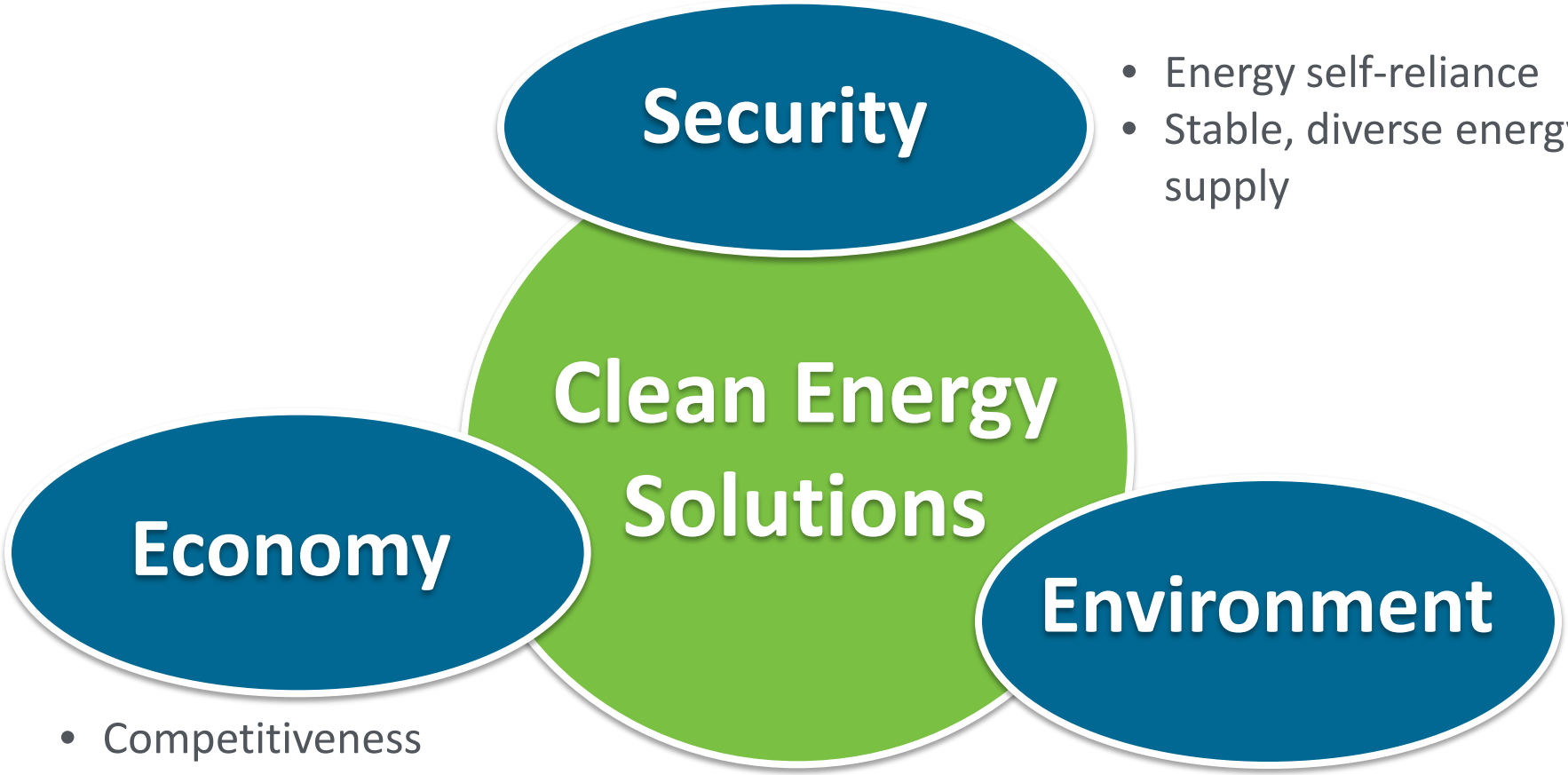
Clean Energy: A Top Administration Priority



- Energy self-reliance
- Stable, diverse energy supply

- Competitiveness
- Competitiveness in clean energy
- Domestic jobs

- Clean air
- Climate change
- Health

Energy Efficiency is Top Priority

U.S. Spends **$1.1 Trillion** per year on energy

If the U.S. became 20% more efficient, it would:

Save more than ***$200 billion*** annually, reduce GHGs, **AND**

Reduce oil imports

Create domestic jobs

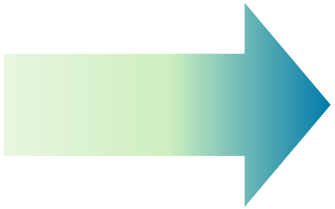
Enhance competitiveness

EE is cheapest, largest, quickest to deploy energy resource

Source: McKinsey, *Unlocking Energy Efficiency in the U.S. Economy*, 2009

EE Priorities

- ARRA Programs
  - Down payment
- Federal Policies
  - Appliance Standards
  - Test procedures
  - Support ENERGY STAR
  - R&D
- Enable / grow EE markets/services
  - Residential Retrofits
  - Commercial Retrofits
  - Industrial Improvements
- State Policy Assistance
- Outreach



Spend ARRA funding quickly & effectively

Building infrastructure for longer term (post Recovery Act)

