

Science 19 JUN 2021 4:08 AM AEST

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UW, University of Texas-Austin Study Barriers to Carbon Capture, Use, Storage

A University of Wyoming economist has joined colleagues from the University of Texas-Austin (UT) for a major study of economic and political barriers related to carbon capture, use and storage.

Chuck Mason, UW's H.A. "Dave" True Jr. Chair in Petroleum and Natural Gas Economics, is one of the recipients of a \$750,000, three-year grant from the Alfred P. Sloan Foundation to identify and help overcome the barriers to deployment of the technology that could help Wyoming's fossil fuel industry and the environment.

This research will complement [work being done by UW's School of Energy Resources](#) to advance the geologic sequestration of carbon dioxide (CO₂) captured from power generation and industrial sources.

Carbon capture, use and storage (CCUS) plays a key role in plans to reduce climate-changing CO₂ emissions by national and state governments, international agencies and researchers. Yet, while scientific questions about the technology largely have been resolved, CCUS development has been slow, with projects either stalling or shutting down due to market conditions.

"The fact that large-scale deployment has not really taken off suggests that there are significant remaining economic and political barriers to implementing CCUS at scale," Mason and his Texas colleagues wrote in their application to the Sloan Foundation. "In our view, a much larger social science research effort is needed to identify and overcome the barriers to large-scale CCUS deployment if it is to fulfill its envisioned role in the global climate change mitigation effort."

Founded in 1934 by industrialist Alfred P. Sloan Jr., the Alfred P. Sloan Foundation supports high-quality, impartial scientific research; fosters a robust, diverse scientific workforce; strengthens public understanding and engagement with science; and promotes the health of the institutions of scientific endeavor.

"I am so pleased we can support this important, exciting and timely effort," Sloan Foundation Program Director Evan Michelson wrote in an email notifying the research team of the grant award.

Texas and Wyoming together contain five of the 10 large-scale CCUS projects in operation in the United States; 73 percent of the nation's annual CO₂ storage capacity; and 65 percent of the total miles of CO₂ pipelines in the country. Wyoming is the nation's largest coal producer, and both Texas and Wyoming are major producers of oil and natural gas. Researchers at both institutions have substantial expertise in CCUS technologies, including the use of CO₂ in enhanced oil recovery.

Mason and his colleagues will explore questions about CCUS costs; barriers to investment and implementation; and trade-offs relative to other climate mitigation approaches and policies. This will include an in-depth look at CO₂ sources and users, geologic sequestration sites, pipelines and other CCUS infrastructure, as well as tax subsidies and other policies to encourage CCUS development.

Additionally, the project aims to build a new network of scholars at other institutions to address economic and public policy issues related to CCUS.

The researchers note that current tax subsidies for CCUS have received bipartisan support — and

Timeline

How air pollution changed during COVID-19 in Park City, Utah

12:44 AM AEST

Airlines Launch Global Action Group to Improve Handling of Disability Mobility Aids

12:40 AM AEST

UNAIDS is shocked and saddened by assassination of Jovenel Moise, President of Haiti

12:38 AM AEST

Icequakes likely rumble along geyser-spitting fractures in Saturn's icy moon Enceladus

12:38 AM AEST

Concordia PhD grad is recognized for his research on dopamine and alcohol misuse

12:34 AM AEST

Research partnership supports NYS families fighting opioids

12:34 AM AEST

New UN report reveals impact of COVID on human trafficking

12:28 AM AEST

Quarantine-free travel to resume on 19 July for fully vaccinated passengers returning from amber list countries

12:28 AM AEST

Human Rights Council Adopts Universal Periodic Review Outcomes of Federated States of Micronesia, Lebanon, Mauritania

12:24 AM AEST

Human Rights Council Adopts Universal Periodic Review Outcomes of Australia, Saint Lucia, and Nepal

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A UOC team develops a neural network to identify tiger mosquitoes

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South Sudan 10 years of independence Troika Statement

12:23 AM AEST

ESCWA signs memorandum of understanding with ARABOSAI in Qatar

12:22 AM AEST

Advancing Global Work on Climate Transparency

12:22 AM AEST

Grand Narrows marina to receive infrastructure upgrades

12:18 AM AEST

Troika Statement South Sudan's 10 Year Independence Anniversary

12:17 AM AEST

Canada accepting applications to fund clean technology for fisheries and aquaculture industries

12:17 AM AEST

Hurricane Hunters wrap up Elsa recon ahead of landfall

12:16 AM AEST

Informal exchange of views with civil society representatives on free exercise of lawyer profession

12:10 AM AEST

Helping businesses to prepare for full Customs Control in January 2022

12:10 AM AEST

Populist anti-foreign aid rhetoric has an impact on public – but only among fans of populist politicians, study shows

12:06 AM AEST

First phase of multimodal freight strategy published

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Experts recommend a varied and moderate consumption of sushi limiting quantities of tuna

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Study of indigenous language education in Russia leads to intercontinental collaboration

12:06 AM AEST

Fan survey launched in latest phase of football governance review

12:05 AM AEST

Equitable access to care: a global challenge

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LSHTM awarded new Doctoral Training Programme by Medical Research Council

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that President Joe Biden's climate plan includes increased CCUS incentives.

"With both houses of Congress narrowly divided along political lines, this piece of his plan may be one of a handful unlikely to generate significant legislative opposition," the researchers wrote.

Joining Mason as co-principal investigators on the project are UT Lyndon B. Johnson School of Public Affairs Assistant Professor Andrew Waxman and Benjamin Leibowicz, an assistant professor in UT's Operations Research and Industrial Engineering graduate program. Susan Hovorka and Vanessa Nuñez-López, both in UT's Bureau of Economic Geology, are co-investigators.

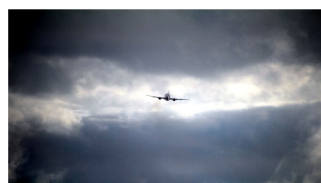
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[Why?](#)

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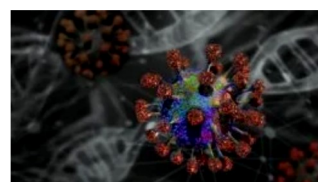
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