

CLIMATE CHANGE LEGISLATION DESIGN WHITE PAPER

Appropriate Roles for Different Levels of Government

The Committee on Energy and Commerce and its Subcommittee on Energy and Air Quality are issuing a series of Climate Change Legislation Design White Papers as the next step in the legislative process leading to enactment of a mandatory, economy-wide climate change program. While the hearings last year were designed to give the Committee an understanding of the status and projected path of climate change and potential ways to address it, these White Papers and the hearings on them will focus the Committee's attention on crafting mandatory, economy-wide climate change legislation. The White Papers and related hearings will lay out basic design and key principles of a program, and also identify issues about which further information and discussion is needed.

A comprehensive national approach to climate change will be most effective when all levels of government -- Federal, State, Tribal, and local -- play active roles. This paper is intended to foster discussion of these issues by raising key factors that should be considered in determining what roles are appropriate for each level of government.¹

Executive Summary

Sorting out the appropriate roles of each level of government in addressing climate change is far more complicated than the specific question of whether State climate change programs should be preempted. This Paper raises more comprehensive and complex questions that the Committee must consider: what roles are best played by each level of government as we marshal our country's resources to address climate change and how should these roles be reflected in Federal legislation.

Many State and local governments have begun to address climate change, as the Subcommittee heard last year in testimony from State and local witnesses.² Activity by State and local governments has helped reduce greenhouse gas emissions, has helped build a consensus that we need to address climate change nationally, and is helping to develop and test different policies.

The country is now at the difficult and familiar stage of transitioning from multiple, often unconnected, State and local climate change programs to a comprehensive, national approach to addressing the global problem of climate change. For a variety of reasons, State and local environmental programs have often led to enactment of Federal environmental legislation.

¹The question of whether States, Tribes, or localities should be allocated allowances or allowance revenue is generally beyond the scope of this Paper.

²Committee on Energy and Commerce, Subcommittee on Energy and Air Quality, "Climate Change: State and Local Perspectives" (March 15, 2007).

Industry is often interested in Federal legislation to avoid or replace a patchwork of State regulations, which helps reduce the burden on companies involved in interstate commerce. Federal environmental standards create a level environmental playing field among States (i.e., Federal legislation will ensure that all citizens in all States can enjoy a basic level of public health and environmental protection without fear of driving industry and jobs to States with lower environmental standards). Another major reason for Federal environmental programs is to address situations where pollution released in one State causes environmental or public health problems in another State. Federal programs can also provide resources for environmental protection where State and local programs are insufficient.

This national approach will need to include a variety of programs at each level of government. A quick look at differing governmental roles in existing programs illustrates that it is typical for a given program to have separate and distinct roles for Federal, State, Tribal, and/or local governments. For example, in one of the most federally-oriented air pollution control programs, the Acid Rain Trading Program, State and local governments have the authority to inspect power plants to determine whether they are in compliance with monitoring requirements. On the other hand, economic development and land use decisions are typically left to local, Tribal, and State governments, but the Federal Government may provide grants or other incentives to encourage smart growth development.

Addressing climate change will require employing a variety of tools. The primary tool at the Federal level will be a national, economy-wide cap-and-trade program that reduces greenhouse gas emissions by 60 to 80 percent by 2050. Other tools that could be used include appliance efficiency standards, building codes, land use decisions, performance standards, public transit, and incentives to increase efficiency. Some tools will be more effective and appropriate in the hands of State, Tribal, or local governments; others will work better in Federal hands.

A comprehensive, national approach to climate change will require a melding of different governmental roles and tools. Given the breadth of actions that will be necessary to reduce greenhouse gas emissions and to adapt to climate change, Federal, State, Tribal, and local governments will need to play a variety of roles.

This White Paper is intended to explore the key factors that the Committee will need to consider and balance as it constructs a national greenhouse gas control program and seeks to rationalize the roles of different levels of government. These factors include:

- the global effect of greenhouse gas emissions;
- the effect on the level and cost of national greenhouse gas reductions;
- the efficient use of government and societal resources;
- the benefit of States, Tribes, and localities as laboratories;
- differing local circumstances;
- the burden on interstate commerce;
- imposition of costs on other States; and
- stakeholder needs.

Background

State and Local Climate Change Programs

In 2006, California became the first State in the nation to establish an economy-wide cap on its greenhouse gas emissions by enacting AB 32, the Global Warming Solutions Act.³ This requires California to reduce its greenhouse gas emissions to 25 percent of 1990 levels by 2020 and 80 percent by 2050 through a combination of regulations and market mechanisms.

Sixteen States have since adopted overarching greenhouse gas emission reduction targets (six of them codified).⁴ Nearly 800 mayors in communities representing more than 77 million Americans from all 50 States have signed the U.S. Conference of Mayors Climate Protection Agreement, whereby they agree to reduce community-wide greenhouse gas emissions by 2012 to at least 7 percent below 1990 levels.⁵ A report last year found that many cities will not be able to meet this goal absent complementary State and Federal policies to reduce greenhouse gas emissions.⁶ In mid-2007, a multi-state Climate Registry was launched to establish a common protocol for greenhouse gas emissions reporting due to the lack of such a protocol at the Federal level. The Registry now has 39 member States plus the District of Columbia.⁷ See Figure 1.

States are entering into regional partnerships to address climate change. One regional agreement, the Western Climate Initiative, was launched in early 2007 and established a regional greenhouse gas reduction target shared by seven States.⁸ The agreement calls for an economy-wide regional cap-and-trade program, the design of which will be publicly proposed in July 2008.⁹ The latest U.S. regional agreement to be negotiated, the Midwestern Regional Greenhouse Gas Reduction Accord, commits another six States to near- and long-term greenhouse gas reduction goals under of a multi-sector cap-and-trade system.¹⁰

³Office of the Governor of California, "Gov. Schwarzenegger Signs Landmark Legislation to Reduce Greenhouse Gas Emissions," (Sept. 27, 2006), http://climatechange.ca.gov/documents/2006-09-27_AB32_GOV_NEWS_RELEASE.PDF.

⁴Legislation with greenhouse gas targets was signed into law in Hawaii, Maine, Minnesota, New Jersey, Oregon, and Washington. Governors have set targets in Arizona, Connecticut, Florida, Illinois, Massachusetts, New Hampshire, New Mexico, New York, Rhode Island, and Vermont. Source: Pew Center State Action Maps (accessed February 11, 2008), http://www.pewclimate.org/what_s_being_done/in_the_states/state_action_maps.cfm.

⁵US Conference of Mayors, "List of Participating Mayors" (accessed February 4, 2008), <http://usmayors.org/climateprotection/list.asp>.

⁶Institute for Local Self-Reliance, "Lessons from the Pioneers: Tackling Global Warming at the Local Level" (Jan. 2007), p. 3, <http://www.newrules.org/de/pioneers.pdf>.

⁷The Climate Registry (accessed February 11, 2008), <http://www.theclimateregistry.org/>.

