

MT 101

Market Segments and Technologies



Characteristics
Market actors
Leverage points
MT approaches
Technologies



Residential Market Characteristics

- Diverse
- Upstate vs. Downstate
- Retail supply channels
- Consumer –focused
- Mass marketing
- Single purchases



Upstate vs. Downstate

- One state, two different types of Consumers
- “Upstater”
 - Laid back, traditional
 - Coordination with NYS Gov’t
 - Mostly rural and suburban
- “Downstater”
 - Fast paced, decisive
 - Coordination with NYC Gov’t
 - Mostly urban



Residential leverage points

- Product Branding (ENERGY STAR®)
- Third-party performance assurance
- Incentives to market actors
- Marketing messages



Residential Market Actors

- Consumers
- Low-Income Sector
- Builders
- Retailers and Manufacturers
- Third-party verifiers (ENERGY STAR)



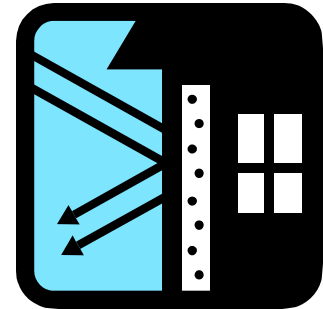
MT Approaches - Residential



- Consumer branding
- Create demand through education
- Increase supply through supply chain
- Target providers (builders)
- Increase QA (certification, 3rd party)

Technologies - Residential

- Whole house approaches
- Lighting
- Appliances
- Heating and cooling
- Envelope measures
- Consumer electronics
- Ductwork, infiltration



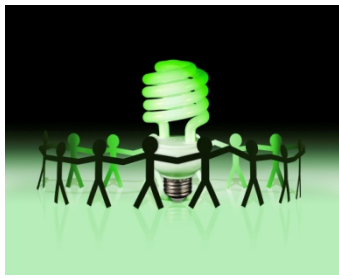
NYSERDA Residential MT case study



- Increased market share of ENERGY STAR Room Air Conditioners
 - 2001: 24% ES* ; 2008: 57% ES*
 - Attained through education, outreach, marketing, market share incentives

*This number was 80% before the Program added big boxes PC Richards and Best Buy in 2007. Market share of ES Room ACs increased from 48% in 2007 to 57% in 2008.

NYSERDA Residential MT case study



- Increased number of retail partners selling ENERGY STAR CFLs from 67 in 2006 to 649 in 2009
 - Key Partners: Price Chopper, Wegmans, A&P, Waldbaums, Kinney's, Pathmark, Tops Markets, The Food Emporium

Commercial Market Characteristics

- Fixed Supply channels
- Multiple purchases
- Risk aversion
- Capital cost barriers
- Fighting status quo
 - Specifications, standards



Commercial leverage points

- Recognition (LEED, Energy*)
- Incentives
- Risk aversion/reduction
- Market leader action
- State and local standards
- Policies supporting goals



Commercial Market Actors

- Building owners and operators
- Designers and Engineers
- Specifiers (equip. sizing)
- Third-party confirmers (Cx, energy modeling)
- Utilities, public-benefits providers



MT Approaches - Commercial

- Target market leaders
- Reduce risk (\$\$ and QA)
- Reduce payback (< 3 years)
- Value proposition in market terms
- Facilitate implementation (ESCO's)



MT approaches - R and C

- Target mid-stream providers
 - Motor vendors
 - Lighting contractors
- Certify providers
 - LEED, CX providers, BPI
- Target market leaders



Technologies - Commercial

- Lighting, lower LPD
- Advanced HVAC, diagnostics
- VAV's, VSD's, DCV
- Controls, load management
- Whole building operations
 - (retro CX)



NYSERDA Commercial MT case study

- New Construction Program – (NCP)
 - Goal – change way buildings designed and built
- Overcome structural barriers
 - Lowest first cost
 - Lack of e.e. information
 - Risk aversion



NYSERDA Commercial MT case study - NCP

- Provide Technical Assistance
 - Energy studies, modeling
 - Cx assistance
 - LEED and green assistance
- Overcome cost barriers
 - Financial incentives
 - Design team and LEED bonus



NYSERDA Commercial MT case study – NCP

- Cost-shared Energy Studies
 - 50/50 cost share, NYSERDA contractors
 - Customer reimburses after study
- Performance based incentives
 - based on Kw and Kwh savings
 - progressive incentives (more saved = more incentive)



NYSERDA Commercial MT case study - NCP

- Results to date
 - 145 million sf of floor space
 - 40% of new applicants seeking LEED
 - 17-20% above Energy Code on ave.
 - Growth in energy modeling and Cx
 - 30% of market share in NYS



Measurement of success



- Hard figures
 - Installed KW and KWH use
 - Product penetration (# sold, etc.)
 - Predicted savings (LEED)
 - Measured savings (bldg and system)
 - Market penetration (% EnergyStar)
 - Usage redux (ESCO monitoring)

Measuring success, cont.



- Soft figures
 - Ability of market to deliver higher value services or products
 - Permanence of behavior changes
 - Actual consumption (LEED, Energy*)
 - External influences (fuel prices)
 - Carbon tracking



Summary



- Understand target markets
- Determine leverage points/actors
- Pick high value propositions
- Push technologies, performance
- Decide what to measure and track