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On behalf of the members of the Business Council for Sustainable Energy, we are pleased to provide comments to the White Paper, *Design Elements of a Mandatory Market-Based Greenhouse Gas Regulatory Program*. The Council also requests the opportunity to share our views in greater detail during the Committee-sponsored conference on this topic to be held on April 4, 2006.

The Council was created in 1992 by companies and trade associations in the energy efficiency, renewable energy, natural gas, electric utility and independent power industries. Our membership spans the energy spectrum and includes companies such as NiSource, Green Mountain Energy, Sempra Energy, Brookfield Power, Sacramento Municipal Utility District (SMUD), PPM Energy, Enel North America, GE Wind and American Standard/Trane as well as industry trade associations representing the wind, solar, hydropower, energy efficiency, natural gas and insulation industries.

Our comments on the White Paper focus on the incorporation of clean energy generation and energy efficiency into a national greenhouse gas regulatory system. Inclusion of clean and efficient energy options -- both for demand reduction and expansion of domestic clean generation -- will help cost-effectively reduce greenhouse gas levels while supporting the U.S. economy and enhancing our national security.

The Council has provided comments on White Paper questions 2 (allocation issues) and 3 (linkages with other greenhouse gas trading programs). In response to question 2, the Council supports allowance allocation policy for the power sector that recognizes the environmental attributes of clean energy technologies and creates market signals for clean generation and energy efficiency. Specifically, the Council:

- Supports an updating output-based allocation method
- Supports the following criteria for allowance allocation policymaking
    - allowance allocation should reduce the carbon intensity of electric generation
    - allowance allocation should reduce energy demand
    - allowance allocation should provide benefit to the economy
    - allowance allocation should promote private investment
- Supports directing auction revenue or allowance set aside resources to generators of clean base load generation as well as investors in energy efficiency projects
- Supports set asides for credit for early action and new entrants
- Recommends allocating allowances without cost to electric generators unable to pass through costs to users -- on an output basis
- Supports extension of EPACT 2005 clean energy technology incentives and other consumer protections to mitigate compliance impacts throughout society

In response to question 3, the Council supports consistency and linkages with credible non-U.S. greenhouse trading programs to reduce compliance costs and maintain the nation's economic competitiveness. Linkages should be based on a comparable environmental commodity, based on transparent and verifiable transactions and accounting.

Question 2. Allocation
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Should the costs of regulation be mitigated for any sector of the economy, through the allocation of allowances without cost? Or, should allowances be distributed by means of an auction? If allowances are allocated, what is the criteria for and method of such allocation?

As the Senate Committee on Energy and Natural Resource's White Paper describes, there are theoretical tradeoffs between free allowance allocation and an auction approach. The Council has members that would be impacted under both scenarios.

For nearly a decade, the Council has called for an allowance allocation policy that recognizes the environmental attributes of clean energy technologies and creates market signals for clean generation and energy efficiency. When designing an allocation policy for the electric power sector, the Council supports an updating output-based allocation method to achieve these objectives.

However, should all or part of the allowance pool be distributed through an auction, provisions should be made for those industries that are disproportionately impacted due to higher fuel costs. Electric generators will likely fit into that category to the extent that they are unable to pass costs on to users. Therefore, the Council recommends allocating allowances without cost to electric generators to mitigate the price impacts – on an output basis.

Output-based allocation regulates emissions based on useful output, rather than heat input. Such an approach rewards pollution prevention instead of fuel consumption. Benefits of output-based allocation include the encouragement of energy efficiency and clean generation, such as renewable energy and combined heat and power. Output-based allowance allocation also lowers compliance costs by promoting lower-emitting and clean generation and can drive economic development and job creation in clean energy technology industries.

