

34TH USAEE/IAEE NORTH AMERICAN CONFERENCE

Implications of North American Energy Self-Sufficiency

OCTOBER 23-26, 2016 | TULSA, OKLAHOMA, USA



FINAL PROGRAM

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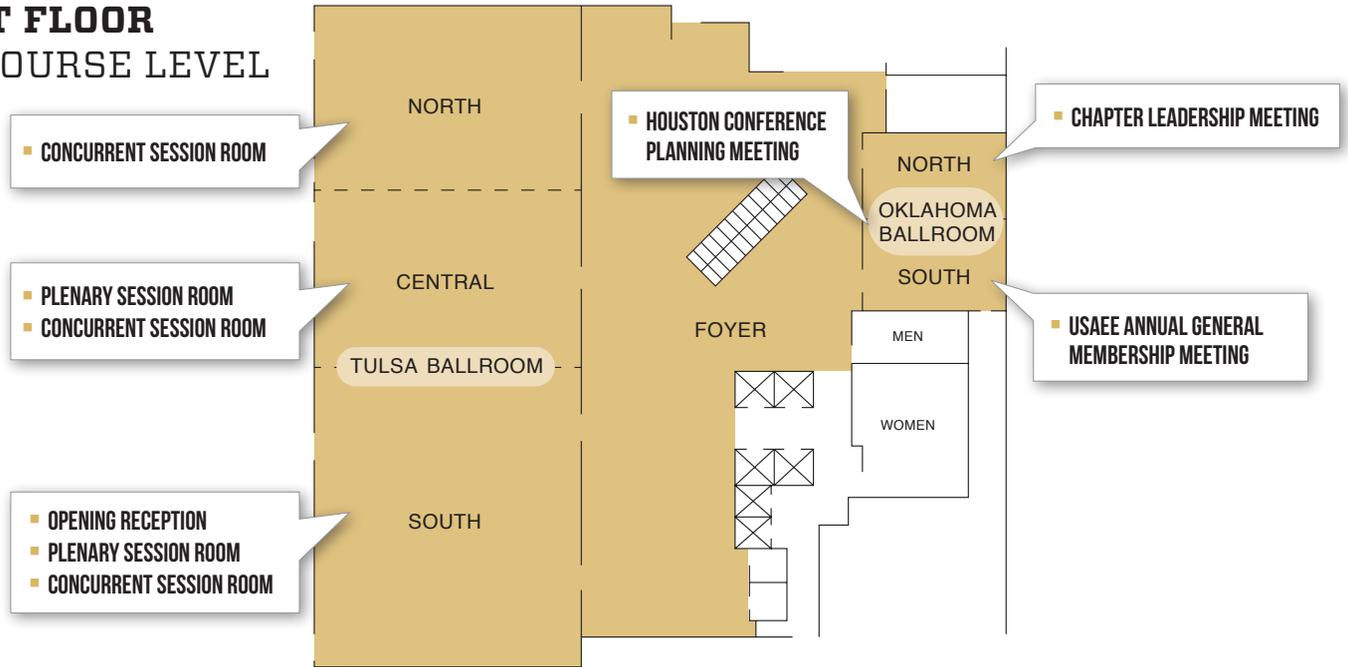
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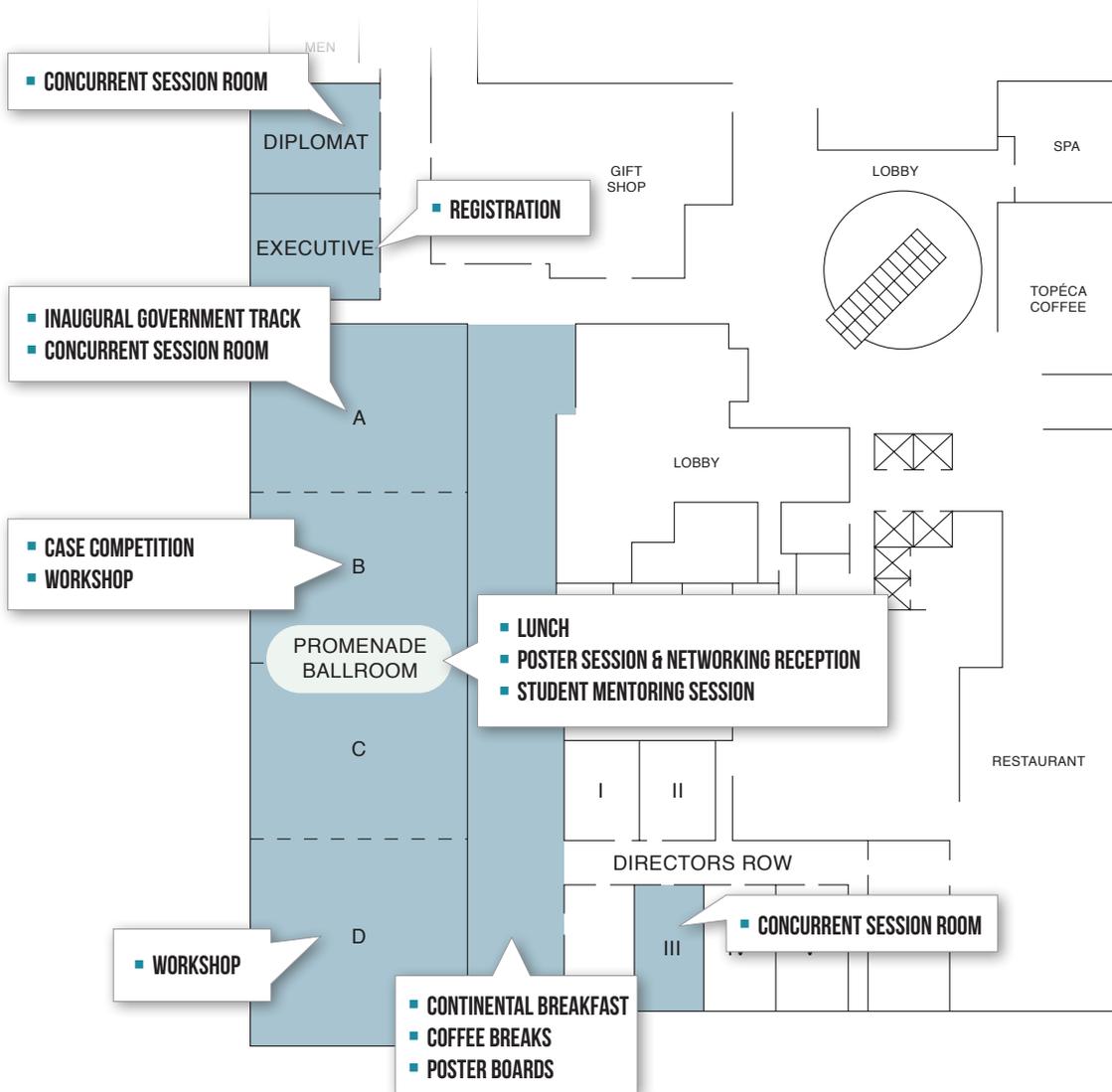


MEETING ROOMS AT HYATT REGENCY TULSA

FIRST FLOOR CONCOURSE LEVEL



SECOND FLOOR LOBBY LEVEL



SUNDAY, OCTOBER 23

GRAND RIVER DAM AUTHORITY TOUR

8:15 am - 5:30 pm ■ Meet in front of hotel

Sponsored By:

Grand River Dam Authority



This tour will be an opportunity to meet with GRDA's senior management team and learn more about the decisions which went into GRDA's unique mix of generation consisting of natural gas, conventional hydro, pumped-storage hydro, wind purchase contracts, and coal. Buses pick up from the hotel's main entrance, 2nd Street.

REGISTRATION

12:00 noon - 7:00 pm ■ Outside of Executive Room

USAEE COUNCIL LUNCH *(By Invitation)*

12:00 noon - 1:00 pm ■ Promenade Ballroom A

USAEE COUNCIL MEETING

1:00 pm - 4:00 pm ■ Promenade Ballroom C

CASE COMPETITION

4:30 pm - 6:00 pm ■ Promenade Ballroom B

Parth Vaishnav *(Presiding)*

RESEARCH ENGINEER, CARNEGIE MELLON UNIVERSITY

Team #1 - Solar Solutions International

Arash Saboori

Ben White

UNIVERSITY OF CALIFORNIA, DAVIS

Team #2 - CEEP@Delaware

Joseph Nyangon

Nabeel Alabbas

UNIVERSITY OF DELAWARE

Team #3 - The Pittsburgh Pascals

Apratim Vidyarthi

Pritham Aravind

Raafe Khan

Suyash Kela

Stephanie Beels

CARNEGIE MELLON UNIVERSITY

MONDAY, OCTOBER 24

REGISTRATION

7:00 am - 7:00 pm ■ Outside of Executive Room

STUDENT MENTORING BREAKFAST

7:00 am - 8:30 am ■ Promenade Ballroom B & C

CONTINENTAL BREAKFAST

7:45 am - 8:30 am ■ Promenade Ballroom Foyer

Sponsored By: *ConocoPhillips*

WELCOME & INTRODUCTION

8:30 am - 9:00 am ■ Tulsa Ballroom South

OPENING PLENARY SESSION:

Energy Policy -
Competing Visions
from the Two Parties

9:00 am - 10:30 am ■ Tulsa Ballroom South

Both the Senate and House are working on comprehensive energy legislation. If it becomes law, the North American Energy Security and Infrastructure Act of 2016 will have far reaching implications for virtually all sectors of the energy sector. The goal of this session is to get an update on the status of the legislation from key staffers on the Senate Energy and Natural Resources Committee. Will the legislation help us become more energy self sufficient? What will the legislation mean for modernizing our infrastructure? What are the goals for increasing the share of renewables? Increasing exports of domestic oil and natural gas? And if the legislation is not yet finalized by the time of the conference, what is the likely future of the legislation during the final two months of 2016?

