COMMITTEE ON SCIENCE SPACE & TECHNOLOGY
REPUBLICANS

Opening Statement of Ranking Member Randy Weber

Energy Subcommittee Hearing – Investigating the Nature of Matter, Energy, Space, and Time

June 22, 2022

Thank you, Chairman Bowman.

The title of today's hearing is, "Investigating the Nature of Matter, Energy, Space, and Time." That certainly sounds like a daunting task. However, there are three programs within the Department of Energy's Office of Science that are doing just that.

The High Energy Physics Program probes the fundamental characteristics of matter and energy, including interactions through the study of particle physics. This program supports research and development activities that involve investigating the nature of dark matter, accelerating particles to the highest energies ever produced by man and colliding them to study the results, and using particle beams and detectors to discover new physics.

As you can imagine, studying the smallest building blocks of matter requires cutting-edge facilities. Fermi National Accelerator Laboratory, the particle physics and accelerator laboratory within the Department's National Laboratory complex, hosts thousands of scientists from all over the world.

Their accelerator, detector, and computing facilities are some of the best in the world and more exciting new projects are under construction. One such project, the Long-Baseline Neutrino Facility and Deep Underground Neutrino Experiment, or "L-B-N-F / DUNE" will be the first large-scale international science facility in the United States.

It will help us answer some of the most fundamental questions we have about our universe, including why matter exists. This is valuable science that will continue to support our position at the cutting edge of discovery.

However, building these facilities takes a steady funding commitment. And recent budget requests from the Administration are low and would extend completion dates, risking our international advantage.

We will also discuss the progress of the Office of Science's Nuclear Physics Program, which provides approximately 95% of the United States investment in fundamental nuclear physics research. To support this work, the Department has initiated construction of the Electronic-Ion Collider, located at Brookhaven National Laboratory.

The Electronic-Ion Collider will collide high-energy electrons with high-energy protons and nuclei to produce a view of these particles' inner structure.

Last, but not least, we will assess the Office of Science's Isotope Research and Development Program and its role in preventing shortages of the stable and radioactive isotopes needed for essential activities such as medical treatments, industrial processes, and explosive detection.

In addition to conducting research and development on isotope production and processing techniques, this program produces and distributes critical isotopes that are in short supply or that no domestic entity can produce.

Russia's invasion of Ukraine has underscored the importance of this program and the risks of reliance on foreign supply chains for critical isotopes. For example, we currently rely on Russia's state nuclear energy corporation and its subsidiaries to supply us with a number of critical medical and industrial isotopes. We must pursue domestic production solutions to counter this disturbing vulnerability.

We will not effectively address our most urgent energy-related challenges, such as lowering household energy costs or reducing dependence on foreign supply chains, if we neglect the fundamental research and development required to unlock the next generation of technologies.

Additionally, if we do not demonstrate a commitment to maintaining and modernizing our research infrastructure, we risk losing our seat at the head of the table when it comes to international scientific standing.

For those reasons, I am proud to be part of the Science Committee's ongoing bipartisan effort to get H.R. 3593, the DOE Science for the Future Act, enacted into law. This legislation authorizes robust funding for all three Office of Science programs I highlighted, as well as LBNF/DUNE, the Electric-Ion Collider, and other critical infrastructure projects. This legislation is critical to supporting the future of U.S. research and development and I'm hopeful we can move it forward as we negotiate our competitiveness legislation with the Senate

I thank all of the witnesses for their testimony today. Dr. Berhe ("bear-hay"), congratulations on your recent confirmation as Director of the Office of Science, and we are delighted to have you appear before the Committee for the first time today. I look forward to working with you to ensure the success of the Office.

Thank you again, Mr. Chairman, and I yield back the balance of my time.