

UT
ENERGY
WEEK
2015

FEBRUARY 16 – 20, 2015

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About UT Energy Week 2015

UT Energy Week 2015 is co-hosted by The University of Texas at Austin **Energy Institute** and the student-led **Longhorn Energy Club**, with the participation of academic units and research centers engaged in energy-related research. The conference brings together experts in academia, industry, government, and the non-profit world to provide insights on some of the most vital energy issues facing society today; highlights the work of university students involved in cutting-edge energy research; and illustrates the depth of knowledge and expertise among scientists and other researchers at UT Austin, the premier energy research university in the world.

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ENERGY WEEK WIFI ACCESS

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Longhorn Energy Club seeks to leverage the world-class academic, co-curricular, and extra-curricular energy opportunities at UT for the betterment of all members of the UT community. In particular, the aim of this organization shall be to build community and collaboration between students at UT, support energy-related activities and events, and to aid members in pursuit of energy careers.

PRESIDENT & CONFERENCE CO-CHAIR	Margaret Cook
VICE CHAIR (UNIVERSITY RELATIONS)	Sean Pool
MARKETING	Maggie Griffin
ENERGY WEEK	Lin McGroary
ENERGY WEEK	Prachi Mehta
CORPORATE RELATIONS	Kate Juelis
CORPORATE RELATIONS	Alexander Thornton
FINANCE	Alex Dey
PROFESSIONAL DEVELOPMENT	Vikram Mukhi
ENTREPRENEURSHIP	Jason Wible
RESEARCH	Vivek Shastry
RESEARCH	Nikos Vergos
SPEAKERS	Nicholas Harris
SPEAKERS	Jared Berg
MARKETING	Miriam Anderson
RESEARCH COMPETITION	Abigail Ondeck
LOGISTICS	Chris Klabunde
NETWORKING	Kayla Fenton



UT Energy Week 2015

Welcome to the first annual UT Energy Week, co-hosted by The University of Texas at Austin Energy Institute and the Longhorn Energy Club, with the participation of schools, colleges, and centers engaged in energy research.

UT Energy Week will showcase the interdisciplinary collaboration and sharing of expertise we believe is essential in identifying and solving complex energy problems facing our world. Sponsored by academic, industry, governmental, and not-for-profit partners, UT Energy Week aims to further the public discourse of vital energy issues through a candid discussion among experts.

Our goal for the conference is three-fold: to create a platform for experts who can provide insights on important energy issues; to highlight the work of the best and brightest UT Austin students involved in cutting-edge energy research; and to demonstrate the depth and breadth of knowledge among scientists and other researchers at UT Austin, the premier energy research university in the world.

Through a series of panel discussions you'll hear a robust discussion of emerging trends, new energy technologies, and topical research findings. Renowned speakers will share their views on such topics as Arctic drilling and large-scale energy storage; the role of oil and gas in a lower-carbon future; green building design and construction; and the effect of disruptive technologies such as distributive generation in an evolving electric utility business model.

Be sure to check out the student energy research poster competition and start-up challenge, which offers more than \$100,000 in prizes.

UT Energy Week also features a full slate of evening events that are free and open to the public, including a town hall meeting on the impact of hydraulic fracturing on oil and natural gas extraction; a tour of UT Austin's state-of-the-art power plant and the largest microgrid in the U.S.; energy course planning and a fuel cell bus demo for K-12 teachers; a myth-busting Hot Science-Cool Talks lecture on the role of energy in society; and much more.

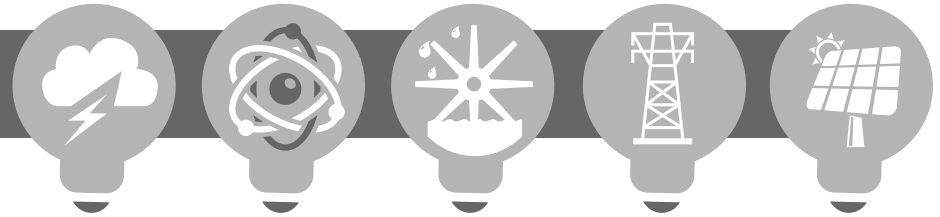
Thank you for attending UT Energy Week 2015 and for giving us the opportunity to share with you some of the exciting and vital energy research taking place at UT Austin.

Sincerely,

Dr. Thomas F. Edgar
Director, Energy Institute

Margaret Cook
President, Longhorn Energy Club
IGERT Research Fellow

BACK TO THE FUTURE?



