# SUNDAY, SEPTEMBER 23

# PhD Day Session

8:30 am - 1:45 pm • Richmond Room The PhD Day is a student-only event that will be held on Sunday, September 23 from 8:30am to 1:45pm. All current PhD Students in energy economics and related fields are invited to submit papers. This year's event follows the success of the inaugural PhD Day in Houston last year. Sponsored by:



Rice University's Baker Institute for Public Policy

# With the support of:



# Registration

8:00am - 7:00pm • Outside Old Dominion Room

Workshop: Making Good Presentations 2:00 pm - 3:30 pm • Richmond Room

Adam E. Sieminski (Presiding)
President, KAPSARC
Separate registration is required

Great ideas do not sell themselves. They have to be communicated to colleagues and clients in a compelling way. This session will offer advice on: (1) what to include and, perhaps more importantly, what to leave out; (2) creating visual aids that significantly enhance your presentation; (3) making a good impression on your audience; and (4) avoiding the most common mistakes presenters make. The most often ignored rule is that the goal of your talk is not to "present the paper" but rather to "hook" the audience with a few key concepts that will make them want to learn more.

Case Competition Session 4:00pm - 5:30pm • Richmond Room

Parth Vaishnav (Presiding)
Assistant Research Professor
Carnegie Mellon University

#### Team #1 - Adore

Olajide Sokeye Iyabo M. Okedina Kayode D. Ajulo Yewande O. Olatunde University of Ibadan, Nigeria

# Team #2 - Bovine Energy

Sam Johnson
Neal Mann
Gregory Ross
Brittany Speetles
Philip White
The University of Texas at Austin

#### Team #3 - C.M.Roo

Jessica Lovering
Niles Guo
Turner Cotterman
Ana Careces
Carnegie Mellon University

# Opening Reception

6:00pm - 7:30pm • Crystal Ballroom

#### MONDAY, SEPTEMBER 24

#### Registration

7:00am - 7:00pm • Outside Old Dominion Room

# Student Breakfast Meeting with Mentoring Opportunities

7:00am - 8:30am • Crystal Ballroom Kick-off your conference experience at the Student Breakfast Meeting with an opportunity to meet your fellow students attending the conference as well as a selection of mentors who will be present at this event.

Come, have breakfast, and get to know the other students at the conference before the first session begins. Nathalie Hinchey, the USAEE Student Representative, will also be there to make some general announcements and answer any questions you may have. We have also organized for 4 seasoned professionals in various fields to be available

at tables in the room for you to sit with and chat about their careers and personal experiences.

# Morning Networking Coffee

7:45am - 8:30am • Commonwealth Foyer

Sponsored By: EPRI

#### Welcome and Introduction

8:30am - 8:45am • Commonwealth Ballroom

#### **Keynote Presentation**

8:45am - 9:30am • Commonwealth Ballroom

Adam E. Sieminski (Keynote Speaker)

President, KAPSARC

"ENERGY ECONOMICS IN A POLICY-DRIVEN WORLD"

# Opening Plenary Session: U.S. Energy Resurgence - Impact on the Global Geopolitics of Energy

9:30am - 11:00am • Commonwealth Ballroom

# Herman Franssen (Presiding)

Executive Director, Energy Intelligence Group

Frank Verrastro

Senior Vice President, CSIS

Molly Williamson

Senior Fellow, Middle East Institute

Jesus Reyes-Heroles

President and former Minister of Energy, Mexico, Energia

Panelists will discuss the implications for US foreign policy and multilateral agreements such as the Iran nuclear accord, the Paris Agreement of 2015 on climate change, and NAFTA negotiations, arising out of the decade-long surge in US oil and gas production. Much to the dismay of OPEC members, oil prices have declined steeply since mid-2014. US exports of crude oil and refined petroleum products reached new highs in 2017, net exports of natural gas will climb steadily by 2020, and major oil exporting countries' government revenues have declined sharply, putting political pressure on their leadership. In response, panelists will also discuss the impact of US oil and gas production growth on the global geopolitics of energy including the Trump administration's quest for "energy dominance."