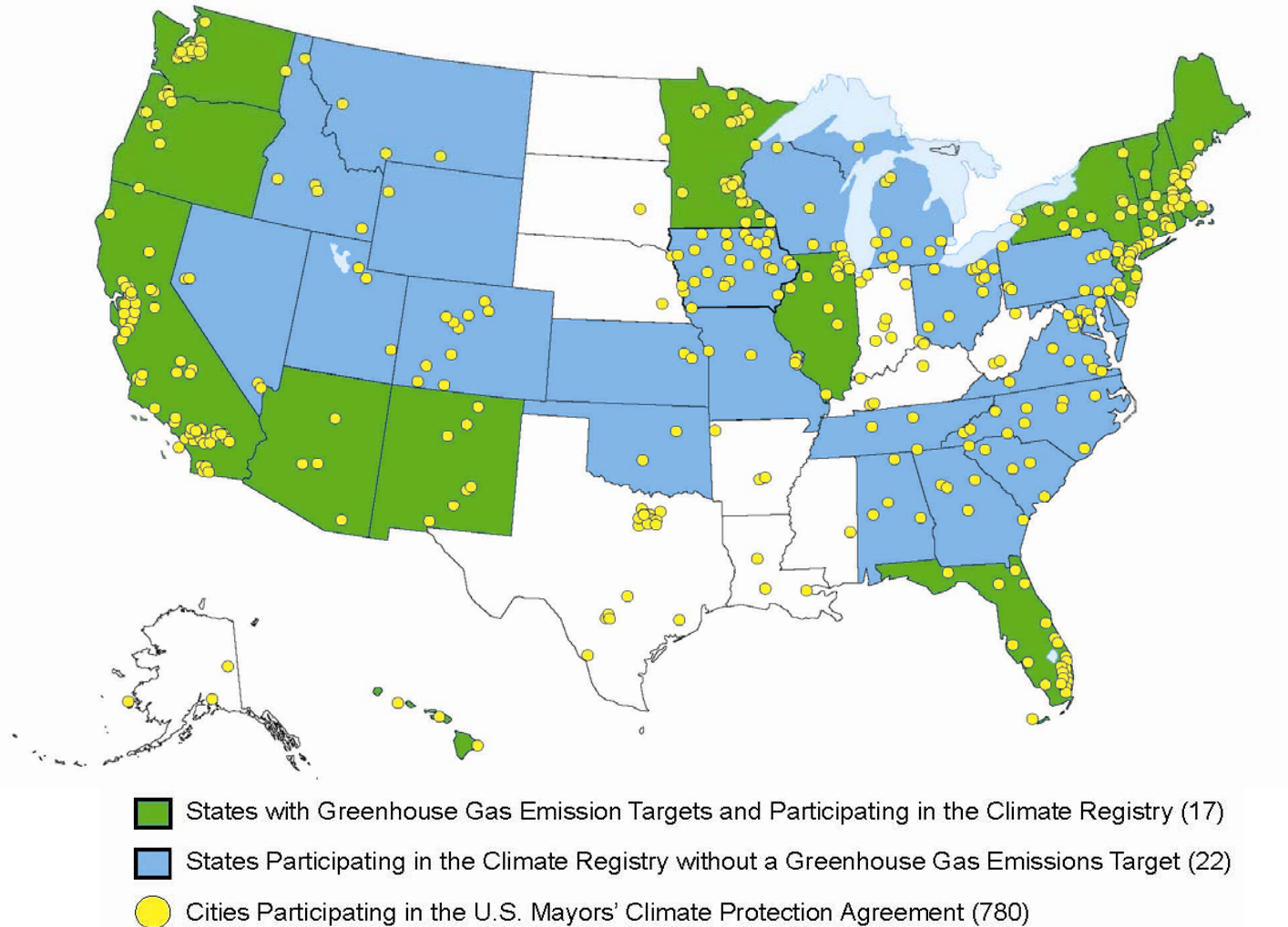
⁸The States fully participating are Arizona, California, Montana, New Mexico, Oregon, Utah, and Washington. The Western Climate Initiative (accessed February 11, 2008), <http://www.westernclimateinitiative.org/Index.cfm>.

⁹A WCI workgroup for the electricity sector recently released an options paper for a stakeholder conference in January 2008 focused largely on selecting the point of regulation. WCI Electricity Subcommittee Options Paper (January 2, 2007), <http://www.westernclimateinitiative.org/ewebeditpro/items/O104F14577.PDF>.

¹⁰States fully participating include Illinois, Iowa, Kansas, Michigan, Minnesota, and Wisconsin. Office of the Governor of Wisconsin, "Ten Midwestern Leaders Sign Greenhouse Gas Accord" (November 15, 2007), http://www.wisgov.state.wi.us/journal_media_detail.asp?locid=19&prid=3027. The agreement calls for a 30-month implementation timeframe with the formulation of greenhouse gas reduction targets to be announced later this year. Midwestern Greenhouse Gas Reduction Accord (accessed February 11, 2008), <http://www.wisgov.state.wi.us/docview.asp?docid=12497>.

Figure 1¹¹

State and Local Participation in Selected Climate Change Initiatives



¹¹ Information in this figure was taken from the Climate Registry, the Pew Center on Climate Change, and the US Conference of Mayors.

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In developing these regional agreements, as well as some cap-and-trade proposals within individual States,¹⁵ there is recognition of the limits to the geographical and economic coverage of these market-based systems. Original agreement language and/or market advisory reports have repeatedly emphasized the need to address emissions leakage (migration of emissions activity outside regulated boundaries) and the potential for greater cost effectiveness of reductions in a larger system.¹⁶

Many State and local initiatives target the largest greenhouse gas emitting sector, electricity generation. Ten Northeastern and Mid-Atlantic States have joined the Regional Greenhouse Gas Initiative (RGGI), which was formed in 2003 to establish a power-sector emissions trading program.¹⁷ The first RGGI three-year compliance period begins in 2009, with an initial public auctioning of allowances scheduled for June 2008. Implementing regulations and legislation are still pending, but informal accounting of commitments made by officials in the RGGI States indicates that a majority are planning to auction 100 percent of CO₂ allowances.¹⁸

¹²The States fully participating are Arizona, California, Montana, New Mexico, Oregon, Utah, and Washington. The Western Climate Initiative (accessed February 11, 2008), <http://www.westernclimateinitiative.org/Index.cfm>.

¹³ A WCI workgroup for the electricity sector recently released an options paper for a stakeholder conference in January 2008 focused largely on selecting the point of regulation. WCI Electricity Subcommittee Options Paper (January 2, 2007), <http://www.westernclimateinitiative.org/ewebeditpro/items/O104F14577.PDF>.

¹⁴ States fully participating include Illinois, Iowa, Kansas, Michigan, Minnesota, and Wisconsin. Office of the Governor of Wisconsin, "Ten Midwestern Leaders Sign Greenhouse Gas Accord" (November 15, 2007), http://www.wisgov.state.wi.us/journal_media_detail.asp?locid=19&prid=3027. The agreement calls for a 30-month implementation timeframe with the formulation of greenhouse gas reduction targets to be announced later this year. Midwestern Greenhouse Gas Reduction Accord (accessed February 11, 2008), <http://www.wisgov.state.wi.us/docview.asp?docid=12497>.

¹⁵ Florida was recently advised by its Governor's Action Team on Energy and Climate Change that a cap-and-trade system would be "a vital component" to meet the Governor's cap on utility emissions and overall greenhouse gas emission reduction goals. Florida Department of Environmental Protection, "Straw Findings and Recommendations" (October 5, 2007), p. 5, http://www.dep.state.fl.us/ClimateChange/team/file/2007_1005_adams.pdf.

¹⁶ See, e.g., Market Advisory Committee to the California Air Resources Board, "Recommendations for Designing a Greenhouse Gas Cap-and-Trade System for California" (June 30, 2007), p. 52, http://www.climatechange.ca.gov/documents/2007-06-29_MAC_FINAL_REPORT.PDF.

¹⁷ States participating in the cap-and-trade market include Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island, and Vermont. The Regional Greenhouse Gas Initiative (accessed February 11, 2008), <http://www.rggi.org/>.

¹⁸ Conversation with Dallas Burtraw at Resources for the Future.

In 2002, California enacted the Nation's first greenhouse gas emission performance standard for power generation (SB 1368), which operates as a prerequisite for entering into long-term contracts to sell power within the State.¹⁹ Other States face rising public demand to account for greenhouse gas emissions in power plant permitting, and in October 2007, Kansas became the first State to deny a coal-fired power plant construction permit based on the threat to public health and the environment from greenhouse gas emissions.²⁰

Many other State and local initiatives that should have the co-benefit of reducing greenhouse gas emissions from the electricity sector were adopted for other reasons, including energy security, consumer protection, air quality benefits, or to attract capital investment in clean energy technologies. For example, 26 States plus the District of Columbia have established mandatory renewable electricity standards, and 34 States (plus D.C.) have implemented net metering policies (encouraging distributed generation by allowing utility customers with on-site renewable energy sources to sell power back to the grid).²¹

State and local governments also have programs to improve energy efficiency of power supply and end use. Fourteen States have set energy efficiency standards for utilities.²² In 1978, California debuted a mechanism to decouple natural gas sales from utility revenue calculations in regulatory ratemaking; this approach was extended to electricity regulation in 1982. California's Public Utility Commission credits the decoupling policy with making California the nation's most energy efficient State.²³ At least nine other States have implemented or are considering similar policies.²⁴ States may also set efficiency standards for appliances that have no existing Federal standard, which 11 States have done.²⁵

State and local governments can reduce greenhouse gas emissions by reducing the carbon footprint of their buildings and operations (including schools, hospitals, sewage treatment plants, municipal landfills, airports, bus fleets and terminals, street lighting and stop lights). For example, King County, Washington, recently announced plans to purchase 500 new hybrid buses over the next 5 years as part of its effort to convert the County's entire transit and vehicle fleet to low-emission vehicles.²⁶ One report found that State and local agencies collectively account for more than 75 percent of American government purchasing, and they could reap more than \$1 billion in savings through energy efficient procurement.²⁷ The Federal Government is required to purchase energy-efficient products certified by either the ENERGY STAR label or the Federal

¹⁹ California Energy Commission, "SB 1368 Emission Performance Standards" (accessed February 11, 2008), http://www.energy.ca.gov/emission_standards/index.html.

²⁰ The Washington Post, "Power Plant Rejected Over Carbon Dioxide For First Time" (October 19, 2007), <http://www.washingtonpost.com/wp-dyn/content/article/2007/10/18/AR2007101802452.html>.

²¹ Pew Center *opera cit.*

²² *Ibid.*

²³ California Public Utility Commission, "California's Decoupling Policy" (accessed February 11, 2008), <http://www.cpuc.ca.gov/cleanenergy/design/docs/Decouplinglowres.pdf>.