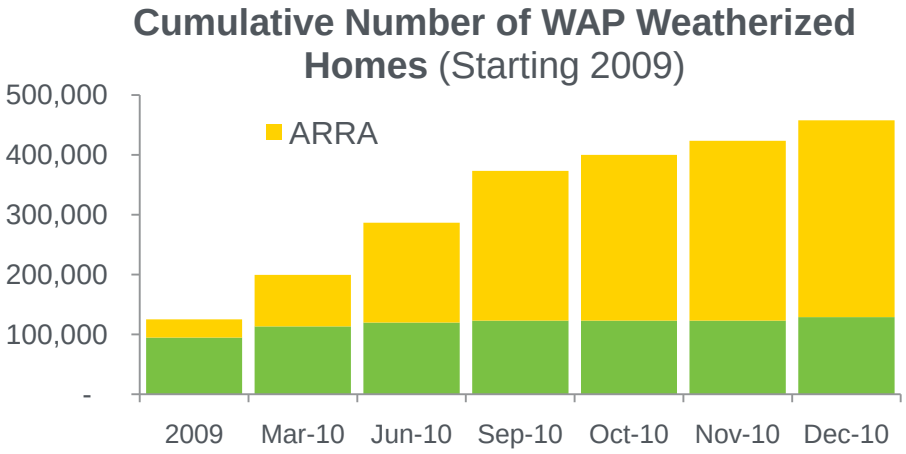
Take EE to scale & create a new EE economy

ARRA

- $80 Billion investment in clean energy
- $12 Billion in EE
- $8 Billion in Buildings Retrofits
- WAP
  - Tripling from 9,000 to 27,000 homes per month since 3/10
  - By end of 2010 320K low-income homes – on track for 600,000
- EECBG (interim)
  - 2,800 public buildings (96.3 million sq ft) and 8,000 homes retrofit
  - 41,000 street lights and 113,000 traffic signals upgraded
  - Savings of $45M a year

EE Programs	Total ARRA Funding ($B)	Funding for Retrofits ($B)
Low-Income Weatherization	5.2	5.2 (100%)
State Energy Programs (SEP)	3	1.5 (50%)
Grants to Local Governments (EECBG)	2.8	1.1 (39%)
BetterBuildings	0.5	0.5 (100%)
Total*	**11.5**	**8.3 (71%)**

*Includes funds for Training and Technical Assistance



Sources: DOE, EERE analysis. Interactions between Energy Efficiency Programs Funded Under the Recovery Act and Utility Customer-Funded Energy Efficiency Programs, LBNL, January 2011.

