UT Energy Bulletin | February 2021

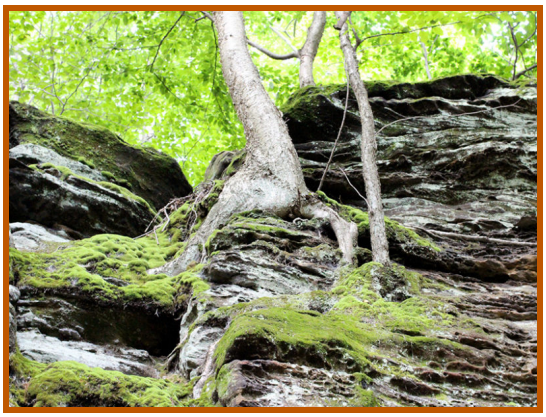
Energy@UT News

Key Switchgrass Genes Identified, Which Could Mean Better Biofuels Ahead

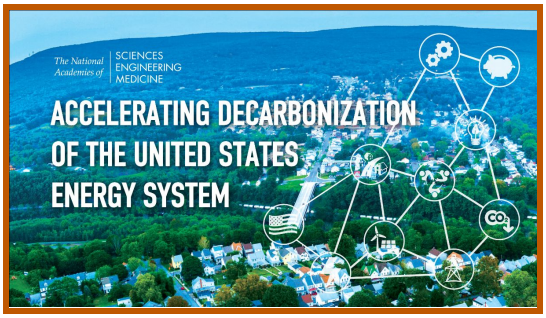
Researchers in the Department of Integrative Biology in the College of Natural Sciences, working with the U.S. Department of Energy, Joint Genome Institute, the HudsonAlpha Institute for Biotechnology, and other institutions, have produced a new genetic roadmap for breeding switchgrass to match different U.S. climates. The genome resources developed in the study could help increase switchgrass yield for the sustainable production of bioenergy. Learn more here.

Researchers Unearth Bedrock Carbon and Water Dynamics

A new study, led by researchers in the Jackson School of Geosciences, identifies new sources of carbon from tree and plant roots causing bedrock fissures. The report investigated old-growth forests in Northern California, and uncovered new findings about the role of tree and plant



life for better understanding the global carbon cycle. Learn more **here**.



Faculty Contributes to NASEM Report on Decarbonization of the U.S. Energy System

To help policymakers, businesses, communities, and the public better understand what a net-zero transition would mean for the United States, the National Academies of Sciences, Engineering, and Medicine convened a **committee of experts** to investigate the technology, policy, and societal dimensions of accelerating decarbonization in the U.S. Varun Rai, director of the Energy Institute, serves on the committee. Learn more with the interactive report **here**.

Researchers Trace Geologic Origins of Gulf of Mexico 'Super Basin'

UT's **Institute for Geophysics** released a new report tracing the geologic history of the Gulf of Mexico, including the elements that shaped its vast reserves of oil and gas. The assessment reviews decades of geologic research and production figures in an effort to understand the secret behind the energy super basin's longevity. Read more **here**.

Assessing the Political Feasibility of Decarbonizing the US Building Sector

New research from LBJ School of Public Affairs faculty Joshua Busby and senior research analyst Sarang Shidore identifies prospective policy pathways through Biden Administration executive action or bipartisan legislation that may reduce the carbon footprint of the U.S. building sector. Their report, “Assessing the Political Feasibility of Decarbonizing the U.S. Buildings Sector,” outlines proposals that include extending tax credits for efficiency improvements, upgrading federal buildings, and low-carbon weatherization programs.

Addressing Cyclical Unemployment in the Oil Industry

The IC² Institute and Dr. Sheldon Landsberger of the Department of Mechanical Engineering created a professional development and jobs training program for rural, oil-focused communities in West Texas. The Rural Innovation Incubator, or RI², program aims to address employment fluctuations in the oil and gas industry by offering curricula to high school and community college students that enable them to work in skilled occupations needed on a consistent basis.

News from Around Campus

- **Cockrell School of Engineering**: Guihua Yu receives the 2021 Edith and Peter O’Donnell Award in Engineering for pioneering work enhancing energy storage and water sustainability.
- **UT Hydrogen Roundtable**: Read about the major takeaways presented during the Texas Hydrogen Roundtable in CleanTechnica and S&P Global Platts.
- **LBJ School of Public Affairs**: Sheila Olmstead shared perspectives in the *Austin American-Statesman* on "How Joe Biden’s climate plan could affect the oil and gas industry in Texas".

- **LBJ School of Public Affairs | School of Architecture**: Andrew Waxman and Gian-Claudia Sciara offered insights in **"Fee for electric, hybrid vehicles is good for Texas roads"** via the *Houston Chronicle*.
- **Jackson School of Geosciences**: Bridget Scanlon assessed **the implications of a new EPA decision for wastewater from oil fields** in the *Texas Tribune*.
- **Bureau of Economic Geology**: Scott Tinker authored an opinion piece, **"We must go honest to 'go green'"**, in *The Hill.*
- **Department of Mechanical Engineering**: Michael Webber wrote an energy blog for the American Society of Mechanical Engineers on how **"Clean energy infrastructure can be a win for rural areas"**.
- **Energy Institute**: *The New York Times* highlighted a 2018 study by Dave Tuttle and Joshua Rhodes in **"Electric cars are coming, and fast. Is the nation's grid up to it?"**.
- **Energy Institute**: Carey King on how **"Wind overtook coal as a power source in Texas"** in the *San Antonio Express-News.*

Upcoming Events

UT Energy Symposium: Spring 2021

This semester, the **UT Energy Symposium** (UTES) series features guest speakers from Google, Bipartisan Policy Center, and Universidade de Lisboa. The symposium, which is free and open to the public, is held virtually on Tuesdays from 12:30 p.m. to 1:30 p.m. See the full schedule **here.**

KBH Center for Energy, Law & Business: Spring 2021 Events

The **KBH Center for Energy, Law and Business** at UT is hosting a series of panels and webinars virtually in February and March. These events cover topics including carbon capture and sequestration, women in energy, and the status of the global energy mix. More details are available **here**.
