



# IETC 2019

NEW ORLEANS  
JUNE 18-20

The Forty First Industrial Energy Technology Conference



The Forty First Industrial Energy Technology Conference

# Final Program

*Hosted By:*



**ENERGY SYSTEMS LABORATORY**  
TEXAS A&M ENGINEERING EXPERIMENT STATION



**SECO**  
State Energy Conservation Office

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# WELCOME

On behalf of the hosts and sponsors of the Forty-first National Industrial Energy Technology Conference (IETC), welcome! Our program brings together nationally prominent experts from many areas of industrial energy management. This year's two-day conference consists of fourteen technical sessions and panel discussions and over forty individual presentations. In addition, each day will be highlighted by outstanding corporate, industrial and government speakers.

The IETC staff and your hosts, Texas A&M University System's Energy Systems Laboratory and the Louisiana Department of Natural Resources, along with our many co-sponsors are committed to providing all attendees with a wealth of information that will help them improve the performance of their companies--something to take home and use immediately!

This year's 2019 Energy Managers' Workshop builds on its past successes and will again provide a great opportunity for you to expand your energy management proficiency through an event associated with the conference. Seven top energy managers and industry leaders present an impressive and extensive workshop agenda entitled: "Energy Management: Strategies and Successful Applications."

We are confident that you will profit from the experience and technical expertise of our presenters and panelists, and best of all, the interaction with so many energy professionals in one place.

James A. Eggebrecht, PE, Executive Director  
Industrial Energy Technology Conference

# MAJOR EVENTS

## **Workshop**

The Pre-Conference Energy Managers Workshop continues for its twenty-seventh year, exploring the topic of “Energy Management: Strategies and Successful Applications.”

## **Opening Plenary**

The IETC opens with a Plenary Session on Wednesday morning, featuring the American Chemistry Council Energy Award Winners, and remarks by Tom Harris, Secretary of the Louisiana Department of Natural Resources.

## **Breakfasts**

Wednesday morning includes a breakfast for the presenters and session chairs in the Louisiana Ballroom. Breakfast for attendees is in the Parish Hall Exhibit area on Wednesday and Thursday morning.

## **Sponsored Coffee Breaks**

Wednesday's & Thursday's Breaks are sponsored by KBC Advanced Technologies.

## **Technical Sessions**

The traditional technical sessions consist of 25-minute presentations followed by a 5-minute question and answer period after each presentation. There will be a 5-minute break between papers to permit movement of conferees between sessions.

## **Panel Discussions**

Panel discussions provide an overview by a select group of authorities on the subject. The moderator will lead the discussion on the topic following the panelists presentations. This format allows more in-depth coverage and discussions, and provides more interaction with the audience.

## **Reception**

The IETC reception is at 5:30 p.m. on Wednesday evening June 19.

## **Wednesday Keynote Speaker**

Features Maria T. Vargas, U. S. Department of Energy.

## **Thursday IETC Energy Award Luncheon**

The IETC Awards Luncheon features IETC Energy Awards presentations to Ryan Spies of Saint Gobain, and Owens Corning.

# INFORMATION

## How to contact us:

### **General conference information, presentations, speakers**

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### **Other information, including registration**

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Get updated IETC information at  
<http://ietc.tamu.edu/>

## **Proceedings**

The IETC Proceedings are available at the IETC website:  
<http://ietc.tamu.edu/program>

## **Call for Papers**

Abstracts are now being accepted for the Forty-Second Industrial Energy Technology Conference. Interested authors should submit one electronic abstract of not more than 400 words by October 1, 2019 to:

James A. Eggebrecht  
IETC Executive Director  
Energy Systems Laboratory

Phone: (979) 845-1508  
Email: [jegge@tamu.edu](mailto:jegge@tamu.edu)

## **Continuing Education & Professional Development Credits**

The Industrial Energy Technology Conference and the workshops meet the criteria for continuing education and professional development hours required by many state professional engineering boards. Check with Kimberly or Jim at the registration desk for information and a CEU form.

