OPENING STATEMENT

Ranking Member Alan Grayson (D-FL)
of the Subcommittee on Energy

House Committee on Science, Space, and Technology
Subcommittee on Energy
"Innovation in Solar Fuels, Electricity Storage, and Advanced Materials"
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Thank you Chairman Weber for holding this hearing, and thank you to the witnesses for providing your testimonies today.

The Basic Energy Sciences program (BES) in the Department of Energy's Office of Science supports fundamental research in materials sciences, physics, chemistry, and engineering with an emphasis on energy applications. BES is the largest program in the Office of Science and is home to several state-of-the-art facilities that provide world-class capabilities to the scientific community. BES is home to five of the world's most advanced light sources, two unique neutron scattering facilities, and five nanoscale research centers.

All of these BES facilities are considered "user facilities," meaning they provide broad access, not only to government scientists, but also to university researchers and private industry. Each year, over 14,000 scientists use these facilities, and the demand for access to the facilities can exceed the time available. In many cases the high demand for these facilities requires wait lists and extensive efforts to fit as many interested users into the schedule as possible. The vast array of research and diverse collection of scientists that take advantage of these facilities makes them fertile ground for scientific collaboration and crosscutting innovations.

The knowledge gained through research supported by BES underpins the applied energy research supported by other DOE programs and by the private sector. Innovations in materials science, chemical analysis, geological imaging, or electrochemistry can have far-reaching impacts on renewable energy, energy efficiency, battery storage, and nuclear power – just to name a few.

I look forward to hearing how our witnesses have benefited from the federal support that we've provided to build these user facilities as well as other resources provided by BES. I'd particularly like to welcome Dr. Hallinan from Florida A&M and Florida State University's College of Engineering to today's hearing. Dr. Hallinan's research has the potential to achieve considerable gains in battery storage which could help the renewable energy sector play an even larger role in our economy in the coming years. Solving renewable energy's intermittency challenge in the near term could allow for a faster transition to a low-carbon energy future for the United States and the world.

Dr. Hallinan, as we will hear, has relied on the Advanced Light Source and the Advanced Photon Source facilities to advance his work by testing new solid polymers that can be used as battery electrolytes. His work is an excellent example of what we can accomplish if we robustly fund the vital research and facilities in the Office of Science.

Last week, the Basic Energy Sciences Advisory Committee released a new report on the prioritization of upgrades to the major BES facilities. While my understanding is that none of the witnesses here today were directly involved in developing this report, I hope we can consider revisiting this topic in the near future, with a closer look at the facility upgrades that are currently under consideration. These proposed upgrades represent major government investments, and I believe this issue warrants a closer examination from Congress.

Prioritizing and funding the research that is being highlighted today should certainly be a bipartisan issue and one I believe we can make considerable progress on.

With that, I yield back the balance of my time. Thank you, Mr. Chairman.