



How to stimulate the economy, protect the environment and promote justice at the same time.

by **ROBERT POLLIN**

For most of the past generation, the aims of environmental sustainability and social justice were seen as equally worthy, yet painfully and unavoidably in conflict. Tree huggers and spotted owls were pitted against loggers and hard hats. Fighting global warming was held to inevitably worsen global poverty and vice versa. Indeed, the competing demands of the environmental and social justice agendas were frequently cited as a classic example of how public policy choices were fraught with trade-offs and unintended consequences—how you could end up doing harm while seeking only to do good.

Over the past couple of years, there has been a dramatic reversal of thinking: the idea has emerged that protecting the environment—in particular, defeating global warming—can also be an effective engine of economic growth, job creation and even poverty reduction. A small band of determined activist organizations, including the Apollo Alliance, Green For All and 1Sky, deserve credit for pushing this idea into the mainstream. Labor and environmental organizations like the Steelworkers and the Natural Resources Defense Council were open to persuasion. By the time the presidential campaign began, Hillary Clinton and Barack Obama had both incorporated variations on this idea as major planks in their platforms.

Now, under President Obama, the idea of a green recov-

ery—an investment program to promote energy efficiency and the development of renewable energy—is a central feature of his \$825 billion program to defeat the most severe financial crash and recession since the 1930s.

Of course, arguments about trade-offs and unintended consequences have not disappeared. Robert Stavins, chair of the Environment and Natural Resources Faculty Group at Harvard, recently offered this analogy: “Let’s say I want to have a dinner party. It’s important that I cook dinner, and I’d also like to take a shower before the guests arrive. You might think, Well, it would be really efficient for me to cook dinner in the shower. But it turns out that if I try that I’m not going to get very clean and it’s not going to be a very good dinner.”

A weighty intellectual pedigree does undergird the Stavins story. This is a proposition developed by Jan Tinbergen, co-recipient of the first Nobel Prize in Economics and a lifelong leftist. Tinbergen held that you need separate policy tools to address distinct policy aims—that, in other words, trying to kill two birds with one stone is not likely to succeed. As the Obama administration begins spending in the range of \$150 billion to create jobs and fight global warming through a single tool of green investments, it is clearly an appropriate time to examine how much Tinbergen’s law might actually apply to our current situation.

What Is the Green Investment Agenda?

The transformation of our fossil fuel driven economy into a clean energy economy will be the work of a generation, engaging a huge range of people and activities. But focusing on essentials, there are only three interrelated projects that will drive the entire enterprise: dramatically increasing energy efficiency; equally dramatically lowering the cost of supplying energy from such renewable sources as solar, wind and geothermal power; and mandating limits and raising prices on the burning of oil, coal and natural gas.

In the preliminary version of the stimulus program drafted by House Democrats in mid-January, the green recovery components of the overall \$825 billion measure include about \$45 billion for retrofitting buildings to increase their energy efficiency significantly; \$20 billion to upgrade the public transportation system; \$32 billion for building “smart grid” electrical transmissions systems that can, among other things, efficiently use power from renewable sources; and \$8 billion for renewable energy research and commercialization (allowing that the exact allocations for various purposes are not yet entirely clear).

The piece that’s missing is some mechanism for limiting the burning of fossil fuels. One option is to raise taxes on purchasing oil, coal and natural gas. Congress has also considered “cap and trade” proposals for the past few years, which would set increasing limits on total carbon emissions and require corporations to pay the government for rights to produce fossil fuels. A significant bloc in Congress, including some liberal Democrats like Senator Sherrod Brown of Ohio, has opposed such measures because they would impose higher energy prices on businesses and individuals. But some version of this proposal will have to be implemented—if not amid the recession itself, soon thereafter—to advance a successful environmental agenda.

Success in combining the three projects—energy efficiency, renewable energy and limits on fossil fuel consumption—could produce a decisive environmental victory. It could also serve social justice in several ways, by lessening the risks of extreme weather patterns like Hurricane Katrina, allowing us to breathe clean air and breaking our dependence on oil companies and foreign oil oligarchies. But these achievements still do not tell us how a green investment project could also advance a broader social justice agenda, to promote good jobs and economic security, and to fight poverty. Are these connections real?

