



# NEEA Review for WUTC Commissioners

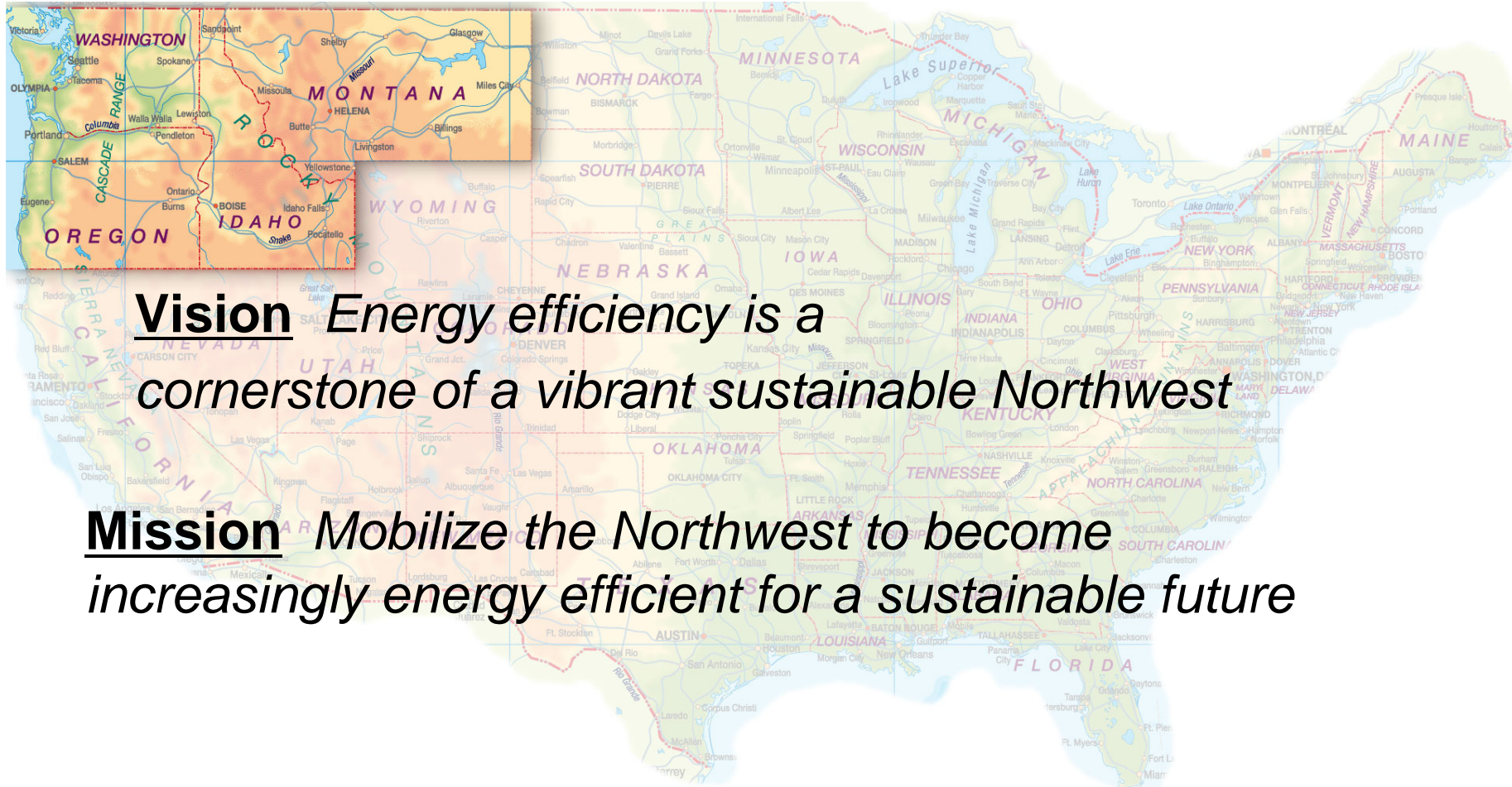
June 21, 2010

Jeff Harris, Director of Emerging Technologies  
Northwest Energy Efficiency Alliance

# Today's talk

- About NEEA
- What is Market Transformation?
- 2010-2014 Business Plan activities
- Delivering value to Washington state ratepayers
- Future topics for next workshop