Christine Tezak *(Presiding)*MANAGING DIRECTOR, RESEARCH,
CLEARVIEW ENERGY PARTNERS LLC

Angela S Becker-Dippmann

DEMOCRATIC STAFF DIRECTOR,
SENATE ENERGY AND NATURAL RESOURCES COMMITTEE

Brian Hughes

REPUBLICAN DEPUTY STAFF DIRECTOR,
SENATE ENERGY AND NATURAL RESOURCES COMMITTEE

COFFEE BREAK

10:30 am - 11:00 am ■ Promenade Ballroom Foyer

INAUGURAL GOVERNMENT TRACK SESSION 1
& CONCURRENT SESSIONS 2-6

11:00 am - 12:45 pm

★ INAUGURAL GOVERNMENT TRACK ★

1. Transition from the Point of View
of the Incoming Political Party

■ Promenade Ballroom A

This session sets the stage for the full series with a brief explanation of the mechanics of the Presidential transition process, including what happens and over what timelines, legal guidelines, and recent changes designed to make the process smoother. The panelists will use their experiences as former high-level Federal appointees to provide the perspectives of incoming administrations, with the goal of helping others prepare for the upcoming Presidential transition.

Abe Haspel *(Presiding)*FORMER ASSISTANT DEPUTY SECRETARY,
DEPARTMENT OF THE INTERIOR, DEPUTY ASSISTANT
SECRETARY, DEPARTMENT OF ENERGY;
(CURRENTLY, PRESIDENT, COGENT ANALYSIS GROUP, LLC)

Brian Waidmann

FORMER CHIEF OF STAFF TO TWO CABINET SECRETARIES
(INTERIOR); SENIOR ADVISOR, (GEORGE W.) BUSH
ADMINISTRATION TRANSITION TEAM; (CURRENTLY CHIEF
OF STAFF, AMERICAN COUNCIL OF LIFE INSURERS)

Elgie Holstein

FORMER MEMBER OF OBAMA TRANSITION TEAM;
CHIEF OF STAFF, DEPARTMENT OF ENERGY;
(CURRENTLY, SENIOR DIRECTOR FOR STRATEGIC
PLANNING, ENVIRONMENTAL DEFENSE FUND)

Ross Swimmer

FORMER PRINCIPAL CHIEF, CHEROKEE NATION;
ASSISTANT SECRETARY OF INDIAN AFFAIRS AND SPECIAL
TRUSTEE FOR AMERICAN INDIANS, DEPARTMENT OF THE
INTERIOR; (CURRENTLY, PARTNER, NATIVE AMERICAN FUND
ADVISORS, LLC)

Sessions continued on following page 1

OPENING RECEPTION SUNDAY 6:00 PM - 7:30 PM ■ Tulsa Ballroom South

POST-RECEPTION SOCIAL GATHERING

7:30 PM - 9:30 PM @ MCNELLIES

DON'T DRINK ALONE! BEGIN THE CONFERENCE WITH NEW ACQUAINTANCES!

After the Opening Reception, USAEE Council members and presidential advisors will lead a group of both newcomers and oldcomers to gather for drinks and food at a local pub, McNellies, which is within walking distance of the conference hotel. This will be a great opportunity to meet a number of conference attendees at the outset of the conference! Please note that all attendees will be responsible for paying for their own tab.

MONDAY, OCTOBER 24, CONTINUED

2. Energy, Environment, and Financial Issues

■ Tulsa Ballroom Central

Adonis Yatchew (*Presiding*)
PROFESSOR DEPARTMENT OF ECONOMICS,
UNIVERSITY OF TORONTO

The Impacts of Environmental Policies on Stock Prices of Energy Companies in China

Xiaoli Zhao
Ye Fan
CHINA UNIVERSITY OF PETROLEUM (BEIJING)

Xueying Yu
BEIHANG UNIVERSITY

Ming Fang
XINJIANG UNIVERSITY OF FINANCE AND ECONOMICS

Technology-Push, Demand-Pull, and Strategic R&D Investment

Benjamin D Leibowicz
ASSISTANT PROFESSOR, UNIVERSITY OF TEXAS AT AUSTIN

Risk, Liability, and the Costs of CO₂ Sequestration

Steven T. Anderson
ECONOMIST, U.S. GEOLOGICAL SURVEY

DISCUSSANT

Andy Coleman
GOVERNMENT LEAD, ERPI

3. Topics in Natural Gas

■ Directors 3 Room

Michael Plante (*Presiding*)
SENIOR RESEARCH ECONOMIST,
FEDERAL RESERVE BANK OF DALLAS

Weather Forecast, Forecast Revisions and Natural Gas Price Dynamics

Zhen Zhu
Kuang-Chung Hsu
Xixi Zhang
Brittany Petty
UNIVERSITY OF CENTRAL OKLAHOMA

United States Natural Gas (LNG) Exports: Challenges and Opportunities

Ronald D Ripple
PROFESSOR, UNIVERSITY OF TULSA

The Causal Relationship in North American Energy Production

Neil A Wilmot
Ariuna Taivan
UNIVERSITY OF MINNESOTA DULUTH

Limitations on Natural Gas Combined Cycle (NGCC) Capacity Under Deep CO₂ Reduction Scenarios

Donald A Hanson
ARGONNE NATIONAL LABORATORY

David K Schmalzer
ARGONNE NATIONAL LAB

Christopher Nichols
NATIONAL ENERGY TECHNOLOGY LABORATORY

DISCUSSANT

Robert L. Kleinberg
UNCONVENTIONAL RESOURCES, SCHLUMBERGER RESEARCH

4. Oil Pricing Issues

■ Tulsa Ballroom South

Andrew Slaughter (*Presiding*)
EXECUTIVE DIRECTOR, DELOITTE SERVICES LP

Can Oil Price Developments Explain Cost Overruns in Petroleum Projects?

Atle Oglend
Roy Endré Dahl
Sindre Lorentzen
Petter Osmundsen
UNIVERSITY OF STAVANGER

Crude Oil Exports and Shipping Constraints in the Global Market. Empirical Evidence Explaining Crude Price Differentials

Gregory B Upton
LOUISIANA STATE UNIVERSITY

Mark Agerton
RICE UNIVERSITY

What Price for Oil in 2017?

Jean-Pierre M Favennec
PROFESSOR, WDCOOPERATION

DISCUSSANT

Andre Plourde
DEAN FACULTY OF PUBLIC AFFAIRS,
CARLETON UNIVERSITY

5. Best Paper Session

■ Diplomat Room

Anastasia Shcherbakova (*Presiding*)
CLINICAL ASST PROFESSOR, UNIVERSITY OF TEXAS AT DALLAS

Fracking and Land Productivity: Effects of Hydraulic Fracturing on Agriculture

Naima Farah
PHD CANDIDATE, UNIVERSITY OF CALGARY

Voting Behavior in the PJM Regional Transmission Organization

Kyungjin Yoo
Seth Blumsack
PENN STATE UNIVERSITY

The Private and Social Value of Blackout Risk Reduction

Anand Govindarajan
PENNSYLVANIA STATE UNIVERSITY

How does Fuel Cost Affect Heavy-duty Truckers' Decisions?

Jen Z. He
UNIVERSITY OF MARYLAND

6. Current Topics in Nuclear and Coal Energy

■ Tulsa Ballroom North

Peter Balash (*Presiding*)
SENIOR ECONOMIST, US DEPARTMENT OF ENERGY - NETL

One Conspirator or Two in the Death of the Coal Miner's Daughter

Kirk Philipich
Bruce Bublitz
UNIVERSITY OF MICHIGAN - DEARBORN

Ramachandran Ramanan
UNIVERSITY OF NOTRE DAME

Market and Welfare Analysis of Nuclear Power Plant Shutdowns

Jung You
CALIFORNIA STATE UNIVERSITY-EAST BAY

Minsoo Jeong
YONSEI UNIVERSITY-WONJU

Making Energy Policy: Toward a Framework of Analysis

Peter Z Grossman
EFROYMSON PROFESSOR OF ECONOMICS, BUTLER UNIVERSITY

DISCUSSANT

Hisanori Nei
PROFESSOR, GRIPS

AWARDS LUNCHEON

12:45 pm - 2:30 pm

■ Promenade Ballroom B, C, and D

USAEE Adelman Frankel Award to:
Fereidun Fesharaki

USAEE Senior Fellow Awards to:
Mary Lashley Barcella
John Felmy
Ronald Ripple

IAEE Outstanding Contributions to the Profession Award to:
Richard O'Neill

Session Continued ↴

Session Continued ↴

MONDAY, OCTOBER 24, CONTINUED

DUAL PLENARY SESSION:

Managing in a Low-Price Environment

2:30 pm - 4:00 pm ■ Tulsa Ballroom South

There has been much discussion and media coverage of the implications for the oil and gas industry as a result of the extended low-price environment that we find ourselves in. However, different segments of the industry have been affected differently and have dealt with the conditions in different manners. The panel of industry participants will discuss what the effects have been on their segment and what they have done to address changes so they survive the current market and prepare for the future.