# KEYNOTE SPEAKER

## WEDNESDAY PLENARY SPEAKER



**Mr. Thomas Harris**

**Secretary of Louisiana Department of Natural Resources**

**Tom Harris** is the Secretary of the Louisiana Department of Natural Resources and a member of the State Mineral and Energy Board, the Oilfield Site Restoration Commission and the Water Resources Commission. He earned his Bachelor of Science in Biochemistry from Louisiana State University and a Master of Science in Environmental Toxicology from the Tulane University School of Public Health. Tom was previously the Director of the Technology Assessment Division at DNR since 2014 and also worked at the Louisiana Department of Environmental Quality, for 19 years. At LDEQ he served as Administrator overseeing the remediation of contaminated sites from 2005 until early 2014.

## WEDNESDAY LUNCHEON SPEAKER



**Ms. Maria T. Vargas**

**Senior Program Adviser, U.S. Department of Energy**

**Maria T. Vargas** serves as a Senior Program Advisor at the U.S. Department of Energy. Ms. Vargas is also the Director of DOE's Better Buildings Initiative. Through Better Buildings, DOE works with leaders in the public and private sectors to make American buildings at least 20 percent more efficient in the next decade. Hundreds of chief executive officers, University presidents and state and local leaders are partners and are upgrading buildings across their portfolio and sharing innovative solutions and strategies as models for others to follow.

Prior to her work at DOE, Ms. Vargas was the Brand Manager for the ENERGY STAR program for almost 20 years while at the US Environmental Protection Agency. Vargas also served as the Director of the Green Lights Partnership. She has been involved in policy work on the issues of ozone depletion, global climate change, and related environmental and energy issues since 1985.

Ms. Vargas received a Bachelor's degree from Swarthmore College (Swarthmore, PA) in Political Science and Economics and a Master's degree from the University of Oregon

# AWARDS LUNCHEON

## THURSDAY AWARDS LUNCHEON

### Owens Corning

#### 2019 IETC Energy Award Winner

**Owens Corning** has been a paragon of excellence in industrial energy efficiency. The company joined the DOE Better Plants program in 2010 and met the program goal with a 31% cumulative improvement in energy intensity in 7 years. This represented an increase over the program goal of 6% and was accomplished 3 years early than the 10-year program timeframe. The company is continuing to improve energy intensity by at least 2.5% per year before re-pledging in a 2020 using that year as a baseline with a new, 10-year energy goal that will be cover all 58 plants in the U.S.

Owens Corning implemented a large-scale renewable energy technology campaign, which installed multiple renewable energy technologies at Owens Corning plants across the U.S. These locations and the technologies installed include:

- Toledo, Ohio, a solar array providing approximately 20% of the power needed for their world headquarters.
- Delmar, New York, a 2.7-megawatt solar panel system at their Delmar insulation plant providing approximately 7% of the required electricity for that plant.
- Kearny, New Jersey, a Roofing plant began sourcing approximately 14% of the required electricity from rooftop solar panels.
- Fairburn, Georgia, started operating a 1-megawatt solar project at this insulation plant that is expected to result in an estimated 1,054 metric tons of CO2 reduction in its first year of operation.
- Additionally, Owens Corning entered into PPAs for 250 megawatts of renewable electricity – 125 megawatts of wind energy in Texas, and another 125 megawatts in Oklahoma.

In addition, the company established an ambitious science-based target (SBT) for greenhouse gas emissions (GHG) reductions. The target is a 50% reduction in GHG emissions by 2020 based on a 2010 baseline. The company expects to achieve this goal using a combination of renewable energy and energy efficiency technologies in its plants. The decision to remain in the Better Plants program was in part motivated by this goal. The company expects to leverage Better Plants technical resources, networking platforms and access to DOE's R&D capabilities in terms of energy technologies.

