



UT Energy Bulletin | August 2024

Energy@UT News



How Plasmas Could Help Reduce Methane Emissions

A new, single-step process for converting methane to methanol could make it possible to capture and convert methane at its source, thereby reducing emissions and gas flaring. This groundbreaking research was led by UT Aerospace Engineering and Engineering Mechanics Assistant Professor Thomas Underwood.

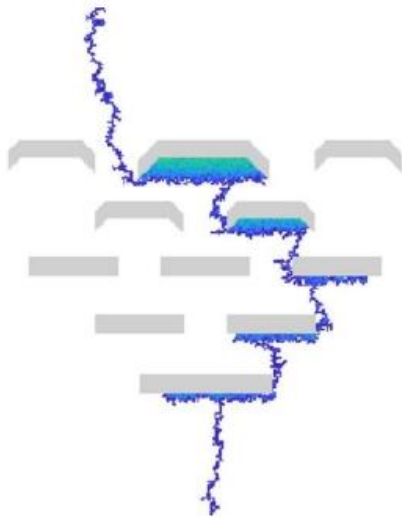
[Learn more](#)



Student Energy Showcase Call for Submissions: Art + Video + Research

As part of [EnergizeUT](#) on September 25, the Longhorn Energy Club and TEX-E student fellows are hosting a showcase of student research and artwork across a variety of media, from video to painting to photography. Submissions are due by September 9.

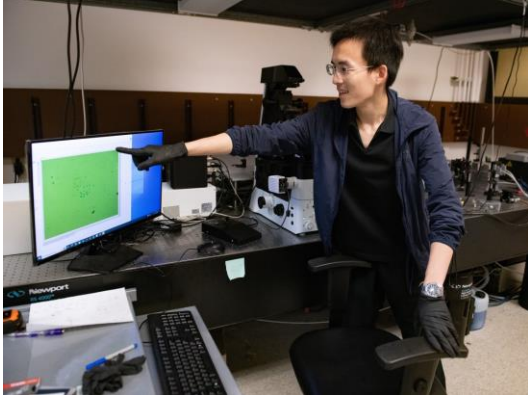
[More info here](#)



Better Carbon Storage with Stacked Geology

Researchers at UT Austin's Bureau of Economic Geology have published new research that suggests that underground barriers networked into "composite confining systems" may be more effective for long-term subsurface carbon dioxide storage than large reservoirs with a single cap.

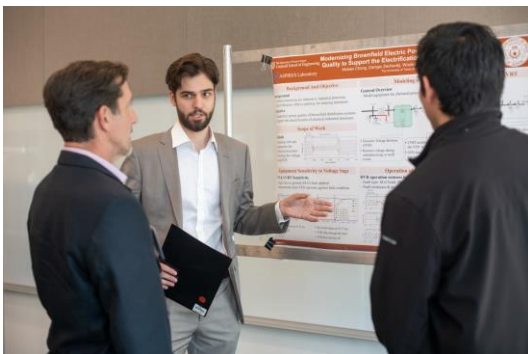
[Read it here](#)



Lasers and 2D Materials Could Solve the World's Plastic Problem

Texas Engineers are forging processes to reduce the energy and environmental costs of plastic disposal by transforming waste material into potentially useful carbon-based nanomaterials. The project is led by UT Mechanical Engineering Professor Yuebing Zheng, whose other ongoing research includes a project on green hydrogen production as part of the [2024 Strategic Energy Seed Grant Program](#).

[Learn more](#)



Smart Energy Call for Innovation

Calling all student startup founders! The Smart Energy Call for Innovation (C4i) supports new energy ventures founded by UT Austin students, injecting \$50K into student startups each year. Go [here](#) to learn more about this program, a partnership between the UT Energy Institute and Genesis, UT's student startup fund. You can also connect in person with the Genesis team at the upcoming [C4i Meet and Greet](#) and [EnergizeUT](#).

[Find out more](#)



LBJ School Launches Bachelor of Public Affairs Degree

Students entering UT Austin in the fall of 2025 will have the opportunity to pursue a Bachelor of Public Affairs degree that will prepare them for careers in public policy, including energy policy, with specializations such as the environment, national security, and foreign affairs.

