



**Opening Statement**  
**Oversight Hearing on DOE's CCUS Programs and the EFFECT Act**  
**Chairman Lisa Murkowski**  
**May 16, 2019**

Good morning, everyone. The Committee will come to order. We have a full slate of witnesses this morning so I want to get things started here. We are listening this morning as we beginning a hearing on the DOE's carbon capture, utilization, and storage programs – CCUS. We are also considering S. 1201, the Enhancing Fossil Fuel Energy Carbon Technology Act, or the EFFECT Act.

Senator Manchin, I've already given you credit for coming up with great acronyms. EFFECT is pretty good. We appreciate that. I am proud to cosponsor it.

This hearing is part of our committee's ongoing discussion on clean energy innovation to address our changing climate.

In March, the Committee examined the impact of climate change in the electricity sector, and in both February and April we discussed opportunities for energy innovation. In those hearings and others, our witnesses made clear to us that significant reductions in greenhouse gas emissions will be a major undertaking that will require an all-of-the-above approach.

We are working on that approach now because we can see it. We can feel it. Climate change is with us every day, whether we like it or not, and whether or not we use the words climate change. It is there. Come to Alaska, I'll show you.

Diminishing sea ice, melting permafrost, more frequent extreme weather events, rising sea levels. We are warming in the state of Alaska at twice the rate of the Lower 48, many villages are threatened by coastal erosion, some needing relocation. Our Committee recognizes the threat of climate change. We have been hard at work on practical, bipartisan solutions to increase deployment of clean and innovative energy technologies.

In March, I introduced the Nuclear Energy Leadership Act along with 17 of my colleagues. And then earlier this week, we heard my American Mineral Security Act, and Senator Manchin's Rare Earth Element Advanced Coal Technologies, REACT. Both of these bills will help the U.S. rebuild its supply chain for clean energy technologies like EVs, solar panels, and more.

The bill that we are here to consider today, the EFFECT Act, focuses on increased deployment of carbon capture, utilization, and storage technology, again referred to as CCUS. It is a natural complement to our work last Congress to expand the 45Q tax credit and presents a tremendous opportunity to reduce our emissions while maintaining the availability of reliable electric generation resources. Our bipartisan bill will help us seize that opportunity by expanding and modernizing DOE's research and development programs in this field.

We're seeing that CCUS technology can work. There are 18 large-scale facilities in commercial operation around the world that are already capturing and storing tens of millions of tons of carbon dioxide per year. Here in the U.S., NRG's Petra Nova project, located on site at a coal-fired power plant, has an annual carbon dioxide capture capacity of 1.4 million tons. That's equivalent to removing the daily emissions from 350,000 cars.

There are many other promising projects in development. Project Tundra, a proposed project at a coal-fired power plant in North Dakota, aims to store up to 3.6 million tons of carbon dioxide per year. And the NET Power facility in development near Houston will utilize a process called the Allam cycle to produce electricity from natural gas using zero carbon emissions.

These are just a few examples of projects around the globe. In order for CCUS to have any meaningful impact on global emissions, however, many more of these facilities need to be deployed.

So today we are going to examine the state of CCUS technologies, the challenges of greater deployment, and how the federal government can be an effective partner to bring these technologies to market.

So we've got a very distinguished panel before us today:

- We have Assistant Secretary Steven Winberg from the Department of Energy;
- We have Dr. Julio Friedmann, who is a Senior Research Scholar at the Center for Global Energy Policy at Columbia University;
- Mr. Adam Goff is the Principal and Policy Director at 8 Rivers Capital;
- Mr. John Harju is the Vice President for Strategic Partnerships at the University of North Dakota's Energy and Environmental Research Center;
- And Mr. Richard Jackson is a Senior Vice President for Operations Support at Occidental Petroleum Company; and
- Mrs. Judith Lagano who is the Senior Vice President for Asset Management at NRG Energy.

So we've got a great panel assembled for us this morning, looking forward to hearing from them, but before we do, I'm going to turn to my colleague and friend, Senator Manchin for your comments.

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