7:30 – 8:45 *Registration and Continental Breakfast*

8:45 – 9:00 Welcome and Opening Remarks
Tom Edgar, Director, Energy Institute,
The University of Texas at Austin

9:00 – 9:45 *Keynote*
Jose Bravo, Chief Scientist, Shell

9:45 – 11:00 **Arctic/Frontier Drilling – Technical Issues**



Moderator: **Chris Tomlinson**, Energy Business Columnist,
Houston Chronicle

Featured panelists:

Jeff Wahleithner, VP Wells (Deepwater and Arctic), Shell Oil

Fred Florence, Director of Advanced Drilling Technology,
National Oilwell Varco

Jerome Schubert, Associate Professor, Texas A&M University

11:00 – 11:15 *Coffee*

11:15 – 12:30 **Arctic/Frontier Drilling – Safety, Regulation & Environmental Issues**



Moderator: **Mose Buchele**, energy reporter with KUT's
StateImpact Texas

Featured panelists:

Lois Epstein, Arctic Program Director, The Wilderness Society

Aboyi Olokpo, Product Champion – Rotary Steerable
Systems, Schlumberger

Sheldon Parmer, Environmental Health and Safety Manager,
Anadarko

Jeff Wahleithner, VP Wells (Deepwater and Arctic), Shell Oil

12:30 – 2:15 *Lunch – Keynote*

Christi Craddick, Texas Railroad Commission

2:15 – 3:30 **Oil and Gas Supply and Economics**

Moderator and panelist: **Michelle Michot Foss**, Chief Energy
Economist, Bureau of Economic Geology's Center for Energy
Economics, Jackson School of Geosciences, The University of
Texas at Austin

Panelist: **Svetlana Ikonnikova**, Research Associate and
Energy Economist, Bureau of Economic Geology, The University
of Texas at Austin

3:30 – 3:45 *Coffee*

3:45 – 5:00 **Financing of Oil and Gas Projects**



Moderator: **John Corrigan**, Partner, Strategy&

Featured panelists:

Mark Berg, Executive Vice President, Corporate, Pioneer
Natural Resources

Thomas Gardner, Managing Director, Global Corporate
Investment Banking, Bank of America Merrill Lynch

Ron Hulme, CEO, Parallel Resource Partners

Mike Tweedy, US Procurement Manager, eni US operating
Company

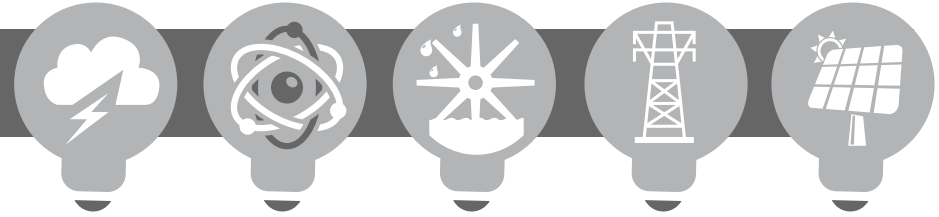
Evening Sessions and Events

See pages 18-19 for details

5:30 Conference reception

6:30 – 8:00 Town Hall Meeting:
The Impact of Hydraulic Fracturing

BUILDING BRIDGES TO A SUSTAINABLE WORLD



- 7:30 – 8:45 *Registration and Continental Breakfast*
- 8:45 – 9:00 Welcome and Opening Remarks
Margaret Cook, President, Longhorn Energy Club
- 9:00 – 9:45 *Keynote*
Doyle N. Beneby, President and Chief Executive Officer, CPS Energy
- 9:45 – 11:00 **Natural Gas: King for a Day or Here to Stay?**
Moderator: **Jim Malewitz**, Texas Tribune
Featured panelists:
Kevin Howell, Chairman of the Board, Illinois Power Generating Company
Colin Leyden, Senior Manager of State Regulatory & Legislative Affairs for Natural Gas, Environmental Defense Fund
Danielle Murray, Austin Energy
- 11:00 – 11:15 *Coffee*
- 11:15 – 12:30 **The Future for Nuclear**
Moderator: **Steven Biegalski**, Director, Nuclear Engineering Laboratory, The University of Texas at Austin
Featured panelists:
Vicky Bailey, Nuclear Matters Leadership Council Member
Kirk Sorensen, CEO, Flibe Energy
- 12:30 – 2:15 *Lunch – Keynote Speaker*
Werner Lang, Professor and Director, Center for Energy Efficient and Sustainable Design and Building, Technical University of Munich
“Sustainable Energy Policies and Future-Oriented Building Design”



2:15 – 3:30 **NexusHaus – Energy, Water and Food**

Moderators: **Petra Liedl, Michael Garrison and Adam Pyrek**, School of Architecture, The University of Texas at Austin
Featured panelists:
Robert Stefani, Head of Auxiliary Water Program, City of Austin
Edwin Marty, Food Policy Manager, City of Austin

3:30 – 3:45 *Coffee*

3:45 – 5:00 **Communication Issues for the Energy Sector**

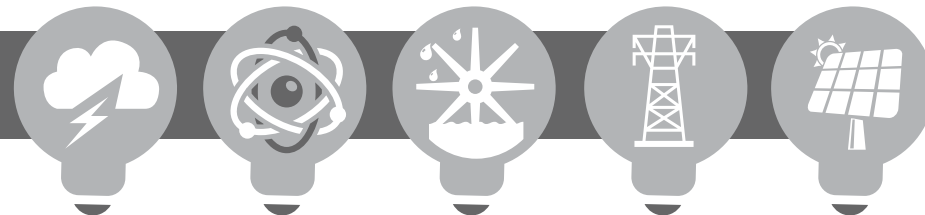
Moderator: **Ken Cohen**, VP Government and Public Affairs, ExxonMobil
Featured panelists:
Mica Odom, Communication Director, US Climate and Energy Program, Environmental Defense Fund
Michael Webber, Associate Professor and Deputy Director of the Energy Institute, The University of Texas at Austin
LeeAnn Kahlor, Associate Professor, Department of Advertising and Public Relations, and Science Communication Researcher, The University of Texas at Austin

