Jobs for Climate and Justice:

A WORKER ALTERNATIVE TO THE TRUMP AGENDA

A WORKING PAPER FROM THE LABOR NETWORK FOR SUSTAINABILITY
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KEY POINTS

• Donald Trump’s promises to address the economic problems of American workers played an important role in his election as president.

• So far, President Trump’s infrastructure and other proposals do more to aggravate than solve those problems.

• They also aggravate climate change – one of the most devastating threats to workers and others in our time.

• And they aggravate the growing inequality between the wealthy few and the rest of the world’s population, while imposing even greater injustice on people who already face discrimination because of their race, ethnicity, gender, sexual orientation, and other reasons.

• Protecting the climate requires an emergency mobilization to create a fossil-free economy.

• Working people need to lead with a plan that will provide jobs and economic security while combatting climate change.

• This working paper proposes a Jobs for Climate and Justice Plan to put working people to work protecting the climate.

• The plan starts with what can be accomplished today in our communities, cities, and states, and expands as the power to implement it grows.

• The Jobs for Climate and Justice Plan includes the following elements:
  
  o Create good jobs protecting the climate.
  
  o Protect threatened workers and communities.
  
  o Remedy inequality and injustice.
  
  o Lay the basis for a New Economy.

The plan shows a way the growing struggle against the Trump agenda can go beyond restoring the status quo ante Trump.

The plan aims not only to help defeat Trump and Trumpism, but to begin to establish a worker- and climate-friendly society.
INTRODUCTION: THE JOBS FOR CLIMATE AND JUSTICE PLAN

The working class is facing severe economic problems that dim our prospects for a secure future. Simultaneously, we face a climate crisis that is already destroying the conditions on which our future depends. And we face a crisis of justice: Inequality has reached unprecedented levels for working people, particularly communities of color and those in poverty. While Donald Trump has promised a “brighter future” for U.S. workers, his agenda as President indicates that he will do more to aggravate than to solve these problems. This working paper presents an alternative Jobs for Climate and Justice Agenda designed to address the real problems facing working people. This agenda will put our people to work protecting the climate and creating a more just society.

Nearly 50% of U.S. workers earn less than $15 per hour.\(^1\) \(^4\) 40% of people in the U.S. work in “contingent” jobs – jobs that lack traditional job security and benefits.\(^2\) From 2005 to 2015, all the net employment growth in the U.S. economy came from such “alternative” work arrangements.\(^3\) Most workers have no protection against the arbitrary authority of their employers. These conditions are faced even more intensely by African Americans, Latinos, women, and other workers who have been shunted to the lower rungs of the labor market.

In his final campaign ad, Donald Trump blamed the problems facing American workers on “the political establishment” that has “brought about the destruction of our factories and our jobs as they flee to Mexico, China and other countries all around the world.” It’s “a global power structure that is responsible for the economic decisions that have robbed our working class, stripped our country of its wealth and put that money into the pockets of a handful of large corporations and political entities.”\(^4\) After the election, a Teamster railroad worker from Ohio who voted for Obama in the previous two elections but voted for Trump in 2016 said, “I didn’t vote for my retirement. I didn’t vote for my healthcare. I didn’t vote for my union membership. I voted

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for my son. Because I just didn’t see a future for him.”

Trump’s election underlines the necessity for a program that provides a future for U.S. workers and our families. Neoliberal policies for the last four decades that rolled back worker and environmental protections, attacked workers rights to organize, privatized energy and other sectors and expanded income inequality to unprecedented levels did indeed intensify the global economic and ecological crises we face today. But the doubts about Trump’s motives are multiplying. It is increasingly clear that his actual agenda is less a plan to create jobs for U.S. workers than to line the pockets of billionaires with tax breaks, subsidies, and reductions in their labor costs. And the plan ignores the most important source of jobs – transforming our economy to protect against the ravages of climate change.

As the failure of President Trump and his allies to solve the real problems of working Americans grows more evident, those who want to solve those problems need a program that offers real solutions. Such a program must be of, by and for working people and provide a roadmap out of the crises that is worth fighting for. And it can help us get started implementing solutions to our problems wherever we have the power to do so.

The entire Trump agenda is based on a lie: that climate change is a hoax. But 97% of climate scientists agree that it is real. More severe storms, droughts, floods, and many other signs validate their view. The impacts of climate change are not just a futuristic forecast – it affects our communities now. Superstorms Katrina, Rita, Irene and Sandy were devastating reminders. But communities and workers are increasingly feeling the effects on a daily basis-

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8 Reference to come.
from sunny day floods in Miami, to long-term droughts and year-round fire seasons in the west. Meanwhile local, state, and federal budgets are slashed by corporate politicians – weakening our ability to respond to these threats.

The imperative to protect the earth’s climate is central to an agenda that protects working people. Without decisive action the planet will heat up five to ten degrees Fahrenheit by the end of this century. Rising sea levels will put cities like New York and Miami underwater. And global warming will cause more frequent asthma attacks, higher food prices, insufficient drinking water, and more infectious diseases. The only way to limit its devastation is to rapidly reduce the carbon and other climate-destroying emissions we put in the atmosphere. And there are no jobs on a dead planet.

Steelworkers: “Securing Our Children’s Future”

In its classic statement “Securing Our Children’s World,” the United Steel Workers union linked climate protection, jobs, and a better future for working people.

“New environmental regulations, enacted through state and national legislation like increased CAFE standards (Corporate Average Fuel Economy) and RES (Renewable Energy Standards) that mandate increased use of wind, solar, biomass from waste wood and slash, and even landfill methane for generating electricity, and public bonding for mass transportation and clean energy development are critical for rebuilding North America’s manufacturing base…Imagine a twenty-first century Clean Energy Authority whose mission is to bring renewable energy to our communities, much as the Tennessee Valley Authority and the Bonneville Power Administration brought electrification to millions of Americans during the 1930’s and 40’s with their hydroelectric projects.”

Fighting climate change is not a preference or an option – it is a necessity for the future of humanity, and that emphatically includes workers here in the United States. It is a big task, but far from impossible. We can sharply cut the carbon and other greenhouse gases we put in the atmosphere, and slow the pace of climate change. To achieve this we need to limit carbon dioxide and other greenhouse gases to a safe level. Using the latest climate science, governments meeting in Paris for the 2015 global climate summit agreed to keep global warming “well below” 2C above pre-industrial levels, and to strive to limit it to 1.5C. This means global carbon dioxide emissions need to reach zero by some time between 2050 and 2070.9

The Oil Change International study “The Sky’s Limit” indicates that just burning the oil, gas, and coal in the world’s currently operating fields and mines would take us beyond 2 degrees C of warming. It recommends a “managed transition” that freezes new fossil fuel expansion while scaling up clean energy at a corresponding pace.10 According to leading climate scientist James Hansen, reaching 350 ppm by the end of the century will require reducing fossil fuel emissions by six percent a year.11

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Fighting the Nazis and fighting climate change

There are many experiences we can draw on to learn about how to make rapid economic changes. The U.S. has radically changed fuel sources in the past—for household heat wood was replaced by coal and then oil and gas; for light whale oil by kerosene and then electricity. In the depths of the Great Depression, U.S. President Franklin D. Roosevelt launched the New Deal—a set of government programs to provide employment and social security, reform tax policies and business practices, and stimulate the economy, as well as establish environmental programs such as reforestation and soil conservation. It included the building of homes, hospitals, school, roads, dams, and electrical grids. The New Deal put millions of people to work and created a new policy framework for American democracy.

