White Paper

Climate Legislation Must Provide a Just Transition for Workers

By Labor Network for Sustainability

November, 2009

Executive Summary

1. Fear of job loss is a major reason people oppose climate protection legislation.

2. The worker protection strategy of current climate bills is flawed and inadequate.

3. Climate protection advocates need a bold program to ensure that every worker, retiree, and community impacted by climate legislation can count on a secure future.

4. Rightwing politicians and self-serving business interests are exploiting the inadequacy of worker protection provisions to gut or defeat climate legislation.

5. Many policy analysts are greatly understating the harm to jobs and the economy that would result from failure to prevent climate change. Recent testimony from the Congressional Budget Office, for example, fails to take into account the potentially devastating effects of climate change on the U.S. economy.

6. Climate protection will produce millions of new "green jobs" in climate-protecting industries. But it will also cause some people to lose their jobs in high carbon producing and using industries. Estimates of how many jobs might shift as a result of climate change legislation range from hundreds of thousands to several million.

7. These job losses will be regionally concentrated, notably in the coal producing and using areas in and around Appalachia.

8. Those who lose their jobs are likely to face long-term or permanent unemployment and lifelong adverse economic impacts. Of workers who were laid off during 2003, for example, almost half left the labor force altogether without securing another job.

9. Subsidies to high carbon-emitting companies defeat the purpose of reducing carbon emissions, yet provide no guarantees of workers' future livelihoods. They represent a "trickle-down" approach to workers' economic security.

10. The worker transition program in proposed climate legislation is modeled on the Trade Adjustment Act program that purports to protect workers from the effects of globalization. It provides short-term, often poverty-level income, training for jobs that in many cases simply do not exist, and incentives for workers to "solve" high local unemployment by migrating elsewhere.

11. More effective strategies for worker transition are now being discussed. For example, the American Worker and Community Assistance Act introduced by Senator Bob Casey and co-sponsored by Senator Sherrod Brown represents a valuable step forward in protecting workers and communities affected by climate legislation.

12. An effective worker protection program will have to address the needs of individual workers, local communities, impacted regions, and retirees.

13. Individual workers should receive far better transition assistance, including GI-bill style education benefits that allow displaced individuals to establish new careers.

14. Communities hard hit by climate protection measures should receive significant support for economic reconstruction through a Community Revitalization Trust Fund that provides economic development grants over a twenty-five year period to create jobs and business opportunities for displaced workers and community members.

15. Regions hard hit by climate protection measures should receive support for "Green TVAs" that rebuild affected regional economies based on transitioning from fossil to green energy. An initial pilot program should be launched for Appalachia and the surrounding region.

16. The Federal government should guarantee that no worker or retiree will lose pension or healthcare benefits as a result of the climate protection bill, period.

17. These measures will allow advocates of climate legislation to argue that it will protect workers, communities, and retirees far better than a policy that simply does nothing and lets climate change destroy our economy.

18. Climate protection advocates can use these measures to take the offensive to turn around the public debate.

Introduction

One great fear is blocking public support for climate protection: the fear that protecting the planet will destroy millions of jobs.

Without a bold program to protect workers from the effects of climate protection, the struggle against global warming can all too easily come to be perceived as a struggle against American workers.

On June 26, 2009, H.R. 2454, the American Clean Energy and Security Act of 2009, passed the House of Representatives. It would create a "cap-and-trade" program requiring permits for carbon emissions and creating a market in which such permits can be traded. It includes a variety of other measures as well, including provisions for workers affected by the bill. It aims to reduce carbon emissions by the entities it covers to17 percent below 2005 levels by 2020 and 83 percent below 2005 levels by 2050. The Senate is currently drafting a similar bill, of which a preliminary text is available. The final contents of any climate legislation, and the probability of its ultimate passage, are still very much in play.

This White Paper examines the effects on workers of the current versions of these bills and makes concrete recommendations for how they might be improved. While a variety of alternative approaches to climate protection have been proposed, this White Paper focuses on improving the current draft legislation.

Climate protection advocates have often addressed the threat of possible job losses by pointing out that a transition to a low-carbon economy would create far more jobs than it would eliminate. While that may be true, it also misses the point. The fact that some people get new jobs provides little solace for the individuals and communities who have lost theirs.

Current climate bills provide "transition assistance" for workers they would adversely affect. Unfortunately, "transition assistance" in the past has often meant little more than a hospice for workers and communities threatened by the side effects of globalization, environmental protection, and other public policies.

Steps to strengthen worker protections in climate legislation are already under discussion. For example, on November 5, 2009 Senator Bob Casey introduced S. 2742, the American Worker and Community Assistance Act. Co-sponsored by Senator Sherrod Brown, the bill would establish a Climate Change Worker Transition and Community Assistance program to provide targeted help to workers who may be adversely affected by climate legislation. Commenting on the bill, AFL-CIO President Richard L. Trumka said, "It is essential that workers and communities impacted by climate change policy be provided with the tools to transition into the new clean energy economy and the millions of new jobs that stand to be created."