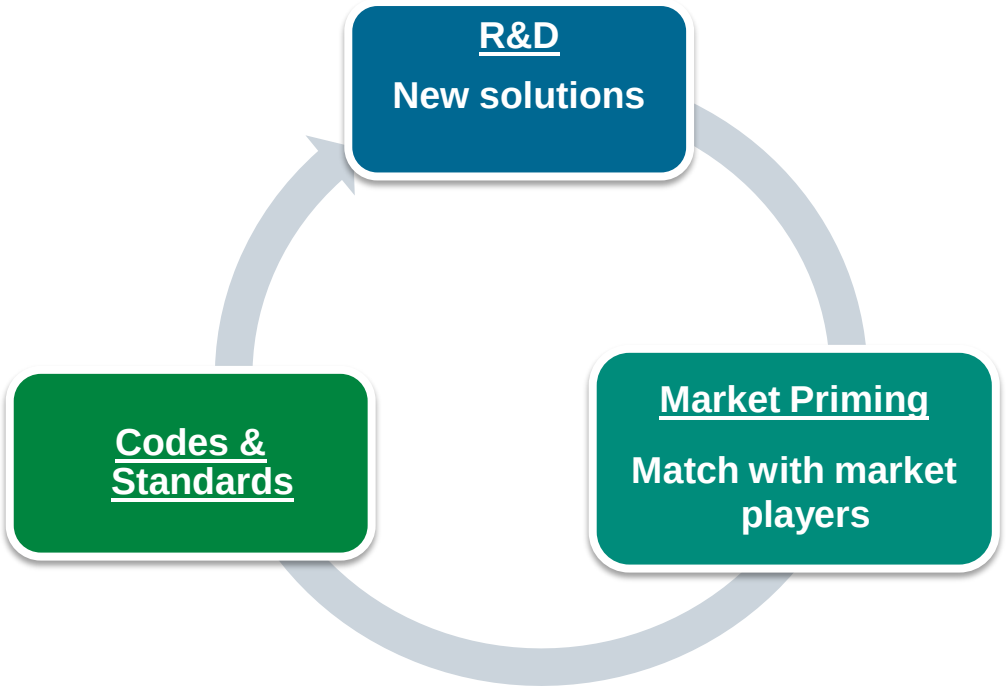
Achieving 20% Savings Goals – or More

Technology solutions

- refrigerators
- windows
- lighting

Systems-based solutions

- integrate building envelope
- right sizing of equipment



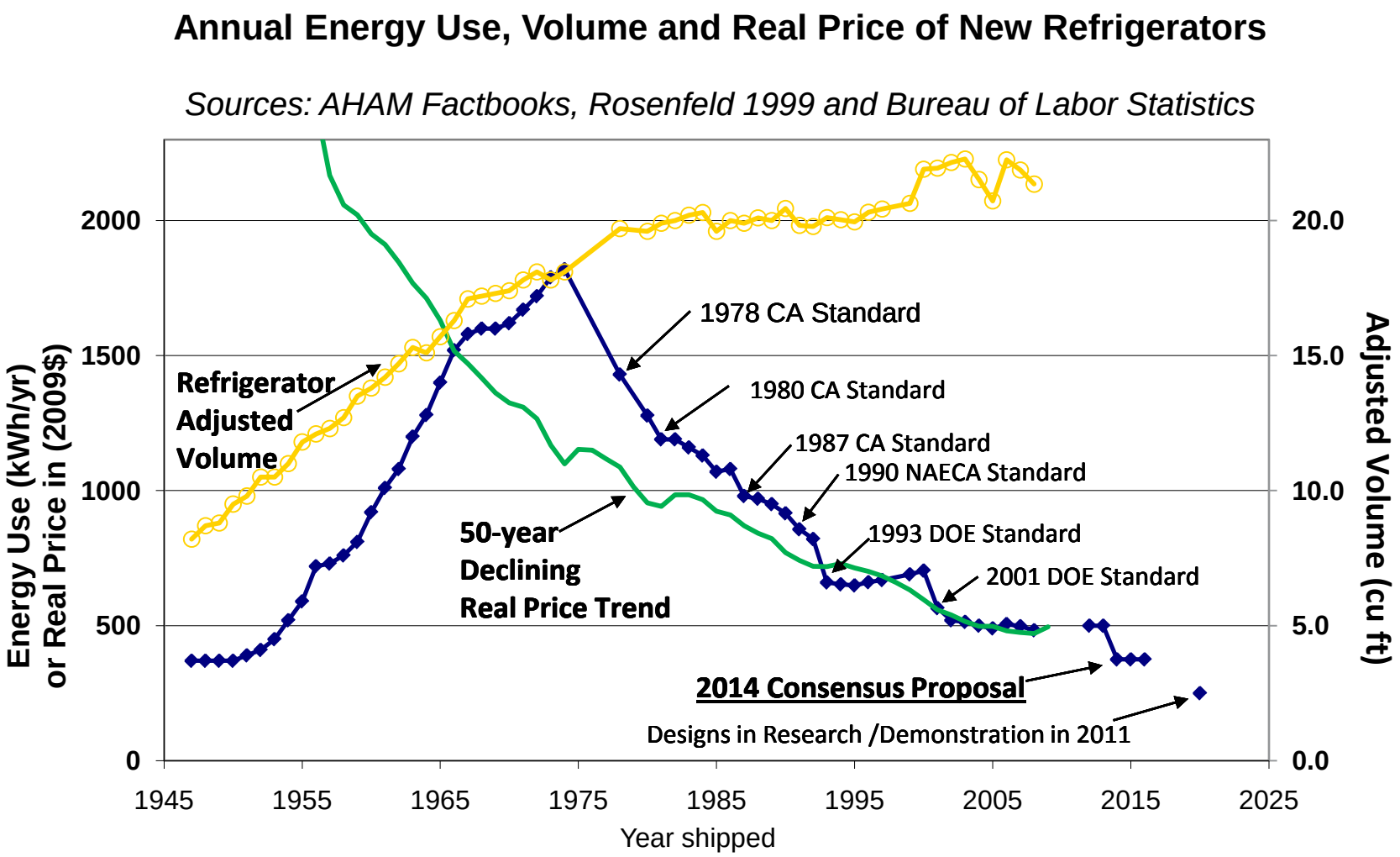
Market-based solutions

- new construction
- retrofit ~ 2/3rd of the facilities to be here in 2050 that are with us today

Policy solutions

- Federal
- State and local

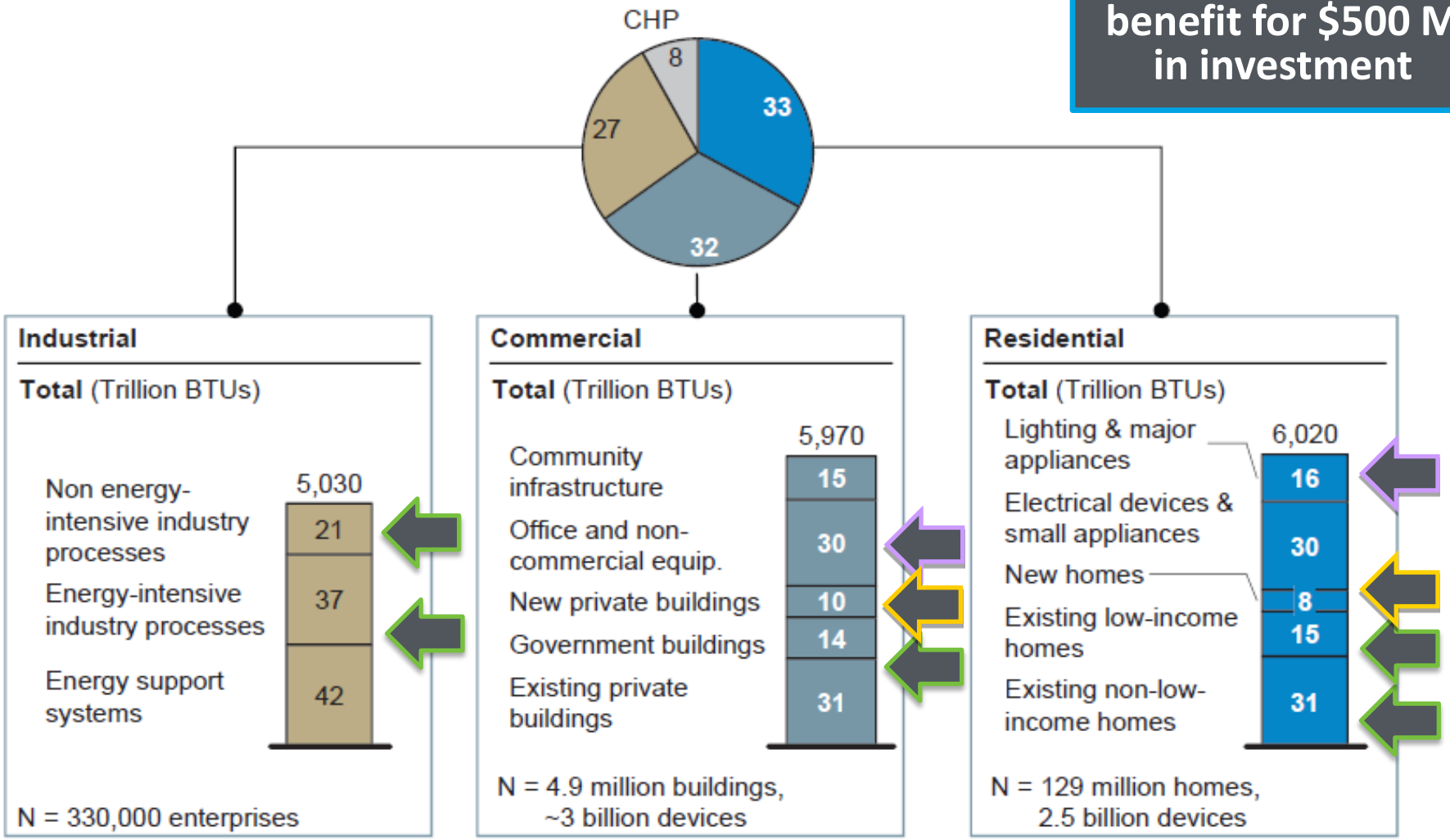
Refrigerator Innovation: Technology and Policy



