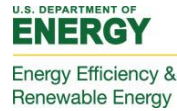




U.S. DEPARTMENT OF ENERGY  
**Gulf Coast Clean Energy Application Center**

Promoting CHP, District Energy, and Waste Heat Recovery

LOUISIANA | OKLAHOMA | TEXAS



# TEXAS CHP POLICY FORUM AND TRADE SHOW

## Wednesday, November 3, 2010

### PLENARY SESSION AGENDA

8:00 -8:15 **Welcome & Introductions**

8:15-8:30 **Understanding The CHP Family Tree**

This talk will provide attendees with a common understanding and definition of CHP by highlighting the diversity of CHP approaches.

*Daniel Bullock – U.S. DOE Gulf Coast Clean Energy Application Center*

8:30-9:15 **PANEL DISCUSSION**

**CHP: The Invisible Green Giant**

This panel will highlight the benefits generated by the existing installed base of CHP in Texas and identify its future potential.

*Nat Treadway – Distributed Energy Financial Group (Moderator)*

*Tommy John – Tommy John Engineering*

*Marco Perez – Solar Turbines*

*Rich Herweck – RobustEnergy*

9:15-9:45 **Networking Break**

9:45- 10:45 **PANEL DISCUSSION**

**The Clean Energy Coalition?**

This panel will examine various state policy goals and approaches being pursued by the energy efficiency, renewable energy, waste heat, and combined heat and power industries.

*Karl Rabago – Austin Energy (Moderator)*

*Rich Herweck – Texas CHP Initiative*

*Kelsey Walker – TAS Energy and HeatIsPower.org*

*Robert King – Good Company Associates*

*Paul Sadler – The Wind Coalition*

*Tom “Smitty” Smith – Public Citizen*

*Russel Smith – Texas Renewable Energy Industries Association*



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10:45-11:45

**PANEL DISCUSSION**  
**The Upcoming 82<sup>nd</sup> Legislative Session**

Attendees will hear what policymakers and experts think will be the best opportunities to advance pro-CHP legislation and regulatory reform during the upcoming Session.

*Chrissy Borskey – General Electric (Moderator)*

*Representative Mark Strama – Texas Legislator*

*Judge Margaret Keliher – Texas Business for Clean Air*

*David Schanbacher, Texas Comptroller of Public Accounts (Invited)*

11:45-1:00

**Networking Lunch**

*TXCHPI Award Ceremony and Keynote Speaker*

**SEE NEXT FOUR PAGES FOR AFTERNOON BREAKOUT SESSIONS**



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SPONSORS/EXHIBITORS:

AFTERNOON MULTI-TRACK PROGRAM

**Solar Turbines**

A Caterpillar Company



	Track 1 <i>CHP Technologies</i>	Track 2 <i>Commercial Applications</i>	Track 3 <i>Industrial Applications</i>	Exhibit Hall	Off-Site CHP Tours*
1:00- 2:15	Heat Recovery Technologies	CHP & District Energy	Industrial CHP	Commercial Exhibits	Attend Track 2
2:15-2:30	INTERMISSION				Dell Hospital/ Mueller Energy Center
2:30-3:45	Prime Mover Technologies	CHP in Cooling Applications	Waste Heat Recovery	Commercial Exhibits	
3:45-4:15	NETWORKING BREAK				
4:15-5:30	Project Development	CHP & Energy Security	Texas' Power Market	Closed	UT-Austin
5:30-6:30	COCKTAIL HOUR				

\* Tour attendees must submit personal information for a background check by Oct. 13. No walk-ins will be permitted.



## TRACK 1: CHP TECHNOLOGIES

The purpose of this track is to educate attendees about technologies central to successful combined heat and power projects. In these sessions, attendees will learn how principles of operation, factors affecting performance, and major vendors supplying equipment. Speakers will discuss specific applications best suited for specific equipment options.