This White Paper evaluates the proposals for transition assistance in current climate legislation. It offers a workable alternative that would provide a much more effective pathway for workers and communities affected by climate protection. That in turn will allow advocates of climate protection to answer those who fear that climate legislation will ruin our economy – and their

personal livelihood.

It is a basic principle of fairness that the burden of policies that are necessary for society – like protecting the earth's climate – should not be borne by a small minority who happen to be victimized by their side effects. Unless workers and communities are protected against the unintended side effects of climate protection, there is likely to be a backlash that threatens the whole effort to save the planet. The challenge for the architects of climate protection is to craft and implement policies to give such workers confidence that they will be protected as America goes green.

Jobs are threatened by climate change too

While fewer and fewer people are willing to publicly deny the validity of global warming science, those who oppose action to protect the climate have taken up a new strategy: denying that climate change will have a major impact on the U.S. economy.

This denial is rejected by most economists who have studied climate change. In a survey of 144 top climate economists released November 4, 2009 by the Institute for Policy Integrity at the New York University School of Law, 84% agreed that "the environmental effects of greenhouse gas emissions, as described by leading scientific experts, create significant risks to important sectors of the United States and global economies." A majority stated that sectors that will be negatively affected include agriculture, fishing, forestry, insurance, and health services.[1]

But the profound negative economic impact of climate change is being largely ignored or denied in the current public policy debate. This denial threatens to have a significant effect on public policy. For example, testimony October 14, 2009 by Douglas W. Elmendorf, the director of the Congressional Budget Office, states, "Most of the economy involves activities that are not likely to be directly affected by changes in climate."[2] He claims that "a relatively pessimistic estimate for the loss in projected real gross domestic product is about 3 percent for warming of about 7° Fahrenheit (F) by 2100." He cites only two studies, one published in 2004; the other, which he describes as "The most comprehensive published study," was published in 2000, a decade before current research on the impacts of climate change.

This testimony completely ignores the British government's 700-page *Stern Review*, widely regarded as the most definitive study so far of the economic impact of global warming, released on October 30, 2006 by former World Bank chief economist Nicholas Stern. It states, "Our actions over the coming few decades could create risks of major disruption to economic and social activity, later in this century and in the next, on a scale similar to those associated with the great wars and the economic depression of the first half of the 20th century."[3]

The CBO testimony ignores many studies that indicate significant negative effects of climate change on the U.S. economy in the coming years. For example, a study by the University of Maryland found that "the costs of climate change rapidly exceed benefits and place major strains on public sector budgets, personal income and job security. Because of the economic costs of climate change, we conclude that delayed action (or inaction) on global climate change will likely be the most expensive policy option."[4]

The CBO testimony ignores the June 16, 2009 government report *Global Climate Change Impacts in the U.S.*[5] issued by the U.S. Global Change Research Program which described economically devastating results of global warming already under way:

- More rain is already coming in very heavy events, and this is projected to increase across the nation. This would have impacts on transportation, agriculture, water quality, health, and more;

- Heat waves will become more frequent and intense, increasing threats to human health and quality of life, especially in cities;

- Warming will decrease demand for heating energy in winter and increase demand for cooling energy in summer. The latter will increase peak electricity demand in most regions;

- Water resources will be stressed in many regions. For example, snowpack is declining in the West, and there is an increasing probability of drought in the Southwest, while floods and water quality issues are likely to be more of a problem in most regions;

- In coastal communities, sea-level rise and storm surge will increase threats to homes and infrastructure including water, sewer, transportation and communication systems.

One small example of the way impacts of climate change are ignored: The CBO testimony states that the "medical care" sector will be "relatively insulated from climate effects." *Global Climate Change Impacts in the U.S.* states on the contrary that "Climate change poses unique challenges to human health including heat waves and severe storms, ailments caused or exacerbated by air pollution and airborne allergens, and many climate-sensitive infectious diseases."[6]

The CBO testimony also ignores a new study by the Union of Concerned Scientists *Climate Change in the United States: The Prohibitive Costs of Inaction*. After reviewing effects on flooding, hurricane intensity, tourism, public health, water scarcity, shipping, agriculture, energy and infrastructure stress, and wildfires, the study concludes, "If global warming emissions continue unabated, every region in the country will confront large costs from climate change in the form of damages to infrastructure, diminished public health, and threats to vital industries employing millions of Americans . . . These projected costs of climate change do not include those that are critical but hard to quantify, such as costs stemming from changes to ecosystems and the need to relocate coastal communities."[7]

The CBO testimony acknowledges that "there is a small possibility that even relatively modest warming could trigger abrupt and unforeseen effects during the 21st century that could result in large economic costs in the United States." It concludes, "The sources and nature of such abrupt changes, their likelihood, and their potential impacts remain very poorly understood." Thereafter it largely disregards such effects as melting ice caps and glaciers, rising sea levels, epidemic

diseases, and extreme weather events, even though a great deal of scientific evidence has emerged on these threats in recent years.