Green Investments and Full Employment

First and foremost, the green investment project is a social justice agenda to the degree it promotes full employment at decent wages. For a generation coming out of the Great Depression, the goal of full employment was the moral centerpiece of economic policy around the world. But full employment has been off the radar screen since the elections of Margaret Thatcher in 1979 and Ronald Reagan in 1980. It has been easy to forget its transformative power as a policy goal.

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Whether you can get a job—and if so, whether the job offers decent pay, a clean and safe environment and fair treatment for you and your co-workers—matters a lot to almost everyone. Correspondingly, unemployment can have a devastating impact on families, even with two wage earners. A full employment economy also means greater business opportunities for small and large firms and strong incentives for private businesses to increase their level of investment.

Since World War II, the closest we have come to full employment was in the late 1960s and late 1990s to 2000, when the unemployment rate fell to 4 percent and below. In both periods, low unemployment increased workers’ bargaining power, which brought rising wages. Poverty fell as businesses were forced to hire people who had been left out. But in the 1960s the engine of employment expansion was spending on Vietnam, an immoral war. In the 1990s to 2000 job growth was driven by the irrational Wall Street dot-com frenzy. By contrast, a green investment program can underwrite a durable full employment economy precisely because it is environmentally sustainable and morally just.

The green investment project can advance a full employment agenda because it will create about seventeen jobs for every \$1 million in outlays, whereas spending the same \$1 million in the oil and coal industries creates about 5.5 jobs—i.e., the job-creation effect of green investments is more than three times larger than that for fossil fuel production. The main reasons for this disparity have nothing to do with whether the investments are green. Rather, there are two primary factors at play. The first is the higher “labor intensity” of spending on green projects—more money is spent on hiring people and less on machines, supplies and consuming energy. This becomes obvious if we imagine hiring construction workers to retrofit buildings or install solar panels, or bus drivers to expand public transportation offerings, as opposed to drilling for oil off the coasts of Florida, California and Alaska. The second factor is the “domestic content” of spending—how much money is staying within the US economy as opposed to buying imports or spending abroad. When we retrofit public buildings and private homes to raise their energy efficiency, or improve our public transportation systems, virtually every dollar is spent within the US economy. By contrast, only 80 cents of every dollar spent in the oil industry remains in the United States.

As a tool for fighting the recession, the green recovery project has as its first purpose injecting more money into the economy as quickly as possible. In this way, a \$100 billion green investment program would create on the order of 1.7 million new jobs.

Over the longer term, though, the green investment agenda will not simply entail expansion in energy efficiency and renewable investment spending but also a corresponding decline in spending on oil, coal and natural gas. Yet this longer-term agenda can still promote a full employment economy. If we allow that every \$1 million in new green investments will be matched by an equal fall in spending within the fossil fuel industry, we will still net about 11.5 jobs each time \$1 million transfers from fossil fuels to clean energy (i.e., seventeen jobs for green investments minus 5.5 lost in oil, natural gas and coal). We spend about \$600 billion a year in the oil, natural gas and coal sectors. Transferring, for example, 25 percent of

those funds into energy efficiency and renewable energy projects would therefore yield about 1.7 million new jobs.

The importance of pursuing this agenda is underscored by the long-term effects of globalization on the US labor market. Over time, globalization is making more and more US jobs vulnerable to outsourcing to low-wage economies. In a widely discussed article in *Foreign Affairs* in 2006, Princeton economist Alan Blinder argued that increasingly services that can be carried over the Internet—including the telephone operators in

India with whom we are familiar, but also back-office accountants, lawyers, engineers and laboratory technicians as well as their support staffs—can be supplied by employees in poor countries who work for, say, one-fifth the wages of their US counterparts. These would be in addition to the manufacturing jobs that have long been forced to compete with China and other low-wage countries. Blinder's conclusion is that something like 20 to 30 percent of all US jobs—in the range of 30 million to 40 million in all—are vulnerable to these out-

The Power of Transparency

Although the details of President Obama's American Recovery and Reinvestment Plan remain in negotiations, one issue is not debatable: accountability. Drawing from state and local precedents, Obama can ensure that his plan remains untainted by corruption and waste. Accountability—especially web-based transparency—is both good policy and necessary politics.

