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Smart Climate Policy

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- Smart climate policy requires multiple tools: public investment, carbon pricing, and regulatory standards.
- Public investment in energy efficiency and renewable energy generates jobs and can target areas of the country where job creation is needed most.
- Putting a price on carbon emissions is not a cost to the economy as a whole – it is a transfer of wealth. Who benefits (energy producers, the government, or the public) from carbon pricing depends on the design of the policy.
- Regulatory standards are necessary to compensate for weak market signals, to create an institutional framework for change, and to protect human health.

In one of the more memorable moments of a memorable campaign, candidate Barack Obama explained why he rejected John McCain's call to postpone their September debate in Oxford, Mississippi, during the negotiations on the first financial bailout package. "It's going to be part of the president's job," Obama declared, "to be able to deal with more than one thing at once."

Something similar can be said about climate policy. A variety of proposals – for public investment, carbon pricing, regulatory standards – are cooking in Washington's political stew. Sometimes the proponents of specific policies are tempted to oversell their merits, while dismissing other policies as unnecessary or even counterproductive. But if Congress and team Obama are going to get smart on climate change, part of their job is to deal with more than one policy at once.

Climate change cannot be reduced to single-issue politics. The challenge of weaning the United States from its dependence on fossil fuels that spew carbon into the Earth's atmosphere is inseparable from the challenges of reviving our economy, generating decent jobs, and restoring our leadership in the international community.

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Nor can climate change be treated effectively as a single-policy issue. Public investment is crucial, but it will not solve the problem alone. Ditto carbon pricing. Ditto regulatory standards. Each must be part of the solution, and each will enhance the effectiveness of the others. Choosing more than one thing from the toolkit is the essence of smart climate policy.

Public investment

Today, with the economy in its deepest crisis since the Great Depression – at a time when banks aren't lending, firms aren't investing, consumers aren't spending, and jobs are disappearing – a big program of public investment occupies the center of the political stage.

Public spending, unlike tax cuts, directly boosts demand for goods and services. And unlike private consumption, a sizeable fraction of which goes into buying imports, public spending can be targeted to spur demand for goods and services produced at home.

As critics are quick to point out, public spending can be wasteful in the sense of creating nothing of lasting value. The government can inject a short-run stimulus into the economy simply by paying people to dig holes in the ground and fill them up. If instead we pay people to build things of lasting value – that is, if we *invest* well and wisely – we can benefit twice, not only rebooting the economy in the short term but also strengthening the economy for the years ahead.

At this juncture in history, some of the most strategic public investments we can make are in energy efficiency and renewable energy. These investments are necessary, first and foremost, to insure our grandchildren against the threat of catastrophic climate change. These investments also will reduce our reliance on imported oil and the regimes that supply it. At the same time, they will curtail the many other damages inflicted by the extraction and burning of fossil fuels, from “mountaintop removal” in Appalachia to toxic air pollution in communities located near refineries and highways.

Dollar-for-dollar, investment in energy efficiency and renewable energy scores much higher in job creation than investment in fossil fuels. Every million dollars spent on retrofitting buildings generates 7 jobs directly, plus 11 more jobs indirectly through the purchases of supplies and consumption by the workers – 18 jobs in total. In mass transit and freight rail, the total is even higher: nearly 22 jobs per \$1 million spending. The corresponding total in the coal industry is 9 jobs. In oil and gas it's even less: fewer than 6 jobs per \$1 million.²

² James Heintz, Robert Pollin and Heidi Garrett-Peltier, *How Infrastructure Investments Support the U.S. Economy: Employment, Productivity and Growth*. Amherst, MA: Political Economy Research Institute, January 2009.



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Public investments, and private investments “crowded in” by public investments, can not only spur net job growth, but also can target areas of the country where job creation is needed most – including areas that will ultimately experience losses of jobs in the fossil fuel industries as we move to the post-carbon economy of the future.

The “green recovery program” proposed this fall by my colleagues at the Political Economy Research Institute (PERI) calls for public investment totaling \$100 billion over the next two years in retrofitting buildings, mass transit and freight rail, a “smart” electrical grid, wind and solar power, next-generation biofuels, and loan guarantees to encourage more private investment in energy efficiency and renewables. The stimulus bill signed into law by President Obama contains similar provisions.

By definition, a stimulus program increases demand for goods and services, rather than simply reshuffling demand from one sector of the economy to another. Public investment in a stimulus package is not financed by taxes, or sales of carbon permits, or cuts in other public expenditures: it is financed by deficit spending, including both borrowing and Federal Reserve purchases of Treasury bills (or “printing money” in the language of the pre-electronic era).

In future years, once the economy recovers and stimulus spending draws down, we will need to find other ways to pay for ongoing public investments in the clean energy transition. One possibility is to reallocate the federal subsidies currently lavished upon the oil, coal, and natural gas industries – subsidies that amount to some \$50 billion per year, according to a recent inventory by Doug Koplow of Earth Track, Inc. Whether Washington will have the political stomach to end these handouts is an open question. But it makes no sense to subsidize with one hand the same activities that we are trying to phase out with the other.