# 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*

# Governance structure

## NEEA CHAIR



**Roger Woodworth**  
Vice President



## NEEA VICE CHAIR



**Margie Harris**  
Executive Director



## NEEA SECRETARY



**Anita Decker**  
Chief Operating Officer



## NEEA TREASURER



**Warren Kline**  
VP, Customer Svcs  
& Regional Ops



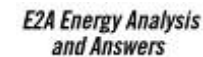
**Melinda Eden**  
Council Member



**Rhys Roth**  
Director, Clean Energy  
Programs



**David Hawk**  
Owner



**Brian Skeahan**  
General Manager



**Cal Shirley**  
VP, Energy Efficient  
Services



**Pat Egan**  
VP, Customer and  
Community Affairs



**Bill Drummond**  
General Manager  
Western Montana  
Electric G&T  
Cooperative



**Clay Norris**  
Director, Power  
Resources Division



**Deb Young**  
Program Consultant



**Craig Smith**  
Assistant General  
Manager



# NEEA Strategic Plan Goals

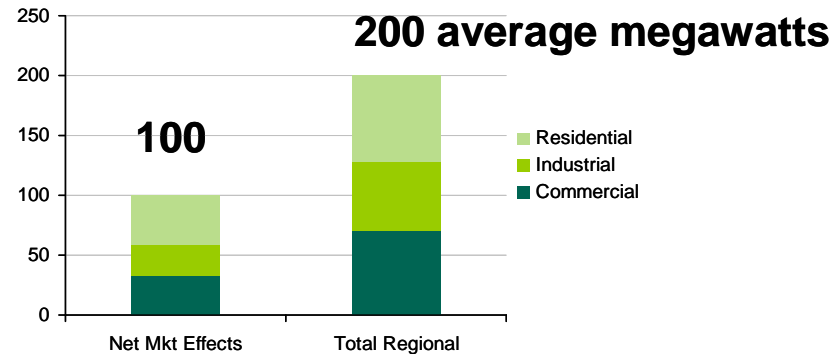
1. Increase market adoption
2. Help Northwest utilities and other energy efficiency organizations achieve their goals
3. Build regional market capability through education, training and technical support
4. Facilitate emerging technologies and solutions
5. Support the region's efforts to promote energy efficiency
6. Facilitate regional energy efficiency planning and implementation



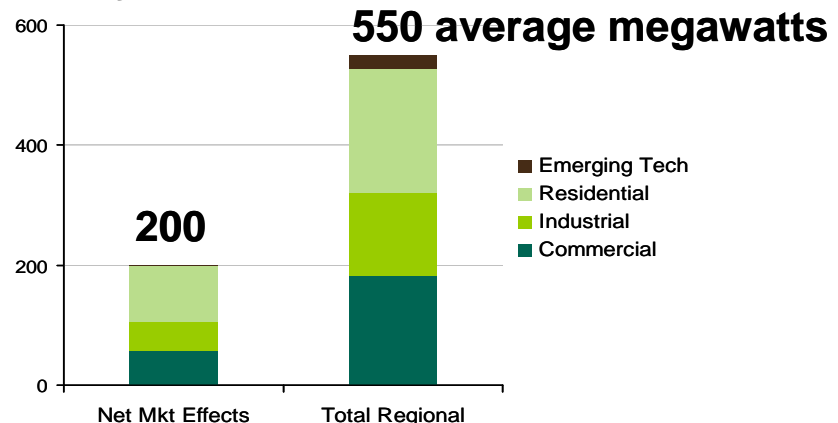
# 2010-2014 Business Plan regional energy savings commitments

- Total resource cost 2.5–3.5 cents / kWh
- NEEA levelized cost 2.0–2.5 cents / kWh