Such denial leads to a deadly miscalculation of the economic cost of failure to counter global warming. The CBO acknowledges that "Unchecked increases in greenhouse-gas emissions" would "probably reduce output over time, especially later in this century." However, the CBO concludes that the net effects on GDP of restricting emissions in the United States are likely to be negative over the next few decades. That conclusion results from a total failure to consider the devastating impact of climate change on the global and U.S. economies, as revealed for instance in the *Stern Review*.

How many epidemics and Katrinas will it take to expose the myth that the U.S. economy is somehow exempt from the threats of climate change? And what terrible price will we pay if we shun the cost of climate protection but not the far greater cost of climate change?

We are living in a time of rapid and often threatening change. Globalization has transformed our economy and led millions of Americans to worry about the future of their jobs. The global Great Recession has pushed U.S. unemployment to its highest level since the Great Depression. Global climate change adds a potentially still more devastating dimension to the situation we face – including an economic threat that is often underestimated in current debates. These challenges cannot be met either by nations acting on their own or by "leaving it to the market." They require not only reconstructing our energy system but also our capacity for planning, regulating, and working in cooperation at every level from local to global.

We will only learn how to protect our people and planet through experience. We will no doubt need repeated course corrections. But there will be no way to correct our course if we don't get moving.

Protecting the climate and protecting workers are not alternatives. Neither will happen without the other.

The problem: Fear of job loss creates fear of climate protection

Climate protection legislation has a political problem: Many people see climate protection as a threat to jobs.

Some climate protection advocates think it is enough to say that legislation will create more new "green jobs" in the climate-protection sector than it will destroy existing jobs in the high-carbon sector. But that won't reassure those who fear they will lose their jobs to climate protection. They doubt that those new green jobs will be available to them.

Fear of job loss is the centerpiece of the campaign against climate protection legislation.

According to the website of the anti-climate protection coalition Energy Citizens, "This legislation will cost more than 2 million American jobs —hurting millions of Americans who work in or depend on trucking, farming, manufacturing, mining, small business and energy production—or use their cars to commute to work." They conclude, "Congress pushed this legislation as a step towards lowering greenhouse gas emissions, but their good intentions could have disastrous consequences for families and businesses across America."[8]

The US Chamber of Commerce has similarly made job loss a crucial point in its campaign against climate legislation. Chamber CEO Thomas Donahue wrote, "We oppose legislation such as the Waxman-Markey bill that numerous studies show will cause Americans to lose their jobs."[9]

A recent news story reports:

"Sen. Sam Brownback (R., Kan.) expressed the fears of many lawmakers, both Democrat and Republican. "You're talking about a massive market manipulation here on a grand scale that has significant impacts on the Midwest and the South … [including] the likelihood of us to lose a lot of jobs, a lot of businesses."[10]

"Tea party" protests against climate protection legislation are already being held in the industrial Midwest.[11] More than 700 people participated in a protest in Lima, Ohio, for example, many of them oil workers from a nearby Marathon Oil Company facility.[12]

Unless climate protection advocates effectively address these fears, both they and the legislation they support risk a devastating backlash from Americans afraid of losing their jobs.

The reality: Some jobs will be lost

The CBO testimony indicates that the House climate bill would have "only a small effect on total employment in the long run."[13] Many economists would agree: Jobs gained will more or less compensate for jobs lost. The CBO estimates that total employment would probably be reduced "a little" due to delayed market adjustments.[14]

The CBO testimony does not take into account studies indicating that overall jobs will actually be gained because green industry is more labor intensive than what it replaces. For example, an analysis by the Union of Concerned Scientists found that 185,000 new jobs would be created by 2020 if utilities generate an average of 20 percent of their electricity from renewable sources. Aggressive investment in energy efficiency could create 37 million new jobs according to research commissioned by the American Solar Energy Society. $100 billion in targeted investment for energy efficiency and renewable energy could generate 2 million new jobs, according the Political Economic Research Institute at the University of Massachusetts at Amherst.[15]

While the aggregate employment effects of climate protection legislation are likely to be neutral or positive, they may be considerably greater in industries that make or use products with high carbon footprints. As the CBO testimony points out, "The small effect on overall employment" expected from the bill "would mask a significant shift in the composition of employment over time."

