

Comment on *Developing a Comprehensive Approach to Climate Change Mitigation Policy in the United States: Integrating Levels of Government and Economic Sectors*

by Michael B. Gerrard

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The article by Thomas D. Peterson, Robert B. McKinstry Jr., and John C. Dernbach (PM&D) has two central insights: (1) Any serious national effort to control emissions of greenhouse gases (GHGs) must continue to leave important roles to the states; and (2) It would be a mistake to put too many eggs in the cap-and-trade basket. A portfolio approach that utilizes many different regulatory techniques is important.

I certainly agree with PM&D about these insights, and they are correct that much of the current Congressional debate has given too little attention to these considerations. However, I have serious reservations about PM&D's proposal to use the mechanism of the national ambient air quality standards (NAAQS) and state implementation plans (SIPs) as the way to give states the vital roles they deserve. I believe there are alternative methods that would be superior.

I. Importance of Continued State Action

During the eight long years of the presidency of George W. Bush, the states played a role similar to that of the isolated centers of learning in Europe during the medieval period. While the forces in power not only stalled progress but attempted to spread a paralytic poison, some of the hinterlands developed their own thriving centers of thought and innovation. In this way, A.D. 1001-1008 and A.D. 2001-2008 have something in common.

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During the latter period, the states were not only laboratories of democracy—some of them were full-scale production facilities. California was in front, as it often is, with its Global Warming Solutions Act, A.B. 32¹; its Pavley Law, mandating stringent air quality standards for motor vehicles (if Washington would only get out of the way)²; and its application of the California Environmental Quality Act to GHGs.³ In the northeastern and mid-Atlantic states, the Regional Greenhouse Gas Initiative (RGGI) led the way with the first U.S. cap-and-trade program for GHGs.⁴ Several states pioneered with renewable portfolio standards for their electric utilities, and with all manner of other innovations, many of which are now being studied for incorporation into a federal program.⁵ The reports of the climate change task forces created in many of the states are a treasure trove of ideas and proposals.⁶

PM&D are absolutely right that a federal cap-and-trade program will not in itself be sufficient to achieve the necessary emissions reductions. The form that the seemingly inevitable program will take is still uncertain, but it is unlikely to thoroughly cover certain sectors of the economy that play important roles in the GHG picture, notably buildings and agriculture. Those sectors are more naturally regulated (if at all) at the state and local levels.

1. Global Warming Solutions Act of 2006, CAL. HEALTH & SAFETY CODE §38500 (Deering 2006).
2. CAL. HEALTH & SAFETY CODE §43018.5(a) (West 2007).
3. See Governor's Office of Planning and Research, *CEQA Guidelines and Greenhouse Gases*, at <http://www.opr.ca.gov/index.php?a=ceqa/index.html> (last visited May 31, 2009).
4. For information on RGGI, see Pew Center on Global Climate Change, *Regional Greenhouse Gas Initiative (RGGI)*, http://www.pewclimate.org/what_s_being_done/in_the_states/rggi/ (last visited May 31, 2009).
5. For examples of renewable portfolio standards, see PEW CTR. ON GLOBAL CLIMATE CHANGE, *CLIMATE CHANGE 101: STATE ACTION 3 fig.2* (2009).
6. See PACE LAW SCH. CTR. FOR ENVTL. LEGAL STUDIES, *THE STATE RESPONSE TO CLIMATE CHANGE: 50 STATE SURVEY* (2009), available at http://www.abanet.org/abapubs/globalclimate/docs/stateupdate_102908.pdf (last visited May 31, 2009).

II. National Ambient Air Quality Standards

Having said that, I do not believe that the best way to foster state action is to adopt NAAQS for GHGs and then require states to develop and implement SIPs.

First of all, NAAQS seems to be an unnecessary but cumbersome step on the way to state plans. The underlying idea of the NAAQS/SIP architecture is that the areas of the country where NAAQS are exceeded would be required to undertake special measures to attain the standards.⁷ EPA determines the attainment status of each air quality control region for each criteria pollutant; and the states prepare SIPs, subject to federal approval, to move the nonattainment regions into attainment.⁸ But GHGs, especially carbon dioxide, are so thoroughly mixed in the atmosphere that every air quality control region in the country will be either in attainment or nonattainment, depending only on where the NAAQS is set. Thus we lose the central role of NAAQS in helping to determine which areas need improvement and which do not.

Moreover, the Clean Air Act envisions ongoing monitoring to see how each air quality control region is doing in achieving or maintaining attainment.⁹ This is intended as a feedback loop; as regions succeed in improving their air quality, they are rewarded by being subject to less stringent requirements. But no region's own actions alone will have a discernable effect on the airborne levels of carbon dioxide in that region; those levels are determined by the cumulative actions of all the countries on the planet.

Determination of where to set NAAQS would be a thorny issue for EPA. PM&D suggest 500 ppmv in carbon dioxide equivalents. We are now slightly above 380 ppmv in carbon dioxide.¹⁰ As PM&D acknowledge, some major voices, led by Dr. James Hansen of NASA, argue that 350 ppmv of carbon dioxide is necessary.¹¹ Whether the number is above or below 380 ppmv carbon dioxide makes all the difference in the attainment status of each air quality control region.

The attainment status of a locality also determines what technology standard applies to stationary sources in the locality undergoing new source review. In attainment areas, it is best available control technology (BACT); in nonattainment areas, it is lowest achievable emission rate (LAER).¹² Here too, this distinction makes no sense in the GHG context. To pick the most prominent technology, EPA will need to determine whether new coal-fired power plants will have to incorporate carbon capture and sequestration (CCS), and CCS may or may not be deemed to be BACT or LAER; but

that determination will not be related to whether a particular plant is in an attainment or a nonattainment region.