## 5 years

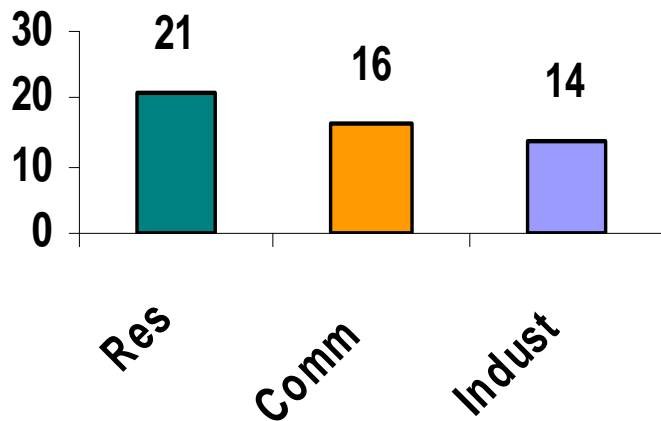


## 10 years

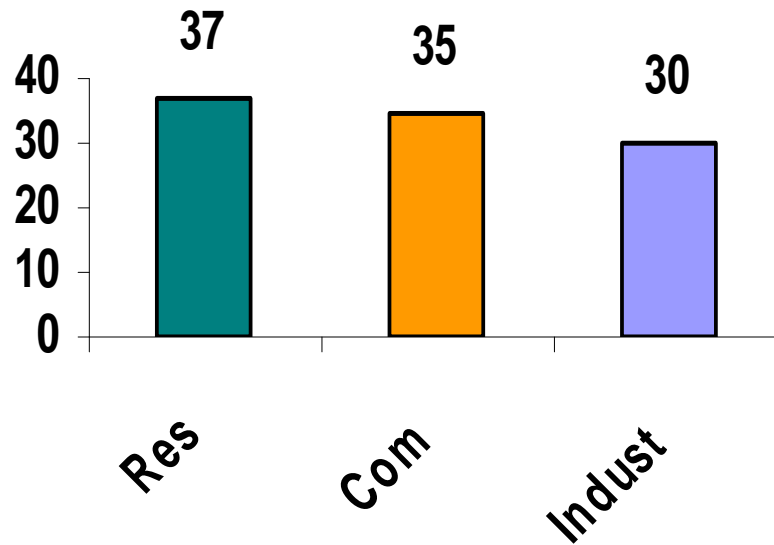


# Washington's share of 2010-2014 Business Plan commitments

**Net market: 51 aMW**



**Total: 102 aMW**



Net market effects are weighted by population (Includes Publics)

# NEEA's value in the region goes beyond the megawatt

- Fill pipeline of emerging technology
- Deliver regional advantage with market actors upstream through market aggregation
- Realize economies of scale
- Lower power cost for all by reducing demand regionally
- “Lock in” savings through Codes & Standards
- Expand market capability regionally
- Avoid resource duplication
- Mitigate risk

