

### October Section Meeting: Combined Heat and Power (CHP) to Chemical Facilities in the Rocky Mountain Region

Chemicals facilities are the best good fit for CHP due to their high coincident power and thermal loads. They are the largest consumers of energy in the industrial market. Those facilities usually use natural gas-fired combined cycles or combustion turbines as prime movers. Waste heat captured from power production can be used for manufacturing processes, process heat and steam generation. High-quality waste heat from chemical facilities can be recovered for power production in a bottoming-cycle CHP system. Chemical manufacturing, refining and oil/gas extraction are all great examples that can produce a significant amount of waste heat having the potential to be converted to power.

The Department of Energy's Upper-West CHP Technical Assistance Partnership (DOE UW CHP TAP) will discuss CHP technologies and applications. We will analyze the CHP installation and potential data and will present the CHP project profiles of chemical facilities in Rocky Mountain region. We will also discuss the factors that can affect the payback and efficiency of CHP. Further, the presentation will discuss the basics of working through

### October Section Meeting

- Topic:** Combined Heat and Power (CHP) to Chemical Facilities in the Rocky Mountain Region
- Presenter:** Dr. Fanxu Meng, Research Associate in Energy Production and Clean Energy Technology programs at [Houston Advanced Research Center \(HARC\)](#)
- Date:** Tuesday, October 23
- Time:** 6:00 – Networking & Dinner  
7:00 – Presentation
- Location:** C. B. & Potts, [6575 South Greenwood Plaza Blvd](#)
- Menu:** Southwestern Buffet including beef and chicken fajitas, beef enchiladas, served with sour cream, cheese, guacamole, flour tortillas, lettuce, tomatoes, jalapeños, seasonal rice and black beans. Chips and salsa.
- Cost:** \$20 Rocky Mtn. Section Members (w RSVP)  
\$25 Non-members  
\$10 Students / Unemployed

**RSVP REQUIRED by Thursday, October 18** (early RSVPs are greatly appreciated!) You may RSVP via email at [rockyaiche@yahoo.com](mailto:rockyaiche@yahoo.com) indicating your name, phone number, and number of attendees and pay at the meeting. Or you may RSVP and pay online using [PayPal on our meeting link](#).

the CHP project development process from early screenings to final commissioning of the facility, as well as the resources that are available from the DOE UW CHP TAP to assist with implementing a CHP project.

### ***Speaker Biography***

Dr. Fanxu Meng is a Research Associate in Energy Production and Clean Energy Technology programs at Houston Advanced Research Center (HARC). He holds a Ph.D. from Texas A&M University and obtained his B.S. and M.S. from Tianjin University in China, all in Chemical Engineering. Dr. Meng performs basic and applied research and development in support of projects pertaining to energy production, clean energy, environmental monitoring and emission control. He also works on life cycle assessment/analysis (LCA) of O&G and energy efficiency, techno-economic feasibility analysis for Combined Heat and Power (CHP) installations. Dr. Meng has published 14 peer-reviewed papers and given 10 presentations in international conferences in the fields of energy and environment. He is a Professional Engineer (PE) licensed in the State of Texas and a certified Project Management Professional (PMP).



## **PROGRAM CHAIR OPENING**

Do you enjoy learning new things and networking with people? Our local section needs a Program Chair volunteer for this 2018-2019 season and we need you!

The program chair organizes our eight monthly meeting presenters and tours with help from the Executive Committee. After one year of service, the program chair is elevated to the Chair position, and the current chair is elevated to the Director position.

Being an officer is a great way to meet people, stay on top of new technology, practice leadership skills, and steer the future of your Rocky Mountain AIChE section. Contact Cindy Fischer at 303-988-3611 or [cindy.fischer@q.com](mailto:cindy.fischer@q.com) to volunteer.

## **November 2018 Section Meeting**

Join us for the Bureau of Reclamation Tour of Water Treatment and Materials & Corrosion Labs on Tuesday, November 13<sup>th</sup> at 3:45pm-5:15pm. This FREE tour is limited to the first 30 RSVPs so hurry to save your spot. You may RSVP via email at [rockyaiche@yahoo.com](mailto:rockyaiche@yahoo.com) indicating your name, phone number, and number of attendees. We cannot accommodate people who have not RSVP'd because we need to provide the names of participants to the Denver Federal Center in advance of the tour. Read the full details on the Rocky Mountain AIChE website event [Bureau of Reclamation Tour](#).

*Like Rocky Mountain AIChE  
Facebook page to be notified of  
meeting information:  
[RockyMountainAIChE](#)*

**Send your email address to  
[mcoes@ekiconsult.com](mailto:mcoes@ekiconsult.com) to receive  
this newsletter electronically!**

## AIChE Meetings

2018

- Oct 4-6 [2nd Epigenetics and Bioengineering Conference](#)  
San Francisco, CA
- Oct 9-10 [10th AIChE Southwest Process Technology Conference](#)  
Galveston, TX
- Oct 14-16 [5th Conference on Constraint-Based Reconstruction and Analysis](#)  
Seattle, WA
- Oct 15-17 [2018 DIERS Meeting](#)  
Houston, TX
- Oct 26-29 [2018 Annual AIChE Student Conference](#)  
Pittsburgh, PA
- Oct 27-28 [Regenerative Engineering Symposium](#)  
Pittsburgh, PA
- Oct 28-Nov 2 [2018 AIChE Annual Meeting](#)  
Pittsburgh, PA

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The objectives of AIChE are to advance chemical engineering in theory and practice, to maintain a high professional standard among its members, and to serve society, particularly where chemical, engineering can contribute to the public interest.

AIChE Rocky Mountain is a public non-profit 501(c)(3) organizations and thus any and all donations are tax deductible.

## Rocky Mountain AIChE News

### Publication Schedule

#### November 2018 issue

Articles due Wednesday, October 31

Publish on Friday, November 2

Meeting on Tuesday, November 13

## MEETING SCHEDULE

*The Rocky Mountain District of AIChE generally meets the third Tuesday of every month, September through November and January through May.*