

USAAE 2015 Conference Program

**SUNDAY, OCTOBER 25**

**Registration**

12:00 - 7:00pm • Duquesne Room

**Council Lunch (By Invitation)**

12:00 - 1:00pm • Sky Lounge - 24th Floor

Sponsored By: [Williams](#)

**USAAE Council Meeting**

1:00pm - 4:00pm • Benedum Room

**Opening Reception**

6:00pm - 7:30pm • Commonwealth 1, 2

**Case Competition**

7:30pm - 9:30pm • Benedum Room

[Eric Hittinger, \*Presiding\*](#)

Assistant Professor

Rochester Institute of Technology

**Team #1 - Oil Solutions International**

[Hanjiro Ambrose](#)

[Arash Saboori](#)

[Ben White](#)

*University of California, Davis*

[View Presentation](#)

**Team #2 - CMU EPP**

[Nathaniel Horner](#)

[Erin Mayfield](#)

*Carnegie Mellon University*

[View Presentation](#)

**Team #3 - Haas Energy Team**

[Stephanie Moon](#)

[Avanti Tamhane](#)

[Yuriy Pryadko](#)

[Andrey Gutkovsky](#)

*University of California, Berkeley*

[View Presentation](#)

## USAEE 2015 Conference Program

### Student Mentoring Session

7:30pm - 10:00pm • Sterlings 1, 2, 3

## MONDAY, OCTOBER 26

### Registration

7:00am - 7:00pm • Duquesne Room

### Student Breakfast Meeting

7:30am - 8:30am • Commonwealth 1

### Continental Breakfast

7:45am - 8:30am • Kings Garden 4 & 5 Foyer

Sponsored By: [ConocoPhillips](#)

### President's Huddle

8:10am - 8:25am • Liberty Room

### Welcome and Introduction

8:30am - 9:00am • Kings Garden 1, 2, 3

### Opening Plenary: The Dynamic Energy Landscape: Natural Gas in the U.S.

9:00am - 10:30am • Kings Garden 1, 2, 3

#### [Benjamin Schlesinger](#) (Presiding)

President, Benjamin Schlesinger & Associates LLC

#### [Vello Kuuskraa](#)

President and Chairman, Advanced Resources International, Inc.

#### [David J Spigelmyer](#)

President, Marcellus Shale Coalition

#### [Rusty Braziel](#)

President, RBN Energy

The astonishing growth of natural gas production from Marcellus and Utica shales raises bold possibilities throughout the region, the nation and the rest of the world. A panel of leading energy economists and stakeholders will define and probe the extent of the domestic and global resource, and discuss opportunities and challenges in capturing and sustaining the broad economic, employment, trade and even environmental benefits of shale gas, while ensuring public health and safety.

### Coffee Break

10:30am - 11:00am • Bridges Room

## USAEE 2015 Conference Program

### Concurrent Sessions 1 - 6

11:00am - 12:45pm

#### Awards Luncheon

12:45pm - 2:30pm • Kings Garden 4 & 5

#### David A Hounshell (Keynote Speaker)

David M. Roderick Professor of Technology and Social Change, Carnegie Mellon University

*"Two Centuries of Energy Transitions in the Pittsburgh Region"*

USAEE Adelman Frankel Award to:

Adam E. Sieminski & Howard Gruenspecht

USAEE Senior Fellow Awards to:

Robert Borgstrom, Amy Jaffe and Andrew Slaughter

IAEE Outstanding Contributions to the Profession Award to:

Severin Borenstein

Dual Plenary: Renewable Energy Integration

2:30pm - 4:00pm • Kings Garden 1 & 2

#### Julian Lamy (Presiding)

Research Assistant, Carnegie Mellon University

#### Jay Apt

Professor Tepper School of Business and Engineering and Public Policy, Carnegie Mellon University

#### Mike Speerschneider

Chief Permitting & Public Policy Officer, EverPower

#### Resmi Surendran

Senior Manager, Market Analysis and Design, ERCOT

#### Severin Borenstein

E.T. Grether Professor of Business Administration and Public Policy, Haas School of Business, University of California, Berkeley

Most agree that renewable energy will play a significant role our future energy needs. Simply complying with existing federal and state environmental policies will add several GW to the U.S. electricity grid over the next decade. However, integrating renewables to the grid is not without cost and technical challenges. This session hosts three panelists that are leaders in different aspects of the energy industry (regulatory, project development/finance, and academia) to discuss these challenges and possible solutions.

