



Northwest Energy Efficiency Alliance  
*Powered by Regional Leverage*  
*"Roundtable" Event*

Claire Fulenwider  
Executive Director  
Northwest Energy Efficiency Alliance

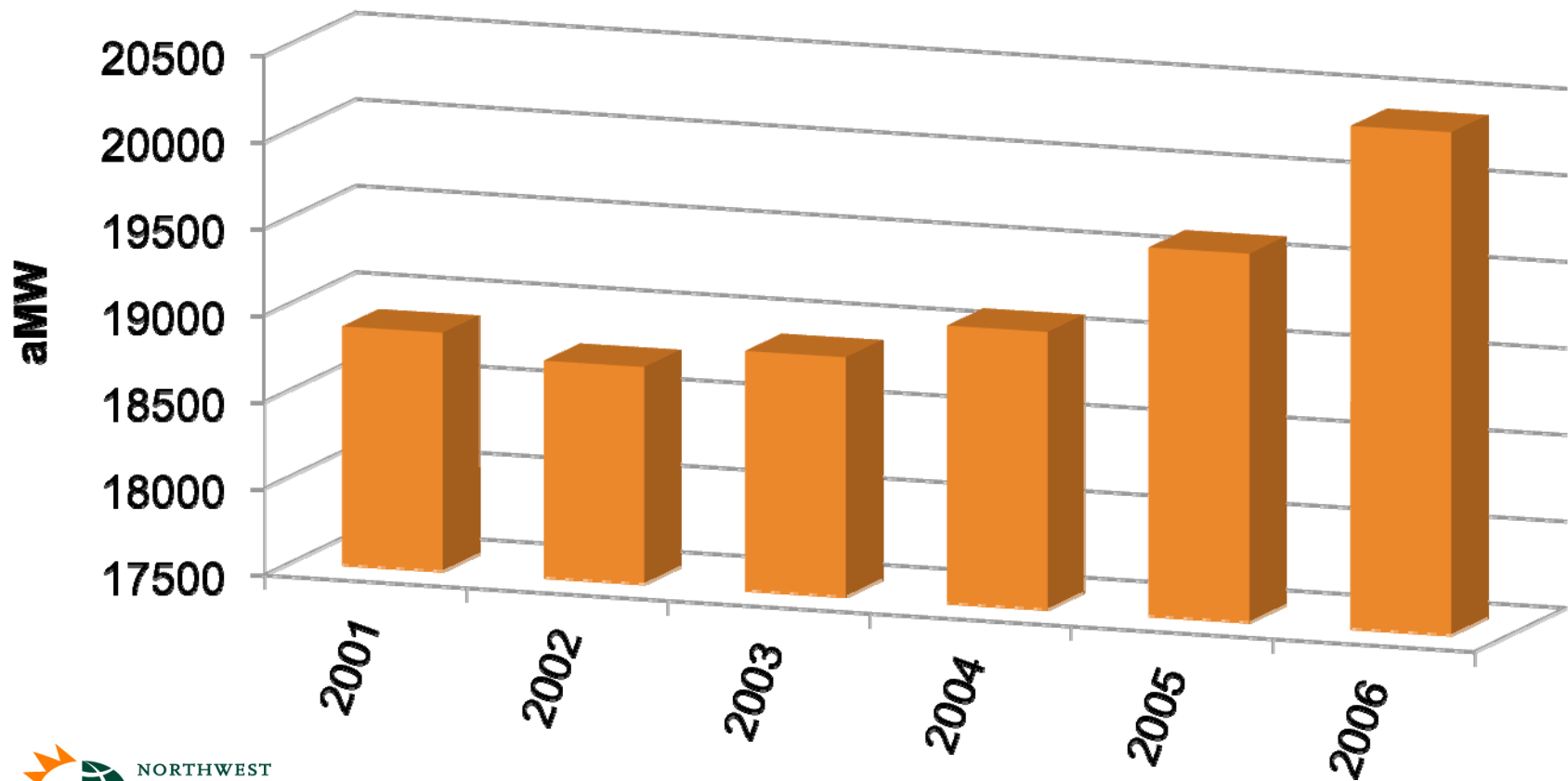
Wednesday, November 12, 2008  
Spokane, WA

# Agenda

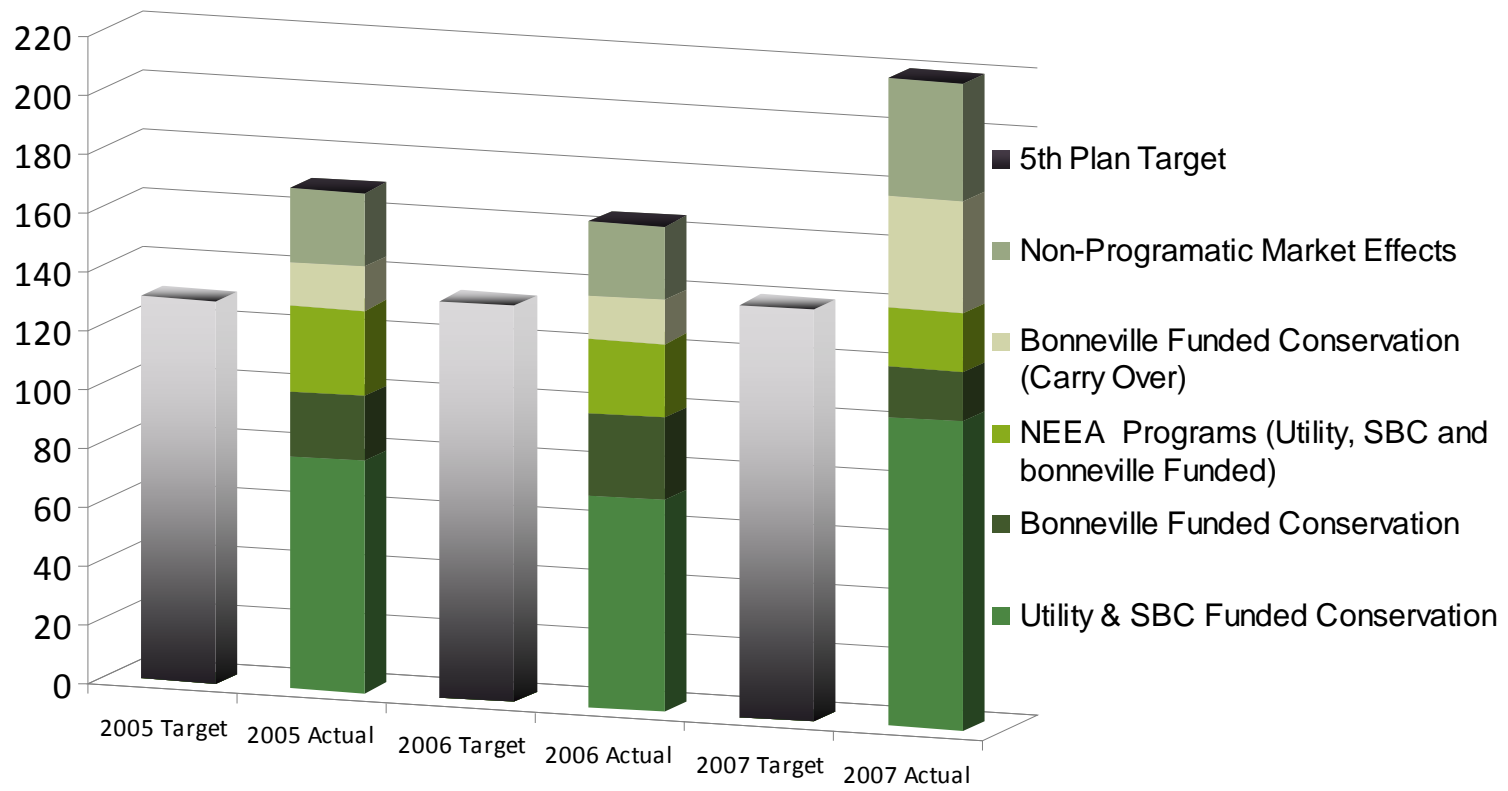
- Current Environment
- 2005-2009 Business Plan
- Conclusion

