

BGE Smart Energy Savers ProgramSM

for Business

**IFMA Meeting
June 24, 2009**

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EmPOWER Maryland Energy Efficiency Act Overview

- EmPOWER Maryland Energy Efficiency Act of 2008 is a statewide initiative to reduce overall per capita energy consumption and demand by 15% by 2015
 - Utilities must reduce per capita energy consumption by 5% by 2011 and 10% by 2015
 - Utilities must reduce per capita demand 5% by 2011, 10% by 2013, and 15% by 2015
- Utilities required to develop energy efficiency and demand response programs for all customer segments including large commercial and industrial
 - BGE's Energy Efficiency and Conservation Programs were approved by the Maryland Public Service Commission on December 31, 2008
- Updates to be provided to the commission and Maryland Energy Administration

Programs for Business Customers

Three core programs

1. Energy Solutions for Business
2. Small Business Lighting Solutions
3. Retrocommissioning (RCx)

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Energy Solutions for Business

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Energy Solutions for Business Program Overview

- A simple solution to assist business customers with the purchase and installation of efficient technologies that reduce energy consumption
- Provides financial incentives and limited technical services
- Key elements:
 - Prescriptive measures
 - Custom measures
 - Technical services
 - Service Provider support

Energy Solutions for Business Program Overview

Projects include:

- Retrofitting existing equipment
- New construction
- Major renovations
- Additional new equipment
- End of life equipment replacements

Energy Solutions for Business Program Element – Prescriptive

- Predetermined measures and incentives
 - Lighting & Controls
 - Three Phase Motors
 - Unitary HVAC and Chillers
 - Variable Frequency Drives (VFDs) in HVAC applications
 - Commercial Refrigeration Equipment
 - Commercial Kitchen Equipment
- Incentives paid directly to customer or contractor
- Customers engage their own contractors or staff
- All industrial, commercial, government and institutional customers are eligible

Energy Solutions for Business Program Element – Prescriptive Lighting & Controls

- Retrofit lighting
 - Per fixture incentives
 - Lamp and ballast upgrades
 - 1-for-1 fixture replacements
 - Occupancy sensors
 - Daylight dimming controls
 - T8 technologies must be on Consortium of Energy Efficiency (CEE) Qualified Products list

Energy Solutions for Business Program Element – Prescriptive Lighting & Controls

- New construction lighting
 - Per fixture incentives
 - High efficiency fixtures
 - Occupancy sensors
 - Daylight dimming controls
 - T8 technologies must be on CEE Qualified Products list
- Performance lighting
 - Performance based lighting for new construction and major renovation
 - Incentives based on reducing the Lighting Power Density (W/ft²)
 - Building Area Method or Space-by-Space Method
 - 10% minimum reduction required (compared to AHRAE/IESNA 90.1-2004)
 - Two incentive levels: for 10% and 20% reductions

Energy Solutions for Business Program Element – Three Phase Motors

- Incentives for 1-200 HP 3-phase motors
- 1,200; 1,800; and 3,600 RPM
- Open Drip Proof (ODP) and Totally Enclosed Fan Cooled (TEFC) motors
- NEMA premium qualifying efficiencies
- Incentives available for “stocked” motors

Energy Solutions for Business Program Element – Prescriptive HVAC

- Unitary equipment
 - Air conditioning and heat pumps
 - Packaged, split systems, water-to-air and PTAC/PTHP
 - ¾ to 60+ tons
 - New and end of life replacements
- Chillers
 - Air- and water-cooled; all compressor types
 - Up to 1,000 ton, single chiller installations
 - More than 1,000 tons and multiple chillers use *Custom Application Form*
 - New and end of life replacements

Energy Solutions for Business Program Element – Prescriptive VFD

- Existing HVAC fan and pumping applications
 - Building exhaust fan
 - Make-up air fan
 - Return air fans
 - Heating water pump
 - Cooling tower fan
 - Supply air fan
 - Chilled/Condenser water pump
 - WS heat pump loop
- 5 to 100 HP
- Harmonic distortion requirements

Energy Solutions for Business Program Element – Commercial Refrigeration

- Measures typically found in supermarkets and C stores
 - Anti-sweat heater controls
 - Door closers on reach-in cases
 - Strip curtains for walk-in boxes
 - ECM fan motors
 - Evaporator fan controllers for shaded pole motors
 - LED lighting in reach-in boxes
 - Occupancy sensors for reach-in case lighting
 - Vending machine and beverage cooler controllers
- Additional refrigeration measures included on commercial kitchen application form

Energy Solutions for Business Program Element – Commercial Kitchen Equipment

- Food preparation (electric)
 - Fat Fryers
 - Steam cookers
 - Hot food holding cabinets
 - Griddles
 - Conventional and convection ovens
- Refrigerated storage
 - Solid door reach-in refrigerators and freezers
 - Glass door reach-in refrigerators
- Ice machines