> "A cap-and-trade program for carbon dioxide emissions would reduce the number of jobs in industries that produce carbon-based energy, use energy in their production process, or produce products whose use involves energy consumption, because those industries would experience the greatest increases in costs and declines in sales."
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> "The industries that produce carbon-based energy – coal mining, oil and gas extraction, and petroleum refining – would probably suffer significant employment losses over time. Reductions also would be likely to occur in industries that use those forms of energy intensively or purchase emissions-intensive inputs to their production process from other industries, including chemicals, primary metals, minerals mining, nonmetallic mineral products, transportation, and construction. Among those industries, employment losses in chemicals and transportation services could be relatively large."[16]

Would this be compensated by new jobs?

> "The shifts in demand caused by the policy would also create new employment opportunities in some industries. Businesses that produce the machinery necessary to generate energy without CO^2 emissions and that produce energy – for example, electricity generated by the wind or the sun – would hire more workers. Employment would also probably increase in industry sectors that supply goods and services that use less energy in their production or that require consumers to purchase less energy when using the industry's product. In the automobile industry, for instance, employment would shift

> from producing vehicles that rely solely on internal-combustion engines fueled by gasoline to producing vehicles with hybrid or electric engines."[17]

Studies vary regarding how many jobs might shift as a result of climate change legislation from hundreds of thousands to several million jobs depending on the year. This is not a large job shift relative to the overall "churning" of jobs in the American economy: In 2008, employers hired about 56 million workers and about 59 million workers left their jobs.

However, the CBO acknowledges that "The process of shifting employment can have substantial costs for the workers, families, and communities involved." Of workers who were unemployed during 2003, almost half left the labor force altogether rather than finding another job. A quarter of displaced workers who did find new jobs were unemployed for 27 or more weeks. A study of states whose industries were "hit by significant adverse shocks" between 1950 and 1990 found that the rate of unemployment only fell when workers moved away to other states, which often took more than five years. Women, older workers, and less-educated workers are even more likely to leave the labor force than others when they lose their jobs.

Even those workers who do find new jobs may experience the effects of job loss for the rest of their lives. "Even 15-20 years later, men who separated from their stable jobs in a mass layoff during the 1982 recession had annual earnings that were 20 percent lower than similar workers who did not experience such a job loss."

These effects are likely to be especially strong where they are geographically concentrated. "Reductions in employment that occur rapidly in particular geographic areas or industries could lead to significant reductions in the lifetime earnings of some affected workers."[18]

Such effects are likely to be far greater in today's high-unemployment economy.

As Carl Wood of the Utility Workers recently put it, "Workers are used to being ground up and spat out by any change in society. In the U.S. there is no safety net for the victims." He cited mechanics in a Southeastern Ohio coal-fired power plant represented by his union whose jobs would be eliminated by the phasing out of coal as a very real example of how climate protection could threaten specific workers even if it produced more jobs in general.

A Crucial Example: Coal miners and their communities

The problem of job loss from climate protection is concentrated in politically significant areas like the Appalachian coal mining region. United Mine Workers President Cecil Roberts questions whether "You can do away with the best paying jobs in Appalachia, then think next year there's going to be just as good jobs in Appalachia." He adds, "We may create jobs somewhere, but they're not going to be in Appalachia."[19]

Roberts cites studies showing that the Climate Stewardship Act of 2003 would have reduced coal production by 78 percent by 2025, which would have "just about wiped out the coal industry in southern West Virginia and elsewhere in Appalachia." He adds that the more recent Lieberman-McCain bill would cut Appalachian coal production by thirty percent.[20] Currently proposed

climate protection legislation might well have an even greater impact.

Miners are already conducting rowdy actions similar to the "town hall meetings" against healthcare reform. Rightwing opponents of climate legislation can be expected to parade around workers whose jobs are lost or threatened.

Who works in the coal producing and using industries today?

According to one estimate, there are about 340,000 coal-related jobs in the American economy.[21] Nationwide, 83,000 people are employed by coal mining companies. U.S. coal mining is concentrated in Appalachia and the West. Most production is in the West; Wyoming produces nearly three times as much coal as West Virginia. But the underground mining techniques used in Appalachia are far more labor intensive. West Virginia and Kentucky employed 38,000 workers in 2006 – 46 percent of the national total. Wyoming employed fewer than 6000 coal miners. Coal is the source of more than half of American electricity, and more than 90 percent of coal is used to generate electricity.

Major occupations in the mining industry include construction, extraction, transportation, material-moving, installation, maintenance, and repair. Many of these jobs have counterparts in the renewable energy industry, making it possible for many workers to move laterally into the green economy.

The United Mine Workers has 86,000 members, but only part of the membership works in mining. It also represents workers in the public sector, health care, and manufacturing, many of whom are qualified for jobs in the “green” economy.

Over 60 percent of coal is transported by railroad, and coal represents about 40 percent of all railroad freight. Coal railroad jobs tend to be concentrated in and around the coalfields.