First and foremost, as Obama has pledged, the recovery plan should offer web-based disclosure of where the money is going and what taxpayers are getting in return. Every state discloses its contracting online to some degree, and half the states also disclose some company-specific data on their economic development and job-creation subsidies. It's a consensus, good "Google government" idea that has even been jointly embraced by Ralph Nader and Grover Norquist.

Thanks to the Federal Funding Accountability and Transparency Act of 2006 (which then-Senator Obama co-sponsored), there is already a federal disclosure website, usaspending.gov, upon which to build. However, the Recovery and Reinvestment Plan needs to provide deeper disclosure; currently, it lists the source, value and primary recipient (public agencies or private companies) of funds. Missing are the identities of subcontractors (who often do most of the work), subgrantees or the names of companies that benefit from various economic development subsidies.

The usaspending.gov platform needs to report on benefits as well as costs. That is, expected and actual outcomes, especially jobs: how many are promised and how many are actually created, and at what wage and benefit levels? What are the demographics of the new hires, and which neighborhoods are getting the jobs? By requiring monthly data updates from the states and localities that are receiving federal funds, the Obama administration can use the power of the purse to enforce compliance: no data, no check for the next installment. Being able to track issues like job quality matters greatly: if taxpayers are subsidizing poverty-wage jobs that leave working families in need of social safety net programs, the plan could create hidden taxpayer costs.

To avoid such hidden costs, job quality standards—used to some extent by almost every state and most big cities in development deals—are critical. They are best tied to market rates, such as the average nonmanagement wage in the labor market or the industry (with a living wage floor) plus healthcare and paid leave. Can we really call it a "recovery plan" if public dollars are being used to pull wages down?

A third layer of protection against waste are clawbacks, or recapture rules, which are standard operating procedure at the state and local level, especially for big development projects. These are money-back safeguards that say: within an agreed-upon time frame, a recipient must create the promised jobs at the projected pay and benefit levels or else pay the money back, usually on a prorated basis (e.g., a 10 percent clawback on a 10 percent job shortfall). The money can then be redeployed to create jobs elsewhere.

These common-sense reforms—disclosure, job quality standards and clawbacks—have been used by states and cities for years. Despite fearmongering by conservatives, there is no evidence they have harmed anyone's "business climate." Indeed, at meetings of development professionals, they are acknowledged as standard necessities, even touted as best practices.

Yet a recent analysis at the federal level of five commonly used programs in five different cabinet agencies found these safeguards mostly lacking. Not one of the programs, for example, provides wage or healthcare standards for permanent jobs created. Three fail to provide a way for taxpayers to claw monies back if a company fails to deliver on jobs. And although all the programs are covered by some form of crude online disclosure, only two provide data about projected jobs, and none report on jobs created.

We can do better. Using pocket change from Recovery Plan funds, Obama's Office of Management and Budget (OMB) can create online software for monthly data reporting. The program would be consistent with usaspending.gov but also provide deeper tracking of where money flows and report on outcomes.

OMB would use this software to receive and post the data from recipients of federal funds. It would also give the software to states and cities, requiring them to use it to collect monthly outcome data from subgrantees, subcontractors and subsidy recipients. States and cities would then submit the data electronically to OMB, ready to be uploaded and posted online.

It is often said of the New Deal that much of it was hardly new at all, that states had pioneered social safety net programs and labor-market reforms. It's time once again for "policy trickle-up." Obama can borrow these best practices from states and cities, praising their wisdom while installing a system that is his best bet for keeping governors and mayors from frittering away his Recovery Plan.

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sourcing pressures. The only way to counter these pressures is for employment creation to be made a centerpiece of our public policy. The green investment agenda cannot fulfill this role on its own, but it can move us a good distance in the right direction.

Devil in the Details

Of course, there will be excellent, good, bad and disastrous ways to execute the particulars of advancing a unified program for green investments and full employment. Among the most important considerations are regional fairness, cushioning the negative impact on workers and communities tied to the fossil fuel industries, and making the best of the opportunities and challenges posed by the construction industry.

Regional equity. Although all regions can gain significantly from this green recovery program, their ability to capture the benefits of specific technologies like solar or wind power varies according to their climate and geography. But all regions are equally capable of making investments to improve energy efficiency dramatically through retrofitting buildings, expanding public transportation systems and increasing the efficiency and stability of the electric grid. Similarly, all areas of the country have renewable energy resources (for example, underground heat for geothermal energy or nonfood agricultural products to generate biomass fuels) and the ability to produce goods and services (research on biofuel refining or even accounting support) that will be demanded during the clean energy transition. Government support for green investment should therefore be allocated on an equitable basis by region; for example, based on a combination of population levels and proportion of GDP.

