



March 19, 2007

The Honorable John D Dingell  
Chairman, Committee on Energy and Commerce

The Honorable Rick Boucher  
Chairman, Subcommittee on Energy and Air Quality

Dear Mr. Dingell and Mr. Boucher:

DuPont is pleased to submit responses to the climate change policy design questions you have posed. DuPont believes that climate change is a critical issue, and applauds the efforts underway in Congress to seek input from key stakeholders regarding elements of policy design as legislation is developed. DuPont is a member of the U.S. Climate Action Partnership (USCAP), and fully embraces the principles and recommendations summarized in the Partnership's report, *A Call for Action*.

DuPont believes that there is a need for prompt Congressional action to enact an environmentally effective and economically sustainable federal policy that creates a mandatory program for reducing U.S. greenhouse gas emissions. This is a complex policy challenge, and we should not underestimate the economic implications of policies intended to achieve the needed reductions in greenhouse gas emissions. It is imperative that US climate policy be both environmentally effective and economically sound for it to be sustainable.

We believe that U.S. business has great capacity to innovate and meet the challenges of, and find opportunities in, a low-carbon economy. DuPont has been taking aggressive action for over 10 years to reduce our own global greenhouse gas emissions. We have exceeded our voluntary 65% absolute GHG emissions reduction goal and continue to reduce, and we are working hard to bring to market more products that will help our customers reduce their carbon footprint. However, individual actions will not alone produce the coordinated, economy-wide results that are needed to drive cost effective emission reduction opportunities in all sectors. Clear, smart policies are needed to guide a transition away from the current business as usual trajectory.

U.S. federal climate policy will need to work in concert with coherent federal energy policies that result in diverse and adequate supplies of low-GHG energy that will sustainably fuel continued U.S. economic growth, provide for aggressive use of energy efficiency and avoid over-reliance on particular energy sources for power generation such as natural gas. DuPont looks forward to continued constructive dialogue around these important issues.

Michael S. Parr  
Senior Manager, Government Affairs

## **DuPont Response to Energy and Commerce Committee on Climate Change Policy**

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Our responses to the questions follow.

### **2a. Which sector should it cover? Should some sectors be phased-in over time?**

Fixed facilities (utilities, industry), transportation and the power use associated with commercial and residential buildings each emit roughly coequal amounts of greenhouse gases. Emissions from all but industry continue to grow. The energy cost imperative has driven significant energy efficiency improvements over time in the industrial sector.

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To successfully achieve the kinds of reductions necessary all sectors of the economy will need to contribute cost effective emissions reductions.

A federal program addressing greenhouse gas emissions thus must cover the entire economy. While different sectors may operate via different policies (e.g. cap and trade for fixed facilities, energy efficiency standards for buildings and appliances, policies reducing vehicle miles traveled, reducing fuel carbon content and improving vehicle efficiency for autos) and their reductions may be made over different timeframes (when they are the most cost effectively made), the program should be constructed as an integrated, economy-wide program.

### **2b. To what degree should the details be set in statute by Congress or delegated to another entity?**

Congress should delineate the key elements, such as the scope of coverage, program architecture, the near-, mid-, and long-term goals, the nature of any allocation or auction, etc., but technical details, such as appropriate specific energy efficiency standards, can be left to administrative agencies. There are hard and economically important decisions that need to be made by Congress, rather than by regulatory agencies.

### **2c. Should the program's requirements be imposed upstream, downstream, or some combination thereof?**

DuPont has not yet taken a position on whether an upstream or downstream cap is preferable, but believes there are several important considerations regardless of where in the economy a cap would be placed. These are driven by the differing price sensitivities in the differing sectors, the differing ability of regulated entities to pass prices through in their value chain and the nature of competition they face. These result in different responses in different parts of the economy to a given carbon prices, both in terms of reductions and in terms of economic impacts.

Energy intensive industries facing global competition will be exquisitely sensitive to additional cost (such as higher energy costs). These industries have limited ability to pass those costs on due to offshore competition that may not be subject to similar costs. Policies must recognize this differential price sensitivity to avoid moving industry – and hence, jobs – offshore, and to avoid what is often called leakage; simply moving the source of emissions to another country.

