

The Clean Energy Group
Clean Air Policy Initiative

March 19, 2007

Chairman John Dingell and Chairman Rick Boucher
2328 Rayburn House
Office Building
Washington, DC 20515

Dear Chairman Dingell and Chairman Boucher:

On behalf of the participants in the Clean Energy Group's Clean Air Policy Initiative, I am writing in response to your letter, dated February 27, 2007, requesting feedback on the options for federal climate change legislation. We appreciate the opportunity to offer our thoughts and opinions on this important policy issue.

About the Clean Air Policy Initiative

For the past several years, a subset of the Clean Energy Group (CEG) companies have participated in a special project, known as the Clean Air Policy Initiative (CAPI), supporting the adoption of federal multi-pollutant and climate change legislation. The companies participating in CAPI include: Avista, Calpine, Entergy, Exelon, FPL, PG&E Corporation, and Public Service Enterprise Group (PSEG). Collectively, these companies produce about 15 percent of the total reported megawatthours in the U.S. Additionally, they also procure significant amounts of power on behalf of their customers under long-term contracts, which is not reflected in this figure.

Responses to Questions

1. Please outline which issues should be addressed in the Committee's legislation, how you think they should be resolved, and your recommended timetable for Congressional consideration and enactment. For any policy recommendations, please address the impacts you believe relevant policy would have on a) emissions of greenhouse gases and the rate and consequences of climate change; and b) the effects on the U.S. economy, consumer prices, and jobs.

In terms of a timetable for legislative action, we recommend that Congress act as quickly as possible to enact legislation that meaningfully addresses the risk of climate change - the longer we delay in adopting a mandatory, market-based cap-and-trade program, the higher the costs will be to address the risk and the less flexibility we will have to reduce emissions.

We believe the Committee's legislation should address the scope of the program (economy-wide vs. sector only), the flexible market-based compliance features (offsets), the allocation scheme (or the methodology for distributing emissions allowances), and technology incentive programs. All of these items are discussed in greater detail in subsequent questions.

2. One particular policy option that has received a substantial amount of attention and analysis is "cap-and-trade." Please answer the following questions regarding the potential enactment of a cap-and-trade policy:

a. Which sectors should it cover? Should some sectors be phased-in over time?

Greenhouse gas emissions occur throughout the economy, and the members of CAPI support the adoption of an economy-wide program to reduce greenhouse gas emissions. Ultimately, it will require international action to address the risk of climate change.

If the electric industry is the first to be regulated, other sectors should be incorporated into the program over time to broaden the effort and to minimize the costs of compliance. To effectively mitigate climate change, other sectors will need to make strides to reduce their emissions.

Again, if the electric sector is the first to be regulated, additional sectors should be included within the program as "offset" opportunities. Offsets are generated by reducing greenhouse gas emissions (or increasing carbon sequestration) outside of the capped sources. Offset projects might include capturing methane at a landfill, energy efficiency improvements at industrial facilities, alternative tilling practices within the agricultural sector, or reducing fugitive emissions such as methane from a natural gas pipeline. By allowing power companies to purchase offsets for compliance you promote cost-effective compliance while achieving meaningful emissions reductions and promoting innovation throughout the economy.

b. To what degree should the details be set in statute by Congress or delegated to another entity?

While many of the program details can be delegated to federal agencies, such as EPA, due to the substantial economic and financial consequences of certain design elements of the program it will be necessary for Congress to set in statute some of these fundamental features. Congress must decide whether the program should be economy-wide or sector-only, which flexibility mechanisms designed to achieve low cost compliance to include (offsets, safety valve, etc.), as well as how the allowances will be allocated and to what degree the allowances will be auctioned. Congress should also

establish the initial reduction targets and timelines, and consider including a provision that allows the administrator to adjust the caps based on new scientific or economic findings.

c. Should the program's requirements be imposed upstream, downstream, or some combination thereof?