# Energy Demand in Northwest is Growing

## Temperature Adjusted Actual Loads

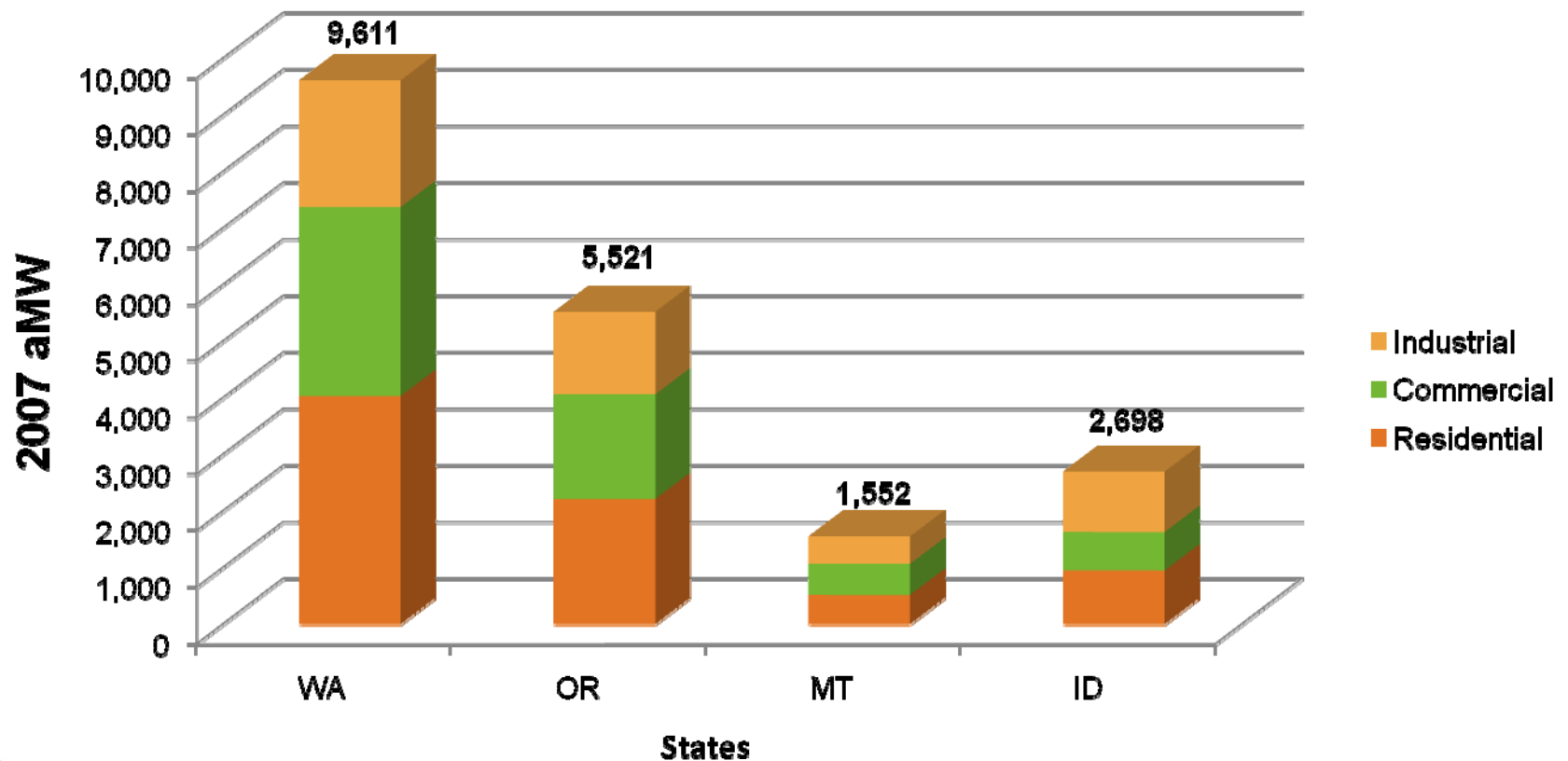


# 5<sup>th</sup> Power Plan Energy Efficiency Targets Exceeded



# States Differ

## Energy Use by State and Sector



# NEEA Vision and Mission

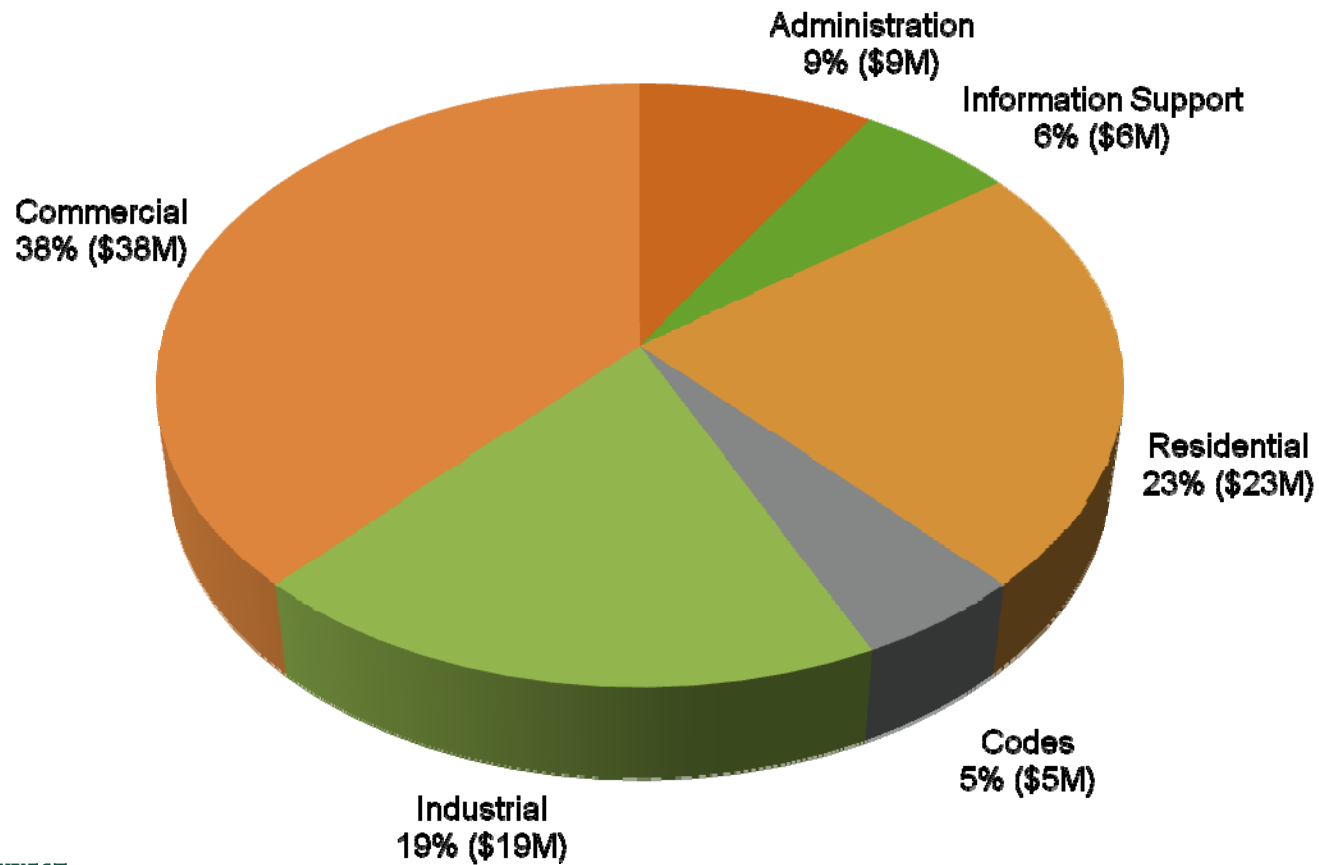


**Vision:** Energy efficiency is a cornerstone of a vibrant sustainable Northwest.

**Mission:** Mobilize the Northwest to become increasingly energy efficient for a sustainable future.

# Current Picture

## 2005–2009 Budget (\$100 million)



# Who We Are



## Owners:

- Bonneville Power Administration
- Energy Trust of Oregon
- More than 130 electric utilities across Wash, Ore., Mont. and Idaho