The scale and scope of U.S. economic mobilization for World War II was truly unprecedented. U.S. military spending rose from less than $2 billion in 1940 to more than $90 billion in 1944—an increase of more than $1 trillion in 2010 dollars. In the five years of the war, the United States produced three hundred thousand planes, one hundred thousand ships, and twenty million rifles. Investment in research and development produced radically new technologies: the United States spent more than $20 billion in 2008 dollars and directly and indirectly employed more than one hundred thousand people on the Manhattan Project alone—thereby producing the first atomic bomb.

The scale and scope of change necessary to reach 350 ppm is surely comparable with that of mobilization for World War II. It will involve a great deal of new production, and some current production will need to be halted. But the nature of the task is rather different. The purpose is not just to ramp up the quantity of production, or just to shift it to a new set of products. Although that is necessary, the task goes far beyond that to a qualitative transformation of an economy—and society—based on very different technologies. The task will take far longer, will require longer-term planning, and must be accomplished in a way that is permanently sustainable.

Protecting the climate requires a massive and emergency mobilization. But the seeds and experience for such a mobilization already exist. We can draw lessons from America’s rapid economic transformation in response to the threat of World War II. As Nazi armies spread devastation across Europe in 1940, United Automobile Workers Union president Walter Reuther proposed a startling plan to retool the Depression-ravaged auto industry to build 500 warplanes a year. The auto magnates scoffed, but soon a massive mobilization put tens of millions of unemployed and underemployed workers to work producing what the war effort required, while shutting down wasteful and unnecessary production that would impede it. Climate protection is an emergency that demands a comparable effort today.

And because climate change threatens everyone, climate protection can bring together and mobilize the social and political forces needed to transform our economy.

There are many sources to draw on for a climate and justice jobs plan, ranging from the infrastructure proposals of unions to legislation drafted by progressive political figures and from academic research to practical experiments on the ground. The Jobs for Climate and Justice Plan draws on many of them. But it is not meant to be the last word. The transition to a climate-safe, worker-friendly economy will long be a work in progress. The transition needs to happen across multiple sectors which includes electricity/energy, but also food, water, waste, transit, housing, ecosystems restoration and more. We hope millions of people will participate in setting and keeping the transition on the best possible course, but it is

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crucial that workers take the lead in planning and implementing the transition and assuring public and democratic control of energy and other sectors.

The Jobs for Climate and Justice Plan has four elements:

1. Create good jobs fixing the climate.
2. Protect threatened workers and communities.
3. Remedy inequality and injustice.
4. Lay the basis for a New Economy.

This paper envisions a trajectory that starts with what we can accomplish today in our communities, cities, and states, expands as we develop the power to change national policy, and ultimately leads to a transformation of national and global economies.
1. CREATE GOOD JOBS FIXING THE CLIMATE

A. Invest enough in the transition to a fossil free economy to provide good jobs for all.

In the Paris climate agreement the US and other nations agreed to reduce greenhouse gas emissions (GHGs) enough to reduce global warming well below 2 degrees Celsius of additional warming. Climate scientists have identified the GHG reductions we must make in order to stabilize a livable climate. The IPCC calls for a minimum reduction of 80 percent by 2050 in order to keep global warming below a 2° Celsius increase. Climate scientist James Hansen has identified any level of atmospheric GHGs over 350 ppm as incompatible with human life as we have known it. According to Hansen, to reach 350 ppm by the end of the century, starting from 2012 as a baseline, will require a global reduction of 6 percent per year in fossil fuel emissions, combined with the extraction of 100 gigatons of carbon dioxide from the atmosphere. Global carbon emissions will need to be near zero by around 2050. The fair share of GHG reduction would be substantially higher for wealthy countries like the United States which have contributed large amounts of GHGs in the past.

Numerous studies have detailed how this transition can be made. The Labor Network for Sustainability report “The Clean Energy Future: Protecting the Climate, Creating Jobs, Saving Money” outlines a path to 80% greenhouse gas (GHG) reductions by 2050 while adding half-a-million jobs per year, mostly in construction and manufacturing, at no new costs. This is accomplished through such strategies as expanding energy efficiency programs to match the most successful existing state programs; a 70 percent national Renewable Portfolio Standard for electricity; 100 percent electric vehicles; and electrification of space and water heating. This Clean Energy Future plan should serve as a floor to which enough public investment is added to provide good jobs protecting the climate for all who want them.

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15 There is no cure for climate change as long as we continue putting GHGs into the air. But once we approach zero emissions, the expansion of forests and other carbon sinks can begin to draw carbon out of the atmosphere and restore climate balance. This is a huge global task which will require the labor of people around the world.
16 http://climatejobs.labor4sustainability.org/national-report/
The Clean Energy Future will create a substantial number of new jobs. The increase in jobs created, compared to the business-as-usual scenario, will start around 200,000 per year in 2016–2020 and rise to 800,000 a year in 2046–2050. The average job gain compared to business-as-usual scenario is 550,000 per year for the entire period. There are several reasons for this advantage. The Clean Energy scenario spends less on imported oil and less money ends up in the pockets of the owners of gas pipelines, coal mines, and oil wells and refineries, many of them overseas. Much of that money is spent instead paying workers to produce more labor-intensive forms of renewable energy and energy efficiency.

Nearly 80% of the new jobs provided by the Clean Energy Future will be concentrated in manufacturing and construction. The scenario will immediately start to create hundreds of thousands of new jobs in energy efficiency, ranging from insulation to high-efficiency heating and cooling, to fuel cells and combined heat and power (CHP) installations, to use of tree planting to cool urban areas. In the 2020s, a second wave of jobs will develop producing, installing, and maintaining wind turbines, solar panels, and other forms of renewable energy. In the 2030s, new jobs will develop in the auto industry due to the increasing production of electric cars and trucks. (A shift to public transportation would allow more jobs and an even faster reduction in greenhouse gas emissions as well as other social benefits.) Starting in the 2040s, the clean energy scenario will save so much money that a significant number of jobs will be created by the money saved on fossil fuels that will be spent instead on job-creating expenditures. Over the 35-year period, the average of 550,000 extra jobs per year will include 187,000 jobs in manufacturing and 240,000 in construction.19

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19 Some studies have projected a far higher number of jobs created by climate protection policies, sometimes running in the millions. There are several reasons the numbers in the Clean Energy Future scenario are lower. It is based on the large and continuing reduction in the cost of renewable energy, which makes it possible to meet GHG reduction targets at far lower cost—but therefore also with considerably less labor. Unlike some studies, it is not based on extensive expansion of biofuel production, which creates large numbers of low-paid agricultural jobs. The program is designed to keep the cost of transition to a minimum, which also holds down the number of jobs created. Finally, the projections are based on conservative assumptions derived from a detailed knowledge of the electrical system. The report emphasizes that if society is prepared to spend more money, a far more rapid and job-intensive program could result.
Clean energy jobs are here

President Trump’s plan claims to “maximize the use of American resources,” utilizing the “vast untapped domestic energy reserves right here in America.” But the plan ignores the greatest untapped and most job-productive American energy resources – sun power, wind power, and energy efficiency.

