



**U.S. Department of Energy**  
**Energy Efficiency**  
**and Renewable Energy**

Bringing you a prosperous future where energy  
is clean, abundant, reliable, and affordable

# **National Builders Challenge**

## **Setting the direction for a voluntary national energy-saving initiative**



Concept Paper for Discussion



# Objective

Help builders spur strong demand for highly efficient homes, marching towards cost-neutral zero energy homes

- Enable homeowners to have low, predictable utility bills

# Goal

- 100,000 (?) new homes built between now and 2009 combining:
  - State-of-the-art energy performance
  - Building America's comfort and safety criteria



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# Strategy

- Galvanize U.S. homebuilders to voluntarily join the Challenge
- Create value/demand by educating U.S. home buyers to help them make informed decisions about efficiency and distributed energy



# Imperative for highly efficient homes

**31%** of housing stock that will exist in 2030 hasn't been built yet

In 2030	Residential Sector	30% Reduction in Energy Growth in new homes	Savings
Energy costs	\$252 billion	\$ 238 billion	\$14 billion
Million metric tons carbon dioxide equivalent	1,576	1,478	98



## **The technologies exist *now* to build cost competitive homes that are 30% or more above code – *and* more comfortable and healthy**

Today's homes may combine efficiency:

- Whole-building system design
- Demand response systems
- ENERGY STAR building products

*Plus* renewables such as photovoltaic systems



## **But huge marketplace barriers still exist**

Building industry lacks:

- Objective way to help consumers differentiate among:
  - Homes that just meet code
  - Energy-efficient homes
  - Super-efficient homes
- Rationale/value for going beyond minimum compliance in efficiency programs



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# **National Builders Challenge is designed to help overcome these barriers**