### Ryan Spies, Saint Gobain

#### 2019 IETC Energy Award Winner

**Ryan Spies** is currently the Sustainability and Energy Manager at Saint Gobain where he manages the Energy, Water, Waste & CO2 Emissions reduction strategy for 130+ manufacturing sites in North America. During Ryan's 14+ year career, he has worked in a variety of roles (engineering, sustainability and business strategy) and has consistently worked to advance and promote resource productivity, sustainability, and corporate social responsibility strategies at 3 different Fortune 500 companies.

In his role at Saint Gobain, Ryan directs resources and strategies for use in manufacturing production facilities to reduce environmental impacts. His scope of responsibility includes overseeing and guiding the company's operations which consume 6 million MWh of energy (\$200M spend), 9 million m3 of water and emits 2 million tons of CO2.

To help his company move towards meeting its global sustainability/renewable goals, Ryan manages the strategy to meet global corporate goals through work with Saint Gobain's 13 different business units where he directs business unit energy managers on the application of various reduction strategies. On renewable energy implementation, Ryan has developed and implemented the deployment of a renewable energy strategy for all sites in North America as alternative means of achieving carbon reduction targets and energy supply/price risk mitigation. Ryan directed the renewable energy team (comprised of legal, EHS, purchasing, treasury, finance, accounting, and BU leadership) to evaluate, bid, negotiate and contract a 156 MW solar power purchase agreement for the company which has resulted in a 30% reduction in emissions from electricity for US Operations. To make this happen, Ryan was instrumental in educating, engaging and influencing senior leadership (CEO, CFO and Paris affiliates) on project direction, including overall strategy and RFP deployment.



# EMWS SCHEDULE

## 27<sup>th</sup> Energy Managers Workshop Schedule Energy Management: Strategies and Successful Applications

### Tuesday, June 18

7:00 am - 8:00 am Registration

7:30 am - 8:00 am Continental Breakfast, Parish Hall, 10th Floor

#### **Workshop held in Feliciana Room, 10th Floor**

8:05 am - 8:15 am Opening Remarks – James Eggebrecht, Texas A&M University

8:15 am - 9:00 am Energy Management, Where to Begin  
Thomas Theising, Sustainable Energy Solutions

9:00 am - 9:45 am DOE's MEASUR Tools  
Kiran Thirumaran, Oakridge National Laboratory

- 30 minute break -

10:15 am - 11:00 am Tools to Evaluate Steam Load Changes on Operating Plants  
James E. Robinson, DES Global LLC

11:00 am - 11:45 am Strategic Planning Considerations for Energy Efficiency Upgrades of Fan Systems: Do You Go with Retrofit or New?  
Vern Martin, FlowCare Engineering Inc.

12:00 pm - 1:00 pm Lunch in Terrebonne Room, 9th Floor

1:00 pm - 1:45 pm What You Can Learn from Review of Your Electrical Energy Bills  
James A. Eggebrecht, Texas A&M University Industrial Assessment Center

1:45 pm - 2:15 pm Energy Projects; Barriers to Implementation  
Mike Stowe, Advanced Energy

- 30 minute break -

2:45 pm - 3:30 pm Role of Industry in Climate Emissions and the Opportunities for Reductions Through Energy Efficiency  
R. Neal Elliott, American Council for an Energy Efficient Economy

