

## Advancing Energy Efficiency in U.S. Buildings

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### Presentation Overview



- Energy efficiency as an energy resource
- Policy tools for energy efficiency
- The role of non-government organizations

## What is the Alliance?



- Mission: To advance energy efficiency world-wide for a better economy, enhanced energy security and an improved environment.
- NGO coalition of 135+ prominent business, government, environmental and consumer leaders.
- Headquartered in Washington, D.C. with operations in Eastern Europe, South Africa, Mexico, India and several states in the U.S. Staff of 50+



## Energy Efficiency is More Important than Ever



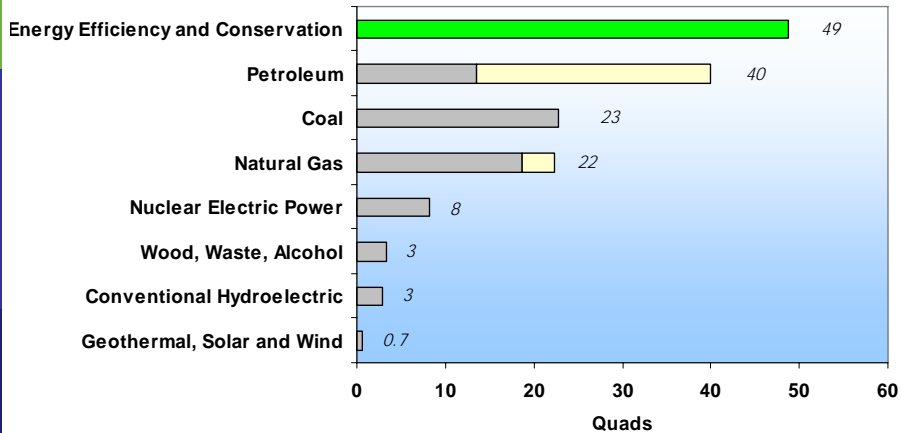
Three main policy drivers:

- 1) **Gasoline Prices** (and electricity, natural gas!)
- 2) **Global Climate change**
- 3) **Energy Security**

- World markets for oil and gas
- Electricity generating capacity & grid reliability

... *And energy efficiency is the lowest-cost way to prevent pollution!*

# Energy Savings to Date: Efficiency is America's Greatest Energy Resource



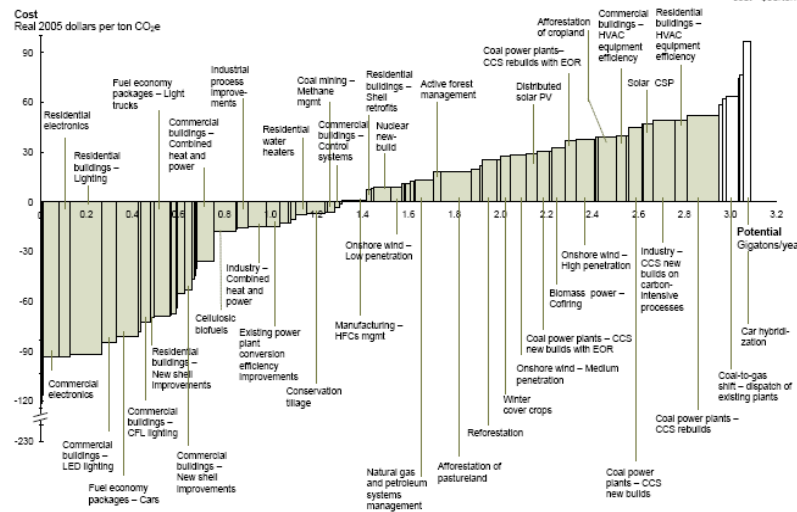
Alliance to Save Energy  
November 2007

2006 Domestic Production Net Imports

# Energy Efficiency Can Avoid CO2 at a Negative Cost per Ton



## U.S. MID-RANGE ABATEMENT CURVE - 2030



Source: McKinsey analysis

## Energy Efficiency: Four Tools for Success

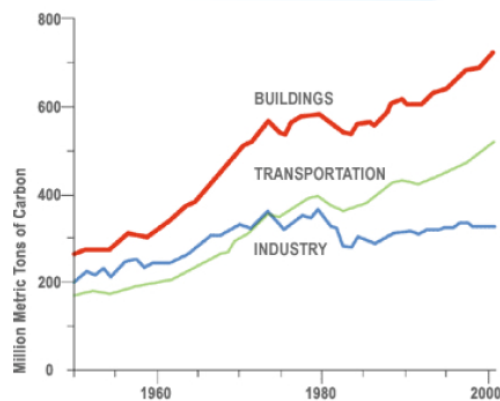


- **Research and Development**
  - *Create new technology*
- **Incentives, voluntary programs, public sector leadership**
  - *Create buyer demand*
- **Public Education**
  - *Build market share*
- **Efficiency Codes and Standards**
  - *Set a floor & trigger new innovation*

