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Constraints on Greenhouse Gas Emissions

Future global weather has become the focus of a high-stakes international political and economic game. This December, at a meeting in Kyoto, Japan, leaders of developed countries are scheduled to sign binding agreements to decrease their emissions of greenhouse gases. The U.S. State Department earlier agreed that the 132 less developed countries should not be required to curtail their emissions concurrently. Their greenhouse gas emissions are increasing rapidly.

Whatever the methods used to decrease U.S. emissions of greenhouse gases, the price of energy would increase as a result. Because the major sources of carbon dioxide emissions are transportation and the generation of electricity, the higher costs involved would ultimately be passed on to the public. Major industrial energy users also would be adversely affected, handicapping their ability to compete globally. Some would relocate their operations to countries where labor is cheap and environmental regulations are less stringent. The AFL-CIO has warned that many U.S. jobs would be lost as a result.

The U.S. Senate is aware of the damage that a binding agreement at Kyoto might cause. In order for a treaty to be ratified, at least two-thirds of the voting members must agree to it. On 12 June, Senator Robert C. Byrd (D-W.Va.) and Senator Charles T. Hagel (R-Neb.) introduced a Sense of the Senate Resolution (S. Res. 98), cosponsored by 63 senators. It stated that the United States should not be a signatory to a protocol binding developed countries to reduce their greenhouse gas emissions if the less developed countries did not also commit to limiting their emissions in the same compliance period. The resolution stated that any agreement requiring consent of the Senate should be accompanied by a detailed explanation of any legislation or regulatory actions that may be needed to implement it. The Senate also should be provided with a detailed analysis of the financial costs and other impacts on the economy of the United States.

On 25 July, the Senate deliberated for 2 hours on S. Res. 98. The arguments included differing versions of the state of scientific knowledge about the effects of greenhouse gases. Dissension on that topic, however, was submerged by concern about economic impacts. The vote on S. Res. 98 was yea, 95; nay, 0; with five members listed as necessarily absent.

During the past year, many organizations have issued testimony and reports about the adverse economic effects of limiting greenhouse gas emissions. The document most widely quoted at the S. Res. 98 hearing was issued by Argonne National Laboratory.* This report focuses on the effects of higher priced energy on six important U.S. industries: basic chemicals, iron and steel, aluminum, petroleum refining, paper and allied products, and cement. All six are energy-intensive. All now face tough global competition.

The chemical manufacturing industry has about a million employees. It is one of the few industries that make a major positive contribution to the U.S. trade balance. The Argonne Laboratory report states: "Policies that affect energy prices only in the developed world will cause the high-energy portions of the chemical industry to relocate to countries not subject to these fuel price adders. The chemical industry is a global battlefield. The current trends toward locating new facilities in the developing world and the Middle East would be accelerated by any such differentially applied policy."

Until 22 October, President Clinton did not disclose a plan for decreasing U.S. emissions of greenhouse gases. A specific component in what he has now revealed is that the Administration will seek an appropriation of \$5 billion to be spent for research, tax credits, and other incentives to companies to reduce their emissions. In a \$7-trillion economy involving huge sunk capital investments, \$5 billion disbursed over 5 years is not likely to have a substantial effect on emissions.

The leaders of China, India, Brazil, and other less developed nations cannot be expected to agree to concurrent limitation of their countries' greenhouse gas emissions. The less developed countries have too much to gain by evading constraints. Repeated criticisms of the United States and promises of eventual constraint by less developed countries are likely to be the main products of the meeting at Kyoto.

Philip H. Abelson

*R. J. Sutherland *et al.*, "The Impact of High-Energy Price Scenarios on Energy-Intensive Sectors" (1997). Available from the National Technical Information Service [(800) 553-6847].