Carbon pricing

Putting a price on carbon is a second key element of smart climate policy. An underlying reason for our current situation is that we have treated the Earth’s limited capacity to absorb and recycle carbon emissions as if it was infinite. When useful things are in infinite supply, they’re free. When useful things are scarce, they have a price. To send the proper market signals to consumers and producers, we need to correct this mistake by putting a price on carbon emissions.



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There are two ways to do so. The first is to levy a carbon tax (or euphemistically, a “carbon charge”), set as a fixed dollar amount per ton of carbon emissions. The quantity of emissions will vary depending on demand and the business cycle, but it will certainly be lower than in the absence of the tax.

The second way to price carbon is to put a cap on the total quantity of emissions, an objective most easily achieved by limiting the amount of carbon entering the economy in coal, oil, and natural gas. A fixed number of permits, their total quantity being set by the cap, are made available to the firms that extract fossil fuels at home or import them from abroad. The permits could be given away free or they could be auctioned at the price set by market demand.

No matter whether carbon permits are given away, auctioned, or distributed by some mix of the two methods, an inevitable effect of a cap (and likewise, of a carbon tax) is a rise in the price of gasoline, heating oil, natural gas, coal-fired electricity, and everything that uses fossil fuels in its production or distribution. In other words, the permit price (or tax) is “passed through” to the end-users. This is Economics 101: lower supply results in a higher price. These higher prices give firms and households a stronger incentive to invest in energy efficiency and alternative fuels.

The higher prices that come with carbon pricing are a cost to individual consumers but not a cost to the economy as a whole. The reason is that every dollar paid in higher prices winds up in someone else’s hands. In economic terminology, the result of carbon pricing is a “transfer,” not a “cost.” This raises the trillion-dollar question: Who gets the money?

The answer depends on the design of the policy. The money could go to energy corporations as windfall profit. It could go to the government as revenue from permit sales or taxes. It could be refunded to the public as equal payments to every woman, man and child in the country. Or it could be distributed via some combination of the three.

The windfall profit scenario is what happens if carbon permits are simply given away for free to corporations. Prices at the pump will rise regardless of whether permits are auctioned or given away – just as rents in housing markets are the same regardless of whether the owner paid for the house or inherited it. Under the give-away option, energy corporations “inherit” the new property rights created by carbon permits (the property in question being the carbon absorptive capacity of the planet). In effect, this option legitimizes the prior capture of this scarce resource by polluters.

The government revenue scenario is attractive to those seeking ways to fund new or existing government programs, including public investment in the clean energy transition.



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However, what the government will actually do with the money is always an open question – the answer to which will change with shifts in Washington’s political climate. Under this option, the new property rights belong to the government, which collects the rent.

The public refund scenario, sometimes called “cap and dividend,” is now attracting much attention in Congress and the media. Instead of be treated as government revenue, the money from permit auctions (or carbon taxes) is deposited into a stand-alone trust fund, akin to the Social Security trust fund, from which dividends are paid to the public (for example, in quarterly installments). The simplest way to do this is to issue “Carbon Trust Cards” that can be used like ATM cards to check individual balances and withdraw cash – a system that is already available for Social Security payments. Under this option, rights to the Earth’s capacity to absorb carbon belong equally to all.³

In the latter two scenarios, there is no need for a “cap and trade” apparatus where carbon permits can be bought and sold in markets after they are issued. Carbon permits would be purchased at auction by the firms that want them. Like other familiar sorts of permits – building permits, parking permits, driver’s licenses – they would not have to be tradable. The need for tradable permits arises only if permits are given away free to corporations (based on their historic emissions or some other formula), leading to situations where some firms have more permits than they need, others have fewer, and trading is needed to get an efficient allocation. If the permits are instead auctioned, we get the same efficient outcome without the added cost of traders’ profit margins and without the risk of speculation and market manipulation.

Apart from the intuitive philosophical appeal of the premise that the gifts of Nature belong equally to all persons, a compelling political case can be made for the public refund option. Carbon pricing will be politically sustainable only if the higher fuel prices that result do not spark a furious backlash from a public already hard-pressed to make ends meet. While attending U.N. climate talks in Poznan, Poland, in December 2008, Wisconsin congressman James Sensenbrenner, the ranking Republican on the House Select Committee on Energy Independence and Global Warming, spelled out the political implications: “If people on the other side of the aisle want to push a doubling to tripling of electricity bills and \$10 a gallon gas, I can guarantee you that the Republicans may very well be in the majority after the 2010 election.”⁴

³ See <http://www.capanddividend.org> for more on this policy.

⁴ Quoted in “Obama’s Cap-and-Trade Plan Faces a Fight in Congress (Update 1),” Bloomberg.com, December 8, 2008. <http://www.bloomberg.com/apps/news?pid=20601130&sid=aIMG1A0UssVY&refer=environment#>



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While \$10/gallon gasoline is not imminent under any likely policy scenario, there can be little doubt that any serious effort to curtail fossil fuel consumption will mean higher prices for gasoline, heating oil, and coal-fired electricity. How much higher will depend on the tightness of the emissions cap; the state of the economy (in a recession the increase will be less than during a boom economy); and the extent to which complementary investments and regulatory policies reduce demand for fossil fuels. But unless and until the transition to a post-carbon economy is well underway, carbon pricing policies will surely translate into higher fuel prices.