Fossil fuel jobs and communities. About 3.5 million Americans are either employed in producing oil, natural gas and coal, or their jobs are linked to the traditional energy suppliers. These jobs will obviously dry up as we reduce fossil fuel dependence. Communities tied to these industries—coal-mining towns throughout much of Appalachia and the oil-rich areas of Texas, Oklahoma, Louisiana and Alaska—will obviously be hurt. But it is important to remember that the green investment agenda will create far more jobs overall, including for people now employed in the traditional fossil fuel sectors. Some of these jobs will be in specialized areas, such as installing solar panels and researching new building material technologies. But the vast majority of jobs will be in the same employment areas in which people already work, in every region and state.

Constructing wind farms, for example, creates jobs for sheet metal workers, machinists and truck drivers, among many others. Increasing the energy efficiency of buildings through retrofitting requires roofers, insulators and building inspectors. Expanding mass-transit systems employs civil engineers, electricians and dispatchers. In addition, all these green energy investment strategies engage a normal range of service and support activities—including accountants, lawyers, office clerks, human resources managers, cashiers and retail salespeople. That said, some significant part of the spending on the clean energy transformation will have to be directed to assist the communities that will be most negatively affected by the contraction of the fossil fuel industries.

Construction jobs. Roughly 30 percent of the job creation gen-

erated by the green investment agenda will be in the construction industry, although construction accounts for only about 6 percent of US employment. In the short term, construction has been hit severely by the housing bubble collapse, with nearly 900,000 jobs lost since September 2006. The Obama green recovery agenda can bring back most of these jobs.

Construction jobs cannot be outsourced. Retrofitting a home in Maryland can be done only in Maryland. The public transportation in Los Angeles can be upgraded only in Los Angeles. On average, construction jobs pay decently, because unions still have a strong presence in the industry. Construction unions have also frequently created job ladders for those in low-paying entry-level positions. These opportunities for low-level workers in construction are far more favorable than, for example, those facing workers in the restaurant, hotel or nursing fields.

On the other hand, employment in construction has long been dominated by white males. The industry has a history of hiring discrimination against women and racial minorities, and even now, nearly 60 percent of construction jobs are held by white non-Hispanic males. Women who try to enter construction trades also face sexual harassment and work schedules that are not family-friendly. It is essential that the green investment agenda include strong measures to break down the employment barriers in these trades. It would be an important first step for Hilda Solis, Obama's pick for labor secretary, a Hispanic with a strong record of supporting the rights of all working people, to revive the Labor Department's long dormant Federal Contract Compliance programs. If enforced, these measures would go far toward providing women and minorities a fair share of the construction jobs generated by the green investment agenda.

Beyond this, the green investment program cannot be seen as sole driver of a social justice agenda, either as a short-term stimulus or a long-run program for equitable and sustainable economic growth. Two other obvious investment targets are healthcare and educational services (i.e., spending on teachers, administrators, scholarships, hot lunch programs and bus drivers, as opposed to constructing new school buildings). In terms of promoting productivity and public well-being, investments in health and education are at least as important as public transportation and the energy grid. In addition, the employment impact of investing in healthcare is roughly equal to the average for green investments, while educational services investments generate about 40 percent more jobs. Jobs in education and healthcare are also divided much more evenly by gender and race than those in construction (white non-Hispanic males make up only 15 percent of the overall workforce in healthcare and 22 percent in education).

Green Investments Lower Energy Costs

If government policy aims to discourage fossil fuel consumption either through a cap-and-trade mandate or a carbon tax—as it must—this will raise the price of oil, coal and natural gas. However, this does not have to bring a fall in living standards. One simple solution, as proposed by California businessman Peter Barnes and my University of Massachusetts colleague James Boyce, is to rebate the government revenues generated by a carbon tax or the auctioning of cap-and-trade permits back to all energy consumers according to a fair set of principles. The most important aim would be at least to help

lower-income families to meet the fossil fuel price increases.