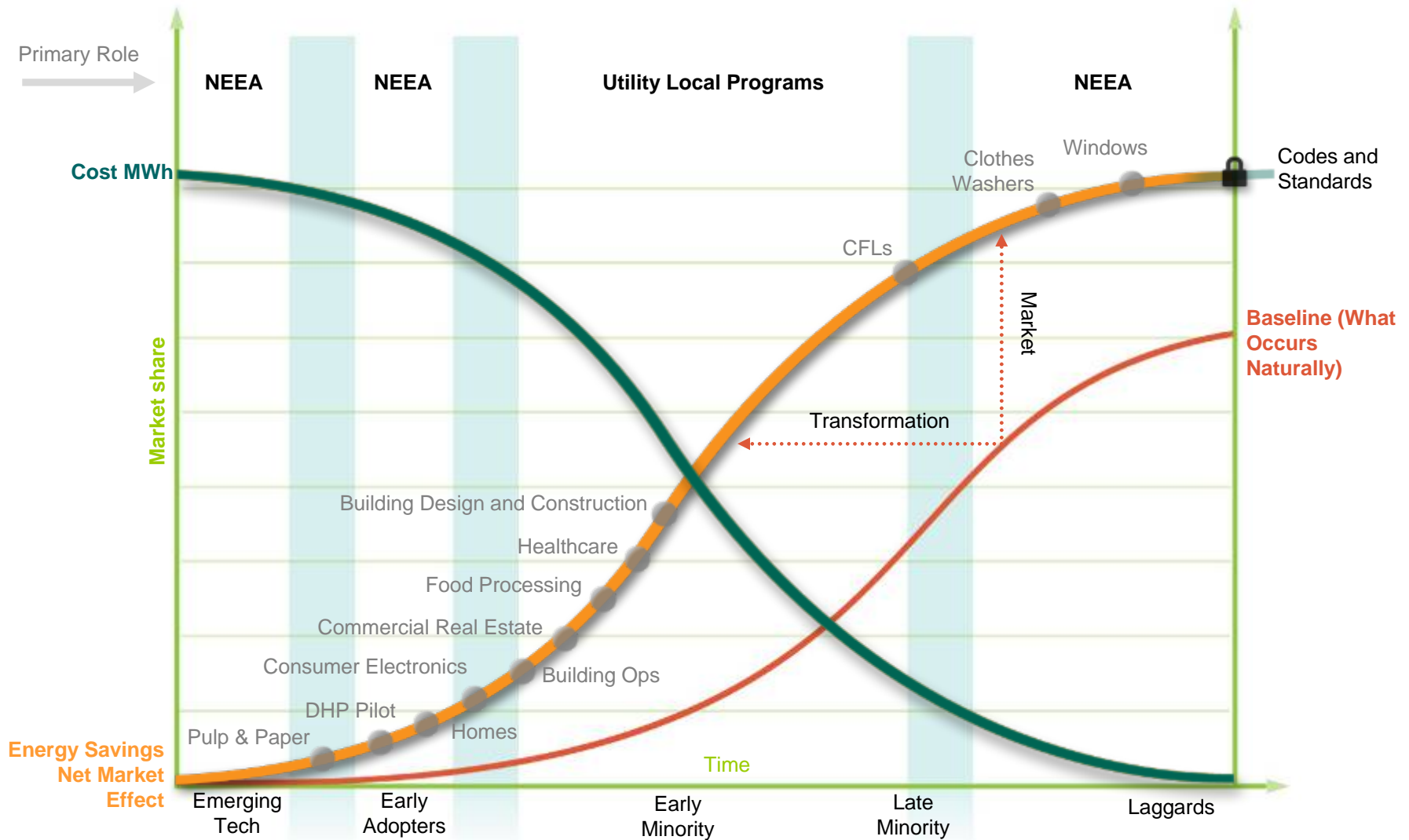




# What is market transformation?

*“Market Transformation is the **strategic process** of intervening in a market to create **lasting change** in **market behavior** by removing identified **barriers** or exploiting **opportunities** to accelerate the adoption of all cost-effective energy efficiency as a matter of **standard practice.**”*

# Market transformation: accelerating and increasing market adoption



# NEEA 2010-2014 Business Plan activities



- Residential
- Commercial
- Industrial
- Codes and Standards
- New: Emerging Technologies
- New: Partner Services

# Residential sector initiatives



*Goal: 44 aMW total regional savings over 5 years*

- **New construction: support code efforts**
  - Support ENERGY STAR New Homes and EE as component of Green Homes
  - Continue to support certification infrastructure
  
- **Retail consumer products: electronics**
  - Objective is to increase share of high-efficiency TVs through retail stocking, and marketing & manufacturer interaction
  - TVs, computers and monitors
  - Future consumer products to be identified by emerging technology group
  
- **Ductless heat pumps (DHPs)**
  - Retrofit opportunity for electric baseboard heat
  - Creates new opportunity for local HVAC industry—with over 1970 DHPs installations in WA in 2009

# Commercial sector initiatives



THE BOMA SEATTLE | KING COUNTY  
**K I L O W A T T  
C R A C K D O W N**



*Goal: 41aMW total  
regional savings over 5  
years*

## ▪ **Market focus on real estate**

- Helping organizations with Strategic Energy Management
- Improving building performance through 'Kilowatt Crackdown' contest—catalyzing outstanding WA participation in energy benchmarking—28 million sq ft or 30% of commercial office space in Puget Sound. Program resulted in ~ 1.2 aMW savings in 2008

## ▪ **Education and training**

- Providing training and tools to design community (Integrated Design Labs in Seattle and Spokane); 118 events trained over 5,000 region-wide
- Building market skills and capacity within design and operations communities

## ▪ **Business electronics**

- Encouraging energy-efficient power supplies for computers, working with IT managers and manufacturers to demand and supply efficient products/services

# Industrial sector initiatives



*Goal: 41aMW total regional savings over 5 years*

- **Continuous work in Strategic Energy Management** supports companies to integrate best practices
  - Developed Continuous Energy Improvement (CEI) as widely-accessible energy efficiency methodology and proved that CEI leads to validated energy savings of approximately 2% each year, cumulative over time
- **Partnership with DOE is supporting NW Food Processors Assoc.** is to help the industry reach its goal of 25% energy reduction in 10 years
- **Growing training courses** for 400+ people annually representing nearly 150 facilities with 12 new courses added this year
  - 95% reported trainings provided them the tools to improve energy efficiency at their facility; 97% attendees satisfied

# Codes & Standards deliver continued value

- **Since 1997** NEEA has continually supported code development, training and education in WA in partnership with the Department of Commerce, the WSU Energy Extension Program and the Northwest Energy Efficiency Council
- **Currently ramping** up codes and standards work to reflect increased utility and state interest due to I-937, SB5854 and the governor's Climate Action Taskforce
- **Trainings:** Last 12 months conducted over 31 trainings with 700+ participants; 2010 likely to see close to 100 trainings with over 1,500 total
- **Active role in federal standards** development