According to the U.S. Department of energy, renewable energy employment has been growing at a rate of nearly 20% per year. There are now more workers directly employed by the clean energy industry than by the fossil fuel industry. Both the solar and wind industries are creating jobs twelve times faster than the rest of the U.S. economy.

260,000 Americans now work in the solar industry. More than 51,000 solar industry jobs were added in 2016, a 25 percent increase over 2015. Solar jobs have nearly tripled since 2010. Employment in the U.S. solar business grew 12 times faster than U.S. jobs overall. The number of U.S. jobs in solar energy now exceeds those in oil and natural gas extraction.

A 2015 U.S. Bureau of Labor Statistics report projects solar turbine service technicians to see the highest rate of growth for any career in the nation.

Median pay for a wind turbine service technician in 2015 was $51,000 a year. According to the U.S. Department of Energy, offshore wind farms could produce four times the total electricity currently generated in the U.S. today.

The energy efficiency industry directly employs nearly 2,200,000 American workers. It is predicted to grow about 10% in 2017.

Meanwhile, fossil fuels, the energy source of the past, has little promise as an American job creator. 30% of American oil jobs have been lost since 2014. Many of the workers who held them have migrated to jobs in wind and other renewable energy. Oil production has begun to rise in the past few months, but new technology means that increased production doesn’t necessarily translate into more jobs: between a third and a half of the workers who lost their jobs are not returning.

To move fast enough to a fossil-free economy, we must replace all investment in new fossil fuel infrastructure with investment in the new fossil free economy. We must expand fossil free energy and energy efficiency fast enough to replace fossil fuel infrastructure as it reaches the end of its usable life. That will require large-scale public planning and investment, utilization and regulation of markets, and local community initiative. It will require public policy that ensures reliable, sustained commitment and finance. Because fossil free energy produces far more jobs than fossil fuel energy, the result will be a substantial increase in jobs and a reduction in unemployment. Policies outlined in the rest of this working paper will ensure that those jobs are good jobs, that they are available to those who need them most, and that they are part of a broader strategy for achieving full employment and a New Economy.

Many studies show that replacement of fossil fuel energy by renewable energy and energy efficiency is technically feasible, and suggest various pathways to achieve it. It can be accomplished based on commercially available technologies, but rapid expansion of research and markets will likely lead to very rapid improvement in technology.
Illinois law provides climate and justice jobs

Shortly after Trump’s election, the Illinois legislature passed the Future Jobs Package which will invest at least $500,000,000 in new solar, nifty solar, and energy efficiency programs targeted at low-income nities, combined with job training for work in the solar industry. The bill smpromise among a wide range of forces, and included a bailout for power plants, but attempts to include a coal company bailout and consumer electrical rate increases were defeated. The bill will create m of new solar generation and 1,300 MW of new wind generation by Illinois. Local jobs will be guaranteed because utilities will have to use solar and wind energy sources, rather than purchase renewable energy tate.27 renewable energies and energy efficiency. There will be only a small need for natural gas as a transitional fuel.

Transportation unions’ infrastructure plan

This March, the leaders of 32 transportation unions laid out their key objectives for transportation infrastructure. They included a fight against the corporate giveaway, anti-union elements of Trump’s plans:

- **Views on President Trump’s Call for a $1 Trillion Infrastructure Investment Initiative**
  Any transportation infrastructure plan advanced by the President and Congress must include a significant infusion of new federal funds and embrace strong worker protections, labor standards and Buy America requirements.

- **Mobilization Against Job-Killing Right-to-Work Laws**
  Transportation labor will engage in an aggressive effort to stop national right-to-work legislation, which is part of an orchestrated, deliberate attempt by extremists to crush the wages and benefits of working Americans.

The most important areas for transition are electricity, transportation, and buildings. Electricity produced by fossil fuels, the largest single emitter of GHGs, can be replaced by wind, solar, and hydro energy sources, smart grids, new energy storage technologies, and increased efficiency. Petroleum-based private transportation can be replaced with cars, trucks, trains, and public transit powered by renewable electricity. Freight transportation can be converted to rail transport and electric vehicles. Virtually all buildings can be made much more efficient through insulation, weatherization, cogeneration, and solar and geothermal heating, cooling, and hot water. Many other strategies, ranging from industrial redesign to “smart growth” integration of urban and transportation planning, and from expanding forests to reducing fossil fuel use and restoring soils and applying carbon-sequestering techniques in farming, will also contribute. Every workplace, industry, and community will have a role in building a climate-safe economy.

B. Guarantee economic security and jobs for all who want them

Studies such as the Labor Network for Sustainability’s “The Clean Energy Future” show that renewable energy and energy efficiency can potentially produce substantially more jobs than fossil fuels. They will contribute to job growth in manufacturing, construction, operations, maintenance, and many other industries. Nonetheless, climate protection is unlikely in itself to fully eliminate unemployment.

To counter the insecurity of working class life in general and the specific fear that climate protection may lead to job loss, climate protection policies need to incorporate the principle of a job for everyone who wants one. The frontline of establishing full employment can be the expansion of jobs that support climate protection. Macroeconomic full employment policies are necessary both to ensure jobs for all who want them, and to mobilize the productive capacity needed to build a climate-safe society.

Steelworkers: “Securing Our Children’s World”

In its classic statement “Securing Our Children’s World,” the United Steel Workers union linked climate protection, jobs, and a better future for working people.

“New environmental regulations, enacted through state and national legislation like increased CAFE standards (Corporate Average Fuel Economy) and RES (Renewable Energy Standards) that mandate increased use of wind, solar, biomass from waste wood and slash, and even landfill methane for generating electricity, and public bonding for mass transportation and clean energy development are critical for rebuilding North America’s manufacturing base... Imagine a twenty-first century Clean Energy Authority whose mission is to bring renewable energy to our communities, much as the Tennessee Valley Authority and the Bonneville Power Administration brought electrification to millions of Americans during the 1930’s and 40’s with their hydroelectric projects.”

Where other policies have not led to full employment, government should serve as the employer of last resort for all who want to work, putting them to work on climate protection and other socially needed activities. Such a program should be combined with a “Nordic-style” welfare system that provides financial support for the unemployed near the level provided to employed workers, combined with job training, regional economic development, and other strong support for re-employment.28 These policies are in line with traditional labor movement objectives such as full employment, high minimum standards for wages and working conditions, a skilled and educated workforce, protection for those who lose their jobs, and provision for those for whom work is not appropriate.

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C. Ensure quality of climate protection jobs

Climate protection will inevitably provide jobs. But can it provide good jobs?

For several decades, the tendency of the U.S. economy has been toward insecure, contingent work, often with low wages and few health insurance, pension, or other benefits. “Green jobs” can similarly be marked by low wages, health and safety hazards, and gross violation of labor rights. Climate protection will therefore require deliberate policies to raise wages and increase job security, especially for those at the lower end of the labor market, to counter that tendency.