Beyond this, the green investment agenda, especially in the area of energy efficiency, should lead to significantly lower energy costs, which will benefit lower-income households. The two basic ways to do this are through improving access to public transportation and increasing the energy efficiency of residential buildings.

Public transportation accounts for an abysmally low share of travel in the United States, even though ridership rose over the past two years, following the oil price spike. As of 2007, automobile travel accounted for 99 percent of transportation spending even for the least well-off 20 percent of households, despite the fact that public transportation is about 60 percent cheaper per mile. The reasons most Americans, including those with less money, do not use public transportation are straightforward: access is bad, off-peak service is limited and transferring is difficult. If the average lower-income household were to increase its public transportation use to just 25 percent of its transportation budget, it would save nearly \$500 a year, raising its living standard about 2.4 percent. [For more on the need for public transit investment, see Ben Adler, "Ticket to Ride," page 24.]

In terms of residential energy efficiency, for the average individual family residence, a one-time \$2,500 investment in retrofitting—caulking air leaks and windows, improving insulation and buying more efficient appliances—can reduce annual energy consumption by 30 percent. This would produce an average saving in home energy costs of about \$900 a year. Of course, low-income families are much more likely to be renters than homeowners. The green residential retrofit program must therefore stipulate ways to pass along the savings to tenants through rent reductions.

Two Birds With One Stone?

In undertaking a project as massive as the one I am outlining—to replace our current fossil fuel driven economy with a clean energy economy and to concurrently establish full employment as a central policy aim—we obviously cannot proceed flippantly. If serious critics are explaining why it cannot be done, we need to be confident we can answer them. If a thinker of the stature of Jan Tinbergen says you cannot—at least most of the time—kill two birds with one stone, we need to consider finding another stone or allowing one of the birds to fly away unscathed. Pursuing complementary large-scale investment programs in healthcare and education, which, among other benefits, will spread the expansion of employment opportunities fairly across gender and racial lines, is one critical example where another stone is surely necessary.

But all sides also need to be open to evidence. The central facts here are irrefutable: spending the same amount of money on building a clean energy economy will create three times more jobs within the United States than would spending on our existing fossil fuel infrastructure. The transformation to a clean energy economy can therefore serve as a major long-term engine of job creation. If managed correctly, it can also become a cornerstone of a long-term full employment program in this country, which in turn will be the most effective tool for moving people out of poverty and into productive working lives. In short, the transition to a clean energy economy has the capacity to merge the aims of environmental protection and social justice to a degree that is unprecedented. It is an opportunity that must not be lost. ■

Help Wanted for Green Jobs

In fits and starts, green jobs are being created—but real growth requires federal intervention.

by LIZA FEATHERSTONE

W said, 'I see windmills,' and everyone kind of gave me a strange look." Vicky Sloan, a humanities professor at Clinton Community College, which serves a rural region in upstate New York, is describing a "visualization" session with a touchy-feely outside consultant, forced on the faculty several years ago by the administration. The consultant had asked the professors to close their eyes and picture their institution's future. "It was so Dilbert," interjects Sloan's close friend June Foley, a professor who teaches psychology at the college. "It was!" agrees Sloan, who lives off the grid, in a log cabin, with her own power generator. "But when I closed my eyes, that's what I saw."

Less than an hour north of campus, along the Canadian border, real wind turbines perform a slow ballet dance over the snow-covered farmland. The windmills look at once gleamingly futuristic and as if they've always belonged there. The landscape

is rapidly darkening on this overcast mid-afternoon in December—another snowstorm is expected—but even the most distant turbines can be seen easily, like guiding beacons. Wind farms have become a symbol of clean energy—feel-good iconography used by every liberal entity from *The Rachel Maddow Show* to Barack Obama's presidential campaign. But here in the Plattsburgh region, they also represent jobs.

Clinton County—part of what is called the North Country—has endured much upheaval in recent years. Plattsburgh Air Force Base—the oldest military post in the nation—closed in 1995 and has been turned into an industrial park, occupied by a mix of biotech, pharmaceutical, engineering and other companies. The area's many small farmers struggle, like small farmers everywhere. Manufacturing jobs have been gradually ebbing. But the North Country is one of the windiest spots in the nation and thus has become a thriving Gold Coast for the wind industry, with five wind farms producing a total of 690 megawatts of clean energy.