



UT Energy Bulletin | December 2025

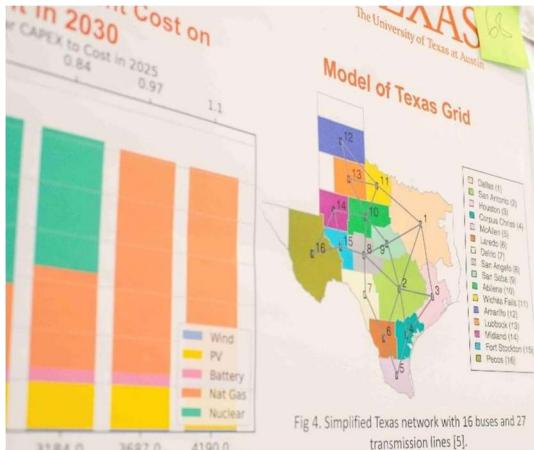
Energy@UT News



Proceedings From Phase 2 of the 2025 UT Large Load Symposium Published

Building on findings from the Phase 1 UT Large Loads Symposium held in July, in October a hackathon-style working session convened leaders from PUCT, ERCOT, TRE, utilities, developers, technology providers, and academia to design real solutions to accelerating demand from data centers and other large, power-dense loads in Texas.

[Learn More and Download the Report](#)



2026 Strategic Energy Seed Grant Call for Proposals

The Energy Institute has launched the 2026 Strategic Energy Seed Grant Call for Proposals. The program aims to accelerate scientific, engineering, technological, techno-economic and policy innovation and is open to all fields of energy research.

[Learn More](#)



Texas Initiative for Datacenter Energy and Large Loads (TEX-DEL) Launched

The Texas Initiative for Datacenter Energy and Large Loads (TEX-DEL) is a new, university-wide initiative that addresses every aspect of the energy journey. It kicked off in November with the TEX-DEL Workshop on Datacenter Energy and Large Loads, a unique opportunity for industry, government, national labs, and researchers to explore the latest energy solutions for large-scale data centers and guide future efforts.

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Kent Zheng Recognized for Advancements in Renewable Energy

UT Chemical Engineering Assistant Professor [Kent Zheng](#) has received the Nelson “Buck” Robinson Science and Technology Award for Renewable Energy from the Materials Research Society. The award recognizes young professionals for developing novel solutions for renewable energy. Zheng’s work focuses on identifying disruptive battery technologies that move beyond Lithium-ion dependencies.

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Combining Energy with Computational Science, UT Launches Program to Bolster Texas, U.S. Energy Dominance

UT Austin has launched a new program to give energy students an unprecedented opportunity to use computational science, including digital twin technology and artificial intelligence, to make nuclear, oil and gas, and other energy systems safer and more efficient. The KBH Computational Energy Fellows Program, a collaboration between the Oden Institute and the KBH Energy Center, supported by the O'Donnell Foundation, will prepare students for careers at the forefront of energy innovation.

[Learn More](#)



Guihua Yu Awarded Global Prize for Innovation in Water's Grand Discovery Prize

UT materials scientist Professor [Guihua Yu](#) has been awarded the Global Prize for Innovation in Water. Launched by the Saudi Water Authority in 2023, the prize aims to recognize the solutions most capable of creating real impact on the future of water globally.

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Revolutionizing the Production of Semiconductor Chips

TEXAS Engineers are leading a team that aims to revolutionize semiconductor chip production using a new 3D printing method called holographic metasurface nano-lithography (HMNL). The approach aims for faster, more efficient, and more environmentally-friendly production of advanced electronics, enabling previously impossible designs like 3D printed capacitors and unconventional electronic packages.

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Tushar Telmasre Receives Awards From 248th ECS Meeting

UT Materials Science student Tushar Telmasre was selected for two accolades at the 248th Electrochemical Society Meeting this fall: a Presentation Award for his work on phase field models for intercalation and the Industrial Electrochemistry & Electrochemical Engineering Division Ralph E. White Outstanding Student Award, which recognizes promising young engineers and scientists in the field of modeling and simulation.

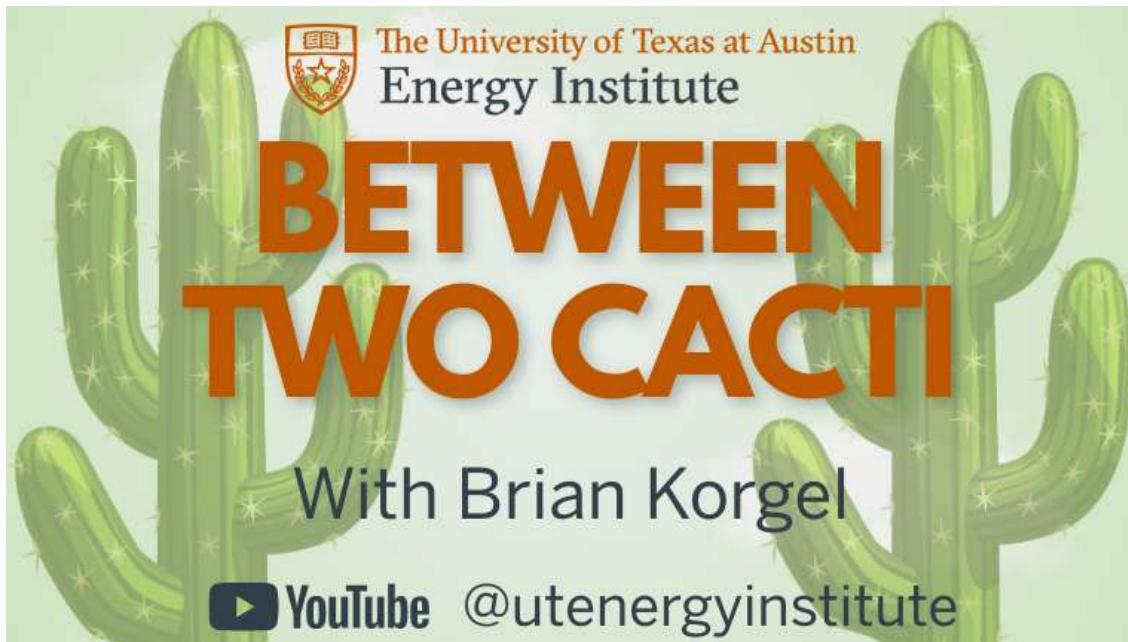
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Featured Publication

