

# SUCCESS IS NOT GUARANTEED

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By Roger Pielke, Jr.



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This month marks the release of my latest book. Titled *The Climate Fix: What Scientists and Politicians Won't Tell You About Global Warming* (Basic Books, NY), one of the core arguments in the book is that efforts to secure international agreement on targets and timetables for emissions reductions are doomed to failure.

In the book, I argue that if we are going to make progress in accelerating the **decarbonization** of the **global economy** then, rather than futile efforts to establish a grand global agreement on targets and timetables, it is far more important to emphasize a more direct approach to innovation in **energy technologies** with a focus on expanding energy access and lowering costs. To finance these investments, I propose a low but rising price on **carbon** (or **fossil fuels**) that is set at the highest level politically possible (which is necessarily low). Instead of seeking to make carbon-intensive energy supplies appreciably more expensive, policy should focus on bringing down the cost of alternatives. Hence my focus is on policies that will accelerate innovation in energy technologies.

I am optimistic that taxing today's energy sources to pay for tomorrow's will be politically appealing because it is already being implemented in settings as diverse as India and Germany. India has set a 50 rupee tax per tonne of coal in order to raise more than \$500 million per year to invest in **clean energy innovation**. This tax is equivalent to about a \$0.30 per tonne carbon tax - high enough to raise significant funds but not to create public opposition. Similarly, Germany is planning to extend the life of its nuclear power stations and to use the resulting financial windfall - partly due to a tax on fuel rods - to generate almost \$40 billion, freeing up significant resources to invest in **energy innovation**.

One can imagine how such a direct approach in **innovation** might be implemented in other countries or even be the subject of **international collaboration**. Consider that a \$5 per tonne **carbon tax** would raise about \$100 billion per year, as would a \$3 per barrel fee applied to petroleum, with largely imperceptible effects on energy prices. Such small taxes raise large amounts with small consumer impact because the direct cost of energy is about 5-10 percent of the global economy, an enormous sum.

These sort of **"technology-led"** proposals funded by a low-but-rising tax are spelled out in far greater detail in my book, in **"The Hartwell Paper"** (a collaboration led by the [London School of Economics](#) and [Oxford University](#) that I participated in earlier this year) and, in particular, in the work of economists **Isabela Galiana** and **Chris Green** at [McGill University](#).

These ideas are often the subject of discussion and debate on my blog, providing a useful opportunity for critique. In such

discussions I have found an interesting objection to the proposals, which comes both from those who favor the conventional, top-down targets and timetables approach as well as from those who are opposed to efforts to intentionally seek to accelerate the decarbonization of the economy.

Both arguments are grounded in a desire for certainty in policy proposals. One line of critique expresses frustration that the technology-led approach cannot offer certainty in the timing of achieving specific atmospheric concentration targets. For example, one commenter on my blog writes of "**The Hartwell Paper**" that it "provide[s] no indication of the impact of the proposed policies in terms of reducing emissions and hence of where we would expect to end up in terms of atmospheric concentrations. Without this, it is impossible to tell the extent to which the policy you are advocating would be successful in terms of avoiding damaging impacts from **climate change**."

Such arguments are akin to criticizing investments in health research because those advocating such a policy cannot provide an indication of the impact of such investments on outcomes such as extending future life expectancies. Of course, we invest in health research not because of certainties regarding those investments and future death rates, but because we know that **innovation** in medicine is made more likely by focusing resources in that area. Experience indicates that **technological innovation** can be shaped and directed, but there are no guarantees of specific outcomes on specific timetables. Such certainties can be found in economic models, but not in the real world.

A similar demand for certainty in outcomes comes from another perspective, and focuses on the implications of a low carbon or **fuel tax**, proposed to raise funds for investment in **energy innovation**: "What evidence do you have that the governments won't spend the money generated by the small tax on things that won't reduce carbon emissions at all?"

If progress is going to be made in **energy technology** innovation that leads to an accelerated **decarbonization** of the **global economy**, then effort will be needed over many decades. Yet politicians today cannot bind their successors, much less policy analysts, to certain actions. For any proposed policy to be politically sustainable, it must show benefits that are perceived by the public to be proportional to its costs, and on similar time scales. Conventional approaches to climate policy promise benefits decades in the future for costs today, one of its Achilles' heels. Long-term public support of investments in agriculture, infrastructure, medicine, and other areas, supported by tax revenues (in some cases directly linked) provides evidence that sustained public investment over many decades is possible in **technological innovation**. But again, there are no guarantees.

More generally, such arguments raise interesting questions about the purpose of and limits to policy analyses. Consider that politicians who control the machinery of governments are unable to offer guarantees for particular outcomes, even in the very short term. For instance, before the recent Australian election, [Prime Minister Julia Gillard](#) promised her electorate that a **carbon tax** was off the table, but now it appears to be her favored policy option. Similarly, **Barack Obama** promised to end the "don't ask, don't tell" policy in the US military and did not. One need not look far to find plenty of such examples.

Not even the existence of legislation offers guaranteed outcomes. [The Kyoto Protocol](#) promised to reduce emissions in Europe, yet **decarbonization** rates in Europe are essentially unchanged from before **Kyoto** to after its implementation. Its

**Clean Development** mechanism may even have contributed to accelerated emissions. In Great Britain, its **climate change** act promises to reduce UK emissions by 34 percent by 2020. Anyone who expects that to happen is in for a surprise.

Policy analysis is not about offering guarantees, but when done well it offers options that link alternative possible courses of actions with desired outcomes. The best that a policy analyst can do is to argue that taking one fork in the road is more apt to get the decision maker to a desired destination than taking a different fork in the road. Such arguments will either be convincing or will not. In democratic systems of governance the road to any destination is always treacherous, with new destinations, forks in the road, and obstacles to progress arising all the time. Consider that Germany's recent decision on nuclear power reverses an earlier decision to phase it out. And its current approach may yet change due to political opposition.

While I cannot guarantee that the policies I recommend in my book will succeed, I do think that they offer the best way forward to simultaneously meet the policy goals of expanding energy access, securing long-term supply at affordable costs, and accelerating the **decarbonization of the global economy**. The policy analysis in the book makes this case. At the same time, I am convinced that the conventional approach to climate policy will continue in its failure to show progress on these fronts. That's one guarantee I am willing to make.

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