Several options are available for regulating greenhouse gas emissions from the electric generating sector, including (1) upstream at the point where carbon and other greenhouse gases are introduced into the economy (e.g., coal mines); (2) upstream at fuel supply or processing points (e.g., natural gas pipelines and refineries); (3) downstream at the point of fuel use (e.g., boiler or combustion turbine); (4) further downstream at the load serving entity (a utility company or power marketer that sells electric energy to end-users); or (5) at the point of electricity use. We believe downstream regulation (at the point of fuel use) would be an efficient approach to regulating carbon emissions under an updating, output based allowance allocation program.

d. How should allowances be allocated? By whom? What percentage of the allowances, if any, should be auctioned? Should non-emitting sources, such as nuclear plants, be given allowances?

In terms of distributing allowances, we advocate an updating output based allocation approach as the most equitable and most rational basis for apportioning emissions allowances to the electric generating sector because it encourages efficiency and innovation. An updating output based allocation encourages the development of new, innovative technologies by providing a mechanism for new power projects to be integrated into the cap-and-trade program on an equal footing. Also, by calculating the number of allowances that a company receives based on its output or electricity production, it has a financial incentive to improve the operating efficiency of its fleet. In establishing a cap-and-trade program, the methodology used for distributing emissions allowances is fundamental to the integrity of the program.

The CAPI members support an equitable distribution of allowances that recognizes the value of low- and non-emitting forms of generation, while creating incentives for efficiency improvements. This approach is in contrast to a fixed, grandfathering approach in which companies receive a constant stream of allowances without regard to their operating efficiency, and new power projects are forced to purchase their allowances from the market. In the absence of an equitable distribution of allowances, such as an output based allocation, we would urge consideration of an auction as a means to ensure a fair distribution of the burden under a national greenhouse gas program.

e. How should the cap be set (e.g., tons of greenhouse gases emitted, CO₂ intensity)?

The metrics used for deriving the cap are less important than the goal that the program is trying to achieve. Reduction targets and compliance timelines should challenge our and other industries to find innovative compliance solutions and continually improve performance, but at the same time must allow reasonable transition periods for the development and deployment of new energy technologies. Whether tons of emissions, CO₂ intensity or some other unit of measurement is used, the program must be meaningful, yet sensitive to the lead times companies are faced with to comply with the program. Furthermore, the sooner the program is started the greater our flexibility in the long-run for reducing emissions.

f. Should the cap be set for different years?

The energy industry has long-term planning horizons due to the capital-intensive nature of the industry. For this reason, it is important for companies to have a sense of what they can expect from the program going forward. Therefore we recommend that the cap be set for the first 10 - 20 years. During this time, the administrator should evaluate the program and prepare to adjust the cap for the next 10 – 20 year period in a timely manner.

g. Which greenhouse gases should be covered?

Carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆) should all be incorporated into the program. According to an MIT analysis, inclusion of non-CO₂ abatement options in a greenhouse gas reduction program would reduce by two-thirds the costs associated with stabilizing U.S. greenhouse gas emission at 2000 levels by 2010. Some of these pollutants can be directly incorporated into a cap-and-trade program (e.g., CO₂ emissions from power plants). Others—because they are generated by smaller or more dispersed sources—can be included as an offset category to minimize the overall costs of the program.

h. Should early reductions be credited? If so, what criteria should be used to determine what is an early reduction?

Yes. Many companies have taken the initiative to reduce their emissions prior to a mandatory program by participating in voluntary reduction programs as well as by making significant investments in no- and low-carbon technologies. We believe it is logical to give allowances (“credit”) to companies that achieve verifiable early reductions.

Furthermore, the design of the CO₂ cap-and-trade program—in particular, the allocation methodology—can have important implications for these early actors. It is our view that companies that make an effort to reduce emissions prior to a mandatory program should not be penalized once the program is initiated. Using historic emissions as the basis for distributing allowances effectively penalizes companies for having reduced their emissions in advance of the program.

i. Should the program employ a safety valve? If so, at what level?

Yes. There are a variety of mechanisms and program features that could be employed to help mitigate the costs of the program. The safety valve is one of these options, though care must be taken to ensure the price is set at a level high enough to achieve meaningful progress towards the program's goal while at the same time driving technology innovation. Other options include a robust offset program that includes verifiable international offsets, banking allowances, borrowing of allowances from the future, setting the cap at an appropriate level at the beginning of the program and allowing the cap to be adjusted at the discretion of the administrator.

j. Should offsets be allowed? If so, what types of offsets? What criteria should govern the types of offsets that would be allowed?