²⁴ Regulatory Assistance Project, "Barriers and Incentives: Enabling Energy Efficiency" (October 29, 2007), p. 62, <http://www.raponline.org/Feature.asp?select=78&Submit1=Submit>.

²⁵ Pew Center *opera cit.*

²⁶ Climate Communities, "Climate Action from the Ground Up: Agenda for Federal Action" (accessed February 14, 2008), p. 2, <http://www.climatecommunities.us/pdf/ccFederalActionAgenda.pdf>.

²⁷ Alliance to Save Energy, "US Experience with Energy-Efficient Procurement at the State and Local Levels" (July 13-14, 2007), p. 5, <http://www.asiapacificpartnership.org/BATFEnergyefficiencyworkshop.htm>.

Energy Management Program (FEMP); more than 15 States and 6 major cities serving over 40 percent of the U.S. population have adopted these same procurement practices.²⁸

State and local governments also are using incentives to help their citizens reduce their carbon footprint. For example, Nassau County, New York, recently launched its “Green Levittown” initiative, a public-private partnership to reduce carbon emissions from Levittown homes by 20 percent in 2008 by helping residents conduct home energy audits, replace old boilers, and make other home energy savings improvements.²⁹ Arlington County, Virginia, is encouraging energy audits and energy efficiency improvements by its County residents and commercial buildings.³⁰ Some States and local governments also provide tax or other incentives for hybrid cars.

State governments have also adopted or are exploring regulatory programs to reduce greenhouse gas emissions from the transportation sector. In January 2007, California issued an executive order requiring its agencies to establish a low carbon fuel standard as the nation’s first performance standard for greenhouse gas emissions from fuels.³¹ Final promulgation of the standard is expected in December 2008. California has also attempted to regulate motor vehicle greenhouse gas emissions, and 16 additional States have moved to adopt California’s standards.³² At present, States cannot enforce these standards, however, because the Environmental Protection Agency (EPA) has announced it will deny California’s petition for a waiver of preemption.³³

State and/or local governments can also significantly affect greenhouse gas emissions through land use and transportation decisions. Much of the transportation network is managed by State and local governments, including the provision of public transit services, bicycle lanes, and pedestrian pathways to encourage more energy efficient travel. Transportation emissions are highly correlated with vehicle miles traveled (VMT), a parameter that State and local governments are particularly well-positioned to affect. Smart land use planning can reduce VMT while raising property values and the attractiveness of communities. For example, the city of Portland, Oregon, included in its greenhouse gas emission reduction strategy a target of reducing per-capita VMT 10 percent below 1995 levels by 2010, through a series of improved public transit and compact development zoning proposals.³⁴ Studies of other American metropolitan areas report the potential for 3 percent to as much as 25 percent reductions in VMT if State and local governments adopt smart growth planning strategies.³⁵ While greenhouse gas emission reductions may be a motivating factor, the attendant improvements in local and regional air quality are usually of substantial economic importance as well.

²⁸Ibid p. 12.

²⁹Climate Communities *opera cit.*

³⁰Ibid.

³¹California Energy Commission, “The Low Carbon Fuel Standard” (accessed February 11, 2008), http://www.energy.ca.gov/low_carbon_fuel_standard/.

³²Pew Center *opera cit.*

³³Letter from EPA Administrator Johnson to California Governor Schwarzenegger (December 19, 2007), <http://www.epa.gov/otaq/climate/20071219-slj.pdf>.

³⁴Center for Clean Air Policy, “Transportation Emissions Guidebook” (accessed February 11, 2008), p. 86, http://www.ccap.org/safe/guidebook/guide_complete.html.

³⁵Ibid p. 83.

The Clean Air Act: Mixed Governmental Roles

The Clean Air Act is one environmental statute that assigns different roles in different parts of the program to Federal, State, Tribal, and local governments.³⁶ This demonstrates some of the options available for different divisions of responsibility among governmental levels for standard setting, implementation, and enforcement. These options should help inform the Committee as it designs an approach for climate change.

The cornerstone of the Clean Air Act is the program for setting and meeting national ambient air quality standards (NAAQS) for the most widespread types of air pollution. That program uses a “cooperative federalism” approach to bring air pollution (such as smog and soot) down to a level that protects public health with an adequate margin of safety. EPA sets health-based ambient air quality standards after an exhaustive review of the available science, and States have primary responsibility for attaining those standards. Each State generally has the obligation to decide which sources to regulate and the extent to which each will be regulated so that air quality in the State meets the national health-based standard, although EPA sets minimum emission limits for some pollution sources and minimum requirements for State programs.

Generally, the Clean Air Act requires EPA to establish national emission limits for the most significant national stationary sources of air pollution. For many stationary sources (e.g., industrial facilities), EPA sets performance requirements.³⁷ The Clean Air Act, however, clearly states that nothing in the Act shall preclude or deny the right of any State or political subdivision to set more stringent requirements.³⁸ By regulating sources within their borders, States can provide their citizens with additional local public health or environmental protection, spur technology development, or try to move the country towards more stringent standards. Some States have adopted regulations more stringent than Federal law, but other States have laws that prevent the State environmental agency from adopting regulations that are more stringent than the Federal requirements.³⁹

³⁶The discussion in this section highlights some key aspects of the Clean Air Act, but it is not a comprehensive review.

³⁷For example, section 111 of the Clean Air Act authorizes EPA to set New Source Performance Standards (NSPS), intended to drive cost-effective adoption of the best available air pollution control technologies in newly constructed sources. Section 112 of the Act also requires EPA to set Maximum Achievable Control Technology (MACT) standards for affected sources to limit emissions of hazardous air pollutants through tailored industry-specific control measures.

³⁸Clean Air Act Sec. 116.

³⁹Possibly the most restrictive, Pennsylvania’s “Regulatory Basics Initiative” requires amendment of any State regulation to be no more stringent than its Federal counterpart. State Environmental Resource Center, “‘No More Stringent’ Laws” (March 26, 2004), <http://www.serconline.org/noMoreStringent.html>. A 2002 survey of State agencies reported that 26 States were partially or wholly precluded, due to State laws or policies, from setting stricter standards related to the Clean Air Act. Only 14 States reported adopting more stringent standards at a rate higher than “infrequently.” STAPPA-ALAPCO, “Restrictions on the Stringency of State and Local Air Quality Programs” (December 17, 2002), pp. 1-2, <http://www.4cleanair.org/stringency-report.pdf>.

Responsibility for enforcement of Clean Air Act controls on stationary sources is generally shared by EPA and State, Tribal, or local governments. State, Tribal, and local governments are usually the primary regulatory contacts for the majority of regulated stationary sources. Requirements in State implementation plans for meeting national air quality standards are enforced primarily by the State or political jurisdiction responsible for the plan. States also implement the Clean Air Act's permitting programs, so States take the lead in issuing construction and operating permits and enforcing the requirements in those permits. EPA may also enforce requirements in State plans and permits after providing notice to the relevant State.

The Clean Air Act does not allow a State to regulate stationary sources outside its borders even if the emissions from those sources cause environmental or public health problems in that State. To achieve that result, Federal intervention is required. EPA can regulate those sources (or require regulation by the sources' home State) if EPA determines that those sources are significantly contributing to the State's violation of Federal air quality standards.⁴⁰

Environmental problems caused by emissions in other States led to Congressional adoption of the Acid Rain Trading Program, which controlled power plants emissions that were causing acid rain many miles downwind. For the Acid Rain Trading Program, Congress set the cap level in the 1990 Clean Air Act Amendments. EPA both implements and enforces the program, although States have authority to enforce the monitoring requirements. When the Acid Rain program was added in 1990, it was layered on top of the existing air pollution structure described above. This structure was important because the pollutants that cause acid rain also cause air pollution that contributes to local and regional public health problems. Each State has the right to impose more stringent requirements on power plants within its borders. The more stringent requirements can be specific performance standards that apply to the plants or a requirement to turn in more than one allowance per ton emitted. A State cannot, however, impose more stringent requirements on plants outside of its borders or interfere with the free trade of allowances.⁴¹

The Clean Air Act took a different approach on mobile sources, where there are greater concerns about burdens on interstate commerce. The Clean Air Act requires EPA to set standards for new motor vehicles and prohibits States and political subdivisions from adopting more stringent standards except in limited circumstances. In recognition of its early role in regulating vehicle emissions to address that State's serious and unique local air pollution problems, the Act allows California to adopt and enforce more stringent standards for new motor vehicles if it obtains approval from EPA.⁴² Other States may adopt and enforce California's standards, but cannot adopt different standards.⁴³ The Clean Air Act follows the same basic approach for most new and used nonroad vehicles and engines.⁴⁴

⁴⁰Clean Air Act Secs. 110(a)(2)(D) and 126. EPA used this authority when it issued the Clean Air Interstate Rule (CAIR) to limit regional sulfur dioxide (SO₂) and nitrogen oxide (NO_x) emissions to help States meet the ozone and fine particle standards. *Federal Register*, "Clean Air Interstate Rule," Vol. 70, No. 91 (May 12, 2005), pp. 25161-25405.

