

The background features a large, bright yellow sun in the upper right quadrant. The rest of the background is filled with various sizes of gears in shades of yellow, orange, and blue. The gears are arranged in a way that suggests a complex mechanical or industrial theme. The overall color palette is warm and energetic, with a gradient from light yellow at the top to a darker green at the bottom.

# Seizing the Energy Opportunity

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**D**URING THE FINAL EIGHT YEARS OF THE LAST CENTURY, nearly eight million Americans escaped poverty and moved toward the middle class, driving U.S. poverty rates down by nearly a third. Today, those gains assuredly have been lost. Between the start of the new century and 2007, nearly six million Americans fell back into poverty.

Even more troubling, these statistics have yet to account for the full impact of the economic downturn. Research by the Center for American Progress finds that if the unemployment rate reaches 11 percent—it currently stands at 10.2 percent—over 12 million additional Americans will fall into poverty, with children comprising nearly a third of this group.

Over the coming years, America's poorest families will face an additional burden—they will bear the brunt of hardship caused by climate change in the United States. If policymakers fail to take adequate action, this "climate gap," as researchers have referred to it, will further erode the well-being of the worst off. Poor, often minority, families will suffer from increased health problems and even death from pollution-related illness, extreme heat, and severe weather phenomena. They are also likely to face additional financial difficulty from estimated increases in the prices of food, water, and electricity under a business-as-usual climate scenario.

Poverty's dramatic resurgence in America demands Washington's attention, as does the disproportionate burden that climate change will impose on the poor if urgent policy action is not undertaken. There is certainly no silver bullet to reverse the disturbing rise in poverty rates, nor a single quick fix to solve the climate crisis. The most immediate need is to steer the economy out of recession. But policymakers must continue to craft their broader agenda in ways that will draw low-income Americans back toward the middle class and begin the transition to a low-carbon, clean-energy future. In this article, we argue that energy reform can play a starring role in putting America's economy back on track. Moreover, these reforms have the power to rebuild the road to the middle class for millions of low-income Americans.

### **Energy Reform:** Key to Economic Recovery and Long-Term Growth

Comprehensive energy reform promises to expedite economic recovery and put the United States on a sustainable long-term growth trajectory. As the U.S. economy deteriorated in the fall of 2008, then-candidate Obama rightly argued that rather than being at odds, economic growth and environmental sustainability were interdependent. His promise to make the transition to a clean, low-carbon economy as a means to unleashing a wave of new job creation resonated with an American public eager to realize the promise of an innovation-based economy.

The Administration and Congressional Democrats have already acted on a range of new energy initiatives that, along with health care, education, and tax reform, comprised the heart of President Obama's campaign agenda. February's \$787 billion stimulus package, known as the American Recovery and Reinvestment Act, was in many ways an energy bill in its own right. It invested over \$71 billion dollars in clean-energy funding, with an additional \$20 billion for loan guarantees and tax incentives to support clean-energy projects—a huge up-front investment, equal to about \$800 per American household. It also included robust provisions to expand weatherization assistance, which improves energy efficiency and lowers energy costs for low-income households.



Progressives' crowning achievement thus far is the House of Representatives' newly passed American Clean Energy and Security Act (ACES), which not only places a hard cap on carbon emissions for the first time in U.S. history but also drives a larger investment agenda by setting a national renewable electricity standard and mandating efficiency improvements for power plants, residential and commercial buildings, and appliances. This comprehensive strategy for clean-energy economic transformation advances the dual goals of reducing emissions while boosting job growth, capitalizing on America's unique capacity for innovation to support both objectives.

Opponents of clean-energy legislation have placed low-income Americans squarely in the center of the debate. They claim that ACES would pose an undue financial burden on families already struggling to make ends meet. But protections included in the legislation mean that households in the lowest income quintile would actually see an average financial benefit of at least \$40 a year if ACES becomes law. Overall, credible sources have converged around extremely affordable estimates of the bill's annual cost per household. The Congressional Budget Office, the Environmental Protection Agency, and the Energy Information Administration have all estimated that ACES will cost the average household somewhere in the range of \$80 to \$175 annually—at most, the equivalent of a postage stamp a day.