Climate protection strategy must be designed to provide the maximum number of good, secure, permanent jobs with education, training, and advancement that provide maximum possible improvement in our good-job shortage. Jobs should be based on steady, sustainable work and investment, not stop-and-go boom and bust. This requires planning for technical and physical development and for financing. It needs to include pay and benefit standards that provide a decent standard of life and future for working families. It needs to support “high road” employers, prevailing wage provisions like those required by the Davis-Bacon Act, and project labor agreements negotiated between unions and employers to ensure that climate protection jobs

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30 While in most instances public policy should aim to provide stable long-term employment, in the case of construction workers who normally work on relatively short-term jobs, it should include mechanisms to provide steady employment as workers move from project to project.
they learn but they also participate in family-supportive health insurance programs, promoting family formation and stable child-rearing, and they begin building savings for their retirement. By the time these electrical apprentices retire as journeyworkers at age 65, they will have amassed a retirement nest egg of about $525,000 in defined contribution and defined benefit programs sponsored by their contractors and unions. This is substantially more than what the median single or married worker at age 65 today has for retirement.

The report notes that distributed generation such as rooftop solar and small-scale dedicated field solar is playing an important role in helping California tackle climate change while creating jobs. Spurred by the California Solar Initiative, the state has a rapidly expanding base of rooftop/distributed solar electrical generating capacity. Rooftop systems are not only popular in the residential sector but are seen by industrial users, nonprofits, campuses, and municipal agencies as a smart strategy to reduce electricity bills, meet sustainability goals, and free up capital that can then be reallocated. This distributed generation trend is only expected to continue as technology enables the growth of micro grids and energy storage.

elevate rather than depress wages and working conditions.31

The deterioration in quality of jobs is directly related to the reduction in the size and bargaining power of labor unions. Reinforcing the rights of workers to express themselves freely, organize, bargain collectively, and engage in concerted action on the job should be an explicit part of public policy for the climate protection sector, as it was for war industries during mobilization for World War II. The human right of all workers to organize, bargain collectively, and engage in concerted action must be protected.

Workers should be the ones to decide whether or not they want union representation; employers in the climate sector should be required to sign and abide by neutrality agreements.

2. PROTECT THREATENED WORKERS AND COMMUNITIES

A. Provide a just transition for all affected by the transition to fossil-free energy

Many workers depend for their livelihoods on jobs that produce and use fossil fuel energy. While climate protection will produce far more jobs than it eliminates, it may also threaten the jobs of some workers in fossil fuel producing and using industries. Any just economic program cannot allow that any worker should suffer through no fault of their own because of a policy that is necessary to protect society. A Jobs for Climate and Justice program must create alternative jobs and/or livelihoods or generate substantial unemployment—and thereby undermine support for climate protection.

Climate protection plans must provide a just transition for workers and communities that they may otherwise negatively affect. This must include requirements that employers retrain and find jobs for those affected; give them

The Huntley Experiment: Protecting threatened workers and communities

After years of falling employment, the Huntley coal plant in Tonawanda, New York was clearly on the way to closing, threatening power plant workers, teachers whose salaries dependent on a company PILOT (payment in lieu of taxes) program, and local communities. A Huntley Alliance led by union and environmental justice groups worked with residents to lay out criteria for what an acceptable economic transition would look like:

- Protect workers
- Create good-paying jobs with benefits
- Reconnect our town to our waterfront
- Build and sustain a new tax base
- Protect ratepayers
- Improve our environment and our public health.

When the company finally announced retirement in August of 2015, the Huntley Alliance had identified resources, made a plan, and built community power. It won $30 million in the state’s budget to help support Tonawanda and communities like it across New York facing power plant closures.

The fund will:

- Provide money to the Town, School District and County to replace lost Huntley revenues for 5 years.
- Protect teachers’ jobs and maintain the quality of public education.

The Huntley Alliance also secured federal dollars to help the town plan for the future through the Partnerships for Opportunity and Workforce and Economic Revitalization (POWER+ Plan), a federal program that coordinates efforts among multiple federal agencies to align federal economic and workforce-development programs. This planning work began in the summer of 2016.32

priority for new jobs; provide economic benefits that allow not only a decent livelihood but a start on a new life; ensure decent retirement benefits for those who choose it; and invest in local communities to provide them a future beyond fossil fuels.33 To do so requires what has been described as a “superfund” for workers and communities to ensure that no worker is left behind by the transition to a climate-safe economy.34

Protecting threatened workers and communities needs to start now. We need to invest in local economies dependent on fossil fuel jobs before devastating economic disruption begins. We need to establish a community and worker protection fund to collect money in advance to replace taxes and fees paid by fossil fuel facilities and to invest in good jobs in affected communities. We need to target investments in fossil fuel energy communities designed to create jobs before or at the pace that fossil fuel jobs are declining.35

Beyond a Band-Aid*

A recent LNS study, “Beyond a Band-Aid: A Discussion Paper on Protecting Workers and Communities in the Great Energy Transition” by Arjun Makhijani of the Institute for Energy and Environmental Research proposes a proactive approach to a just transition that can start right now.

Beyond a Band-Aid* proposes direct investments in local economies dependent on fossil fuel jobs before devastating economic disruption begins. Its specific proposals for dealing with the downsides of transition to climate-safe energy include:

- A community and worker protection fund (CWP Fund). The fund would collect money in advance to replace taxes and fees paid by fossil fuel facilities and to invest in good jobs in affected communities.
- Advance investment in job creation. The CWP Fund, in cooperation with other private and public sources, would make targeted investments in fossil fuel energy communities designed to create jobs before or at the pace that fossil fuel jobs are declining. Examples would include:
  - Exporting renewable energy
  - HVAC conversion
  - Decommissioning facilities
  - Economic diversification

“Beyond a Band-Aid” also lays out a variety of ways to pay for these proposals. They include:

- Levying a modest carbon fee or tax.
- Eliminating fossil fuel subsidies and tax breaks.
- Setting aside funds for decommissioning facilities.
- Leveraging other investments with the CWP Fund

This approach provides advocates of worker and community protection in labor, state government, and the public debate concrete proposals for proactively addressing the transition to clean energy, rather than waiting for shutdowns that bring crisis and catastrophe to workers and communities.

Providing them a just transition requires targeted economic opportunity and

B. Protect threatened workers

Individual workers who are adversely affected by climate protection programs should be eligible for an equivalent to the “GI Bill of Rights,” including:

- full wages and benefits for at least three years
- up to four years of education or training, including tuition and living expenses
- decent pensions with healthcare for those ready to retire.37

Alternative jobs can be provided not only in clean energy but also in other work the public needs; they should be provided not only where existing jobs are lost but where potential fossil fuel jobs are not created because of climate protection policies. For example, the Labor Network for Sustainability study, “The Keystone Pipeline Debate: An Alternative Job Creation Strategy,” laid out how more jobs could be created by renewing water and other pipeline infrastructure than by building the Keystone XL pipeline for tar sands oil.38

C. Protect threatened communities

Not only individual workers but whole communities can be affected when fossil fuel facilities shut down.

