn't stop at drivetrains. Union workers are involved throughout the supply chain and operation of ZEV buses. Electric buses for school districts across the country will have their

bodies built in United Auto Workers (UAW) shops and then be driven and maintained by workers in the American Federation of Teachers (AFT), the National Education Association (NEA), or the Teamsters. For example, Proterra has partnered with North Carolina-based Thomas Built Buses to produce the Saf-T-Liner C2 Jouley electric school bus, which uses a body built by 1,400 members of the UAW at the Thomas Built Bus plant and is powered by an electric drivetrain produced by Steelworkers in the Proterra facility in City of Industry, California.<sup>61</sup>

President Biden has stated that he wants to invest significantly in the further electrification of the nation's bus fleet. As federal funding increases, it should be paired with labor, community, and domestic content standards that require a high percentage of the materials used to build buses to be manufactured in the United States. Unions and other stakeholders should look to the Proterra/USW partnership as a model for how environmental groups, clean energy, and unions can work together ensure that this investment leads to high-quality union jobs and outcomes that benefit whole communities.

## **BAY-AREA RECYCLING WORKERS: LOCAL GROUPS RALLY AROUND UNIONS TO PROTECT WORKER RIGHTS**

Recycling workers sort and separate plastic, paper, and metal from landfill-bound waste, which is essential for effective recycling.<sup>62</sup> The majority of recycling workers in the San Francisco Bay Area are women, and most are Black or recent immigrants from Mexico and Central America. Recycling sorters are often the lowest-paid workers in the waste industry despite their exposure to potentially hazardous materials. Line workers must stick their hands into trash on conveyer belts to sort items and risk cuts from broken glass, hypodermic needles, and other sharp objects or injury from the machinery. Still, they make less than waste-hauling truck drivers and other landfill workers, who are predominantly male. Though California generally has high worker safety standards, state agencies responsible for enforcement are often stretched thin; from 2014 through 2018 they were able to inspect only one in five material recovery facilities (MRF) in the state.<sup>63</sup> This has left California's 12,500 recycling employees vulnerable to unfair treatment and intimidation.

This was the case in northern California, where one group of unionized recycling workers faced contract negotiations that had been stalled for more than three years and another group had no union at all. Thanks to a coalition of unions and community, environmental, student, and church groups, pressure mounted on the recycling facilities' owners to finally allow workers to unionize and to sign contracts with better pay, benefits, and working conditions.

In the East Bay, Waste Management (WM), one of the largest waste companies in the nation, failed to renegotiate the collective bargaining agreement at its San Leandro facility. For three years the company had rebuffed efforts of the workers who belonged to International Longshore and Warehouse Union (ILWU) Local 6. Wages had remained low, and little progress had been made in addressing alleged corporate intimidation tactics around worker immigration status.<sup>64</sup> While recycling workers in nearby San Francisco were being paid \$21 per hour, those in San Leandro were making only around \$12 per hour. Despite paying 40 percent less, WM offered its workers a raise of just 40 cents per hour.

ILWU recycling workers realized they needed allies in their fight. They began the Campaign for Sustainable Recycling, enlisting local groups in their fight to win a new contract with pay that met new local minimum wage requirements, secure vital worker benefits and protections, create more high-quality green jobs, and improve local recycling practices. In addition to working to settle open contracts, the campaign sought to support workers seeking to organize at Alameda County Industries (ACI, today owned by WM's large rival, Republic Services), where wages were illegally low and workers did not have health insurance or proper safety equipment.<sup>65</sup> A recent review of Occupational Safety and Health Administration data found that "of all facilities inspected—including scrap recycling operations, municipal recycling facilities and other facilities with recycling operations—94 percent of 'serious,' or life-threatening, violations came from non-unionized facilities."<sup>66</sup> The coalition recognized that supporting a unionization effort at ACI would improve worker safety and lead to a more equitable and sustainable recycling program.

Environmental groups including the Sierra Club, the Global Alliance for Incinerator Alternatives, the Center for Environmental Health, Communities for a Better Environment, and Green for All helped expand the reach of the campaign and publicize connections between environmental sustainability and workers' rights and safety.<sup>67</sup> Many of these groups, along with the community organizing groups East Bay Alliance for a Sustainable Economy and the Alliance of Californians for Community Empowerment, prioritized racial justice in their campaigns.