There is one and only one way to avoid a public backlash against higher prices for gasoline, heating oil, and electricity: refund the money to the people. Equal per person refunds will completely offset the impact of higher fuel prices on the average household budget. At the same time, higher fuel prices will give everyone an incentive to economize on fuel consumption. Households with lower-than-average carbon footprints – including most low-income households, because they consume less of just about everything – come out ahead in monetary terms, not even counting the benefits of saving the planet. The only way I can imagine to make Americans happy about higher prices at the pump is to give them certain knowledge that those same prices mean more money in their pockets.

Smart regulatory standards

The third leg of smart climate policy, alongside public investment and carbon pricing, is regulatory standards. Before the recent financial meltdown, “regulation” was often treated as a dirty word in American politics. Today, it has been rehabilitated as it becomes more and more evident that without rules (a.k.a. regulations), the logic of self-interest can run amok, turning Adam Smith’s celebrated “invisible hand” into a colossal pickpocket.

To say that rules are necessary is not, of course, to say that all rules are good. As critics are quick to point out, some regulations are of questionable benefit, and some are pretty dumb. That is not an argument against regulation. It is an argument for smart regulatory standards.

Smart regulatory standards are an important part of smart climate policy for three reasons. First, “getting prices right” through permits or carbon taxes will not automatically ensure that the private sector makes all of the desirable and feasible investments in energy efficiency and renewables. The market works only when investors are smart enough to read the market-signal tea leaves. One thing we have learned from the history of the American automobile industry in recent decades is that some folks – including some very powerful market players – are remarkably obtuse. When myopia, inertia, ignorance, or just plain stupidity dim the power of price signals, we need to use the power of rules. Does



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anyone doubt today that Detroit would be in far better shape if the automakers had not subverted Congressional efforts to impose stricter fuel efficiency standards on vehicles?

Detroit's performance is symptomatic of a more widespread phenomenon: market signals are not always sufficient to change behavior. Energy experts have long pointed out the paradoxical fact that there is much scope for energy-saving investments that would quickly pay for themselves, including building insulation and more efficient lighting, heating, air conditioning, and appliances. A December 2007 study by the consulting firm McKinsey & Co. found that substantial reductions in U.S. carbon emissions could be achieved *at negative cost* simply by taking advantage of existing opportunities at existing prices.⁵ If the magic of the market was all that was needed, these profitable options wouldn't exist – they would already have been fully exploited.

Fuel efficiency standards for automobiles, energy efficiency standards for appliances, and “green” building codes are examples of regulatory standards that can kick in when market players fail to read the price signals.

The second reason we need smart regulatory standards is to take account of social benefits and costs that are not captured in the price signals of the marketplace. Even with carbon pricing, for example, wind and solar-generated electricity may not be competitive in many locations until their costs are brought down by further research and development and greater economies of scale in production. In the meantime, we can learn from European countries such as Germany and Spain that have enacted rules that require utilities to buy power from small-scale generators at remunerative “feed-in tariff” prices.

Similarly, one way to boost private investment for renewables and energy efficiency is to channel bank lending towards green projects through asset-based reserve requirements, stipulating that a certain percentage of every bank's loan portfolio should be channeled to such purposes. If 5% of private lending in the United States was channeled into green investments, this would amount to roughly \$100 billion per year.⁶

The third reason that regulatory standards must be part of the climate policy mix is that we need to curb not only carbon emissions but also other environmental damages caused by the fossil fuel industry. From the standpoint of climate change, all carbon dioxide emissions are equal; it doesn't matter where they are reduced. From the standpoint of human health,

⁵ “Reducing U.S. Greenhouse Gas Emissions: How Much at What Cost?” McKinsey & Co. and the Conference Board, December 2007. http://www.mckinsey.com/client-service/ccsi/pdf/US_ghg_final_report.pdf

⁶ Robert Pollin, “Financing the Green Economy as an Answer to Casino Capitalism,” *New Labor Forum* 18(1), Winter 2009.



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however, it can matter a great deal. Some places – often communities with high percentages of minorities and low-income families – are severely affected by dirty air, contaminated water, and devastated landscapes that result from activities such as oil refining and coal mining. It makes economic sense as well as moral sense to target the carbon reductions to the locations where the “co-benefits” of these reductions are greatest. Smart regulatory standards on airborne particulate matter, toxic air and water pollution, and environmentally dreadful mining practices are a vital ingredient of smart climate policy.

The United States cannot solve the problem of global warming on its own, to be sure. Global problems require global solutions. At the upcoming climate change conference in Copenhagen in December, where the nations of the world will gather to craft a successor to the Kyoto protocol, the Obama administration will have an opportunity to make a clean break from the Bush-Cheney era and play a constructive role on the international stage. Along with other industrialized countries, the U.S. has the capacity and responsibility to help developing countries shift to a low-carbon growth path. To become a credible leader in the global struggle against climate change, the U.S. must begin by implementing a smart climate policy at home.