The Council has offered the following criteria for allowance allocation to states developing a carbon cap-and-trade program in the Northeast United States under the Regional Greenhouse Gas Initiative (RGGI) and states implementing the Clean Air Interstate Rule (CAIR):

1. Allowance allocation should reduce the carbon intensity of electric generation;
2. Allowance allocation should reduce energy demand;
3. Allowance allocation should provide benefit to the economy; and
4. Allowance allocation should promote private investment through partial funding of investments.

These criteria should also be incorporated into a national greenhouse gas allocation policy.

Further, the philosophical underpinning of output-based allowance allocation should guide possible regulation of other sectors under an economy-wide greenhouse gas regulatory system. President Bush's voluntary greenhouse gas reduction target and the Bush Administration's

initiatives to reduce greenhouse gas emissions employ output-based reporting metrics, which emphasize efficiency. For example, the multi-sector Climate VISION program and the revised 1605b Voluntary Greenhouse Gas Reporting Program focus results on a participating entity's output, rather than only their emissions. Further, the Bush Administration's voluntary national greenhouse gas reduction target is based on emissions intensity - reduction as a function of national Gross Domestic Product.

In conclusion, design of a national regulatory program to reduce greenhouse gas emissions should create market signals for carbon-friendly technology and innovation. Output-based metrics will effectively achieve this result.

Clarifying Questions 2a:

Technology R&D and Incentives

- What level of resources should be devoted to stimulating technology innovation and early deployment?
- What portion, if any, of the revenues from permits or the auction of allowances should be reserved for technology development? If some portion is reserved for this purpose, should that set-aside flow to the federal government with funds spent through the traditional appropriation process? Or should the funds be allocated directly to a non-profit research consortium, chartered by the federal government, which would then administer technology development and deployment projects? Or should there be some combination of these two options?
- What criteria should be used to determine how such funds are spent and which projects are chosen?
- What other mechanisms should be used to promote technology deployment? Options include tax credits, cost-sharing for demonstration projects, assistance to state energy programs, etc.

Reducing greenhouse gas emissions will require large-scale structural changes in the way energy is extracted, generated and used. It will require utilization of the carbon-friendly technologies currently available as well as new technology development and deployment. Further, because energy infrastructure has long economic lifetimes, an understanding of the ultimate emissions goal is needed when designing a cap-and-trade program. Otherwise, investments may be made in energy infrastructure in the early phases of the program that will be incompatible with the ultimate need.

The Business Council for Sustainable Energy supports using potential auction revenue or an allowance set aside program to drive clean energy technology investments. For example, the Council urged states participating in the Regional Greenhouse Gas Initiative (RGGI) to include a significant allowance set aside for renewable energy and energy efficiency in the RGGI cap-and trade program. A minimum 25 percent set aside provision that can be used to support clean energy technologies was included in the RGGI Memorandum of Understanding (MOU), which was signed by seven states in December 2005. This provision is expected to be included in the RGGI Draft Model Rule that will be released this spring.

While the Council supports strong increases in technology R&D investments, the preferred use of auction or set aside resources would be for deployment via direct allocation or funding to generators of clean base load generation as well as investors in clean energy technology and energy efficiency projects.

Clarifying Questions 2c:

Consumer Protections

- What portion of the overall allocation pool should be reserved to assist consumers?
- Should funds from the sale of permits or allowances be targeted primarily to low-income consumers, or should they be more widely distributed to benefit all consumers?

The Business Council for Sustainable Energy appreciates the consideration that the White Paper gives to the impact that a national mandatory greenhouse gas regulatory system might have on consumers. The dramatic changes in energy production, distribution and use needed to reduce emissions will result in economic changes affecting all of society and all U.S. citizens.

This is a significant challenge to address because consumers remain somewhat insulated from the environmental cost of fossil fuel use and greenhouse gas reduction. This is because the direct cost of the fossil fuel does not cover the whole cost to society. Consumer awareness of these externalities and market signals that drive lower-emissions energy technologies are essential in the design of a national mandatory program. Adopting an output-based allocation policy that recognizes and rewards clean energy production, distribution and use is a means of achieving this objective.