To publicize their story and demands, workers at the WM plant organized community outreach meetings, rallies outside Waste Management offices, and other events. Teamsters Local 70, which had been through a similar dispute with Waste Management in 2007, showed up in solidarity and to try to put pressure on Waste Management to speed up the contract negotiation process.<sup>68</sup>

The campaign culminated in October 2014 when the 130 ILWU recycling workers at the San Leandro WM facility went on strike for a week. With the broad support of their





Striking ILWU recycling workers at the Davis Street Resource Recovery Complex and Transfer Station in San Leandro, California, in October 2014.

coalition, the workers finally secured a new contract that granted significant pay increases each year, along with affordable family health benefits.”<sup>69</sup> Alejandra Leon, a recycling worker at Waste Management at the time, said of the campaign’s success, “It was a really beautiful experience and it helped a lot to know what our rights are as workers, to feel empowered and see that there are a lot of people that played their part for this campaign to work.”<sup>70</sup>

At ACI, the solidarity of unionized recycling workers and the broader coalition of groups helped nonunion recycling workers successfully unionize. Workers and other coalition members went to city council meetings in several cities served by ACI to denounce immigration raids and illegal wages and ask councilmembers to call on ACI to raise pay, provide benefits, and improve working conditions at its facility. By the time Local 6 asked for an election at ACI, the company had ended its relationship with the temp agency that had been providing low-wage workers and had stopped campaigning against the union initiative, likely out of a fear of alienating its city clients. Ultimately, the union won overwhelmingly, and now 50 ACI workers are members of

ILWU Local 6.<sup>71</sup> The newly organized unit sought and won a contract based on the improved WM facility contract.<sup>72</sup> Now the ILWU provides safety training, workers make nearly \$20 an hour, and appropriate personal protective equipment is provided.

Not only did workers win, but so did the environment. Workers, environmental groups, and the surrounding community successfully advocated for additional bins for food waste at multifamily buildings in San Leandro. As part of the eventual county-wide agreement, the union also won a provision that workers would receive paid time to do recycling education in the community.

These wins were made possible only through the determination of recycling workers who organized to use their collective power and who were supported by other community groups in the coalition. From its beginnings, the campaign focused on solidifying labor–environmental relationships. Their victories demonstrate the power that environmental groups and unions have when they work together to articulate the common ground between the rights of recycling workers and the importance of effective recycling for environmental sustainability.<sup>73</sup>

## *IV. New Energy Models Promote Good Clean Energy Jobs*

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As the clean energy economy grows, new energy models are expanding consumer choice and making it clear that American communities value high-quality jobs that protect workers. There are many different routes to clean energy in America, built and maintained by workers who receive fair wages.

### **COMMUNITY CHOICE IN CALIFORNIA: LEVERAGING LOCAL VOICES TO CREATE HIGH-QUALITY JOBS**

Community Choice Aggregation agencies (CCAs), such as Peninsula Clean Energy (PCE) in San Mateo, California, empower communities to purchase electricity themselves on behalf of their residents and businesses, rather than acquire it through investor-owned utilities such as Pacific Gas and Electric.<sup>74</sup> By aggregating demand, communities can gain leverage to negotiate better rates with competitive suppliers and choose greener power sources.<sup>75</sup> CCAs can be a good choice for communities that want local control over their electricity sources, more clean power than is offered by their current utility, lower electricity prices, and/or better labor standards.

Recognizing that unionized jobs means better working conditions, fair pay, and local employment, PCE prioritizes high-quality job creation as part of the growth of clean energy. In addition to the goal of having its power portfolio sourced by 100 percent carbon-free energy by 2025, PCE also has inclusive and sustainable workforce policy goals, which were developed in consultation with local building trades and other unions. PCE's "Inclusive and Sustainable Workforce Policy" states the following:

"Support of local businesses, union labor, and apprenticeship and pre-apprenticeship programs that create employment opportunities are important components of building and sustaining healthy and sustainable communities. Peninsula Clean Energy therefore desires to facilitate and accomplish the following objectives:

- Employ workers and use businesses from the PCE service territory.
- Employ properly licensed (A, B, C10, C7, C46) contractors and California Certified electricians.
- Utilize multi-trade project labor agreements on the proposed project or any prior project developments.

- Utilize local apprentices, particularly graduates of local pre-apprenticeship programs.
- Pay workers the correct prevailing wage rates for each craft, classification and type of work performed.
- Display a poster at jobsites informing workers of prevailing wage requirements.
- Provide workers compensation coverage to on-site workers.
- Support and use State of California approved apprenticeship programs<sup>76</sup>

Prioritizing these guiding principles allows PCE to make decisions that deliver maximum value to the communities it serves—including supporting good union jobs. PCE developed two major utility-scale solar projects that created large numbers of high-quality union jobs. For its Wright Solar Park project, these policies helped create a five-union labor agreement involving IBEW Local 684, Ironworkers Local 155, Operating Engineers Local 3, Laborers Local 1130, and Carpenters Local 152.<sup>77</sup> Construction of the Mustang Two Whirlaway project was governed by a five-party labor agreement with Operating Engineers Local 3, Northern California Carpenters Regional Council, Laborers Local 294, IBEW Local 100, and Ironworkers Local 155.<sup>78</sup>

Bobby Stutzman, business manager at IBEW Local 684, said, "The Wright Solar Project showcases how local hires can complete a project in an amazing time frame and provide a huge economic stimulus to the surrounding community. This is also one of those projects that will transcend construction and can be used by the building trades and other unions as a model for future labor agreements."<sup>79</sup>

Peninsula Clean Energy CEO Jan Pepper said, "This is yet more new steel in the ground that will help our customers and the broader community take another important step toward all-renewable power and reducing greenhouse gas emissions. It showcases again how renewable power projects can provide substantial jobs and other economic benefits across our state."