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36 “Beyond a Band-Aid: A Discussion Paper on Protecting Workers and Communities in the Great Energy Transition” by Arjun Makhijani, Ph.D. of the Institute for Energy and Environmental Research


38 http://www.labor4sustainability.org/files/_kxl_main3_11052013.pdf
Clean Energy Worker Just Transition Act

The “Clean Energy Worker Just Transition Act” proposed by Sen. Bernie Sanders (I-Vt.), Jeff Merkley (D-Ore.) and Edward Markey (D-Mass.) illustrates how workers and communities can be protected through just transition legislation. The bill initially targets coal workers, but over time expands to other energy sector workers as well. It provides unemployment insurance, health care, and pensions for up to three years and job training and living expenses up to four years. Employers receive tax incentives to hire transitioning employees. Counties where 35 or more workers become eligible for the program can receive targeted development funds. The right of workers to join unions is protected by streamlining NLRB union recognition provisions.

While programs such as the Trade Adjustment Assistance (TAA) have often been inadequate at best, there are examples of transition programs that work. From 1994 to 2004, for instance, the U.S. Department of Energy conducted a Worker and Community Transition Program that provided grants and other assistance for communities affected by shutdown of nuclear facilities. A nuclear test site in Nevada, for example, was repurposed to demonstrate concentrated solar power technologies.39

Restoring coal mining communities: The Power+Plan

Jobs for coal miners have been decreasing for decades. The primary reason is simply that natural gas and renewable energy are cheaper and cleaner. The Trump administration’s claim that it will “bring back coal” by eliminating environmental protections is illusory. Providing a future for coal mining communities requires a just transition to a fossil free future. A step in this direction would have been the Obama administration’s proposed “Power+ Plan” to provide new investments for economic transition in central Appalachia.

The Power+Plan was greeted enthusiastically by Appalachian social justice groups like the Mountain Association for Community Economic Development and Kentuckians For The Commonwealth. While not nearly sufficient in terms of the scale of investment, this proposal for the first time puts a just transition for workers in fossil fuel-related industries on the national political agenda. The Power+Plan included:

- $1 billion over five years to restore lands and waters degraded by decades-old mining and to support related sustainable development projects.
- $56 million to invest in job training for laid-off miners and to support economic development efforts in Central Appalachian mining communities. This figure includes an additional $20 million in job training for miners and power plant workers; an increase of $25 million for the Appalachian Regional Commission’s annual budget, to be directed at “communities most impacted by coal economic transition”; $6 million more to the Department of Commerce for “place-based regional innovation efforts,” including grants to economically distressed communities; and $5 million more for the EPA’s brownfields program to help communities deal with the closure of coal-fired power plants.
- $3.9 billion over 10 years to shore up health and retirement benefits for many retired miners.

39 Green Growth, p. 310.
Community just transition plans can learn from the highly successful process that helped local communities adjust to the disruption and job shifting that resulted from the closing of military bases under the Base Realignment and Closing Commission (BRAC). Those communities were provided a wide range of Federal assistance, including planning and economic adjustment assistance, environmental cleanup, Community Development Block Grants, and Community Service Grants.

Workers dislocated by base closings also received extensive support. The Department of Defense itself provided advance notification of a reduction in force; pre-separation counseling; a hiring preference system with federal agencies to re-employ qualified displaced DOD employees; and financial incentives to encourage early retirement of those eligible. Workers affected by base closings were also eligible for help under National Emergency Grants, “Rapid Response” programs, comprehensive assessments and development of individual employment plans, and job training.

Communities and individuals adversely affected by climate protection policies could be similarly targeted for assistance from such existing programs as the Department of Labor’s Rapid Response Services and the National Emergency Grants of the DOL’s Employment and Training Administration, as well as funding for economic development and industrial efficiency and modernization from the Departments of Energy and Commerce.

Workers and communities need not wait for public policy to pursue such protections. For example, when the Healthy Connecticut Alliance campaigned to close the Bridgeport Station coal-fired power plant, it included in its demands a series of protections for those who worked in the plant:40

- Negotiate a jobs agreement with unions representing affected workers.
- Find jobs for affected workers who want them.
- Ensure job retraining for those who need it to fill new jobs.
- Provide decent pensions with healthcare for workers who are not provided other jobs and who do not opt for retraining.
- Create jobs restoring the site.
- Reutilize facilities to replace losses in the tax base.
- Fund job-creating community economic development.

Just Transition at Diablo Canyon

In summer 2016, Pacific Gas and Electric, the unions representing its workers, and environmentalists reached a groundbreaking agreement to retire California’s Diablo Canyon nuclear power reactor with a just transition for those affected.

As part of building a case against renewing operating licenses for the Diablo Canyon reactors, Friends of the Earth commissioned a technical and economic report commonly referred to as “Plan B” that showed that Diablo Canyon could be replaced with renewables that were less expensive and GHG free. That report provided the underpinnings of the eventual agreement.

As part of its proposal, Friends of the Earth insisted on the inclusion of just transition provisions in the agreement. IBEW local 1245 and the Coalition of California Utility Employees were able to join as parties to the negotiation of the agreement. Other parties who joined the agreement included the Coalition of California Utility Employees, the Natural Resources Defense Council, Environment California and the Alliance for Nuclear Responsibility.

As part of the final agreement, PG&E agreed, among other things, to:
- Spend $350 million during the remaining operating years of the plants to retain the highly skilled unionized workforce, provide retraining and development, and secure generous severance payments for workers upon the completion of their employment; and
- Make payments totaling nearly $50 million during the same period to San Luis Obispo County, to offset declining property taxes and support a transition plan for the county.

NAACP Just Energy Policies for Illinois

The NAACP has developed just energy policies for every state. Here are the recommendations from their Illinois report Just Energy Policies: Reducing Pollution and Creating Jobs:

**Renewable Portfolio Standards**  Illinois has a mandatory renewable portfolio standard of 25% by 2025-2026, along with technology requirements which mandate that wind and solar comprise 20.25% of electricity sales by 2025-2026. The state is on track toward clean energy leadership; as it meets the minimum recommended level, it should consider increasing its ambition.

**Energy Efficiency Resource Standards**  Illinois has mandatory energy efficiency resource standards (EERS) that ramp up to a 2% annual reduction, over the previous year’s retail electric sales, in 2015. In the future, the state will hopefully expand its EERS beyond the 2% target to achieve even greater savings.

**Net Metering Standards**  Illinois has new net metering policies that require electric utility companies to provide various credits for systems with up to 2 MW capacity. Nevertheless, new rules complicate the utility-ratepayer relationship under net metering, by introducing different sets of rules for different sets of customers. Illinois should simplify its rules and allow larger customer-level systems, up to at least 2 MW, to access the same incentives as smaller systems. Illinois has expanded statewide net metering limits from 1% to 5% of a utility’s peak demand, but should ideally expand the statewide limit even further, or eliminate it.

**Local Hire**  Illinois energy policy lacks a local hire provision. Establishing a local hire provision for energy projects would significantly increase the reinvestment of tax dollars into the local economy, and would provide local jobs to enable more people to work near where they live.

