## DOE Technical Assistance Program





Webinar Title: Utility Rebates 101

**Presenter: Catul Kiti** 

Organization: ICF International

November 15, 2010

#### What is TAP?



DOE's Technical Assistance Program (TAP) supports the Energy Efficiency and Conservation Block Grant Program (EECBG) and the State Energy Program (SEP) by providing state, local, and tribal officials the tools and resources needed to implement successful and sustainable clean energy programs.



## How Can TAP Help You?



## TAP offers:

- One-on-one assistance
- Extensive online resource library, including:
  - Webinars
  - > Events calendar
  - > TAP Blog
  - Best practices and project resources
- Facilitation of peer exchange

# On topics including:

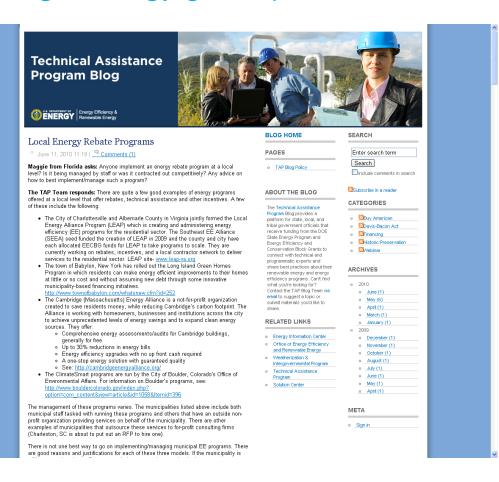
- Energy efficiency and renewable energy technologies
- Program design and implementation
- Financing
- Performance contracting
- State and local capacity building



## Access the TAP Blog!

http://www.eereblogs.energy.gov/tap/

Provides a platform for state, local, and tribal government officials and DOE's network of technical and programmatic experts to connect and share best practices on a variety of topics.



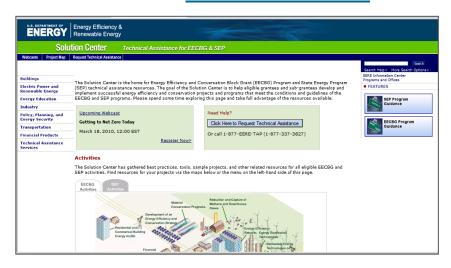
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## Accessing TAP Resources

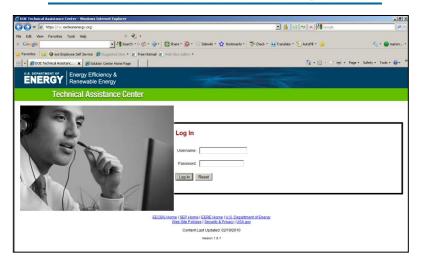


# We encourage you to:

1) Explore our online resources via the Solution Center



2) Submit a request via the Technical Assistance Center



3) Ask questions via our call center at 1-877-337-3827 or email us at solutioncenter@ee.doe.gov

#### Overview

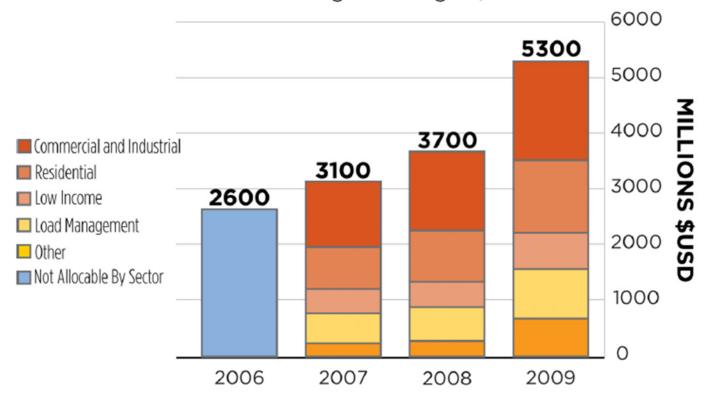


- National EE program funding level
- Funding Sources
- Residential Program Characteristics
- Case Study:
  - Effect of ARRA Funding on MD Utility Programs