#### Coffee Break

11:00am - 11:30am • Commonwealth Foyer

# Concurrent Sessions 1 to 7

11:30am - 1:00pm

# **Keynote Luncheon**

1:00pm - 2:30pm • Adams / Madison Rooms

# Edie Fraser (Keynote Speaker)

Chairman and Founder, STEMconnector/Million Women Mentors
"UPWARD GROWTH: WOMEN FROM GROUND FLOOR TO C "SHE" SUITE AND
BOARDS"

# Dual Plenary Session: U.S. Energy Policy Deep Dive

2:30pm - 4:00pm • Richmond / Roanoke Rooms

# Natalie Kempkey (Presiding)

Office of Integrated and International Energy Analysis, U.S. Energy Information Administration

#### Melanie Kenderdine

Principal, Energy Futures Initiative, Non-Resident Senior Fellow, The Atlantic Council Linda Gillespie Stuntz

Partner, Stuntz, Davis & Staffier, P.C.

#### Kevin Book

Managing Director, ClearView Energy Partners LLC

The session explores the question of how to reconcile the nation's competing energy goals, priorities and costs (i.e., domestic energy prices, energy security, stimulating investment in rebuilding energy infrastructure, US export promotion/trade balance, strategic counter to Russia, improving China relations, strengthening/weakening NAFTA) with energy security choices (i.e. cost/value of GHG mitigation, flexibility in energy trade, catastrophic energy planning). Will tradeoffs be necessary to pursue energy goals vs energy security? What will those be?

# Dual Plenary Session: Demand and the Vehicle Revolution

2:30pm - 4:00pm • Williamsburg / Yorktown Rooms

# Sanya Carley (Presiding)

Associate Professor, School of Public & Environmental Affairs, Indiana University Margaret Taylor

Energy/Environmental Policy Research Scientist, Berkeley Lab

Sharyn Lie

Director, Climate Economics and Modeling Center, U.S. Environmental Protection Agency

#### **Robert Wimmer**

Director, Energy & Environmental Research, Toyota Motor North America

The transportation sector sits at a cross-road. A variety of alternative technologies and fuels are competing to displace the internal combustion engine. Industry regulations seek to reduce greenhouse gas emissions, increase efficiency, and promote alternative technologies. And the very act of driving may fundamentally change in coming years as autonomous vehicles enter the market. This panel will explore three dimensions of these trends—consumer behavior, policy evolution, and technical advancements—and provide expert commentary on the implications of these trends for the future of the transport sector.

#### Coffee Break

4:00pm - 4:30pm • Commonwealth Foyer

# Concurrent Sessions 8 to 14

4:30pm - 6:15pm

# **USAEE Chapter Leadership Meeting**

5:15pm - 6:15pm • Shennandoah Room

#### Poster Session & Networking Reception

6:30pm - 8:00pm • Adams / Madison Rooms

# Student Happy Hour

8:00pm to 10:00pm • Crystal City Sports Pub Immediately following the Poster Session & Networking Reception come join fellow students at The Crystal City Sports Pub, a 5 minute walk from the conference hotel, for further drinks and networking opportunities.

Gather at the Meeting Point (hotel lobby) at 7:50pm to walk over with the first group, or join us at your own convenience. <u>Click here</u> for walking directions.

#### TUESDAY, SEPTEMBER 25

#### Registration

7:00am - 6:30pm • Outside Old Dominion Room

#### Morning Networking Coffee

7:45am - 8:30am • Commonwealth Foyer

#### GOVERNMENT TRACK SESSION & Concurrent Sessions 15 to 22

8:30am - 10:15am

#### Coffee Break

10:15am - 10:45am • Commonwealth Foyer

Dual Plenary Session: Electricity Market Design and Operations in Stress 10:45am - 12:15pm • Richmond / Roanoke Rooms

Barney Rush (Presiding)

Board Member, ISO New England, Rush Energy Consulting

Gordon van Welie

President & Chief Executive Officer, ISO New England Inc

Andrew L. Ott

President & CEO, PJM

Thad Hill

President and Chief Executive Officer, Calpine Corporation

Panelists will probe major challenges facing the electricity industry: How will RTOs maintain reliability as the grid is powered increasingly by gas and renewables? Will markets work to sustain needed conventional generation, in an era of low energy prices? How should ISOs adjust their markets and planning to account for demand side management and distributed generation? Can these challenges be addressed with continued reliance on markets, or will we enter a new era of asset regulated returns?