Map of the Low Hanging Fruit: 20% Savings thru 2020

Percent, 100% = 18,410 trillion BTUs of primary energy

$1.2 trillion in benefit for $500 M in investment

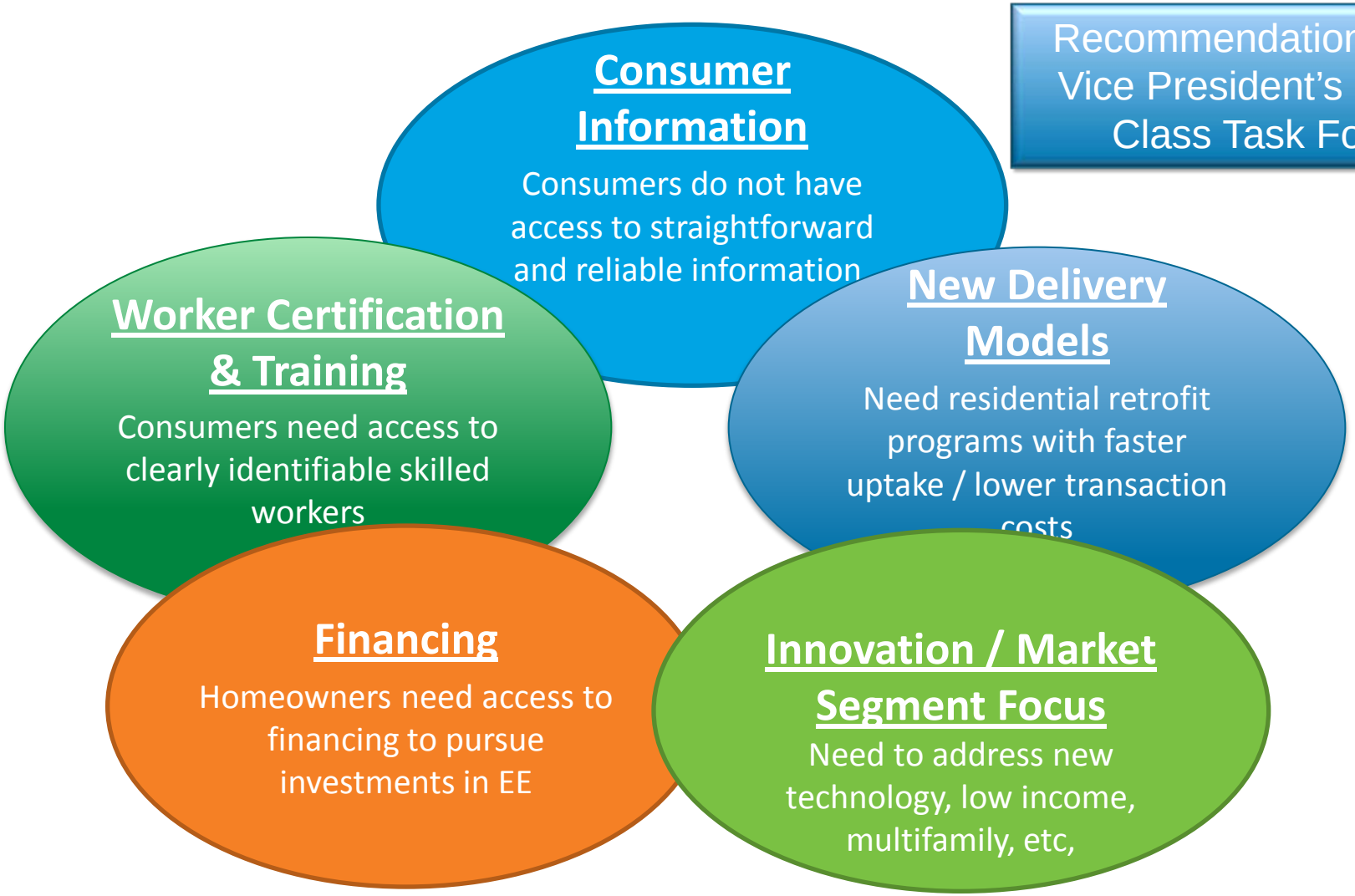


Source: EIA AEO 2008, McKinsey analysis

Whole Home Retrofits: Large Untapped Opportunity

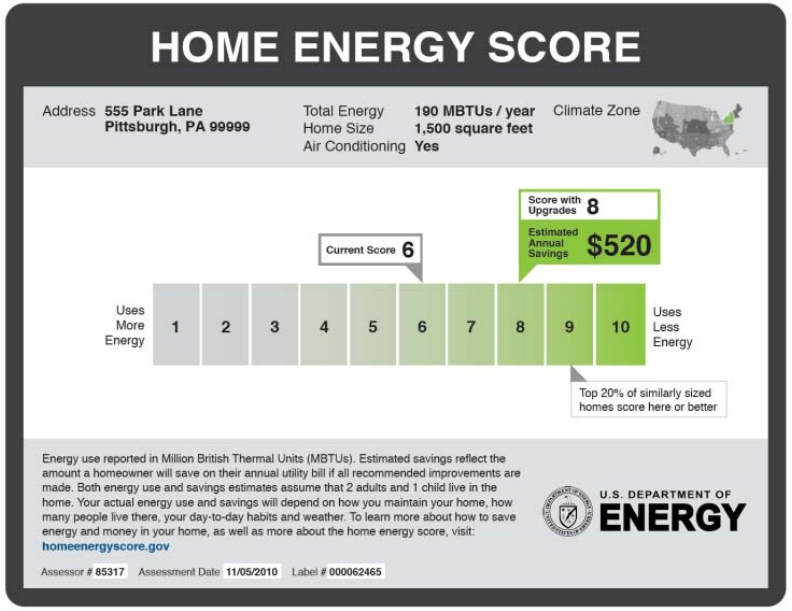
Need Suite of Efforts to Overcome Market Barriers: Make home retrofits routine

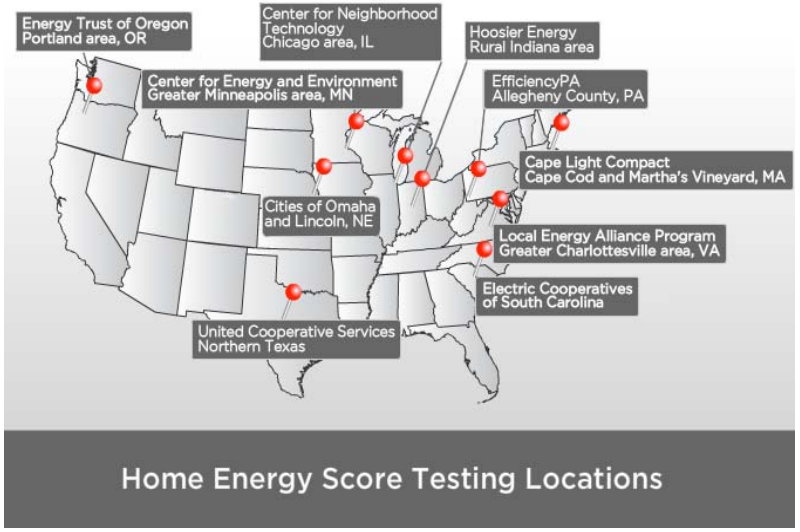
Recommendation of the Vice President's Middle Class Task Force



Better Homeowner Information

- Homeowner
  - MPG Rating for the Home