Commercial & Industrial Program Characteristics

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#### U.S. Combined Electric and Gas Program Budgets, 2006-2009



Source: Consortium for Energy Efficiency 2009 Industry Report

- Public Benefits Funds (PBFs, in ~20 states)
  - Defined dollar amounts collected via utility bills
  - Administration may be via utilities, state agencies, or third parties
  - Funding levels drive program activity
  - Attribution and cost-effectiveness less closely tracked
  - Program designs can be more flexible and creative

- Energy Efficiency Resource Standards (~19 states)
  - Legislated long term savings targets drive programs
  - Funding/rate impact caps may also apply
  - Programs can be administered by utilities or others, but utilities are held accountable
  - Attribution and cost-effectiveness regulated by state utility commissions

- Regulatory-process DSM
  - No pre-set funding or savings levels
  - Utilities file plans for overall resources and program portfolios
  - Programs are administered by utilities or contractors
  - Attribution and cost-effectiveness are examined very closely

# Residential Program Characteristics





*Mature Programs* 

Advanced Technologies:

**LEDs/CFLs /Fixtures** 

**Smart appliances** 

**Consumer Electronics** 

**Power Management** 

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(RF/CW/RAC)

## **BG&E** Residential Programs



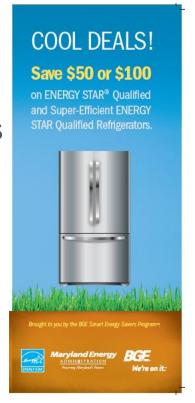
- Efficient Products
  - Lighting, Appliances, Recycling
- Residential Retrofit
  - Quick Home Energy Check-up
  - Home Performance with ENERGY STAR
- Limited Income Energy Efficiency Program
- HVAC rebates
- New Construction

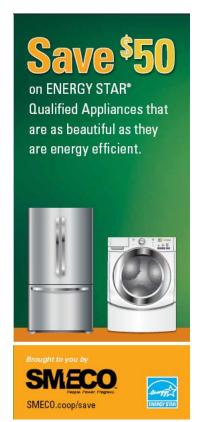
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#### Overview of MD SEEAPR



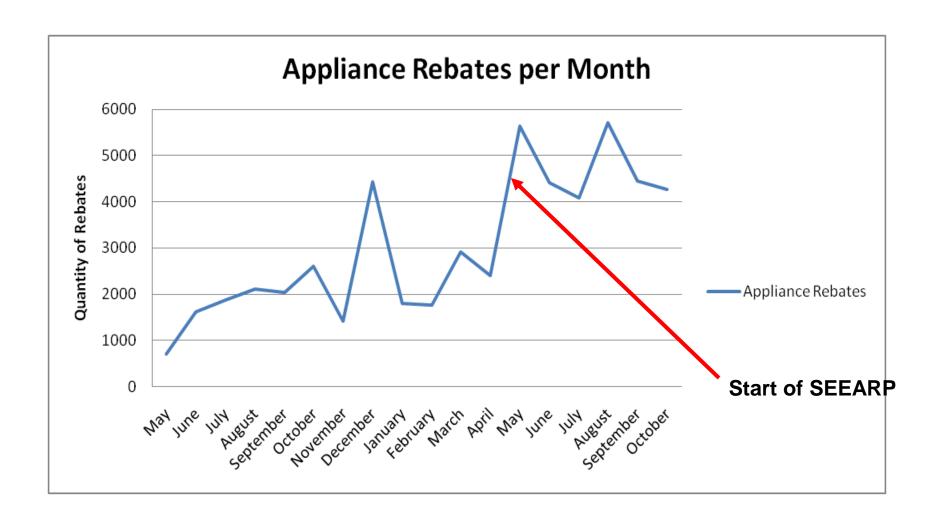
- MD Awarded \$5.2M
- MEA worked with 4 IOUs and largest Coop to layer ARRA funds on top of existing rebates
- 1st Launch April 22nd to coincide with Earth Day
- Rebates for
  - Clothes Washers
  - Refrigerators
  - Electric Heat Pump Water Heaters (new for utilities)



