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Here's a
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Argonne climate
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Department of Energy
Washington, DC 20585

July 2, 1997

MEMORANDUM TO DISTRIBUTION

FROM: Marc W. Chupka Marc W. Chupka
Acting Assistant Secretary
Office of Policy and International Affairs

SUBJECT: *The Impact of High Energy Price Scenarios on Energy-Intensive Sectors: Perspectives from Industry Workshops*
Compiled by Argonne National Laboratory

Attached is a report based on a series of workshops conducted in June and July of 1996 by Argonne National Laboratory under contract with the Department of Energy. The views contained in this report are those of the workshop participants and do not reflect the position of the Department of Energy.

The workshops explored the possible effects of new climate change commitments on six energy-intensive industries (basic chemicals, iron and steel, petroleum refining, paper and allied products, aluminum and cement) that are subject to significant foreign competition. For each sector, Argonne selected a panel of industry representatives, experts from academia, environmental groups, organized labor, the financial community and government. These panels were then asked to assume a projection of energy price increases that incorporated specific assumptions about the energy price effects of a postulated climate change agreement, and to reflect on the possible industry responses. Participants in each sector met for separate half-day workshops to discuss the impacts these energy price scenarios would have on industry output, employment, energy usage, industry costs, industry prices, imports and exports.

Overall, the participants reported negative impacts on the six industries under the assumed price increases. Under the given scenarios, panelists predicted the industries would experience reductions in output and employment from projected baseline levels. Less-developed countries -- which were assumed in the workshops not to adopt binding commitments to lower greenhouse gas (GHG) emissions in the timeframe considered -- would capture an increasing share of the respective markets. Some industry representatives reported that it would be necessary to relocate under the hypothetical situation, and some reported that industry composition would change.

It is important to emphasize, however, that the negative conclusions expressed by the participants and summarized in this report are predicated on the specific restrictive energy price scenarios assumed in mid-1996, which were based upon interagency analyses of proposals advanced by other countries at that time. As such, these price scenarios do not reflect key policies advocated in international negotiations by the U.S. government in the intervening year. For example, the assumed fuel price scenarios do not take into account the impact of multi-year emission budgets, international emission trading and joint implementation. If adopted, these provisions would lower the costs of achieving emission reductions in the U.S. and other developed countries, and would significantly lower the energy price increases assumed in the workshop scenarios. Nor did the workshop participants consider the acceleration of energy efficient and low-carbon technology development from expanded R&D efforts by the public and private sector, which could cushion the impact of energy price increases. Finally, the Administration has argued that developing countries should assume additional obligations in the near future to reduce their projected rapid growth of GHG emissions. No such actions are reflected in the workshop scenarios.

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Despite these limitations, and taken in context, the workshops provided valuable information that has reinforced the need to pursue sensible climate change policies. The environmental and socio-economic issues surrounding the stabilization of GHG emissions have been the subject of considerable debate, but are especially sensitive now as participating nations are engaged in a new round of negotiations for further commitments within the Framework Convention on Climate Change that will conclude in December of 1997 in Kyoto, Japan. The U.S. position taken in these negotiations stresses that international agreements to combat the threat of climate change must be flexible, cost-effective, realistic, achievable, and ultimately global in scope. By examining scenarios that do not reflect such policies, the workshop papers have identified important economic risks in key industrial sectors that reaffirm the wisdom of the U.S. approach.

The Impact of High Energy Price Scenarios on Energy-Intensive Sectors: Perspectives from Industry Workshops

Argonne National Laboratory

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