Thus I believe the NAAQS step is unproductive for this process and should be skipped altogether.

III. State Implementation Plans

The next step proposed by PM&D is the preparation of SIPs. There is an appeal in requiring each state to develop its own plan to reduce GHG emissions. However, PM&D's suggestion that each state be allocated a share of the nation's GHG reduction burden is fraught with difficulty. PM&D suggest that this allocation "will undoubtedly become the subject of much negotiation," and that "[a]lllocations must consider factors such as population and projected growth rates."

To return to the medieval analogy, I think this is an invitation to another Hundred Years' War. Every state will be able to make a compelling case why it should have a low burden. Some states will cite their economic distress; others, their existing strong mass transit system, or their land use patterns that make mass transit impossible. If the decision is thrown to Congress, one might expect the outcome to more closely reflect the relative political power of individual members of the House and the Senate than the physical and economic attributes of each state. Occasionally Congress punts difficult decisions to independent appointed bodies, such as the Defense Base Closure and Realignment Commission (BRAC), which had the politically impossible task of deciding which military bases to close.¹³ But at least BRAC was given criteria to apply; it is not at all clear what criteria would be established for allocation of state GHG reduction mandates. For example, I have difficulty imagining how one would quantify the relative obligations of Delaware and North Dakota, states with similar populations but almost nothing else in common economically or geographically.

The SIP approach also invites considerable difficulties with respect to emissions leakage. Much of the electricity used in California is generated in Arizona and Nevada; which state's SIP is responsible for reducing this electricity generation and use?¹⁴ Which state is responsible for reducing motor vehicle use, when there is a central city at the core but commuters arrive from more than one state (I am thinking here of New York, Washington, D.C., Philadelphia, and Chicago)? Answers can be devised to these questions, but they rob the state allocation process of some of the purity that might be apparent on first look.

If the NAAQS framework is preserved in conjunction with SIPs, then, at least the way the Clean Air Act is currently structured, SIPs for nonattainment areas must contain a long list of items. Among them are the adoption of all Reasonably Available Control Measures; provisions for Reasonable Fur-

7. The NAAQS/SIP architecture is set forth in Clean Air Act of 1970, 42 U.S.C. §§7409-7410, ELR STAT. CAA §§109-110.

8. See *id.* §7410.

9. See *id.* §7407.

10. U.S. Department of Commerce, National Oceanic and Atmospheric Administration, *Carbon Dioxide, Methane Rise Sharply in 2007*, Apr. 23, 2008, at http://www.noaa.gov/stories/2008/20080423_methane.html (last visited May 31, 2009).

11. James Hansen et al., *Target Atmospheric CO₂: Where Should Humanity Aim?*, 2 OPEN ATMOSPHERIC SCI. J. 217, 228-29 (2008).

12. See 42 U.S.C. §§7475(a)(4), 7503(a)(2), ELR STAT. CAA §§165(a)(4), 173(a)(2).

13. For an example of the political maneuvering surrounding base closures and discussion of the BRAC process, see Eric Schmitt, *Panel on Base Closings Says the List Is Likely to Change*, N.Y. TIMES, May 23, 2005, at A16.

14. See CAL. ENERGY COMM'N., INTEGRATED ENERGY POLICY REPORT 2007 SUMMARY 11 (2007), available at <http://www.energy.ca.gov/2007publications/CEC-100-2007-008/CEC-100-2007-008-CMF-ES.PDF> (last visited May 31, 2009).

ther Progress; “general conformity” and “transportation conformity” provisions; and (impossibly, depending on where the NAAQS is set) attainment of NAAQS within five years of the effective date of the nonattainment designation (or ten years if EPA makes certain findings).¹⁵

IV. Alternative Approach to State Role

Though the Clean Air Act’s current SIP mechanism may not work, I agree with PM&D that a federal GHG system should preserve an important role for the states. This might be done through an opt-in system, which I describe below. The two questions to be addressed are:

- 1) How does a state get into the system?
- 2) What does a state get in return?

As to the first question, a state might be eligible if it adopted certain items from a menu of potential action items. Some of these items might become obsolete if the federal program establishes them on a national level, but surely some will survive. The menu might include a renewable portfolio standard, an energy efficiency portfolio standard, a California-level motor vehicle emissions standard, a low-carbon fuel standard; stringent standards for energy efficiency in buildings, forest preservation programs, and sustainable agriculture programs. These are just a few examples of what could be a long list. PM&D have listed many possible actions in their discussion of possible portfolios. The items on the menu would need to be weighted so that a given level or rate of GHG reduction would be achieved.

States that are eligible to opt into the system might then be entitled to a portion of the proceeds from the national sale of GHG emissions allowances. They might also be entitled to some flexibility structuring how they meet other requirements of the new law. For example, if the new law has technology standards for certain kinds of facilities, perhaps a state that has earned the opt-in designation could excuse some facilities from the standards or give them more time to comply. (Care would have to be exercised that this did not lead to environmental justice problems by allowing the excessive emissions of non-GHG pollutants that have adverse local impacts.)

The Clean Air Act, the Clean Water Act, and other federal environmental programs have many success stories based on technology standards, fuels controls, and other command-and-control strategies. A federal GHG law could do well by adopting a number of such strategies, but states might enjoy the ability to relax some of these command-and-control mandates in exchange for other actions that achieve comparable GHG reductions.

V. Conclusion

Regardless of the mechanisms that are ultimately adopted, PM&D have made a major contribution in highlighting the importance of continued state action and authority. In the legislative battles that are in our immediate future, we should recognize the central role that the states can play, and we should be slow to adopt provisions that could unduly pre-empt this role.

15. See 42 U.S.C. §7502(c), ELR STAT. CAA §172(c).