Dual Plenary Session: Energy Innovation Extends Supply Curve 10:45am - 12:15pm • Williamsburg / Yorktown Rooms

Shree Vikas (Presiding)

Director, Market Intelligence & Business Analysis, ConocoPhillips

Robert Kleinberg

Senior Research Scholar, Center on Global Energy Policy

Michael Godec

Vice President, Advanced Resources International

**Scott Sanderson** 

Principal, Oil and Gas & Digital Leader, Deloitte Consulting LLP

The session explores how innovative extraction technologies, big-data analytics, standardization, and reduction of unnecessary complexity have enabled energy firms to survive, adapt and evolve while exploiting new resources. What encourages innovation, and what preconditions allow it to flourish and spread in the industry?

Awards Lunch

12:15pm - 2:00pm • Adams / Madison Rooms USAEE Adelman Frankel Award to: Richard G. Newell

USAEE Senior Fellow Awards Thomas E. Drennen John Holding

Energy Journal Best Paper Award David P. Brown David E.M. Sappington

#### Concurrent Sessions 23 to 30

2:00pm - 3:45pm

#### Coffee Break

3:45pm - 4:15pm • Commonwealth Foyer

# Dual Plenary Session: Energy Demand and Behavioral Considerations

4:15pm - 5:45pm • Richmond / Roanoke Rooms

# James Sweeney (Presiding)

Director, Precourt Energy Efficiency Center, Stanford University

#### Karen Palmer

Senior Fellow, Resources for the Future

#### Sebastien Houde

Research Scientist, ETH Zurich, Adjunct Professor, University of Maryland Kenneth Gillingham

# Associate Professor of Economics, Yale University

Since 1973, energy demand trends have changed greatly, with reductions in energy per dollar of real GDP averaging almost 2% per year, motivated by a combination of economic, behavioral, and policy forces. This unscripted panel will explore issues of possible future energy demand changes, stemming from drivers such as economic forces; behavioral motivations; technology-innovation decisionmaking; regulatory changes; electrification of many end uses; integration of electrified end-use with renewables; changing expectations; political considerations; management of climate risk.

# Dual Plenary Session: Energy Trading and Optimization - How the Business is Changing

4:15pm - 5:45pm • Williamsburg / Yorktown Rooms

#### Tina Vital (Presiding)

Managing Director, Castle Placement LLC

#### Margarita Brouwer-Boulankova

Vice President, ABN AMRO

# Madeline Jowdy

Senior Director, Global Gas and LNG, Analytics, S&P Global Platts

#### Michael Sell

Senior Vice President, Head of Global Institutional Outreach and Business Development, GARP

#### Ron Ripple

Mervin Bovaird Professor of Energy Business and Finance, The University of Tulsa Global energy commodity trading is undergoing a paradigm shift driven by the transformation in market structure and the entrance of new U.S. players in oil and LNG exports. Panelists involved in the business in leadership roles, and in energy market

analysis, will discuss how U.S. LNG trading and, more recently, exports have challenged the old regime which was based on oil-indexed agreements with destination restrictions, and has introduced a new framework in pricing, contracting, spot trading/marketing, and other flexible commercial mechanisms.

USAEE General Membership Meeting 5:45pm - 6:15pm • Shennandoah Room

DELEGATES FREE TO ENJOY WASHINGTON ON THEIR OWN View nearby restaurant list.

#### WEDNESDAY, SEPTEMBER 26

# Registration

7:00am - 6:00pm • Outside Old Dominion Room

Denver Information Meeting (By Invitation Only)

7:30am - 8:30am • Washington I & II

# Morning Networking Coffee

7:45am - 8:30am • Commonwealth Foyer

Dual Plenary Session: The Battery Revolution 8:30am - 10:00am • Richmond / Roanoke Rooms

#### Benjamin Schlesinger (Presiding)

President, Benjamin Schlesinger and Associates LLC

Eric Hittinger

Associate Professor of Public Policy, Rochester Institute of Technology

Jason Burwen

Vice President, Policy, Energy Storage Association

Hon. Marc Korman

Member, Maryland House of Delegates, 16th District

The energy storage industry is experiencing lower prices, rapid scale-up in production, and a growing set of on- and off-grid applications. This session will discuss current and future implications of these trends: storage applications, coupling with renewable generation, integration into grid infrastructure, market/policy barriers and opportunities, effects on electricity system emissions, role in greater electrification of the economy, and the potential impact on electricity & natural gas markets.

