



By Robert N. Stavins

A Utility Safety Valve For Cutting CO₂

The time is approaching for progressive policy action on global climate change. A scientific consensus points to the likelihood of future climate change due to emissions of greenhouse gases, such as carbon dioxide, released by power plants, motor vehicles, and a wide variety of other sources. Likewise, economic analysis increasingly points to the wisdom of policy action.

The Kyoto Protocol, the international agreement on climate change, has come into force without ratification by the United States. In this domestic policy vacuum, some states are seeking to take the lead. Most prominently, the Regional Greenhouse Gas Initiative — a pact that was originally negotiated among nine northeast states — would cut CO₂ emissions 10 percent below current levels by 2020 through an emissions trading program among power plants. This is the same approach used to reduce acid rain by 50 percent (under a national sulfur dioxide emissions trading program), at a savings of \$1 billion per year, compared with a conventional approach.

Before jumping on the bandwagon, we should ask whether a regional (multi-state) initiative for global climate change really makes sense. As I have argued in a previous column, even a national program outside of the context of an international agreement is problematic. After all, this is the ultimate global commons problem — the damages of higher atmospheric CO₂ concentrations are not dependent upon the location of emissions. Costs to individual countries, let alone regions within countries, will always be greater than the benefits they receive from their actions. That is why

a coordinated international, if not fully global, approach is required.

It can be argued, however, that the RGGI program in the Northeast can serve as a model for a national program, and that a national program should be ready for the time when the United States ratifies some future international climate change agreement. If the RGGI program is to be evaluated as a potential model, then surely very careful attention should be given to legitimate concerns about its design elements.

One major issue is uncertainty and related controversy regarding the program's eventual cost. Massachusetts Governor Mitt Romney tried to put the brakes on RGGI long enough for the other states to consider a key modification of the program: a safety-valve mechanism that would reduce the program's cost uncertainty, while still delivering the environmental goods.

The safety valve would address cost uncertainty through a simple mechanism. After allocating emissions permits freely to power plants, the state governments would announce that they will sell — note, sell, not give away — additional permits at a fixed price. That price instantly becomes a cap on compliance costs, and eliminates the cost uncertainty that otherwise plagues the program. Such safety-valve mechanisms have long been studied and advocated by economists, and were recently endorsed by the National Commission on Energy Policy in its bipartisan recommendation for a national CO₂ program.

Importantly, this mechanism is only triggered if costs are unexpectedly high, whereby the safety valve offers important economic protection, while still providing powerful incentives for emissions reductions. On the other hand, if environmental advocates are right, and compliance costs are low, the safety valve would not be activated.

Remarkably, critics have claimed that the safety valve would discourage technology innovation, but nothing could be further from the truth. By placing a price on emissions, the safety valve — like the permit trading program itself — provides the ultimate incentive for companies to adopt innovative methods to reduce emissions.

A key issue is the actual “trigger price” of the permits to be offered for

sale, that is, the level of the cap on costs. It should be set high enough so that it will be triggered only by unexpectedly high compliance costs, in other words, as an insurance policy. It should rise gradually over time, in order to move along a sensible path to more ambitious emissions reductions.

Some have worried that a safety valve would “blow the emissions cap.” But programs can be structured so that additional permits bought through the safety valve are treated as borrowed from the future permit pool, to be repaid in subsequent periods. Thus, a plan would only shift emissions over time — in the same way ordinary trading shifts emissions among locations.

Similarly, the safety valve mechanism has been criticized for allowing companies to “buy the right to pollute,” harking back to criticisms made by advocacy groups of proposed market-based environmental policy instruments twenty years ago. Do present-day environmentalists really prefer that companies be given the right to pollute for free, as under conventional regulations?

Lastly, some advocates complained that the negotiations had been going on for two years, and it was too late for the Romney administration to introduce new ideas. But climate change is a long-term problem — the consequences are linked with the stock of emissions accumulated in the atmosphere over a century. With a serious long-term problem such as this, it is shortsighted to rush forward with a flawed approach, rather than to get it right, particularly if the approach is to serve as a model for a subsequent national program.

The safety-valve plan for RGGI could have been good news for the environment and the economy, and a good model for an eventual national program. As it turned out, however, there seemed to be more interest from some states in short-term symbolic actions that in real long-term achievements, and the RGGI agreement went forward without the safety valve and without Massachusetts.

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