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The Context for “The Future of Nuclear Energy”

The New Millennium Nuclear Energy Summit was held successfully on December 7, 2010, in Washington, D.C. Senior leaders from government, industry and non-government organizations actively participated in defining the most important and substantive issues that confront the nuclear energy industry—an essential part of the United States’ energy production portfolio. This Summit initiated the process of developing comprehensive strategy to build a public- and private-sector consensus on the path forward for nuclear energy in the United States over the next several decades. The recommendations that comprise that strategy will be formalized in mid-2011. In preparation for the Summit, Third Way and the Idaho National Laboratory drafted this white paper to provide background and an overview of issues that were anticipated discussion topics for the Summit. The final version of this paper has been revised to accommodate comments and input from external readers.

■ EXECUTIVE SUMMARY

Summit Discussions

The Summit discussions complemented and augmented the topics and issues described in the white paper. Selected points emphasized in the Summit include the following:

- Predictability and stability in government energy-related policies are essential to provide sufficient certainty for the major private sector investments needed to maintain the reliability, accessibility and affordability of energy that is expected in the United States. This need for predictability and stability extends to the regulatory process.

- Goals and criteria that fulfill national interests applicable to the energy and related sectors should be established by government policy. Nonetheless, government policy and actions should neither choose nor force particular technologies for the marketplace. As an example, a viable approach could be legislation built around the concept of a clean energy standard that sets the expectations for the future without specifying the technologies to achieve those expectations
- Maturation of major new nuclear energy technologies requires flexibility in the regulatory structure and partnerships between the government and the private sector to mitigate the large upfront investments and business risks.
- Government-private industry partnering and government incentives are essential to restart and enable the U.S.-based nuclear energy industry to expand and compete globally. Considering that government interests often cut across multiple departments and agencies, a separate government-designated entity may be warranted, with the sole purpose of demonstrating, enabling commercialization of, and financing enhanced and new nuclear energy applications and technologies.
- Appropriate checks and balances must be established for the government-industry partnerships. These checks and balances should be part of making major decisions about whether to proceed with or cease a particular effort, and should be based on pre-established criteria that weigh the anticipated public interest, and the technical and business benefit and risks.
- Strategic plans developed through the activities of the New Millennium Nuclear Energy Partnership must have a multi-decade view and provide recommendations that can set the stage for enduring and successful long-term government and private industry investments.

Future Actions

The success of this strategy development is now in the hands of the four working groups, which include representatives from government, industry and non-government organizations. These working groups are divided into four areas: public-private partnerships, financing of major projects, rebuilding nuclear industrial infrastructure, and new nuclear energy technology development and demonstration. Over the next several months, these working groups will develop comprehensive recommendations in executable detail in each of these four areas.