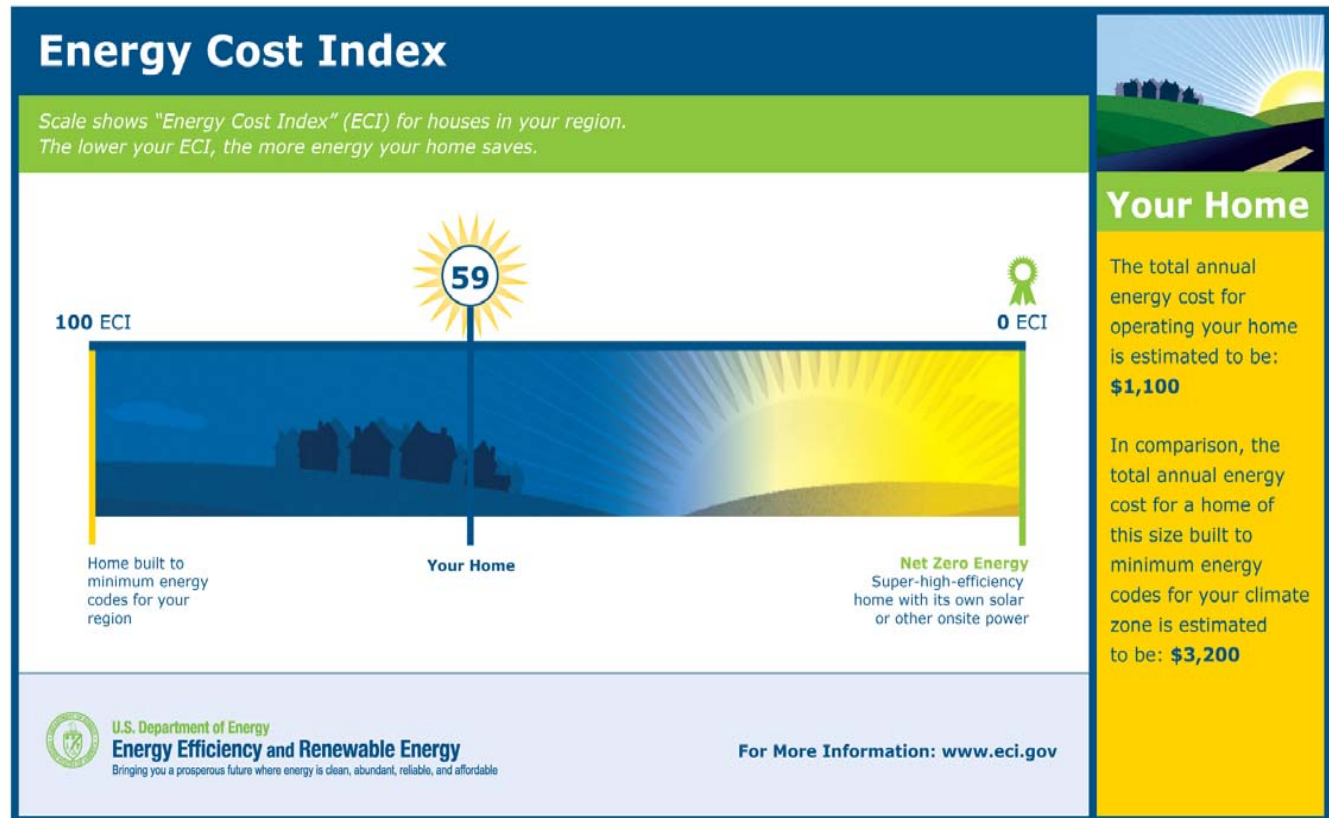
## **Five elements:**

- Energy scale
- National marketing and outreach campaign
- Builder education
- Design challenge
- Baldrige-type award for builders



# Element 1: Energy Scale (Illustrative)

- Clear, objective information on home energy costs
- Driving informed consumer demand, and continuous improvement toward zero energy







**Typical Existing Home in Community**

**120**

**Home Which Meets Current Code**

**100**

**ENERGY STAR New Home**

**85**

**This Home**

**70**

**Net Zero Energy Home**

**0**

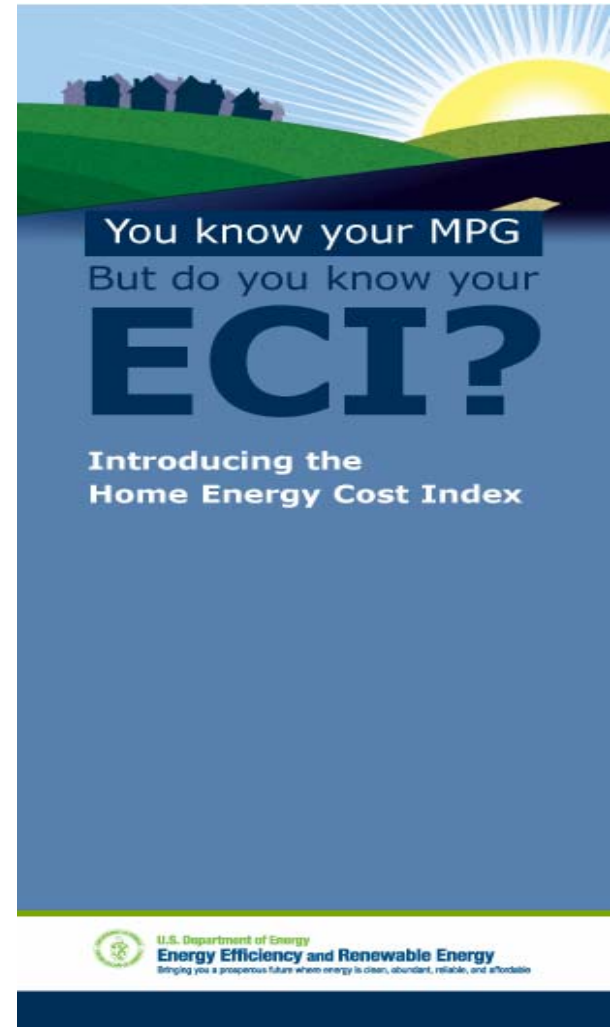




## Element 2: Outreach and Marketing

Will work with stakeholders (Energy Efficiency Partners, State Energy Offices, utilities, associations) on:

- National campaign to build consumer awareness and demand
- Regional campaigns to highlight success stories by climate zone





## **Element 3: Builder Education**

Will work with industry stakeholders (Energy and Environmental Building Association, colleges, universities, the National Association of State Universities and Land-Grant Colleges, and others) to design and deliver educational materials serving needs of:

- Production builders
- Custom builders
- Trades



## Element 4: Design Competition

High-visibility competition for “best of the best”

- Homes built and currently in the market
- Efficient + affordable + durable + healthy + aesthetically pleasing
- Opportunity to highlight builders and designers for path breaking/risk-taking accomplishments

Considering awards in multiple categories

- Production market
- Custom market



## Element 5: Builders Award

Prestigious award modeled on U.S. Department of Commerce Baldrige Award

- Secretarial level, highly coveted national award
- Recognizing builders making fundamental company-wide changes in their home building and marketing practices
- One awardee for production, one for custom, one for trades
- Focus as much on *how* they did it as *what* they did
- “Best practices” shared (website, case studies)



# **Market success will require consistent promotion by a network of stakeholders**

- Builders
- Utilities, Energy Efficiency Program Sponsors
- Consumer organizations
- Raters and trades
- Realtors and others



## A work in progress ...

- Work just begun on defining scale, outreach plan, other elements
- We need your guidance to make this consumer friendly and a useful tool for builders' marketing efforts

