Statement of Peter B. Lyons
Assistant Secretary for Nuclear Energy Designee
Before the
Committee on Energy and Natural Resources
United States Senate

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Chairman Bingaman, Ranking Member Murkowski, and distinguished Members of the Committee, it is an honor and a privilege to appear before you today as President Obama's nominee for Assistant Secretary for Nuclear Energy within the Department of Energy.

It is a special honor for me to appear before this Committee. I worked with the Members and staff of this Committee for eight years while I was in Senator Domenici's personal office, and later when I served on the staff of this Committee. I originally came to the Senate on a detail from Los Alamos National Laboratory, where I worked for nearly 30 years.

In 2005, I was nominated to the Nuclear Regulatory Commission (NRC), where I served until my term ended in June of 2009. At the NRC, I focused on the safety of operating nuclear reactors and on the importance of learning from operating experience, even as new reactor licensing and possible construction emerged. My work emphasized that NRC and its licensees remain strong and vigilant components of the Nation's integrated defenses against terrorism. I was a consistent voice for improving partnerships with international regulatory agencies. I also emphasized active and forward-looking research programs to support sound regulatory decisions, address current issues and anticipate future ones.

In August of 2009, I was honored to accept a request from the Administration to join the Department of Energy as principal deputy to Assistant Secretary, Dr. Pete Miller, in the Office of Nuclear Energy. It's been a pleasure to work with Secretary Chu, Deputy Secretary Dan Poneman, Assistant Secretary Miller, and the dedicated team at the Department. Working together, I think we've made some tremendous strides in the past two years, including the award of the first conditional loan guarantee for a new nuclear reactor project from the Department's Loan Programs Office – a program authorized by this Committee in 2005.

The President has clearly articulated his goal of a clean energy future and has emphasized that nuclear power must be a significant component of that future. In order to reach this clean energy future, nuclear energy technologies must be carefully evaluated to enable the public, Congress, and the utility industry to select the best energy options for our nation.

Last year, Dr. Miller and I worked to develop the Nuclear Energy R&D Roadmap, a document that I believe will guide the American public and the Department for many years into the future. In that Roadmap, we focused on four objectives, around which our entire program is organized. Those objectives are to:

1. Develop technologies and other solutions that can improve the reliability, sustain the safety, and extend the life of current reactors.

2. Develop improvements in the affordability of new reactors to enable nuclear energy to help meet the Administration's energy security and climate change goals.

3. Develop sustainable nuclear fuel cycles.

4. Understand and minimize the risks of nuclear proliferation and terrorism.

The corresponding R&D programs in our recently-released fiscal year 2012 budget request reflect these objectives.

There is one new program in particular that I would like to highlight – small modular reactors (SMRs). We first proposed the SMR program in FY2011 and we have expanded the proposal in the FY2012 budget request. Secretary Chu penned an op-ed in the Wall Street Journal last year where he laid out some of the reasons why we are so excited about the prospect of small modular reactors. It's no secret that large reactors face significant financing challenges. But if we can reduce the capital-at-risk with small reactors, and if the reactors can be built in factory settings, with forgings done here in the United States, and shipped to plant sites where they are essentially plugged in, that could offer advantages from a number of perspectives. As a result, we have proposed a Light Water Reactor SMR Licensing Technical Support program that is a near-term, multi-year initiative focused on cost-sharing for first-of-a-kind engineering associated with design certification and licensing activities. We think this program can accelerate the availability of SMRs to help meet the nation's need for low-carbon power, and provide an American-made platform for U.S. companies to export reactors and compete in the international marketplace.

A second, innovative Nuclear Energy program highlighted in the President's recent State of the Union address is the creation of a nuclear energy "hub". The nuclear energy Hub will be the first time a working nuclear reactor has been simulated using modern computational tools. I am very excited about the prospects for the Hub. Last year, we announced the winning team for the Hub, headed by Oak Ridge National Laboratory, and this May we will have the ribbon-cutting ceremony for the opening of their new collaboration site. Simulations of both existing and future nuclear reactors hold great promise for further optimizing the U.S. nuclear fleet.

Turning to the back end of the nuclear fuel cycle, a little over a year ago, Secretary Chu announced the formation of the Blue Ribbon Commission (BRC) on America's Nuclear Future to study and make recommendations on management of used nuclear fuel. The BRC has traveled around the United States, as well as to other countries that have had greater success in moving forward with a disposition path for nuclear waste. The Commission is due to release its interim report around the middle of this year. If confirmed, one of my highest priorities will be to tackle this critical set of issues.

My experience for almost five years as an NRC Commissioner and now for a year and a half in a leadership role with the Department's Office of Nuclear Energy provides a strong foundation on

which, if confirmed, I believe I can continue to serve the nation in the field of nuclear energy. While the Nuclear Regulatory Commission and the Department of Energy have distinctly different roles, they also have important similarities; they share two sides of the same fundamental goal: to enable safe, secure use of nuclear power for the United States. The NRC has the regulatory focus and responsibility while the DOE has a research, development, and deployment focus. But there are times when it is appropriate for the two organizations to work together, while carefully respecting the responsibilities of each.

I regard my time at Los Alamos, on Senate staff, and at the Nuclear Regulatory Commission – 42 years in total – as contributions to our national security. Over those years, through many different venues and roles, I've tried to make our nation stronger, safer, cleaner, more competitive, and more secure. My desire to continue to serve after those years, if confirmed, is simple to explain – I want an even better world for my children and grandchildren.

Thank you and I look forward to addressing your questions.