

Agenda – Part II



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Wrap Up

Residential Electric and Gas Programs 2010-2012

• Strategies Build on Existing Programs

- Retrofit, lost opportunity, expansion of program incentives, introducing new technologies, multi-family programs, going deeper...
- Deliver holistic and integrated programs and pilots

Residential Benefits Costs and Savings

	Electric	Gas
TRC Benefits	\$1,849,855,796	\$365,822,602
TRC Costs	\$415,291,604	\$148,284,539
TRC Net Benefits	\$1,434,564,192	\$217,538,063
BCR	4.45	2.47
Total Annual Savings	1,165,483 Annual MWH	18,014,509 Annual Therms

MassSAVE – Residential Conservation Services

Educate Customers to Help Identify and Implement Energy Efficiency

- Upgrades
 - Joint Offering by All PAs
 - One-Stop Shopping
- Energy Audits
 - Screening Visit (CFLs Installed)
 - Diagnostic Visit (Blower Door, IR Scan)
- Upgrades
 - Broader & Deeper, Gas & Electric Integration
 - Insulation, Air Sealing, Heating & Water Heating
- Financial Incentives - 75% up to \$2000
 - Heat loan Program
 - 0% Interest Loan, 7 yr, up to \$15,000
- Joint Marketing & Outreach
 - Website, Bill Insert, Media Ads, Community Outreach
- 3 yr Enhancements
 - Increase Participation, Deeper Savings



Residential New Construction

Massachusetts New Homes with ENERGY STAR

- Joint Gas-Electric Offering
- Encourage Construction of energy efficient homes
 - Code Plus to ENERGY STAR III (60% Improvement)
- Financial incentives - 4 levels
 - Single Family \$325 to \$8000
 - Multi-family \$225 to \$4000/ unit
- Marketing and Education
 - Targeted at Builders & Homeowners



Residential Gas Program

Weatherization



- Maximize thermal efficiency of existing residential buildings
- Complements one-stop-shopping goal of MassSave
- Improvements include: insulation, air sealing, thermostats
- Financial Incentives 75% up to \$2000
- Heat loan Program (0% Interest Loan, 7 yr, up to \$15,000)
- Three-year goal: increase participation, achieve deeper savings and greater integration

Residential Gas Program

High Efficiency Heating

- Promote the installation of ENERGY STAR-rated high efficiency natural gas space heating equipment
- Overcome market barriers to energy efficient heating equipment and increase program awareness
- Early replacement program
- Implemented jointly through the GasNetworks Collaborative
- Higher Incentives/Rebates
- Marketing Efforts
- Tax Credits (30% up to \$1,500 through 2010)



Residential – ENERGY STAR HVAC

Increase Consumer Awareness and Market Share

- Efficient Central A/C, Heat Pumps
 - GasNetworks® for High Efficiency Furnaces
- Promote Quality Installation
- Incentives
 - High SEER CAC or Heat Pumps
 - Duct Sealing
 - Right Sizing
- Marketing – HVAC Contractors
 - Circuit Riders, Upstream Promotions
- Planned Enhancements
 - Increase Incentives
 - Expanded Contractor Training



Residential Gas Program

ENERGY STAR-Labeled Programmable Thermostat

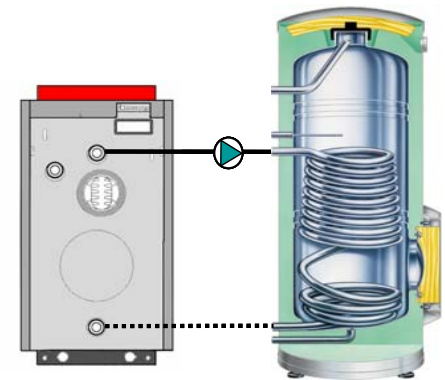
- Marketing Efforts
 - Retailers including “big box”
 - Direct mail
 - Wholesalers
 - Bill inserts
- Focus on consumer education
- Cross-program integration
- Evaluation



Residential Gas Program

High Efficiency Water Heating

- Focus on water heating (2nd largest user of natural gas)
- Barriers, implementation and marketing all common to the High Efficiency Heating Program
- Recent advances through ENERGY STAR will help raise awareness
- Tax Credits (30% up to \$1,500 through 2010)



