# NASEO/ASERTTI Energy Policy & Technology Outlook Conference February 2013

## CHP, Sandy and NYS Energy Policy

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#### CHP

- Integral to NYS energy policy
- Complements central station/T&D model
- Defers delivery system upgrades
- Increases system reliability
- Reduces peak loading, line losses
- Utilize wasted thermal energy



#### **PROGRAMS**

- Supported since 2000
- R&D and deployment programs accommodate specific marketplace needs
- R&D helps defer non-price risks
  - Non-price risks (institutional, regulatory)
  - Technology development & transfer
  - Market & product definition
- Deployment closes price gaps
  - Performance based payments
  - Feasibility studies



### INVENTORY

- ~190 project sites
- \$120M NYSERDA funding covering 20% of costs
- ~260 MW when all planned projects completed
- ~0.5 MW typical size
- Meets/exceeds 60% FCE, <1.6lbs/MWh NOx</li>
- Building types (housing, health, schools, commercial, industrial)
- Fuels (natural gas, biomass, waste energy)
- Technologies (IC, MT, FC, Steam)



#### **EVOLUTION**

- Utility coordination SIR, Tariffs
- Islanding encouraged after 2003 black-out
- Proper sizing
- Fuel conversion efficiency
- High thermal utilization
- Minimize emissions



#### **EVOLUTION**

- Facilities of refuge
- Grid independent operation required
- Minimize customization pre-packaged, pre-engineered
- Catalog
- Increase penetration in sub 1.3Mw market



#### SANDY

- Informal survey of installations in affected areas
- All\* "islanding" capable units worked
- Common failures of emergency back-up units
  - Failure of ancillary equipment (pumps, circuits)
  - Deterioration of fuel due to intermittent use



## POST SANDY

- Governor's Commission recommendations
  - Improve resilience and strengthen critical networks and infrastructure: Electric, Fuel, Communications
  - Focus on clean DG/CHP with multiple objectives
- New Program Changes
  - "High and dry" requirement
  - N+1 redundancy encouraged



#### Thank You

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