Chairman Lamar Alexander Opening Statement Committee on Appropriations Subcommittee on Energy and Water Development

Hearing to Review the Fiscal Year 2017 Budget Request for the U.S. Department Energy

March 9, 2016

(As prepared for delivery)

The Subcommittee on Energy and Water Development will please come to order.

Today's hearing will review the president's fiscal year 2017 budget request for the Department of Energy.

This is the Subcommittee's third budget hearing this year, and we will have our final hearing on the National Nuclear Security Administration's budget next week.

I want to thank Secretary Moniz for being here today, and also Senator Feinstein, who I will be working with to draft the Energy and Water Appropriations bill which funds basic science research and discovery, as well as cleanup of former Cold War sites, and maintains our nation's nuclear weapons stockpile.

Our witness today includes Dr. Ernest J. Moniz, Secretary of Energy.

Sec. Moniz has served as Secretary of Energy since May 2013, and I thank the Secretary for his leadership and the efforts he has made to work with Congress. I greatly appreciate your leadership on innovation and our energy future.

We're here today to review the president's fiscal year 2017 budget request for the Department of Energy, a federal agency with three critical missions: nuclear security, science and energy, and environmental management.

The Department of Energy's budget request for fiscal year 2017 is about \$32.5 billion dollars. This is an increase of about \$2.9 billion over what Congress provided last year.

Governing is about setting priorities, and given our current fiscal constraints – especially on non-defense spending – we are going to have to make some hard decisions this year to make sure the highest priorities are funded.

And that is why we are holding this hearing: to give Secretary Moniz an opportunity to talk to us about the Department of Energy's most urgent priorities so Senator Feinstein and I can make informed decisions as we begin to put together the Energy and Water Appropriations bill over the next few weeks.

Today, I'd like to focus my questions on three main areas, all with an eye toward setting priorities:

- 1. Doubling basic energy research;
- 2. The future of nuclear energy;
- 3. Keeping large projects on time and on budget.

Doubling basic energy research

Supporting government-sponsored basic research is one of the most important things our country can do to encourage innovation, help our free enterprise system create good jobs, and make America competitive in a global economy.

Doubling basic research is a goal I've long supported.

We have increased investment in basic energy research through both our national laboratory system and the Advanced Research Projects Agency-Energy (ARPA-E), which Congress created as part of America COMPETES in 2007, which was passed unanimously by the Senate and authorized Congress to double funding for basic research over 7 years.

Last month Sen. Durbin and I co-sponsored an amendment to the Energy bill that increases the authorized funding levels for the Office of Science by about 7% per year which would double the Office of Science's budget from a little over \$5 billion today to more than \$10 billion in 10 years. The Senate adopted our amendment by voice vote.

The president has also proposed to invest more in basic research, including the Mission Innovation proposal - the pledge launched by the U.S. and 19 other countries at the Climate Summit in Paris to double federal clean energy research over the next five years.

The problem is that the president's budget request proposes \$2.259 billion in new mandatory funding for the Department of Energy. The mandatory funding would be used to support clean energy programs and replace several proposed cuts to programs that are currently funded with discretionary spending.

These new mandatory spending proposals include:

- \$1.3 billion for 21st Century Clean Transportation Plan Investments;
- \$674 million to replace discretionary spending cuts in cleanup programs;
- \$100 million for new Office of Science University Grants;
- And \$150 million to support ARPA-E.

However, the president's commitment to double federal clean energy research comes at the expense of other resources and agencies and he proposes to pay for this new mandatory spending with new tax increases.

The budget writers know this isn't a realistic proposal. Congress is not going to enact \$3.4 trillion in new tax increases over the next 10 years to pay for an additional \$682 billion in mandatory spending across all federal agencies over the next 10 years.

The president's budget request this year is at best unhelpful, and at worst it's misleading.

First, the president has underfunded the Army Corps of Engineers by \$1.4 billion and the cleanup of former Cold War sites by \$674 million. This makes it very difficult to draft an appropriations bill, much less fund the proposed new investments in Mission Innovation.

Second, I've called for doubling our investment in basic scientific research, but I've also recommended paying for increases by ending subsidies for mature technologies like wind and oil and gas subsidies.

For example, we could start by eliminating the wind production tax credit in 2016, and putting the \$4 billion this subsidy costs taxpayers over 10 years toward doubling energy research.

Or, we could phase out subsidies for oil and gas. Legislative proposals similar to the one I supported in February to repeal oil and gas subsidies could save \$24 billion over 10 years, which could be spent on research and development.