Residential – Energy Star Appliances & Products

Raise awareness and encourage purchase of ENERGY STAR qualified products

- Incentives through rebates or discounted pricing
 - 2009 Incentives
 - Refrigerators
 - Room Air Conditioners
- Marketing
 - Point of Purchase Displays
 - Media Ads
 - Statewide Website
- 3 yr Enhancements
 - More Products including New Technologies
 - Expanded Retail and Distribution Channels
 - Secondary refrigerator recycle program
 - Community events



Residential – ENERGY STAR Lighting

Increase Consumer Awareness and Use of Efficient Lighting Products

- Incentives through
 - In-Store Coupons
 - Buy Downs
 - Web Based - Catalog Sales
- Promote Proper Disposal
- Marketing
 - Retail Displays, Print/Radio Ads
 - Integrated MA website
- Three-Year Enhancements
 - Adjust to Market/Program Changes
 - Specialty Bulbs
 - Promote LEDs as technology unfolds



Residential – Deep Retrofit 1-4 Family Pilot

Targeting Significant Upgrades to Existing Homes

- Super Insulated Walls (Build Out)
- Air Sealing, Ventilation, Windows, HVAC, Solar Thermal and PV
- Build Upon Results of 2009 Pilot
 - Assess Results to Enhance Program
- Incentives – TBD
- Marketing – Target More Participants
 - Home Owners, Remodelers, etc.



Residential Major Renovation Pilot

Encourage Energy Efficient Additions and Renovations

- **Existing Homes (Single/Multi-Family)**

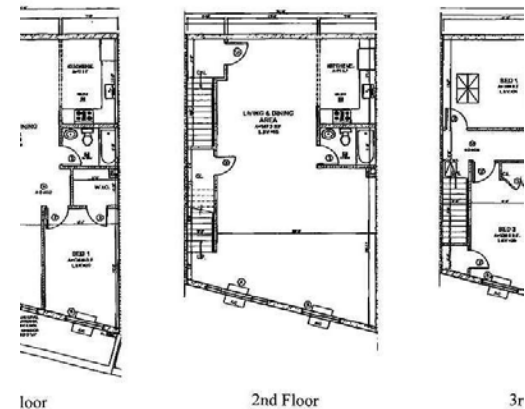
- Upgrading or Adding > 500 sq ft

- **Recommended Technologies**

- HVAC Equipment and Install
- Increased Insulation and Air Sealing
- Appliances and Lighting

- **Incentives – up to \$2000**

- **Marketing – Builders, Home Shows, Website**



Residential – Pay and Save Pilot



Assess Value of On-Bill Financing to Increase Customer Implementation

- 2009 Pilot - Part of GCA
- 0% Interest On-Bill Financing for Residential Customers for up to \$500
- Available to MassSAVE Participants
- Help to pay for customer portion of measure installation
- April 1, 2009 to December 31, 2009

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Multi-Family Program Assessment

- Build on success of existing efforts including ENERGY STAR Homes, RCS/MassSAVE Program and GasNetworks
- Collect customer feedback via April workshop
 - Integration of gas & electric services built into the program design
 - Simplified application process & single source for program offerings
 - Elimination of inconsistencies caused by differences in metering
- Create collaborative working group to develop program designs

Model for next generation of integrated program designs

Multi-Family Program Workshop - 4/15 & 4/16

- Determine the sector challenges
 - High-Rise Buildings
 - Low-Rise Buildings
 - Low-Income and Affordable
 - New Construction
- Determine Needs
 - One point of entry
 - Uniform treatment of multi-family sector
 - Coordination across fuels, service territory
- Next steps
 - Recommendations and Workshop Results
 - Develop Scope of Work in collaboration with all PAs
 - Develop project Plans for October 2009 filings.



Continued collaboration towards program development

Treat the Building - Care for the Customer

- Treat the Building
 - Adopt “whole building approach” to energy savings
 - Achieve deeper savings in participating facilities
 - Improve methodology for cost-effectiveness screening to ensure all energy & non-energy benefits are accounted for
- Care for the Customer
 - Consistent messaging in outreach efforts
 - Integration of gas & electric services built into the program design
 - Simplified application process
 - Elimination of inconsistencies caused by differences in metering that occur between customers in the multi-family market sector
 - Single source for program offerings

Goal is to create a “seamless” customer experience

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Electric Statewide Low-Income Programs

- 2010-2012 Initial Statewide Filing Summary
 - Coordinated effort with LEAN
 - Program design through Best Practices Working Group