Bob Tippee (*Presiding*)

EDITOR, OIL & GAS JOURNAL

David E Chenier

CHIEF PROCUREMENT OFFICER, CONOCOPHILLIPS

Randy A Foutch

CHAIRMAN AND CEO, LAREDO PETROLEUM HOLDINGS INC

William C Lawson

VICE PRESIDENT, CORPORATE DEVELOPMENT AND EXECUTION, WILLIAMS COMPANY

DUAL PLENARY SESSION:

Challenges and Opportunities in the Transport Sector

2:30 pm - 4:00 pm ■ Tulsa Ballroom Central

Some targets are easier to hold up than to hit, and doubling US vehicle mileages in nine years is no exception. This session will explore the economic, policy and technical implications involved in vastly increasing vehicle efficiencies, the role markets will play, and how quickly changes can take place while still keeping the nation moving. Top vehicle builders and transportation economists will debate prospects and costs for further petroleum engine efficiencies and lighter vehicle materials, as well as emerging electric vehicle (EV) technologies, falling battery costs, and electricity generation and delivery system economics – all amid persistently low fuel prices.

Benjamin Schlesinger (*Presiding*)

PRESIDENT, BENJAMIN SCHLESINGER & ASSOC LLC

Sanya Carley

ASSOCIATE PROFESSOR, INDIANA UNIVERSITY

Kenneth Gillingham

ASSISTANT PROFESSOR OF ECONOMICS, YALE UNIVERSITY

Nancy Homeister

MANAGER, GREENHOUSE GAS AND FUEL ECONOMY REGULATORY STRATEGY, FORD MOTOR COMPANY

COFFEE BREAK

4:00 pm - 4:30 pm ■ Promenade Ballroom Foyer

INAUGURAL GOVERNMENT TRACK SESSION 2 & CONCURRENT SESSIONS 8-12

4:30 pm - 6:15 pm

★ INAUGURAL GOVERNMENT TRACK ★

2. Transition from the Point of View of Agency Personnel

■ Promenade Ballroom A

Speakers will provide the perspectives of agency incumbents charged with assisting incoming officials in getting up to speed quickly and identifying the most urgent and important actions required of them to achieve their objectives. They will use their experiences with previous transitions to help others understand how they can prepare for coming Presidential transition.

Abe Haspel (*Presiding*)

FORMER ASSISTANT DEPUTY SECRETARY, DEPARTMENT OF THE INTERIOR, DEPUTY ASSISTANT SECRETARY, DEPARTMENT OF ENERGY; (CURRENTLY, PRESIDENT, COGENT ANALYSIS GROUP, LLC)

Howard Gruenspecht

U.S. ENERGY INFORMATION ADMINISTRATION, FORMER DEPUTY ASSISTANT SECRETARY AND DIRECTOR IN OFFICE OF POLICY, DEPARTMENT OF ENERGY

Jane Lyder

FORMER DEPUTY ASSISTANT SECRETARY AND LEGISLATIVE COUNSEL, DEPARTMENT OF THE INTERIOR

Tom Russo

MORE THAN 30 YEARS AS MANAGER AND SR. ENERGY INDUSTRY ANALYST, FEDERAL ENERGY REGULATORY COMMISSION; (CURRENTLY, PRESIDENT, RUSSO ON ENERGY LLC)

8. Hedging Energy Price Risk

■ Tulsa Ballroom Central

Eric Hittinger (*Presiding*)

ASSISTANT PROFESSOR, ROCHESTER INSTITUTE OF TECHNOLOGY

Should Public Agencies Engage in Fuel Hedging?**Michael E Canes**

DISTINGUISHED FELLOW, LMI

The Stability of Energy Prices in the New Decade: The Case of European and U.S. Oil and Natural Gas Prices**Roy Endre Dahl****Atle Oglend**

UNIVERSITY OF STAVANGER

A Review of the Literature on Commodity Risk Management with a Focus on Energy Risk Management**Betty J Simkins****David A. Carter**

OKLAHOMA STATE UNIVERSITY

Stephen D. Treanor

CALIFORNIA STATE UNIVERSITY, CHICO

Daniel A. Rogers

PORTLAND STATE UNIVERSITY

DISCUSSANT**Kenneth Gillingham**

ASSISTANT PROFESSOR OF ECONOMICS, YALE UNIVERSITY

9. Lessons from the Clean Power Plan

■ Tulsa Ballroom North

Andy Coleman (*Presiding*)

GOVERNMENT LEAD, EPRI

Greenhouse Gas Spill-over from the U.S. Clean Power Plan into the Paris Agreement**Jeffrey C Peters**

STANFORD UNIVERSITY

Green Paradox: The Case of the Clean Power Plan**Isaac A Duah**

STUDENT, WASHINGTON STATE UNIVERSITY

Clean Power Plan Insights for Pennsylvania**Jeffrey J Anderson****Haibo Zhai****Paul Fischbeck**

CARNEGIE MELLON UNIVERSITY

David Rode

QUADRILATERAL ENERGY GROUP

Utilization of Natural Gas Capacity in Response to U.S. Clean Power Plan**Kelly A. Stevens**

SYRACUSE UNIVERSITY

DISCUSSANT**Chiara Lo Prete**

ASST PROFESSOR ENERGY ECONOMICS, THE PENNSYLVANIA STATE UNIVERSITY

10. Macroeconomic Effects of Energy

■ Tulsa Ballroom South

Jerald Fletcher (*Presiding*)

PROFESSOR AND DIRECTOR, WEST VIRGINIA UNIVERSITY

Effects of Fluctuations in Oil Price on Macroeconomic Variables in Nigeria**Kayode E Olaide**

STUDENT, CARLETON UNIVERSITY

MONDAY, OCTOBER 24, CONTINUED

A Macroeconomic Analysis of Lifting the U.S. Crude Export Ban

Michael Plante
Mine Yucel
FEDERAL RESERVE BANK OF DALLAS

Nida Melek
FEDERAL RESERVE BANK OF KANSAS

Estimation of Rebound Effect in China's Industrial Sector: A Multi-subsector Analysis

Baiding Hu
LINCOLN UNIVERSITY

DISCUSSANT

Tom Drennen
PROFESSOR OF ECONOMICS,
HOBART AND WILLIAMS SMITH COLLEGES

11. Innovations in Renewable Energy

■ Diplomat Room

Dan Packey (Presiding)
PROFESSOR, CURTIN UNIVERSITY OF TECHNOLOGY

Hydro Farms: A New Innovation on a New Idea

Daniel J Packey
Yue Liu
CURTIN UNIVERSITY

Local Demand-pull Policy and the Locus of Innovation: Evidence from Solar PV in China

Xue Gao
Varun Rai
THE UNIVERSITY OF TEXAS AT AUSTIN

Renewable Self-reserve and Storage Management Under Market and Generation Uncertainties: Application to Ocean Wave Energy Farms

Kwami Senam Sedzro
Alberto J Lamadrid
Shaline Kishore
Arindam Banerjee
Larry V Snyder
LEHIGH UNIVERSITY

Marine Energy Conversion Technologies: Lowering the Levelized Cost of Energy through Control Systems, Materials Research, and Systems Engineering

Peter H Kobos
Vincent S Neary
Ryan G Coe
Bernadette A Hernandez-Sanchez
SANDIA NATIONAL LABORATORIES

DISCUSSANT

Greg Upton
ASSISTANT PROFESSOR,
LSU CENTER FOR ENERGY STUDIES

12. Water Management and Hydrocarbon Development

■ Directors 3 Room

Olvar Bergland (Presiding)
PROFESSOR, NORWEGIAN UNIV OF LIFE SCIENCES

Mapping the Energy Footprint and Costs of Produced Water Management in the Permian Basin, New Mexico