Dual Plenary: USAEE/SPE Plenary Session - Water at the Well-site: Production,

## USAEE 2015 Conference Program

### Handling and Disposal

2:30pm - 4:00pm • Commonwealth 2

#### **Kenneth B Medlock**

Senior Director of the Center for Energy Studies (CES), James A. Baker III and Susan G. Baker Fellow in Energy Resource Economics, Baker Institute, Rice University

#### **William Furlow**

Senior Manager Business Development, Society of Petroleum Engineers

#### **Meagan Mauter**

Assistant Professor, Civil & Environmental Engineering, Engineering and Public Policy, Carnegie Mellon University

#### **John Walsh**

Director of Consulting Services, CETCO Energy Services

The rapid growth of oil and gas production from unconventional resource plays has raised concerns about water withdrawal and use in well completion as well as post-completion water handling. While the intersections between energy and water are significantly deeper than just water use for oil and gas production, the recent concerns regarding water at the well-site have led to a wave of interest in developing new technologies and establishing new regulatory frameworks to allay any stresses. Speakers will address these issues in a technically-oriented discussion to shed light on emerging policy actions and new technological innovations aimed at alleviating concerns over water at the well-site.

### Coffee Break

4:00pm - 4:30pm • Bridges Room

### Concurrent Session 10 - 18

4:30pm - 6:15pm

### USAEE Chapter Leadership Meeting

5:15pm - 6:15pm • Liberty Room

### Poster Session and Networking Reception

6:30pm - 8:00pm • Kings Garden 4 & 5

### Student Reception

8:00pm - 10:00pm • Olive or Twist 140 6th Street  
Pittsburgh, PA 15222

## TUESDAY, OCTOBER 27

### Registration

7:00am - 6:30pm • Duquesne Room

## USAEE 2015 Conference Program

**Bergen Conference Planning Meeting**  
7:30am - 8:30am • Sterlings 2 Room

**Continental Breakfast**  
7:45am - 8:30am • Bridges Room

**Presider's Huddle**  
8:10am - 8:25am • Liberty Room n

**Concurrent Sessions 19 - 27**  
8:30am - 10:15am

**Coffee Break**  
10:15am - 10:45am • Bridges Room

**Dual Plenary: Industrial Resurgence**  
10:45am - 12:15pm • Kings Garden 1 & 2

**Mine K Yucel** (Presiding)

Senior Vice President and Research Director, Federal Reserve Bank of Dallas

**Peter C Balash**

Senior Economist, U.S. Department of Energy

**Martha Gilchrist Moore**

Senior Director - Policy Analysis and Economics, American Chemistry Council

**Tom Duesterberg**

Program Director, Retired Executive Director, Manufacturing and Society in the 21st Century, Aspen Institute

US Industrial Renaissance Panel -- Energy abundance is expected to revive production of key products and innovative activity in the US. Three panelists are planned: one who will address the potential manufacturing sectors that will thrive in this new environment and one who will focus exclusively on the petrochemical space. The third and final speaker will focus on technology's contribution to encouraging either a return of key economic sectors or the birth of new ones.

**Dual Plenary: Future of Coal**  
10:45am - 12:15pm • Commonwealth 2

**Jerald J Fletcher** (Presiding)

Professor and Director Natural Resource Analysis Center, West Virginia University

**James F Wood**

Director of the Advanced Coal Technology, US-China Clean Energy Research Center, West Virginia University

**Steve Winberg**

Program Manager, Global Laboratory Operations, Battelle Global Laboratory Operations

**Christopher Nichols**

Senior Analyst, DOE-NETL Office of Strategic Energy Analysis and Planning (SEAP), U.S. Department of Energy

The combined uncertainty in energy and environmental policy and the increasing competition from natural gas bring increasing pressure on the coal and power sectors. What is the future of coal in this environment? Can research in coal utilization and carbon management affect the demand for coal both in the US and abroad? A panel of experts will consider technical and policy issues important in understanding the dynamics and future of coal in the current environment.

**Awards Luncheon**

12:15pm - 2:00pm • Kings Garden 4 & 5 IAEE Journalism Award to:  
John Kingston

**Student & Other Awards/Recognitions**

**Concurrent Sessions 28 - 36**

2:00pm - 3:45pm

**Coffee Break**

3:45pm - 4:15pm • Bridges Room

**Dual Plenary: Climate**

4:15pm - 5:45pm • Kings Garden 1 & 2

**Jared Anderson** (Presiding)

Editor, Breaking Energy

**Eliza Northrop**

Research Analyst II for the International Climate Action Initiative, World Resources Institute

**M Granger Morgan**

Hamerschlag University Professor of Engineering, Carnegie Mellon University

**Kevin Massy**

Director International Affairs, Statoil

This is an important year for international climate negotiations, as diplomats gear up for the twenty-first session of the Conference of Parties to the UN Framework Convention on Climate Change set to take place in Paris this December. The goal of COP 21 is to forge a binding international agreement to address climate change by reducing greenhouse gas emissions at the national level. An expert panel will convene to discuss the importance of reaching an agreement, the challenges that must be overcome in order to negotiate an effective deal and the panelists will offer their views regarding potential Paris outcomes.

