AEE May 2019 Event (Evening)

Register today:

Combined Heat and Power (CHP) Fundamentals and Balance of Plant (BOP) Automation Systems

Duquesne Light Company (DLC) - CHP Incentives

May 9th, 2019 - 5:30PM to 8:00PM (Evening Event - Member \$35.00 - Non-Member \$40.00)

Penn Brewery - Iron Hall 800 Vinial Street Pittsburgh, PA 15212 USA

Kevin Porter, CEM - Thermo Systems - is a Pittsburgh native and graduated from Grove City College with a Bachelor's Degree in Electrical Engineering. He spent his early career as a Project Engineer for an underground storage facility in NW PA, surveying, estimating, designing electrical systems, and environmental testing. Kevin moved above ground to become an Application Engineer for a Digital Controls Company focusing on critical HVAC. He progressed into Account Management and then Sales where he now serves as Account Executive for Thermo Systems, LLC With 18 years in the controls industry, his primary focus has remained with mission critical HVAC, and Energy (central utilities, CHP, and power generation.

Agenda

Combined Heat and Power (CHP) Overview

What is CHP

Considerations

- Waste Heat
- Thermal Load
- Electrical Load

Main Equipment

- Turbine, Reciprocating Engine
- Heat Recovery Steam Generator
- Microturbine

Capacity

- Megawatts (MW)

Need for Integration

Balance of Plant System Overview

What is BOP?

Automation considerations

- Redundancy, PLC, DCS, SCADA Systems
- Network Architecture
- CEMS, SCR (Ammonia System)
- Feedwater, Condensate Systems
- Duct Burner
- Economizer
- HRSG
- CTG/STG/Reciprocating Engine
- EMS/PMS
- --- Load Shed, Load Management
- Instrumentation
- —-Industrial Grade Devices

Case Study

John Choma - Enerlogics - is a Pittsburgh native who attended the University of Pittsburgh - Johnstown and graduated in 1986 with a degree in Mechanical Engineering. After working as an engineer in the Steel industry and process control sales, John began his career in the Energy Industry in 1999. He developed Energy Savings Projects for Educational Facilities for several different ESCO's. He joined Enerlogics in 2009 as a Business Development Manager and has been responsible for assisting Duquesne Light with Demand Response and Energy Efficiency Rebate Programs. Enerlogics Networks focuses on bringing intelligent technology solutions for energy efficiency, demand response, energy supply, renewable power, and facility operations. Currently, they manage DL's Demand Response Program and support