Katie Zemlick
UNIVERSITY OF NEW MEXICO

Elmira Kalhor

Optimizing Production of Hydrocarbons and Water: Incentives for Goods and Bads

Janie M Chermak
UNIVERSITY OF NEW MEXICO

Robert H Patrick
RUTGERS UNIVERSITY

DISCUSSANT

Samiha Khayyat
KING ABDULAZIZ UNIVERSITY

USAEE CHAPTER LEADERSHIP MEETING

5:15 pm - 6:15 pm ■ Oklahoma Ballroom North

POSTER SESSION & NETWORKING RECEPTION

6:30 pm - 8:00 pm

■ Promenade Ballroom B, C, D and Foyer

1. Do Energy Retrofits Work? Evidence from Commercial and Residential Buildings in Phoenix

Jing Liang
Yueming (Lucy) Qiu
ARIZONA STATE UNIVERSITY

2. Weather-Based Long-Term Electricity Demand Forecasting Model for Saudi Arabia: A Hybrid Approach Using End-Use and Econometric Methods for Comprehensive Demand Analysis

Nabeel H Alabbas
CENTER FOR ENERGY AND ENVIRONMENTAL POLICY/
UNIVERSITY OF DELAWARE (SPONSORED BY SAUDI ARAMCO)

Joseph Nyangon
CENTER FOR ENERGY AND ENVIRONMENTAL POLICY/
UNIVERSITY OF DELAWARE

Poster Session Continued ↗

3. On the Climate Policy Implications of Substitutability and Flexibility in the Economy

Melanie Craxton
James Merrick
Christos Makridis
John Taggart
STANFORD UNIVERSITY

4. Drivers of Royalty Rates and Primary Terms in Private U.S. Mineral Leases

Mark J Agerton
RICE UNIVERSITY

5. Economic Feasibility of Integrating Renewable Energy into the Nigerian Power Generation Mix by 2030

Nathaniel A Babajide
CEPMLP, UNIVERSITY OF DUNDEE, UK

6. Ethanol and Non-Ethanol Gasoline Price Dynamics

Jade E Davis
UNIVERSITY OF CENTRAL OKLAHOMA

7. Empirical Analysis on Vertical and Horizontal Wells in San Juan Basin

Elmira Kalhor
Janie Chermak
Katie M Zemlick
UNIVERSITY OF NEW MEXICO

8. World LNG Outlook

Niagara R Silva
FLUMINENSE FEDERAL UNIVERSITY
Renato P Queiroz
Edmar L F Almeida
William C Vitto
UNIVERSITY FEDERAL OF RIO DE JANEIRO

9. Carbon Implications of Energy Storage in Grids with Expanded Wind Energy

Naga S Goteti
Eric Williams
Eric Hittinger
ROCHESTER INSTITUTE OF TECHNOLOGY

10. Shale Oil Producer Hedging Policies and Firm Value

Eleanor Morrison
SOAS UNIVERSITY OF LONDON

STUDENT RECEPTION MONDAY 8:00 PM - 10:00 PM ■ PRAIRIE BREW PUB

Immediately following the Poster Session & Networking Reception come join fellow students at the Prairie Brew Pub, a 10 minute walk from the conference hotel, for further drinks and networking opportunities.

TUESDAY, OCTOBER 25, CONTINUED

REGISTRATION

7:00 am - 6:30 pm ■ Outside of Executive Room

CONTINENTAL BREAKFAST

7:45 am - 8:30 am ■ Promenade Ballroom Foyer

Sponsored By: *Laredo Petroleum*INAUGURAL GOVERNMENT TRACK SESSION 3
& CONCURRENT SESSIONS 14-18

8:30 am - 10:15 am

★ INAUGURAL GOVERNMENT TRACK ★

3. Transition from the Point of View
of Outside Stakeholders

■ Promenade Ballroom A

Wrapping up the 3-part series, panelists will use their experience and perspectives as third party stakeholders to help both stakeholders and government/political staff understand how to minimize the potential difficulties for third-party stakeholders during the transition. They will reflect on the uncertainty that transition brings and what they have done to advance their missions and policies during these times of uncertainty. This will be followed by a guided panel discussion, including interaction with previous panel members and the audience.

Arnold Baker (*Presiding*)

FORMER CHIEF ECONOMIST, SANDIA NATIONAL LABORATORIES, DIRECTOR OF POLITICAL ECONOMIC ANALYSIS AND OTHER MANAGEMENT POSITIONS, ATLANTIC RICHFIELD COMPANY; (CURRENTLY, PRINCIPAL OF ABB CONSULTING)

Keller Staley

SENIOR VICE PRESIDENT, LONGENECKER & ASSOCIATES; 30 YEARS OF EXPERIENCE MANAGING COMPLEX, MULTIMILLION DOLLAR CONTRACTS FOR DEPARTMENT OF ENERGY

Mary Lashley Barcella

DIRECTOR, NORTH AMERICAN NATURAL GAS, IHS MARKET

John Jimison

FORMER SENIOR COUNSEL, ENERGY AND COMMERCE COMMITTEE, HOUSE OF REPRESENTATIVES; (CURRENTLY, MANAGING DIRECTOR OF THE ENERGY FUTURE COALITION)

John Felmy

CHIEF ECONOMIST (RETIRED), AMERICAN PETROLEUM INSTITUTE; (CURRENTLY, MIDNIGHT ENERGY ECONOMICS)

We are delighted to have Stephen St. Marie, California PUC Advisor on Policy and Planning, serve as Rapporteur for the Government Track and each of its three panels, providing written panel summaries and an overall integration of advice and recommendations for future reference and for the benefit of those who cannot attend one or more sessions.

14. Mitigation of Environmental Impact

■ Tulsa Ballroom Central

Tom Drennen (*Presiding*)

PROFESSOR OF ECONOMICS,
HOBART AND WILLIAM SMITH COLLEGES

Positive Environmental Impacts from
Reduced Levels of Energy Transportation –
A Hidden Benefit of Self-Sufficiency?**Patricia S VanHorn**

OWNER/ OPERATOR, NEWLAND CONSULTING

Energy Demand Decomposition
and CO₂ Emissions**Akinsehinwa Sharimakin****Anthony J Glass**

LOUGHBOROUGH UNIVERSITY

How Much Does Increasing Non-fossil Fuels
in Electricity Generation Reduce Carbon
Dioxide Emissions?**Brantley Liddle**

ENERGY STUDIES INSITUTE

Perry Sadorsky

YORK UNIVERSITY

DISCUSSANT**Masahiro Sugiyama**

ASSISTANT PROFESSOR, THE UNIVERSITY OF TOKYO, PARI

15. Factors Affecting Energy Efficiency
and Implications for Country Policies

■ Tulsa Ballroom North

Gurkan Kumbaroglu (*Presiding*)

PROFESSOR, BOGAZICI UNIVERSITY

Energy Efficiency in OECD Economies:
Does Renewable Energy Matter?**Mahsa Moshrefi****Basil Sharp**

THE UNIVERSITY OF AUCKLAND

Simulation of Price Control for Different
Grades of Gasoline: A Case of Indonesia**Muhammad I Akimaya**

COLORADO SCHOOL OF MINES

Factors Affecting U.S. Commercial
Buildings Energy Consumption**Behjat Hojjati**

U.S. ENERGY INFORMATION ADMINISTRATION

Analyzing Elasticity Trends for Singapore
Household Electricity Demand – Implications for
Policy Making and the Rebound Effect**Tian Sheng Allan Loi****Jia Le Ng**

ENERGY STUDIES INSTITUTE

Soh Leng Loo**DISCUSSANT****Nyakundi M. Michieka**

ASSISTANT PROFESSOR, CALIFORNIA STATE UNIVERSITY

16. Locational Aspects of Petroleum

■ Tulsa Ballroom South

Greg Upton (*Presiding*)

ASSISTANT PROFESSOR, LSU CENTER FOR ENERGY STUDIES

Performance of the U.S. Petroleum Infrastructure
Under Future Oil Market Scenarios**Gbadebo Oladosu**

OAK RIDGE NATIONAL LABORATORY

Physical Market and WTI/Brent Price Spread

Pan Liu**Dmitry Vedenov****Reid Stevens**

TEXAS A&M UNIVERSITY

Mineral Rights Owners V.S. Producers:
The Unintended Consequences
of Well-Spacing Exceptions**Reid Stevens**

ASSISTANT PROFESSOR, TEXAS A&M UNIVERSITY

DISCUSSANT**Robert Borgstrom**

REGULATORY ADVISOR

17. The Impacts of Regulations and
Reforms in the Global Electricity Markets

■ Directors 3 Room

Anas Alhajji (*Presiding*)

MANAGING PARTNER, ENERGY OUTLOOK ADVISORS LLC

An Empirical Analysis of the Effects of
California's Cap-and-trade Program on
Western Electricity Markets**Li Zhao**

THE JOHNS HOPKINS UNIVERSITY

Chiara Lo Prete

THE PENNSYLVANIA STATE UNIVERSITY

The Effects of Clean Electricity Certificates
on the Value of Transmission Rights**Olvar Bergland**

NORWEGIAN UNIVERSITY OF LIFE SCIENCES

Drivers of Electricity Distribution Costs and Tariffs
in Uganda: The Roles of Reforms and Regulation**Livingstone Senyonga****Bergland Olvar**

NMBU

DISCUSSANT**Seth Blumsack**

ASSISTANT PROFESSOR, PENN STATE UNIVERSITY

TUESDAY, OCTOBER 25, CONTINUED

18. Pricing Policy and Demand in the Global Gasoline Markets

■ Diplomat Room

Yueming (Lucy) Qui (*Presiding*)
ASSISTANT PROFESSOR, ARIZONA STATE UNIVERSITY

Gasoline Demand, Pricing Policy and Social Welfare in Saudi Arabia

Lester C Hunt
KING ABDULLAH PETROLEUM STUDIES AND RESEARCH CENTER (KAPSARC)

Anwar Gasim
Tarek N Atalla
KAPSARC

Second Degree Price Discrimination in Retail Gasoline Markets

Travis Roach
UNIVERSITY OF CENTRAL OKLAHOMA

DISCUSSANT

Anastasia Shcherbakova
CLINICAL ASST PROFESSOR, UNIVERSITY OF TEXAS AT DALLAS

COFFEE BREAK

10:15 am - 10:45 am ■ Promenade Ballroom Foyer

DUAL PLENARY SESSION:

U.S. Oil and Natural Gas Exports - How have the Economics Changed?