# New: Emerging Technologies initiative

**Goal:** Fill the pipeline

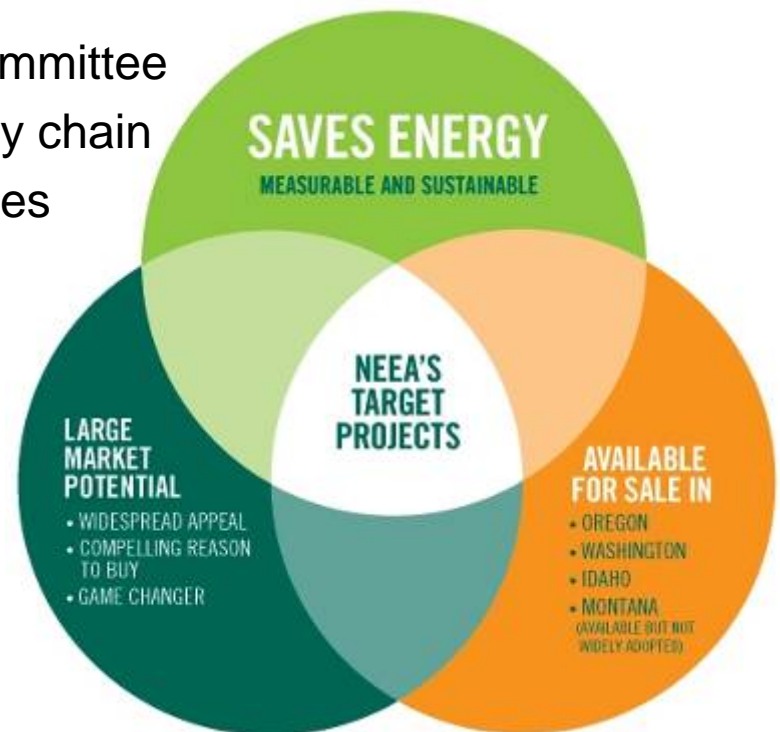
**Metric:** Maintain 300 aMW portfolio

## Activities

- Coordinate regional efforts – Advisory Committee
- Represent region – Single focus for supply chain
- Find, develop & transition new opportunities

## Examples

- Heat pump water heater
- High performance windows
- Green pumps
- Network outdoor lighting controls
- Business IT





# New: Partner Services group

- Regional Online Community for Energy Efficiency
  - Collaboration infrastructure a top need identified by many utilities
  - Web-based resource will facilitate stakeholder information sharing, coordination & collaboration
  - BPA / NEEA partnership with Steering Team
- Annual Energy Efficiency Conference Q4 2010
- Increased regional collaboration
  - NW Research Group and others

# Together, regional value multiplies local success

- **Greater influence**

Aggregates demand to influence supply chain

- **More for less**

Economies of scale are cost effective

- **Least-cost power**

Reduced demand in regional power markets results in decreased overall prices for all NW power customers