## Supported by:

- State governments
- Energy industry representatives
- Public interest groups

## Team:

- 32 full-time staff
- Wide range of contractors

## Brands:

- Northwest ENERGY STAR
- BetterBricks
- Continuous Energy Improvement

# Board Leadership

NEEA Chair



Craig Smith,  
Assistant General Manager



NEEA Vice Chair



Roger Woodworth,  
VP, Customer Energy Solutions



NEEA Secretary



Mike Weedall,  
Vice President, Energy Efficiency



NEEA Treasurer



Kathy Hadley,  
Executive Director



Robert Balzer,  
Director Conservation Resources



Ted Coates,  
Power Manager



Pat Egan,  
Vice President, Customer  
& Community Affairs



Margie Harris,  
Executive Director



Warren Kline,  
VP, Customer Services  
& Regional Operation



Sara Patton,  
Executive Director



Cal Shirley,  
VP, Energy Efficiency Services



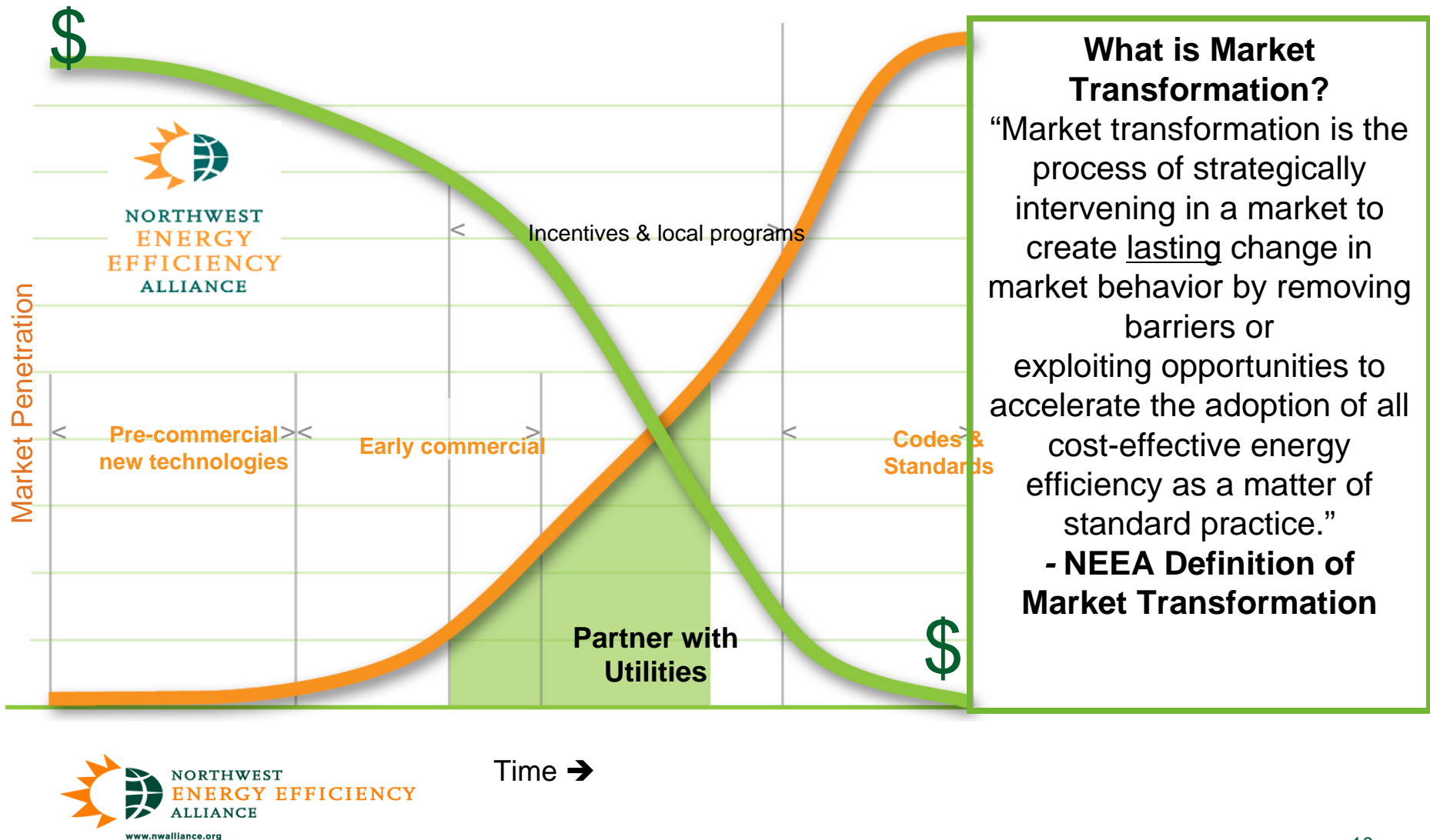
Brian Skeahan,  
General Manager



Deb Young,  
Program Manager