[Find out more](#)

News From Around Campus

Energy Institute

[Andy Uhler](#) spoke with the [Texas Standard](#) about his upcoming podcast *Phases and Stages: The Texas Energy Story*, which explores what the shift from fossil energy sources to renewable energy means for Texans. The podcast premieres on September 25.

Bureau of Economic Geology | Center for Integrated Seismicity Research

[Katie Smye](#) was quoted in a [Texas Tribune](#) piece on research that builds the case for a direct, causal connection between fracking wastewater injection and blowouts of abandoned oil wells.

Cockrell School of Engineering | Hildebrand Department of Petroleum and Geosystems Engineering

[Hugh Daigle](#) spoke with [Marketplace](#) about why oil prices had been steady until a recent market dip.

Cockrell School of Engineering | Fariborz Maseeh Department of Civil, Architectural and Environmental Engineering

[Kara Kockelman](#) spoke with [Houston Public Media](#) about skepticism that the long-delayed expansion of I-45 will provide a lasting improvement in congestion.

Cockrell School of Engineering | Webber Energy Group

[Joshua Rhodes](#) and [Michael Webber](#) co-authored an opinion piece for [MSNBC](#) arguing that, while the recent series of three major storms that hit Houston within two months is unprecedented, Texas needs to invest in making electricity and communication networks able to withstand compounding damage from multiple storms, as that scenario will likely occur more frequently in the future.

Webber and Rhodes were each quoted in a [CNN.com](#) article discussing the need to direct funding toward making electrical transmission lines more resilient to withstand storms, rather than merely building new power generation.

Webber was also quoted in [The Texas Tribune](#) commenting on the impact of the series of damaging storms, including Hurricane Beryl, that hit Houston between May and July 2024.

Rhodes also spoke with [San Antonio Express-News](#) about ERCOT's estimate that electricity demand on the Texas grid could reach 150 gigawatts by 2030.

Rhodes was quoted in a [Texas Monthly](#) piece on Bitcoin mining in the Permian Basin, noting that while powering down cryptocurrency operations in response to tight grid conditions is helpful, it also currently makes financial sense for miners; if crypto prices or demand response incentives change, cryptocurrency miners' practices would likely also change.

Webber authored an opinion piece for [The New York Times](#) noting that the U.S. electricity grid is dangerously vulnerable to extreme weather caused by climate change, while aging infrastructure poses a significant wildfire hazard, as evidenced by the power outages from Hurricane Beryl and the deadly wildfires on Maui in 2023 and in the Texas Panhandle this year.

Webber also spoke with [The Wall Street Journal](#) about how to fix the electric grid.

LBJ School of Public Affairs

[Joshua Busby](#) was a guest on [The India Energy Hour](#) podcast where he delved into the political economy challenges of retiring coal plants in India. He discussed both local policy frameworks and international support mechanisms that can aid India's decision-making process as it transitions from coal power to non-fossil energy sources.

School of Law

[David B. Spence](#) was a guest on the [Resources Radio](#) podcast to discuss his recent book, *Climate of Contempt: How to Rescue the US Energy Transition from Voter Partisanship*.

Upcoming Events



Environmental & Energy Economics & Policy Seminar:

Equity and Risk in the Social Cost of Carbon: Evidence from GIVE

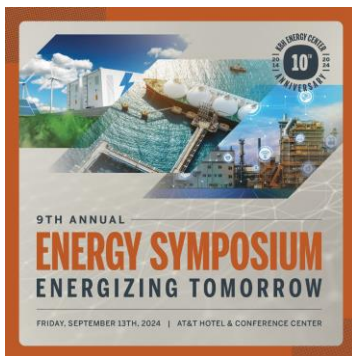
September 6, 2024 – 10:30-11:45am

LBJ School of Public Affairs

[2300 Red River St, Austin, TX](#), SRH 3.124, 1st Floor

The University of Texas at Austin

[More Information](#)



Energizing Tomorrow: Tackling Today's Energy Challenges While Preparing for the Future