  - Low cost, easy, understandable, comparative score – 1 to 10
  - Asset-based
  - Recommendations for home improvements and estimate of savings
  - Being piloted this Spring: 10 pilots
  - Additional research: NYSERDA and others
- Delivery
  - Administered by partnering organization
  - Work in tandem with other Home improvement programs;
  - Not replacement for comprehensive energy audit
- Next steps
  - Pilot / refinement / national availability in Fall 2011





Skilled Workers Delivering High Quality Work

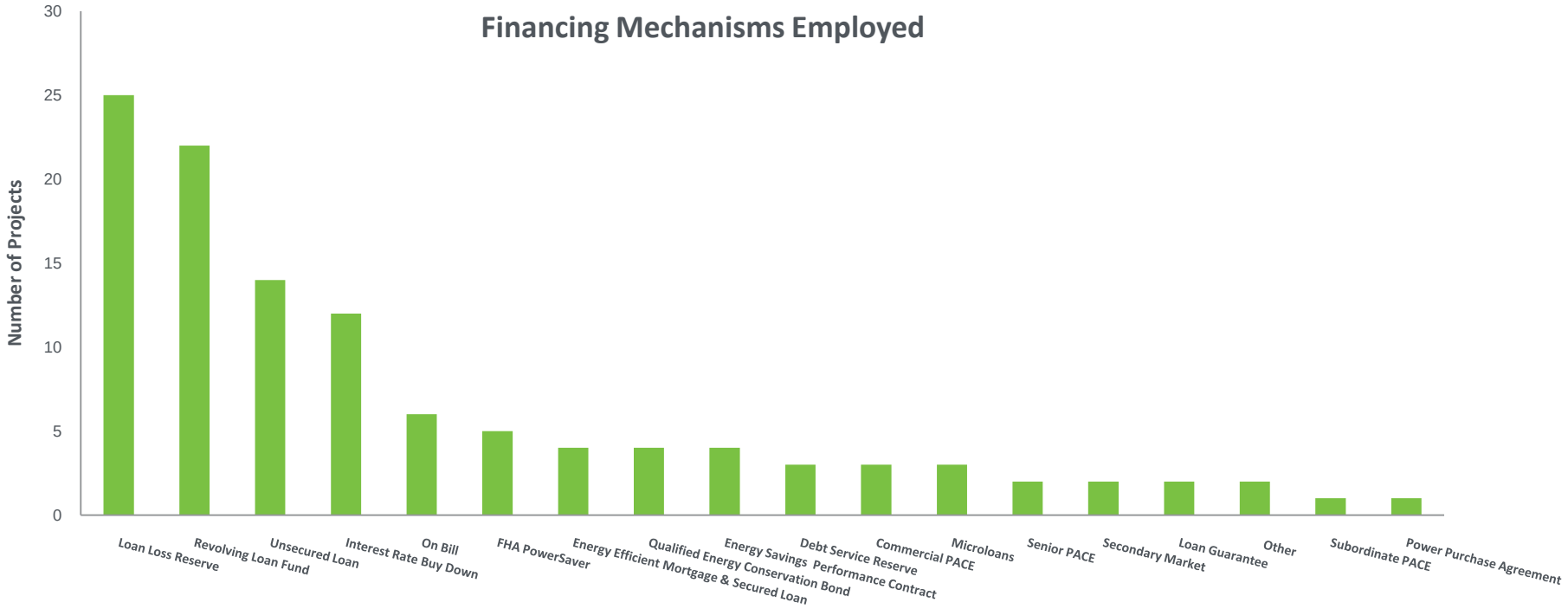
Premise: Demand is function of price and quality

