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Nuclear Power Critical to Meeting President's Greenhouse Gas Objectives

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On April 16, President George W. Bush established a national goal to stop the growth of greenhouse gas emissions by 2025. His plan would first slow, then stop and reverse the rate of emissions of CO₂ and other so-called greenhouse gases. The President placed much of the onus of meeting these objectives on the electricity generation industry. While wind, solar, and clean-coal technologies may eventually affordably contribute to the nation's production of emissions-free power, the best way to achieve the President's vision today is through nuclear power.

Nuclear power already provides the United States with 20 percent of its electricity and 73 percent of its CO₂-free electricity. If the objective is an affordable near-term reduction of CO₂ and other atmospheric emissions, then the importance of nuclear power cannot be overstated. It is safe and affordable technology that is currently being used around the world.

The Energy Information Agency forecasts that domestic electricity demand will increase by up to 40 percent in the next 25 years. Meeting this demand would be difficult even in the absence of CO₂ restrictions in the current atmosphere where energy projects are routinely scuttled by anti-energy opposition. Restricting options with CO₂ limits will make it nearly impossible.

The best way to mitigate the economic consequences of massive CO₂ restrictions may well be to construct new nuclear power plants. The challenge is how to build enough of them quickly enough to

meet growing electricity demands. But while daunting, the problem is not unprecedented. Most of the 104 reactors in operation today were brought online in the 1970s and 1980s. Indeed, 37 of the reactors currently operating were connected to the electricity grid between 1970 and 1975.

The problem is that no new reactor has been ordered since the mid-1970s, and the country no longer has the infrastructure to support a nuclear renaissance. Furthermore, although the President agrees that nuclear energy is critical to meeting the nation's CO₂ objectives, promoting nuclear power is hardly a new concept. The President has been doing so for some time, and the Energy Policy Act of 2005 included a generous incentives package that was meant to spur a nuclear rebirth. Yet no new reactors have been ordered.

With the incentives in place from the 2005 Energy Policy Act, the President and Congress must now tackle some of the policy issues that remain obstacles to a broad expansion of nuclear power. These include:

1. Open the Yucca Mountain Spent Nuclear Fuel Repository. The Administration and Congress should commit to opening Yucca Mountain as soon

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as possible, and this political commitment should be paired with adequate funding. It is simply untenable for America's political leaders to lay a burden such as CO₂ reduction on U.S. citizens and then stand in the way of the best path forward to meeting that objective. Keeping Yucca Mountain closed runs counter to this objective. This commitment should be paired with a commitment by the government and industry to make Nevada the nuclear fuel capital of the world instead of the waste capital of the country. Some of the other high-tech nuclear technology facilities that will be required to support an American nuclear renaissance could be co-located at Yucca, providing a significant economic impact for the region.

2. Remove any political and legal barriers to nuclear fuel reprocessing. Congress and the Administration should state that they recognize the potential benefit that reprocessing spent nuclear fuel can bring to spent fuel management. This does not mean that the Department of Energy should build a reprocessing plant; it means that it should rethink how the nation deals with spent nuclear fuel. The current method of taking the fuel directly from the reactor to Yucca is not sustainable. All options should be considered, including private-sector spent fuel management and reprocessing.

3. Do not exclude nuclear from the CO₂ fix. The President stated that nuclear must be part of the solution, but this principle could be lost in congressional interpretation. It would be extremely bad policy for the Administration or Congress to create mandates meant to curb CO₂ emissions that do not recognize the contribution of nuclear power. The federal government should not choose nuclear power over other carbon-free energy sources, but it should not discriminate against it either. The purpose of public policy should be to protect Americans' freedom to choose courses of action that best suit them as individuals; it is not to engineer an America that is consistent with a specific political agenda. Members of Congress simply have neither the expertise nor the moral authority to tell Ameri-

cans how to generate power or what kinds of power they should consume. Every time they do, Americans end up footing a higher energy bill. Rather than picking winners and losers, Congress should allow the market to find the most efficient and cost-effective solution to the proposed energy problems.

4. Commit to open commercial nuclear markets. America can best meet its energy needs by assuring access to the world's energy resources, and this includes the commercial nuclear market. Asian and European countries dominate the commercial reactor business, and the U.S. must not retreat to protectionism as a strategy to rebuild its own nuclear industry. Doing so not only would raise the cost of building reactors, placing further financial burden on U.S. ratepayers who will likely pay a CO₂ premium, but also would remove the U.S. from the moral high ground in attempting to open foreign markets to U.S. companies. American companies must be able to participate in the global nuclear market if it is to generate the necessary potential revenues to justify the significant capital investments that will enable them to compete in the emerging commercial nuclear business.

Conclusion. For better or worse, the President has placed the nation on a path to CO₂ and greenhouse gas reductions. The best chance that the nation has to meet these reductions in an economically viable way is through nuclear energy. While financial incentives, such as those in the Energy Policy Act of 2005, may be enough to spur some new nuclear power plant construction, they are not adequate to bring about a sustainable nuclear renaissance. Such a renaissance will require long-term policy changes that assure bipartisan political support and allow adequate flexibility for industry to respond to market realities. The technology exists to meet the President's objectives. Now it is time for policy to do the same.

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