Regulated utilities generally can pass additional costs through to ratepayers. Individual motor vehicle operators are typically relatively price insensitive, with studies suggesting quite high sustained fuel prices are necessary to substantially

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change purchasing and driving behavior. Given that the designer, constructor, owner, and occupant of a building may be different entities, and the fact that energy costs are often a small portion of household costs, price signals can be too disaggregated or too diffuse to drive significant changes in energy use in this sector.

Accordingly we believe that complementary policies and measures will need to accompany either an upstream or downstream point of regulation. Such policies and measures might include steps to incentivize cost-efficient emission reductions in less price sensitive sectors, such as commercial and residential buildings; help reduce vehicle miles traveled through policies such as public transportation and smart growth, reduce the fossil carbon content of transportation fuels and enhance the efficiency of motor vehicles.

Given that any program will create differing economic impacts in different sectors, entities, geographic areas and potentially income groups there will also need to be measures (that could include allocation and tax policies, for example) to lessen these differential impacts while achieving the needed reductions. One example is the Dutch energy efficiency benchmarking program, under which the most energy efficient plants (i.e. those that have already made energy efficiency/greenhouse gas reduction investments) are kept whole via allocation.

### **2d. 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 general, DuPont believes allocations should begin as predominantly free and move over time to predominantly auctioned. The specifics of how allowances should be allocated (e.g. historic emissions, output, heat input) will depend in large part on broader program design elements such as point of regulation and scope of coverage, and will need to be evaluated as part of a comprehensive climate program proposal.

### **2e. How should the cap be set (e.g., tons of greenhouse gases emitted, CO2 intensity)?**

The goal of a cap should be to avoid serious deleterious effects of climate change, which will require in essence putting the world's economies on a carbon budget. This could be achieved via either an absolute or intensity based metric so long as it achieves the absolute reductions needed to reach the environmental goal. An absolute basis would likely be easier to account for.

There may well be a role for intensity based metrics in international agreements. For example, intensity targets might be a manner in which countries with rapidly

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developing economies such as India, Brazil, Mexico and China would take on binding commitments. In the early periods of reduction programs, the “slow” phase of a “slow, stop, reduce” emissions trajectory, an intensity target could be effective.

### **2f. Where should the cap be set for different years?**

DuPont, through its involvement in the U.S. Climate Action Partnership, has endorsed the following short-, mid-, and long-term GHG emission targets:

- Between 100-105% of today’s levels within five years of rapid enactment
- Between 90-100% of today’s levels within ten years of rapid enactment
- Between 70-90% of today’s levels within fifteen years of rapid enactment
- Long-term target to reduce by 60-80% from current levels by 2050.

### **2g. Which greenhouse gases should be covered?**

The full basket of gases should be included to allow the most cost effective GHG reductions to be sought.

For example, incentives for the recycling or destruction of fluorinated gases with high global warming potentials (HFCs) should be encouraged, given that the majority of emissions occur during product use, not product manufacturing. This can be achieved through simple measures such as requiring allocations to be submitted for the carbon content of such products placed on the market by producers and importers, with the resulting carbon price encouraging both proper management of the gases and the market uptake of more sustainable technologies including lower GWP gases.

### **2h. Should early reductions be credited? If so, what criteria should be used to determine what is an early reduction?**

Both to incentivize voluntary action prior to a cap and to keep whole those actors who voluntarily reduced in the past we believe credit for early action is critical. Such credit should be predicated on clear demonstration of actions taken to reduce GHG emissions and the resulting reductions, such as engineering records of specific projects.

### **2i. Should the program employ a safety valve? If so, at what level?**

A range of cost control measures should be considered. If a safety valve were considered it should not undermine the integrity of the cap (predictable emissions reductions), impede the market’s ability to “find its level” in the early years of the program (and volatility will likely be high in the early days, as for any new trading market) or complicate integration or “linkage” with other trading systems by overly

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distorting the carbon price signal. Rather, any safety valve should be designed to prevent unanticipated large scale structural economic dislocations and thus be set relatively high, rise over time and be sunset relatively quickly.