3:30 pm - 4:00 pm Wrap-up, critiques & dismissal





# PROGRAM AT A GLANCE

Tuesday, June 18 – Energy Managers Workshop				
7:00 am – 5:00 pm	Registration and Information - <b>Parish Hall, 10th Floor</b>			
7:30 am - 8:00 am	Continental Breakfast - <b>Feliciana Room, 10th Floor</b>			
8:00 am – 5:00 pm	Energy Managers Workshop Morning Session - <b>Feliciana Room, 10th Floor</b>			
9:45 am - 10:15 am	Coffee and Snack Break - <b>Parish Hall, 10th Floor</b>			
12:00 pm – 1:00 pm	Energy Managers Workshop Lunch - <b>Terrebonne Room, 9th Floor</b>			
1:00 pm - 5:00 pm	Energy Managers Workshop Afternoon Session - <b>Feliciana Room, 10th Floor</b>			
2:15 pm - 2:45 pm	Coffee and Snack Break - <b>Parish Hall, 10th Floor</b>			
Wednesday, June 19 – Day 1 of Conference				
7:00 am – 5:00 pm	Registration and Information - <b>Parish Hall, 10th Floor</b>			
7:15 am – 7:50 am	Conference Authors/Presenters Breakfast - <b>Louisiana Ballroom 2, 10th Floor</b>			
8:00 am – 8:15 am	Opening Welcome - <b>Louisiana Ballroom 1, 10th Floor</b>			
8:15 am – 8:30 am	American Chemistry Council Recognition of Energy Awards - <b>Louisiana Ballroom 1, 10th Floor</b>			
8:30 am – 9:00 am	Plenary Address by Thomas Harris, Louisiana Department of Natural Resource - <b>Louisiana Ballroom 1, 10th Floor</b>			
<b>Technical Sessions 1 - 4</b>	<b>Feliciana East Room 10th Floor</b>	<b>Feliciana West Room 10th Floor</b>	<b>Louisiana Ballroom 1 10th Floor</b>	<b>Terrebonne Room 9th Floor</b>
9:10 am – 11:45 am	1 – American Chemistry Council Award Winners 1	2 - Steam Plants & Equipment	3 – The Energy Management Journey: From Nothing to ISO 50001 and Everything In Between (Panel Discussion)	4 – Equipment Energy Issues
10:15 am – 10:40 am	Break Time Sponsored by KBC Advanced Technologies - <b>Parish Hall, 10th Floor</b>			
12:00 pm – 1:30 pm	IETC Luncheon & Keynote Address - <b>Louisiana Ballroom 2, 10th Floor</b>			
<b>Technical Sessions 5 - 7</b>	<b>Feliciana East Room 10th Floor</b>	<b>Feliciana West Room 10th Floor</b>	<b>Louisiana Ballroom 1 10th Floor</b>	<b>Terrebonne Room 9th Floor</b>
1:45 pm – 5:00 pm	5 – Compressed Air	6 – Data Analysis Methods 1	7 – Evolution Of Renewables Energy Purchasing (Panel Discussion)	8 - Combined Heat & Power - Strategic Energy Resources
2:50 pm – 3:20 pm	Break Time Sponsored by KBC Advanced Technologies - <b>Parish Hall, 10th Floor</b>			
5:30 pm – 7:30 pm	Reception for all attendees and guests - <b>Parish Hall, 10th Floor</b>			
Thursday, June 20 – Day 2 of Conference				
7:00 am - 4:00 pm	Registration and Information - <b>Parish Hall, 10th Floor</b>			
7:15 am - 7:45 am	Continental Breakfast - Parish Hall, 10th Floor			
7:45 am - 8:40 am	Plenary Session - Climate Change and Industrial De-carbonization Panel Discussion - <b>Louisiana Ballroom, 10th Floor</b>			
<b>Technical Sessions 9 - 12</b>	<b>Feliciana East Room 10th Floor</b>	<b>Feliciana West Room 10th Floor</b>	<b>Terrebonne Room 9th Floor</b>	<b>St. Tammany Room 9th Floor</b>
8:50 am – 12:00 pm	9 – American Chemistry Council Award Winners 2	10 – Data Analysis Methods 2	11 – ISO 50001 - The Value of Energy Management	12 – Water and Energy: The Deep Connection
9:55 am – 10:20 am	Break Time Sponsored by KBC Advanced Technologies - <b>Parish Hall, 10th Floor</b>			
12:00 pm – 1:30 pm	IETC Energy Awards Luncheon - <b>Louisiana Ballroom, 10th Floor</b>			
<b>Technical Session 13</b>	<b>St. Tammany Room 9th Floor</b>			
1:45 pm – 3:25 pm	13 – Better Plants Steam Working Group (Panel Discussion)			