⁴¹*Clean Air Markets Group v. Pataki*, 338 F.3d 82 (2d Cir. 2003).

⁴²Clean Air Act Sec. 209.

⁴³Clean Air Act Secs. 177 and 209.

⁴⁴Clean Air Act Sec. 213 and 209(e).

Under the Act, States and political subdivisions are prohibited from adopting or enforcing emission standards for aircraft, engines below 175 horsepower for farm and construction equipment, and new locomotives unless the standards are identical to the Federal standards.⁴⁵

The Act also limits States' ability to regulate transportation fuel (i.e., fuel used by highway and nonroad vehicles and engines). EPA sets standards for transportation fuel to control emissions from the use of the fuel. Except for California, States and political subdivisions are prohibited from setting or enforcing standards for fuel components or characteristics for the purpose of motor vehicle emission control if (1) EPA has determined that no control of that component or characteristic is necessary under the Act or (2) EPA has regulated that component or characteristic.⁴⁶ Until 2005, a State could avoid that prohibition only if EPA determined that State regulation was necessary for that State to attain the health-based air quality standards. Due to concern about "boutique fuels," State authority was limited further in the Energy Policy Act of 2005. It amended the Clean Air Act by limiting the number of different State fuels to those previously approved by EPA.⁴⁷

In recognition of the States' role in achieving our national air quality goals, EPA provides grant money to States to help them run State air programs. Starting with fiscal year 2007, the President's Budget Request has proposed a \$30 million (15 percent) decrease in funding from 2006 levels. In recognition of the important role played by State and local air quality agencies in meeting our air quality goals, the Committee and Subcommittee Chairmen and other Members of this Committee have opposed the decrease in funding.⁴⁸

The 1990 Clean Air Act Amendments added a new program to address the global problem of protecting the stratospheric ozone layer from depletion by the release of chemical substances. This program was designed to meet our obligations under the Montreal Protocol. The stratospheric ozone program is a comprehensive, entirely Federal program governing the production, importation, consumption, exportation, disposal, and labeling of ozone-depleting substances.

Rationalizing Governmental Roles

Meeting the challenge posed by climate change will require the involvement of all levels of government. As the Committee designs a comprehensive, national climate change program, it will need to address the questions of what roles are best played by each level of government and how these roles should be reflected in Federal climate change legislation. For different parts of the program, different roles will be appropriate. This Paper is designed to help frame future

⁴⁵Clean Air Act Secs. 209(e) and 233.

⁴⁶Clean Air Act Sec. 211 (c) (4) (A). California is not prohibited from adopting fuel or fuel additive regulations. Clean Air Act Sec. 211(c)(4)(B). States may regulate for other purposes, as some have by adopting ethanol or biofuels mandates for purposes of improving local economies or energy security.

⁴⁷Clean Air Act Sec. 211(c)(4)(C)(v). This largely limits State fuels to those already approved by EPA.

⁴⁸See, e.g., letter from Committee on Energy and Commerce Chairman Dingell and Vice Chair DeGette; Subcommittee Chairmen Boucher and Wynn; and Vice Chairs Butterfield and Solis to Appropriations Chairman Obey and Subcommittee Chairman Dicks (May 2, 2007), p. 2. Also see letter from then-Ranking Member Dingell and 61 other Members of the House to Appropriations Subcommittee Chairman Taylor and Ranking Member Dicks (April 28, 2006).

deliberations and dialogue by discussing some of the key factors that should be considered and balanced as the Committee moves forward.

Rationalizing governmental roles requires an examination of which level of government is best suited for each role so that we can efficiently achieve the national goal of reducing greenhouse gas emissions by 60 to 80 percent by 2050. This is a broader question than just whether, or under what circumstances, it is appropriate for States, Tribes, or localities to set their own standards apart from the Federal program. Some bills introduced in Congress would allow State, Tribal, and local governments to adopt controls more stringent than the national requirements. A number of factors should be considered in determining whether that is the right approach. One key distinction between climate change and most other environmental problems is that climate change is a global, not local, problem, perhaps providing less need for allowing States to be more stringent. More stringent State programs might unduly burden interstate commerce or increase the governmental or societal resources needed to achieve the necessary reductions. Different States or regions of the country might also have different interests that should be balanced at a national level. On the other hand, more stringent State programs could achieve additional levels of reductions, spur technology development, test new programs, or reduce the cost of achieving the level of national reductions sufficient to stabilize global atmospheric greenhouse gas concentrations.

Careful attention will need to be paid to the interaction between potential State, Tribal, and/or local programs and the use of a national, economy-wide cap-and-trade program as the cornerstone of our climate change approach. Under most environmental programs, a more stringent State program provides additional environmental or public health protection. With a national cap-and-trade program, though, a more stringent State program may just shift the location of, rather than decrease, national emissions because the sources subject to the more stringent State program will need fewer allowances (thus freeing up allowances for sources in other States). Unlike most air pollutants, local greenhouse gas reductions alone will not help the local area given that climate change is caused by global, rather than local, concentrations of greenhouse gases. Consideration also needs to be given to how State programs would affect the cost of reducing greenhouse gas emissions and on who would bear that cost. Some of these issues are touched upon later in this White Paper, but will need further exploration.

Please note that the sections below discuss each factor separately and provide examples of how that factor might apply to a particular part of a comprehensive national climate change program. This White Paper is intended to provide insight into important considerations for determining appropriate governmental roles. It is not a comprehensive discussion of how all of these factors would apply to any particular aspect of the climate change program, nor does it address how the Committee should balance these different factors. To the extent that specific programs are discussed, the purpose of this Paper is to help the reader understand how a specific factor might apply.

The Global Effect of Greenhouse Gas Emissions

One key factor that distinguishes climate change from other pollution problems our country has tackled is that *local* greenhouse gas emissions do not cause *local* environmental or health problems, except to the extent that the emissions contribute to *global* atmospheric concentrations. This characteristic of greenhouse gases stands in contrast to most pollution problems, where emissions adversely affect people locally where the emissions occur. The global nature of climate change takes away (or at least greatly minimizes) one of the primary reasons many national environmental programs have provisions preserving State authority to adopt and enforce environmental programs that are more stringent than Federal programs: States have a responsibility to protect their own citizens. This reality does not, however, lead to the conclusion that States, Tribes, or localities should not do anything to address climate change. As discussed elsewhere in this White Paper, there are other reasons why it is essential that State, Tribal, and local governments participate in combating climate change.

Effect on the Level and Cost of National Greenhouse Gas Emissions

The effect of State, Tribal, or local programs on the level of national greenhouse gas emissions and the cost of reductions are factors to consider in rationalizing governmental roles.⁴⁹ The use of a national, economy-wide cap-and-trade program as the cornerstone of our country's approach to climate change requires careful consideration of the effect of State, Tribal, or local programs on both national emissions and cost. With most Federal environmental programs, more stringent local programs reduce national emissions. That result is not necessarily achieved with a Federal cap-and-trade program. State, Tribal, and local programs may either decrease or not change national greenhouse gas emissions, and either increase, not change, or decrease the cost of achieving reductions. The effect will depend on several design elements of both the Federal cap-and-trade program (including its scope and whether it has a hard or soft cap) and the State, Tribal, or local program.

Therefore, questions that should be asked are:

- In the presence of a national cap-and-trade greenhouse gas program and other Federal requirements, will a particular State, Tribal, or local program reduce national greenhouse gas emissions?
- In the presence of a national cap-and-trade greenhouse gas program and other Federal requirements, how will a particular State, Tribal, or local program affect costs and who bears the costs?

To help explain how different programs might affect national emissions and allowance prices, this section reviews several hypothetical scenarios. The scenarios are not meant to be exhaustive, but rather are illustrative of the careful analysis required to determine the effect of State, Tribal, and local programs.

⁴⁹These considerations should also be factors in determining what Federal programs are needed in addition to a cap-and-trade program.