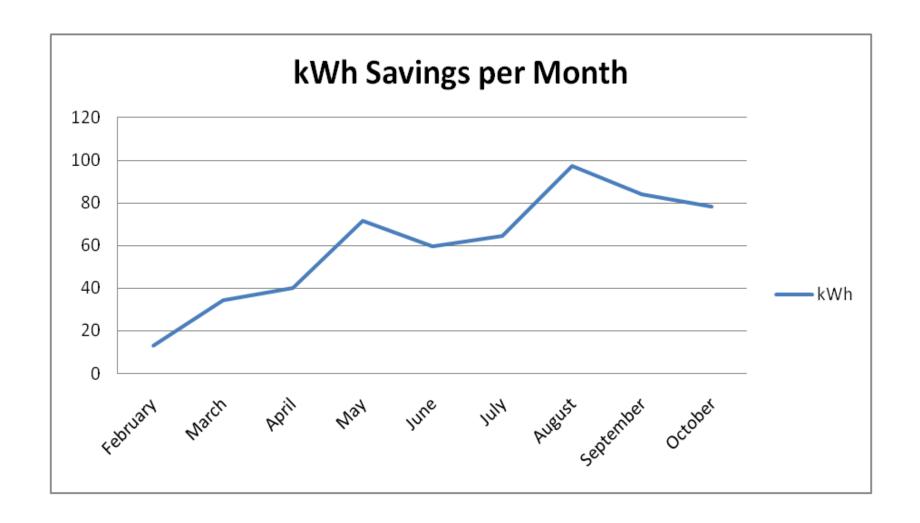


## Results - Baltimore Gas & Electric



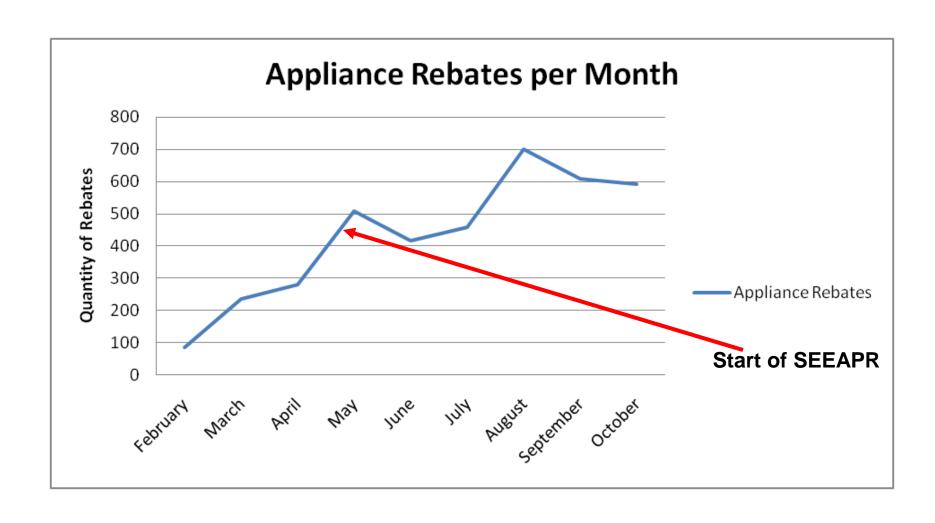


# Impacts kWh - BGE



# Southern Maryland Electric Coop





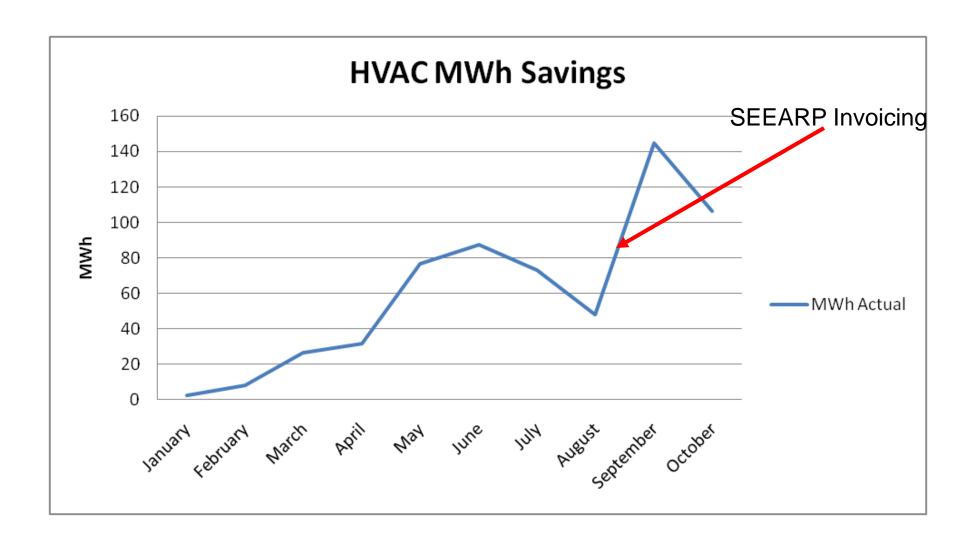
- Additional rebates offered June 30<sup>th</sup>
  - Freezers
  - Room AC
  - HVAC systems





# **SMECO HVAC Impacts**





## Impact of SEEARP



- Rise in applications and rebate redemptions
- Increase in Demand (KW) and Energy (KWh) savings
- Market Transformation
  - Higher efficiency units purchased
  - New technologies introduced => Electric Heat Pump WH
- Increased interest in other utility programs
  - Cross marketing/selling opportunities
- Lessons learned

# **C&I** Program Characteristics



- Typical C&I program portfolio consists of 3 core programs:
  - Small C&I Retrofit
  - C&I Retrofit
  - C&I New Construction
- Technical Services
- Utility programs can be leveraged to <u>compliment</u> EECBG assistance and funds

## Small C&I Retrofit



- Classic hard to reach market
- Typically limited to small business customers (i.e. ≤100kW monthly billing demand)
- Small project size average \$3000
- Incentives typically cover 70-80% of the total cost
- Limited opportunities predominantly lighting
- Full turnkey services delivered through direct installation contractors

Turn difficult economic times into opportunities