# CONFERENCE SESSIONS

## Wednesday Morning, June 19

- 7:00 am - 5:00 pm** Registration, **Parish Hall, 10th Floor**  
**7:15 am - 7:50 am** Breakfast for Wednesday's and Thursday's Authors and Session Chairs  
**Feliciana Room, 10th Floor, sponsored by ICF**  
For all other attendees in **Parish Hall, 10th Floor** Registration Area
- 8:00 am - 8:15 am** **Welcoming Remarks:** James Eggebrecht, Executive Director, IETC and Edward O'Brien Director Energy, Louisiana Department of Natural Resources
- 8:15 am - 8:30 am** **American Chemistry Council** Recognition of Energy Awards Recognition of Responsible Care Care Energy Awards, Lloyd Webb, Olin Corporation
- 8:30 am - 9:00 am** **Plenary Address by Thomas Harris, Louisiana Department of Natural Resources**
- 9:10 am - 11:50 am** **Sessions 1 - 4**

## **Session 1 – American Chemistry Council Award Winners 1**

Session Chair: Lloyd Webb, Olin Corporation  
Feliciana East Room, 10th Floor

- 9:10 am - 9:40 am** "Hydrogen Control and Process Improvements," **Max T. Frost, Olin Corporation.**
- 9:45 am - 10:15 am** "Steam Turbine Efficiency Improvements," **Sarah Miskiel, Olin Corporation.**
- 10:15 am - 10:40 am** **Coffee Break and Exhibits – Parish Hall, 10th Floor**
- 10:40 am - 11:10 am** "30# Steam Elimination," **Kate Zabonik, Olin Corporation.**
- 11:15 am - 11:45 am** "Distillation Heat Recovery System Upgrade," **Izabela Biedo, SABIC.**

## **Session 2 - Steam Plants & Equipment**

Session Chair: Neil Davies, Spirax Sarco, Inc.  
Feliciana West Room, 10th Floor

- 9:10 am - 9:40 am** "Tracing the Causes of Heat Maintenance Issues," **James R. Risko, TLV Corporation.**
- 9:45 am - 10:15 am** "Steam System Redundancy: Are You Really Operating at N + 1?" **Ben Janvier and Marc Guerin, Enero Solutions.**
- 10:15 am - 10:40 am** **Coffee Break and Exhibits – Parish Hall, 10th Floor**
- 10:40 am - 11:10 am** "Steam Assisted Flares," **Mike Mabry, Spirax Sarco Inc.**
- 11:15 am - 11:45 am** "Steam De-Superheater Optimization, Performance, and Troubleshooting," **Jay D'Amico and Brian D. Kimbrough, Louisiana Steam Equipment Company.**



## Session 3 - The Energy Management Journey: From Nothing to ISO 50001 and Everything In Between (Panel Discussion)

Session Chair: R. Neal Elliott, American Council for an Energy Efficient Economy  
Louisiana Ballroom 1, 10th Floor

Panelists:

Michael Deane, ClearResult & North American SEM Collaborative.

Pete Langlois, U. S. Department of Energy.

## Session 4 - Equipment Energy Issues

Session Chair: Vern Martin, FlowCare Engineering  
Terrebonne Room, 9th Floor

9:10 am - 9:40am "How Maintenance Best Practices Can Save Energy," Mike Stowe, Advanced Energy.

9:45 am - 10:15 am "Heat Recovery Techniques in Industrial Drying," Bryan W. Hackett, kW Engineering.

10:15 am - 10:40 am Coffee Break and Exhibits – Parish Hall, 10th Floor

10:40 am - 11:10 am "Air Preheater System Upgrade on Coker Heaters," Harsh Ghuge and Ashutosh Garg, Furnace Improvements Inc.