Consideration of a potential safety valve should be based on the overall architecture of the program including its caps, the nature of the allocation process and the role of other cost control measures such as offsets and banking and borrowing of allowances.

### **2j. Should offsets be allowed? If so, what types of offsets? What criteria should govern the types of offsets that would be allowed?**

Unlimited offsets should be allowed provided they are real, verifiable and permanent. There is no reason to not take advantage of legitimate off-system reductions to achieve the desired “carbon budget” in the most economic fashion. Verified emission offsets could come from a variety of sources, including: domestic sinks, domestic emission sources that are not subject to the cap, and projects outside of the US.

### **2k. If an auction or a safety valve is used, what should be done with the revenue from those features?**

Appropriate uses of such revenues would include ameliorating differential economic impacts on different sectors, regions or income groups in the early years of the program and funding aggressive RD&D for low carbon technologies and practices.

### **2l. Are there special features that should be added to encourage technological development?**

An aggressive research, development and demonstration (R, D,&D) effort is needed to drive the advancement of low GHG technologies through both breakthrough innovations and new applications/step change improvements to existing technology. A robust, long-term R, D&D program should be established and financed by a reliable funding source not dependent upon Congressional appropriations (e.g. dedicated federal revenue stream). Such a program should emphasize competitively awarded matching grants to speed the development of those technologies most likely to succeed at commercial scale. In general, federal funds should be used to “buy down the risk curve” on technologies, with private cost share increasing as technologies mature along the research and development pipeline. An independent review entity is critical to manage and administer the program, and might take the form of a public-private entity, comprised of qualified individuals from business, government, and civil society.

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### **2m. Are there design features that would encourage high-emitting developing countries to agree to limits on their greenhouse gas emissions?**

We believe the most effective method for motivating the rapidly developing countries will be for their major trading partners to be engaged in greenhouse gas reduction programs, as well as for the U.S. to actively engage in international discussion regarding global climate change. Economic inducements, including WTO rules, should also be explored. As described in the answer to question 5, intensity targets could be more acceptable than absolute targets for these countries with rapidly developing economies.

### **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?**

We believe that effective actions have been taken by many entities to voluntarily reduce their GHG emissions, but that voluntary measures are not sufficient to ensure the kinds of actions needed across the US economy, nor do they create the needed market signal to drive broad technology changes and create the needed opportunities for economic growth. It is also evident that the lack of a clear mandatory framework, including provisions providing robust credit for early actions, are impeding actions that could be taken today to reduce emissions.

### **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 United States Government should actively engage in international discussions regarding a post 2012 framework to ensure effective integration of a U.S. program with other regional programs. We do not believe it is practical to expect the rapidly developing countries to proceed before the U.S. does, nor to proceed at the same pace and timeframe given their different place in their economic development, but that their effective participation is a critical component of a long term global solution.

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- 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?**

Over ten years ago, DuPont set its first aggressive, voluntary goal to reduce its global greenhouse gas footprint by 40% vs 1990 by 2000. We exceeded that goal early, and then set and exceeded an additional goal of 65% reductions by 2010. The net result has been reductions of over 65 million metric tonnes CO<sub>2</sub> equivalent, or the emissions from 7 million cars or 6.5 million homes every year. We also set a goal in the mid 1990s to hold energy use flat as we grow. By 2004 we had in fact reduced global energy use by 7% while growing production by almost 40%, saving some \$3 billion in energy costs. We have also set a goal to secure 10% of our global energy needs from renewable sources, and are over halfway to that goal.

We have continued to set new, voluntary goals to drive actions that promote energy efficiency and better product design. DuPont is also a founding member of the Chicago Climate Exchange, where we have gained experience with emission trading in a voluntary, emerging market. And as a global company, DuPont operates in countries that are party to the Kyoto Protocol. These experiences – voluntary and mandatory - have been valuable in helping DuPont understand and prepare for business in a carbon-constrained economy. We continue to believe that voluntary efforts of business are important, but will ultimately not produce the emission reductions necessary to address a global problem such as climate change in a coordinated and timely manner.