10:45 am - 12:15 pm ■ Tulsa Ballroom South

The oil and natural gas industries are facing uncertainty as the rate of demand growth has failed to match either expectations or that of supply. The resulting low prices have damaged the economics of investments worldwide, with many factors having led to the change in industry dynamics. How will oil and natural gas and their roles in the larger energy mix, in both domestic and international markets, evolve to regain balance and provide new arbitrage opportunities? Are export market incentives necessary to promote domestic energy self-sufficiency? Our panel of experts will aim to provide insights into the changing conditions and answers to these questions.

Tina Vital
PRESIDENT, TJV CONSULTING LLC

Kathleen Eisbrenner
FOUNDER, CHAIRMAN & CEO, NEXTDECADE

John Felmy
CONSULTANT, MIDNIGHT ENERGY ECONOMICS

Chris Pedersen
NORTH AMERICAN LNG ANALYST, S&P GLOBAL PLATTS

DUAL PLENARY SESSION:

Challenges and Opportunities for Renewables

10:45 am - 12:15 pm ■ Tulsa Ballroom Central

The real-world promise and challenge of integrating large volumes of variable renewable energy are driving change in the center of the US. This panel is composed of a leader of the emerging transmission industry conveying that energy to market, a leader of a regional system operator integrating that energy in a reliability-first grid, and a leader of a major utility struggling with the market effects of that integration, moderated by an expert on renewable energy cost trends. What are the real market economics of renewables in today's power sector, and what further change should be expected?

Stephen Munro (*Introductory Analysis and Discussion Moderator*)
U.S. POLICY ANALYST AND EDITOR, BLOOMBERG NEW ENERGY FINANCE

Scott Vogt
VP OF ENERGY ACQUISITION, COMED

Jameson T (JT) Smith
DIRECTOR, POLICY STUDIES, MISO

Mario Hurtado
EXECUTIVE VICE PRESIDENT DEVELOPMENT, CLEAN LINE ENERGY PARTNERS

Awards Luncheon

12:15 pm - 2:00 pm
■ Promenade Ballroom B, C, and D

IAEE Journalism Award to:
Russell Gold

Student & Other Awards/Recognitions

Michael J Teague (*Keynote Speaker*)
SECRETARY OF ENERGY AND ENVIRONMENT, STATE OF OKLAHOMA

"Impacts of Induced Seismicity in Oklahoma"

CONCURRENT SESSIONS: 19 TO 23

2:00 pm - 3:45 pm

19. Engineering and Economic Challenges in Wind and Solar Energy

■ Tulsa Ballroom North

Peter Kobos (*Presiding*)
MANAGER, WATER POWER TECHNOLOGIES, SANDIA NATIONAL LABORATORIES

The Influence of Spatial Setting and Socioeconomic Profile in Urban Areas in the Diffusion of Residential PV Systems

Marcello Graziano
DEPARTMENT OF GEOGRAPHY, CENTRAL MICHIGAN UNIVERSITY

Maurizio Fiaschetti
DEFIMS, SCHOOL OF ORIENTAL AND AFRICAN STUDIES

Behavioral Drivers of Solar PV Consumer "Pull-forward" at Changes in Rebate Levels

D Cale Reeves
LBJ SCHOOL OF PUBLIC AFFAIRS, UT AUSTIN

Varun Rai
LBJ SCHOOL OF PUBLIC AFFAIRS AND THE COCKRELL SCHOOL OF ENGINEERING AT THE UNIVERSITY OF TEXAS AT AUSTIN

Wind and Solar - Experiences in Europe and Germany with Self-sufficiency for Electricity

Hermann-Josef Wagner
PROF. DR.-ING., RUHR-UNIVERSITÄT BOCHUM

Location, Location, Location: County-Level Costs and Benefits of Residential Solar Photovoltaics

Parth Vaishnav
Nathaniel Horner
Inês L Azevedo
CARNEGIE MELLON UNIVERSITY

Jinhyok Heo
CORNELL UNIVERSITY

DISCUSSANT

Eric Hittinger
ASSISTANT PROFESSOR, ROCHESTER INSTITUTE OF TECHNOLOGY

20. Energy Markets and the Environment

■ Tulsa Ballroom Central

Govinda R Timilsina (*Presiding*)
SENIOR ECONOMIST, THE WORLD BANK

Are Deregulated Electricity Market and Climate Policy Compatible? Lessons from Overseas, from Europe to Japan

Bianka Shoai-Tehrani
Yasuhide Nakagami
Keigo Akimoto
RESEARCH INSTITUTE OF INNOVATIVE TECHNOLOGY FOR THE EARTH (RITE)

Pascal Da Costa
ECOLE CENTRALE PARIS, LABORATOIRE DE GENIE INDUSTRIEL

Carbon Pricing and Cross-Border Electricity Trading for Climate Change Mitigation in South Asia

Govinda R Timilsina
Mike Toman
WORLD BANK

Environmental Implications of Carbon Limits on Market Penetration of Combined Heat and Power with the U.S. Energy Sector

Ozge Kaplan
Jonathan W Witt
U.S. ENVIRONMENTAL PROTECTION AGENCY

DISCUSSANT

Alejandra Elizondo Cordero
RESEARCH FELLOW, CIDE

TUESDAY, OCTOBER 25, CONTINUED

21. Energy Modeling in the Power Sector

- Tulsa Ballroom South

Sanya Carley (*Presiding*)

ASSOC. PROFESSOR, SCHOOL OF PUBLIC ENVIRONMENTAL AFFAIRS, INDIANA UNIVERSITY

Identifying Pathways Toward Sustainable Electricity Supply and Demand Using Integrated Resource Strategic Planning Model for Saudi Arabia

Nabeel H Alabbas

PH.D. CANDIDATE, CENTER FOR ENERGY AND ENVIRONMENTAL POLICY/UNIVERSITY OF DELAWARE (SPONSORED BY SAUDI ARAMCO)

The Potential Role of Natural Gas Power Plants with Carbon Capture and Storage as a Bridge to a Low-carbon Future

Samaneh Babaei

Daniel Loughlin

US ENVIRONMENTAL PROTECTION AGENCY

Integrated Modeling of the North American Gas & Power Market

Robert E Brooks

RBAC, INC.

Rahul Dhal

EPIS LLC

Estimating Consumer Preferences Among Diverse Electric Services

Alberto J Lamadrid

LEHIGH UNIVERSITY

DISCUSSANT

Andrew Slaughter

EXECUTIVE DIRECTOR, DELOITTE SERVICES LP

22. Energy and Economic Development

- Promenade Ballroom A

Michael L Troilo (*Presiding*)

ASSOCIATE PROFESSOR, THE UNIVERSITY OF TULSA

U.S. Natural Gas Development and Economic Growth: A State-Level Comparative Analysis

Michael L Troilo

Ronald D Ripple

THE UNIVERSITY OF TULSA

Oil and Gas Development on Agricultural Lands

Claudia M Hitaj

Ken Erickson

Jeffrey Hopkins

ECONOMIC RESEARCH SERVICE, USDA

Jeremy G Weber

UNIVERSITY OF PITTSBURGH

DISCUSSANT

Adonis Yatchew

PROFESSOR DEPARTMENT OF ECONOMICS, UNIVERSITY OF TORONTO

23. Petroleum and Factors of the Business Environment: Policy and Regulation

- Diplomat Room

Troy Thompson (*Presiding*)

BUSINESS PLANNING & ANALYTICS MGR, CHEVRON

Regulatory Capture in Resource Booms

Timothy Fitzgerald

TEXAS TECH UNIVERSITY

A Structural Econometric Model of The Dynamic Game Between Petroleum Producers in The World Petroleum Market

Khaled H Kheiravar

C.-Y. Cynthia Lin Lawell

James B Bushnell

Erich J Muehlegger

Amy Jaffe

UNIVERSITY OF CALIFORNIA AT DAVIS

Energy Hedging - A Fiduciary Responsibility

Seng Tom

ASSISTANT PROFESSOR - ENERGY BUSINESS, THE UNIVERSITY OF TULSA

DISCUSSANT

John Holding

INDEPENDENT ENERGY ANALYST

COFFEE BREAK

3:45 pm - 4:15 pm ■ Promenade Ballroom Foyer

DUAL PLENARY SESSION:

Shale and the Future of World Oil

4:15 pm - 5:45 pm ■ Tulsa Ballroom South

Our expert panel will discuss how the advent of shale oil is likely to impact OPEC's strategic role in the world oil market. Implications for long-term price trends, market structure, and international trade patterns will be considered, in addition to the prospects for, and potential significance of North American self-sufficiency in petroleum.