Dual Plenary Session: Changing Balance of Government Energy Policy and Regulation 8:30am - 10:00am • Williamsburg / Yorktown Rooms

Peter Balash (Presiding)

Senior Economist, National Energy Technology Laboratory

Travis Fisher

Senior Advisor, FERC

R. Dean Foreman

Chief Economist, American Petroleum Institute

Joseph R. Balash

Assistant Secretary of the Interior, Land and Minerals Management

This session will explore the changed federal perspective on energy regulation and policy, the incidence of federal regulation across different states, and areas of agreement or contention with differing states and/or regions. Is the model of regulation changing from centralized control to more 'federalism'? Are there irreconcilable differences between states and regions? Examples include Federal land policy and Federal perspective on resource development, the purpose of organized electricity markets under state interventions, and the promotion of energy exports. Implications for economic growth and consequent energy planning will also be discussed.

#### Coffee Break

10:00am - 10:30am • Commonwealth Foyer

#### Concurrent Sessions 31 to 37

10:30am - 12:15pm

#### Student Awards

12:15pm - 12:30pm • Richmond / Roanoke Rooms Dennis J. O'Brien USAEE/IAEE Best Student Paper Award

Student Poster Session Award

**Case Competition Awards** 

Closing Plenary Session: Energy Technology Leapfrogging - Could It Happen? 12:30pm - 2:00pm • Richmond / Roanoke Rooms

Jason Bordoff (Presiding)

Director, Center on Global Energy Policy, Columbia University

David Knapp

Chief Energy Economist, Energy Intelligence Group

Sarah Ladislaw

Director & Senior Fellow, CSIS

**Christophe Bonnery** 

Vice President, Economics and Prospective, Enedis

What are the technological changes that might make forecasts go wrong? Could artificial intelligence give us faster economic growth make energy demand surprise to the upside? Will building, industry, and transportation efficiencies reduce energy

demand? How will electric vehicles and autonomous vehicles change the patterns of energy use? Will the rapid drop in renewable energy costs continue? Could grid-scale batteries and distributed power completely upset the electric power business? Is the technological revolution in shale oil and gas just getting started? Are small modular reactors a realistic option for nuclear power over the next 25 years? What happens in the energy markets if we actually figure out how to capture, use, or sequester carbon?

Workshop - Energy Risk Management: Understanding Hedging, Futures and Option Markets

2:15pm - 6:30pm • Adams Room Separate registration is required.

Alan H. Levine CEO and Chairman, Powerhouse, Washington, DC

Elaine E. Levin President, Powerhouse, Washington, DC

Prices for all types of energy are subject to lots of variation with serious implications for net profit. Futures markets arose to help companies deal with the uncertainty of pricing. These markets have become benchmarks of international pricing for oil and natural gas. Despite the widespread adoption of price risk management using futures contracts, many industry participants misunderstand the purpose and construction of futures markets and their related options. This has created a mythology surrounding futures markets and their uses. In this workshop, we will discuss using real world examples:

- · The financial instruments available to energy price risk managers
- · The role futures play in determining price
- · How options work and are used by energy producers and marketers
- · The changing venues for electricity hedging
- · The availability of exotic futures instruments for protection against adverse weather and non-standard swaps
- The psychology of markets and technical trading

For more information, please <u>click here</u> View Presentation

TOUR: Marcellus Shale Natural Gas Producing Operations

 $2:30 \mathrm{pm}$  Sep  $26-10:00 \mathrm{pm}$  Sep 27 (overnight) Learn about the process for extracting oil and gas from shale formations, and about the research to drive innovation and improve efficiencies in the process.

Visit <a href="http://www.usaee.org/usaee2018/specialevents.html">http://www.usaee.org/usaee2018/specialevents.html</a> to learn more. Registered delegates only may attend. Tickets still available at the registration desk.

