

Rocky Mountain Association of Energy Engineers

“The Progress of our Energy Future”

14th Annual Energy Forum
October 17th, 2013
8:30 AM to 4:00 PM

Denver Police Protective Association (PPA) Event Center
2105 Decatur St. Denver, CO 80211
General area is I-25 and Speer

<http://www.rmaee.org/>

Plan now to join us for an informative day as RMAEE explores “*The Progress of our Energy Future.*” Participants will receive 6 Continuing Education Hours. Lunch and continental breakfast are included with paid admission of \$60 for RMAEE members or AEE members and \$80 for non-members. This price ends at midnight October 15th. At the door registrations - **the prices increase \$10 each.** Students with Valid ID will be admitted for free.

The Event Brite link to register on line is [Forum Registration](http://rmaeeforum2013.eventbrite.com/). If the link does not work copy and paste <http://rmaeeforum2013.eventbrite.com/> into your browser. If you have dietary needs such as gluten free or vegetarian please click on [Dietary Request](#).

Our preliminary agenda is included below and is subject to change.

Continental Breakfast and Registration Opens at 7:30 AM. Conference and speakers starts at 8:30 AM.

Colorado Gas, the Utility Perspective. Tim Carter, Xcel Energy, will speak on the current natural gas markets, from both a national and a Colorado perspective. In addition, Tim will give us an outlook on the impact of shale gas.

Climate Economics. Tom Stoner, author of “Small Change, Big Gains: Reflections of an Energy Entrepreneur”, will talk on climate change economics and examine the global energy supply. He explains how we--as business professionals, students, consumers, and citizens--can transform our current energy system into a system that creates new business opportunities, promotes environmental health, and broadens our understanding of wealth.

Reinventing Fire in YOUR Town. Eric Maurer, Rocky Mountain Institute, will speak on Fort Zed and where the project is heading as well as RMI’s efforts driving transformation in the electricity sector toward efficiency and distributed renewables.

New Horizon Energy Audit Tools.

- **Virtual Energy Audit Tools.** Andrea Salazar, E-Source, will cover the use of remote energy auditing software products like Retroficiencies and First Fuel. She will discuss a summary of these tools, who is currently using these tools, how the tools are being utilized, and a PG&E study that compared results using these virtual tools to an energy audit conducted by actual “boots on the ground” auditors.
- **Deep Energy Modeling Tools.** Larry Brackney and Oliver Davis, NREL, the presentation will cover the opportunity of leveraging software for rapid energy audits, solar design, and whole building energy modeling. The collaboration between NREL and concept3D has led to the development of simuwatt(R) Energy Auditor and enhancements to NREL's OpenStudio. This mobile and cloud based application suite allows practitioners to perform deep (Levels 2/3) energy audits at 50+% time and cost savings. Tools such as simuwatt and OpenStudio allow ESCO's and others to simply uncover the 'last frontier' of energy efficiency savings...a market of over \$150B in the US alone.

Why Don't Customers Do What I Want Them To, Even if I Talk Really Loud? William LeBlanc, E Source. While technology has long been the focus of efficiency and renewables programs, our coming challenge will be to shift that focus squarely on the customer. However, customers tend to be irrational, easily distracted, and suspicious creatures. But through better marketing, and using the power of social norms and behavior change science, we can embrace these customer challenges and use them to boost efficiency and renewables success...and have some fun along the way.

The Grid and Transmission Issues. Jonathon Thompson, High Country News, will cover the current structure of our grid and how we got here, how the grid is currently managed today and how renewables affect the load balance, and the solutions being considered that would address the difficulties in maintaining that load balance.

Building Analytics.

- **Energy Information Systems (Dashboards).** Andrea Salazar, E-Source, will cover research done to date on energy analytics software offerings including Lawrence Berkeley National Laboratory's (LBNL) efforts to develop a matrix of current products and their capabilities such as visualization, analysis, benchmarking, and forecasting. She will also cover several case studies, developed by LBNL, and how utilities are using these products.
- **Getting Data Out of Buildings.** Stuart Waterbury, AEC. Developing a smart building strategy requires access to building operating data. This presentation will cover obstacles to consider and questions to ask as they relate to IT, BAS architecture, open protocol, hosting, and data access.
- **RTU Fault Detection.** David Podorson, E-Source, will cover fault detection and diagnostic add-ons for roof top air conditioning units – what's out there, how they work, and how effective they are.

Using Social Science in Energy Consulting. Jennifer Cross, Associate Professor at CSU's Department of Sociology. Most energy consulting services focus on the actual building and its related operation but often ignore the organization structure and the building occupants. When these components are not addressed they often become barriers to reducing energy. This presentation will focus on how to address all areas, from a social science perspective, to increase the effectiveness of energy related services.

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