COMMITTEE ON SCIENCE SPACE AND TECHNOLOGY

Opening Statement of Chairman Frank Lucas

Energy Subcommittee Hearing
From Theory to Reality: The Limitless Potential of Fusion Energy

June 13, 2023

Today, we have an opportunity to explore the current status of U.S. research and development in fusion energy sciences, a cutting-edge technology area that holds great promise for our energy independence, global competitiveness, and environmental stewardship.

As many of today's panelists know, Fusion R&D has long enjoyed bipartisan support on this committee – and for good reason. It is exactly the type of high-risk, high-reward research that expands our fundamental knowledge of science and technology and pushes the limits of what's possible.

The potential benefits from this fundamental research are tremendous, which is why it's so critical for DOE prioritize it. That's why Chairman Williams and I, alongside majority members of this subcommittee, sent a letter to the Secretary recently to ensure Office of Science programs like Fusion Energy Sciences (FES) are appropriately supported.

Fusion is the ultimate clean and abundant energy source – if we are serious about our energy future, there is no technology that meets our needs better than fusion.

Today, I look forward to hearing more about how the Science Committee can continue our support for these high-priority research activities both internationally and here at home.

Since our last hearing on this subject in 2021, the U.S. fusion community has been hard at work – you've been busy! As a result of that work, we've seen several landmark accomplishments, like the achievement of fusion ignition at Lawrence Livermore National Laboratory.

There has been a surge of innovation in the U.S. fusion industry, including a first-of-its kind fusion power purchase agreement, and a favorable Nuclear Regulatory Commission ruling on the regulation of U.S. fusion reactors – just to name a few.

Last summer, Congress passed the CHIPS and Science Act of 2022, which – thanks to years of bipartisan Science Committee work - provides robust funding, essential policy direction, and strategic guidance for U.S. fusion energy R&D.

This legislation gives the DOE Office of Science, our National Labs, and their industry research partners the resources they need to continue to excel. This is important because, despite many recent advances in the field, fusion energy science remains one of the greatest challenges in experimental physics today.

We know there is much more work to be done to realize the promise of this emerging technology, and we cannot afford to lose the momentum that has been generated so far.

To do this, we need to continue to take an all-of-the-above approach to advancing our shared fusion energy goals.

We must support full funding for U.S. participation in ITER – the leading international research project for fusion energy. We must make major investments in U.S. fusion research programs and infrastructure. And we must continue to support productive partnerships with the rapidly growing U.S. fusion energy industry.

In the immediate future, we will be continuing our oversight of DOE's implementation of Science Committee direction in CHIPS and Science and the Energy Act of 2020.

While I was pleased to see the President's budget request includes funding levels for some Fusion Energy Sciences activities consistent with CHIPS and Science authorizations, I look forward to hearing DOE's plans to fully implement this legislation.

I want to thank our witnesses for their testimony today, and for outlining their plans to make fusion energy a reality for the next generation. I look forward to a productive discussion. Thank you, Chairman Williams, I yield back the balance of my time.