Figure 2 and the accompanying table show several hypothetical scenarios as a way of demonstrating how different types of State, Tribal, and local programs might affect the national level of greenhouse gas emissions and the cost of reducing emissions, assuming that the Federal cap-and-trade program had a hard cap on emissions.⁵⁰

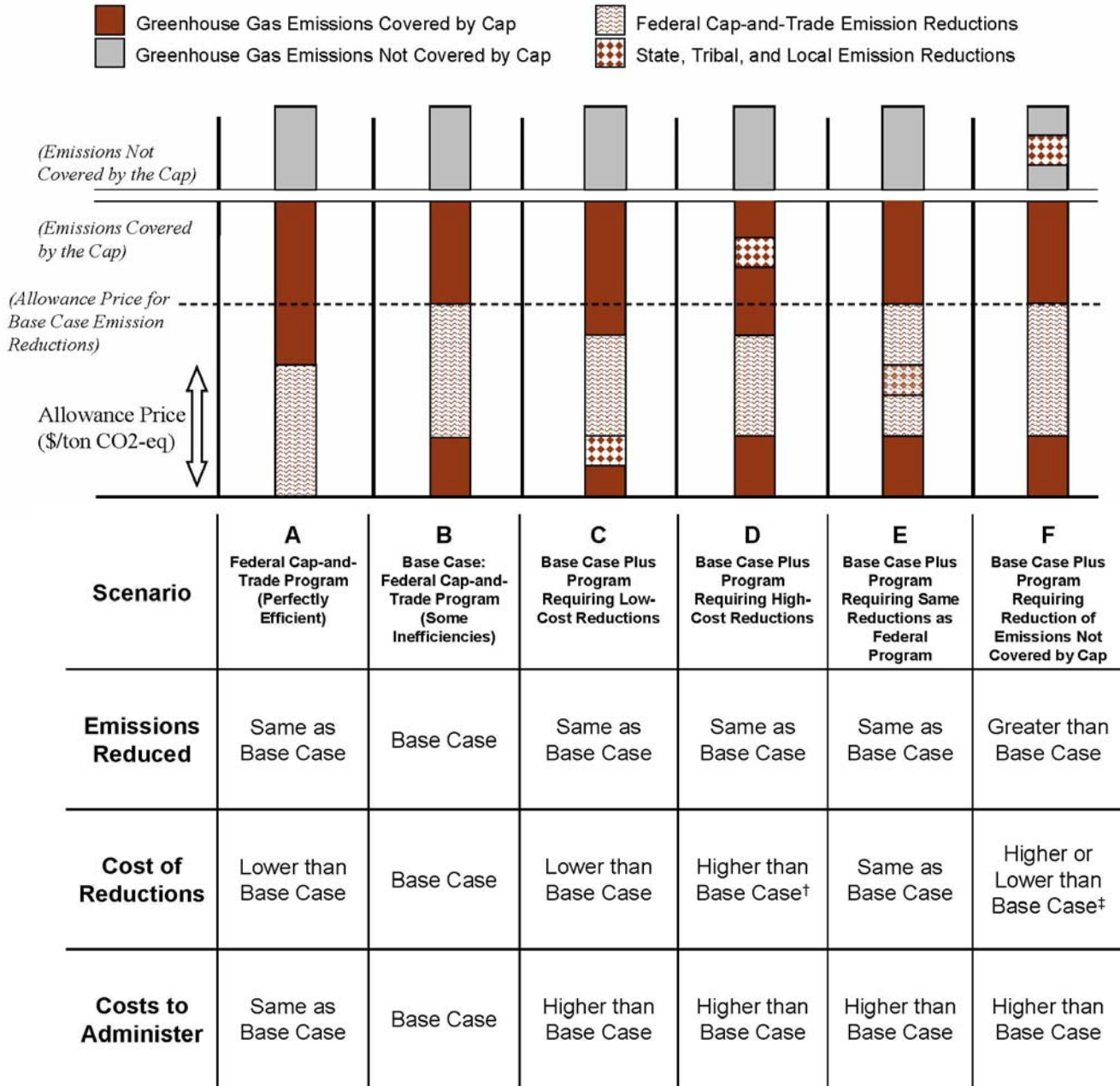
- Case A (Fig. 2) shows a hypothetical Federal cap-and-trade program that is perfectly efficient and, thus, achieves all the most cost-effective reductions.
- Case B (Fig. 2), the Base Case, shows a hypothetical Federal cap-and-trade program that is more realistic and assumes that some of the cheapest reductions do not happen due to imperfections in the market.
 - The reductions reflected in Cases A and B are identical, but the cost of Case B is higher because of the inefficiencies in the market.
- Case C (Fig. 2) takes the Base Case, and adds a State, Tribal, or local program that corrects for some market inefficiencies and picks up low cost reductions that were missed by the Base Case. Local building codes might have this effect.
 - Case C achieves the same reductions as the Base Case, but at a lower private sector cost (although probably with increased governmental costs to run the State, Tribal, or local program).
- Case D (Fig. 2) takes the Base Case, and adds a State, Tribal, or local program that requires some reductions that are more expensive than the reductions that would otherwise occur under the Federal cap-and-trade program. State tailpipe vehicle regulations might have this effect.
 - Case D achieves the same reductions as the Base Case, but at a higher private sector cost (and probably with increased governmental costs to run the State, Tribal, or local program).
- Case E (Fig. 2) takes the Base Case, and adds a State, Tribal, or local program that requires reductions that would occur anyway under the Federal program. This might be the case for a State cap-and-trade program covering a subset of the entities covered by the Federal program.
 - Case E achieves the same reductions as the Base Case with the same private sector costs (although there may be increased transaction costs for the private sector and increased governmental costs).
- Case F (Fig. 2) takes the Base Case, and adds a State, Tribal, or local program that requires reduction of emissions that are outside the cap.⁵¹
 - Case F achieves greater reductions than the Base Case. The costs could go up or down depending on whether the required emission reductions had a negative or positive cost.

⁵⁰For purposes of the initial discussion of the effect of different programs, it is assumed that States do not retire allowances equal to the reductions achieved by the program.

⁵¹This assumes that the reductions outside the cap are not used as offsets in the cap-and-trade program.

Figure 2 Possible Effects of State, Tribal, and Local Programs on Cost and Level of Emission Reductions (Hard Cap)

Assuming there is a Federal cap-and-trade program with a hard cap, this figure illustrates the possible effects of hypothetical State, Tribal, and local programs on the cost and level of greenhouse gas emission reductions.



[†] Although total cost of meeting the cap has increased, the price of traded allowances has decreased.

[‡] Unchanged cap-and-trade compliance cost; Cost of uncapped emission reduction could be negative or positive.

In summary, if there is a hard Federal cap on greenhouse gas emissions, a State, Tribal, or local program lowering emissions from a sector or locality covered by the cap generally frees up allowances that can be used by someone in another sector or locality. As a result, the State, Tribal, or local program will not decrease national emissions and its effect on cost and allowance prices will depend on the program. In contrast, a State, Tribal, or local program lowering emissions from a sector completely outside the cap will decrease national emissions.

It has been suggested that States that adopt greenhouse gas programs (for emissions covered by the cap) should be able to retire allowances equal to a program's expected reductions.⁵² This is based on the theory that States should have the option of reducing national emissions (by retiring allowances) if they want to adopt a program more stringent than the Federal program, although this raises the question of what it means for a program to be "more stringent" if it requires reductions in emissions that are covered by the national cap.

Retiring allowances would mean that local programs would decrease national emissions. It is unclear, however, how this would affect the cost of the program, particularly for citizens of other States.