September 13, 2024

[More Information](#)



Education Summit

October 3, 2024

[More Information](#)



EV Summit USA

October 15, 2024

The University of Texas at Austin

[More Information](#)



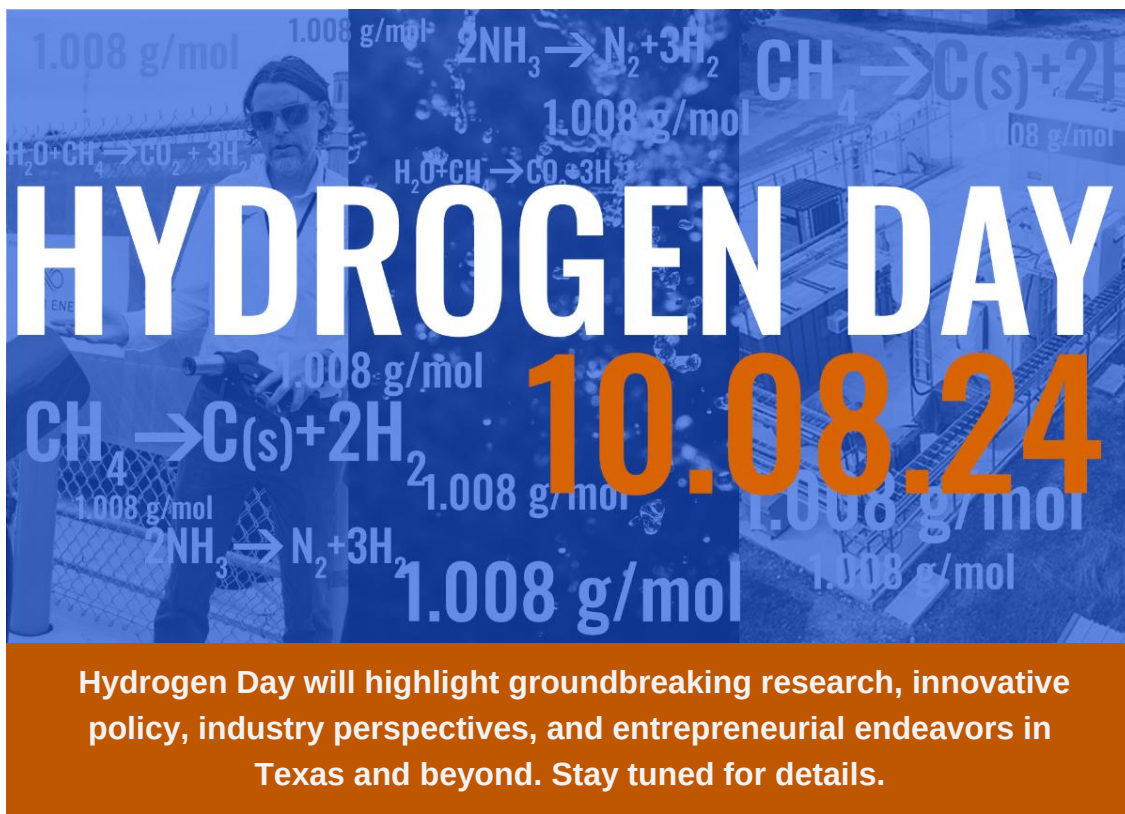
UT Energy Week 2025

March 31 – April 4, 2025

[More Information](#)



EnergizeUT will be held on the UT Austin campus on September 25.
Click to learn more and register to attend!

A promotional graphic for Hydrogen Day. The background is a blue-tinted image of a man in a lab coat and sunglasses, holding a gas cylinder. Overlaid on this are various chemical equations and the text '1.008 g/mol'. The main text 'HYDROGEN DAY' is in large white letters, and '10.08.24' is in large orange letters. Below this, an orange banner contains white text.

HYDROGEN DAY
10.08.24

Hydrogen Day will highlight groundbreaking research, innovative policy, industry perspectives, and entrepreneurial endeavors in Texas and beyond. Stay tuned for details.

Thanks to our corporate partners and annual event sponsors for their generous support of UT's Energy Institute.

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