In addition to allocation policy, consumer protections may be needed, in particular, to assist low-income consumers who will be especially vulnerable to energy price impacts.

The Council offers the following preliminary recommendations on consumer protections:

- Extension of EPACT 2005 clean energy technology tax credits;
- Expansion of the LIHEAP program (provided that the program treats warm weather and cold weather energy use in an equitable manner);
- Increased funding for demand-side energy efficiency, this could include a sliding scale or prioritization to activities that benefit low-income consumers; and
- Expanded funding for state programs that offer assistance to low-income customers when buying energy efficient appliances.

The Council offers the following example of extending the EPACT 2005 tax incentives for energy efficient homes and buildings to demonstrate how it could have a significant and positive impact on consumers. According to studies released by the Harvard School of Public Health, improving the energy efficiency of existing homes saves energy and has a positive impact on public health.[1]

Insulating the 45 million homes that are under-insulated to levels required by the 2000 International Energy Conservation Code (IECC) would:

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[1] Data on New Homes: Nishioka, Yurika et. al, "Integrating Risk Assessment and Life Cycle Assessment: A Case Study of Insulation," Risk Analysis, Vol. 22, No. 5, 2002,
http://www.naima.org/pages/resources/library/order/RP060.HTML
Data on Existing Homes: Levy, Jonathan et. al., "The Public Health Benefits of Insulation Retrofits In Existing Housing in the United States," Environmental Health, 2003 2:4
http://www.naima.org/pages/resources/library/order/RP061.HTML

- Save 76 supertankers of crude oil or 800 billion cubic feet of natural gas per year;
- Reduce total greenhouse gas emissions by 62 million metric tons per year;[2]
- Reduce NO_X by 100,000 tons per year;
- Reduce SO_2 by 190,000 tons per year.

In terms of health impacts, these emission reductions would result in:

- 110,000 fewer restricted activity days per year;
- 6,500 fewer asthma attacks per year;
- Save 240 lives per year.

The health benefits correspond to $1.3 billion per year in externalities averted and $5.9 billion per year in economic savings.

It is important to note that the costs of greenhouse gas reduction will impact all levels of our economy and these impacts will affect groups of users differently – and at different times. Overall, increased deployment of clean energy technologies – renewable energy, energy efficiency and clean generation – will mitigate consumer price impacts and offer economic development benefits.

[2] Data on the greenhouse gas emissions impacts will be published in the summer of 2006.

Clarifying Questions 2d:

Set-Aside Programs

- What portion of the allocation pool should be reserved for the early reduction credit program and the offset pilot program?
- Are other set-aside programs needed?

Early Reduction Credit Program
The Council believes that early investments in greenhouse gas reduction should be recognized in a national greenhouse gas regulatory system. Rewarding early emission reductions has the potential to generate economic and environmental benefits as well as speed clean energy technology deployment.

Companies making voluntary early reductions want assurance that they won't be penalized later for reducing greenhouse gas emissions in advance of a regulatory program. This can be achieved through baseline protection (under a historic emissions allocation) and/or an early reduction credit program.

To ensure robust participation by interested companies, the Council believes that an early reduction credit program should be simple and transparent. Further, the rules for an early reduction credit program should be broad enough to capture gains that may differ in form, and from one region of the country to another.

Offset Program
The Council strongly supports the establishment of an offset program under a national greenhouse gas regulatory system. Offsets offer the possibility of lower compliance costs and encouragement of technology innovation and deployment.

Ensuring the environmental integrity of an offset program is essential. Therefore, eligible offsets should be real and verifiable.

In the Council's recommendations to the Kyoto Protocol's Clean Development Mechanism (CDM) and Regional Greenhouse Gas Initiative (RGGI), it has urged objective and standardized eligibility criteria for offset projects. The Council is opposed to the subjective, case law approach adopted by the CDM. As a national greenhouse gas offset is designed, standardized approaches such as performance standards or benchmarks should be used in determining offset eligibility.