## Buildings Use the Most Energy



... And the fastest growth is in commercial buildings



# Vision: A Zero Energy Future for Commercial Buildings



- ***“The best way to predict the future is to invent it.”***  
- Alan Kay
- ***“If I had asked people what they wanted, they would have said faster horses.”***  
- Henry Ford



# Commercial Buildings Initiative: Combining R&D and Deployment



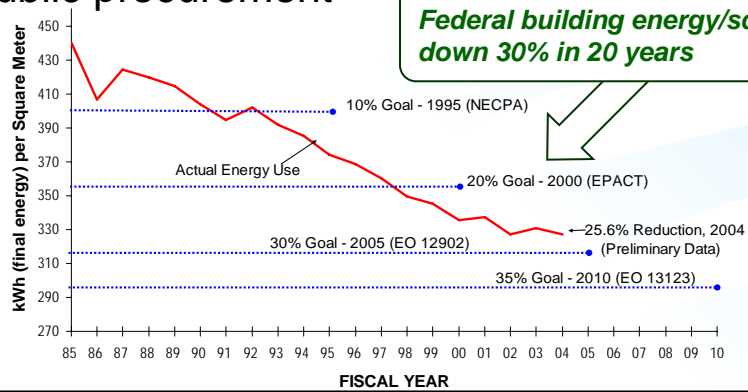
- 2007 law authorized the “Zero Net Energy Commercial Buildings Initiative”
- Public-Private partnership
- Cost-shared:
  - RD&D, pilot projects
  - Deployment assistance
  - Policies and programs
  - Training
  - Public education
  - Advanced codes



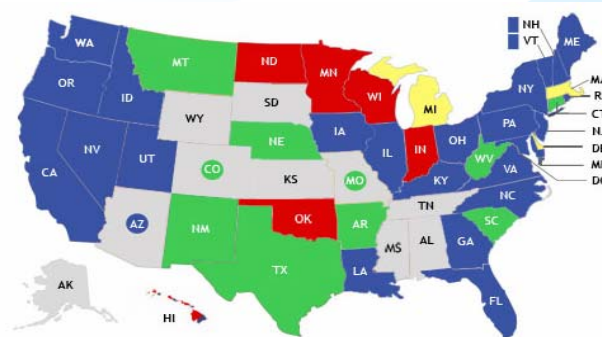
# Policy Tools: Public Sector Leadership



- Energy savings goals + report cards
- Public buildings
- Public procurement



# Policy Tools: Building Code Adoption and Compliance



- Adopted code meets or exceeds 2006 IECC / ASHRAE 90.1-2004 or equivalent
- Meets 2003 IECC / ASHRAE 90.1-2001 or equivalent
- Meets 2001 IECC / ASHRAE 90.1-1999 or equivalent (meets EPCA)
- Precedes ASHRAE 90.1-1999 or equivalent (does not meet EPCA)
- No statewide code
- New code soon to be effective
- Significant adoptions in jurisdictions

# Advocacy for Energy Codes



Affects ALL new buildings

By 2010:

- Almost **5 million** new housing units
- Over **233 billion sq feet** commercial floor space

By 2020:

- **23.4 million** new housing units
- Over **1 trillion** sq feet commercial floor space

By 2030:

- Over **41 million** new housing units
- Over **2 trillion** sq feet commercial floor space

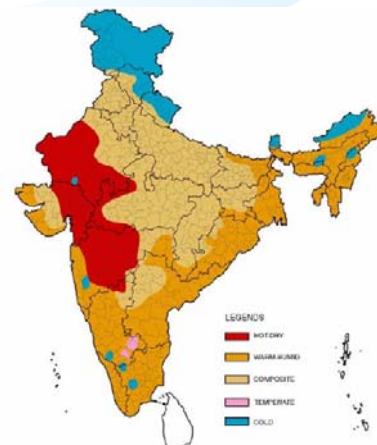
Source: EIA, Annual Energy Outlook 2008

# Transferring “lessons-learned”



## Support for Energy Conservation Code in India

- Tip sheets
- User guide
- Trainings



Source: National Building Code 2005, Part 6, Fig. 2

## Realizing the Potential: A Win for Everyone!

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***“Our greatest energy resource  
is the energy we currently  
waste.”***

Former U.S. Secretary of Energy  
Spencer Abraham

## Thank You!

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