### **Session 1: *Heat Recovery and Use***

Session Chair: *Krishnan Umamaheswar – U.S. DOE Clean Energy Application Center*

Absorption and Steam-Driven Chillers

Piyush Patel – Thermax

Steam Turbine Generators

Bob Jones – Siemens Industrial Turbomachinery

Efficient Heat Recovery

Robert Benz – Benz Air Engineering

Recent Advances in Adsorption Chillers

Tom Lopp – Power Partners

### **Session 2: *Prime Mover Technologies***

Session Chair: *Marco Perez – Solar Turbines*

Medium Sized Combustion Turbines

Mike Kemp – HCS Group

Using Microturbines CHP Applications

Ray Hutcheson – Five Star Group

Reciprocating Engines

Dale Yagelski – Caterpillar

Combustion Turbine Solutions

Steve Cooper – General Electric

### **Session 3: *Streamlining Project Development***

Session Chair: *Ed Mardiat – Burns & McDonnell*

Qualification – CHP Screening Analysis

Krishnan Umamaheswar – U.S. DOE Gulf Coast Clean Energy Center

Procurement – Project Developer, Financing

Cliff Braddock – Robust Energy

Project Implementation – Design-Build

Scott Clark – Burns & McDonnell

Operations and Maintenance – Performance

Chuck Heidt – Gainesville Regional Utilities



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## TRACK 2: COMMERCIAL APPLICATIONS

The purpose of this track is to discuss opportunities and issues to implement CHP in commercial and institutional settings.

### **Session 1: *Using CHP within District Energy Systems***

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Session Chair: *Cliff Braddock – Robust Energy*

UT Austin's CHP Plant

Juan Ontiveros – UT Austin

Mueller Energy Center

Ed Mardiat – Burns & McDonnell

Jim Collins – Austin Energy

Texas Medical Center CHP System

Steve Swinson – Thermal Energy Corporation

Lynn Crawford – Jacobs Engineering

Texas A&M University and University of Oklahoma

Bret Romero – *Jacobs Engineering*

### **Session 2: *Using CHP in Cooling Only Applications***

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Session Chair: *Lianne Lami – Bocci Engineering*

CHP in Office Building Applications

Krishnan Umamaheswar – U.S. DOE Clean Energy Application Center

Using Combustion Turbines in Commercial Applications

Barry Stonehouse – Alcor Energy

Energy Balance in Commercial Applications

Jesse Craft – Bocci Engineering

Thermal Energy Storage as a Load Management Measure

Guy Frankenfield -- Natgun

### **Session 3: *Using CHP to Enhance Energy Security***

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Session Chair: *Bruno Ramos – Robust Energy*

Gainesville Regional Hospital CHP

Chuck Heidt – Gainesville Regional Utilities

BP Rodeo & Helios Plaza; Methodist Hospital

Bryan Bagley – ccrd partners

Texas HB 1831 & HB 4409 Requirements

Ross Tomlin – U.S. DOE Gulf Coast Clean Energy Center

Control System Design for Grid Isolation

Troy Miller – Glenmount Global Solutions



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### **TRACK 3: INDUSTRIAL APPLICATIONS**

The purpose of this track is to discuss opportunities and issues to implement CHP in industrial settings, including cogeneration, waste heat recovery, and opportunities for industrials to benefit from ERCOT's wholesale electricity markets.

#### **Session 1: Industrial Combined Heat & Power**

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Session Chair: *Tommy John – Tommy John Engineering*

Industrial CHP Application

Tommy John, Tommy John Engineering

CHP Market among Small and Medium Sized Industrials

Kathey Ferland – Texas Industries of the Future at UT Austin

Medium Sized Case Studies

Mike Kemp – HCS Group

Environmental Controls for CHP

Joe Smith – Peerless Manufacturing

#### **Session 2: Industrial Waste Heat Recovery**

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Session Chair: *Ray Deyoe – Integral Power*

State-of-the-Art ORC's for Industrial Plant WHR

Jim Schlachter - Turbine Air Systems

Industrial WHR – The Sleeping Giant

Ray Deyoe - Integral Power, LLC

Current Finance Climate and Funding Options for WHR

John May – Stern Brothers & Co.

National Policy Update and Incentives for WHR Projects

Kelsey Walker – TAS and HeatIsPower.org

#### **Session 3: Participating in Texas' Power Markets**

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Session Chair: *Nat Treadway – Distributed Energy Financial Group*

ERCOT Market Opportunities and Requirements

Mark Patterson – Electric Reliability Council of Texas (ERCOT)

Opportunities and Requirements Outside ERCOT

John Hurstell – Entergy Texas