2010-2012 Electric Low-Income Benefits, Costs and Savings

Electric	
TRC Benefits	\$504,150,063
TRC Costs	\$156,628,377
TRC Net Benefits	\$347,521,686
BCR	3.22
Total Annual Savings	82,586 Annual MWH

Electric Statewide Low-Income Programs

Overall Strategy

- Reach more people and more places
 - Hospitals, unemployment centers
- Consistent/increased income thresholds
- More customers qualify
- Comprehensive whole-house approach



Low Income Residential New Construction

- New Homes with ENERGY STAR Program
 - Drive the market to one in which new homes are moving towards net-zero energy
 - Increased incentive structure for savings
- Multi-Family Statewide Assessment for Low-Income
 - Fuel-blind, meter-blind and integrate sectors with minimal or no co-payment



Residential Low-Income Electric Single-Family Program

- Collaborative program design
 - LEAN, DHCD, Weatherization and Fuel Assistance Program Network
 - Best Practices Working Group
- Program delivery through Network Agency
- Eligibility: 60% of state median income
- Program measures including products and services directly installed with minimal or no co-payment from participating customers

Residential Low-Income Gas Single-Family Program

Primary Objective

- To increase energy efficiency and reduce the energy cost burden for low-income customers through education and the installation of energy efficiency measures.

2010-2012 Gas Low-Income Benefits, Costs and Savings

	Gas
TRC Benefits	\$70,264,948
TRC Costs	\$57,542,764
TRC Net Benefits	\$12,722,184
BCR	1.22
Total Annual Savings	1,978,401 Annual Therms

Residential Low-Income Gas Single-Family Program

Collaborative Effort

- Gas Program Administrators have programs that date back to the 1990s
- Best Practices Working Group (BPWG) - Gas PAs, Electric PAs, LEAN, DHCD and the Network make up this group.
- The BPWG works together to review all aspects of program delivery to provide cost-effective and comprehensive services.

Residential Low-Income Gas Single-Family Program

How will the Program address the Council's Priorities Resolution?

- Seamless Delivery
- Best Practices
- Training
- Quality Control
- Pilot Programs
- To Find Broader and Deeper Savings
 - Address Health and Safety Issues
 - New Technologies



Residential Low-Income Multi-Family Retrofit

Multi-Family Assessment and Program Services Design

- PAs to work with Council consultants and LEAN to perform an assessment of the multi-family program designs
- Participate in multi-family re-design workshops
- For low-income multi-family projects, the assessment will include development of strategies to serve low-income multi-family buildings in a manner that is fuel-blind, seamless, meter-blind, and integrates low-income, residential and commercial programs as appropriate

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C&I Electric and Gas Programs

- **Strategies Build on Existing Programs**
 - Retrofit, lost opportunity, small business, prescriptive, custom and multi-family programs
 - Deliver large scale energy efficiency, peak demand and renewable energy solutions

2010-2012 Electric and Gas C&I Benefits, Costs and Savings

	Electric	Gas
TRC Benefits	\$2,635,789,795	\$419,773,167
TRC Costs	\$841,648,716	\$132,631,740
TRC Net Benefits	\$1,794,141,079	\$287,141,428
BCR	3.13	3.16
Total Annual Savings	1,243,132 Annual MWH	24,745,765 Annual Therms

C&I Electric and Gas Program Platform

Four principles for maximizing savings:

- **Integrated portfolio of fuel-neutral gas and electric programs**
 - Customers provided with scalable solutions to maximize savings
- **Seamless delivery from customer's perspective**
 - Consistent messaging and shared outreach
 - Single statewide communications portal – website
 - Account Managers are key players
 - Uniform standards and eligibility
- **Deeper savings achieved through**
 - Innovation
 - Broader choices
 - Targeted sectors
- **Expanded, high quality, trained workforce**
 - Increased internal staffing
 - Increased support resources
 - Consistent program messaging and services

C&I Electric and Gas Program Review

- **Comprehensive solutions lead to increased savings**
 - Build on customer sector initiatives
 - Municipals
 - Whole system and whole building assessment
 - Advance high-performance lighting practices
 - Hybrid/high-efficiency space conditioning, retro-commissioning
- **Accelerate new technology adoption**
 - Next generation lighting – LEDs
 - CHP, water heating, DOE super boiler
 - Technical committee – arbitrator for emerging technologies and practices
- **Savings potential dependent on expanding infrastructure**
 - Trade allies, contractors and suppliers
 - Colleges, universities and trade schools
 - Prepare next generation workforce
 - Collaborate on curriculum development
 - Co-op partnerships