**Minority Business Enterprise**  Illinois’s Business Enterprise Program, run by the state’s Department of Central Management Services (CMS), certifies disadvantaged business enterprises (DBEs). CMS certifies DBEs including minority entrepreneurs, businesses owned by persons with disabilities, and women-owned businesses for state procurement and other opportunities. CMS has set a goal for 20% of contract dollars, and has achieved 27.7% for contracts subject to the goal. More could be done; the state could show leadership by setting aside further funds, which would guarantee awards of a minimum portion of state procurement funds to DBEs. Additionally, Illinois could expand training opportunities under its existing programs, and could establish a proactive notification system to alert DBEs to procurement opportunities to supplement its current registry of DBEs, across all sectors, including the energy industry.

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3. REMEDY INEQUALITY AND INJUSTICE

Most climate protection strategies take for granted existing injustices and inequalities. Climate protection can serve as a means to counter inequality and social injustice, but it will require deliberate policies to do so. The Jobs for Climate and Justice plan serves as a vehicle to move toward a more just and equal society.

Full employment and good, stable jobs that protect the climate provide part of the basis for this transition. But a jobs for climate and justice plan must provide a jobs pipeline for those individuals and groups who have been denied equal access to good jobs. It must remedy the concentration of pollution in marginalized and low-income communities. It must counter the lack of transportation, education, health, and other facilities in poor neighborhoods, and all other results of past discrimination. And it must insure that the costs of the transition are not born by those who can least afford it through unaffordable utility rates.

Jobs and unemployment are distributed very unevenly to different groups and localities. So are job skills and experience. Climate protection jobs require a wide range of skills, from the most highly technical to just having the ability to show up for the job and follow instructions. While this makes it possible to provide jobs for a wide range of workers, it also has the danger of providing only low quality dead-end jobs for those who are already most economically deprived.

An Affordable Energy Program for Maryland

A recent report\textsuperscript{42} by Arjun Makihjani and associates found that a Maryland household with average income pays 3-4 percent of their income on electricity and heating; low-income households pay 10-20% or more – often leading to malnutrition, hospitalizations, evictions, and homelessness. The report proposed a 6% cap on energy bills for low-income households combined with rapid investment in solar energy, energy efficiency, and weatherization.

1. Ensure that the energy bills of low-income families are affordable – generally defined as 6 percent of gross household income. The rest of the energy bills would be covered by public funds from various sources. When the social benefits, including reduced costs of health care and homelessness, are taken into account, the overall cost of the Affordable Energy Program to the public will likely be lower than the present assistance costs.” \textsuperscript{10-11}

2. The cost of solar installations has fallen dramatically, creating an enormous economic opportunity to bring solar to low-income households, even renters. Efficiency and weatherization will also reduce energy bills and the costs of assistance. Just one measure, a heat pump water heater, would save $220 per year compared to a regular electric water heater. For comparison, the average electric bill assistance was $325 per year in 2013.

The long-term social cost of a comprehensive program will likely be lower than the present assistance program, even if the number of recipients increases substantially in the future. The combination of investments in solar energy, efficiency, and weatherization will reduce the amount of assistance needed; in many cases, the bills will be below six percent of income, eliminating the need for assistance. All new public and publicly subsidized low-income housing should be net-zero with solar panels onsite and/or offsite.

The transition to a fossil free economy requires massive investment. The Jobs for Climate and Justice plan will require that investments are targeted to create pathways for low-income people and people of color to access good jobs and improve the lives of communities of color, indigenous peoples, low-income people, small farmers, women, and workers. It will prioritize investments that benefit disadvantaged groups, such as public transportation, education, health, and other facilities in low-income neighborhoods, replacement of contaminated water systems, and shutdown of power plants that pollute vulnerable populations.

Jobs protecting the climate are available to those individuals and groups who have been denied equal access to good jobs. Job recruitment will include strong racial, gender, age, and locational affirmative action to counter our current employment inequalities. Climate protection needs to make use of workers’ existing skills while at the same time developing new ones that reduce these inequalities. Programs need to provide job ladders within and across employers lest those who currently face only dead-end jobs continue to face only dead-end jobs in the climate protection economy.

Current fossil fuel energy costs are themselves a prime source of poverty and economic inequality. Low-income households face impossible choices between paying for energy, health, food, and housing. A 2011 national survey found that sometime in the previous five years more than one-third of them had to forgo medical/dental care and purchasing medicines because of high energy bills; almost one in five became ill because their homes were too cold.\textsuperscript{43}

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\textsuperscript{42} Arjun Makihjani, Christina Mills, and Annie Makihjani, "\textit{Justice in Maryland’s Residential and Renewable Energy Sectors},” Institute for Energy and Environmental Research, October 2015. Text has been abbreviated and reordered for concision.

\textsuperscript{43} Arjun Makihjani, Christina Mills, and Annie Makihjani, "\textit{Justice in Maryland’s Residential and Renewable Energy Sectors},” Institute for Energy and Environmental Research, October 2015, p. 10.
The transition to a fossil free economy must remedy this situation, not aggravate it. It can protect low-income consumers from the costs of climate protection by limiting bills of low-income households to 6 percent of gross income, increasing energy efficiency, and providing universal solar access to low-income households.44

4. LAY THE BASIS FOR A NEW ECONOMY

In the Introduction to this working paper, we quoted an Ohio railroad worker who said he voted for Trump for his son, “because I just didn’t see a future for him.” No matter how much the Trump agenda fails to provide a better future for American working people, no alternative plan or movement is likely to win their support if it merely restores the pre-Trump status quo. The Jobs for Climate and Justice plan itself will have limited appeal unless it opens the way to a new economy.

Thanks to Donald Trump and Bernie Sanders, and even more to the failures of the current economic model, the range of economic alternatives that can be debated in the American political arena has substantially widened. Economic globalization is no longer a sacred cow that cannot be questioned. Massive investment in infrastructure and other social needs is on the table. Even socialism has lost its power as a scare word. The idea that the future will, must, and should be just a continuation of the past and present has lost the appearance of universal consent. The shibboleth that “there is no alternative” to neoliberal capitalism has lost its magic. The idea of creating a “new economy” qualitatively different from the current model is no longer widely regarded as sheer foolishness.

The transition to a climate-safe, worker-friendly economy cannot wait for consensus on longer-range objectives. But it can serve as a means to open the door to further transformations. It will involve wide-ranging experiments with community, regional, national, and global economies that reach far beyond the limits that have been imposed up till now. It will entail constraining market forces to meet the crucial human need for climate stability – an express reason that many conservatives deny the reality of climate change. It will include the constructing of many new institutions and policies that can serve as building blocks for a broader social transformation. And it will create a context for widespread discussion and debate about what further steps are necessary and desirable.

The Jobs for Climate and Justice plan can be the starting point for a wider transformation.

That transformation needs to start with the transition to renewable energy and the reduction in energy use through energy efficiency. But even simply to

44 See Arjun Makhijani, “Beyond a Band-Aid.”
address climate chance, that transition will need to change more than just energy policy. It will need to create farming that extracts carbon back out of the atmosphere and begins to restore the damage done by the burning of fossil fuels. It should include the redesign of metropolitan systems to provide a better quality of life with less energy use. It can include massive expansion of activities like education, health, and recreation to provide a higher quality of life for all while requiring far less energy.