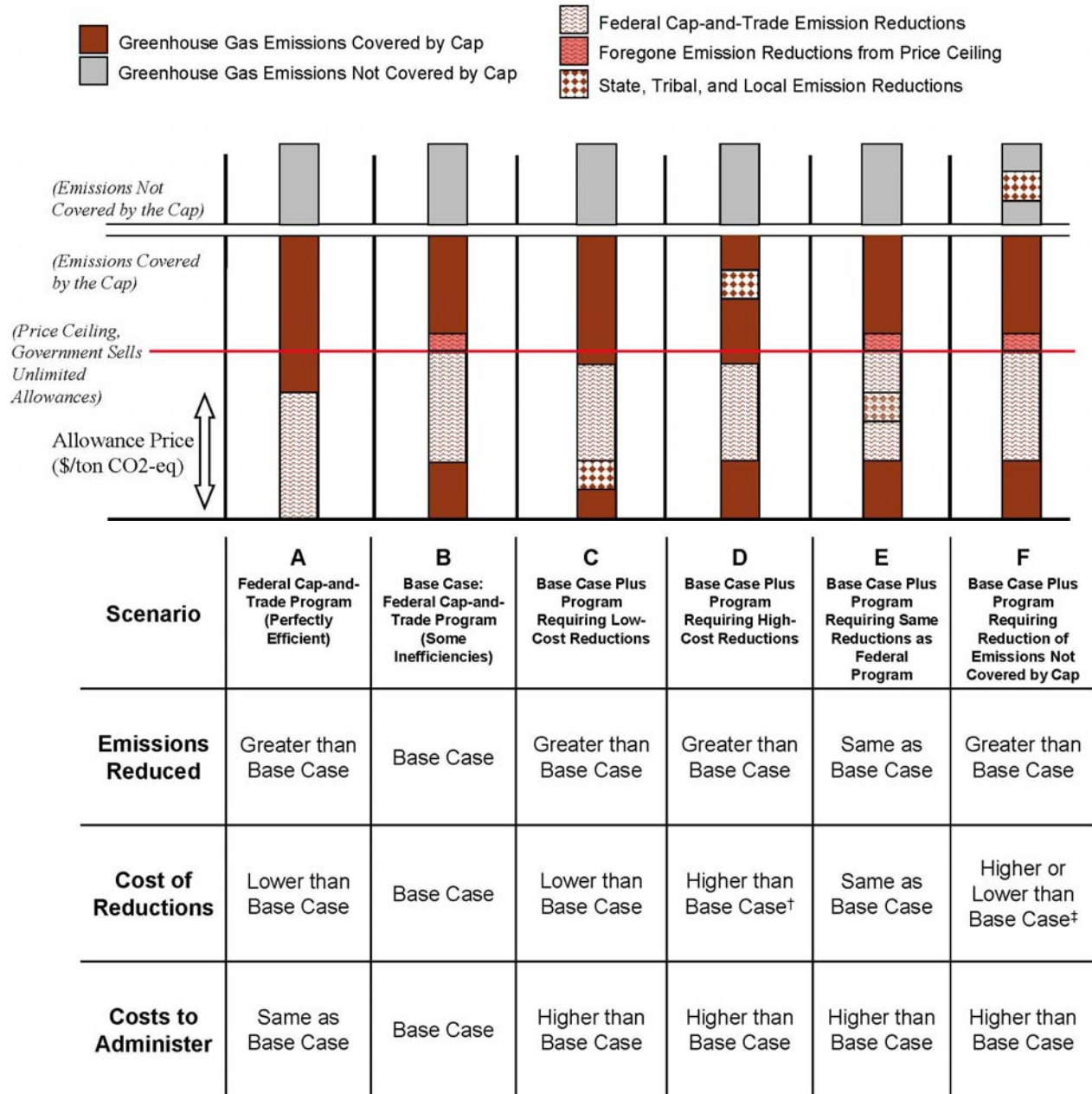
- For example, in Case E (Fig. 2), where the reductions from the State, Tribal, or local program would occur anyway under the Federal program, retiring allowances would likely increase allowance prices and compliance costs nationally (compared to the Base Case).
- In contrast, in Case C (Fig. 2), where reductions from the State, Tribal, or local program are cheaper than the reductions that would occur under the Federal program, retiring allowances would likely result in allowance prices and national compliance costs equal to the Base Case.

The previous discussion assumed that the Federal cap was a hard cap. The analysis differs (and gets more complicated), however, if one assumes Federal legislation with a soft cap. (A program would have a soft cap if it included a safety valve that required the government to sell an unlimited number of allowances when allowance prices hit a specified price.) Figure 3 and its accompanying table show several hypothetical scenarios based on this assumption.

⁵²"Retiring" allowances means that the State would take Federally-issued allowances that had not been used (or turned in to the Federal Government) and permanently take them out of circulation. Effectively, this action lowers the Federal cap. Theoretically, allowance retirements by States could be accomplished by allocating Federal allowances to States and authorizing them to retire allowances, or by authorizing States to require entities they regulate to turn in Federal allowances as part of the State program. The point of regulation in both the Federal and State program might affect whether the latter approach would be feasible and whether the State would be imposing an additional cost primarily on its own citizens or on citizens of other States. For example, if the Federal point of regulation is a stationary source that emits greenhouse gases, administrative burdens might not increase if a more stringent State program were to require that source to turn in extra allowances to the State. State allowance surrender requirements would seem to pose greater administrative burdens if the Federal point of regulation were upstream of the stationary source.

Figure 3 Possible Effects of State, Tribal, and Local Programs on Cost and Level of Emission Reductions (Cap with Safety Valve)

Assuming there is a Federal cap-and-trade program with a safety valve, this figure illustrates the possible effects of hypothetical State, Tribal, and local programs on the cost and level of greenhouse gas emission reductions.



† Although total cost of meeting the cap has increased, the price of traded allowances has decreased.

‡ Unchanged cap-and-trade compliance cost; Cost of uncapped emission reduction could be negative or positive.

- Case A (Fig. 3) shows a hypothetical Federal cap-and-trade program that is perfectly efficient and, thus, achieves all the most cost-effective reductions.
- Case B (Fig. 3), the Base Case, shows a hypothetical Federal cap-and-trade program that is more realistic and assumes both that some of the cheapest reductions do not happen due to imperfections in the market and that, as a result, the safety valve is triggered.
 - Case B (Base Case) achieves fewer emission reductions and has a higher allowance price than Case A.
- Case C (Fig. 3) takes the Base Case, and adds a State, Tribal, or local program that corrects for some market inefficiencies and picks up low cost reductions that were missed by the Base Case. Local building codes might have this effect.
 - Case C achieves greater emission reductions than the Base Case, and would have identical or lower allowance prices.
- Case D (Fig. 3) takes the Base Case, and adds a State, Tribal, or local program that requires some reductions that are more expensive than the reductions that would otherwise occur under the Federal cap-and-trade program. State tailpipe vehicle regulations might have this effect.
 - Case D achieves greater emission reductions than the Base Case, at an identical or lower allowance price.
- Case E (Fig. 3) takes the Base Case, and adds a State, Tribal, or local program that requires reductions that would occur anyway under the Federal program. This might be the case for a State cap-and-trade program covering a subset of the entities covered by the Federal program.
 - Case E achieves the same reductions as the Base Case with the same allowance prices.
- Case F (Fig. 3) takes the Base Case, and adds a State, Tribal, or local program that requires reduction of emissions that are outside the cap.⁵³
 - Case F achieves greater reductions than the Base Case at identical allowance prices.

The preceding discussion, which looked at only a select number of hypothetical scenarios, demonstrates that careful analysis will be required to determine how national emissions and allowance prices would be affected by State, Tribal, and local programs that limit greenhouse gas emissions that are covered by a national cap.

⁵³This assumes that the reductions outside the cap are not used as offsets in the cap-and-trade program.

Efficient Use of Government and Societal Resources

The challenge posed by climate change is daunting. Unfortunately, the enormity of the challenge makes it more likely that too few, rather than too many, resources will be available to meet the challenges of reducing greenhouse gases and adapting to whatever climate change is not prevented. Given the likelihood of limited resources, it is important to use both government and societal resources efficiently. In trying to rationalize governmental roles for any particular aspect of the climate change program, at least two questions should be asked:

- Does the approach increase or decrease the use of government resources needed to achieve the same level of greenhouse gas reductions?
- Does the approach increase or decrease the use of non-government resources needed to achieve the same level of greenhouse gas reductions?

Some State, Tribal, and local programs could significantly improve the efficiency of societal resources used to achieve the necessary greenhouse gas reductions. This effect is most pronounced for programs that achieve reductions that a cap-and-trade program either would not cover or would miss due to market imperfections.⁵⁴ For example, the economically rational choice may be to install better insulation in a new home because the increased purchase price of the new home would be more than offset by future decreases in electricity and heating bills (compared to the same home with standard insulation). The market may not achieve this result, however, even if the cap-and-trade program is broad enough to incorporate the price of carbon into electricity, natural gas, and heating oil provided to residential customers. Home builders may have a disincentive to put in better insulation because home buyers generally are more sensitive to a home's purchase price than to future electricity and heating bills. State, Tribal, or local building codes could capture these otherwise lost or uncovered emission reductions, and thereby decrease the societal cost of achieving greenhouse gas reductions.

Even in a national cap-and-trade program, certain partnership approaches between the Federal Government and State, Tribal, or local governments may optimize the use of government resources. A cap-and-trade program requires accurate monitoring and recordkeeping. It is probably more efficient to authorize State, Tribal, and/or local governments to inspect sources to determine compliance with national monitoring and record-keeping requirements than it would be to leave that exclusively to Federal inspectors. States currently inspect sources to determine compliance with existing air pollution and other environmental requirements (including compliance with Acid Rain Trading Program monitoring requirements). Adding a climate change program to their inspection list is probably a more efficient use of governmental resources than allowing only Federal inspectors to check compliance with those requirements.

On the other hand, once a national, economy-wide cap-and-trade program is adopted, State or regional cap-and-trade programs may interfere with the efficient functioning of the Federal cap-and-trade program and increase demands on both governmental and

⁵⁴See, e.g., Figure 2, Case C.

non-governmental resources.⁵⁵ If there are multiple programs, multiple government agencies will be expending resources on those cap-and-trade programs without necessarily achieving more greenhouse gas reductions than a single national program. With a national, economy-wide cap on emissions, a more stringent State or regional cap might shift emissions from the more stringent State to other States, without reducing national greenhouse gas emissions.⁵⁶ In this scenario, requiring regulated entities to comply with multiple cap-and-trade programs (which would likely require different compliance strategies) would likely increase the expenditure of non-governmental resources (as compared to having just one national program) without reducing greenhouse gas emissions. For example, a regulated entity might have to buy both State and Federal allowances to cover the same ton of greenhouse gas emissions. Different points of regulation or allocation methodologies between State and Federal programs would also cause complications and increase resources necessary for compliance.