Reducing America's greenhouse gas emissions at an affordable cost is an enormous achievement in itself, but when viewed as an investment strategy, ACES has demonstrated that energy reform can be designed to do much more. The bill will be a catalyst for widespread clean-energy innovation and drive both direct and indirect job creation throughout the U.S. economy. Nobel Prize-winning economist Paul Krugman called emissions limits "just what the doctor ordered" to reverse the plunging business investment at the heart of the downturn and to restart the American economy. The first step is to set a price on carbon pollution, which ACES does by implementing an economy-wide cap-and-trade system. The bill's other initiatives—a national renewable electricity standard and tightened efficiency requirements—will serve as additional drivers of innovation throughout the American economy.

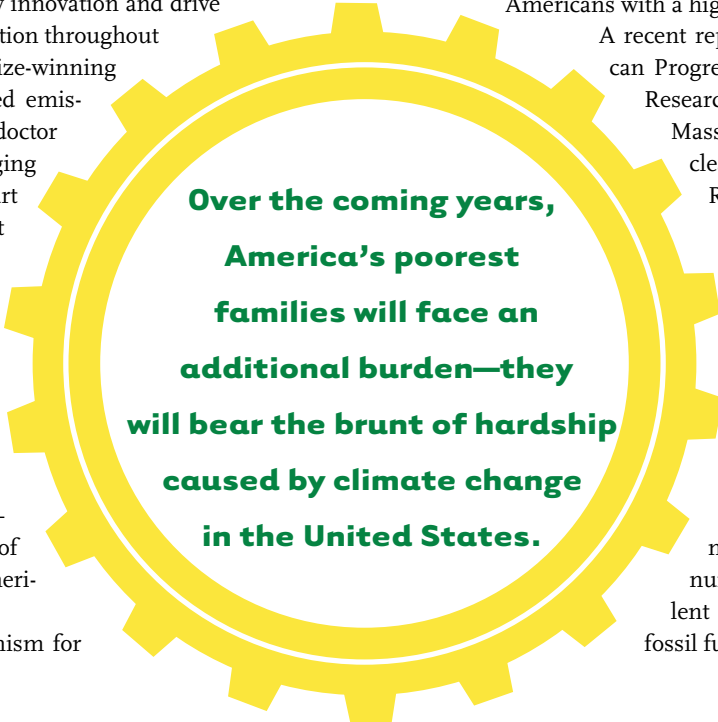
ACES also creates a mechanism for

ensuring that clean-energy entrepreneurs and investors have access to the financial tools necessary to take full advantage of the business opportunities the bill will create. This program, called the Clean Energy Deployment Administration (or a "Green Bank"), would provide clean-energy projects with steady, low-cost credit to accelerate the development and commercialization of new technologies. It would counter the inconsistency and uncertainty surrounding clean-energy project finance, one of the longest-standing obstacles to the development of a thriving clean-energy sector in the United States. A "Green Bank" also helps inoculate the clean-energy sector against the challenging climate of current credit markets, which will likely continue to struggle as the broader economy recovers. Moreover, a stable and thriving expansion of the clean-energy sector will likely have the additional benefit of directly improving the fortunes of low-income Americans, to which we now turn.

### Clean Energy: A New Engine for Increasing (and Improving) Low-Wage Employment

Transitioning to a low-carbon economy goes hand in hand with job creation. A comprehensive approach to solving global warming will create millions of decent jobs at all skill levels in communities across the country, from installing solar panels and manufacturing wind turbines, to rebuilding factories and retrofitting homes to conserve energy. Meeting the challenge ahead requires a nationwide effort. Many of these jobs, like those in construction, manufacturing, or shipping, are geared toward Americans with a high school degree or less.

A recent report by the Center for American Progress and the Political Economy Research Center at the University of Massachusetts-Amherst found the clean-energy provisions in the Recovery Act, combined with the ACES Act recently passed by the House of Representatives, would together result in an annual combined public and private investment of \$150 billion in the clean-energy sector. This investment, equivalent to about 1 percent of GDP, would yield a net increase of 1.7 million new jobs—over three times the number of jobs that an equivalent investment in conventional fossil fuels could create.