Grid planning insights from near-optimal generation portfolios amidst large-load growth

A recent paper from UT Chemical Engineering graduate student Jerry Potts and assistant professor Sergio Castellanos explores the challenge of rapid load growth from data centers, cryptocurrency mining, and industrial processes on U.S. generation and transmission infrastructure. The researchers modeled the Texas Interconnection to assess the potential impacts of these emerging demands under various growth scenarios. The research reveals consistently dominant, cost-optimal technologies like solar, onshore wind, and natural-gas-fired generation which can be supplemented by emerging technologies like offshore wind and geothermal energy, offering infrastructure planners a variety of solutions suitable to their local systems.

[Read More](#)



Find Energy Institute Event Content on YouTube

We have a wealth of panel discussions and keynote talks available to stream on our [YouTube channel](#). Catch up on anything you missed from [Hydrogen Day 2025](#) and the [Global Solar Power Forum](#), or check out our [Between Two Cacti playlist](#) that collects a series of conversations between Energy Institute Director Brian Korgel and other thought leaders from across the energy space.

[Stream and Follow](#)

News From Around Campus

Energy Institute

[Jorge Piñon](#) was quoted in a [Reuters](#) report on the potential impact on Cuba of the recent U.S. seizure of a Venezuelan oil tanker.

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

Hugh Daigle was quoted on [Marketplace](#) discussing record U.S. crude oil production due to efficiency gains, noting that, "as it stands right now, most basins here in the U.S. are still profitable," even at prices around \$60 a barrel.

Permian Energy Development Lab (PEDL)

Derek Adams was quoted in [Yahoo! News](#), [Midland Reporter-Telegram](#), [Carbon Herald](#), [Carbon Capture Journal](#), [Odessa American](#), and [Sustainable Business NL](#) (Dutch language) about PEDL's collaboration with Return Carbon to launch the Trinity Campus, a "proving ground" for Direct Air Capture (DAC) technologies in the Permian Basin.

Webber Energy Group

Joshua Rhodes was quoted in [E&E News](#) about how rising U.S. liquefied natural gas (LNG) exports tie the domestic power market more closely to global pricing, putting upward pressure on natural gas costs.

Rhodes was also quoted on [Marketplace](#) discussing how rapidly climbing electricity demand from data centers, population growth, EVs, and heat pumps will pose a significant challenge to the grid, potentially requiring extensive, costly infrastructure replacement.

Bureau of Economic Geology

Ning Lin spoke with [Spectrum News](#) about a new research consortium known as COMPASS that aims to use science and data-driven research to help ease the tension between data centers and surrounding communities.

Brent Elliott commented on Texas' shifting uranium landscape in the [Texas Standard](#), noting that domestic production depends heavily on how U.S. prices compare to cheaper foreign imports.



Apply for the TEX-E Fellowship!

Join a community that inspires, equips, and accelerates the next generation of energy innovators—celebrating collaboration and leadership in the transition to a sustainable future.

[Click To Apply | Final Deadline Feb 10](#)

More Funding Opportunities at UT Austin

1. Apply for the \$10k Parekh India Impact Prize!

[Apply here by December 21, 2025](#)

2. Apply for a Green Fund Grant Award!

Deadline February 11, 2026

[More information](#)

3. Pitch for \$15k Seed Funding in the 2026 SEED Challenge!

[Register here by February 22, 2026](#)

Upcoming Events



Planting the SEED Panel: Learn About Impact Entrepreneurship

January 28, 2026, 5:45-7:15 p.m.
Rowling Hall, RRH 3.310

[Register Now](#)



Save the Date for UT's Carbon Capture and Storage Conference, UTCCS-8

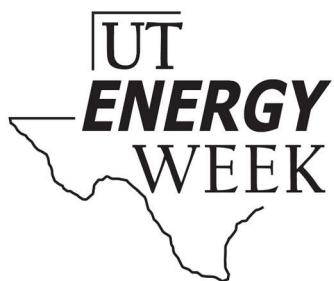
January 27-28, 2026
JJ Pickle Research Center



Save the Date: LBJ Business Policy Forum "Unleashing America's Entrepreneurial Edge"

February 17, 2026
The University of Texas at Austin

[More Information](#)



Save the Date for Energy Week 2026

April 6–10, 2026

The University of Texas at Austin

[Add to Calendar](#)

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