If there is a hard Federal cap that includes the transportation sector, State adoption of California's vehicle greenhouse gas standards would increase private sector resources necessary to achieve that cap due to the administrative burdens associated with meeting multiple State programs. Because manufacturers would be required to ensure that the fleet they sold in each State met the fleet-wide average required under California's program, they would have additional administrative burdens to track vehicle sales and, perhaps, control the types or numbers of vehicles sold in each State. (Normally vehicle mixes vary by region, so designing a fleet to meet California's fleet average would not necessarily ensure that the fleet would meet that same average in Rhode Island or Vermont or any other State.)

The Benefit of States, Tribes, and Localities as Laboratories

For many emerging issues, State and local governments play an important role as laboratories in which to develop political consensus, design and test new programs, and spur technology development. In developing national climate change legislation, there are two different parts of this role that need to be recognized. First, States and localities have already been active in addressing climate change and the national legislation needs to be informed by their efforts. Second, in determining the appropriate roles of each level of government, the Committee should consider the benefit of States, Tribes, and localities serving as laboratories in the future as part of the national approach to climate change.

State and local governments are playing an important role in developing and demonstrating a national political consensus that this country needs mandatory measures to reduce greenhouse gas emissions. The level of activity on climate change at the State and local level is one of the key drivers for national legislation on climate change.

In designing national climate change legislation, the committee can benefit from lessons learned by State and local government efforts taken in the absence of Federal action. For example, the Congressional debate on allowance distributions has and will continue to be informed by the work done by the States in RGGI. California's Market Advisory Committee

⁵⁵Special transitional issues will be raised in the context of State cap-and-trade programs that will commence before a Federal program (e.g., RGGI is scheduled to start its first three-year compliance period in 2009).

⁵⁶See, e.g., Figure 2, Case E.

Report is an important compendium of information for designing carbon markets. California's work on a low carbon transportation fuel standard helped influence the lifecycle greenhouse gas requirements in the renewable fuel standard in last year's energy bill.

Once Federal climate change legislation is enacted and implemented, there is still a need for State, Tribal, and local governments to act as laboratories, but the nature of their role as laboratories changes. In rationalizing governmental roles, one question that should be asked is:

- For particular types of programs, would State, Tribal, or local governments be acting as laboratories and would that be beneficial?

The answer to this question may depend on the circumstances. For example, a State probably would not be acting as a laboratory for testing new policies or driving technology development if it mandated that refiners sell a certain amount of renewable transportation fuel (such as ethanol). The Federal Government already has such a mandate, and a State mandate would only affect the location of sales of renewable fuels, not the national total amount sold. A State or locality, however, might be acting as a laboratory if it enacted a requirement for E85 as part of a comprehensive plan to increase E85 use and distribution networks.

The benefit of California as a laboratory for air pollution requirements is often cited by proponents as a reason for allowing California to adopt its own motor vehicle standards. California's passenger vehicle standards for traditional air pollutants have spurred the development of better emission-control technologies that have helped reduce air pollution across the country, although EPA has traditionally led in setting heavy-duty vehicle standards.⁵⁷ California has provided a benefit as a laboratory even when its results have not been positive; California's unsuccessful electric vehicle mandate was not adopted at the Federal level.

Using California as a laboratory might play out differently for greenhouse gas emissions than it has for traditional air pollutants. At the moment, greenhouse gas emissions can be limited by fundamentally changing the characteristics of the vehicles (e.g., size, materials, performance). Unlike the situation for reducing criteria pollutants from vehicle tailpipe emissions, currently there is no aftertreatment technology to control carbon dioxide tailpipe emissions. There is enormous investment in yet-unproven technologies (e.g., plug-in hybrids, fuel cells) that may or may not prove commercially viable.

It should be noted that when other States representing a significant share of the new vehicle market adopt the California standards, those States are going beyond the role of laboratories for testing a new policy or new technology that could then be adopted nationally if it were proven effective. Rather, those States are effectively skipping the laboratory stage and going straight to setting new national standards.

⁵⁷Committee on State Practices in Setting Mobile Source Emissions Standards, National Research Council, "State and Federal Standards for Mobile-Source Emissions" (2006), pp. 3-4.

States, Tribes, and localities may also continue to serve as laboratories for developing political consensus by adopting more stringent programs in the future. Pressure would build for the Federal Government to adopt or strengthen regulations as more States, Tribes, or localities adopt more stringent, but not necessarily identical, programs.

Differing Local Circumstances

Circumstances that are relevant to good program design and that differ significantly across the country are likely to be a factor in favor of a primary or solo role for State, Tribal, or local governments, or a partnership approach with the Federal Government playing a limited role. In trying to rationalize governmental roles, one question that should be asked is:

- To what extent does the design of this component of the climate change program depend on circumstances that differ across the country?

For example, building codes should depend significantly on circumstances that differ across the country, including weather conditions and the amount of new construction. This consideration weighs in favor of State, Tribal, or local governments playing the primary role in establishing building codes. The Federal Government might have a role to play in setting minimum standards, providing information on the benefits of different building code requirements, or providing some funding,⁵⁸ but the differing local circumstances would weigh against the Federal Government having sole control over building codes.

Adaptation to the climate change we do not prevent will also be very dependent on local circumstances because different parts of the country will experience different effects. Some climate change effects pose unique challenges to specific economies and cultures within the U.S., such as the projected loss of sugar maples in the Northeast or the melting of permafrost undermining structural foundations in Alaskan communities. Other repercussions will further complicate regional management of natural resources, such as changes in the timing and amount of freshwater availability in the West due to decreasing snowpack. Even for widespread effects such as sea level rise, different areas must adapt to different challenges; the Southeast is especially prone to loss of coastal wetlands and thus increased storm surge.⁵⁹ State, Tribal, and local governments will need to play a major role in developing and implementing adaptation strategies, although the Federal Government will also have a role to play.

In contrast, monitoring and reporting of greenhouse gas emissions should not be dependent on local circumstances. In fact, a national cap-and-trade program would be undermined if monitoring standards or reporting timetables (for example) varied by State or locality. This consideration weighs in favor of a primary or sole role for the Federal Government

⁵⁸Funding might be through existing grant programs such as the Energy and Environment Block Grant (EEBG) program that was included in last year's energy bill (Energy Independence and Security Act of 2007, Section 544). The new energy law authorized \$10 billion in grants to cities, counties, and States to help address climate change at the local level. Another possibility contained in S. 2191 would be to provide allowances (or allowance revenue) to States, which will be discussed in an upcoming white paper.

⁵⁹National Assessment Synthesis Team, U.S. Global Change Research Program *Climate Change Impacts on the United States; The Potential Consequences of Climate Variability and Change: Overview Report* (2000), p. 7, <http://www.usgcrp.gov/usgcrp/Library/nationalassessment/1IntroA.pdf>.

in setting monitoring standards and reporting timetables (although State, Tribal, and local governments may be best suited to ensure compliance).

Burden on Interstate Commerce

If a patchwork of State or local programs would impose a burden on interstate commerce that causes inefficient or wasteful resource allocation, that factor would weigh in favor of the Federal Government having the exclusive or primary role for this part of a comprehensive climate change program. To rationalize governmental roles, two questions should be asked:

- For any particular component of a comprehensive climate change program, what burden, if any, would multiple State, Tribal, and local programs impose on interstate commerce?
- Are there ways to reduce such a burden?

A burden on interstate commerce is most likely to be a problem for products that are sold across State lines, such as transportation fuel. A State biofuels program that sets lifecycle greenhouse gas reductions requirements that are more stringent than the Federal requirements would likely burden interstate commerce. Fuel providers would have to make sure that a sufficient supply of State fuel was available. In case of unexpected refinery outages or distribution problems for that State, fuel providers could not easily reroute fuel from other States to cover the special State market.

In contrast, programs that focus on land use issues are unlikely to pose a significant burden on interstate commerce. Regulation of emissions from stationary sources (such as industrial facilities) within a State's jurisdiction is also unlikely to pose a significant burden on interstate commerce.

The Imposition of Burdens on Other States

In deciding whether States, Tribes, or localities should be able to adopt programs that achieve greater greenhouse gas reductions, one key factor is whether the cost or other economic burden will be borne by the State that adopts the program or by other States. Many programs will have no or minimal incidental effects outside the jurisdictions that adopt them, which would weigh in favor of States, Tribes, and localities having the option to adopt those programs. Some programs, however, may have detrimental effects on other States, such as increased costs or other economic burdens, which would be a factor weighing in favor of a sole or primary role for the Federal Government. One of the primary roles of the Federal Government is to provide a forum for resolving disputes between different States or regions of the country and balancing the competing interests at stake. One question that should be asked is:

- Is there concern that a particular program would impose a significant (or different) burden outside the State (or States) that have adopted it?

