

Chairman Joe Manchin's Opening Statement

April 15, 2021

- The Committee will come to order.
- Over the past few weeks, there has been growing conversation around the role research and development plays in global competitiveness.
- I think it goes without saying that this Committee welcomes that discussion.
- The Department of Energy, the National Laboratories, and even the science agencies at the Department of the Interior engage in scientific research and discovery on a daily basis, using the world's finest equipment, programming, and most importantly, the best and brightest minds.
- In particular, DOE and the seventeen National Labs – as well as their countless partners in universities and the private sector – form the premier energy research, development, and commercialization enterprise in the world.
- As Chairman, I am committed to identifying the programmatic needs of DOE and the Labs, building on their strengths, and clarifying their roles in the broader federal R&D landscape.

- The United States' leadership in global R&D and the technologies that come from those activities is not guaranteed.
- And simple solutions to maintaining or strengthening our competitive edge are hard to come by.
- Nevertheless, this Committee has proven tireless in its efforts to do just that.

Innovation and the economic activities it drives are more than just a political buzzword, they are critical tools to economic revitalization, national security, and environmental responsibility.

- They span the country and touch all aspects of American life, and they underpin our ability to address global problems, maintain competitive advantages, and strengthen alliances and trade relationships.
- For all of these reasons, we are here today to discuss the absolutely vital role the Department of Energy and National Labs play as our nation's foremost federal R&D organizations in American competitiveness.
- Given our Committee's focus, it may appear that federal R&D activities are limited to a short list of energy technologies, but I'd like to paint a broader picture.

- We have a responsibility to think across the federal government when considering how to advance our research, development, and commercialization agenda so that we can identify the strengths and weaknesses at various agencies.
- Starting with the Manhattan Project, the National Labs and the early agencies that became the Department of Energy developed several proven models of basic research leading to applied projects.
- Other models of R&D were developed, including those that championed fundamental scientific research at universities, like the National Science Foundation, or those models closely aligned with specific industries, such as pharmaceuticals or defense R&D.

Over time, DOE's mission grew into a network with other federal research agencies in which the Department and Labs provide both expertise and 28 user facilities – including to over 36,000 users annually, a number of whom are funded by the National Science Foundation – drawing on federal funding for equipment from lasers to particle accelerators and the world's fastest computers.

- DOE and the Labs have been able to tackle a broad variety of challenges facing the nation because they've continued

to excel across the R&D spectrum, from basic to applied research and commercialization.

- For example, just last week discoveries made by Dr. Chris Polly, a researcher at Fermilab in Illinois, and his international team of 200 colleagues may have turned the entire field of physics on its head.
- The Office of Science also directly funded university research at approximately \$1 billion in Fiscal Year 2020.
- At the commercialization end, ARPA-E has just announced a new program investing \$35 million in high-potential methane emission reduction technologies – a critical set of solutions for domestic and international industries in the context of climate change.
- These advances have both increased the importance of DOE's role as a coordinating research agency and a platform for computational power, public research infrastructure, and a deep pool of experts across the country.
- Other research agencies may have a higher public profile, like the National Institutes of Health, or a stronger relationship with the ultimate end users of technologies it develops, like DARPA.

But DOE and the National Labs excel at the diversity of research subject areas and the breadth of technological development they pursue.

- That said, we all recognize that the United States is not alone in the pursuit of the technologies that will make or break the future.
- Friends and adversaries alike are either catching up or eating our lunch at several stages of technological investment and in many subject areas.
- Colleagues of ours have rightfully called attention to several technologies critical to our national security, addressing climate change, and our export potential.
- Let me be clear - I fully support strengthening our domestic supply chains, expanding the portfolio of technologies we are researching, enhancing their commercialization, and pursuing every opportunity to advance the United States' competitive advantages abroad.
- That requires a clear coordinating role and responsible consideration of funding across the federal government.
- And I would argue that efforts to strengthen our R&D foundation and technology development ought to start with the Department of Energy and National Labs.

- We should not be reinventing the wheel or duplicating programs and missions, especially when we need to be inventing the newest and best technologies.
- As this conversation around domestic R&D and global competitiveness grows, I urge my colleagues to continue to stand strong in support of R&D funding and coordination led by the Department and its National Labs.
- Before I turn it over to Senator Barrasso for his opening statement, I'd ask unanimous consent to submit two items to the record.
- First, all seventeen National Laboratory Directors submitted a letter to the Committee outlining the strengths of the National Lab system with regard to key technology areas and in partnership with other federal research agencies.
- And secondly, former Secretary of Energy Ernest Moniz is currently testifying before the House Science Committee on the topic of innovation, and given that Secretary Moniz has appeared before this Committee as well, I believe his written testimony will support our discussion of this topic going forward.
- With that, I'll turn it over to Ranking Member Barrasso for his opening remarks.