## USAEE 2015 Conference Program

Dual Plenary: Electricity Markets  
4:15pm - 5:45pm • Commonwealth 2

**Steve Bossart** (Presiding)

Senior Energy Analyst, NETL

**Mario S DePillis**

Principal, Economic and Energy Analysis

**Ingmar Sterzing**

VP, Power Supply and Energy Service, Pedernales Electric Cooperative

**Howard Haas**

Chief Economist, Monitoring Analytics

Wholesale electricity markets and electricity deregulation have been in place almost 20 years, and yet markets are still constantly evolving. Changes to ISO/RTO area footprints, the energy and capacity market structures, along with various layers of regulatory uncertainty and the unique perspective of the players create a dynamic environment. This session will profile some of the market opportunities and challenges facing the electricity industry today.

USAEE General Membership Meeting  
5:45pm - 6:15pm • Sterlings 2

Reception: Andy Warhol Museum

6:30pm - 8:30pm • The Andy Warhol Museum 117 Sandusky Street  
Pittsburgh, PA 15212

Light hors d'oeuvres and drinks served. Buses will begin loading at 6:00pm at the hotel front entrance. Transportation will be provided to and from the Reception. Weather abiding, we encourage those able to take the short 15 minute walk to the museum, see [walking directions here](#). There is parking in the surrounding areas of the Warhol, should you wish to drive yourself. Please note, you must bring both your name badge as well as drink tickets with you to attend this event.

## WEDNESDAY, OCTOBER 28

Registration

7:00am - 6:00pm • Duquesne Room

Tulsa Conference Planning Meeting

7:30am - 8:30am • Sterlings 2 Room

Continental Breakfast

7:45am - 8:30am • Bridges Room

## USAAE 2015 Conference Program

### Presider's Huddle

8:10am - 8:25am • Liberty Room

### Dual Plenary: Geopolitics

8:30am - 10:00am • Kings Garden 1 & 2

#### David H Knapp (Presiding)

Managing Director - Energy Intelligence Research Division, Energy Intelligence Group

#### Guy Caruso

Senior Advisor, Energy and National Security Program, CSIS

#### Edward Morse

Managing Director, Citigroup

#### Frank Linden

Senior Risk Management Officer, Multilateral Investment Guarantee Agency

Oil and to a lesser extent natural gas markets have gone through a period of reduced impact from geopolitical events in 2014 and 2015. But the events and their future importance in particular to oil supplies and oil prices should certainly be remembered. The evolution of market geography with demand for energy in general shifting eastward creates a new potentially more difficult set of geopolitical uncertainties.

### Dual Plenary: Energy Infrastructure

8:30am - 10:00am • Commonwealth 2

#### Christopher Nichols (Presiding)

Senior Analyst, DOE-NETL Office of Strategic Energy Analysis and Planning (SEAP), U.S. Department of Energy

#### John Schmitter

President, KEP, LLC

#### Donald F Santa

President and CEO, Interstate Natural Gas Association of America

#### William F Hederman

Deputy Director for Systems Integration and Sr Advisor to the Secretary, U.S. Department of Energy

America's energy infrastructure - consisting of millions of miles of pipelines, railways and electricity lines - serves a vital role in the transmission, storage and delivery of the nation's energy. This panel will present different perspectives from across a variety of energy delivery modes.

### Coffee Break

10:00am - 10:30am • Bridges Room

### Concurrent Sessions 37 - 45

10:30am - 12:15pm



Closing Plenary: Energy Finance & Risk Management  
12:15pm - 1:45pm • Kings Garden 1 & 2

[Tina Vital](#) (Presiding)

Energy Investment Analyst

[Michael Sell](#)

Senior Vice President, ERP Program Manager, Global Association of Risk Professionals (GARP)

[Glen Swindle](#)

Managing Partner, Scoville Risk Partners

[Amy M Jaffe](#)

Executive Director of Energy and Sustainability, University of California, Davis  
The collapse in global oil prices caught market participants by surprise and is redefining the energy landscape – particularly for U.S. onshore shale oil & gas producers. A panel of leading energy economists, financial and risk managers will discuss events which led up the fall in global oil price, implications for the energy market and what may lie ahead.

Workshop: Carbon Capture, Utilization and Storage

2:00pm - 5:00pm • Commonwealth 1, 2

Sponsored By: [Rice University's Baker Institute Center for Energy Studies](#) For more information, please [click here](#).

Separate registration is required.

*Kenneth Medlock (Presiding)*

Rice University's Baker Institute for Public Policy

Traci Rodosta

NETL

Chuck Zelek

NETL

Peter Kobos

Sandia National Laboratories

Haibo Zhai

Carnegie Mellon University

Carbon capture, utilization and storage (CCUS) is gaining attention in energy policy discussions, particularly as policies aimed at reducing carbon dioxide (CO<sub>2</sub>) emissions gain traction. Reconciling climate change policy with the existing deep and well-established fossil fuel supply chains presents a challenge that technology has the potential to address through carbon capture and storage. However, any new

technology must be commercially viable in its own right to have an economically sustainable footprint. Thus, the potential value proposition in utilizing CO<sub>2</sub> to enhance profitability in the extractive industries has grabbed significant attention. This workshop will address the technical challenges of CCUS and demonstrate multiple efforts aimed at modeling the implications of expanded CCUS on energy markets.