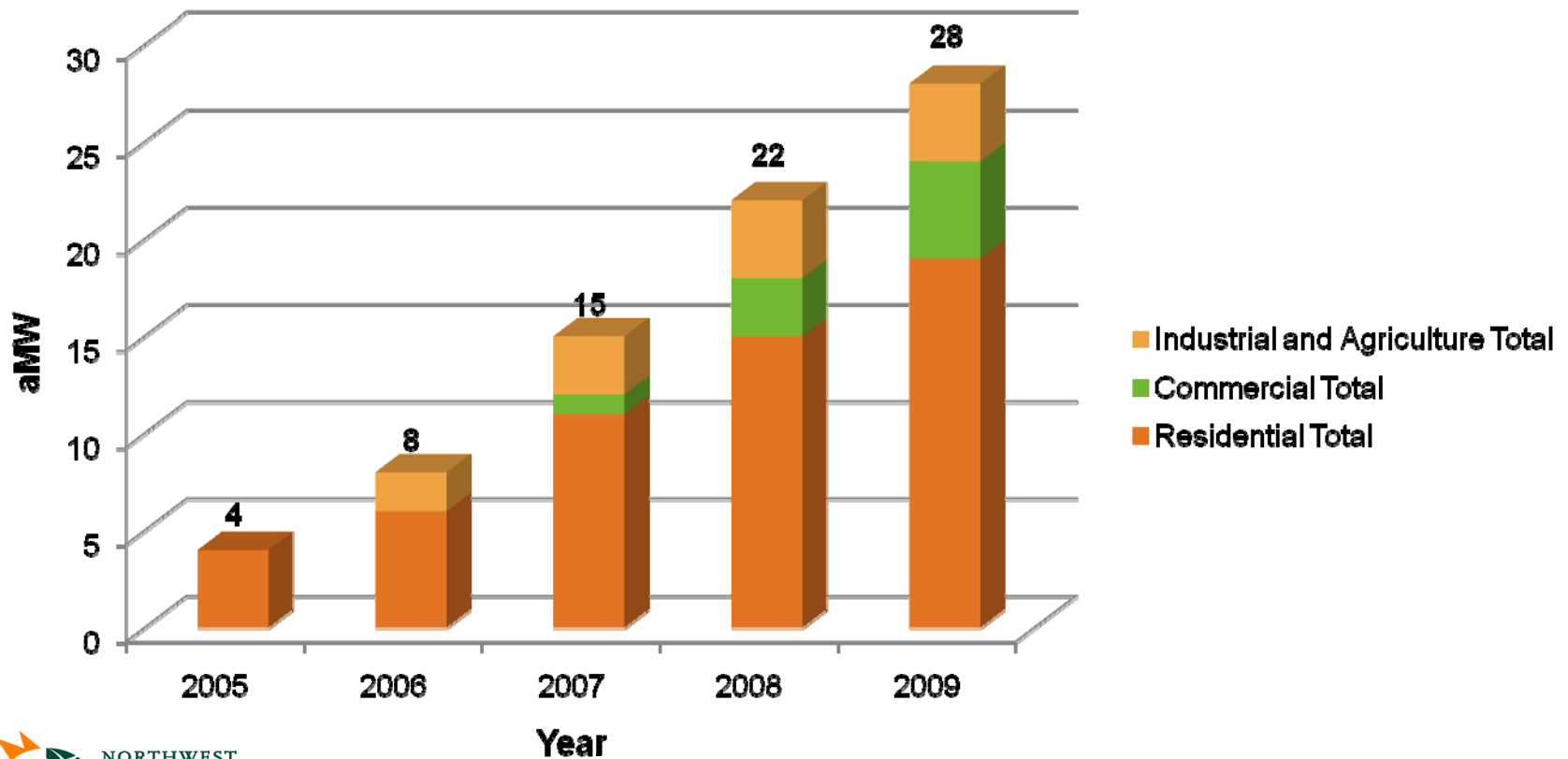


# Market Transformation



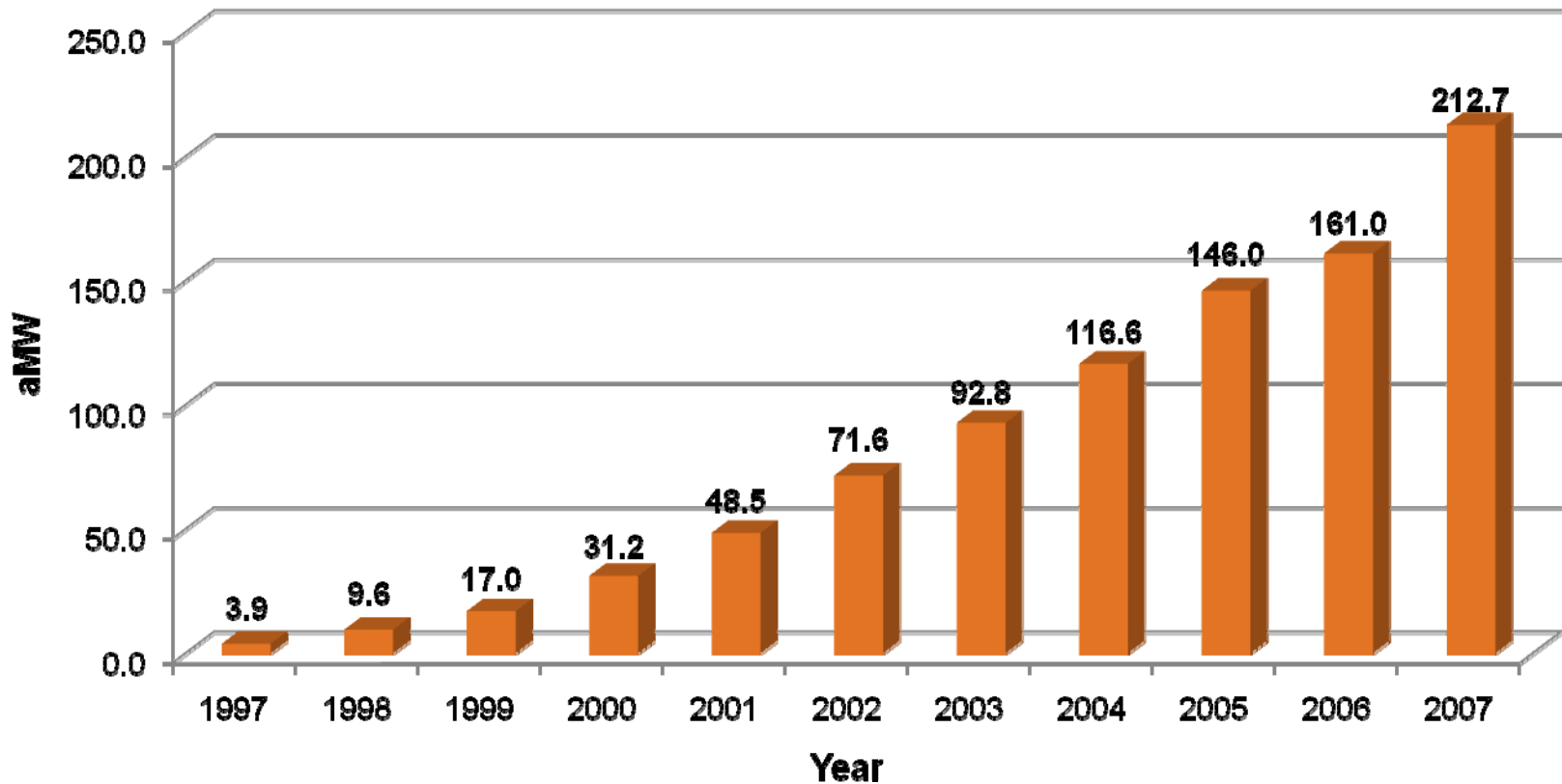
# 2004-2009 Business Plan Goal

## 2005–2009 Annual Energy Savings (Total 75aMW)



# Since 1997 (Cumulative Net Market Effect)

## Cumulative Net Market Effects



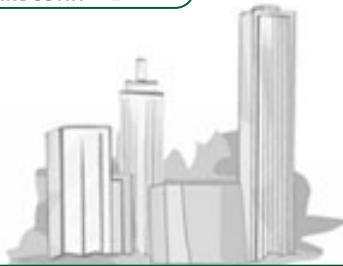
# Current Initiatives



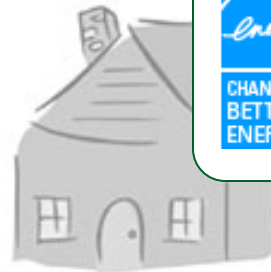
**NORTHWEST  
ENERGY  
EFFICIENCY  
ALLIANCE**



**CONTINUOUS ENERGY  
IMPROVEMENT** ▲▲▲  
FOR INDUSTRY ▲



**BETTERBRICKS**  
*Bottom line thinking on energy.*



**CODES &  
STANDARDS**



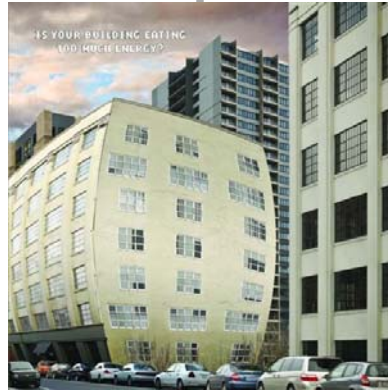
**SPECIAL PROJECTS**

# Reaching Upstream

Residential



Commercial

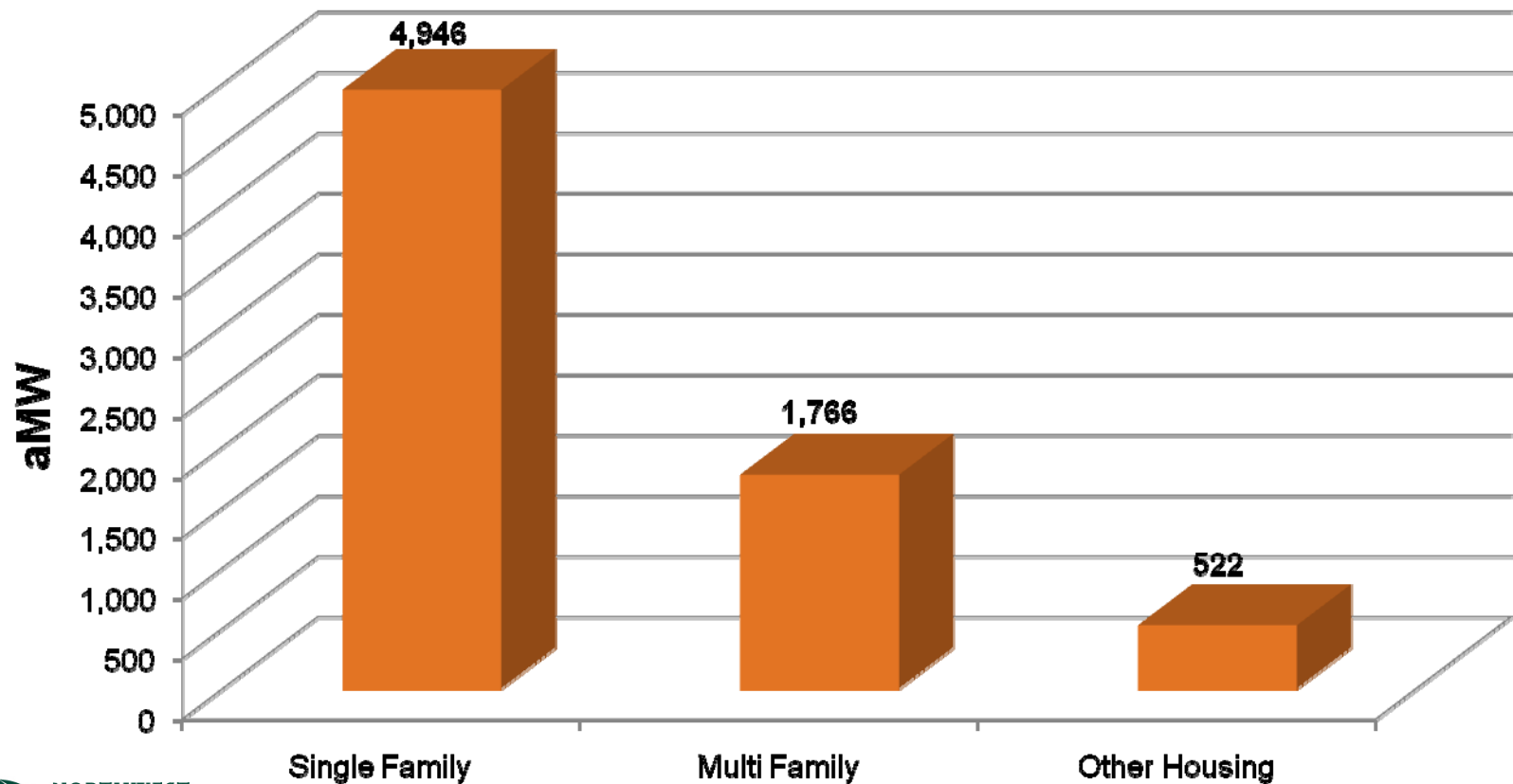


Industrial



# Residential Breakdown

## 2005 Residential Electricity Consumption (7,233 aMW)



# Residential Initiative



Our residential initiative focuses on new homes and consumer products under the ENERGY STAR brand.