James L Smith (*Presiding*)

PROFESSOR OF FINANCE, SOUTHERN METHODIST UNIVERSITY

Philip K Verleger Jr

PRESIDENT, PK VERLEGER LLC

Marianne S Kah

CHIEF ECONOMIST, CONOCOPHILLIPS

James M Griffin

PROFESSOR AND BOB BULLOCK CHAIR IN PUBLIC POLICY AND FINANCE, TEXAS A & M UNIVERSITY

Harold G Hamm

CHAIRMAN AND CHIEF EXECUTIVE OFFICER, CONTINENTAL RESOURCES INC.

DUAL PLENARY SESSION:

Clean Power Plan - Implications and Strategies

4:15 pm - 5:45 pm ■ Tulsa Ballroom Central

In 2015, the US Environmental Protection Agency unveiled the Clean Power Plan, an ambitious regulatory plan to reduce electricity sector emissions 32% by 2030. This panel will discuss critical issues and implications of the plan, including its costs and economic efficiency, effects on energy markets, current legal challenges, and utility strategies for implementation.

Eric Hittinger (*Presiding*)

ASSISTANT PROFESSOR, ROCHESTER INSTITUTE OF TECHNOLOGY

Christine Tezak

MANAGING DIRECTOR, RESEARCH, CLEARVIEW ENERGY PARTNERS LLC

Charles Rossmann

FORECASTING & MODEL DEVELOPMENT MANAGER, SOUTHERN COMPANY

Erica Bowman

CHIEF ECONOMIST, AMERICAN PETROLEUM INSTITUTE

USAEE GENERAL MEMBERSHIP MEETING

5:45 pm - 6:15 pm ■ Oklahoma Ballroom South

RECEPTION: THE SUMMIT

TUESDAY 6:30 PM - 8:30 PM

Address: 15 W 6th Street, in the Bank of America Center (about 3 blocks from the hotel)

Spectacular views for miles in every direction await you from The Summit's perch on the 30th floor of the Bank of America Building. This reception is a short 10 minute walk from the Hyatt Regency. No bus transportation will be provided. Come mingle and network with conference delegates and enjoy the beautiful Tulsa skyline at the Summit!

STUDENT RECEPTION

TUESDAY 8:30 PM - 10:30 PM

Immediately following the Reception at the Summit come join fellow students for further drinks and networking opportunities. Meet in front of the Summit elevators at 8:30pm to walk together to one of Tulsa's hottest nightspots!

WEDNESDAY, OCTOBER 26

REGISTRATION

7:00 am - 6:00 pm ■ Outside of Executive Room

HOUSTON CONFERENCE PLANNING MEETING

7:30 am - 8:30 am

■ Oklahoma Ballroom North/South

CONTINENTAL BREAKFAST

7:45 am - 8:30 am ■ Promenade Ballroom Foyer

DUAL PLENARY SESSION:

Across the Borders - Updates from Canada and Mexico

8:30 am - 10:00 am ■ Tulsa Ballroom South

Recent political developments in Canada and Mexico may impact energy markets and North America energy trade. The new left-of-center government in Alberta has been taking a very different view of the oil sands operations in that Province, while the new Canadian Federal government is also intending to change policies toward the energy sector. Meanwhile, Mexico has begun to implement significant new policies affecting the Pemex monopoly on oil and gas development, while it has also embarked on a radical restructuring of its electricity industry. How might these developments affect North American energy markets and trade in oil, natural gas and electricity? How might developments in energy markets in turn influence political developments in both countries longer term?

Peter R Hartley (*Presiding*)

PROFESSOR AND BAKER INSTITUTE SCHOLAR, RICE UNIVERSITY

Andre Plourde

DEAN FACULTY OF PUBLIC AFFAIRS, CARLETON UNIVERSITY

Juan Rosellon

PROFESSOR, CENACE (MEXICAN ISO)

Speaker TBA

DUAL PLENARY SESSION:

On the Other Side of the Meter - Demand Side Issues

8:30 am - 10:00 am ■ Tulsa Ballroom Central

In the past, discussions of the electricity sector have been mainly focused on supply-side issues. However, in recent years demand-side considerations have become increasingly important. With advances in technology, policy developments, and increased efforts to understand consumer behavior, the time is ripe to investigate the 'other side of the meter'. An expert panel will convene to discuss these demand-side considerations for individual households and users as well as their impact on the electricity system as a whole.

Melanie Craxton (*Presiding*)

PHD CANDIDATE, STANFORD UNIVERSITY

Seth Blumsack

ASSOCIATE PROFESSOR, PENN STATE UNIVERSITY

Jeff Brown

ENERGY EFFICIENCY & CONSUMER PROGRAMS MANAGER, PUBLIC SERVICE COMPANY OF OKLAHOMA

James L Sweeney

DIRECTOR OF THE PRECOURT ENERGY EFFICIENCY CENTER, PROFESSOR, STANFORD UNIVERSITY

COFFEE BREAK

10:00 am - 10:30 am ■ Promenade Ballroom Foyer

CONCURRENT SESSIONS: 24 TO 28

10:30 am - 12:15 noon

24. Energy Influences on Labor and Capital Markets

■ Tulsa Ballroom South

Robert Borgstrom (*Presiding*)

REGULATORY ADVISOR

An Empirical Analysis of The Effects of Oil Price Shocks on Sectoral Employment in Kern County

Nyakundi Michieka

Richard Gearhart

CALIFORNIA STATE UNIVERSITY, BAKERSFIELD

Causes and Consequences of Boom-Bust Cycles in Natural Gas Production Assets Investments

Joël Enderlin

Benoît Dal Ferro

ENGIE STRATEGY DIVISION

Macroscale Modeling Linking Energy and Debt

Jayaswal Harshit

Carey W. King

UNIVERSITY OF TEXAS AT AUSTIN

DISCUSSANT

Corey Young

SHALE GAS PROGRAM COORDINATOR, WASHINGTON AND JEFFERSON COLLEGE

25. Current Perspectives on Energy Security and Energy Policy

■ Tulsa Ballroom Central

Betty Simkins (*Presiding*)

PROFESSOR OF FINANCE, OKLAHOMA STATE UNIVERSITY

Absorptive Capacity for Energy Policymaking: A Case of Energy-economic Modeling

Masahiro Sugiyama

ASSISTANT PROFESSOR, POLICY ALTERNATIVES RESEARCH INSTITUTE, THE UNIVERSITY OF TOKYO

The Real Costs of U.S. Strategic Petroleum Reserves

Carol A Dahl

COLORADO SCHOOL OF MINES

Jennifer I Considine

UNIVERSITY OF DUNDEE

Energy Realities and U.S. Energy Policy

Betty Simkins

OKLAHOMA STATE UNIVERSITY

Effects of the North American Oil & Gas Development on the Nigerian Economy

Chinyere R Ikedi

Ayooluwa O Adewole

CENTRE FOR PETROLEUM ENERGY ECONOMICS AND LAW (CPEEL)

DISCUSSANT

Shree Vikas

DIRECTOR, MARKET INTELLIGENCE & BUSINESS ANALYSIS

26. Effects of Incentives and Taxes in the Transportation Industry: A Global Perspective

■ Tulsa Ballroom North

James L. Smith (*Presiding*)

PROFESSOR OF FINANCE, SOUTHERN METHODIST UNIVERSITY

Investigating the Effects of Incentives on the Adoption of Electric Vehicles

Alan Jenn

UNIVERSITY OF CALIFORNIA, DAVIS

Anand Gopal

LAWRENCE BERKELEY NATIONAL LABORATORY

Katalin Springel

Gordon Bauer

UNIVERSITY OF CALIFORNIA, BERKELEY

Modeling Supply and Demand in the Chinese Automobile Industry

Yuan Chen

UC DAVIS, INSTITUTE OF TRANSPORTATION STUDIES

Erich J. Muehlegger

C.-Y. Cynthia Lin Lawell

UNIVERSITY OF CALIFORNIA AT DAVIS

Heterogeneous Responses and Differentiated Taxes

Jen Z He

UNIVERSITY OF MARYLAND

DISCUSSANT

Michael Canes

DISTINGUISHED FELLOW, LOGISTICS MANAGEMENT INSTITUTE

WEDNESDAY, OCTOBER 26, CONTINUED

27. Challenges and Implications in Carbon Mitigation

■ Promenade Ballroom A

Mark Agerton (*Presiding*)

STUDENT, RICE UNIVERSITY

Role of Natural Gas in U.S. Carbon Mitigation when Future Expectations are Considered**Bryan K Mignone**

EXXONMOBIL RESEARCH AND ENGINEERING COMPANY

Frances Wood**Sharon Showalter**

ONLOCATION, INC.

