

# PIELKE and GREEN: The cure for carbon

#### Obama plan a good start for climate policy

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With the election of Barack Obama to the presidency of the United States, debates over climate policy are going to get a much needed boost. The Obama plan for climate policy includes one very good idea - investment in new technologies and infrastructure - and one very bad one: cap-and-trade.

To understand why cap-and-trade is such a bad idea, we need only look to lessons from Europe's experiences.

Three lessons from Europe

The first lesson is that the public might accept higher energy prices, but their tolerance for higher prices is limited. When fuel prices spiked in recent months due to factors other than climate policies, France, Belgium and other European countries saw strikes and protests. It is safe to conclude that price increases of a similar magnitude due to climate policies would evoke a similar reaction.

Climate policies cannot have too large of an economic impact if they are to maintain public support.

A second lesson is that increasing the costs of fossil fuels has different effects. For instance, France, with less than 5 percent of its electricity generation from coal, has led the charge for aggressive mandates on coal. Not surprisingly, Poland, with about 95 percent of its electricity coming from coal, vigorously opposes these very same mandates. In the United States we can expect similar reactions from different states and sectors.

In Europe, the difference currently threatens to derail its climate policies. The lesson is that the effects of climate policies cannot create too stark a difference between relative winners and losers from those policies.

Third, decarbonizing the economy will be impossible without technologies that are ready for deployment in the marketplace at the scale needed. The International Energy Agency's World Energy Outlook, released Nov. 12, argues that Europe's goal of limiting carbon dioxide concentrations in the atmosphere to 450 parts per million may simply be technologically infeasible.

The lesson here is that progress in emissions reductions will be limited by technology.

Develop the technology

What can the United States do to advance

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climate policy and learn from the European experience?

We believe that soon-to-be-president Obama's proposal to spend \$150 billion over the next 10 years on developing carbon-free energy technologies and infrastructure is the right first step. It is not only consistent with the main priority of economic renewal, but the development of new effective, scalable and transferable (especially to the developing world) energy technologies is crucial if there is to be any hope of achieving goals for stabilizing concentrations of carbon dioxide in the atmosphere.

Given America's current fiscal bind, an important issue is how to finance the Obama energy technology proposal.

We do not pretend that any fiscal solution will be politically easy, but we would note that a \$5 charge on each ton of carbon dioxide produced in the use of fossil fuel energy would raise \$30 billion a year. This is more than enough to finance the Obama plan twice over.

How much is \$5 per ton from the perspective of U.S. consumers? Not that much. It would add less than 5 cents to the cost of a gallon of gas and would increase the average cost of electricity in the United States by a fraction of a cent per kilowatt hour.

Critics of our proposal will no doubt be quick to dismiss it because the impact of \$5 per ton on consumer behavior is exceedingly small, and they wish to see large effects right away. But we believe that what these critics see as a weakness is in fact a strength of building U.S. climate policy around the Obama energy technology proposal financed by a small charge on carbon fuels.

#### A virtuous cycle

The problem with most proposals putting a price on carbon - whether through a carbon tax or through tradable emission permits (cap-and-trade) - is that they can never live up to their theoretical soundness, to say nothing of their likely political fallout.

We believe that the most important step is the first one. We would like to create the conditions for a virtuous cycle, whereby a small, politically acceptable charge for the use of carbon emitting energy, is used to invest immediately in the development and subsequent deployment of technologies that will accelerate the decarbonization of the U.S. economy.

The funds would be invested in a broad portfolio such as utility level storage for wind and solar energy, financing electricity (grid) infrastructure, retrofit technologies for coal-fired plants to allow carbon capture and storage, carbon dioxide pipelines from coal plants to safe and secure storage sites, and more.

Stop talking, start solving

As the nation begins to rely less and less on fossil fuels, the political atmosphere will be more favorable to gradually raising the charge on

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carbon, as it will have less of an impact on businesses and consumers, this in turn will ensure that there is a steady, perhaps even growing source of funds to support a process of continuous technological innovation.

Putting a low price on carbon is thus perfectly consistent with ambitions to move the United States toward greater diversity and independence in its energy supply, toward revitalizing the economy by building new markets and jobs, and decarbonizing the economy, showing the world that the United States, once it puts its mind to it, can make rapid progress on even seemingly impossible challenges.

The problem with the climate debate has been that too much focus has been on how to solve the problem, and not on how to start solving the problem. We believe that the Obama energy proposal is the right place to start, and a low price on carbon will ensure that it can be financed with minimal impact on the economy.

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