# Retrofit—optional replacement: can be considered at any time in the building lifecycle

- Prescriptive
  - Fixed incentives for common measures
- Custom
  - Site-specific measure
  - Incentives based on kWh/kW and total costs
- Retro-commissioning
  - Low-cost O&M measures



## C&I Retrofit Program – Key Features



- Open to the whole market
- Recognizes differences between sectors
- Provides the right mix
  - Diagnostics
  - Technical services
  - Incentives
- Keeps processes simple
- Engages key players
- Builds core structure, allows variations

#### **C&I** New Construction



## New construction and other "lost opportunities"

- Prescriptive
  - Fixed incentives for common measures
  - Can be triggered late in the design/construction process
- Custom
  - Site-specific
  - Incentives based on kWh/kW savings and incremental costs
  - May involve multiple measures or systems
- Comprehensive
  - Targets the design process
  - Considers whole building performance, all components and systems

# New Construction – Key Features



- Targets "Lost Opportunities"
- Emphasizes Technical Services
  - Training
  - Technical support
  - Design assistance
  - Commissioning
- Keeps business processes simple
- Leverages green building initiatives



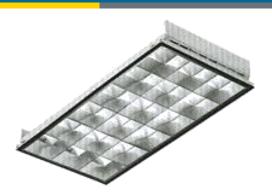
# Typical Efficiency Measures



- Lighting
- Controls
- Motors and systems
- HVAC
- Compressed air
- Refrigeration
- Process heating and cooling
- Building envelope