Socio-economic Implications of Climate Stabilization Scenarios from MIROC Earth System Model**Diego Silva Herran****Kaoru Tachiiri**

JAMSTEC

China's Energy System Optimization Under INDC Commitments: Study Based on China-MAPLE Model**Xi Yang**ACADEMY OF CHINESE ENERGY STRATEGY,
CHINA UNIVERSITY OF PETROLEUM**Xunzhang Pan**

STANFORD UNIVERSITY

DISCUSSANT**Melanie Craxton**

STANFORD UNIVERSITY

28. Current Issues in Global Electricity Markets

■ Diplomat Room

Seth Blumsack (*Presiding*)

ASSOCIATE PROFESSOR, PENN STATE UNIVERSITY

The Effect of Falling Oil Prices on South Korean Imported LNG price for Power Generation**Jikhan Jeong**RESEARCHER, ECONOMY AND MANAGEMENT RESEARCH
INSTITUTE AT KOREA ELECTRIC POWER CORPORATION**Regime Shifts in Electricity Price Volatility in USA and EU****Erlendur Jonsson****Roy Endre Dahl**

UNIVERSITY OF STAVANGER

The Electricity System Emissions Resulting from Joint Deployment of Energy Storage and Wind/Solar**Eric Hittinger**

ROCHESTER INSTITUTE OF TECHNOLOGY

Ines Azevedo

CARNegie MELLON UNIVERSITY

DISCUSSANT**Jerald Fletcher**

PROFESSOR AND DIRECTOR, WEST VIRGINIA UNIVERSITY

CLOSING PLENARY SESSION:

Outlook and Global Perspectives

12:15 pm - 1:45 pm ■ Tulsa Ballroom South

The US remains a growing presence in global energy markets just as these markets are playing a growing role in on the US energy scene. Pulling together the various strands running through the previous two days requires both a broad view and long experience in energy markets as represented on the panel before you and among the audience of which you are all a part. This is meant to be a participatory session, with panel interaction and hopefully ample audience participation. Each of the four panelists will spend about five minutes laying out what they think the key energy issues are, where they think things are going globally and how that will affect the US.

David H Knapp (*Presiding*)

CHIEF ENERGY ECONOMIST, ENERGY INTELLIGENCE GROUP

Adam E Sieminski

ADMINISTRATOR, ENERGY INFORMATION ADMINISTRATION

Fereidun Fesharaki

CHAIRMAN, FACTS GLOBAL ENERGY

Jeffrey R CurrieGLOBAL HEAD OF COMMODITIES RESEARCH,
GLOBAL INVESTMENT RESEARCH DIVISION, GOLDMAN SACHS**Mark Finley**

GM GLOBAL ENERGY MARKETS, BP AMERICA INC

WORKSHOP:

The Cause and Consequence of Induced Seismicity

1:45pm - 5:00pm ■ Promenade Ballroom D

*Coordinating Partner:***Society of Petroleum Engineers***Sponsored By:***Center for Energy Studies at Rice University's Baker Institute****Ken Medlock** (*Presiding*)DIRECTOR, CENTER FOR ENERGY STUDIES,
RICE UNIVERSITY'S BAKER INSTITUTE FOR PUBLIC POLICY**Linda Capuano**FELLOW IN ENERGY TECHNOLOGY, CENTER FOR ENERGY STUDIES,
RICE UNIVERSITY'S BAKER INSTITUTE FOR PUBLIC POLICY**Jeremy Boak**DIRECTOR, OKLAHOMA GEOLOGICAL SURVEY,
UNIVERSITY OF OKLAHOMA

Wide spread shale oil and gas development across the United States has triggered a number of environmental concerns related to the energy-water nexus. Water captured during production (so-called produced water or flowback) has created a very particular set of challenges.

In general, waste water from production activities can be treated and recycled, treated and released, temporarily stored in retention pits, or disposed of in deep injection wells. In the case of disposal in deep injection wells there is growing concern that waste water injection can trigger earthquakes, or induce seismic activity. This workshop will explore the technical elements of deep injection disposal wells and induced seismicity, then raise the policy issues and technical solutions that accompany expanded waste water disposal activities.

Separate registration required.

WORKSHOP:

Global Energy Risk Management: Turning Risk into a Competitive Opportunity

1:45pm - 6:00pm ■ Promenade Ballroom B

Glenn Labhart (*Presiding*)CHAIRMAN OF ENERGY OVERSIGHT COMMITTEE OF THE GARP
ERP PROGRAM & SENIOR PARTNER LABHART RISK ADVISORS**Joe Byers**

SENIOR DIRECTOR OF RISK MANAGEMENT, DIRECT ENERGY

Bob Broxson

MANAGING DIRECTOR, BDO CONSULTING

Energy risk management requires focus on the complexities associated with asset transformation, storage, processing, treatment and transportation of energy commodities to develop sound risk management strategies. This session will communicate from lectures and case studies to gain an understanding of:

- The basics of energy risk management.
- Fostering a mindset of real option valuation to address risk and value added strategies.
- Hedging strategies to add extrinsic value to a company's asset structure.
- Developing leadership skills of managing assets and value added strategies.

Separate registration required.

THURSDAY, OCTOBER 27

CUSHING TOUR: ENBRIDGE CUSHING TERMINAL, PETRO WARRIOR, AND UNIVERSITY OF TULSA NORTH CAMPUS

7:30 am - 5:00 pm ■ Meet in front of hotel to board the coach at the hotel's 2nd Street entrance

Sponsored By:
American Petroleum Institute



AMERICAN PETROLEUM INSTITUTE

This tour will visit crude oil tank farm storage and pipeline handling facilities in Cushing, OK; the pricing point for the NYMEX crude oil futures contract. It will also visit an operating lease site, and University of Tulsa oil and gas production research facilities. These will give a first-hand overview of cutting edge research into production performance, an actual producing lease, and the handling and storage of crude oil.

NOTES

NOTES

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Melanie Craxton, *Stanford University*

ARRANGEMENTS CHAIR

David Williams, *USAEE Executive Director*

CONFERENCE MANAGEMENT COMPANY

Administrative Management Services, Inc.

Meal tickets are only valid for conference provided meal functions. Meal tickets are not transferrable to general hotel restaurants or bars.

ELECTRONIC COMMUNICATIONS

We encourage all delegates to use our conference website. The Conference Program; Session Abstracts, Full Papers, & Bios (if available); Detailed Session Descriptions & Speaker Biographies; and more can all be accessed at www.usaee.org/usaee2017. Our Mobile website at www.usaee.org/usaee2017/mobile provides abridged information for on-the-go delegates, including Hotel & City Maps, Weather forecasts, and a link to the Conference Survey.

USAEE CASE COMPETITION

The United States Association for Energy Economics (USAEE) Case Competition is a team-based competition focused on energy economics, open to teams of students across the globe. This year, the topic for the competition involves solar electricity generation in Saudi Arabia. Participating teams worked on the designated case problem over a period of three weeks and submitted a written report detailing their methods and solution to USAEE. The three teams with the best solutions will be presenting their results in a special session on Sunday afternoon from 4:30 – 6:00pm in the Promenade Ballroom B Room, immediately preceding the Opening Reception. These three teams will be competing for first, second and third place with cash prizes to be awarded.

This program would not be possible without the financial support of the following organization:



Besides a special thanks to our sponsor, we are also grateful to the USAEE Case Competition committee that has worked quite hard over the past year to ensure the success of this event!

PLACEMENT ASSISTANCE

Students who register for the 2016 USAEE/IAEE North American Conference in Tulsa and who are seeking employment or are interested in arranging internships, should submit their resume to the IAEE resume bank (you need to log into the IAEE website and visit www.iaee.org/en/Resources/careers/addcandidate.aspx to upload your resume). Be sure to indicate you are attending the USAEE/IAEE Tulsa conference.

Melanie Craxton, USAEE's student representative, will facilitate introductions to suitable companies in an effort to generate face-to-face interviews at the Tulsa conference. Potential matching will be based on the experiences and interests listed in your resume. You can also email Melanie (mcraxton@stanford.edu) with the subject Tulsa Conference Job Search if you would like to discuss in depth what you are looking for. Resumes should be confined to one page if at all possible, and not more than two pages. They should indicate your time available for work or internship, particular interests, and contact information.