Community Based Initiative

- **Comprehensive Residential and C&I Energy Efficiency Penetration**
 - Neighborhood, city, or town
 - Higher penetration than under traditional delivery
- **Community Engagement**
 - Grass-roots community outreach
 - Understand and address community's unique needs and characteristics
- **Community Commitment**
 - From recognized leaders—inside and outside of government
 - *For a community to drive a program, it must own it.*
- **Selection of Communities**
 - Competitive solicitation to select communities with greatest potential
- **Subject to Same Cost-Effectiveness Criteria as Other Initiatives**

C&I Electric and Gas Retrofit Program

- **Target Commercial, Industrial, Municipal and Multi-family Sectors**
 - Replace inefficient equipment/systems/practices with high performance options
 - Reduce owners' operating costs
 - Engage contractors, equipment vendors , specifiers, distributors and manufacturers
 - Technical assistance is prime platform to identify and quantify savings
 - Financial incentives address capital barriers
 - Quality assurance maintains savings integrity
- **Approaches Support Better Building Practices—Gas and Electric**
 - Prequalified prescriptive measures
 - Gas and electric technologies, mechanical end uses
 - Custom measures
 - Support comprehensive integrated gas and electric solutions

C&I Electric and Gas Retrofit Program

- **Strategies and Initiatives to Deeper Savings**
 - Whole Building Assessment
 - Benchmarking and action plans
 - Systems, building shell, practices, health and safety
 - Municipal Initiative
 - Financing to address capital-constrained
 - Governors Clean Energy Council
 - Promote technical assistance and carbon mitigation
 - Combined Heat and Power (CHP) and Demand Response (DR) deployment
- **Joint Program Enhancement and Three-Year Deployment**
 - Innovative, statewide marketing
 - Common website
 - Support channel partners
 - Common customer outreach campaigns
 - Account Manager coordination and collaboration

C&I Electric and Gas Retrofit Program

- **Technology Advancements**
 - Introduce emerging and promising new products and services
 - Advance lighting and controls
 - Gas cooling, heat recovery, commercial kitchens
 - Efficient HVAC equipment and practices
 - Compressed air systems
 - Industrial process improvements
- **Large Scale Deployment**
 - Build enhanced business relationships and strategic partnerships
 - Architects
 - Engineers
 - Plumbers, suppliers, and installers
 - New energy services firms



C&I Electric and Gas Lost Opportunity Program

- **Target New and Major Renovation Opportunities**
 - Commercial, industrial, municipal and multi-family sectors
- **Provide Design Services Leading to Better Buildings**
 - Integrated design solutions platform for enhanced savings
 - Incentives address capital barriers
 - Commissioning maintains savings integrity
- **Choices Support Better Building Practices**
 - Prequalified prescriptive measures
 - Provides natural gas, electrical and mechanical energy savings opportunities
 - Integrated custom approach optimizes potential through design and construction process

C&I Electric and Gas Lost Opportunity Program

- **Strategies and initiatives supporting better building performance**
 - **Advance Buildings**
 - Identify high-performance energy systems
 - 20–30% energy savings over Massachusetts Energy Code
 - Accepted by US Green Buildings Council
 - **Office of The Future**
 - Address tenant fit-up market
 - 25% better energy performance
 - Improved lighting quality and comfort system performance
 - **Technical Services**
 - Maximize gas/electric integrated savings potential through common studies
 - **Next Generation Planning**
 - *Getting to Fifty*— 50% more efficient than current codes
 - Data centers
 - High-performance laboratories
 - Transition to LED technology
 - Zero-Net Energy buildings



C&I Electric and Gas Small Business Program

- **Target Small Business Customers**
- **Provide Access to Retrofit Services on a Turnkey Basis**
 - Direct install or customer selected contractor option
 - Administrative vendor competitively bid
 - Focus on energy-efficient lighting and controls, refrigeration, water heating and space heating, and other potential custom measures
- **Strive Towards Consistent Statewide Program and Services**
- **Audits - Identify Savings Opportunities**
- **Financial Incentives Reduce Implementation Costs to Customer**
 - Low- or no-interest financing options in some cases
- **Next Three Years**
 - Increase capacity to deliver deeper savings
 - Increase number of contractors
 - Broaden custom measures
 - Integrate delivery

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Thank you all for the
opportunity to make this
presentation.

Today is a momentous day!