



COMMITTEE ON

SCIENCE, SPACE, AND TECHNOLOGY

REPUBLICANS Frank Lucas, Ranking Member

Opening Statement of Ranking Member Randy Weber

Energy Subcommittee Hearing: "Climate and Energy Science Research at the Department of Energy"

May 4, 2021

Thank you, Chairman Bowman, for hosting this hearing and thank you to our witness panel for taking the time to be with us today.

Passage of the Energy Act of 2020, comprehensive bipartisan energy legislation which became law at the end of last Congress, was a giant leap in the right direction when it comes to updating U.S. energy policy and deploying a diverse portfolio of clean next-generation power sources. But the applied energy activities authorized by the Energy Act only represent about half of the Science Committee's jurisdiction at DOE. The other half is the Department of Energy's Office of Science, a seven-billion-dollar program that oversees ten of DOE's national labs and twenty-eight user facilities.

Armed with the most cutting-edge tools of modern science – like advanced light sources, particle accelerators, and two of the top five fastest supercomputers in the world – the Office of Science has made invaluable contributions to U.S. scientific progress. This office has repeatedly demonstrated that basic science research is the most effective way to encourage the development of new technologies. But as I speak here today, other countries like China are making significant investments in science and threatening our global leadership when it comes to innovation.

That is why the Department's continued investment in basic and early-stage research is vital to maintaining our technology edge. And I'm proud to report we're in the middle of a bipartisan process to reauthorize the Office of Science, which will invest in the facility upgrades and basic infrastructure that attracts and retains the best scientists in the world. As part of that reauthorization process, today we'll focus on two specific programs within the Office of Science: Basic Energy Sciences (BES) and Biological & Environmental Research (BER).

At the simplest level, BES research discovers new materials and designs new chemical processes. While this touches virtually every aspect of energy resources, the ultimate goal of the program is to better understand the physical world and harness nature to

benefit people and society as a whole. BES's focus includes materials science research that leverages DOE advanced computing resources to aid in the development of novel materials used to make energy production, storage, and use cleaner and more efficient.

Just last Friday, I introduced H.R.2950, the Computing Advancements for Materials Science (CAMS) Act, which in part establishes DOE computational materials and chemistry science centers and a materials research database. I am excited to hear from our panel of witnesses, including Dr. Kristin Persson from Lawrence Berkeley National Laboratory, on how applying advanced computing capabilities to materials science will accelerate our progress in developing new clean energy technologies.

The BER program, the other subject of our hearing today, is more focused on the natural world and aims to uncover nature's mysteries involving genomics, plants, ecosystems, and complex earth systems in an effort to reengineer microbes and plants for energy and other applications. In this capacity, BER also plays a unique and essential role in researching the relationship between the atmosphere, ocean, land, and humans to improve climate and Earth system models.

I look forward to hearing from all of our witnesses on how they've utilized the many user facilities, tools, and collaborative resources that both BER and BES have to offer, and what groundbreaking discoveries are right around the corner as a result.

I'd like to take a moment to thank my friends across the aisle for holding this hearing and making bipartisanship a priority when it comes to legislation. It's been a long time coming, but I am beyond excited to think we are shaping the future of science and energy through our focus on the Office of Science.

Thank you again to our witnesses for being here, and I look forward to hearing each of your testimonies. I yield back the balance of my time, Mr. Chairman.