Such a transformation will need to address the massive role of military spending in the U.S. economy. The military is itself one of the world’s leading emitters of greenhouse gases. And our bloated military budget – larger than the military budgets of the next eight largest military spenders combined – could easily be cut significantly to provide much-needed funding for climate protection and climate-protection jobs. Many military authorities now recognize that climate change is a root cause of many regional conflicts as communities fight over dwindling arable land and water. Confronting climate change could reduce conflict and promote global peace and security.

Discussions of what a new economy should be – and experiments testing such ideas – are ongoing in many arenas. Rather than try to assert dicta for what such a new economy should be, we present here examples of social experiments and programs developed by a range of thinkers, activists, and movements.\textsuperscript{45} They illustrate possible building blocks for a new economy and possible programs to guide action to create it.

The Next System Project

The Next System Project\textsuperscript{46} is an initiative aimed at “thinking boldly about what is required to deal with the systemic challenges of the United States faces now and in coming decades... By defining issues systemically, we believe we can begin to move the political conversation beyond current limits with the aim of catalyzing a substantive debate about the need for a radically different system and how we might go about its construction.” Its report “The Next System Project: New Political-Economic Possibilities for the 21st Century”\textsuperscript{47} describes broad categories of “alternative systemic models.”

- Worker ownership and self-management
- Localism
- Reinvigorated social democracy
- Participatory economic planning
- “Beyond growth” ecological economics
- Socialism and reclaimed public ownership
- Bioregionalism
- African American cooperative and related strategies
- Community-based system-changing ownership solutions

\textsuperscript{45} Many more such experiments can be found in the “New Economy Roundup” blog of the New Economy Coalition.
\textsuperscript{46} The Next System Project
Black Lives Matter Platform

In response to violence against Black communities and the rise of the Black Lives Matter movement, more than 50 organizations came together as the Movement for Black Lives\(^{48}\) to articulate a common vision and agenda.

We are a collective that centers and is rooted in Black communities, but we recognize we have a shared struggle with all oppressed people; collective liberation will be a product of all of our work. We believe in elevating the experiences and leadership of the most marginalized Black people, including but not limited to those who are women, queer, trans, femmes, gender nonconforming, Muslim, formerly and currently incarcerated, cash poor and working class, disabled, undocumented, and immigrant. We are intentional about amplifying the particular experience of state and gendered violence that Black queer, trans, gender nonconforming, women and intersex people face. There can be no liberation for all Black people if we do not center and fight for those who have been marginalized. It is our hope that by working together to create and amplify a shared agenda, we can continue to move towards a world in which the full humanity and dignity of all people is recognized.

The Movement for Black Lives platform includes six demands, each backed by detailed analysis of problems and solutions.

- End the war on black people.
- Reparations
- Invest-Divest
- Economic Justice
- Community Control
- Political Power

Trade Unions for Energy Democracy

Trade Unions for Energy Democracy\(^{49}\), which includes 47 unions and other organizations from 17 countries, calls for a reconstruction of the global energy industry to provide “energy democracy” through democratic ownership and control. According to their framing document “Resist, Reclaim and Restructure”\(^{50}\):

A trade union strategy for energy democracy can be built around three broad objectives, namely the need to resist the agenda of the fossil fuels corporations; the need to reclaim to the public sphere parts of the energy economy that have been privatized or marketized; and the need to restructure the global energy system in order to massively scale up renewable energy and other safe low–carbon options, implement energy conservation, and ensure job–creation and true sustainability.

An energy transition can only occur if there is a decisive shift in power towards workers, communities and the public—energy democracy. A transfer of resources, capital and infrastructure from private hands to a democratically controlled public sector will need to occur in order to ensure that a truly sustainable energy system is developed in the decades ahead.

Energy democracy offers perhaps the only feasible route to a new energy system that can:

- Protect workers’ rights and generate decent and stable jobs
- Make Just Transition real
- Be responsive to the needs of communities
- Create an energy system based on environmentally sustainable methods of energy extraction, transport and use
- First control and then quickly and dramatically reduce emissions and harmful pollution
- Rapidly scale up renewable energy and other low–carbon energy options
- Aggressively promote energy conservation across all sectors
- Make serious progress towards ending energy poverty globally

\(^{48}\) Vision for Black Lives [https://policy.m4bl.org](https://policy.m4bl.org)

\(^{49}\) Trade Unions for Energy Democracy [http://unionsforenergydemocracy.org](http://unionsforenergydemocracy.org)

Our Revolution

Our Revolution is a political organization growing out of the presidential campaign of Sen. Bernie Sanders. Its aims to reclaim democracy for the working people of our country by harnessing the transformative energy of the “political revolution.” Through supporting a new generation of progressive leaders, empowering millions to fight for progressive change and elevating the political consciousness, Our Revolution will transform American politics to make our political and economic systems once again responsive to the needs of working families.

Our Revolution has three intertwined goals: to revitalize American democracy, empower progressive leaders and elevate the political consciousness. Here are links to its platform:

- Income Inequality
- College Tuition
- Big Money in Politics
- Foreign Policy
- Immigration
- Creating Decent Paying Jobs
- A Living Wage
- Climate Change
- Racial Justice
- Puerto Rico
- Affordable Housing
- Women’s Rights
- AIDS and HIV
- LGBT Equality
- Empowering Tribal Nations
- Caring for Our Veterans
- Medicare for All
- Strengthen Social Security
- Prescription Drug Prices
- Disability Rights
- TPP

New Era Cooperative

In December 2008, Republic Windows and Doors in Chicago shut down and laid off 250 workers. Then the workers, with support from the United Electrical Workers union, did something that has happened rarely if ever in recent years: They occupied their factory and refused to leave. Amidst worldwide publicity, they not only won their immediate demands for vacation and severance pay; the union helped find a buyer who promised to reopen the plant with the existing workforce.

In 2012, the new owners threatened to close the plant. The workers held another occupation, organized a co-op, and reopened the plant under their own control. The workers renamed their company New Era, “as we hope it will be an inspiration for how future jobs can be created in America.” They maintain that, “Everyone can participate in building the new economy we all want, and no one should be treated as temporary or just raw material for someone else’s business.” The New Era cooperative was established with support from the United Electrical Workers Union, the Center for Workplace Democracy, and Occupy Chicago (the local equivalent of Occupy Wall Street). It has received financing from The Working World, a loan fund that has financed dozens of worker-controlled factories in Latin America. New Era’s 23 worker-owners produced half-a-million dollars’ worth of energy-efficient windows and doors in 2014, and the business has been growing rapidly since. The workers hope to spawn other cooperatives, for example by encouraging drivers to form a coop to provide delivery services for the company.

51 Our Revolution. [https://ourrevolution.com/about/](https://ourrevolution.com/about/)
52 “Our Issues,” Our Revolution. [https://ourrevolution.com/issues/](https://ourrevolution.com/issues/)
Greenwave

GreenWave, initiated by commercial fisherman Brendan Smith, is a project that aims to embody just transition principles in a new approach to ocean farming. Over the past seven years, Smith has used his Thimble Island Oyster Farm in Long Island Sound to develop a new model: a vertical, “3D” ocean farm, which produces a mix of seaweeds and shellfish for food, fuel, fertilizer, and feed. Smith’s model, which he calls “climate farming,” seeks to rearrange the seafood plate by “moving bivalves and ocean plants to the center of the dish and wild fish to the edges.” It represents “an engine of climate mitigation” with his seaweeds “soaking up five times more carbon than land-based plants” and “requiring zero inputs” – making it “the most sustainable form of food production on the planet.”

