



U.S. HOUSE OF REPRESENTATIVES COMMITTEE ON
SCIENCE, SPACE, & TECHNOLOGY

Opening Statement

Chairwoman Eddie Bernice Johnson (D-TX)

Subcommittee on Investigations and Oversight Field Hearing:
Pedal to the Metal: Electric Vehicle Batteries and the Critical Minerals Supply Chain
April 21, 2022

Globally, electric vehicle demand has tripled in just the last three years. It is expected to increase another five-fold by 2030. It's hard to fathom how rapidly the changes are coming in the transportation sector. We have to be ready to meet the booming demand for critical minerals that goes along with it. Unfortunately, the United States is responsible for almost none of the mineral processing and component fabrication steps in the EV supply chain. China and Russia have outsized control in these sectors, and that represents an economic threat to the United States. Now is the time for a robust, coordinated effort in the United States to develop new technologies for vehicle efficiency, minerals extraction and processing, alternative battery chemistries, and battery recycling and reuse. I am pleased the Subcommittee on Investigations & Oversight has taken up such an important topic for today's hearing.

It is impressive for me to see how this corner of Illinois has taken up the critical minerals challenge. Congress has been listening to experts like the witnesses before us today. And as a result, the last few months in Washington have seen a flurry of policy activity on the EV battery supply chain.

The Energy Act of 2020, which I led for the Committee on Science, Space, and Technology, directed DOE to undertake a research program on critical material recycling and reuse that promises to unlock exciting new innovations in the EV battery space.

In addition, the Infrastructure Investment and Jobs Act that President Biden signed into law this past December was an enormous leap forward. It includes at least a dozen sections that address battery materials. It has \$3 billion in grant funding for EV minerals processing, and another \$3.3 billion for EV battery recycling grants. It directs the U.S. Geological Survey to map potential critical mineral deposits under U.S. soil. It calls for the National Science Foundation and the Department of Energy to explore the use of artificial intelligence for geological exploration. It makes critical minerals projects eligible for loan guarantees from the Department of Energy. And earlier this week, DOE made its first such conditional commitment for a loan to Syrah Technologies to scale up production of graphite-based battery anode material.

The title of this hearing is “*Pedal to the Metal*” for a reason. We are not done yet. The Committee on Science, Space, and Technology has developed two other bills, the DOE Science for the Future Act and the National Science Foundation for the Future Act, which would both help advance early stage, fundamental research in battery science. Both of these bills passed the House as part of the America COMPETES Act earlier this year. I am leading the conference committee negotiations with the Senate, and Subcommittee Chairman Foster is a member of that committee as well. We intend to come to bipartisan agreements with the Senate that will help these become law this year. The DOE Science for the Future Act will authorize new advanced computing applications for chemistry and materials science. It will also authorize new money for the Electricity Storage Research Initiative, which will advance our ability to control, store, and convert electrical energy to chemical energy and vice versa.

I am proud of my colleagues in Congress for coming to the table on a bipartisan basis to tackle this critical technology challenge. And I hope our witnesses today will tell us how else we can help.

But I am even more proud of the researchers and innovators who are out there doing the work at American universities, national laboratories, and private companies. Texas is here for the challenge too. My hometown of Dallas has an exciting new technology start-up called Momentum. Momentum seeks to recycle lithium-ion batteries using foundational science that was developed at Oak Ridge National Laboratory. And they’re hoping to have their first two battery recycling plants in operation by the end of this year. Down in Houston, a company called TexPower has developed a new cobalt-free cathode that they say can go head-to-head with today’s battery chemistries, and they are cooperating with UT-Austin to develop new electrolytes as well. These are the kinds of innovation stories we need to repeat over and over in the coming years.

I think we have a golden opportunity here. By redoubling our innovation efforts on EV minerals, we can not only help address the global climate crisis, but also regain economic leadership in the United States in the energy storage sector. I look forward to hearing from our witnesses about the best next steps for the federal research enterprise.

I yield back.