Evening Sessions and Events

See pages 18-19 for details

5:30 – 7:00 UT research on energy use in buildings, featuring NexusHaus – the Solar Decathlon Project

EMPOWERING CONSUMERS, REINVENTING INFRASTRUCTURE



- 7:30 – 8:45 *Registration and Continental Breakfast*
- 8:45 – 9:30 *Keynote*
Jeff Fleeman, Director of Advanced Transmission Studies and Technologies, American Electric Power
- 9:30 – 10:15 *Speaker*
Brewster McCracken, President and Chief Executive Officer, Pecan Street Inc
- 10:15 – 11:00 *Speaker*
John Goodenough, Virginia H. Cockrell Centennial Chair in Engineering, The University of Texas at Austin, "*Rechargeable Batteries Old and New*"
- 11:00 – 11:15 *Coffee*
- 11:15 – 12:30 **How Smartgrids Enable Consumers**
Moderator: **Kurt Stogdill**, Distributed Energy Services Group, Austin Energy
Featured panelists:
Paul Wattles, Senior Market Design Analyst, ERCOT
Bernardo Mendez, Product Manager, Active Power
Emmanuel Monnerie, Landis Gyr
Anna Lising, Opower
- 12:30 – 2:00 *Lunch – Keynote Speaker*
Rebecca Klein, Chair, Power Across Texas; former Chair, Public Utility Commission of Texas
- 2:00 – 2:45 *Speaker*
Lance Spross, Director, Engineering Standards and Maintenance Strategy, Oncor

2:45 – 3:30 *Speaker*
Nazar Al-Khayat, NRG Chief Engineer Microgrid

3:30 – 3:45 *Coffee*

3:45 – 5:00 **Policy implications of increasing energy storage on the grid**

Moderator: **Paul Hudson**, Managing Partner, Stratus Energy Group; former Chair, Texas Public Utilities Commission

Featured panelists:

Darren Hammell, President & CEO, Princeton Power Systems Inc

Matt Roberts, Executive Director, Energy Storage Association

Evan Ture, Senior Sales Application Engineer, Younicos Inc

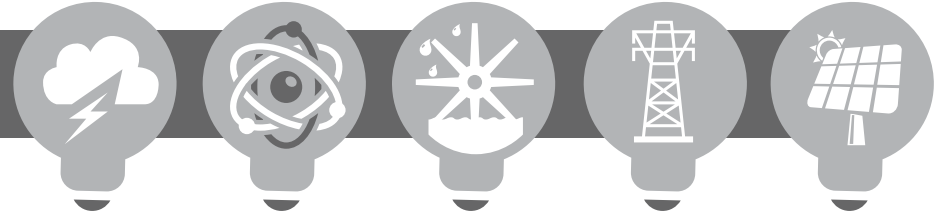
Evening Sessions and Events

See pages 18-19 for details

5:15 Tour of the UT Austin microgrid

6:30 Energy Week banquet and presentation of energy startup competition and research poster competition awards
(separate registration required for dinner)

REGULATION, INTEGRATION AND DECENTRALIZATION



7:30 – 9:00 *Registration and Continental Breakfast*

9:00 – 9:45 *Keynote*

Debbie Kimberly, Vice President, Customer Energy Solutions, Austin Energy

“New Programs, Enhanced Approaches to Meeting Customer Energy Needs at Austin Energy”

9:45 – 11:00



**Climate Change:
Environmental and Economic Conflicts**

Moderator: **Dan Lashof**, Chief Operating Officer, NextGen Climate America

Featured panelists:

Bill Barnes, Director, Regulatory Affairs, NRG Energy

Colin Meehan, Director, Regulatory & Public Affairs, First Solar

Steve Hagle, Deputy Director of the Office of Air, Texas Commission on Environmental Quality

11:00 – 11:15 *Coffee*

11:15 – 12:30 **The Impact of Water Resources on
Energy Technology**



Moderator: **Neena Satija**, *The Texas Tribune*

Featured panelists:

Charles Porter, Assistant Professor, St Edward's University

Patrick Cox, District Director and President, Pedernales Electric Coop

James Murphy, Guadalupe-Blanco River Authority

John Williams, Senior Communications Specialist, Lower Colorado River Authority

12:30 – 2:15 *Lunch – Keynote*

Calvin Crowder, Executive Director, American Electric Power; President, Electric Transmission Texas LLC

2:15 – 3:30

Assessment of the Full Cost of Electricity

Moderator: **James Dyer**, The Fondren Foundation Centennial Chair in Business, McCombs School of Business, The University of Texas at Austin

