



COMMITTEE ON
SCIENCE, SPACE, AND TECHNOLOGY
REPUBLICANS Frank Lucas, Ranking Member

Opening Statement of Energy Subcommittee Ranking Member Randy Weber

Building Technologies Research for a Sustainable Future

Thank you, Chairman Bowman, for hosting this hearing, and thank you to all our witnesses for being with us virtually this afternoon. Today is the first Energy Subcommittee hearing of the 117th Congress and I'm looking forward to continuing the bipartisan successes that have marked my time here.

Today, we will discuss building technology research and development needs. And while I am excited to hear about the critical work being performed by the Department of Energy's Building Technologies Office and across all of DOE, I want us all to be mindful of the role industry can and should play in this area, especially where there is a clear incentive and ability to take up mature technologies.

I say this as someone who knows the building industry firsthand. In the 70s, I couldn't even spell air conditioning, but by the mid-90s I was running my own HVAC company. And I can tell you this: whether it's through regulation, taxation, or mandates, businesses suffer when the government gets a heavy hand and intervenes.

Today, we must also remember that we have *limited* federal R&D dollars. The Department of Energy mainly supports building technology research and development through their Office of Energy Efficiency and Renewable Energy (EERE), which I am inclined to mention is the highest funded applied energy office at the Department with a budget of \$2.8 billion this past year alone. That's why I have long prioritized investment in basic and early stage research that will drive innovation into the next century. Not just for buildings technologies – but across our entire energy and efficiency portfolio.

DOE's world-leading national laboratories support the type of cutting-edge research I'm talking about. National labs around the country – from Oak Ridge and NREL to Argonne and Lawrence Berkeley National Lab – are leveraging DOE's unique capabilities and user facilities to support critical discoveries in innovative material science, data analytics, and advanced sensors and controls.

And public-private partnerships with these labs are exactly how we get the most bang for our buck when investing the taxpayers' dollars in this research. DOE partnerships

with industry and academia enable the development of new technologies that can increase the energy efficiency of building envelopes, improve construction practices, and meet the demand for greater energy generation capacity.

Today, we will hear from Dr. Jim Tour from Rice University in my home state of Texas, who will give us his perspective as one of those partners. As a professor of chemistry along with materials science and nanoengineering, Dr. Tour's research focuses on advanced building materials like lighter, stronger concrete that is a result of turning waste into a manufacturing additive called graphene. I look forward to hearing his testimony on how fundamental materials research can transform building technologies and how successful public-private partnerships have supported these innovations.

Just like Dr. Tour's example of turning trash into treasure, we can support a future that protects our environment for the next generation and is affordable for all Americans. But we won't accomplish this by throwing the kitchen sink and billions of dollars at a broad, unspecified portfolio. Instead we should make our clean technology affordable through significant investment in fundamental research paired with targeted and responsible investments in applied energy R&D.

That is why, this week, I was proud to sign on as an original cosponsor of Ranking Member Lucas' Securing American Leadership in Science and Technology Act. This legislation supports a diverse, all-of-the-above clean energy strategy and prioritizes critical research to establish U.S. leadership in industries of the future, like advanced materials and manufacturing.

This long-term strategy for investment in basic research and infrastructure is how we in Congress should support innovative building technologies. It creates a pipeline from lab to market and is the most direct and efficient path to a more sustainable future for both new and current buildings.

I want to thank all of our witnesses for being here and I look forward to a productive discussion, Mr. Chair. Thank you and I yield back the balance of my time.