There are about 24,000 power plant operators nationwide, not all of whom operate coal-fired plants. They tend to be college educated and highly skilled.

Retired workers face a special problem. Many of them, such as the retired miners who form a large part of the voting membership of the United Mine Workers Union, fear their pensions and healthcare will be threatened if their former employers do not thrive.

The concentration of the most threatened coal-related workers in Appalachia and adjoining areas provides an opportunity for proactive public policy that can effectively and visibly ensure that climate protection measures also protect them. Coal workers are not facing an immediate collapse of their industries – even with strong climate protection legislation Appalachia does not bode to become another Detroit. But such legislation may accelerate the continuing erosion of coal-related jobs that has been on-going for the past half century.

The case of workers in the coal mining and using industries could be a poster child for the damage that climate protection will do to American workers. Conversely, policies that effectively protect such workers, their families, and their communities could be a vehicle for

demonstrating that the transition to a green economy can genuinely address the needs of those who feel threatened by climate protection policies.

The current climate bills provide inadequate protection for workers

Proposed climate legislation includes provisions that are designed to ameliorate the negative employment effects of climate protection. These programs are to be paid for from the auction of carbon emission allowances.

Industry subsidies

Much of the strategy for such amelioration lies in providing subsidies to particular industries – notably petroleum refiners and trade-exposed, energy-intensive manufacturing. In its summary of the bill, the Senate Environment and Public Works Committee maintains that the Act "doesn't just create jobs for the future – it also protects existing jobs in the manufacturing sector as our economy transforms" by providing "support for energy-intensive, trade-exposed industries like chemicals to ensure that U.S. manufacturing remains competitive in the new energy economy."[22] The CBO testimony maintains that firms receiving these subsidies would produce more than they otherwise would "and in doing so employ more people."

In the House bill, energy-intensive, trade-exposed industries that make products like iron, steel, cement, and paper will receive allowances to cover their increased costs. Fifteen percent of allowances in 2014 are set aside for this purpose; the percentage will then thereafter decline. In addition, oil refiners will receive 2% of allowances between 2014 and 2026 and coal and electricity producers will receive 5% of allowances through 2025.[23]

As the CBO points out, this "dampens the reallocation of output and employment to industries that produce fewer carbon emissions," counteracting the bill's basic purpose of reducing carbon emissions.

This approach has another problem. There is no guarantee that the subsidies will actually be used to maintain or increase employment in such firms. On the contrary, the availability of funds for investment is often used to introduce new employment-reducing technology or to close facilities and relocate production elsewhere in other cities, states, or countries. The legislation provides no guarantees against such results. It represents a highly uncertain "trickle down" approach to protecting workers' livelihoods and economic security.

Transition assistance

The proposed legislation also provides "transition assistance" to individual workers displaced by climate protection policies.

The House bill, for example, establishes a Climate Change Worker Adjustment Assistance program which provides eligible impacted workers 70% of average weekly wages for 156 weeks, 80 percent of monthly health care premiums, job training assistance, up to $1,500 for job search assistance, up to $1,500 for moving assistance, and employment services.[24] The Senate "Clean Energy Jobs and American Power Act" contains similar provisions.[25]

This approach to transition assistance is largely based on the Trade Adjustment Act (TAA)

worker assistance model. It provides a small increase over normal unemployment compensation and modest help for job retraining. But many workers and unions despise that approach. In practice it strings individuals and communities along in marginality without helping them to establish a new, decent life. It typically provides training for jobs that don't exist in communities that have already been devastated by economic change.

TAA-style programs are also notorious for long strings of fine print that end up excluding a large proportion of workers affected by change from the benefits they seem to offer. TAA did not provide services for a single worker during its first seven years! All workers affected by climate protection policies must be secure in the knowledge that they are eligible for the transition assistance they need.

Climate legislation needs a policy to ensure that energy system change will not be made on the backs of the coal miners, truck drivers, and utility workers who happen to work in carbon-emitting facilities.

The solution: Fixing climate legislation to protect workers

American workers need climate protection – without it their jobs, as well as their social and natural environments, will be devastated.[26] But they also need protection against the side effects of climate legislation.[27] This protection must go far beyond trickle-down subsidies to employers and failed TAA-style "adjustment assistance." It must address the needs of individual workers, local communities, impacted regions, and retirees. It can be paid for, like other costs of carbon reduction transition in proposed climate legislation, from the auction of permits for carbon emissions.

A significant step forward in this direction is S. 2742, the American Worker Transition and Community Assistance Act, introduced by Senator Bob Casey and co-sponsored by Senator Sherrod Brown on November 5, 2009. Like the House and Senate climate bills it provides assistance for individuals who are adversely affected by Federal climate change policy. But it goes beyond that in helping adversely affected communities develop and implement strategic plans to rebuild their economies.