Yes. We support the establishment of a robust greenhouse gas offset trading program—including national and international reduction opportunities—based on rigorous protocols to ensure the integrity of the program. Allowing verifiable offsets will keep the cost to comply with the program low and will encourage the involvement of developing countries.

k. If an auction or a safety valve is used, what should be done with the revenues from those features?

The revenues from an auction or safety valve should be used to support the overall program goals by funding research and development of energy efficiency and low carbon electric generating technologies. Auction revenues should also be used to encourage the deployment of these technologies through loan guarantees or other incentive measures. Auction proceeds should also be used to assist the consumers and businesses that ultimately bear the largest share of the costs under a cap-and-trade program. Fuel suppliers and energy generators will generally pass on the costs of the program to households and businesses at the end of the energy supply chain.

l. Are there special features that should be added to encourage technological development?

The implementation of a stringent cap-and-trade program will encourage technological development by establishing a price for carbon. However, policymakers can further

drive innovation under a cap-and-trade program by distributing the allowances in a way that encourages efficiency improvements and the deployment of new technology. An updating output-based allocation approach can eliminate barriers that would otherwise discourage the deployment of new technologies, while at the same time providing incentives for companies to invest in the efficiency of their existing facilities.

m. Are there design features that would encourage high-emitting developing countries to agree to limits on their greenhouse gas emissions?

Allowing high-quality offset projects in developing countries is one way to engage these countries in climate mitigation discussions and actions. Another design feature would be to promote low-carbon technology innovation, which could be exported to developing countries.

3. How well do you believe the existing authorities permitting or compelling voluntary or mandatory actions are functioning? What lessons do you think can be learned from existing voluntary or mandatory programs?

Voluntary markets are inherently limited in what they can accomplish. Mandatory action, that provides a platform for a national carbon market, is required if the United States is to successfully reduce its GHG emissions.

An important lesson can be learned from the allocation methodology adopted in the Acid Rain program. In 1990, Congress distributed SO₂ allowances to affected sources under Title IV of the Clean Air Act (i.e., the Acid Rain program) based on historic heat input. New facilities do not receive an allowance allocation, and thus must purchase any allowances they need from the market. This creates a financial barrier to the deployment of new technologies. This methodology has also been criticized for having disadvantaged companies that installed pollution control equipment prior to the program as well as new power projects. At a minimum, any allocation approach should not discourage new, higher efficiency power projects.

We believe an updating output-based methodology is appropriate in the context of a CO₂ cap-and-trade program. Much like the incentive for investing in power plant efficiency upgrades, an output-based allocation increases the return on investment for the developer of a new low-carbon energy project. By constructing a new energy project, a company will receive the revenue associated with its energy sales, as well as a valuable stream of allowances. In effect, the cost of a new energy facility is reduced (by virtue of the allowances it receives) while treating new and existing facilities equally.

Since passage of the Clean Air Act several states have adopted output-based allocations for distributing NO_x allowances, including Connecticut, Massachusetts, and New Jersey. Under the Regional Greenhouse Gas Initiative (RGGI), virtually every state is considering adopting an output based allocation and/or an auction approach.

Reducing U.S. greenhouse gas emissions, while maintaining economic competitiveness, will require a gradual approach and the proper incentives for improving efficiency and deploying new technologies. We believe that the allocation approach can play a vital role in achieving these goals.

4. How should potential mandatory domestic requirements be integrated with future obligations the United States may assume under the 1992 United Nations Framework Convention on Climate Change? In particular, how should any U.S. domestic regime be timed relative to any international obligations? Should adoption of mandatory domestic requirements be conditioned upon assumption of specific responsibilities by developing nations?

The international dimensions of climate change are clearly a challenge, and it will be necessary for major emitting countries to reduce their emissions. However, the U.S. will be in a far better negotiating position if it can demonstrate its willingness and its ability to reduce its own emissions as it pursues commitments from other nations.

5. What, if any, steps have your organization's members or its individual members taken to reduce their greenhouse gas emissions? Which of these have been voluntary in nature? If any actions have been taken in response to mandatory requirements, please explain which authority (State, Federal, or international) compelled them?

All of the companies in CAPI have been leaders in clean electric power generation, and have implemented voluntary renewable energy and emissions reduction programs.