Work standards --

- Help improve retrofit work quality and provide a foundation for quality assurance
- Increase workforce mobility up career ladders and across career lattices
- Assist training providers in developing better training materials
- Build confidence amongst consumers and the energy efficiency finance community

Range of Financing Mechanisms

- **Testing**
  - Which mechanisms best fit different retrofit programs (by sector, by demographic)
  - When financing is not a barrier to uptake
- **Creating confidence for national application**
  - Ease of accessibility for individuals, tailored to different types of retrofits, and demonstrate loan performance



BetterBuildings: New Business Models

Overview

- 41 3-year grants of $1.5 to $40 million each
- 31 States
- Many programs focus on neighborhoods within a city

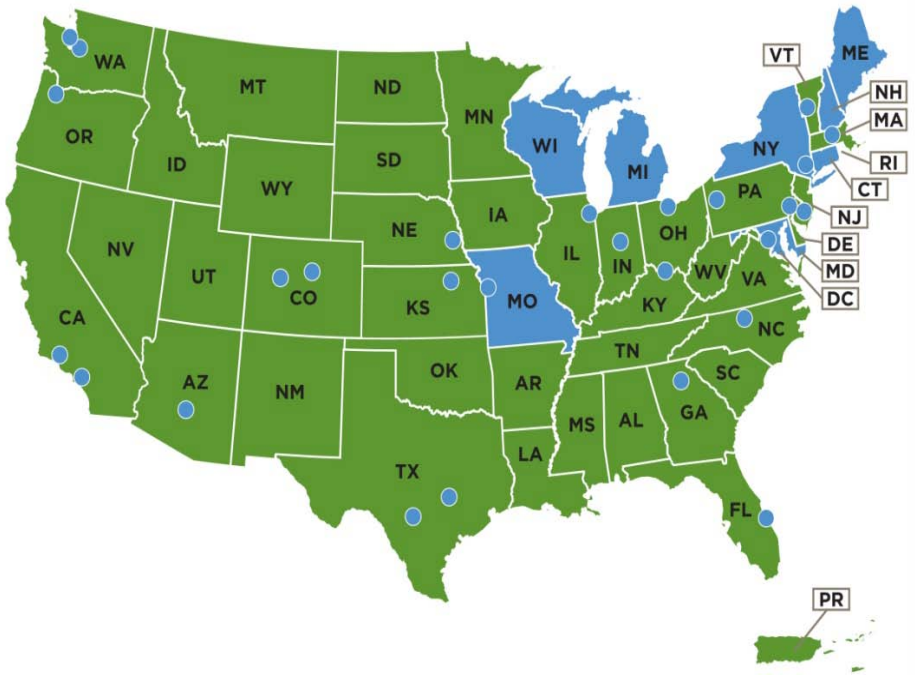
- Rural and urban mix
- Socioeconomic mix
- All climate zones covered