# Residential Initiative

## Residential Goals

- Stimulate demand & foster supply for ENERGY STAR new homes and products.

## Expected Outcomes

- 14% market share for ENERGY STAR new homes
- CFL sales of 10.8 million by 2009 – *Achieved 18 million in 2007!*
- 50% of clothes washers are MEF 1.8 or above in 2007 – *Achieved in 2006*

*Together, region is on the path to save 54 aMW through its residential efforts by the end of 2009.*

# Case Study: Compact Fluorescent Lamps



## Barriers

- Quality and price
- Did not meet consumer expectations
- CFLs had only 1% market share
- Many more over last decade

## Intervention

- Partner with utilities
- Increase consumer awareness
- Get CFLs into retail stores
- Address size and quality issues

## Results

- 18 million CFLs sold in 2007
- Sales four times the national average
- 3 billion kWh saved in 2007

# Residential Case Study: Washers



## Barriers

- Small market share
- Low consumer awareness of benefits
- Prices high compared to other models

## Intervention

- Partner with utilities
- Rebates to boost sales
- Partner with manufacturers & retailers
- “Best of the best” pushed sales of the highest efficiency models

## Results

- 2/3 of washers sold meet ENERGY STAR standards
- Projected savings of 100 aMW annually by 2010

# Ductless Heat Pumps Pilot (through 2009)

## Analysis

- Potential savings of 200 aMW or double if manufactured homes are included
- 500,000 electrically heated homes in Northwest
- Proven internationally but not in U.S.

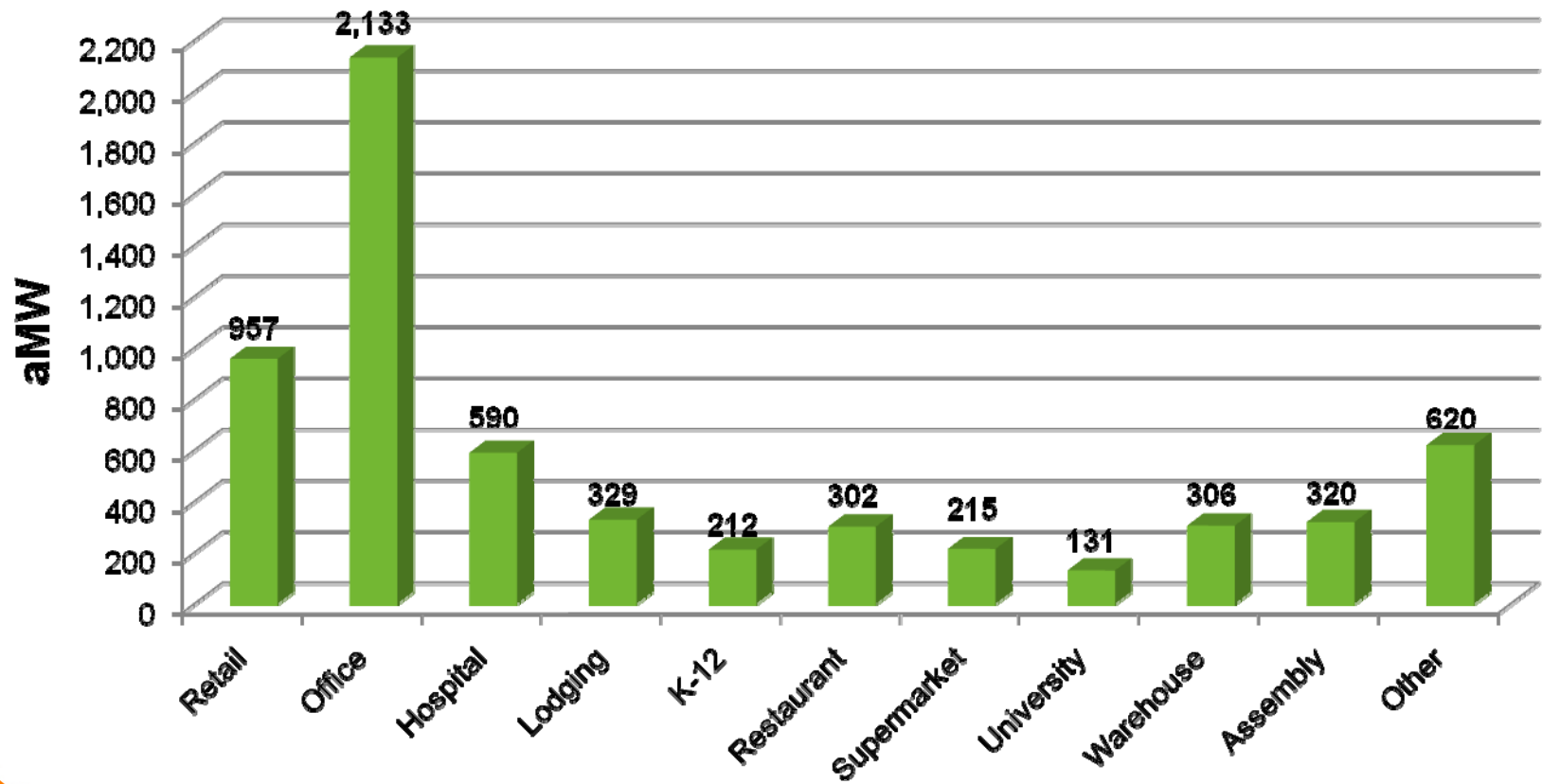


## Expected Pilot Outcomes

- Market barriers identified
- Up to 2500 units installed (in diverse areas)
- Confirm cost-effectiveness
- Understand how to prepare for large-scale deployment
- Identify non-energy benefits
- Understand consumer behaviors and reactions

# Commercial Breakdown

## 2005 Commercial Sector



# Commercial Initiative



Our commercial sector initiative focuses on hospitals, grocery stores and real estate.

## COMMERCIAL SECTOR INITIATIVE

### VERTICAL TARGET MARKETS

	HOSPITALS AND HEALTH CARE	GROCERY	REAL ESTATE	
COST-CUTTING MARKETS	DESIGN & CONSTRUCTION			OTHER BUILDINGS
	BUILDING OPERATIONS			

# Commercial Goals & Expected Outcomes

## Commercial Goals

- Make energy efficiency a part of decision making
- Transform trade ally products and service offerings within the cross-cutting design & construction & building operations market

## Expected Outcomes

- 25% more efficiently designed buildings in up to 40% of market
- 10% more efficient operations in up to 40% of market
- 9 aMW savings

# Commercial Case Study: Hospitals and Healthcare



## Barriers

- Competing priorities
- No executive buy-in
- Capital Constraints

## Intervention

- Partner with utilities
- Target C-level execs
- Introduce Strategic Energy Management
- Leverage integrated design labs

