

MADRI Working Group Meeting #29

Overview of Baltimore Gas & Electric's Combined Heat & Power Program

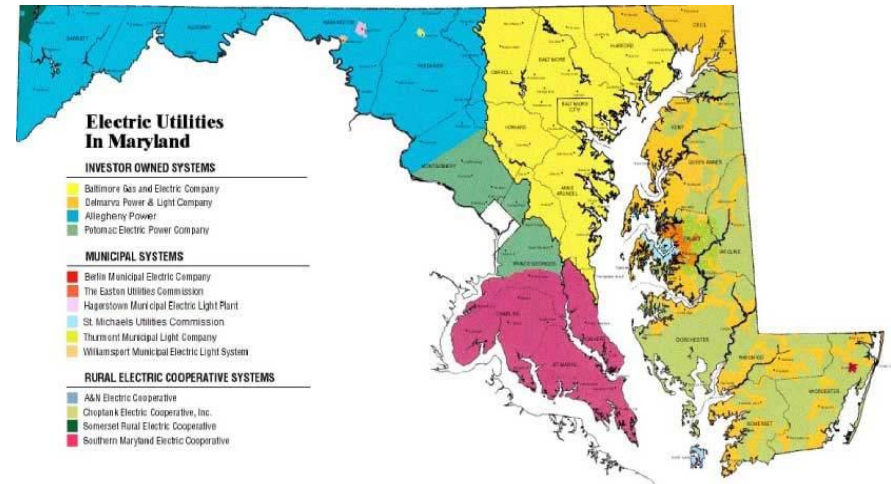
Bill Wolf, Manager- I&C Energy Efficiency Programs



August 20, 2013

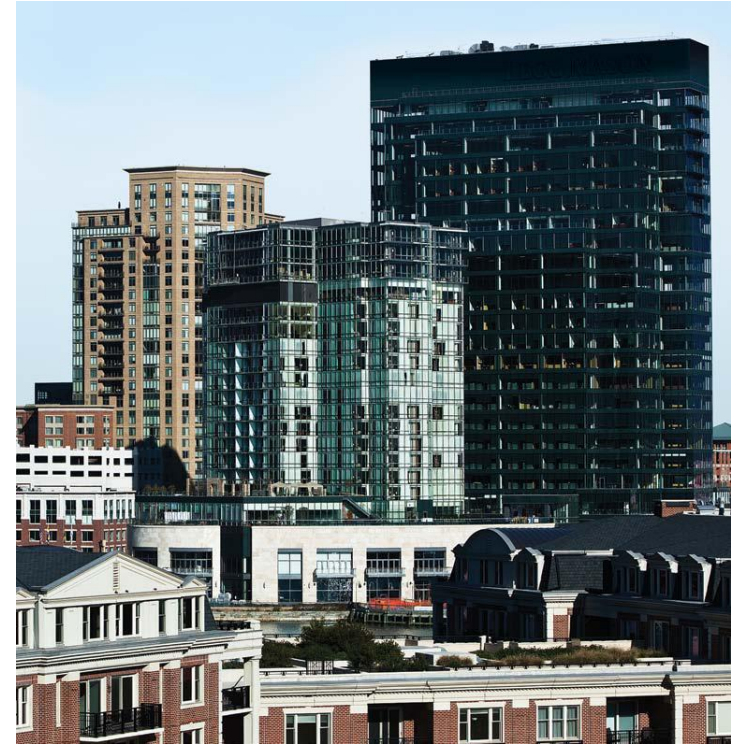
EmPower Maryland Energy Efficiency Act

- The EmPower Maryland Act enacted in 2008 required a 15% reduction per capita in energy and demand use by 2015. MD utilities were responsible for all of the demand and 2/3 of the energy
- Maryland's five largest utilities developed and implemented a variety of energy efficiency programs in 2009 for residential and commercial customers
- As of 7/1/13, BGE has delivered over 1.5 million MWh in energy savings (gross wholesale) with 550,000 MWh being commercial



BGE Smart Energy Savers Program[®] - Four Core Business Programs

1. Energy Solutions for Business
 - Incentives up to 50% for retrofit projects or up to 75% of incremental costs for new equipment
2. Retrocommissioning (RCx)
 - Incentives up to 75% of the cost of the RCx assessment and equipment optimization
3. Small Business Energy Solutions
 - Incentives up to 80% of the total cost of the project
4. **New** Combined Heat & Power (CHP)
 - Incentives up to \$2 million towards the installation of a CHP unit