Protecting and restoring individuals

A basic principle of fairness is that the cost of policies intended to benefit society shouldn't be borne by those who are hurt by them. This principle was recognized in the Trade Act of 1974 and subsequent programs for trade adjustment assistance, which provide compensatory benefits to workers who lose their jobs as a result of U.S. trade policies.

The eligibility requirements, benefits, and administration of trade adjustment programs are widely recognized as inadequate. A more adequate approach comes from Senator John McCain's 1988 Universal Tobacco Settlement bill.[28] It applied the principle of protecting those victimized by a socially beneficial program to workers in a specific, geographically concentrated industry. A similar program can protect workers who lose their jobs due to climate protection policies, notably coal miners, railroad workers, and coal-fired generator workers.

Specifically, workers who lose their jobs because of climate protection policies should receive full wages and benefits for at least three years. They should be eligible for up to four years education or training including tuition and living expenses. Those unable to take advantage of such a program because of age or other reasons should be guaranteed decent pensions with healthcare.

The opportunity for individuals to access higher education and advanced training will also mesh with the need for the affected region to develop new labor force capabilities for the new green economy.

While the House and Senate climate bills and the new American Worker and Community Assistance Act (S. 2742) provide some of these elements, they do not go far enough to ensure that affected individuals and groups can make a fresh start.

Protecting and restoring communities

The McCain bill provided not just for individuals, but for hard-hit communities. It created a Tobacco Community Revitalization Trust Fund to provide economic development grants over a twenty-five year period. They would support:

- business development and employment-creating activities "to provide a more viable economic base and enhance opportunities for improved incomes, living standards and contributions by rural individuals to the economic and social development of communities"

- activities that "expand existing infrastructure, facilities, and services to capitalize on opportunities to diversify economies in tobacco communities that support the development of new industries or commercial ventures,"

- initiatives designed to "create or expand locally owned value-added processing and marketing operations in tobacco communities," and technical assistance.

Preference in employment under the program could be given to former tobacco workers and members of tobacco worker communities.

A move to protect communities potentially threatened by cutbacks in coal production can serve as a way to jumpstart the transition away from coal and other carbon-intensive industries. Eastern Kentucky, West Virginia, and the rest of the Appalachian coalfield can be made a model of job-positive transition from coal to renewable energy and conservation. Green jobs can be specifically targeted to the communities that will be affected by reduced coal production to preemptively create local jobs that will provide an alternative source of employment.[29]

While the House and Senate climate bills do not include such plans for community renewal, the new American Worker and Community Assistance Act represents a significant step in that direction. Under it communities and groups of communities within a state could receive funding to develop a strategic plan for diversifying employment opportunities, environmental remediation projects, and conversion of underutilized facilities for more productive uses. Communities could then apply for grants to implement the plan. Communities with low per capita incomes, high unemployment, and loss of traditional sources of employment would be given preference for support.

Protecting and restoring regions

During the Great Depression, a regional economic development program, the Tennessee Valley Authority (TVA), transformed one of America's poorest regions by means of massive energy development. While 75 years later the TVA itself has become a target of environmental criticism, the principle of regional economic development through development of a new energy source is highly applicable to the Appalachian coalfields today. While the TVA by no means provides a model to follow slavishly, it does provide an instructive example of a transformative use of new forms of energy as the basis for the construction of a new economy.

The TVA was chartered by Congress in 1933 to provide navigation, flood control, electricity generation, fertilizer manufacturing, and economic development in the parts of seven states located in the impoverished Tennessee Valley. It was envisioned as a regional economic development agency that would use electricity to transform the region's economy. TVA-generated energy brought electricity to farms and homes. It drew textiles, aluminum, and other industries into the region. The TVA combined electrification with environmental programs including flood control, replanting forests, controlling forest fires, protecting wildlife habitats, and improving agricultural practices. The TVA was also a jobs program: The unemployed were hired for conservation, economic development, and social programs, such as a regional library service.

A major flaw of the TVA was that as a federally owned corporation it lacked local and democratic accountability. A "green" equivalent of the TVA today would need to be far more accountable to local concerns, considerably less centralized, and protected from capture by special interests.

A regional economic development program could make synergistic many aspects of a new green economy. For example, renewable energy production and distribution could provide employment, a secure power supply, and an economic base for many local communities. And they could also provide stable demand for products that could be manufactured in those communities, thereby providing additional jobs.

A small scale version of such a post-coal energy-based economic development program is poised to begin in Arizona. The closing of a highly-polluting generating station has provided the owner, Southern California Edison, $30 million annually in pollution allowances which can be sold under the U.S. Acid Rain Program. A Just Transition Coalition, composed primarily of Hopi and Navajo and their environmentalist allies, developed a plan to use the funds for a transition to renewable energy.

