



COMMITTEE ON
SCIENCE, SPACE, & TECHNOLOGY
Lamar Smith, Chairman

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Statement by Chairman Randy Weber (R-Texas)

Advancing Nuclear Energy: Powering the Future

Chairman Weber: Today, we will hear from a panel of experts on advanced nuclear energy research in the United States and discuss what we can do as a nation to advance this critical area of science. We'll also discuss the implementation of my bill, S. 97, the Nuclear Energy Innovation Capabilities Act.

Nuclear energy is a critical part of U.S. energy security. Currently, the 99 nuclear power plants in the U.S. operating fleet generate 20 percent of the total U.S. electrical output. Nuclear also provides 60 percent of our emissions-free electricity.

Unfortunately, our commercial nuclear fleet today is made up entirely of light-water nuclear reactor designs using traditional nuclear fuels. Coupled with a long regulatory process, these reactors have become too big, too expensive, and too risky for utilities to undertake.

That means our nuclear fleet is dwindling at the exact moment when we need it to grow. You don't need to look further than this week's news to see the hurdles facing those attempting to build new traditional nuclear plants in this country.

However, advanced nuclear reactors are positioned to change the way nuclear power is sourced, produced, and managed. Decades of early-stage nuclear research conducted at the DOE national labs and renewed investment by private companies are breathing new life into this industry.

As we drafted our nuclear legislation, we met with dozens of these stakeholders working to develop unique and innovative reactor designs. What we heard over and over was that, despite federal and industry investment, a significant number of research challenges remain for these reactor technologies before they are ready for the commercial license application process.

I believe that my bill, S. 97, will help address these challenges.

This bill directs DOE to partner with industry to construct and operate reactor prototypes at DOE national labs, and authorizes key research infrastructure needed for next generation nuclear R&D.

We know that DOE has the expertise to lead in this arena. After all, researchers at Idaho National Laboratory (INL) have designed and constructed 52 pioneering nuclear reactors to date. Our national labs provide a unique environment that safely allows for testing and

development of advanced nuclear technology—without a burdensome regulatory process that can slow progress to a crawl.

While modeling and simulation can speed research, nuclear fuels and technologies must be validated through direct experimentation in the lab. That's why the cornerstone of my bill is the authorization of construction of the Versatile Neutron Source, a research reactor capable of producing the fast neutrons needed to test many advanced reactor designs.

I look forward to hearing from the Department, and from Idaho National Lab today, on what steps have been taken to accelerate construction of this critical research facility.

In order to maintain our leadership in nuclear power, the United States must continue developing cutting edge technology here at home. We cannot afford to miss the economic opportunity provided by next generation nuclear technology, and we can't let our best scientists and engineers go overseas.

Through the implementation of S. 97, we will also strengthen America's ability to influence security and proliferation standards around the world as more developing nations look to nuclear energy to grow their economies. I believe that with their diverse size and power capabilities, advanced nuclear reactors could also bring clean, affordable, power to the most remote areas of the world. We have a responsibility to make sure those reactors are safe and reliable.

I want to thank Ranking Member Johnson and Chairman Smith for their years of leadership in advocating for nuclear energy R&D, and for helping to get our bill to the President's desk. As always, I'm grateful for the opportunity to work alongside my Science Committee colleagues and Senate counterparts to prioritize fundamental research that will support nuclear innovation and keep America safe, independent, and globally competitive.

Today, we'll also hear about the next steps for nuclear R&D. Whether it's focusing on fuels research or expanding lab capabilities, there will be more work to do to ensure we encourage innovation and make smart investments with American tax dollars. I hope we can continue to work together on this issue in the years ahead.

I want to thank our witnesses for their testimony, and I'm looking forward to a productive discussion about how to best take advantage of this exciting and pivotal moment for advanced nuclear technology in the United States.

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