

Review of Breakout Group Topics from Fall 2016 Conference - Sacramento

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On behalf of
EGSA Market Trends Committee*

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Topic 1: Fuel Quality

Leader(s): Brad Holmes (Clay & Bailey Mfg. Co.)

Key Takeaways:

- Reliable supplier (Quality, does it comply with standards?)
- Maintenance program (Special focus on tank corrosion, etc.)
- Keeping water out (Microbial induced corrosion caused by Ultra-Low Sulfur diesel)
 - “normal free-flow vent” can ingress water by condensation
 - Impact on ancillary equipment (Senders, fuel level probes, etc.)
- Type of fuel (Bio vs. straight diesel)
- Factory approved additives (Dosage)
- Most common diesel used today has shelf life of 28 days
- Chemistry/content of natural gas (Distribution issue, flare gas, etc.)



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Topic 2: Disruptive Technologies & Incentives

Leader(s): Mike Sanford (Cummins Power Generation)

Key Takeaways:

- Stored energy / power electronics
 - Complement to diesel generation (or adapted diesel generator solution – i.e. variable speed)
- Emissions
 - Not just impacting USA (Euro 5, etc.)
 - Detractor in terms of reliability and increased cost (makes customers consider other options)
- Micro/distributed generation
 - Hybrid systems
- Gas
 - Natural gas is viable alternative to diesel power-gen (In some cases advantageous i.e. emissions requirements)
 - Bi-fuel/dual fuel
- Telematics
 - Proactive maintenance based on actual data
 - Time based maintenance vs. needs
 - Possible negative impact of failure being advertised to broader audience
 - Information security
 - Health and safety (Remote start vs. local maintenance being performed)
- Geographical redundancy
 - Software driven, capable of shifting data center demand/need



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Topic 3: Peak Shaving Management Issues

Leader(s): Hans Melberg (IEA, LLC.)

Key Takeaways:

- Invite utility to speak to group
- Educating the customers is a key challenge
- Webcast of groups (en-lieu of giving physical presentations)
- Tax credits (What are available, how to locate/navigate)
- Dept. of Defense (Invite?)
- Fuel supplies
- Green
- Faster on line = more money
- Utility interruptible rate
- Tier IV emissions, on-demand response
- Switching diesel to gas engines
- Switchgear fairly simple, depends on utility
- Flare gas probably not economical
- Capture state-by-state emissions programs for demand response
- Interconnection topics
- Impact of coal fired plants (Closing due to new policies?) – new opportunities for onsite power?



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Topic 4: Market opportunities for Onsite Power

Leader(s): Bob Apple (Volvo Penta of the Americas)
Don Kujawski (Murphy by Enovation Controls)

Key Takeaways:

- Health care/elder care (Growing market need based on aging population)
 - Require smaller more remote sites
- Big pharma – new drugs require refrigeration door to door
- Data sites
 - Driven by very large, modular sites (Cloud, IOT)
- Big box stores: seeing business need that they didn't recognize 5 years ago (Lost revenue)
- Telecom/5G introduction and infinite growth of utilization
- Re-applying lower Tier product for export to new markets
- Telematics: more and more visibility demand
- Micro-grid (blended solar, wind, recip.)
- Gas stations/requirements along evacuation routes
- Portable power use is growing (Rental markets serving concerts, sporting events, etc.)
- What is the next "Black Swan" event?
- Landfills
- Wastewater treatment
- Service aspect growth (Reliability/uptime and load banking requirements in legislation)
- Question: what impact do we see as opportunity in wastewater treatment (Methane capture and reuse)?



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