## Results

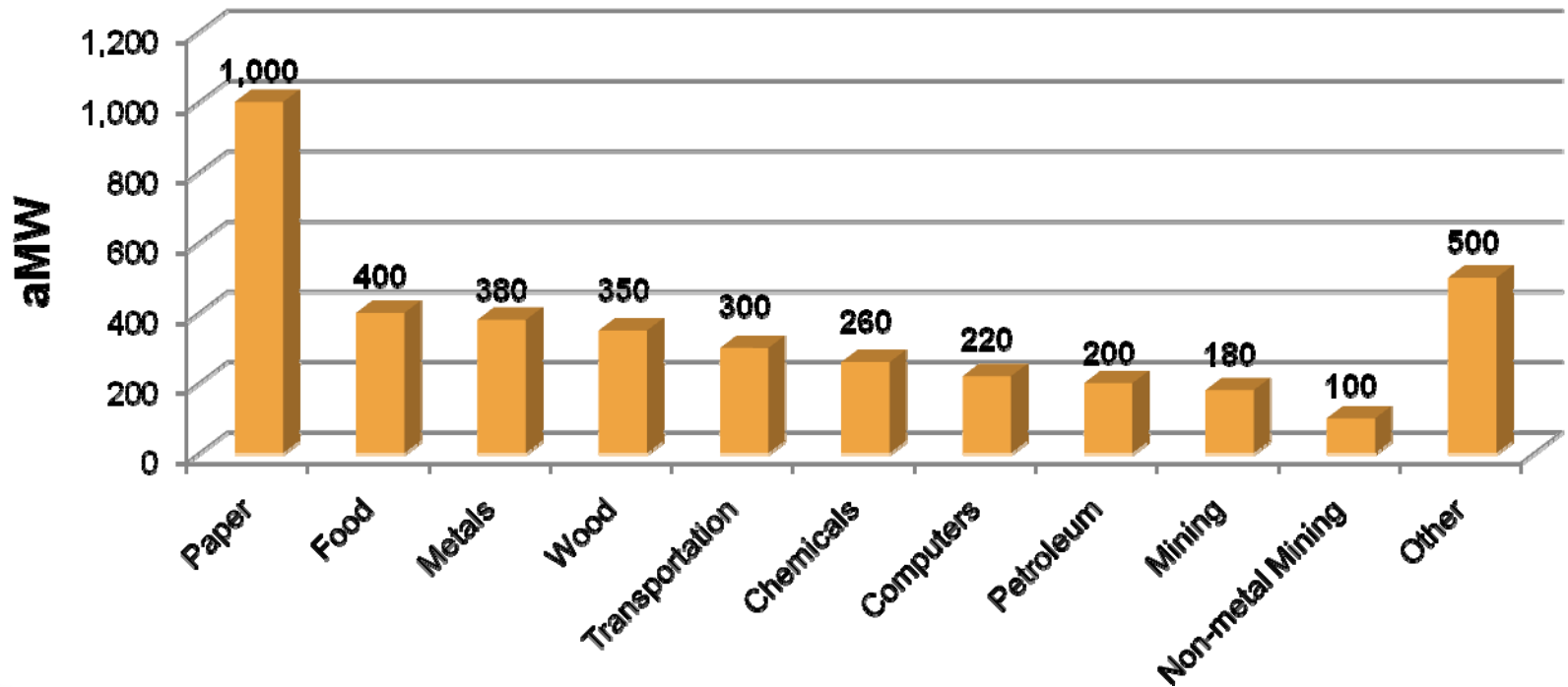
- 32% committed to SEMP
- Hospitals set 10-30% reduction targets
- 75% awareness by decision makers

# Industrial Initiative

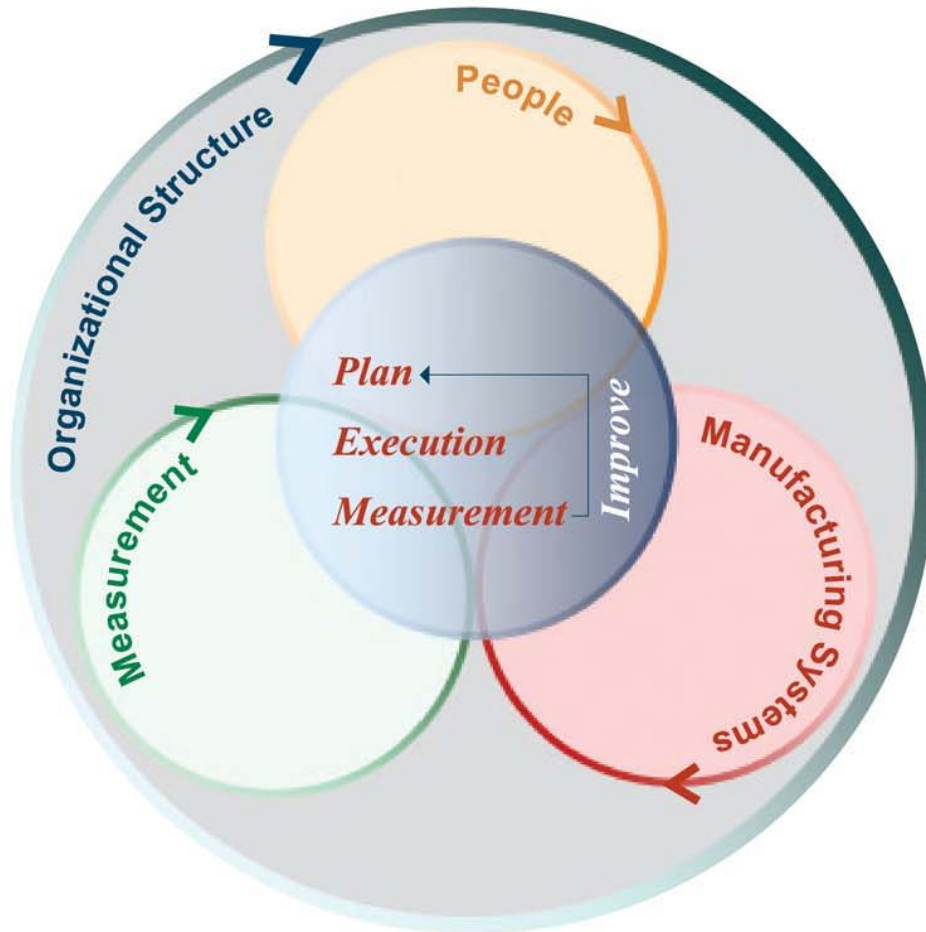


**CONTINUOUS ENERGY  
IMPROVEMENT** ▲  
▲  
▲  
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**FOR INDUSTRY**

Our industrial initiative focuses on food processing and pulp and paper.



# Empowering Industry



**CONTINUOUS ENERGY** ▲  
**IMPROVEMENT** ▲  
FOR INDUSTRY ▲

# Industrial Energy Management - Case Study



## Barriers

- Energy management not a priority
- Decentralized decision making
- Past focus on technology solutions

## Intervention

- Focus on food processing & pulp/paper
- Collaboration with regional utilities
- Make energy management a core business practice.
- CEI implementation assistance

## Results

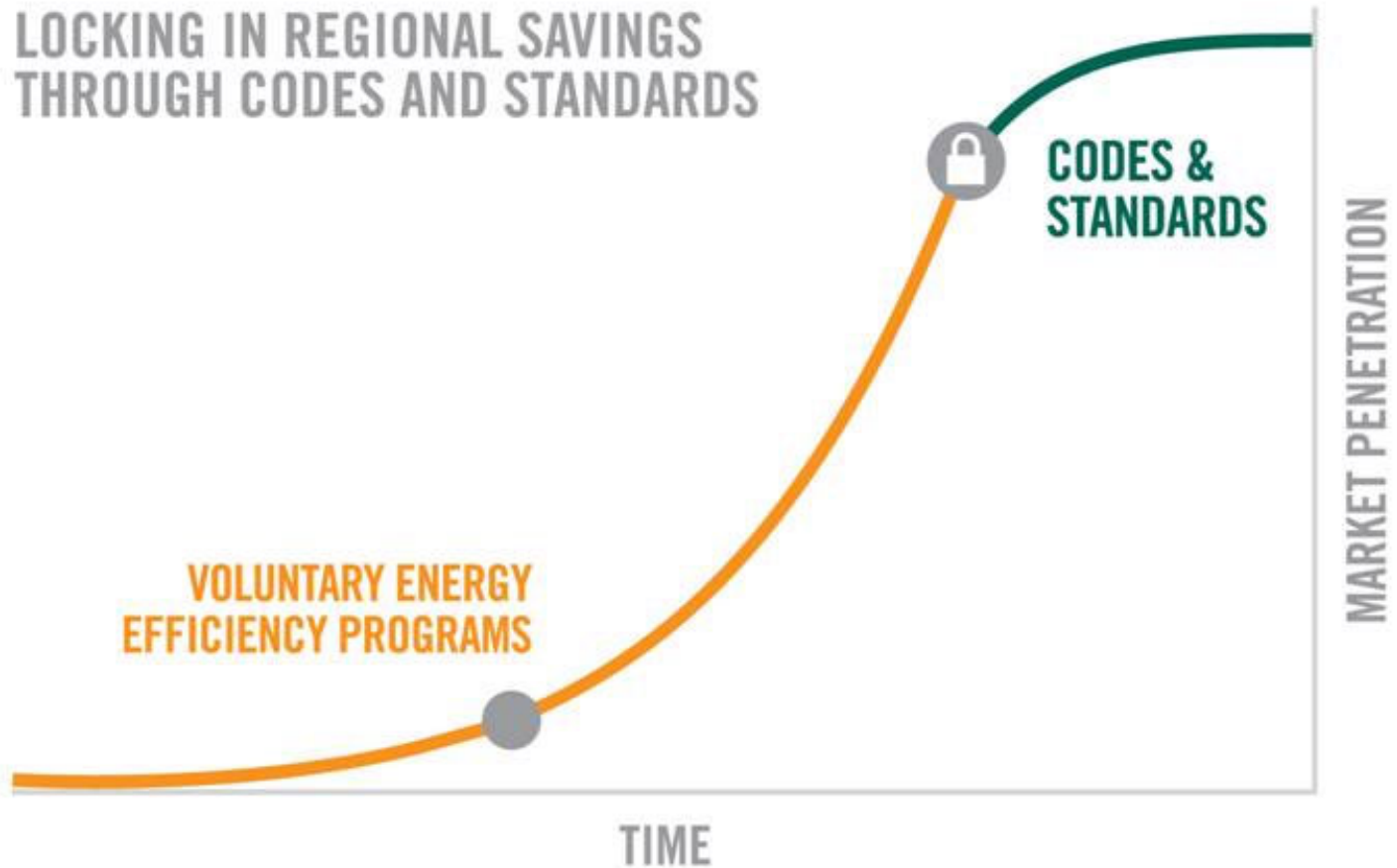
- Focus on two largest industrial energy users: food processing & pulp & paper
- Regional coordination
- Potential to save 6 aMW by 2010