#### **Technical Assistance Services**



## How to save energy without spending too much money

- Facility "walk-through" audits
- Feasibility/project development studies
- Design assistance
- Commissioning
- LEED certification

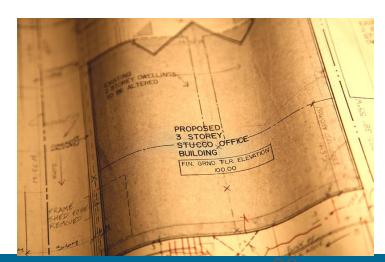
... and Benchmarking

#### **Outreach Channels**



#### Create awareness and educate to drive participation

- Delivery channels
  - Trade allies
    - Vendors and contractors that generally work in the retrofit market
    - Local chapters of associations such as BOMA, ASHE, AEE, AIA
    - Design firms, A&E firms, speculative developers
  - Targeted outreach
    - One-on-one
    - Lunch and learn
    - Market segment
  - Utility account managers
    - Contacts
    - Access



# **Opportunities**



- Different strategies needed for areas with and without existing rebate programs
- Where utility/public benefit funds programs are available
  - Complement don't compete
  - Fill niche needs to increase participation
  - Leverage existing infrastructure and resources to maximize EECBG consumer benefit
- Where no programs exist
  - Scope dependent on funding available
  - Simple prescriptive rebate programs typically work well
    - Lower costs and larger benefits
  - RFP/Grant format can also be effective

## Commercial Program Example



# Renew Boston Energy Retrofit of Small Businesses Program

#### Goals:

- Improve overall efficiency of very small businesses (<20kw)</li>
- Job creation consistent with the objectives of ARRA resources and the Boston Resident Jobs Policy
- Minimize administrative costs so that ARRA funds go directly to the benefit of targeted program participants

#### Benefits

- Seamless integrations with existing utility efficiency programs
- Existing relationships of trade allies to stimulate job creation
- Proven track record for achieving program goals

## Commercial Program Example



- Benefits (con't)
  - Experienced administrative capacity
  - Enhanced incentives that cover up to 100% of the installed costs
  - Offers an expanded "Main Streets" type of program targeting specific neighborhoods
- Results to date
  - Launched in August 2010
  - Served 4 of 23 neighborhoods

	Electric	Gas
# of Participants	82	44
Energy Savings	395,063 kWhs	8,692 therms
Utility costs	\$132,746	\$7,884
City costs	\$99,124	\$4,509

# **BG&E Program Examples**



## **Community Energy Savers Grants Program**

 City of Baltimore has committed \$1 million in Stimulus funds to a competitive grant program for community and neighborhood organizations to reduce energy use.

## Synergies

- Leveraging BGE programs by providing audits targeting measures offered through the BGE programs
- Provides funds to offset the costs not covered by BGE
- Co-promoting program offerings to maximize funds and minimize administrative costs
- Trained program interns on BGE programs

## **Upcoming Webinars**



## Please join us again:

Title: State Clean Energy Policy Impact

Date: November 17, 2010 Time: 3:00 - 4:15pm EST

Title: Negotiating and Entering Into an ESPC

Date: November 18, 2010 Time: 1:30 - 2:30pm EST

Title: Community Renewables Projects

Date: November 30, 2010 Time: 2:00 - 3:00pm EST

Title: Defining and Establishing the Role of a Sustainability Manager

Date: December 2, 2010 Time: 12:00 - 1:30pm EST

Title: Building Actionable Climate Action Plans

Date: December 6, 2010 Time: 2:00 - 3:30pm EST

For the most up-to-date information and registration links, please visit the Solution Center webcast page at <a href="https://www.wip.energy.gov/solutioncenter/webcasts">www.wip.energy.gov/solutioncenter/webcasts</a>