Why Buildings? Why Push for Homes?

- Homes: 20 quads annual U.S. primary energy consumption
- Mean age of home: 37 yrs
- Retrofit rates are tiny: <1%
- Large fraction of consumption in heating, cooling, lighting, but advanced technology exists and is ready to use
- Residential EE is essential to meeting energy and climate goals
Why Retrofits?

- 80 million single family occupied homes in U.S.
- New homes constructed: 
  - 500,000 – 1 million
- Existing single family homes sold: 
  - 4 million – 5 million
U.S. Strategy Overview

• Recovery Through Retrofit:
  – Issued in Oct. 2009 by the White House Middle Class Task Force
  – Identified 3 key barriers to residential retrofit...
    • Access to:
      – Information
      – Financing
      – Skilled workforce
  – Multiple federal agencies tasked with overcoming barriers
U.S. Strategy Overview (cont.)

• Recovery Through Retrofit (RTR) agencies developing:
  – A national home energy performance measure
  – An energy performance label for homes
  – Support for state revolving loan funds, improved access to EE through mortgage products
  – National workforce certification & standards guidelines
Implementing RTR: BetterBuildings

- DOE Recovery Act grant program to conduct large scale, whole neighborhood retrofit programs
  - Residential, commercial, industrial, public buildings
- Projected Results:
  - High-quality retrofits
  - Significant energy efficiency improvements
  - A successful model for retrofit programs that could be used nation-wide
  - Energy savings, GHG reductions
Restrictions/Requirements

• Restrictions:
  – Design and construction of new buildings
  – Technology demonstration w/o market transformation
  – *Exclusive* focus on renewables
  – Incremental improvements over business-as-usual to existing policies
Better Buildings (cont.)

- $452M of ARRA funds: Competitive grants under EE and Conservation Block Grant Program
- 3-year grants to local and state governments of $5M to $40M each
- Dec. 2009: 131 applications — Total request: $3.36 billion
- April 2010: 25 grants awarded
- June 2010: 10 additional grants $1M to $5M each
BetterBuildings Program Elements

• Financing Options & Sustainability:
  – Approaches include revolving loan funds, on-bill financing, carbon offsets, white tags, forward capacity markets
  – Importance of sustainable programs after grant
• Leveraging:
  – Target 5:1
  – Contributions from building owners, partners & in-kind, project revenues, other federal & state funds
• Partners
  – Innovative & creative / public and private
  – Utilities, regional planning agencies, businesses, financial institutions, universities, NGOs, state energy offices, and more
BetterBuildings Program Elements

• Outreach Approaches:
  – Neighborhood sweeps
  – Door-to-door
  – Community organizations (churches, foundations)
  – Major events
  – Web-based approaches
  – One stop shops
  – Labeling systems
  – Retail store partnerships
  – Grass-roots campaigns
  – Community colleges & universities
• Promotes large scale neighborhood and commercial districts retrofits

• Unique Approaches:
  – Energy Concierge Program through city libraries
  – Neighborhood canvassing and sweeps
  – “Two Techs and a Truck” Program provide contractor referral, bulk purchasing, work schedule

• Financing: Microloans, rebates, statewide debt service reserve fund

• Partners: Governor’s Energy Office, the Denver Regional Council of Governments, the Metro Mayors Caucus
Example: Carbon Neutral Lowell Park and Preservation

- Initiative creates a model for energy efficiency upgrades that meet historic preservation standards
- Unique approaches
  - Retrofits of historic downtown buildings
  - Project financing is a mix of utility rebates, owner contribution and grants and loans
  - Promoting the program through a range of media and public relations strategies utilizing established city marketing and public relations programs
- Financing: Revolving loan fund, rebates, in-kind service such as free audits
Example: Michigan Retrofit Ramp-Up Initiative

• This project will deliver large-scale adoption of energy efficiency building retrofits in a diversity of communities

• Unique approaches:
  – Residential Neighborhood Retrofit Program will run six pilots/year in diverse communities
  – Pilots will test different outreach/marketing approaches, including “energy outreach organizers”, neighborhood savings competitions, energy savings guarantees, labels

• Financing: Revolving loan fund. Loan loss reserve fund, interest rate buy-down, bulk purchasing

The Energize Phoenix Project is intended to transform neighborhoods along a 10 mile stretch of Phoenix’s Green Rail Corridor

Unique Approaches:
- Coordinate with existing utility program outreach and smart metering deployment
- Provide targeted marketing and encourage energy conservation action through grass roots outreach campaign
- Develop a local workforce capable of implementing energy efficiency retrofits through job training and workforce development by local community college system

Partners: Arizona State University, APS, AZ State Energy Office, Maricopa Community College District.
For More Information

Press release:

www.whitehouse.gov/the-press-office/vice-president-biden-kicks-five-days-earth-day-activities-with-announcement-major-n

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Coming soon: www.betterbuildings.energy.gov