Avista: Avista sold its 15 percent ownership in the Centralia coal-fired power plant in 2001, reducing its CO₂ emissions by over 1.1 million metric tons per year. In addition, Avista demand side management (DSM) programs extending back to 1990 have resulted in reduced generation needs of 80 MW and corresponding CO₂ emission reductions.

Calpine: In 2004, Calpine's board of directors unanimously supported an investment strategy that commits the company to investing only in low carbon power technologies, such as natural gas and renewable energy. Calpine is a U.S. EPA Climate Leaders Partner and committed in 2005 to reduce CO₂ emissions intensity by four percent from 2003 levels by 2008.

Entergy: In May 2001, Entergy made a voluntary commitment to stabilize carbon dioxide emissions from its power plants at year 2000 levels through 2005. Entergy dedicated \$25 million in supplemental corporate funding for use over the five-year period.

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Exelon: On May 6, 2005, Exelon Corporation announced it has established a voluntary goal to reduce its GHG emissions by eight percent from 2001 levels by the end of 2008. Exelon has also committed to work with, and encourage, its suppliers to reduce their GHG emissions. The company will incorporate recognition of GHG emissions and their potential cost into its business analyses as a means to promote internal investment in climate-reducing activities. Exelon made this pledge under EPA's Climate Leaders program.

FPL: FPL Group scored the highest ranking in the U.S. and second globally in a World Wildlife Fund (WWF) report that analyzed 72 of the world's leading power companies reviewing current use of available technologies to reduce CO₂ emissions, as well as clear commitments made for future improvements.

As a charter member of EPA's Climate Leaders Program, FPL Group has committed to an 18 percent reduction in CO₂ emissions rate by 2008, as compared to a year 2001 baseline. FPL Group is also the largest electric utility in the U.S. to join the World Wildlife Fund PowerSwitch Program to reduce greenhouse gas emissions. Under the PowerSwitch memorandum of understanding FPL Group commits to supporting mandatory CO₂ regulations and agreeing to a 15 percent improvement in electric generation efficiency by 2020, as compared to a year 2000 baseline.

PG&E Corporation: PG&E is an integrated electric and natural gas utility serving 15 million people throughout northern California. PG&E has taken significant steps toward reducing the greenhouse gas emissions associated with both its gas and electric operations, and provided opportunities for its customers to do the same. Some notable results include:

- Providing customers with electricity that has a greenhouse gas emissions profile that is nearly 60 percent below the national average.
- Avoiding the release of approximately 125 million tons of CO₂ emissions over the past several decades as a result of customer energy efficiency programs, both gas and electric.
- Participating in U.S. EPA's Natural Gas Star Partnership, through which we have reduced the methane leak rate within our natural gas pipeline operation, avoiding the release of more than 36,000 tons of CO₂-equivalent since 2005. One way PG&E achieved these reductions was by using advanced techniques, such as cross-compression, to reduce the release of fugitive methane emissions during routine maintenance activities.
- Operating one of the largest low-emissions vehicles fleet of any investor-owned utility in the nation.
- Connecting more customer-owned solar facilities to the electric grid than any utility in the country.

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- Tapping the potential for “cow power,” by advancing a cutting-edge technology that captures biomethane from dairy manure and allows it to be sent through PG&E’s natural gas pipelines.
- Preparing to provide customers with the opportunity to make their electric and natural gas use climate neutral through PG&E’s ClimateSmart program, which will launch in spring 2007.

Public Service Enterprise Group (PSEG): PSEG reached the goal it set in 1993 to stabilize its N.J. power plant CO₂ emissions at 1990 levels by 2000. In 2002, PSEG joined the EPA's Climate Leaders program, and has made a commitment to reduce its GHG emissions by 18 percent from 2000 levels by 2008. Through investments in clean and highly efficient new generation sources and the retirement of older, higher emitting generation, PSEG is well on the way to meeting its goal.

PSEG is also reducing emissions across the company's operations. For example, it has reduced emissions of sulfur-hexafluoride, a highly potent greenhouse gas, through an aggressive leak detection program. It has also reduced CO₂ emissions from its vehicle fleet through its use of biodiesel for all of its diesel vehicles. It has also made significant improvements in its nuclear generating fleet, which reduces the need for electricity generated using fossil fuels.

Sincerely,

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