The California greenhouse gas tailpipe standards are an example of some States adopting a program that could impose a significant economic burden outside the boundaries of those States. If California and the other States that have adopted the California vehicle greenhouse gas standards were allowed to enforce those standards, they could effectively become national standards.⁶⁰ The States most dependent on domestic auto industry manufacturing have not adopted the California greenhouse gas vehicle standards (see Fig. 4), yet they could be significantly affected by those standards if the domestic auto industry's concerns are borne out.⁶¹ On the other hand, California has an interest in broadly adopted, more stringent greenhouse gas tailpipe standards. California adopted the standards in part based on its concern that it has unique climate change vulnerability due to a fragile water-supply system facing saltwater intrusion and decreasing snow pack, and that higher global temperatures will exacerbate California's ozone pollution.⁶² This difference of State interests, and the mismatch between the States setting the standards and the States risking a significant economic burden, would be a factor weighing in favor of resolving the issue at the Federal level, rather than leaving the decision to individual States.⁶³

In contrast, if a State were considering whether to require its local industry to meet a more stringent standard, the industry and its employees would have a voice in the political process leading up to the decision. Additionally, if the State is requiring its sources to make greenhouse gas reductions that are more expensive than what they would otherwise make, the State may be lowering the price of allowances nationally (and the cost of meeting the national cap) for sources in other States. In circumstances where a State decides to impose a burden on its own citizens and industry without imposing a significant burden outside the State, those circumstances would weigh in favor of a primary State role and a limited (if any) Federal role.

Stakeholder Needs

Passing national climate change legislation will require political consensus. State and local governments have already invested significant resources and political capital to develop climate change programs. The more time that elapses before enactment of Federal legislation, the less likely it is that they would agree to drop or modify their programs.⁶⁴ On the other hand, one of the main reasons industry would contribute to the consensus in support of a national program is to avoid a patchwork of State, Tribal, and local regulations.

⁶⁰Due to a decision by EPA, the States cannot yet enforce these greenhouse gas tailpipe standards. Letter from EPA Administrator Johnson, *opera cit.*.

⁶¹The domestic auto industry has expressed concern that it will be disproportionately and negatively affected by California's standards as compared to international auto companies.

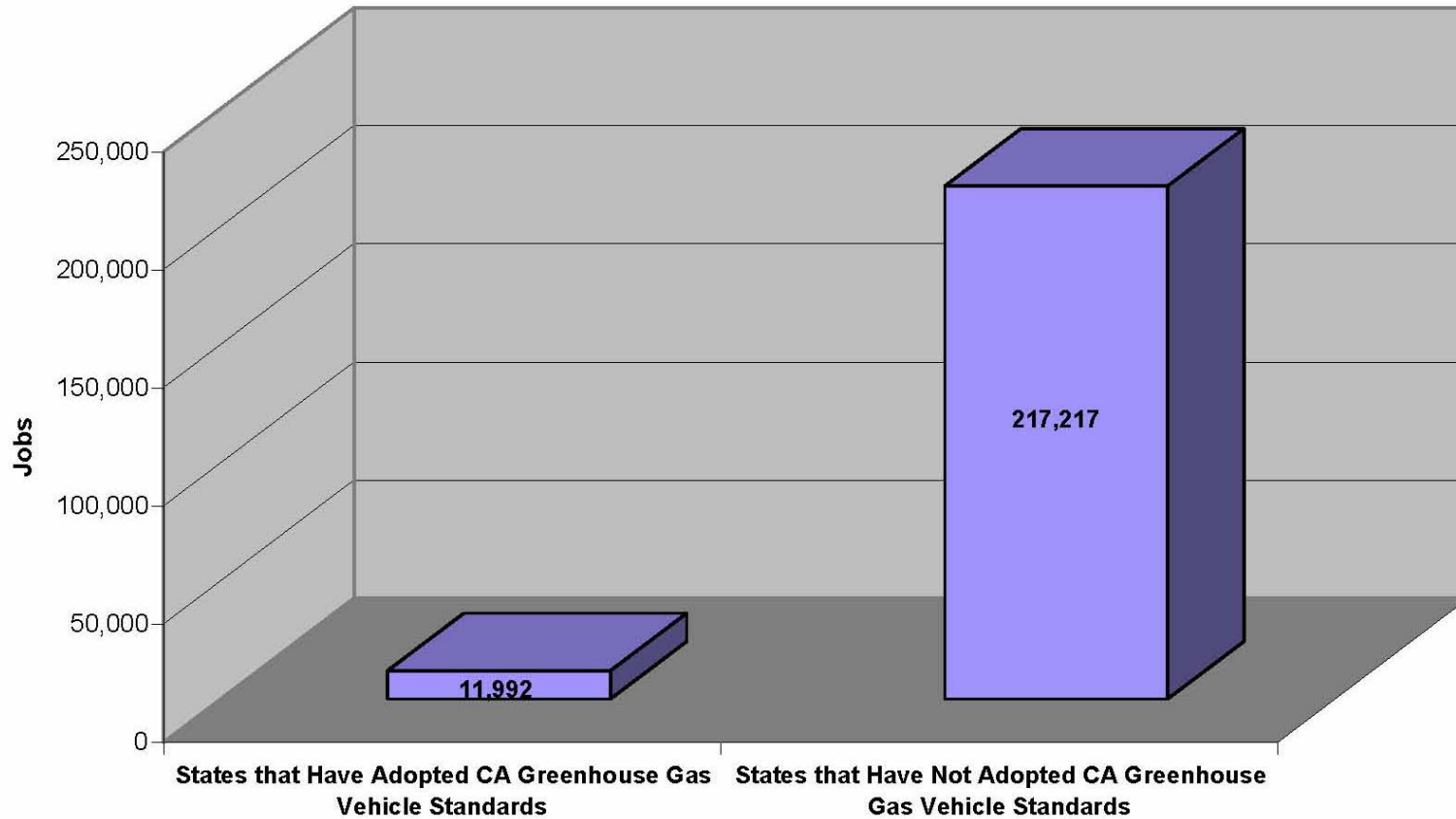
⁶²California Air Resources Board, "Clean Air Act Section 209(b) Request; California's Motor Vehicle Regulations to Control Greenhouse Gas Emissions" (December 21, 2005), Attachment 2 – Support Document, p. 18, <http://www.regulations.gov/fdmspublic/component/main?main=DocumentDetail&d=EPA-HQ-OAR-2006-0173-0004.1>.

⁶³The Committee is not considering changing the current process under the Clean Air Act Section 209(b) for State regulation of criteria and hazardous air pollutants; local emissions of these pollutants can cause local health and environmental problems. This circumstance stands in contrast to greenhouse gases, where climate change problems are due to global rather than local concentrations.

⁶⁴This reluctance will be particularly evident in States that are developing cap-and-trade programs that would provide a revenue stream to the State from the sale or auction of allowances.

Figure 4 ⁶⁵

**Domestic Automobile Industry Manufacturing Jobs and
State Adoption of California Greenhouse Gas Vehicle Standards**



⁶⁵Domestic Automobile Industry is defined as General Motors, Ford Motor Company, and Chrysler LLC. States that have adopted or announced they will adopt CA greenhouse gas vehicle standards are as follows: AZ, CA, CO, CT, FL, ME, MD, MA, NJ, NM, NY, OR, PA, RI, UT, VT, and WA. Manufacturing jobs data from Memorandum from Shane Karr, Vice President of Federal Affairs, Alliance of Automobile Manufacturers, to Jonathan Brater, Committee on Energy and Commerce staff.

Balancing These Factors

As the debate over whether the Federal Government should preempt California's greenhouse gas motor vehicle standards has shown, Committee Members balance these various factors in a way that can lead to different conclusions that will need to be worked out through the legislative process. Chairman Dingell has made it very clear that he believes that motor vehicle greenhouse gas standards should be set by the Federal Government, not by State governments: greenhouse gases are global (not local) pollutants, multiple programs would be an undue burden on interstate commerce and would waste societal and governmental resources without reducing national emissions, and the competing interests of different States should be resolved at the Federal level. Other Committee Members have reached the opposite conclusion given the severity of the climate change problem, the need to push technological development, and the benefits of having States act as laboratories.

Although some issues regarding appropriate roles for different levels of government may be contentious, for other issues (such as State inspection of monitoring equipment or local government's right to set more stringent building codes), balancing these factors may quickly lead Members to agreement.

Conclusion

The appropriate roles for Federal, State, Tribal, and local governments in a comprehensive, national approach to climate change will be affected by the design of the underlying approach. It is clear, however, that all levels of government must play a role (in fact, a variety of roles) in meeting this challenge. Rationalizing these roles as the climate change program is developed will require thoughtful and careful consideration and a balancing of a number of factors.