Sheila Olmstead Associate Professor, LBJ School of Public Affairs, The University of Texas at Austin

David Spence Professor, McCombs School of Business, School of Law, and Department of Government, The University of Texas at Austin

3:30 – 3:45 *Coffee*

3:45 – 5:00

The Future of Electricity Generation & Utilities

Moderator: **Ross Baldick**, Professor and Leland Barclay Fellow in Engineering, The University of Texas at Austin

Featured panelists:

Bram Reinders, Director, Alliance Management, Alliander NV

Roger Duncan, former General Manager, Austin Energy

Cris Eugster, Group Executive Vice President, Chief Generation and Strategy Officer, CPS Energy

Ken Donohoo, Director, System Planning, Oncor

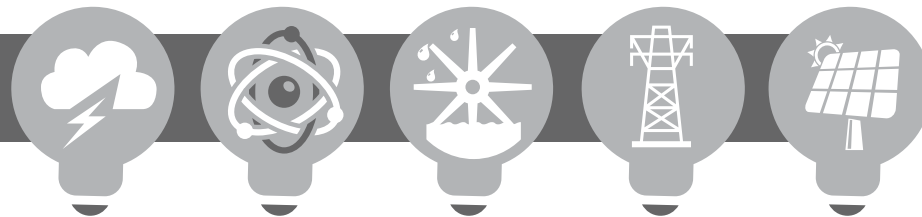
Evening Session

See pages 18-19 for details

5:15 – 6:15 UT Energy Symposium:

*Energy and Climate Goals in Nordic Countries
and Implications for the U.S.*

GEOPOLITICS OF OIL AND GAS IN THE AMERICAS



8:15 – 9:00 *Breakfast Keynote*
Dr. Sergio M. Alcocer, Under-Secretary for North American Affairs, Secretariat of Foreign Relations, Mexico

9:00 – 9:15 *Welcome & Overview*
Professor Melinda Taylor, Executive Director, Kay Bailey Hutchison Center for Energy, Law, and Business

Welcome Remarks
Provost Gregory L. Fenves, Executive Vice President and Provost, The University of Texas at Austin

Introduction
The Honorable Kay Bailey Hutchison, Former United States Senator

Shifting Dynamics of Global Energy: Opportunities & Challenges for the United States

9:15 – 9:45 **Don Evans**, Former Secretary of Commerce (invited)

9:45 – 10:45 Panel discussion

The future of global energy is evolving as unconventional resources like shale gas and tight oil are discovered around the world and renewable technologies improve. The implications for energy prices, U.S. energy independence, national security, environmental impacts, and regional political alliances are significant. This panel will discuss the myriad effects of the shifting energy picture on national security, global investments, and regulatory reform.

Moderator: **Professor Robert M. Chesney**, School of Law, The University of Texas at Austin

Featured panelists:

Ali Moshiri, President, Chevron African and Latin America Exploration & Production

Robert A. Manning, Senior Fellow, Brent Scowcroft Center on International Security and its Strategic Foresight Initiative at the Atlantic Council

Robin Dunnigan, Deputy Assistant Secretary for Energy Diplomacy, U.S. Department of State

10:45 – 11:00 *Break*

Mexican Energy Reform: Transforming a National Industry

11:00 – 11:30 **Duncan Wood**, Director, Wilson Center's Mexico Institute

11:30 – 12:45 Panel discussion

In-depth discussion of some of the key challenges that Mexico faces as it opens its energy sector to foreign investment, including security, labor, and compliance with anti-corruption laws.

Moderator: **Ariel Ramos**, Partner, Haynes & Boone, Mexico City
Featured panelists:

Tony Payan, Director, Baker Institute Mexico Center

Fred Burton, Vice President of Intelligence, Strafor

Steven S. Runner, Assistant Chief Attorney, Exploration/Upstream Ventures, ExxonMobil Corporation

12:45 – 2:00 *Lunch Keynote Speaker*

The Honorable Mel Martínez, Former United States Senator

Mexican Energy Reform: Economic Expansion for Mexico and the Americas

2:00 – 3:30 Panel discussion

Discussion of the expected benefits to Mexico and North America of energy regulatory reform and environmental and social challenges for Mexico.

Moderator: **Jorge Piñón**, Jackson School of Geosciences, The University of Texas at Austin

Featured panelists:

Dr. Michelle Michot Foss, Chief Energy Economist, Bureau of Economic Geology's Center for Energy Economics, Jackson School of Geosciences, The University of Texas at Austin

Adrián Lajous, Senior Fellow, Center for Global Energy Policy, Columbia University

Gustavo Alanís Ortega, President, Centro Mexicano de Derecho Ambiental

Evening Event

See pages 18-19 for details

UT Environmental Science Institute's Hot Science–Cool Talks:
“Power Trip: The Story of Energy” by Dr. Michael Webber

7:00 – 8:15; preceded by Interactive Fair 5:45 – 7:00

Student Research Poster Competition

The University of Texas at Austin is one of the leading universities for energy research, but beyond that it is the center for interdisciplinary research, something that is necessary to gain an accurate perspective on energy issues and which is emphasized throughout Energy Week.