RECEPTION AT THE SUMMIT

Tuesday, October 25, 2016 • 6:30pm-8:30pm

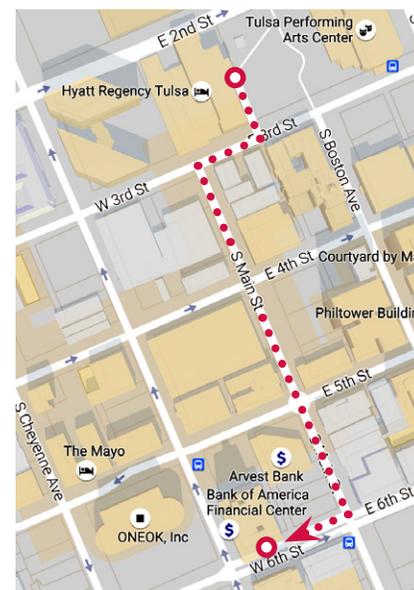
Bank of America Center

30th Floor, 15 W 6th Street, Tulsa, OK 74119

The Summit is a short 10 minute walk from the Hyatt Hotel. No bus transportation will be provided. Come mingle and network with conference delegates and enjoy the beautiful Tulsa skyline at the Summit!

Walking directions from the Hyatt:

- Head south toward 3rd Street
- Turn right onto West 3rd Street
- Turn left onto S Main Street – walk three blocks
- Turn right onto West 6th Street
- Continue a short distance on W. 6th the Bank of America Bldg. will be on your right





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USAEE/IAEE'S NORTH AMERICAN CONFERENCE REMAINS GREEN!

In an effort to minimize the environmental impact of our meeting by increasing the use of recycled materials where possible and reducing the amount of solid waste, our conference has implemented the following measures to help reduce our carbon imprint with this meeting.

Look for these changes at our conference:

- No fabricated conference registration bag/satchel produced.
- Less conference generated print material (promotional materials placed on publication display tables rather than provided to all delegates in registration bags).
- Use of china, glass, silverware, and biodegradable/recyclable plates, cups, etc. during meal functions and breaks.
- Recyclable plastic badge holders and lanyards.

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 University of Stavanger, *Norway*
 University of Western Australia, *Australia*
 UTE, *Uruguay*

Future IAEE Events

April 3-5, 2017

Rio de Janeiro, Brazil

6th ELAEE Conference

*New Energy Landscape:
 Challenges for Latin America*

April 23-25, 2017

Abuja, Nigeria

10th NAAE/IAEE International Conference

Theme to be Announced

June 18-21, 2017

Singapore

40th IAEE International Conference

*Meeting the Energy Demands of Emerging
 Economic Powers: Implications for Energy
 And Environmental Markets*

September 3-6, 2017

Vienna, Austria

15th IAEE European Conference

*Heading Towards Sustainability Energy Systems:
 by Evolution or Revolution?*

November 12-16, 2017

Houston, TX, USA

**35th USAEE/IAEE
 North American Conference**

Riding the Energy Cycles

June 10-13, 2018

Groningen, The Netherlands

41st IAEE International Conference

*Security of Supply, Sustainability and Affordability:
 Assessing the Trade-offs Of Energy Policy*

May 26-29, 2019

Montreal, Canada

42nd IAEE International Conference

Local Energy, Global Markets

August 25-28, 2019

Ljubljana, Slovenia

16th IAEE European Conference

*Energy Challenges for the Next Decade:
 The Way Ahead Towards a Competitive,
 Secure and Sustainable Energy System*

General Overview of the Inaugural Government Track: U.S. Presidential/Government Transitions

The U.S. Presidential election is only two weeks away! It will be followed by many months of transition, with uncertainty as who will be in charge of what; how policies, spending, and contracting might change; and what expectations for those already working in government agencies will be.

Do you wonder how you, your work, or your agency/company/organization might be affected?

Beginning with the Tulsa conference, the USAEE will include a program track designed to add additional value for government employees and others who are affected by government actions. This year, after an opening plenary session that addresses energy-related views of the two major parties, the Government Track will dive into the transition *process* and implications for those most affected during the initial period after a new administration takes office. What will or might happen, and how can those affected constructively respond to minimize foreseen and unforeseen problems?

The prolonged period without clear direction and/or agency contacts who can speak with authority can affect those coming into office, those already on staff, and third parties as well. During Presidential (and other government) transitions,

- there can be long periods during which the new administration has only the top appointees in place,
- most caretaker managers “acting” in other positions postpone important decisions until receiving clear guidance,
- the best points of contact might be unidentified or unclear,
- agency employees and stakeholders often wonder how they should proceed.

In each of the three Inaugural Government Track sessions, current and former high-level officials will address transitions from a different vantage point, that of

- the political party (or individual during an Administration) coming into power or a position;
- the acting incumbent and his/her staff and reporting offices; and
- the stakeholders affected by the first two.

Panelists will offer lessons/suggestions as to how attendees can make the process of transition more effective and efficient.

Do you have lessons to share from your experience with political transitions that might benefit others in the audience? Do you have questions about the challenges you or your organization might face? Come share in the extended discussion periods following each session!

SESSION 1: TRANSITION FROM THE POINT OF VIEW OF THE INCOMING POLITICAL PARTY

Monday, October 24, from 11:00 a.m. to 12:45 p.m.

This session lays the groundwork for all three, starting with a brief explanation of the mechanics of the Presidential transition process, including what happens and over what timelines, legal guidelines, and recent changes designed to make the process smoother.

Among the topics to be addressed:

- How political appointees view career staff.
- Expectations career staff have of political appointees.
- Timing expectations of political appointees – how long before things are working the way they want.
- How political appointees want to be treated by career staff.
- Political appointee views regarding how work gets accomplished and how realistic their views of the Executive Branch were.
- How political/career relationships get built. What makes them successful? What causes them to fail?

President: **Abe Haspel**, former Assistant Deputy Secretary, Department of the Interior; Deputy Assistant Secretary, Department of Energy (Currently, President, Cogent Analysis Group, LLC)

SPEAKERS

Brian Waidmann, former Chief of Staff to two Cabinet Secretaries (Interior); Senior Advisor, (George W.) Bush Administration transition team (Currently Chief of Staff, American Council of Life Insurers)

Elgie Holstein, former member of Obama transition team; Chief of Staff, Department of Energy (Currently, Senior Director for Strategic Planning, Environmental Defense Fund)

Ross Swimmer, former Principal Chief, Cherokee Nation; Assistant Secretary and Special Trustee for American Indians, Department of the Interior (Currently, Partner, Native American Fund Advisors, LLC)

SESSION 2: TRANSITION FROM THE POINT OF VIEW OF AGENCY PERSONNEL

Monday, October 24, from 4:30-6:15 p.m.

Among the topics to be addressed:

- How career staff view political appointees.
- What career staff think political appointees want and expect of them.
- What career employees view as their roles and responsibilities in a transition vis a vis political appointees.
- How interactions between career staff and political appointees occur.
- How political/career relationships get built.
- What is going on with senior career people from the point of view of less senior career people.

- What senior career people expect of less senior career people.
- The stress that sometimes accompanies a transition.
- How the top “acting” officials are determined, and how agency work can continue smoothly for the sometimes long periods when the temporary caretakers do not feel comfortable making major decisions without administration guidance.

President: **Abe Haspel**, former Assistant Deputy Secretary, Department of the Interior; Deputy Assistant Secretary, Department of Energy (Currently, President, Cogent Analysis Group, LLC)

SPEAKERS

Howard Gruenspecht, Deputy Administrator, U.S. Energy Information Administration, former Deputy Assistant Secretary and Director in Office of Policy, Department of Energy

Jane Lyder, former Deputy Assistant Secretary and Legislative Counsel, Department of the Interior

Tom Russo, more than 30 years as Manager and Sr Energy Industry Analyst, Federal Energy Regulatory Commission (Currently, President, Russo on Energy LLC)

SESSION 3: TRANSITION FROM THE POINT OF VIEW OF OUTSIDE STAKEHOLDERS

Tuesday, October 25, 8:30-10:15 a.m.

Among the topics to be addressed:

- What does/doesn't happen during a transition from the stakeholder's point of view—are there especially important aspects of transitions that stakeholders might want to pay attention to or prepare for.
- What stakeholders need most from career/political staff during the transition process.
- How one can interact with career staff during a transition.
- What career staff should do when dealing with stakeholders during a transition.
- What one's expectations should be during a transition.

President: **Arnold Baker**, former Chief Economist, Sandia National Laboratories; Director of Political Economic Analysis and other Management Positions, Atlantic Richfield Company (Currently, principal of ABB Consulting)

SPEAKERS

Keller Staley, Senior Vice President, Longenecker & Associates; 30 years of experience managing complex, multimillion dollar contracts for Department of Energy

Mary Lashley Barcella, Director, North American Natural Gas, IHS Markit

John Jimison, former Senior Counsel, Energy and Commerce Committee, House of Representatives (Currently, Managing Director of the Energy Future Coalition)

John Felmy, Chief Economist (Retired), American Petroleum Institute (Currently, Midnight Energy Economics)

We are delighted to have **Stephen St. Marie**, California PUC Advisor on Policy and Planning, serve as Rapporteur for the Government Track and each of its three panels, providing written panel summaries and an overall integration of advice and recommendations for future reference and for the benefit of those who cannot attend one or more sessions.