WHO KNEW?*



In 2014, with the support and encouragement of Governor Matthew H. Mead, the Wyoming State Legislature allocated \$15 million in funding for the design, construction and operation of an integrated test center to study the capture, sequestration and management of carbon emissions from a Wyoming coal fired power plant. An additional \$5 million commitment from private industry was required under the appropriation. which has since been secured from the Tri-State Generation and Transmission Association in addition to \$1 million pledged from the National Rural Electric Cooperative Association. Basin Electric is providing the host site as well as many additional in-kind contributions including engineers and construction management services.



The ITC will provide space for researchers to test Carbon Capture, Utilization and Sequestration (CCUS) technologies using 20 MW of actual coal-based flue gas. Along with testing capture technologies, additional research will look at taking flue gas and turning it into a marketable commodity. The research at the ITC will lead to new opportunities in petrochemicals as well as other commercial uses of carbon dioxide (CO₂). Research at the facility will help ensure the viability of the coal industry, which supports jobs, local and state economies and keeps electricity prices low for millions of people around the globe.

The ITC is slated to be one of a handful of such facilities around the world and only the second one in the United States. While many carbon capture technologies are being developed and studied in laboratory settings, the ITC will be one of the few research and testing facilities at an operating coal-fired powered plant. Laboratories cannot mimic the real world conditions of a functioning coal-fired power plant. The ITC will allow for real world testing at an active power plant and alleviates typical concerns over being able to transfer technology from a lab to a plant.

In October 2015, Governor Mead announced that the ITC would be built at Basin Electric Power Cooperative's Dry Fork Station near Gillette, Wyoming. The Dry Fork Station is a state of the art coal-fired power plant operated by Basin Electric Cooperative, Powder River Energy's wholesale power provider.

Pre-construction engineering and design work started in 2015, and some equipment installation will occur in March 2016 to take advantage of the power plant's regularly scheduled maintenance shutdown. Additional engineering is ongoing with site preparation and other construction work to begin in the Spring of 2016. The ITC is scheduled to be completed in the Summer of 2017. The Wyoming Infrastructure Authority is managing the pre-commissioning phase of the project.

Integrated Test Center

http://www.wyomingitc.org/

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