These programs support the EmPOWER Maryland Energy Efficiency Act

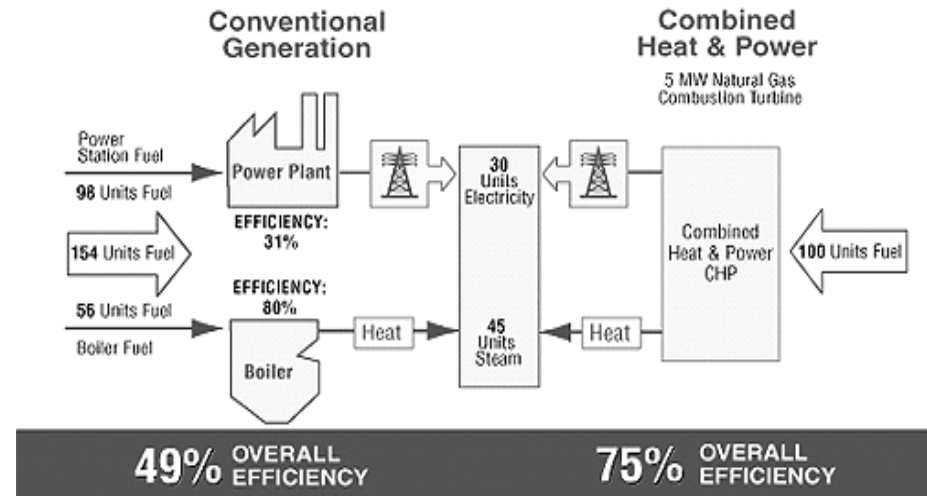
CHP - Background

- New BGE program in 2012 for customers who invest in qualified CHP projects by the end of 2016
- Implemented as a way to close the gap in meeting the EmPower Maryland Act
- Program required Public Service Commission approval with an initial total budget of \$20 million for three state utilities
- Was implemented through a RFP process with bids due in December 2012 for BGE and January 2013 for Pepco and Delmarva Power Utilities
- BGE reached out to over 2,600 potential participants including customers and CHP Providers – included extensive marketing



CHP - Requirements

- No net metering or exporting
- Natural gas or bio gas turbine, micro turbine or reciprocating engine (Fuel cells were also considered)



- No project size limit but must maintain a system efficiency of 65%
 - Must pass BGE's Total Resource Cost Test (> 1.0)
 - Subject to BGE's Schedule S Standby Tariff
 - Must meet BGE's Interconnections requirement
 - Must obtain proper MD Department of Environment permits
 - Customer responsible for all natural gas service upgrades
- * Figure and efficiency calculations courtesy of EPA Combined Heat and Power Partnership

CHP – Incentive Structure

- Up to \$2 million per CHP project
 - Design Incentive = \$75 / kW
 - Construction Incentive = \$175 / kW
 - Production Incentive = \$0.07/kWh (for 18 months)
- Design & Construction Incentive capped at \$1 million
- Production Incentive capped at \$1 million
- Total Incentive design to average approximately \$900 / kW
- Incentives designed to cover 30 – 50% of the total cost of installation

Put combined heat and power and up to **\$2 million** in incentives to work for your business.

The BGE Smart Energy Savers Program[®] has released a request for proposals (RFP) seeking companies with qualified projects to participate in its new Combined Heat and Power (CHP) Program. Eligible industrial and commercial customers that install a CHP system onsite can improve operating efficiency, reduce energy costs and take advantage of up to \$2 million in available incentives. Deadline for submitting proposals is December 21, 2012.

For the RFP and more information, visit BGESmartEnergy.com/business/chp or call 410.290.1202.

[This program supports EnrPOWER Maryland.]

BGE SMARTENERGY
savers
PROGRAM

BGE

CHP – RFP Results

- BGE received 16 proposals from a variety of commercial and industrial customers
- Proposals ranged from 75 - 2,400 kW sized units
- Potential fuel sources included natural gas and bio-gas
- CHP systems included reciprocating engines and one fuel cell
- Initial 16 proposals represented 13 MW, 102,000 MWh and \$11 million in incentives
- 11 projects passed the technical and engineering reviews with 5 projects failing or being withdrawn by the customer
 - Represents 13 MW, 81,000 MWh and \$9.2 million in incentives

CHP – Next Steps and Lessons Learned

Next Steps

- On 8/14/13, BGE received Commission approval to increase its CHP budget by \$10.7 million and provide incentives for projects approved by BGE by 12/31/14 and completed by 12/31/16
- BGE is now accepting additional applications on a first come – first serve basis (no RFP)

Lessons Learned

- CHP project timelines are much longer than anticipated
- Incentives do drive participation and project size
- Don't underestimate internal customer approval process
- CHP is complicated for customers and you need to engage with them on a 1 to 1 basis to promote the technology and in assisting them throughout the entire process



Questions?



For additional information
Visit us on line at www.BGESmartEnergy.com

Call us at 410-290-1202
Email us at Business@BGESmartEnergy.com