11:15 am - 11:45am "Design, Modification, Construction, and Testing of Hydraulic Ram Pump – A Performance Improvement Study," Ashokkumar M. Sharma, Jacob H. Jackson, Pablo J. Centeno, Srikanth B. Pidagu, Department of Engineering Technology, University of Arkansas at Little Rock.

## 12:00 pm - 1:30 pm - IETC Luncheon & Keynote Address Louisiana Ballroom 2, 10th Floor

**Speaker:** Ms. Maria T. Vargas, Senior Program Adviser, U. S. Department of Energy

## Wednesday Afternoon, June 19

1:45 pm - 5:00 pm      Sessions 5 – 8

### Session 5 - Compressed Air

Session Chair: Thomas Theising, Sustainable Energy Solutions, LLC

Feliciano East Room, 10th Floor

- 1:45 pm - 2:15pm      “Introduction to Compressed Air Management,” **Thomas Theising, Sustainable Solutions, LLC.**
- 2:20 pm - 2:50 pm      “Using intelligent controls to reduce energy and create redundancy by allowing pressure dew-point to vary, a different approach to compressed air system design,” **Mark Ames, John Henry Foster Company.**
- 2:50 pm - 3:20 pm      **Coffee Break and Exhibits – Parish Hall, 10th Floor**
- 3:20 pm - 3:50 pm      “Essential Elements of a Compressed Air Power System End Users Need to Know About in 2020,” **Mike Caldwell, The Compressed Air Network.**
- 3:55 pm - 4:25 pm      “Reducing Site Cost Through a Plant Leak Prevention Program,” **James Nipper, Petro Chemical Energy.**

### Session 6 - Data Analysis Methods 1

Session Chair: Edward O’Brien, Louisiana Department of Natural Resources

Feliciano West Room, 10th Floor

- 1:45 pm - 2:15 pm      “Consumer-Driven Shaving of Grid Demand using a Strategically Limited Incentive,” **Austin Rogers, Texas A&M University Mechanical Engineering.**
- 2:20 pm - 2:50 pm      “Reducing Demand at a Chemical Plant,” **Mike Stowe, Advanced Energy.**
- 2:50 pm - 3:20 pm      **Coffee Break and Exhibits – Parish Hall, 10th Floor**
- 3:20 pm - 3:50 pm      “Co-generation of Fresh and Chilled Water for a Desalinization Plant and Small Modular Reactor Coupling,” **Elizabeth K. Worsham, Alexander D. Thomas, Stephen D. Terry, North Carolina State University.**
- 3:55 pm - 4:25 pm      “Multiple Benefits of Industrial Energy Efficiency – Lessons Learned and New Initiatives,” **Bruce Lung, US DOE, and Sachin Nimbalkar, Thomas Wenning, and Eli Levine, Oak Ridge National Laboratory.**

## Session 7 - Evolution of Renewables Energy Purchasing (Panel Discussion)

Session Chair: Jay Zoellner, Edison Energy

Louisiana Ballroom 1, 10th Floor

“Why Corporations are Buying Renewable Energy and How to Structure a PPA,” **Christen Blum and Emily Williams, Edison Energy.**

**Panel: Trends in Corporate Procurement of Renewable Energy**

- **Moderator – Emily Williams, Senior Director of Energy Markets and Sustainability**

**Panelists:**

- **Ryan Spies, Sustainability and Energy Manager, Saint Gobain North America.**
- **Tommy Greer, Director of Energy Sales and Origination, EDP Renewables.**
- **Tim Juliani, World Wildlife Fund**

“Case Study: Saint Gobain North America’s Renewable Energy Procurement Journey,” **Ryan Spies, Saint Gobain North America.**