# Action Plan: How to Reduce Energy By 50% in 20 Years in Food Processing

- ✓ Industry Commitment
- ✓ Support food processing industry in developing 10- to 20-year **industry energy roadmap**
- ✓ Further develop **CEI**
- ✓ Ensure availability of qualified energy management **resources**
- ✓ Make an industry & CEO level **business case**
- ✓ Ensure availability of industry-specific **technical opportunities**

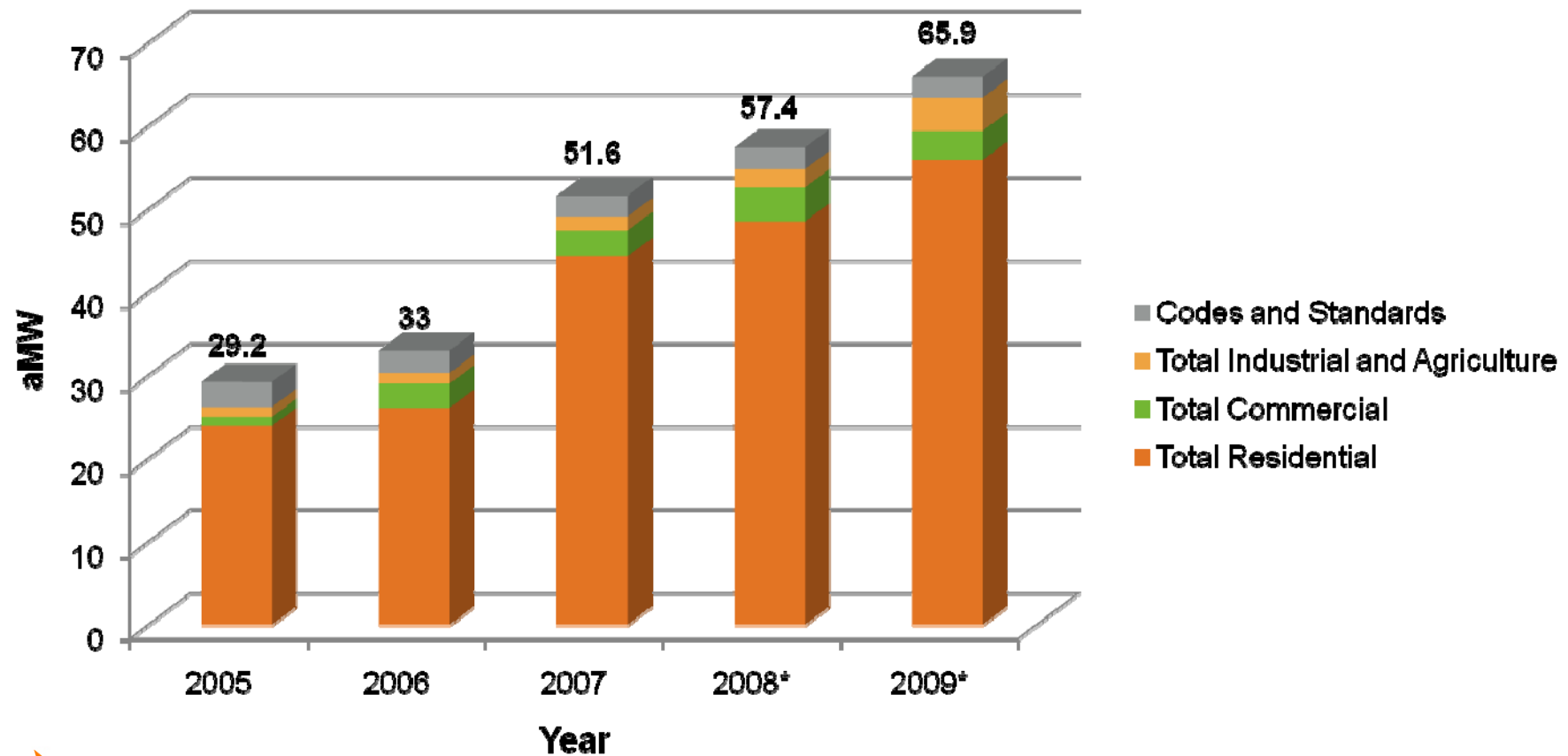


# Codes and Standards



# Actual and Forecast Through 2009 (100+ aMW Cumulative)

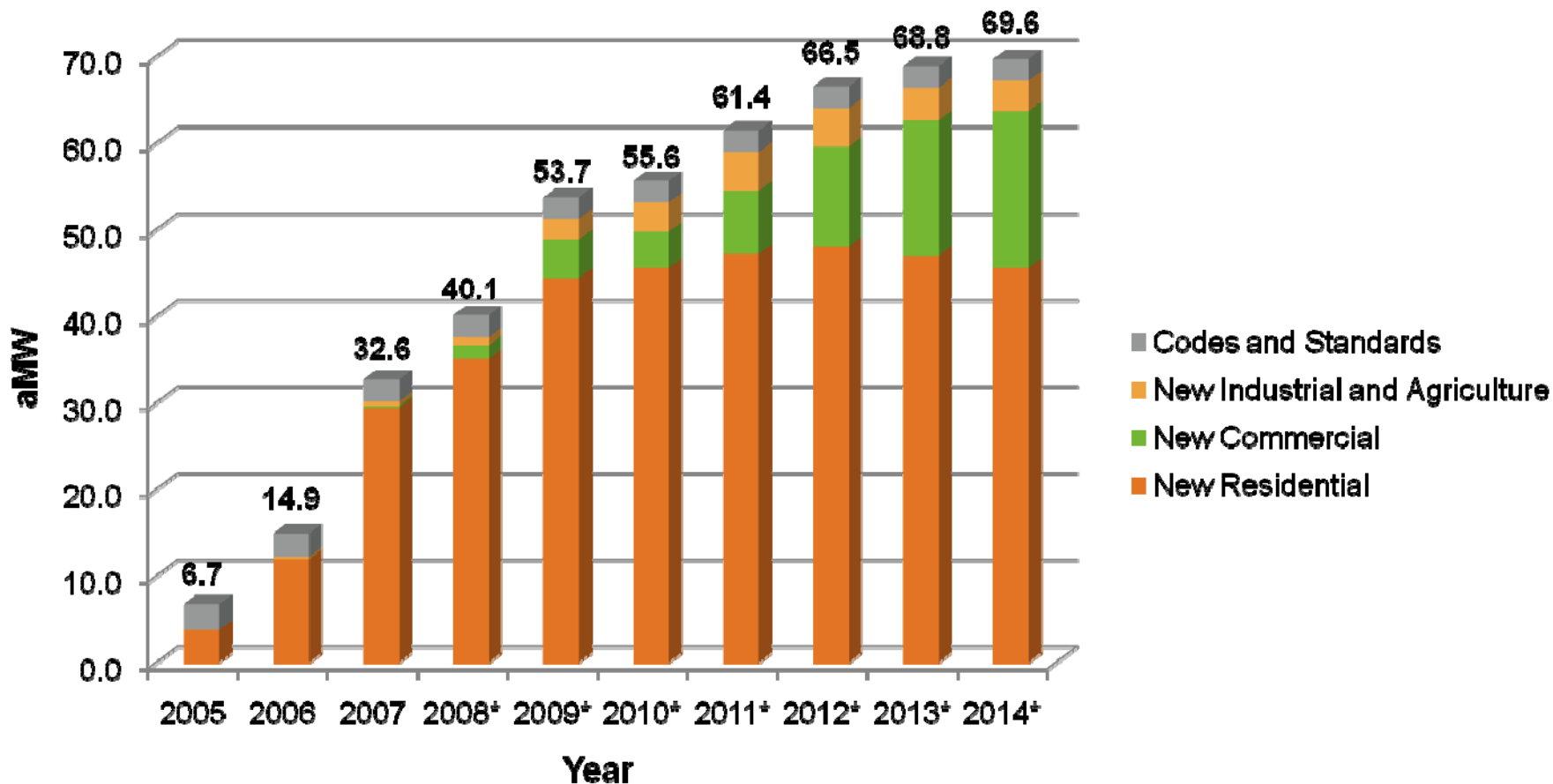
## Incremental Net Market Effects by Category (All Funding Cycles)