The Just Transition plan would direct 30 percent of the pollution credits to local villages and tribal governments to invest in solar, wind, and ecotourism; 10 percent to job retraining; 40 percent to alternative energy development and production; and 20 percent to tribal government programs previously supported by coal royalties.

Southern California Edison is regulated by California Public Utilities Commission, which has taken the groundbreaking step of ordering that all proceeds from pollution allowance sales be put in a special account to fund renewable energy investment. It thereupon requested proposals from the Just Transition Coalition for how the funds should be spent.

The Hunter coal region in Australia is also being proposed as a model for a transition from coal to renewable energy. A Greenpeace-funded study of *A Just Transition to a Renewable Energy Economy in the Hunter Region, Australia* details two possible economic development strategies for the region.[30]

The first scenario projects Hunter as a self-sufficient regional energy center. Twenty-three

percent of New South Wales electricity would be generated within the region, including supplying the two large aluminum smelters. An estimated 4,700 direct and the same number of indirect jobs would be created, for a total of 9,400 new jobs. However 3,600 jobs would be eliminated by the plan, leading to a net increase of 5,800 jobs.

The second scenario projects Hunter as a New South Wales energy exporting center. Forty percent of NSW electricity would be generated in Hunter from a mix of renewable (wind, solar, geothermal and bioenergy) and gas co-generation. Hunter would retain its traditional role as a major energy exporter. It is estimated that new industries would create 7,350 jobs directly and 6,950 indirectly, for a total of 14,300 new jobs and a net gain of 10,700 jobs.

Despite the net gain in jobs, some jobs would be lost as a result of these changes. Greenpeace and other environmental organizations have therefore made "just transition" a central part of their program for transforming the region. According to a Greenpeace publication on Hunter,

> "A just transition from coal to renewables requires that the federal government support and protect coal industry workers as coal-fired power stations are phased out. Government support should include providing investment in new industries and infrastructure, guaranteeing jobs and retraining workers so that they can find employment in new green industries. With the right government action, an energy revolution can provide a way forward for coal communities.[31]

A pioneering program to build a new economy in Appalachia based on renewable energy and the economic development it supports can provide an image of the new green economy we need to build nationally.

The American Worker and Community Assistance Act provides some of the tools necessary for such a transition strategy. Unlike TVA, it provides strong support for decentralized local initiative. However, it does not provide for regional cooperation across state borders. Such cooperation is essential for a wide-ranging program designed to deal with a transition to a new energy economy for an entire region like Appalachia.

Protecting and restoring retirees

It is unconscionable that American workers can have worked hard all their lives only to discover that their pension and retirement health benefits are threatened due to their employers' economic adversity or business strategy. Climate legislation should guarantee that no worker will lose pension benefits as a result of climate protection measures.

Conclusion

These measures will allow advocates of climate legislation to ensure that every worker and retiree will be effectively protected against adverse side effects of protecting the climate.

Climate protection advocates can use these measures to take the offensive to turn around the public debate: Not only will climate legislation create millions of new green jobs, it will also honor and protect those workers and retirees who have contributed their working lives to meeting our nation's economic and energy needs.

The alternative – failure to act in time to save our earth's climate – will lead not only to natural but to economic devastation for our country and the world.

