

Panel 1

Present & Future Challenges: A Program Implementer's Perspective

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Energy Efficiency Portfolio Standard
Overview Forum
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*ASSOCIATION FOR
ENERGY AFFORDABILITY, INC.*

NYS “15 x 15” Goals

- EPS provides a pathway to implement the Governor’s 15 x 15 goals.
- Key Lessons Learned:
 - An ambitious, clear and consistent message
 - Statewide planning
 - Multiyear goals
 - Stable funding
 - Performance incentives
 - Coordinated programs

Implementer's Vantage Point

- NYS Weatherization Program (WAP)
- Projects coordinated with WAP
 - Con Edison's ULIEEP (1993-95)
 - Con Edison's LIRRP (1996-2001)
 - NYSERDA's Low Income Direct Install, Weatherization Network Initiative, Assisted Multifamily Program, EmPower, Multifamily Performance Program (just starting)
 - ,

AEA: Training the Infrastructure

- Multifamily Standardized Training (preparing for BPI Certification)
 - MF Building Analyst
 - Energy Efficient Building Operations Specialist (building supers and property mgrs)
 - Hydronic Heating System Designer
- Home Performance contractors
 - Building Analyst, Envelope Specialist
- One of the Energy \$mart Learning Centers of Hudson Valley Community College Workforce Development Institute

Buildings Research

- Pre-weatherization energy use intensity data collection for building modeling
- Post-weatherization bill analysis documenting savings
- Data loggers, fuel meters, 15 minute interval data collection of building dynamics
- Comparing bill analysis and metered data
- R D &D - Advanced metering and web enabled building controls
- Time Sensitive Rates demonstration

Program Design

- Target all types of low income households
 - in single family and multifamily housing
 - Rental and owner occupied housing
- Coordinate utility and public benefit program funds with WAP and owner \$
- All fuels/fuel neutral measures
- Ensure tenant measures and tenant protections
- Measure, monitor and verify energy use intensity pre- and post-installation
- Provide both construction and performance incentives (New MPP model)

Background on multifamily housing units in New York City

- Over 2.2 households in MF buildings (>5+ units)
- Large variation in age, size, condition, rent regulation status, energy use intensity
- NYC as the “overheated city”
- Indicators of Energy Efficiency
 - BTU/sq ft/Heating Degree Day
 - Energy use per person

Housing Tenure, 2000

NYC - Southern Region v. NYS and US

	Bronx County	Kings County	New York County	Queens County	Richmond County	Rockland County	Westchester County	NYC – Southern Region	NYS	U. S.
Total Housing Units	490,659	930,866	798,144	817,250	163,993	94,973	349,445	3,645,330	7,679,307	115,904,641
Occupied Housing Units	463,212	880,727	738,644	782,664	156,341	92,675	337,142	3,451,405	7,056,860	105,480,101
Percent of Total Housing Units Occupied	94.4	94.6	92.5	95.8	95.3	97.6	96.5	94.7	91.9	91
By Occupant										
Owner-occupied housing units	90,687	238,367	148,732	334,815	99,695	66,424	202,673	1,181,393	3,739,166	69,815,753
Owner-occupied housing units, percent of all occupied	19.6	27.1	20.1	42.8	63.8	71.1	60.1	34.2	53	66.2
Renter-occupied housing units	372,525	642,360	589,912	447,849	56,646	26,251	134,469	2,270,012	3,317,694	35,664,348
Renter occupied housing units, percent of all occupied	80.4	72.9	79.9	57.2	36.2	28.3	39.9	65.8	47	33.8

Energy Efficiency in MF Housing

- Split Incentives – major barrier
- Who pays the energy bill (for each energy use in the building)
- Who directly benefits from energy efficiency installations?
- Challenge: How to create an alignment of interests among all stakeholders in the building in supporting energy efficiency

Barriers/Challenges

- Deep owner resistance to paying for tenant benefit measures
- Lack of confidence in the basic model (RE: ROI/savings affects MOTIVATION)
- High turnover rates of property ownership and management company responsibility
- Bank financing availability for added cost of McMansions but not easily for EE (either in retrofit or new construction)
- “We have the technology, what we need is the will” --

Renter Occupied Housing Units, 2000

NYC- Southern Region vs. NYS and US

	Bronx County	Kings County	New York County	Queens County	Richmond County	Rockland County	Westchester County	NYC – Southern Region	NYS	U. S.
Renter-occupied housing units	372,690	642,437	589,949	447,770	56,609	26,214	134,377	2,270,046	3,317,613	35,663,588
Percent with 1.01 or more occupants per room	22.7	18.3	12.2	22.3	9.6	16.9	12.5	17.7	13.6	11.0
Housing units with 10 or more units in structure	295,982	326,498	532,058	215,454	15,778	7,785	64,320	1,457,875	1,672,434	11,596,217
Percent housing units in structure with 10 or more units	79.4	50.8	90.2	48.1	27.9	29.7	47.9	64.2	50.4	32.5
Median Year structure built	1954	1947	1945	1952	1967	1967	1953	na	1952	1969

Tools:

- Codes and standards
- Policies, laws, regulations - end-use metering
- Comprehensive whole building scopes of work
- Installations by qualified contractor infrastructure
- Proper use and operation by building operators
- Tax credits and incentives for owners and developers
- Building equivalent of a miles per gallon standard
- “Dashboard” – energy use information available to home owner, tenant, property manager
- Enabling technology for building controls, load management, feedback loop to stakeholders

Why not just give tenant subsidies for utility bills?

- Measures that reward **both** landlord and tenant for choices that reduce energy utilization provide continuous benefits to both parties *long after public funds are spent.*

2007 Ka-ching!

2008 Ka-ching!

2009 Ka-ching!

2010 Ka-ching!

2011 Ka-ching!

2012 Ka-ching!

2013 Ka-ching!

2014 Ka-ching!

2015 Ka-ching!

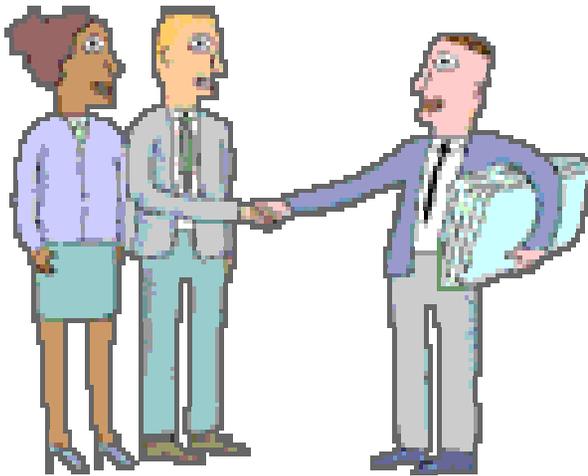
2016 Ka-ching!



Why not let the market take care of energy efficiency?

- Rising tide does not lift all boats equally
- Low-income people more likely to suffer consequences of flooding, global warming, etc. – first and hardest
- Low-income homeowners are less likely to be able to afford improvements on their own.

Structuring owner and tenant incentives in low income rentals:



- **Creating**
- **Longstanding**
- **All**
- **Stakeholder Partnerships**



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