Research into the development of novel energy and resource-related technologies and the affiliated policies is a vital part of addressing the key energy-related challenges facing humanity in the 21st century. To promote the development of energy research in the academic community, UT Energy Week allows for full-time undergraduate and graduate students to participate in an interdisciplinary research poster competition.

JUDGES

Energy Storage & Efficiency

Dr. Maggie Chen, Assistant Professor, Mechanical Engineering

Matt Fajkus, Assistant Professor, School of Architecture

Environmental & Sustainability

Jim Walker, Director of Sustainability, UT Austin

Dr. Joshua Rhodes, Postdoctoral Fellow, Mechanical Engineering

Generation, Distribution, & Markets

Dr. Ross Baldick, Professor, Electrical and Computer Engineering

Tejas Pevekar, Energy Manager, Utilities & Energy Management

Renewable & Clean Energy

Dr. Carey King, Assistant Director, Energy Institute

Dr. Farshid Arman, Director of Energy Technologies, Siemens

Fossil Fuels & Byproducts

Dr. Gary Rochelle, Professor, Chemical Engineering

Dr. Hilary Olson, Research Associate, Lecturer, Petroleum and Geosystems Engineering

Rushan Wasim, University of Texas - San Antonio
Mechanical Engineering

"Distributed Technology Deployments in Commercial Buildings Does It Make 'Cents'"

Cara Touretzky, University of Texas Chemical Engineering

"Maximizing Efficiency of the Electric Grid through Optimal Management of Thermal Energy Storage in Buildings"

Ankur Kumar, University of Texas Chemical Engineering

"Energy Performance Improvement of Industrial H₂ Plants through Smart Manufacturing"

Teodoro Guzman, Cornell University MBA

"Empowering homeowner energy footprint reduction through the Energage app"

Vincent Heng, University of Texas Chemical Engineering

"Model-Based Energy Management of High-Temperature Materials Processing"

Kyle Klavetter, University of Texas Chemical Engineering

"Back to the micro: how reversible, stable cycling is achieved in commercially viable, high energy density micro-sized Ge particles infused with a sub-stoichiometric ratio of Se"

Yang Du, University of Texas Chemical Engineering

"Novel piperazine-based amine solvents for CO₂ capture"

Yue Zhang, University of Texas Chemical Engineering

"Absorber Performance with High CO₂"

Nirupam Aich, University of Texas, Environmental and Water Resources Engineering

"Assessing Environmental Sustainability of Novel Carbon nanotube-Titania-Platinum Nano-Hybrid Fuel Cell Electrocatalysts"

Bo Ren, University of Texas, Petroleum Engineering

"Analysis of Energy Use and CO₂ Emissions in Petroleum Production"

Vivek Shastry, University of Texas Sustainable Design, Community and Regional Planning

"Mapping Energy Access"

Bonnie Roberts, University of Texas Mechanical Engineering

"Development of a Multi-Objective Optimization Tool for Selecting Thermal Insulation Materials in Sustainable Designs"

Richard Pattison, University of Texas Chemical Engineering

"Accessing Stranded Gas: Controlling Intensified Gas-To-Liquids Processes"

Roy Wung, University of Texas Petroleum & Geosystems Engineering

"Utilizing Surface Treated Nanoparticles for Improved Geologic Carbon Sequestration"

Mahdi Haddad, University of Texas Petroleum Engineering

"Efficient Hydrocarbon Exploitation from Quasi-brittle Shale Formations through Optimal Hydraulic Fracturing"

Pranav Karve, University of Texas Civil Engineering

"Inverse source problems for enhanced oil recovery by maximization of wave motion in reservoirs"

Xianchao Chen, University of Texas Petroleum Engineering

"Modeling Profile Control of Preformed Particle Gel for Enhanced Oil Recovery after Polymer Flooding"

Wenda Wang, University of Texas Petroleum and Geosystems Engineering

"Investigation of Effect of Temperature on Wax Deposition in Flow Loop"

Wei Yu, University of Texas Petroleum Engineering

"An Efficient Semi-Analytical Model for Simulation of Gas Flow in Shale Reservoirs with Complex Hydraulic Fractures"

Krystian Perez, University of Texas Chemical Engineering

"Residential Microgrid Planning and Control: The Lochem Case Study"

Daniel Urieli, University of Texas Computer Science

"TacTex'13: A Champion Adaptive Power Trading Agent"

Swagata Das, University of Texas, Electrical and Computer Engineering

"Analysis of Distribution System Faults using Intelligent Electronic Device Data"

Dylan Kipp, University of Texas Chemical Engineering

"Polymer/Fullerene Bicontinuous Microemulsions for Use as Organic Solar Cell Active Layers"

Xiaohan Li, University of Texas Electrical and Computer Engineering

"Integrated Optical Nanostructures for Omnidirectional, Broad-spectrum Improvement of Photovoltaic Performance for III/V Solar Cells"

Yichuan Niu, University of Texas Energy Systems

"Determining Optimal Energy Storage Size to Mitigate Intra-hour wind Power Variability"