## Session 8 - Combined Heat & Power - Strategic Energy Resources

Session Chair: Tarla T. Toomer, Ph.D., U. S. Department of Energy

Terrebonne Room, 9th Floor

- |                          |  |
|--------------------------|--|
| <b>1:45 pm - 2:15 pm</b> | “DOE Combined Heat and Power Program Updates,” <b>Dr. Tarla T. Toomer, U.S. DOE.</b>                         |
| <b>2:20 pm - 2:50 pm</b> | “New DOE CHP Tools and Resources,” <b>Patti Garland, U.S. DOE. “</b>   |
| <b>2:50 pm - 3:20 pm</b> | <b>Coffee Break and Exhibits – Parish Hall, 10th Floor</b>   |
| <b>3:20 pm - 3:50 pm</b> | Energy Storage in Industrial, R&D, and CHP Applications,” <b>John Andrepont, The Cool Solutions Company.</b> |
| <b>3:55 pm - 4:25 pm</b> | “CHP Success Story at a Specialty Chemicals Company,” <b>Zac Fox and Kevin Davis, Evonik Industries.</b>     |
| <b>4:30 pm - 5:00 pm</b> | “DOE Technical Assistance through CHP TAPs,” <b>Isaac Panzarella, Southeast CHP TAP.</b>                     |

**5:30 pm - 7:30 pm - Reception  
Parish Hall, 10th Floor**

## **Thursday Morning, June 20**

**7:00 am - 12:00 pm**      **Registration for New Arrivals**  
**7:15 am - 7:45 am**      **Breakfast, Parish Hall, 10th Floor**

### **7:45 am - 8:40 am      Plenary Session Louisiana Ballroom**

The domestic and international communities are considering how to respond to the threat of climate change. Manufacturing is a major source of CO<sub>2</sub> emissions, but represents perhaps the most challenging sector because of its energy intensity and complexity, and its essential role in domestic and international economic growth and stability. A panel of experts will discuss technology and policy paths that are available to acceleration reductions in the emissions from the sector, focusing on roles of energy efficiency, renewable energy, research and development, and carbon capture, utilization and storage. This panel will draw upon results from a recent international workshop on industrial decarbonization convened by the Aspen Global Change Institute.

#### **Panel lineup is:**

**Rebecca Dell, Hewlett Foundation (moderator)**  
**Dr. William Morrow, Lawrence Berkeley National Laboratory**  
**Dr. Neal Elliott, American Council for an Energy Efficient Economy**  
**William A. Collins, Occidental Oil & Gas**

**8:50 am - 12:00 pm**      **Sessions 9 - 12**

### **Session 9 - American Chemistry Council Award Winners 2**

Session Chair: Marina N. Barta, ExxonMobil Chemical Company  
**Felician East Room, 10th Floor**

**8:50 am - 9:20am**      **"Making Butanol Greener – Major Energy Reduction Through Strategic Product Management,"**  
**Garrett Smith, Eastman Chemical Company.**

**9:25 am - 9:55 am**      **"SCO Site H<sub>2</sub> Optimization Through Advanced Control" Heidi Holmes, The DOW Chemical**  
**Company.**

**9:55 am - 10:20 am**      **Coffee Break and Exhibits - Parish Hall, 10th Floor**

**10:20 am - 10:50 am**      **"Baytown Olefins Plant Furnace Decoke Improvements," Marina N. Barta, ExxonMobil**  
**Chemical Company.**

**10:55 am - 11:25 am**      **"Cooling Tower Electric Efficiency Improvement – Hope AR Facility," David Steiner, Hexion Inc.**

**11:30 am - 12:00 pm**      **"Employee Engagement in Energy Reduction – Celanese Energy Community," David Reid, Sr.,**  
**Celanese Corporation.**