- Residential (Single and Multifamily)
- Commercial
- Agricultural
- Public

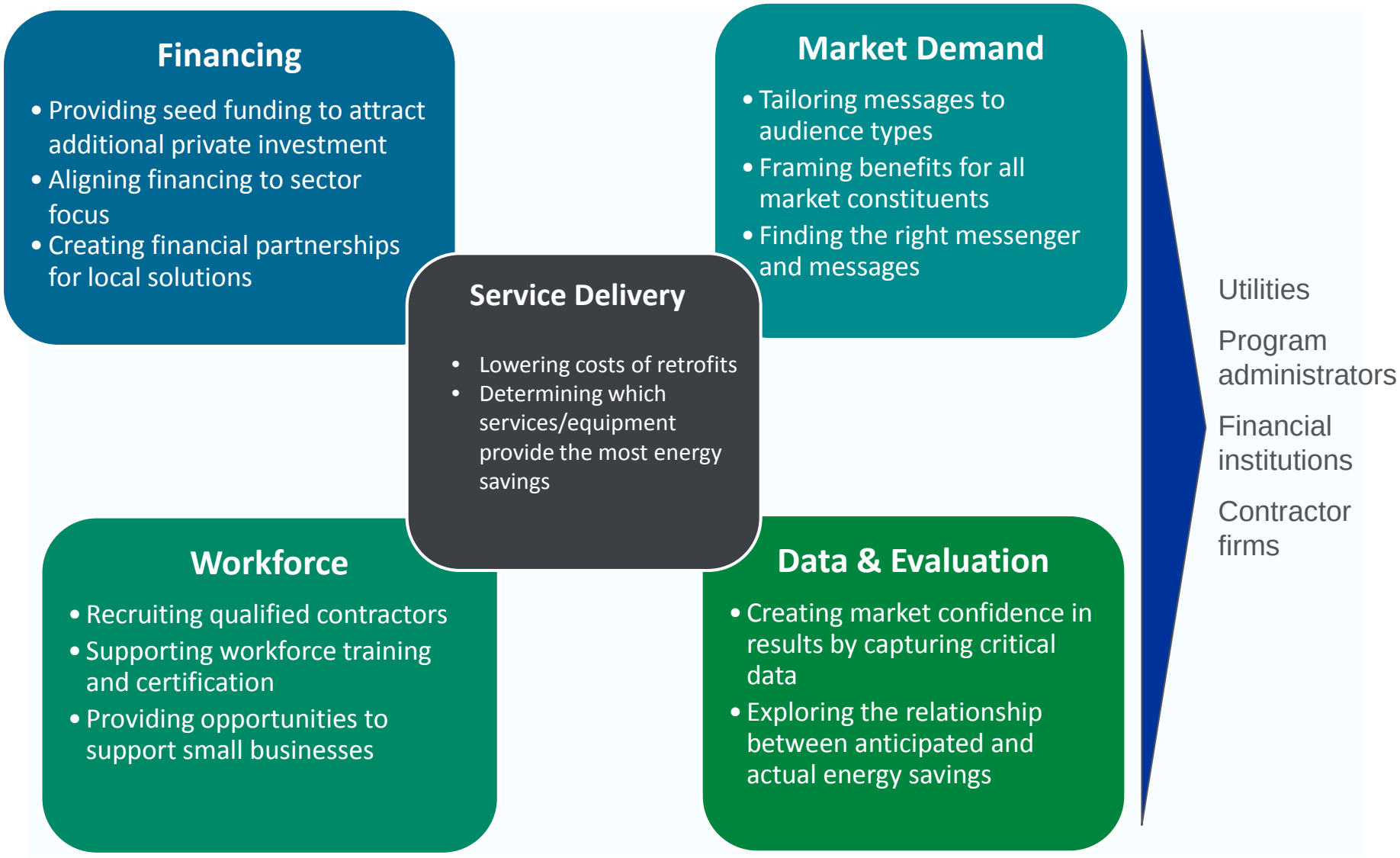
Selection Criteria Used for Applications

- Financial Leverage and Program Sustainability
- Project Impact
- Program Approach
- Partnership Structure and Capabilities

BETTER BUILDINGS



BetterBuildings: Demonstrate and Replicate



Better (Commercial) Buildings: Overview

Goals

- Achieve a 20 percent improvement in the energy efficiency of commercial buildings by 2020.
- Reduce companies' and business owners' energy bills by about $40 billion per year.
- Save energy by reforming outdated incentives and challenging the private sector to act.

President Obama at Penn State University
February 3, 2011

http://www.whitehouse.gov/the-press-office/2011/02/03/president-obama-s-plan-win-future-making-american-businesses-more-energy

Overview: Initiatives

1. Tax incentives. Streamline the 179D commercial building tax deduction for tax year 2011 and restructure the tax incentive for tax year 2012.

2. Financing. Increase and accelerate financing opportunities for commercial and public building energy improvements through existing SBA loan program & proposed DOE loan guarantee program

3. Grants. Give competitive grants to state and local governments to streamline and update codes and regulations and to adopt policies and programs to attract private-sector investment in building retrofits.

4. Challenge. Challenge CEOs and university presidents to systematically upgrade their facilities for improved efficiency.

5. Workforce. Improve and expand workforce training and pilot a buildings extension service.

Commercial and Industrial Efficiency: Continuous Energy Improvement

ISO5001 SUPPORT

Foundational tool that any organization can use to manage energy

SUPERIOR ENERGY PERFORMANCE

Single facility ISO 50001 conformance with validated energy performance improvement

Focus for Certified workforce

INDUSTRY PARTNERSHIPS

Companies that pledge to reduce energy intensity 25% in 10 years

Advancing energy management

BetterBuildings

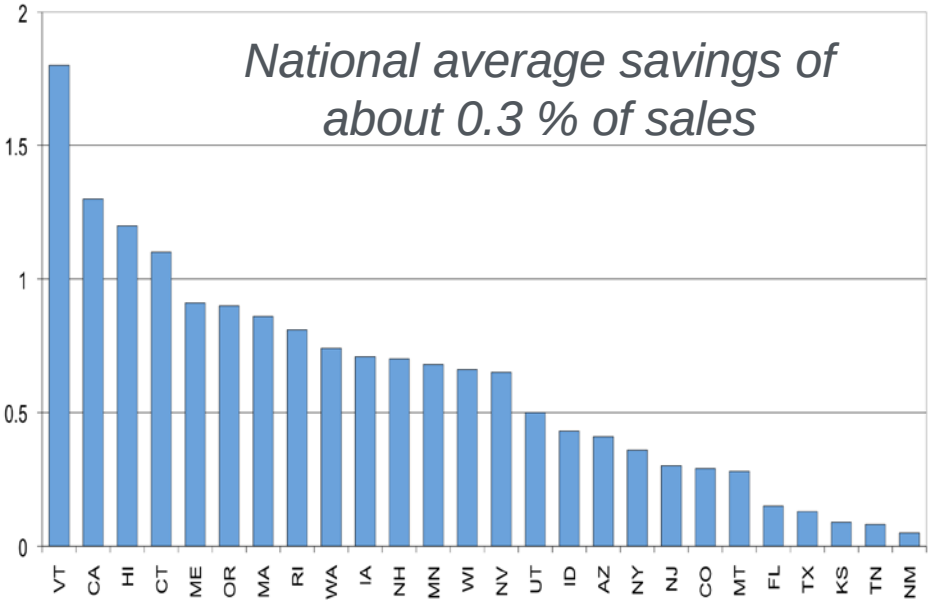
ISO 50001

Components in place:

- Baseline
- Policy
- Plan
- Team/Leader

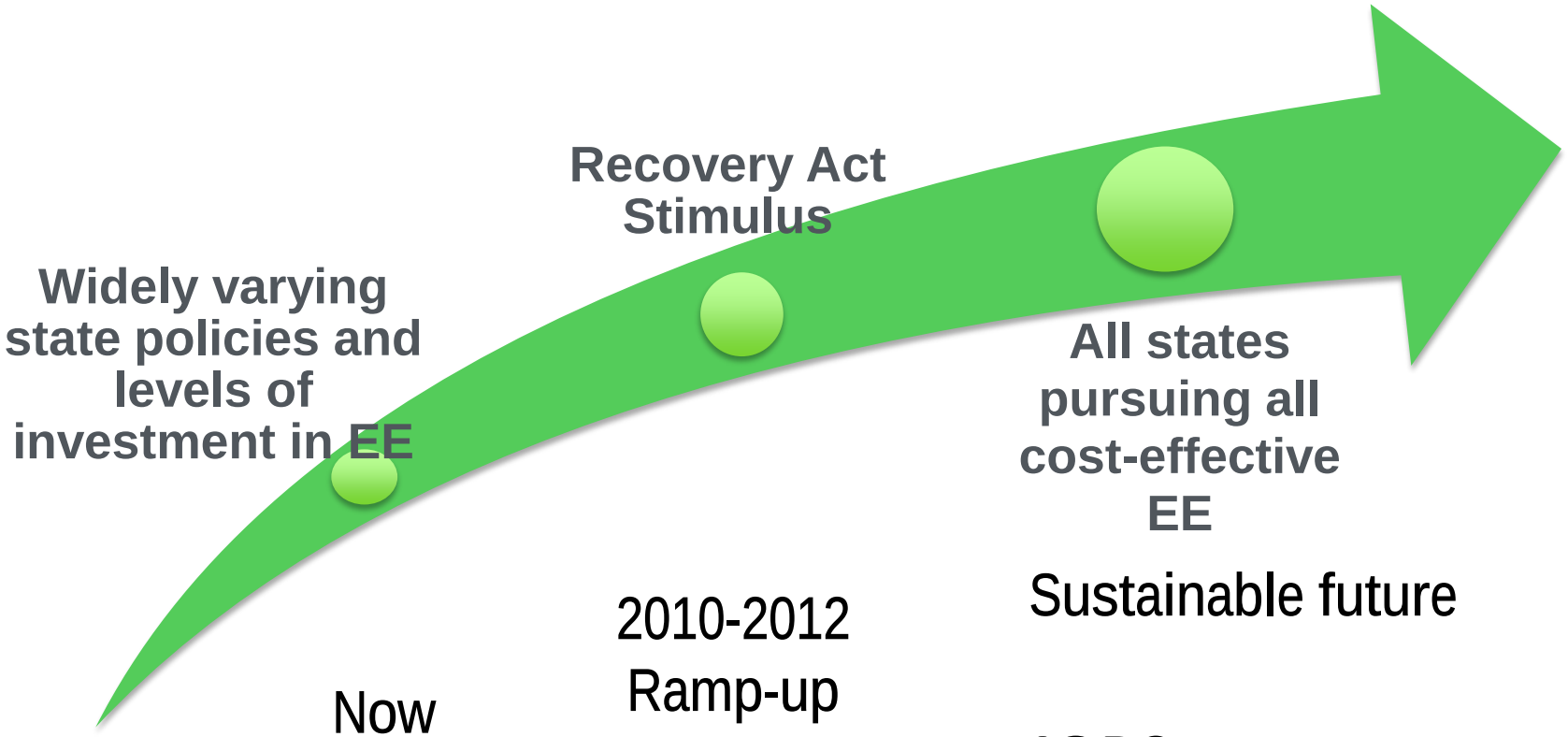
State, Local and Regional Stakeholder Engagement

- Critical to EE future
- State / regional/ local policies affect majority of EE investment
  - EERS
  - Public benefits
  - IRPs
  - Energy use disclosure for buildings
  - Building codes
- EE is regional / local resource
  - Regional planning key to capturing full value
  - Regional / state consistency / oversight
- DOE assisting states, PUCS and others
  - SEP technical assistance
  - State Energy Efficiency Action Network



- New State Energy Efficiency Action Network
- SEP Competitive Grant (Part 2)
- Section 410

SEE Action: All Cost-Effective Energy Efficiency



SEE Action Network - WGs

SEE Action Working Groups

- State/local co-chairs
- Diverse WGs
- Aggressive Goals
- Blueprint to Achieve Goals
  - Goal
  - Where are we today
  - What we need to do
  - Roles/responsibilities
  - Coordination/outreach
- Implementation

↓

DOE/EPA facilitate

- Work groups
- Meetings
- Development of key deliverables
- Coordination platform

SEE Action
STATE ENERGY EFFICIENCY ACTION NETWORK

SEE Action: Next Steps

- Implementation discussions
  - WGs
  - Executive Groups
- Two phase release
  - Spring 2011 (phase 1) – ~ 4 Blueprints
  - Summer 2011 (phase 2) – ~ 4 Blueprints
- Ongoing implementation
  - Energy Policy Summit with ARRA grantees: May 2011
  - Development of key materials
  - Outreach goals to key states and local governments

Challenges

- Robust business models to take EE to scale
  - Better Buildings – Residential, Commercial, and Industrial
- Quality work
  - Work standards, training, certifications
- Measurement and evaluation
  - New voluntary guidelines for EM&V
- Multistakeholder engagement to capture full value of EE
  - State and local policy makers
  - Business
  - Public sector

THANK YOU!