The Council cautions against the use of financial additionality tests. Financial additionality tests are subject to gaming and cannot reasonably account for market behavior. In our experience, financial additionality tests deter good projects and weaken the credibility and market power of offset programs.

The Northeast Regional Greenhouse Gas Initiative (RGGI) is currently developing offset rules based on benchmarks and performance standards. The Council is working with RGGI states to ensure effective baselines and additionality screens are adopted.

Set Asides for Clean Generation, Energy Efficiency and New Entrants
The Council supports the use of set aside programs for expand clean generation, energy efficiency and to ensure a level playing field for new entrants.

The Council has supported the establishment of set asides for renewable energy and energy efficiency under the Regional Greenhouse Gas Initiative (RGGI) and the Clean Air Interstate Rule (CAIR).

In contrast to the renewable energy and energy efficiency set aside program established under Title IV of the Clean Air Act, a greenhouse gas regulatory system should target its set aside program at generators and investors for the greatest impact. In addition, the set aside program should be sufficiently large to be a market driver. The previous Title IV Clean Air Act renewable energy and energy efficiency set aside program was modest and did not have a transformative impact.

Depending on the allocation method employed, new entrants may not be eligible to receive allowances, putting those facilities at a competitive disadvantage. Set aside programs for new entrants should be created to allow for competition. The Council offers the set aside program under the Clean Air Planning Act introduced by Senator Thomas Carper (D-Delaware) as an example. It was included to avoid the situation of a generator of new, clean and efficient energy having to purchase allowances from an existing competitor. New source set asides promote competition and facilitate new clean base load generation coming on line.

Clarifying Questions 2f:

Allocations for downstream electric generators?

- Should electricity generators be included in the allocation if they are not regulated? (Clarification: We mean to ask if an electric generator should be included in the allocation if the greenhouse gas regulation occurs at a point of regulation that is upstream or downstream from the generator, but not the generator itself.)
- What portion of the total allocation should be granted to the electric power sector? Should it be based on the industry's share of greenhouse gas emissions or some other factor?
- Should generators in competitive and cost-of-service markets be treated differently under an allocation scheme?
- How should permits or allowances be distributed within the electric sector? Should it be based on historic emissions? Electricity output? Heat input?

In the Council's view, the answer to whether allocations should be given to downstream generators varies depending on regulatory status and the ability to pass fuel costs and administrative costs on to customers.

Under an upstream program, allocation of allowances should be given when there is an inability to pass the costs along to customers. Making this determination is a complex undertaking, given the range and dynamic nature of state regulatory programs.

To the extent that allowances are allocated in an upstream or downstream program, the Council supports and an updating output-based allocation to provide an incentive for increasing new base load generation and increasing energy efficiency.

Question 3. International Linkage

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Should a U.S. system be designed to eventually allow for trading with other greenhouse gas cap-and-trade systems being put in place around the world, such as the Canadian Large Final Emitter system or the European Union emissions trading system?

To ensure lowest cost compliance with a global environmental challenge, a U.S. greenhouse gas regulatory system should permit trading amongst other credible greenhouse gas cap-and-trade programs. Further, allowance trading markets should be linked to help ensure as level a regulatory playing field as possible for U.S. firms. Due to competitiveness concerns and the need to access lowest cost reductions, it is critical that linkages with other greenhouse gas trading programs are established at the start of a national program.

Clarifying Question 3b:

- If linkage is desirable, what would be the process for deciding whether and how to link to systems in other countries?

Linkage should be based on a comparable environmental commodity, based on allowance transactions that are transparent and verifiable. Appropriate accounting systems and enforcement mechanisms will be required to facilitate the transfer of credible allowances, offsets and other greenhouse gas-related products. U.S. experience with Clean Air Act Emissions Markets, U.S. energy disclosure laws and other environmental commodity trading markets offer the foundation for a U.S. accounting system that would be able to link with non-U.S. trading programs.