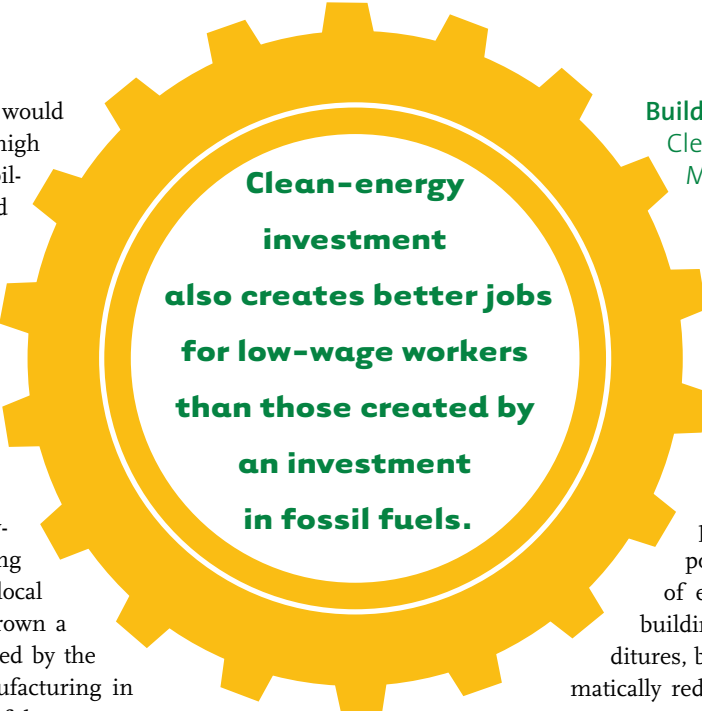


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Over half of these new jobs would be accessible to those with a high school degree or less. A \$150 billion annual investment would create 870,000 new employment opportunities for low-credentialed workers, nearly four times more than an equivalent investment in fossil fuels. Clean-energy initiatives in the Recovery Act are already foreshadowing the impact of an investment of this scale. Out-of-work auto employees are back on the job building wind turbines in Michigan; local Ohio businesses have been thrown a lifeline by the demand generated by the expansion of solar panel manufacturing in their towns; and people in one of the poorest areas in Missouri are working to weatherize their community block by block. Comprehensive energy legislation will multiply these success stories and put America's economy on a smart, clean, and competitive path forward.

Clean-energy investment also creates *better* jobs for low-wage workers than those created by an investment in fossil fuels. The CAP-PERI report divides low-credentialed jobs into two categories: one that assumes workers earn \$12 per hour, and one that assumes they earn at least \$15 per hour, widely considered a decent wage that supports upward mobility. Over half of all low-credentialed, clean-energy jobs pay a decent wage, compared to less than a third of low-credentialed jobs from fossil fuel investment. The disparity in the amount and quality of job creation between clean energy and fossil fuel investment means the former will create fully seven times the number of jobs that put workers on the path to the middle class.

Investments in clean energy through the Recovery Act and ACES offer an additional benefit to low-income families: they will contribute to rising wages for those at the low end of the labor market. An increase of 1.7 million jobs would lower the unemployment rate by roughly 1 percent, resulting in a rise in wages across the board, but especially for low-income workers (who rely, more so than other workers, on declines in unemployment to improve their bargaining power). This rise in wages would be enhanced by improvements in consumer energy efficiency that would reduce energy bills and increase purchasing power. Substantial investments in workforce training will also strengthen workers' earning power in a low-carbon economy.



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### Building Retrofits: Clearing a New Path to the Middle Class

Retrofitting America's building stock for energy efficiency offers an enormous opportunity to achieve critical reductions in greenhouse gas emissions while creating jobs and delivering consumer relief. Today, buildings consume 70 percent of all U.S. electricity and are responsible for 40 percent of U.S. global-warming pollution. Capturing the benefits of energy efficiency from existing buildings would slash energy expenditures, boost real estate values, and dramatically reduce emissions. The Center for American Progress has laid out a plan for retrofitting 40 percent of residential and small commercial buildings by 2020—an admittedly ambitious undertaking, but one that could create and sustain 625,000 jobs for a decade while reducing the nation's energy bill by hundreds of billions of dollars a year.