# Northwest accomplishments



**1997: Efficient washers**  
50% market share today -  
highest in the nation



**2001: ENERGY STAR  
windows** market share  
hits 75%



BETTERBRICKS  
*Bottom line thinking on energy*

**2005:  
BetterBricks  
healthcare focus**  
– today 30% of  
region's beds  
have adopted a  
SEMP

**2008:  
NW Food  
processing  
industry**  
commits to  
50%  
reduction  
goal

**1996: NEEA  
launched**

**1998:  
BacGen**  
reduces  
wastewater  
treatment  
energy use by  
up to 50%

**2000: VFD  
cold  
storage  
fans** reduce  
energy use  
by 61-86%

**2004: NEEA first  
ntl partner for  
80+ and gets  
Energy Star**  
power  
consumption spec  
for computers



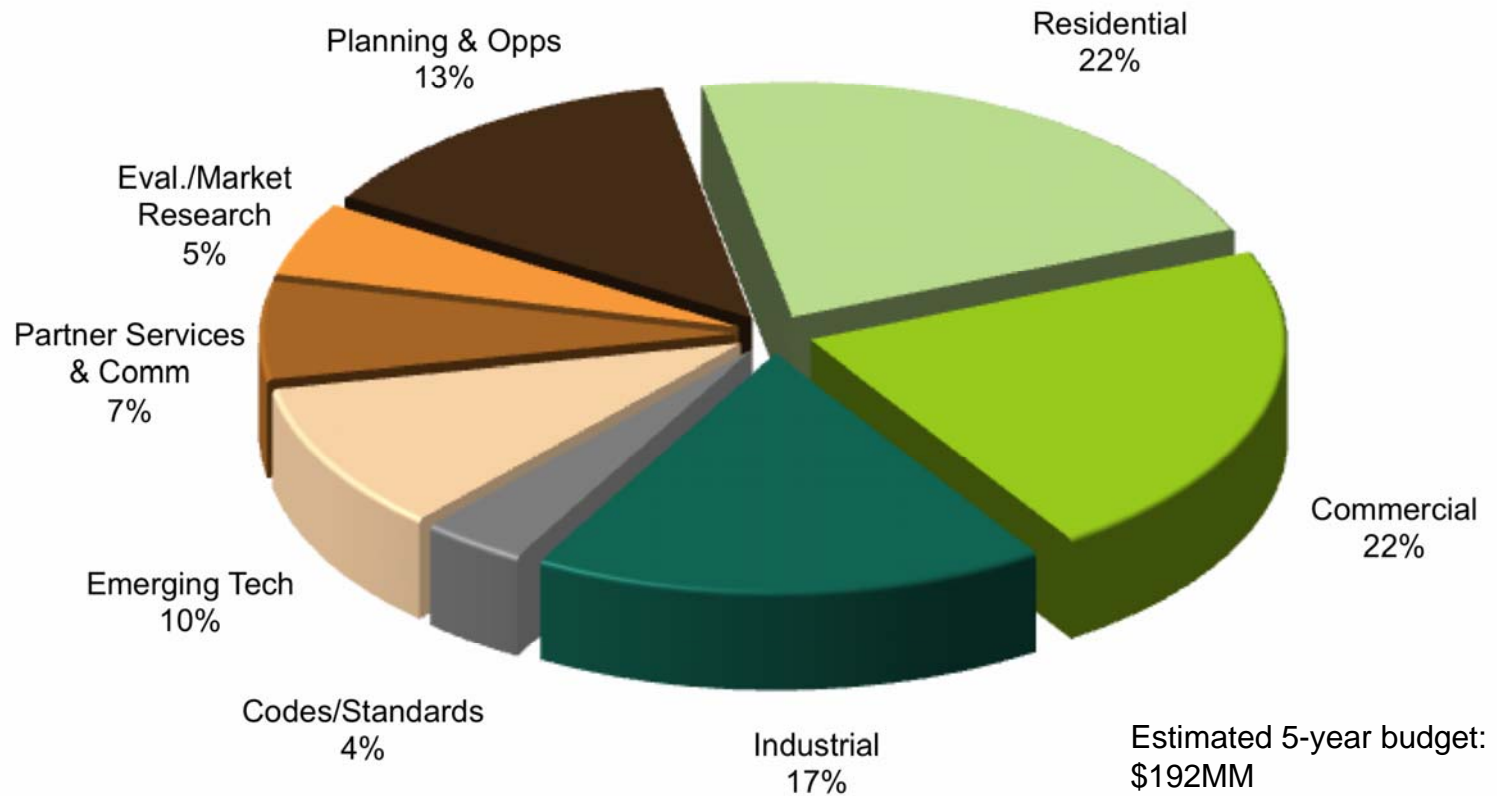
**2004:  
Northwest  
ENERGY  
STAR new  
homes  
spec** –  
15% more  
efficient  
than code

**2007:  
CFL sales**  
top 18  
million



**2009:  
Ductless  
heat pump  
pilot begins**

# NEEA budget allocation 2010-2014



# Your support and regional coordination is key

## Market



*Design*



*Industrial*



*Business*

## Efficiency providers



## Consumers



## Commissions



**Public interest groups**

NW Energy Coalition

# Regional value to Washington customers

- Decreased power cost through regional energy demand reductions
- Reduced consumer cost through energy savings by participants in WA state
- Access to national and global markets; economies of scale and reduced risk

# Next steps

- Upcoming NEEA WUTC workshop—potential topics
  - Evaluation
  - Cost-effectiveness
  - Others?



**Thank you!**

**Q & A**

**Jeff Harris**  
**Director, Emerging Technologies**  
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# NEEA and regional coordination



- Program Portfolio Committee
- Regional Emerging Technology Advisory Committee
- Online regional energy efficiency community
- Regulatory engagement / EM&V
- ARRA technical support
- Data / research
  - Residential Building Stock Assessment
  - Northwest Research Group