\*Projected Figures

# Forecast Through 2014

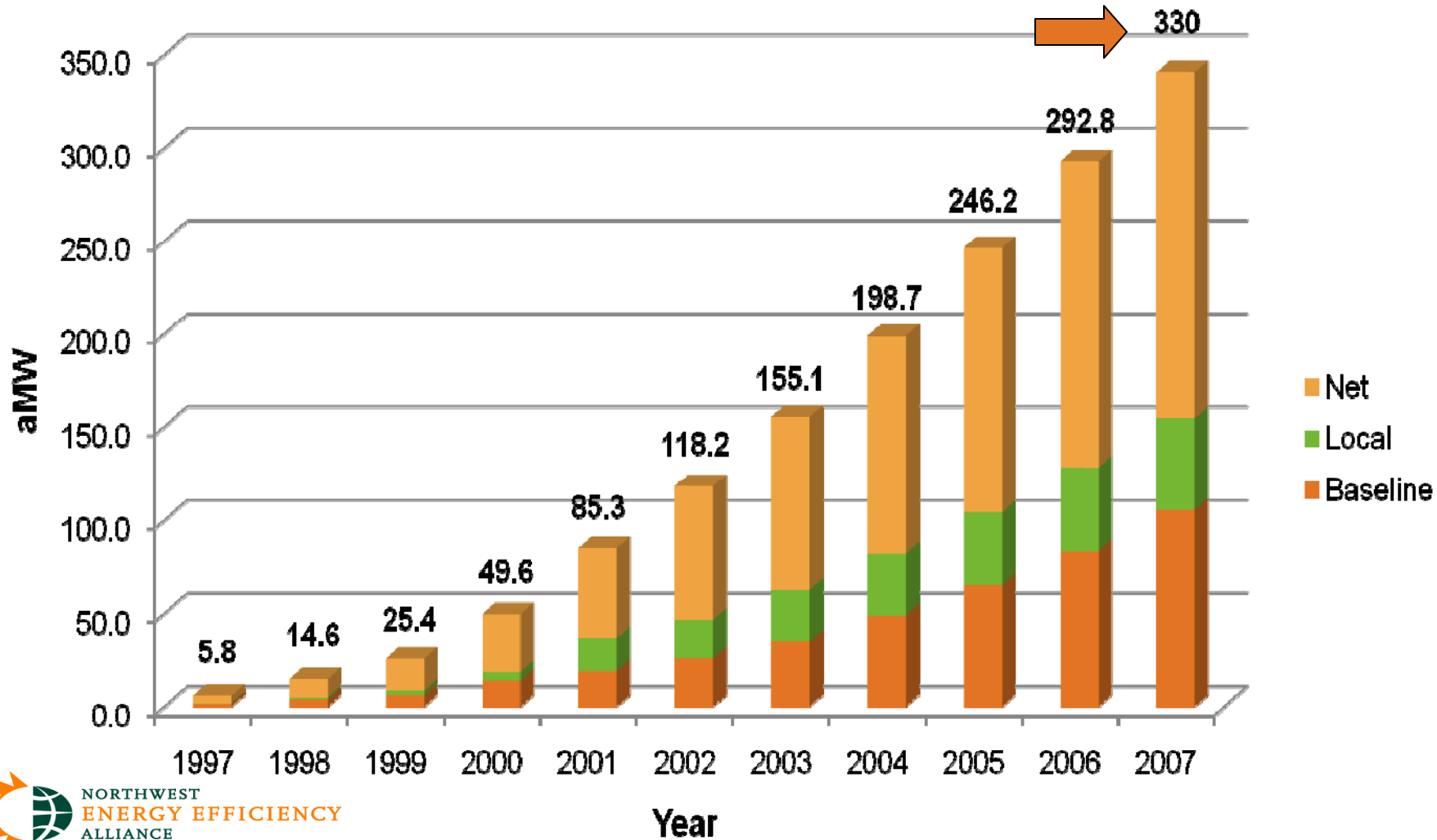
## Incremental Net Market Effects by Category (Currently Funded Programs)



\*Projected Figures

# Regional Cumulative Savings from Prior Investments

## Cumulative Savings from Previous Investments

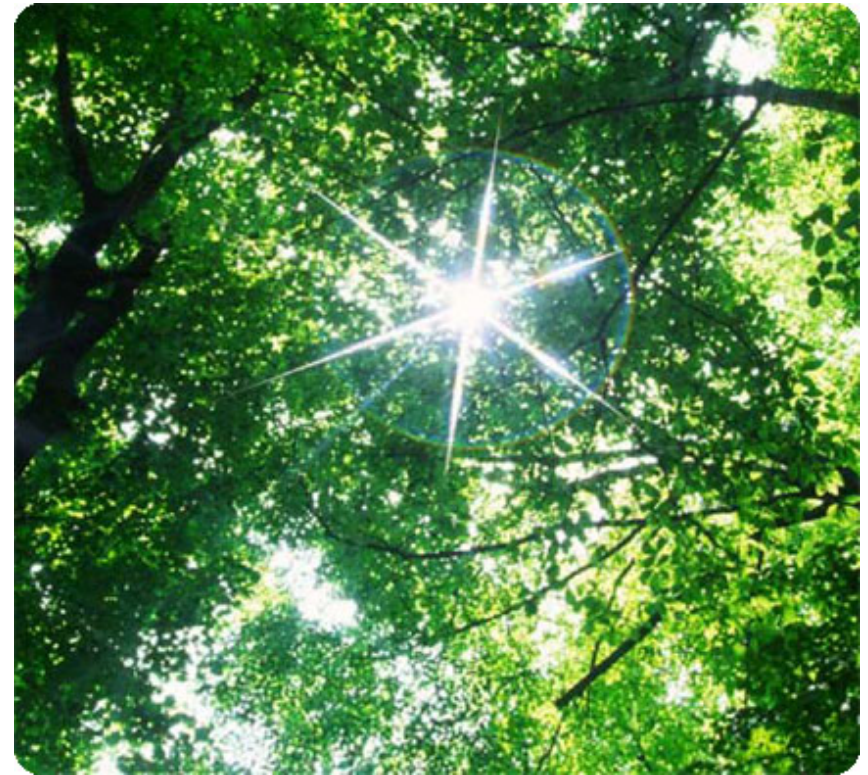


# NEEA Current Challenges

- Tension between short-term and long-term aMW
- Scaling up quickly to meet today's demands
- Increased complexity
- Less low-hanging fruit
- “Renewables” own consumer mindshare, not EE
- Finding “Next CFL” – low investment in the pipeline

# Strategic Plan Goals

- Increase market adoption
- Help Northwest energy efficiency organizations achieve their goals
- Build market knowledge and market capability
- Facilitate market availability of new opportunities
- Promote energy efficiency
- Facilitate holistic regional energy efficiency planning and implementation



# Conclusion

- \$100M / \$20M per year to reach 75 aMW
- On Track to Exceed Business Plan Goal
- Through 2007, we reported 45 aMW net savings
- Projecting 100 aMW through 2009
- Worth noting - Prior investments accumulated 175 aMW through 2007
- To date, core investment of ~\$200 million over ten years has built an energy efficient power plant delivering ~220 aMW to the region



NORTHWEST  
ENERGY EFFICIENCY  
ALLIANCE

Thank You

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