



MT Segments & Technologies

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Market Segments & Technologies



- Transformation Model
- Markets & Segmentation
- Characteristics
- Market Actors
- Leverage Points
- MT approaches
- Technologies

Market Transformation Process



Markets

- Why segment?
 - Simply organizes a market into smaller components with certain common characteristics.
 - Leads to more efficient and effective strategies of market approach.
 - Products
 - Communication
 - Research
 - Differentiation

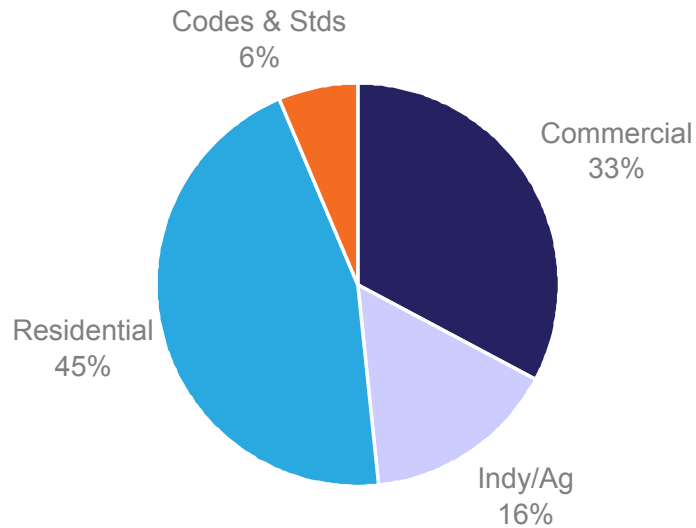
Markets

- Traditional ee market segmentation
 - Residential
 - Commercial
 - Industrial
 - Agriculture
 - Other Thoughts
 - Combinations and Sub segments
 - Non Traditional Segmentation
 - Hazards

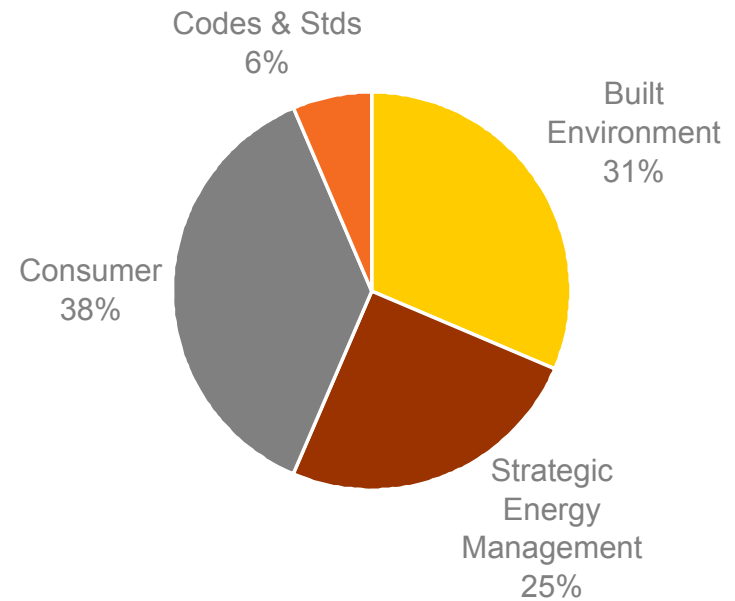


NEEA segmentation

2010 - 2014 NEEA Budget by Sector



2010 - 2014 NEEA Budget by Focus Area



Regional Challenges



- Diversity
- Density
- Climate
- Industrial Base
- Economics
- Politics
- Attitudes

Residential Market Characteristics

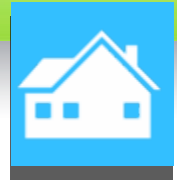
Residential



- **Diverse**
 - Geography
 - Climate
 - Interests
 - Rural | Non Rural
 - Economic
- **Consumer –focused**
- **Retail supply channels**
- **Mass marketing**
- **Single purchases**

Residential Market Actors

Residential



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

Leverage points

Residential



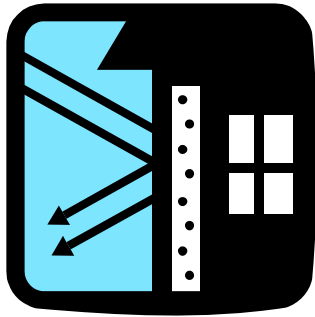
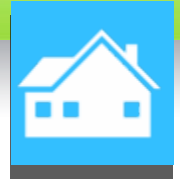
- Product Branding (ENERGY STAR®)
- Third-party performance assurance
- Upstream Incentives
- Combined Incentives
- Marketing messages

Strategies

Residential



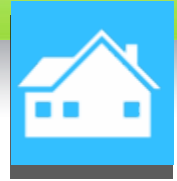
- Consumer branding
- Create demand through education
- Increase supply through supply chain
- Target providers (builders)
- Increase QA (certification, 3rd party)