[1] Economists and Climate Change http://policyintegrity.org/publications/documents/EconomistsandClimateChange.pdf
[2] Statement of Douglas W. Elmendorf, "The Economic Effects of Legislation to Reduce Greenhouse-Gas Emissions" before the Committee on Energy and Natural Resources, United States Senate, October 14, 2009. The statement reprises a report of the same name released by the Congressional Budget Office on September 17, 2009.
[3] Nicholas Stern, *The Economics of Climate Change: Stern Review* (Cambridge: Cambridge University Press, 2006) Summary of Conclusions, available at http://www.hm-treasury.gov.uk/d/CLOSED_SHORT_executive_summary.pdf
[4] Center for Integrative Environmental Research (CIER) at the University of Maryland, *The US Economic Impacts of Climate Change and the Costs of Inaction: A Review and Assessment* (October 2007).
[5] U.S. Global Change Research Program, *Global Climate Change Impacts in the U.S.* (Washington, DC: 2009) http://www.globalchange.gov/publications/reports/scientific-assessments/us-impacts/full-report
[6] http://www.globalchange.gov/images/cir/pdf/20page-highlights-brochure.pdf
[7] Union of Concerned Scientists, *Climate Change in the United States: The Prohibitive Costs of Inaction* (Cambridge, MA: Union of Concerned Scientists, 2009) http://www.ucsusa.org/assets/documents/global_warming/climate-costs-of-inaction.pdf
[8] http://energycitizens.org/issues/the-climate-bill/
[9] Letter from Thomas Donahue to Steven Jobs, available at http://undertheinfluence.nationaljournal.com/2009/10/us-chamber-says.php
[10] Ian Talley, "Congressional Budget Chief Says Climate Bill Would Cost Jobs" *Wall Street Journal*, October 14, 2009 http://online.wsj.com/article/SB125555070414585571.html
[11] Alex Kaplun, "Sen. Brown puts manufacturing issues at forefront of cap-and-trade debate," *E&E Daily*, October 14, 2009.
[12] H. Joseph Hebert, "Climate plan sends air of unease across Rust Belt," Associated Press, October 11, 2009.
[13] CBO testimony, p. 14.
[14] CBO testimony, p. 2.
[15] Summarized in House of Representatives Energy Committee, "Fact Sheet: The American Clean Energy and Security Act: Economy and Jobs," [excerpts from H. Rept. 111-1337, Pt. 1, to accompany HR 2454], posted at http://energycommerce.house.gov/Press_111/20090616/dc_economyjobs.pdf A new study from the American Solar Energy Society finds that the United States can reduce carbon emissions and generate more than 4.5 million net jobs by 2030 if U.S. policymakers aggressively commit to programs that support energy efficiency and renewable energy. *Estimating the Jobs Impacts of Tackling Climate Change* (Boulder: American Solar Energy Society, October, 2009) http://www.ases.org/pdf/ASES_TCC_Jobs.pdf
[16] CBO testimony p. 15.
[17] CBO testimony p. 15.
[18] CBO testimony, p. 16.
[19] "UMWA President Faces Hard Future for Coal," MetroNews, 10/07/2009. http://www.wvmetronews.com/index.cfm?func=displayfullstory&storyid=32788
[20] Cecil E. Roberts, "McCain No Friend of Coal," *Charleston Daily Mail*, Sept. 23, 2008. http://www.umwa.org/index.php?q=news/mccain-no-friend-coal-op-ed
[21] Jefferson Bates and Julie Erickson, "The Transition from Coal to Renewables," unpublished report prepared for 1Sky. Information in this section comes from this paper unless otherwise noted.
[22] Senate Energy and Public Works Committee, "Clean Energy Jobs and American Power Act: Summary of Provisions" http://www.epw.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore_id=eb1619a8-2b2f-4750-8aec-779726be03dc
[23] House Committee on Energy and Commerce, "The American Clean Energy and Security Act," (brief summary), July 2009. http://energycommerce.house.gov/Press_111/20090724/hr2454_housesummary.pdf

[24] Congressional Budget Office, "Cost Estimate, H.R. 2454," June 5, 2009, P. 24. http://www.cbo.gov/ftpdocs/102xx/doc10262/hr2454.pdf
[25] "Committee summary of provisions" cited above.
[26] For an extensive survey of worker transition issues globally, see United Nations Environment Program, *Green Jobs: Toward Decent Work in a Sustainable Low-Carbon World* (September, 2008). http://www.unep.org/labour_environment/PDFs/Greenjobs/UNEP-Green-Jobs-Report.pdf
[27] A resolution passed at the 2009 AFL-CIO Convention states: "Congress must guarantee that excellent longterm assistance is readily available to workers and communities adversely affected by climate legislation. Transition assistance must include up to three years of wage and health care benefits, enhanced training, education and counseling, family assistance and support and community planning."
[28] McCain's 1988 Universal Tobacco Settlement bill, which passed out of committee 19 to 1 but was defeated on the Senate floor, would have created an industry-funded $28 billion trust fund to help tobacco growers, cigarette factory workers, their families, and their communities adjust to the reduced purchase of American tobacco. http://thomas.loc.gov/cgi-bin/query/z?c105:S.1414: Perhaps surprisingly, some of the best ideas for protecting workers and communities hit by the side-effects of public policy decisions were embodied in this legislation. Under the McCain bill, workers and farmers would receive transition assistance from the fund if "the implementation of

the national tobacco settlement contributed importantly to such workers' separation" from their jobs. Several tobacco states subsequently developed their own programs to help with the transition away from tobacco, such as Kentucky's Bill 611, which allocates half of the state's tobacco settlement funds for agricultural diversification. Because the McCain bill received such wide bipartisan support, we reference it where possible in this discussion as an instructive example.

[29] The statewide network Kentuckians for the Commonwealth has spelled out some of the "Clean Energy Solutions" that could "Work for Kentucky." See
http://www.kftc.org/publications/nancys-research/Clean%20Energy%20Solutions%20Work%20for%20Kentucky.pdf

[30]Centre of Full Employment and Equity, *A Just Transition to a Renewable Energy Economy in the Hunter Region, Australia*, June, 2008.
http://e1.newcastle.edu.au/coffee/pubs/reports/2008/Just_Transition/Just_transition_report_June_30_2008.pdf
[31] http://www.greenpeace.org.au/energyrevolution/pdf/FactSheet-JustTransitions.pdf