The two PCE solar projects have together employed more than 800 union workers. Wright Solar Park—the largest renewable energy installation built to date for a CCA agency—was constructed in Merced County by around 350



local union workers, and Mustang Two Whirlaway was built in Kings County by nearly 560 union workers, all from the surrounding Bakersfield and Fresno area.<sup>80,81</sup> Electricians, ironworkers, carpenters, operators, and engineers installed more than 900,000 solar panels and other equipment for the two projects, which produce a total of 300 megawatts of solar power, enough to power more than 150,000 homes.<sup>82</sup>

CCAs have been central to the construction of renewable energy infrastructure, economic development, and green jobs in California. According to Solar Industry, “California’s 19 CCAs have on average added roughly 1,000 [megawatts] annually in long-term renewable energy purchase agreements and are expected to make long-term investments in more than 10,000 MW of clean energy resources and storage by 2030.”<sup>83</sup> CCAs are currently authorized in California, Illinois, Ohio, Massachusetts, New Jersey, New York, and Rhode Island. By placing community values at the center of their decisions, CCAs like PCE are ensuring that clean energy development is paired with investment in local communities and in the union jobs that protect workers. It’s a model for success that more utilities and the commissions that govern them should consider emulating.

# Conclusion

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As our country begins to turn the corner on the devastation of the COVID-19 pandemic, we should take a hard look at how we can rebuild in a better way, with stronger outcomes for everyday Americans. The COVID-19 pandemic has highlighted the stark inequities in our society, and it has harmed workers across the country. At the height of the pandemic, more than 20 million people were unemployed, and most of them were Black and Latino. In recovering from this tragedy, we need to rebuild in a way that creates a cleaner, fairer, and more accessible economy for all. The accounts shared in this report are examples of what rebuilding successfully should look like, and how the clean economy can deliver not just a more safe and healthy future but also a more equitable future by offering a path to long-term economic prosperity for communities that need it most.

The successes discussed above came in large part from disparate parties finding common ground to work together. But these kinds of partnerships are still far from the norm in the clean economy. Policymakers, labor groups, environmental, social and environmental justice, and community advocates, and businesses had to collaborate to promote their shared values, overcome institutional barriers, and create outcomes in which everyone benefited. Policymakers should take note and support strong new policies that will make it easier to replicate these examples in communities across the nation. Environmental, labor, justice, and community advocates should continue to work together to achieve more than they ever could apart. And businesses in the growing clean economy should realize that supporting good union jobs in their industry will ultimately leave them and the communities they serve better positioned to succeed. With additional federal resources, these partnerships will be easier to form and the multiple positive outcomes more likely to be delivered.

To ensure our economic recovery produces more stories like these, Congress can help by passing a set of policies that encourage, incentivize, or require high-quality jobs and clean energy growth.

Congress should:

- Pass the Protecting the Right to Organize (PRO) Act, which would restore workers' right to organize and bargain collectively by streamlining the process for forming a union, ensuring that new unions are able to negotiate a first collective bargaining agreement, and holding employers accountable when they violate workers' rights.
- Create an enforceable federal safety standard to protect all workers, such as outdoor renewable installers, from heat-related illnesses and deaths.
- Pass long-term updates to clean energy tax incentives, incorporating new incentives for projects that meet high-road labor standards in construction and manufacturing and support for domestic manufacturing.
- Significantly increase funding for clean energy policies and programs, including the State Energy Program and Weatherization Assistance Programs, ENERGY STAR®, Low-No Bus Program, Title XVII Energy Loan Program, Rural Energy Assistance Program, Clean Cities Program, and Advanced Technology Vehicle Manufacturing Program, with labor standards and domestic manufacturing requirements.
- Update federal grant and loan programs, including those supporting clean energy, to require hiring from disadvantaged communities, offering state-certified apprenticeship or equivalent programs, and verifying recipient compliance with labor laws.
- Pass new worker training programs, like those in the Blue Collar to Green Collar Jobs Act, that will invest in a diverse workforce that can build clean energy infrastructure, and help set up new training programs that can prepare and place workers in clean energy careers.

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