## Session 10 - Data Analysis Methods 2

Session Chair: James Robinson, DES Global, LLC  
Feliciano West Room, 10th Floor

- 8:50 am - 9:20 am** "Online Energy Management and Optimization System: Braskem Q1-BA," **Pablo Montagna, KBC Advanced Technologies**
- 9:25 am - 9:55 am** "Inspection and Monitoring of Critical Plant Infrastructure with Drones Can Lead to Efficiency Gains," **Andrew Whitlock, American Council for an Energy Efficient Economy.**
- 9:55 am - 10:20 am** **Coffee Break and Exhibits - Parish Hall, 10th Floor**
- 10:20 am - 10:50 am** "Using Digital Process Twin Technology to Drive Operational Excellence in Utility Systems," **Gerardo Sanchis, Jordan Pearce, Steve Hall, Process Systems Enterprise.**
- 10:55 am - 11:25 am** "Solar for Industrial Process Heat: A Summary of Status, Barriers, and Opportunities," **Eric Masenet, and Carrie Schoeneberger, Northwestern University, Colin McMillan, Robert Margolis, and Parthiv Kurup, National Renewable Energy Laboratory.**
- 11:30 am - 12:00 pm** "Better Economics and Simplicity in Pinch Analysis," **Robert C. Smith.**

## Session 11 - ISO 50001 – The Value of Energy Management

Session Chair: Bruce Lung, U. S. Department of Energy  
Terrebonne Room, 9th Floor

- 8:50 am - 9:20 am** "50001 Navigator: A Powerful Tool to Enable Better Energy Management," **Pete Langlois, US Department of Energy.**
- 9:25 am - 9:55 am** "3M Energy Management System Through ISO 50001 and Superior Energy Performance," **Andrew Hejnar, 3M Canada.**
- 9:55 am - 10:20 am** **Coffee Break and Exhibits - Parish Hall, 10th Floor**
- 10:20 am - 10:50 am** "ISO 50001 Certifications in DuPont," **Dave Lauterbach, DuPont.**
- 10:55 am - 11:25 am** "How ISO 50001 Has Helped Nissan Canton Energy Program," **Brett Rasmussen, Nissan North America.**
- 11:30 am - 12:00 pm** "How to Spark & Recharge ISO 50001 in Organizations," **David Arkell, 360 Energy**

## Session 12 - Water and Energy: The Deep Connection

Session Chair: Mike Stowe, Advanced Energy  
St. Tammany Room, 9th Floor

- 8:50 am - 9:20am "The Energy-Water Connection, an Overview," Corrie Clark, Congressional Research Service, The Library of Congress.
- 9:25 am - 9:55 am "Applied Water and Energy Integration," Susanna Sutherland, Sutherland & Associates, LLC.
- 9:55 am - 10:20 am Coffee Break and Exhibits - Parish Hall, 10th Floor
- 10:20 am - 10:50 am "CHP & Wastewater," Gavin Dillingham, Southcentral DOE Technical Assistance Partnership (TAP).
- 10:55 am - 11:25 am "Delta Diablo WWTP Energy Efficiency Journey," Amanda Roa and Joaquin Gonzalez, Delta Diablo WWTP.
- 11:30 am - 12:00 pm Question & Answer Period for all Presenters

## 12:00 pm - 1:30 pm - IETC Energy Awards Luncheon Louisiana Ballroom, 10th Floor

### Thursday Afternoon, June 20

1:45 pm - 3:25 pm Session 13

## Session 13 - Better Plants Steam Working Group (Panel Discussion)

St. Tammany Room, 9th Floor

The DOE's Better Plants program will host a session for the Steam System Working Group, a peer-based working group in which partners can learn about innovation related to specific industrial technologies, exchange information/best practices and programmatic updates. This session will provide an in-depth demonstration of the new Steam System Modeling Tool that is part of DOE's MEASUR tools suite.

**Moderators:** Bruce Lung, U. S. Department of Energy  
Kiran Thirumaran, Oakridge National Laboratory



## **IETC Staff**

**James A. Eggebrecht**, Executive Director

**Kimberly Greer**, Conference Manager

## **Advisory Board**

Joe Almaguer

Walter Brockway, Brockway Consulting

Neil Davies, Spirax Sarco, Inc.

Andre deFontaine, US Department of Energy

R. Neal Elliott, American Council for an Energy Efficient Economy

Peter Garforth, Garforth International llc

Scott Harrison, Vistra Energy

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