Out-of-control mandatory spending on entitlements, which is projected to increase nearly 80% over the next 10 years, is already crowding out discretionary spending.

Over the next ten years, discretionary spending will decrease from 32% of total federal spending in 2015 to about 22% in 2026.

The United States faces a choice between falling further behind competitors like China, or advancing technologies that can make us safer and more competitive.

But we have to be fiscally responsible and carefully invest our limited resources in programs that can achieve results.

For example, supercomputing is one priority we agree on – and it is critical to our economic competitiveness and a secure energy future.

By next year, the world's fastest supercomputer will again be in the United States, and in Tennessee through the joint Collaboration of Oak Ridge, Argonne and Lawrence Livermore (CORAL).

That computer will be called Summit, and it will help researchers better understand materials, nuclear power, and energy breakthroughs.

Funding the next generation, known as exascale, is essential to our both our country's competitiveness and national security.

Exascale computers will be capable of a thousand-fold increase in sustained performance over today's petascale computers – which have been operating since 2008.

The future of nuclear energy

Nuclear power provides 60 percent of our nation's carbon-free electricity, and it must be a part of any realistic energy plan.

It is reliable—unlike solar and wind, nuclear power works when the sun isn't shining or the wind isn't blowing.

It is safe—we've never had anyone die in a nuclear accident at any of our commercial reactors or in our naval fleet.

The Department of Energy has an important role in many of the key challenges in advancing nuclear power, including:

- Safely extending the life of the nuclear reactors already operating today;
- Solving the nuclear waste stalemate; and
- Developing new nuclear technologies such as accident tolerant fuels, small modular reactors, and advanced reactors.

Safely extending the operating licenses of commercial reactors from 60 to 80 years, where possible, is an important step to maintaining our largest source of carbon-free electricity.

I'd like to hear today what the Department of Energy is doing to achieve this goal and whether there are any additional steps we should be taking.

Regarding nuclear waste, Federal law makes the government responsible for disposing of used nuclear fuel, and the government continues to fail in this responsibility.

I believe that Yucca Mountain can and should be part of the solution, but we have more used fuel than Yucca Mountain's legal capacity.

Senator Feinstein and I will again include a pilot program for nuclear waste storage in the Energy and Water Appropriations bill, as we have for the past four years to complement Yucca Mountain.

The NRC Chairman recently testified that they expect to see license applications for commercial sites to store used fuel later this year. I'd like to hear your views on the role commercial sites could play in the management of used nuclear fuel.

Finally, as we look to the future, the Department is funding key research and development that will help design the nuclear reactors of the future.

Small modular reactors offer an additional source of clean, cheap, reliable energy, and have the potential to make nuclear power available to places that could not otherwise build large-scale reactors. The Department's work to support licensing a small modular reactor continues, and I would like to your views on the progress of this important work.

The Department is also doing research and development to address technical, cost, safety and security issues with advanced reactor technologies. I look forward to hearing the progress you are making in this area, and am particularly interested in your estimate for when the first application for certification would be filed with the Nuclear Regulatory Commission.

Keeping large projects on time and on budget

The Department of Energy is responsible for some of the largest construction projects in the federal government, including the Uranium Processing Facility in Tennessee and the MOX Fuel Fabrication Facility in South Carolina; and the Department is a partner in the International Thermonuclear Experimental Reactor known as "ITER" in France.

Now that you are no longer recused from discussing fusion energy and the ITER project specifically, I want to discuss the future of U.S. participation in the project, and when we can expect to receive your recommendations and details on the new cost of the project.

Over the past five years, Senator Feinstein and I have worked hard with the Department to keep costs under control and to make sure hard-earned taxpayer dollars are spent wisely. We need to make sure these projects are on time and on budget.

Senator Feinstein and I have focused much of our oversight on the Uranium Processing Facility in Tennessee, and I am glad to hear the Department continues to follow the Red Team's recommendations.

I look forward to a detailed update in the near future, including whether the project is still on time and on budget, and when the design will be 90% complete. We set a target of completion in 2025 at a cost of \$6.5 billion and we need to know if that is achievable.

Your budget request also proposes shutting down the MOX fuel facility in South Carolina and replacing it with a new plan to dispose of the plutonium in South Carolina. We have talked about this project many times.

Today, I hope to hear the details about your alternative to dilute the plutonium material and permanently dispose of it. Specifically, I want to make sure you have a clear plan for getting plutonium out of South Carolina as the Department has committed to do.

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