Energy Solutions for Business Program Element – Custom

- Site-specific, cost-effective measures for retrofit and new construction opportunities
- Measures not included in Prescriptive may qualify
- Typical measures include energy management systems, compressed air, process, and whole building systems
- Incentives up to 50% of the total cost for retrofit projects and up to 75% of the incremental cost for lost opportunity projects

Energy Solutions for Business Program Element – Custom

- Detailed engineering and cost analysis required
- Typically involves a feasibility study
- Incentives are paid directly to the customer or contractor
- Customers engage their own contractors or staff
- Currently available to large industrial, commercial, government and institutional customers (Rates GL and P)

Energy Solutions for Business Program Element – Technical Services

- Services to help customers identify and analyze potential projects (limited availability)
- Financial assistance for engineering services such as feasibility studies, design assistance, and commissioning
- The program co-funds up to 50% of approved engineering studies, with a per project cap of \$15,000
- Customer selects from a group of pre-qualified engineering firms

Energy Solutions for Business Program Element – Service Provider Support

- Web-based resource lets customers locate qualified Service Providers to help identify, evaluate, and implement energy efficiency projects
- Service Providers can enroll and be listed on the program Web site
 - Must attend training
- Training opportunities
 - Monthly vendor open houses
 - Webinars
 - Calendar and online sign up
- Technology-specific workshops
- Service Provider only resources

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Retrocommissioning Program

Retrocommissioning (RCx) Program Overview

- Helps customers identify and implement low-cost/no-cost improvements to operating systems within existing buildings
- Focuses on existing system performance rather than equipment replacement
- Targets all energy equipment with the primary focus on HVAC equipment and controls, lighting controls, ventilation, and automated building controls
- Typically results in energy savings as well as improved indoor air quality, comfort, and total resource efficiency
- Delivered through pre-qualified Commissioning Providers

Retrocommissioning (RCx) Program Overview

- **Enhanced O&M Services** are available for facilities <75,000 sq ft
- **Full RCx Services** are available for facilities >75,000 sq ft,
 - consists of a full comprehensive assessment of building systems and controls
- Incentives available to cover up to 75% of the cost of the RCx assessment and study, with a per project cap of \$15,000
- Incentives for equipment upgrades are available through the Energy Solutions for Business offerings

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Energy Solution for Business Program Participation Process

How To Participate – Small Prescriptive Projects

- No pre-approval required
 - Incentives <\$1,000 for lighting, <\$5,000 for other measures
- Install measures
- Complete appropriate application
- Customer signs and submits application with supporting information
 - Inventory Worksheets when required
 - Itemized invoice for equipment/installation
 - Manufacturer's data sheets showing efficiency rating or other required information for all equipment
- Customer will receive notice when application is approved
- Incentive check in 4 – 6 weeks after approval

How To Participate – Large Prescriptive Projects

- Pre-approval required
 - Incentives > \$1,000 for lighting, > \$5,000 for other measures
- Complete and submit application with supporting information
 - Inventory Worksheets when required
 - Manufacturer's data sheets
- BGE may conduct a site inspection before approval
- Customer notified when application is approved
 - Time limit for installation: 6 months for retrofit, 1 year for new construction
- Install measures
 - Notify BGE before implementing any changes
- Customer signs and submits final application with supporting information
 - Pre-application, may need to be revised for final equipment counts, etc.
 - Itemized invoice for equipment/installation
- Customer will receive notice when application is approved
 - Post installation inspection may be required
- Incentive check in 4 – 6 weeks after approval

How To Participate – Custom Projects

- Pre-approval required for all Custom projects
- Complete and submit application with supporting information
 - Project description
 - Energy impact and cost calculations
 - Manufacturer's data sheets
- BGE will conduct a site inspection before approval
- Customer notified when application is approved
 - Minimum requirements will be detailed
 - Time limit for installation: 6 months for retrofit, 1 year for new construction
- Install measures
 - Notify BGE before implementing any changes
- Customer signs and submits final application with supporting information
 - Pre-application, may need to be revised for final equipment counts, etc.
 - Itemized invoice for equipment/installation
- Customer will receive notice when application is approved
 - Post installation inspection may be required
- Incentive check in 4 – 6 weeks after approval

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Early Lessons Learned

- Engage us as early in the process as possible
- Get customer buy in before submitting application
- Get the paper work right the first time
- Submit cut sheets with pre-approval
- Notify us of changes ASAP
- Notify us of any additional funding
- Do not have customer sign form until after completion
- For projects requiring pre-approval, do not start a project or order equipment before receiving written pre-approval

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Questions?

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Additional information available at:
BGESmartEnergy.com

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