GreenWave now aims to use this model to create “a future where 3D ocean farms dot our coastlines in ‘reefs,’ clustered around a seafood hub or distribution center, embedded in offshore wind farms, surrounded by conservation zones.” GreenWave promotes an “open source model” designed so that “anyone with a boat and $20,000 can start their own farm.” GreenWave supports farm startups with a Farmer Apprenticeship Program, legal and permitting support, startup grants, training, seasonal gear, and a guarantee to purchase 80% of their crops at triple market rate for their first five years.

GreenWave is developing an infrastructure that includes “restorative hatcheries” for ocean farm “seed”; seafood hubs to help farmers process, store, and ship crops and products; and food trucks to “bring the sea to the streets.” GreenWave is also working to create “new and stable markets” for ocean farmers’ crops by R&D for new sea vegetables; regional marketing partners; and “ecosystem services” models that pay farmers for the “positive environmental value of their work” – for example by including ocean farmers in government programs designed to reduce ocean nitrogen. In southern New England GreenWave now has a seafood hub in Fair Haven, 11 new farms in various stages of growth, a coop-run hatchery, and stable institutional buyers already purchasing at scale, including Google and Patagonia. It is replicating this “GreenWave Reef” with farms being permitted in California, the Pacific Northwest, the Maritimes, South Africa, and Trinidad.

Just transition is embedded in many aspects of the GreenWave approach. Brendan Smith says, “We’re working with people who’ve been left behind” and “creating a low barrier to entry to the ocean farming we’re doing” so there is “huge potential for a just transition on a large scale.” Smith refers to the low entry cost as “the nail salon model.” It insures that “people can make money quickly.” However, “the process really matters,” so just transition concepts are built in right from the beginning along with democratic control. “People own the process, not the ‘ocean’ property—the ocean is shared.” Every 5 years the ocean acreage is up for review “to make sure that people are farming sustainably.” The whole process is structured for replication and economic opportunity. It is critical to develop “a fairness model that creates low barriers to entry.” GreenWave aims to establish a non-privatized model with roles for “non-profit, for-profit, coop, and private companies.” GreenWave is “placing seafood hubs in economically disadvantaged communities” so “it’s a hub for job creation.” Smith says, “we don’t want resumes, we’ll find work for people who want to work.” He adds, “We’re weaving our values into a new way of envisioning the food system.”

Climate Justice Alliance

Climate Justice Alliance (CJA) is a national alliance of frontline, grassroots organizations working for a transition from the extractive economy to local, living economies. CJA promotes a vision:

- In which everyone lives a good life by being in just and fair relationship with each other and within healthy, interdependent ecosystems.
- Based on a culture of sharing rather than hording; localized democracies rather than globalized exploitation; the Web of Life rather than the Chain of the Market. Fairness, equity and ecological rootedness are core values.
- That celebrates and honors the beauty and diversity of life and the rights of people to realize their full potential as creative beings.

CJA Principles

Living a good life in a good way can only happen by first recognizing that the root causes of the daily economic, environmental and social inequity that plague communities worldwide are also compromising the metabolism of Mother Earth; and that all real solutions must address both the economic and ecological crisis. This recognition is what defines the Climate Justice Movement.

We believe that the key principles that define the real solutions to the ecological and economic crisis are:

- **Root Cause Remedies:** Real solutions require that we go to the source of the problem. Resource intensive industrial production, globalized at scale, and driven by the imperative of maximum profit to endless growth, is the engine of the crisis. The antidote requires place-based, smaller-scale economies, anchored in communities that are linked to one another through healthy and sustainable systems of exchange.

- **Rights:** Real solutions recognize and honor individual and collective rights, including, but not limited to, the sovereign rights of Indigenous Peoples, the right to food, water and energy sovereignty; the right to control our own labor, the Rights of Mother Earth, the right of women to have complete control of their bodies- and of the reproduction of our species; the right to home and the right to movement; and the rights of individuals and communities to live free of political, cultural, economic, physical and environmental subordination. These rights require an end to environmental racism and a recognition of the right to self-determination for oppressed peoples within the United States.

- **Reparations:** Real solutions understand the need for reparations – to repair our relations. This must include making amends for historic responsibilities for the crises we face, from over-consumption of ‘atmospheric space’ by the Western Industrialized counties to the Trans-Atlantic Slave Trade. We must repair our relations in the present, by restoring back to the Web of Life that which has been subordinated to the Chain of the Market- from water and air to seeds and labor and life itself. We must set ourselves up for a future that embraces reflective and responsive relationships to place.

**Representation:** Real solutions ensure that people will have directly democratic control over the decisions that affect their daily lives and that those who have been most victimized by the systems which got us here must lead the way to solutions. This is not only because justice demands it, but because those of us whose lands, livelihoods and cultures have been compromised, hold the evolved knowledge of place- the stories and cultures- that we all need to survive and thrive.
CONCLUSION: THE JOBS FOR CLIMATE AND JUSTICE PLAN: A BRIGHTER FUTURE FOR AMERICAN WORKERS

The Jobs for Climate and Justice Plan offers a four-part strategy for addressing the economic, climate, and justice challenges that face American workers. It proposes a plan to create millions of good jobs fixing the climate. It explains how to protect workers and communities whose livelihoods might be unintentionally threatened by climate protection measures. It describes how the transition to a climate-safe, worker-friendly economy can also help remedy America’s intensifying inequality and injustice. And it tells how that transition can also provide a starting point for reconstructing our economy to solve the devastating threats presented both by the Trump agenda and by the globalized neoliberalism that preceded it.

This plan has been drafted as something that a wide range of individuals, constituencies, and organizations can discuss with each other, develop into a common vision and program, and ultimately rally around. We hope it indicates a way the growing struggle against the Trump agenda can go beyond restoring the status quo ante Trump – a way it can become a vehicle that working people use to solve the problems they continue to face. We see developing such a common vision and program as part of developing an alliance of movements, organizations, and constituencies that are committed to fighting the Trump agenda – and to fighting for that common vision and program.

While the national political arena is at the moment hostile to that vision and program, states, cities, and regions are still available arenas for positive labor-climate action. This Jobs for Climate and Justice plan has been designed to be implemented now in those arenas – while also providing a program around which we can rally support around – and eventually implement -- in the national arena.

Trump’s agenda is no less than an assault on the planet and its people. The struggle against Trump and Trumpism is nothing less than the defense of society – what movements of resistance to tyranny elsewhere have called Social Self-Defense.⁵⁴ Social Self-Defense is the protection of that which makes our life together on earth possible. It includes the protection of the human rights of all people; protection of the conditions of our earth and its climate that make our life possible; the constitutional principle that all government must be accountable to law; and global cooperation to provide a secure future.

for people and planet.

The linked defense of workers and the climate lie at the core of Social Self-Defense against the Trump and Trumpism. A vision and program for jobs for climate and justice can help unify its forces, demonstrate our collective strength, and clarify what we want and need. It can help create the kind of movement that can not only defeat Trump and Trumpism, but start the transition to a worker-and climate-friendly society.