

**Testimony Submitted to the United States Senate Committee on Environment and Public Works
Energy and Environmental Innovation: Wyoming's Leadership in Using and
Storing Carbon Dioxide Emissions**

Submitted by Jason Begger, Managing Director, Wyoming Integrated Test Center, August 19, 2020

Mr. Chairman, I appreciate the opportunity to speak to you today. My name is Jason Begger and I am the Managing Director of the Wyoming Integrated Test Center. A little over three years ago I had the opportunity to testify before this committee in your hearing room in Washington, so it's a great honor to host you today at our facility.

The ITC is a private/public partnership between the State of Wyoming, Basin Electric Power Cooperative, Tri-State Transmission and Generation Association and the National Rural Electric Cooperatives Association (NRECA). We have also received various in-kind contributions from Black Hills Energy and Rocky Mountain Power. The value of the private sector stakeholders is immeasurable as they have incredible experience with project management, technology review and strong federal relationships.

This facility was authorized in 2014 by the Wyoming legislature and what you see today has all occurred in the past six years. Through our coalition, we've constructed a facility, developed a communications plan, established a business development strategy, as well as all of the other necessary operational plans. Through relationships with the Department of Energy's National Carbon Capture Center and the International Carbon Capture Test Center Network, we've been able to learn and share best practices. At the end of construction, the facility came in 18% under budget, which provides additional funding for operations.

The ITC fills a very unique need in the United States. While developers have tested larger projects in the U.S., this is the only dedicated testing site that can host larger pilot and demonstration projects. Currently, many DOE funded projects must travel to Norway to scale up. The Wyoming ITC provides an

opportunity to spend those U.S. dollars here at a substantially reduced cost, providing better value to our taxpayers.

We have worked hard to forge a strong relationship with DOE and last summer hosted the Assistant Secretary for Fossil Energy, Steve Winberg. We recognize that while we have a great facility, we need DOE support to fund the projects we ultimately want to test here. One of the important lessons we've learned is scaling up technology takes a long time. It takes years to move through funding opportunities, design, fabrication and testing. In order to see the real fruits, we need long-term commitments from the federal government to support testing. Our testing partners need to know that they'll have the resources they need to methodically scale up and provide the types of technical assurances utilities need to feel comfortable commercializing the technologies. The USE IT Act would greatly assist in this area.

Many, but not all, of our potential tenants are seeking federal funding and whether or not they receive funding will determine if they can deploy on site. Currently, we have research relationships with XPRIZE, who you will hear about from Dr. Extavour, the Japan Coal Energy Center, Kawasaki Heavy Industries, Columbia University, TDA Research, Membrane Technology and Research, Gas Technology Inc., Air Liquide and the University of Kentucky.

With regards to the research community, we also view them as partners, not just tenants. One of the great benefits of the ITC is the blank canvas approach we can provide. This provides the physical space to host an array of technologies and add amenities as we grow. We hope we can partner with our tenants to repurpose equipment they may no longer need to provide expanded testing capabilities. A great example of this is a project that would grant their steam boiler to the ITC upon completion of their test. Steam is an integral component of many carbon capture technologies that would be a valuable service to provide.

Lastly, I'd like to touch upon how Wyoming views the ITC as a lynchpin for broader economic technology and development. We have worked closely with Campbell County, the School of Energy Resources, the Enhanced Oil Recovery Institute, the Wyoming Business Council and others. We make sure prospective

tenants are aware of the expertise and resources within each of these organizations and how they may be able to assist to make the Wyoming experience as seamless as possible.

A win/win for Wyoming is first developing these technologies that can be employed to preserve the economic value of the fossil energy industry and capturing the manufacturing and technology development that's perfected at the ITC.

I appreciate the opportunity to speak with you today and will gladly answer any questions. Thank you.