Won Jun Jo, MIT Chemical Engineering

"Greenish bismuth vanadate splits pure water under visible-light irradiation"

Tyler Mefford, University of Texas Chemistry

"The Role of Oxygen Vacancies and Cobalt Oxidation State in Sr-Doped La_{1-x}Sr_xCoO_{3-δ} for Bifunctional Electrocatalysts in Alkaline Electrolyte"

Li Ji, University of Texas Electrical and Computer Engineering

"Efficient and Stable Silicon-based Photoelectrodes for Hydrogen Generation"

Energy Technology Open

The Energy Technology Open showcases students, faculty, and the general startup community across three categories: Oil & Gas, Cleantech, and Energy and Water Efficiency (smart grid, water recycling, energy efficiency apps, etc.) Join us for technology exhibitions and idea pitches from 25 exciting new companies that seem certain to live up to The University's mission:

'What Starts Here Changes the World.'

JUDGES

Kirk Coburn.....Founder - SURGE Ventures
Becky Taylor.....Shell Technology Ventures
Mitch Jacobson.....Austin Technology Incubator
Farshid Arman.....Siemens TTB
Bert Haskell.....Pecan Street
Scott KoschKosch Capital
Zeina El-AzziVP of North American Business Development, Sunedison
Jitendra Jain (“JJ”).....Office of Technology Commercialization
Steven P. NicholsCockrell School of Engineering
Dan Sharp.....Associate VP for Research, UT Austin

STARTUP TEAMS

Oil and Gas

Partnering in Innovation, Inc.....<http://www.pi-innovation.com/#/splash/>
Shockwave EOR.....<http://shockwaveeor.com>
Pink Petro..... <http://www.pinkpetro.com>
GreaseBook..... <http://greasebook.com>
Mosaic Materials.....<http://www.cyclotronroad.org/mosaic/>
Autonomous Marine Systems<http://www.automarinesys.com>
Saturated Gas Technologies.....
Petrabytes Corporation.....<http://www.petrabytes.com>

Cleantech

Lucelo Technologies<http://www.lucelotech.com>
Epi-Energy, Ltd. <http://epienergy.yolasite.com>
SimplifySolar.....<http://www.simplifysolar.com>
Everywhere Energy.....<http://www.everywhereenergy.com>
Silexta Inc.....<http://www.silexta.com>
AnCatt.....<http://www.ancatt.com>
flibe energy inc..... <http://flibe-energy.com>
H2GO Power.....<http://h2gopower.com>
kPower LLC.....<http://www.kpowertechnology.com>
Wetzel Blade.....<http://www.wetzelengineering.com>

Water, Energy, and Resource Efficiency

Recycled Hydro Solutions.....<http://www.recycledhydrosolutions.com/team/>
Bit Grid Solutions.....<https://www.linkedin.com/company/bitgrid-software-solutions>
Heliix Inc.....<https://www.linkedin.com/company/heliixinc>
INjooNetworks.....
SeaChange Technologies.....
KnowYourWaste
GrabAFruit and Sustainiverse<http://sustainiverse.org>
dmi.io<http://www.dmi.io>
Gridmates<http://www.gridmates.com>



In addition to the daily slate of panels and guest speakers, we have arranged a full program of evening talks, discussions and other energy-oriented events throughout Energy Week. All of these sessions are free and open to the public – no registration is required.

Town Hall on Fracking

On **Monday, February 16**, between 6:30 p.m. and 8:00 p.m., join a team of experts from academia, industry and the non-profit world for an information session and informal town hall meeting on one of the most significant – and frequently misunderstood – developments in the world of energy: hydraulic fracturing of shale for oil and natural gas production. *Wall Street Journal* senior energy reporter Russell Gold will moderate the meeting, which features an august panel of experts on the subject: Dr. Scott Tinker, State Geologist of Texas and Director of UT Austin’s Bureau of Economic Geology (BEG); Dr. Ian Duncan, Director of Earth Systems and Environment at BEG; Dr. Julia Gale, Research Scientist at BEG; Dr. Mukul Sharma, Professor in UT Austin’s Cockrell School of Engineering; and Dr. Gretchen Goldman, Lead Analyst with the Union of Concerned Scientists.

The event, which will be hosted by UT Austin’s Jackson School of Geosciences Student Chapter of the American Association of Petroleum Geologists, will be held in the San Jacinto Meeting Rooms, a short walk from the Alumni Center, where most of the week’s events will take place. **Please see map on inside back cover.**

NexusHaus

On **Tuesday, February 17**, join UT Austin graduate students for an interdisciplinary look at energy use in buildings. This event includes a poster session and animated walkthrough of NexusHaus - an 850 square-foot, solar-powered house designed by students from UT Austin and the Technische Universitaet Muenchen (TUM) that will be entered in the U.S. Department of Energy’s Solar Decathlon. The Solar Decathlon is a collegiate competition that showcases the application of solar technologies and sustainable building practices in residential houses. The selection process for this prestigious event is highly competitive, and the UT-TUM team is one of only seventeen teams (out of over 150 applicants) chosen to compete. Students participating in the project will give presentations on this solar-powered, sustainable home that explores the nexus of food, water, and energy. In addition, there will be opportunities to tour the School of Architecture’s Thermal Lab, an experimental facility for conducting research into energy-efficient building technologies. **Meet in the registration area of the Alumni Center at 5:15 p.m. on Tuesday.**

