

# Next Year in Copenhagen

*Concrete U.S. actions are necessary before the Copenhagen Conference of the Parties*

by Carl Pope

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What may prove to be one of the most important events in human history is scheduled to take place next December in Copenhagen, when the world's leaders gather to address global climate change. Building on the fragile foundation of the Kyoto Protocol, their goal is to plan how to reduce global carbon emissions through 2020. Given what we now know about the science of global warming, this is probably our last significant chance to reduce emissions so as to avoid environmental catastrophe.

So, what should we be doing between now and December 2009, to ensure the best possible outcome for the Copenhagen talks? The answer begins here in the United States.

As the world's largest economy and second-largest source of greenhouse gases (GHGs), there will never be a global plan to address emissions without active U.S. participation and leadership. And for us to have a seat at the table, let alone lead the process, we must be able to show that we are taking our responsibilities seriously and have begun the hard work of reducing our emissions. In other words, by December 2009, we need to have taken some serious steps to reduce our emissions, or recently elected Barack Obama goes to Copenhagen as nothing more than President George W. Bush with better intentions.

We can take these needed steps in either of these two ways: (1) comprehensive climate legislation; or (2) a federal regulatory program. While tailor-made climate legislation is far preferable, the prospects for such legislation are not promising for 2009 (and in any event such legislation has been exhaustively analyzed). So, I will focus on the regulatory program the next Administration should undertake in order to allow the United States to make our case at Copenhagen.

The United States can accomplish this goal via just two sets of rulemakings: (1) establishing carbon dioxide (CO<sub>2</sub>) emission limits for both new and existing power plants; and (2) approving California's vehicle GHG emission standards while then setting similar federal ones. These actions alone will place significant limits on almost one-half of U.S. GHG emissions.

## I. Power Plants

### A. Proposed Coal-Fired Power Plants

If the first thing you do when you find yourself in a hole is to stop digging, then the first thing we need to do is not build any more coal-fired power plants, the largest source of CO<sub>2</sub> emissions in the United States, and indeed, around the world. We can effectively halt all of the 100 or so proposed plants by requiring them to install best available control technology (BACT) for CO<sub>2</sub>. The Clean Air Act (CAA)<sup>1</sup> requires BACT for any pollutant that is already "subject to regulation" under the Act, and there is no doubt that CO<sub>2</sub> meets this test. It has actually been regulated under the CAA since 1993, when—as mandated by Congress—the U.S. Environmental Protection Agency (EPA) issued regulations requiring the monitoring and reporting of CO<sub>2</sub> emissions from power plants. And last year, the U.S. Supreme Court confirmed the plain meaning of the CAA and ruled in *Massachusetts v. U.S. Environmental Protection Agency*<sup>2</sup> that CO<sub>2</sub> and other GHGs are "pollutants" under the Act.

The problem is that the Bush Administration continues to ignore both the CAA and the reality of global warming by insisting that such monitoring and reporting regulations are not, oddly enough, "regulation"—thus there is no justification for imposing BACT on these proposed plants. Recently, this position was rejected by the Agency's own Environmental Appeals Board in the *Bonanza*<sup>3</sup> case, which sent the issue back to the Agency for further consideration. The good news is that because EPA's position was not based on notice-and-comment rulemaking, the Obama Administration can take the correct position—literally—on Day 1.

### B. New Source Performance Standards for New Power Plants

When revising power plant standards in 2006, EPA refused to impose CO<sub>2</sub> limits on the grounds that it lacked authority

1. 42 U.S.C. §§7401-7671q, ELR STAT. CAA §§101-618.

2. 549 U.S. 497, 37 ELR 20075 (2007).

3. In re Desert Power Elec. Coop., PSD Appeal No. 07-03 (EAB Nov. 13, 2008).

to do so. Challenged in court, this rulemaking was remanded to EPA following *Massachusetts*, and it is now the appropriate vehicle for limiting new power plant emissions to 800 pounds (lbs.) of CO<sub>2</sub> per megawatt hour (lbs./MWh) of electricity. This would permit new gas-fired plants but would effectively stop any new coal-fired ones (unless they were using carbon capture and sequestration (CCS)). This rulemaking should also contain a second phase, effective around 2016, tightening the standard to approximately 250 lbs. of CO<sub>2</sub>/MWh. This would be achievable via either combined gas/solar or gas/wind generation or 90% CCS. And, as part of either this rulemaking or the rulemaking for federal vehicle standards discussed below (whichever comes first), EPA would issue a determination that GHG emissions “are reasonably anticipated to endanger public health and welfare,” and make this determination applicable to those sections of the CAA necessary for this program.

### C. Standards for Existing Plants

Coal-fired power plants are the single largest source—24%—of U.S. GHG emissions, and in conjunction with the standard for new plants, EPA should issue standards for existing ones. In fact, §111(d)(1) of the Act requires EPA to establish standards for existing sources whenever it does so for new sources.<sup>4</sup>

The first phase should require at least the 8-10% reduction in CO<sub>2</sub>/MWh via measures that EPA has already identified. The second phase would impose a 90% CO<sub>2</sub> reduction; as with the second-phase standard for new plants, this could be achieved by either allowing existing sources to take credit for additional renewable generation or via CCS, and should have the same effective date. (The necessary CO<sub>2</sub> transport and sequestration regulations would be part of this process, and EPA has already begun work on the latter.)

Apropos of this, it is important to note that it is technologically possible to separate CO<sub>2</sub> from post-combustion flue gas; various absorption mechanisms (using alkanolamines, chilled ammonia, etc.), as well as oxy-fuel combustion, have demonstrated 90% CO<sub>2</sub> capture rates. The technologies for CO<sub>2</sub> pipeline transport and underground storage are also fairly well understood, although it has never been undertaken on anything comparable to the scale contemplated here.

## II. Vehicles

This is far simpler than power plants. EPA should immediately grant California the necessary waiver under the CAA for its vehicle GHG regulations, allowing these standards to come into effect in California and the 13 other states that have adopted them, and then adopt aggressive federal standards that would apply in the rest of the country.

Finally, EPA also has authority over *existing* vehicle emissions via its authority under §211 of the Act to regulate fuels, and should begin a rulemaking on low-level carbon fuels that

could reduce CO<sub>2</sub> emissions by up to 10% from the existing and future fleets.

## III. Conclusion

The year 2009 will be a critical one in humanity’s struggle with climate change. President-elect Barack Obama must be able to meet the rest of the world at Copenhagen and show that the United States has begun taking the steps necessary to control our GHG emissions. Only if the president can point to such accomplishments will he have the credibility necessary to participate in and lead those discussions. And without such U.S. participation, we will have missed what may prove to have been our last chance to avoid catastrophic climate change.

4. Even though §111(d) was enacted in 1970, EPA has set such standards for only 5 out of more than 70 pollution “source categories,” i.e., municipal waste combustors, municipal solid waste landfills, sulfuric acid plants, hospital waste incinerators, and Kraft pulp mills.