Using off-the-shelf technologies, retrofits could cut energy use in homes and commercial buildings by as much as 40 percent. Investments would generally pay for themselves over a three to five year period by saving households \$300 to \$1,200 annually on energy costs. Since American families in the bottom income quintile spend roughly twice as much on electricity relative to their income compared to those in the highest quintile, energy efficiency is also a tool to reduce income inequality by moderating energy bills and providing cost savings to working families. Low-income households would see a disproportionate benefit from efficiency savings since they spend larger percentages of their income on electricity than do higher-income households.

A national retrofitting initiative has the added benefit of supporting job creation in a sector that has been hit extremely hard by the economic downturn: construction. As housing prices plummeted over the past year, so did employment in the construction industry, which shed over a million and a half jobs since peaking in early 2007. The creation of a new retrofit market would find a ready pool of workers to carry out the hands-on projects that such a labor-intensive initiative requires. Construction jobs with low barriers to entry in an expanded retrofit industry would offer significant new opportunities to build careers that lead to the middle class.


National guidelines and support for worker retraining programs are critical to ensuring that workers can be properly paired

with the opportunities the retrofit and clean-energy markets present. Congress and relevant federal agencies should work together to identify successful training models and connect federal support to their adoption. Retraining programs should emphasize public-private training partnerships in cooperation with community organizations, as well as “pathways out of poverty” for disadvantaged workers, including assistance with formal placement in registered apprenticeships. If demand for workers surpasses training capacity, programs should also facilitate high quality on-the-job training. In addition to support for worker retraining, the federal government should set labor standards, wage classifications, and performance standards to ensure that the retrofit market functions properly and fairly. With such checks in place, the retrofit industry could provide hundreds of thousands of low-wage workers with specialized skills and career opportunities that would open the door to the middle class.

A large-scale retrofitting initiative would also address one of the most unique and damaging elements of the current recession—its broad geographic impact. The housing crisis and economic downturn have affected almost every corner of the country, but a national retrofit initiative could have an equally broad reach. Retrofitting America’s built environment for energy efficiency and clean energy will touch urban and rural communities alike, creating jobs and cutting consumer costs in every region of the country.

### Climate Change and the Global Poor

The recession’s international reach has dramatically reversed the steady trade-driven reductions in global poverty that were achieved over the last 20 years. The United Nations estimates that the sharp drop in global trade, markedly reduced growth rates, and falling aid commitments will push an additional 55 to 90 million people into extreme poverty in 2009. But climate-driven changes to the environment, agricultural productivity, and water availability threaten the livelihoods of millions more over the coming years. The Intergovernmental Panel on Climate Change (IPCC) reports that in many parts of Africa, climate change could reduce food production by half within ten years, resulting in massive unemployment, resource conflict, large-scale migration, and pervasive malnutrition. Vulnerable countries that rely on oil, like many of the debt-burdened countries in Africa, are already hit hardest by fluctuating commodity prices;



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these countries will also be among the hardest hit by the effects of climate change.

Although meeting the challenges presented by climate change in the developing world will require concerted action on the part of the international community, the American Clean Energy and Security Act takes a promising first step. It includes strong international provisions that will both contribute to emissions reductions abroad and help developing countries adapt to environmental changes that are already occurring. Over the life of the legislation, over \$100 billion will be directed to the prevention of tropical deforestation, which accounts for fully one-fifth of global annual emissions. The bill allows private firms to purchase international offsets, which could direct up to an additional \$15 billion annually to reducing deforestation and other international projects. ACES also sets aside steady funding (reaching \$9 billion annually) through 2050 for adaptation and technology transfer for developing countries.

### Realizing America’s Potential

Two of America’s key historical strengths have been its dedication to innovation and its dissatisfaction with the status quo. Perhaps at no other point in our history has the need to return to these basic qualities been more acute. Carrying on business as usual means catastrophic climate change, losing the clean-energy competition to countries like China and Germany, and failing to build the foundation for sustained, broad-based economic growth. We can’t afford to neglect the opportunity at hand.

Comprehensive energy reform offers much more than a chance to avert a worst-case climate scenario. It holds the promise of a new era for the American worker. At a moment when millions are seeking economic opportunity, there is a staggering amount of work waiting to be done. Now, as we emerge from the worst economic crisis since the Great Depression, we should roll up our sleeves and begin this transformation. The only true recovery is one in which a clear path to the middle class is rebuilt while those who travel it work to rebuild America.

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