18 EVENING EVENTS

UT Microgrid Tour

On **Wednesday, February 18**, you can learn how UT Austin operates one of the most efficient combined heat and power facilities in the U.S. and distributes energy across campus via the largest microgrid in the country. These facilities produce a low cost, sustainable power supply for the campus that is even more reliable than the electric grid that supplies power to our homes and businesses. You might find this event particularly interesting after attending Wednesday’s sessions on what the future holds for utilities. Juan Ontiveros, UT’s Executive Director of Utilities and Energy Management, will make a presentation and lead a tour of the plant. **Meet in the registration area of the Alumni Center at 5:15 p.m. on Wednesday.**

UT Energy Symposium

On **Thursday, February 19**, the UT Energy Symposium welcomes Benjamin Sovacool, Director of the Danish Center for Energy Technology at AU-Herning and Professor of Business and Social Sciences at Aarhus University, Denmark. Professor Sovacool, whose research interests encompass energy policy, environmental issues, and science and technology policy, will speak on Energy and Climate Goals in Nordic Countries and Implications for the U.S.

The UT Energy Symposium (UTES) is a weekly series of talks sponsored by the UT Energy Institute in order to provide a multi-disciplinary platform for UT faculty and students to interact on the most pressing energy issues facing our world. The symposium is held every Thursday evening during the spring and fall semesters in the Avaya Auditorium on the UT Austin campus from 5:15 p.m. – 6:15 p.m. **Please see map on inside back cover.**

Hot Science–Cool Talks

On **Friday, February 20**, Dr. Michael Webber, Deputy Director of UT Austin’s Energy Institute and Professor of Mechanical Engineering, will deliver a lecture entitled, “*Power Trip: The Story of Energy*” during the latest installment in the popular *Hot Science – Cool Talks* series run by the university’s Environmental Science Institute. The series, which is widely promoted in Austin area schools, is free and open to the public.

Dr. Webber’s talk will show how energy in its various forms affects the environment and our lives. For example: did you know that we use more water through our light switches and outlets than our faucets? Would it surprise you that there is more energy embedded in the food we Americans throw away than Switzerland uses in an entire year? In this talk, Dr. Webber will provide a sweeping view of energy’s role in society over hundreds of years with fun facts, myth busting, and an optimistic eye towards future technologies and solutions. Bring your energy questions and Dr. Webber will do his best to answer them.

The talk will begin at 7:00 p.m. in UT’s Welch Hall: it will be preceded (beginning at 5:45 p.m.) by an interactive community Science Fair for K-12 students and teachers with an assortment of hands-on activities and informational booths. The community Science Fair will include poster presentations of energy and climate research by Austin area K-12 students that were entered in the Austin Area Regional Sciencefest, which takes place this week. **Please see map on inside back cover.**

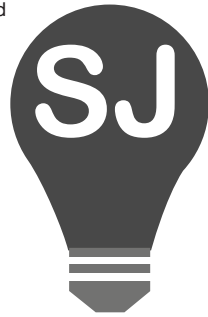
Fuel Cell Bus Demo

UT Austin’s Center for Electromechanics, Capital Metro, and the Center for Transportation and the Environment have partnered to present a demo of a hydrogen-fueled bus that will soon join UT Austin’s fleet of shuttle buses. It will be parked near the Alumni Center from Monday through Thursday, and near Welch Hall – the venue for Dr. Webber’s *Hot Science–Cool Talks* event – all day Friday.