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

Ductless Heat Pumps

Residential



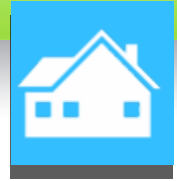
NEEA works to accelerate the adoption of ductless heat pumps in electric heat homes

Market Conditions

- High presence of inefficient electric resistance heat.
- Middle income consumers
- Proven DHP technology (extra USA)
- Lower use in colder climates
- Zero market presence

Ductless Heat Pumps

Residential

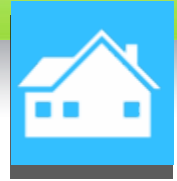


Identified Barriers

- Product not perfect for climate
- No product in market
- No consumer knowledge
- No distribution, retail or support
- Expensive

Ductless Heat Pumps

Residential

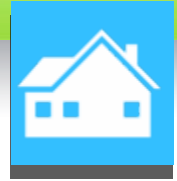


Strategies

- Broaden manufacturer relationships
- Provide contractor education
- Refine quality assurance process
- Increase DHP presence in retailers
- Raise consumer awareness
- Explore loan programs to help consumers overcome cost barrier

Ductless Heat Pumps

Residential



Market Results

- ❑ 4000+ units installed first year.
- ❑ Very high satisfaction by consumers, utilities and other market actors.
- ❑ 20 year impact anticipated at 150 aMW for region.



■ Characteristics

- Complex market
- Multiple transactions
- Risk aversion
- Specifications, standards

■ Barriers

- Owner awareness
- Embedded practices
- Skill sets of suppliers
- Split incentives
- Capital costs

Commercial Market Actors

Commercial



- Building Owners
- Building Operators
- Service Providers
- Architects, Designers and Engineers
- Specifiers (equip. sizing)
- Third-party confirmers(energy modeling)
- Utilities, public-benefits providers



Leverage points

Commercial



- Recognition
- Incentives
- Market leader action/differentiation
- Financial (value, costs)
- State and local codes & standards
- Risk aversion/reduction

Strategies

Commercial



- Value proposition in market terms
- Influence the few to convince the many
- Certification
- Education & training
- Target service providers
- Risk reduction
- Codes & standards
- Target mid-stream providers
- Manufacturers



Technologies - Commercial

Commercial



- Lighting
- Advanced HVAC
- Advanced Controls
- Windows
- Design Practices
- Building Operations
- Building Management Practices

Commercial Real Estate

Commercial



NEEA targets Northwest commercial office buildings to build capacity for the creation and implementation of sustainability strategic plans among market actors

Key Initiative Barriers

- Market Demand
- Market Supply
- Lack of Value Proposition



Commercial Real Estate

Commercial



Key Initiative Strategies

- “Coaching” with Northwest firms and leaders
- Ally with influential groups
- Develop sustainability strategies
- Conduct market competitions, education, research and other “knowledge transfer” efforts to diffuse best practices and case studies



Commercial Real Estate

Commercial



THE BOMA SEATTLE | KING COUNTY
K I L O W A T T
CRACKDOWN

Key Initiative Results

- 200 buildings participating in Kilowatt Crackdown
- Most significant portfolio owners engaged.
- Supported through BOMA
- 20 year anticipated energy savings of 109 aMW.



Industrial Market

Industrial



■ Characteristics

- Diversity
 - High Load Installations
 - Many Small Operators
- Politically Influential
- Capital Limited
- Priorities

■ Barriers

- Return on Investment
- Attention
- Communication
- Conflicting Local Programs

Industrial Market Strategies

Industrial



- Reference groups
- Target market leaders
- Strategic Energy Manager
- Associate with TQM or Lean Programs
- ISO 50001
- Technology advancement
- Incentives
- Training

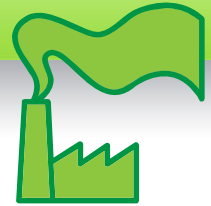
Industrial Market Technologies

Industrial



- Compressed Air
- Motors
- Lighting
- Refrigeration
- Strategic Energy Management
- Advanced Controls

Northwest Food Processing



Industrial

Market Barriers

- 2nd largest Northwest energy consumer
- Companies unsure how to tackle energy use
- Lack of understanding of EE business value



Market Intervention

- Partnered with Northwest Food Processors Association
- Leveraged relationship with U.S. DOE
- Introduced industry to CEI

Regional Results

- 130 aMW saved by 2015
- 20% processors implementing energy management in two years
- Set industry-wide goal to reduce energy intensity by 25% in 10 years and 50% in 20 years

Key Points



- Segmentation
- Regional Challenges
- Barriers and Strategies
- Technologies
- Behaviors

Questions / Comments

Accelerating
Market
Adoption

Filling the
Energy
Efficiency
Pipeline

Delivering
Regional
Advantage