EVENING EVENTS 19



Etter-Harbin Alumni Center
2110 San Jacinto Blvd



San Jacinto Meeting Room
21st & San Jacinto Blvd



AT&T Conference Center
1900 University Ave



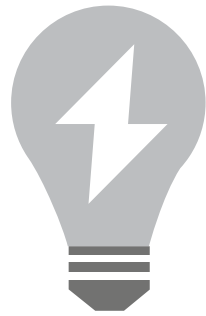
School of Architecture
Goldsmith Hall



Welch Hall
NW corner 21st & Speedway

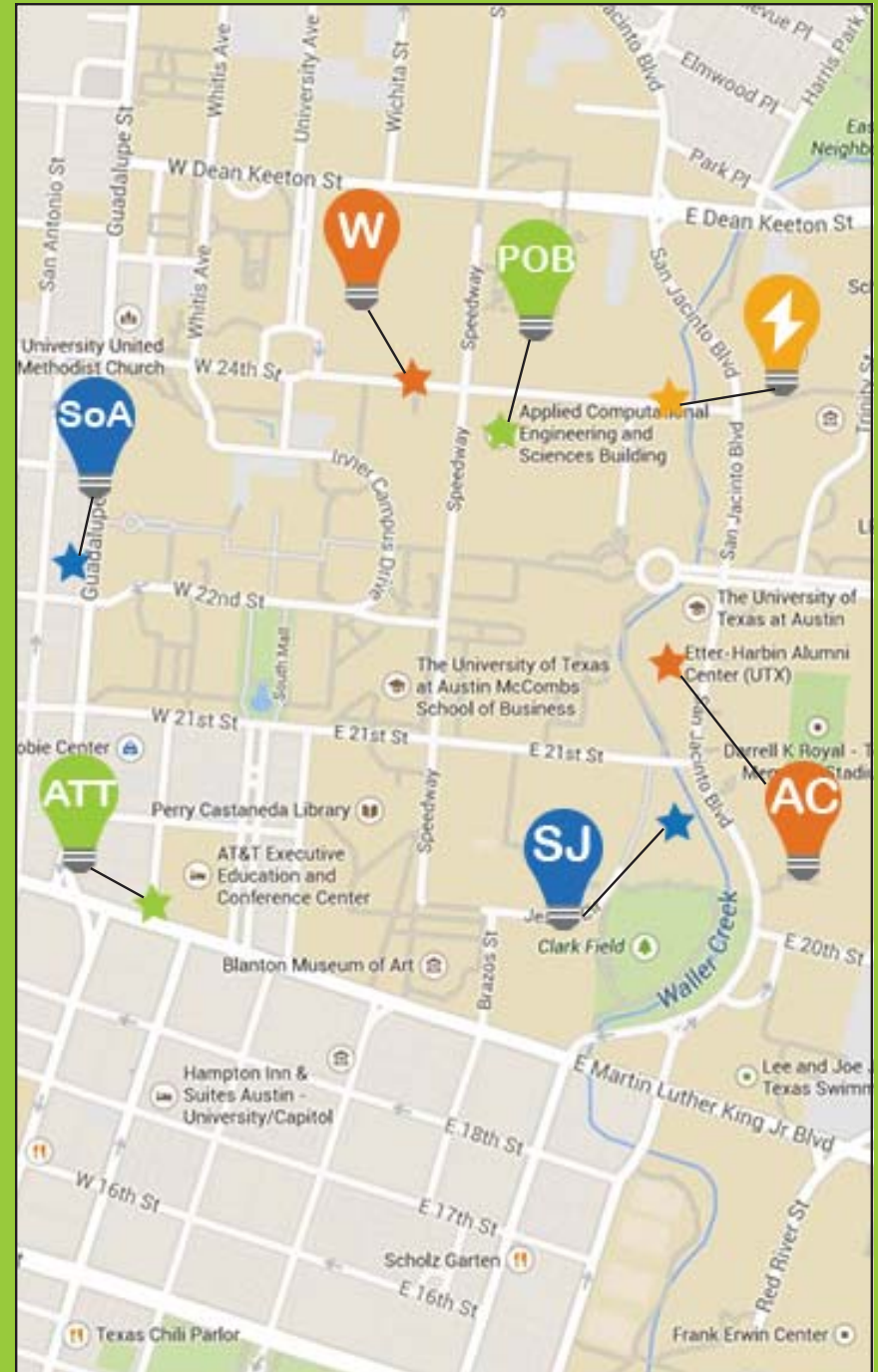


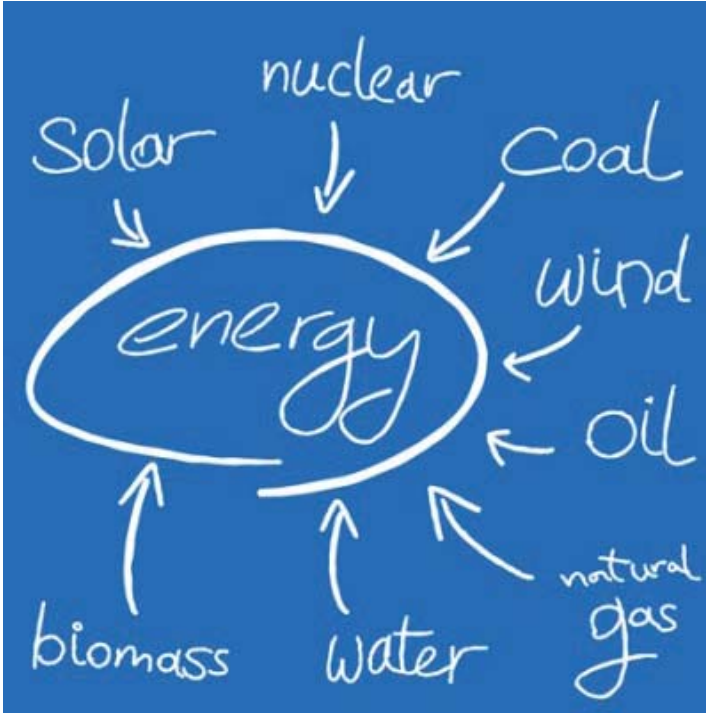
POB Avaya Auditorium
SE corner 21st & Speedway



Hal C. Weaver Power Plant

20 VENUES





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ENERGY CLUB

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