



Achieving Energy Savings in Affordable Housing

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April 29, 2009



www.advancedenergy.org

THE DAILY ADVANTAGE



LOCAL UTILITIES PRAISED BY PUC

Local electric utility companies received high praises from the public utilities commission for their participation in an affordable housing program that led to the construction of homes that save homeowners 2,400 kWh per year based on actual billing data.

"The majority of families living in affordable housing communities spend close to 20 percent of their household income on energy," said Arnie Katz, a senior building scientist at Advanced Energy. "We were thrilled to work with the utilities to help provide these families with high-performance homes that are guaranteed to

finance agencies, building performance organizations, nonprofit developers and construction organizations. The participating organizations received training and technical support throughout the entire program, helping them successfully build to the program's standards and specifications.

"It was surprisingly easy to build to the new standards," said one local developer.

Program homes are ENERGY STAR® certified and come with heating, cooling and comfort guarantees that help significantly lower homeowner energy usage. The house



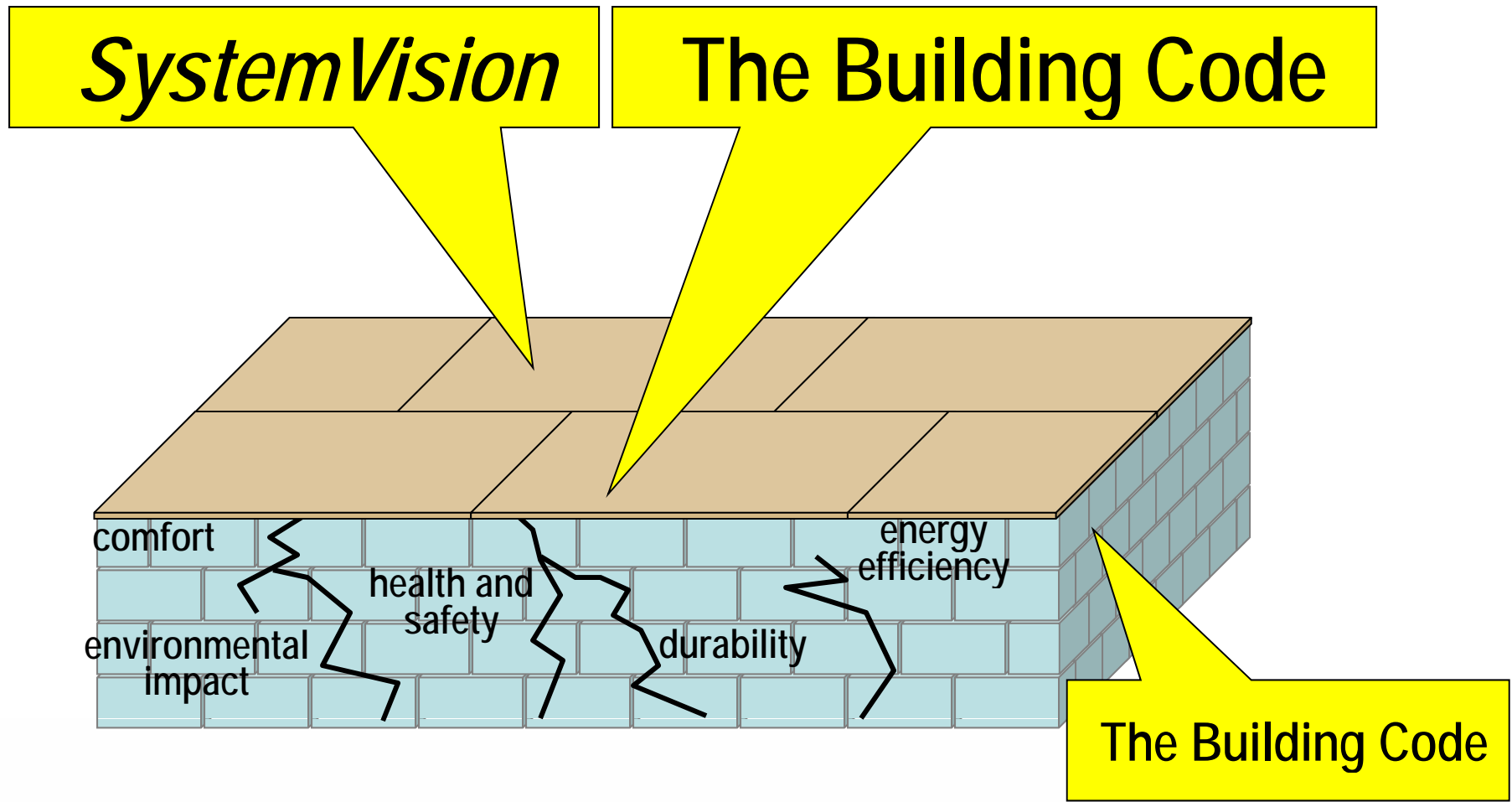
Advanced Energy monitors the

participate in SystemVision, including Habitat for Humanity affiliates, community

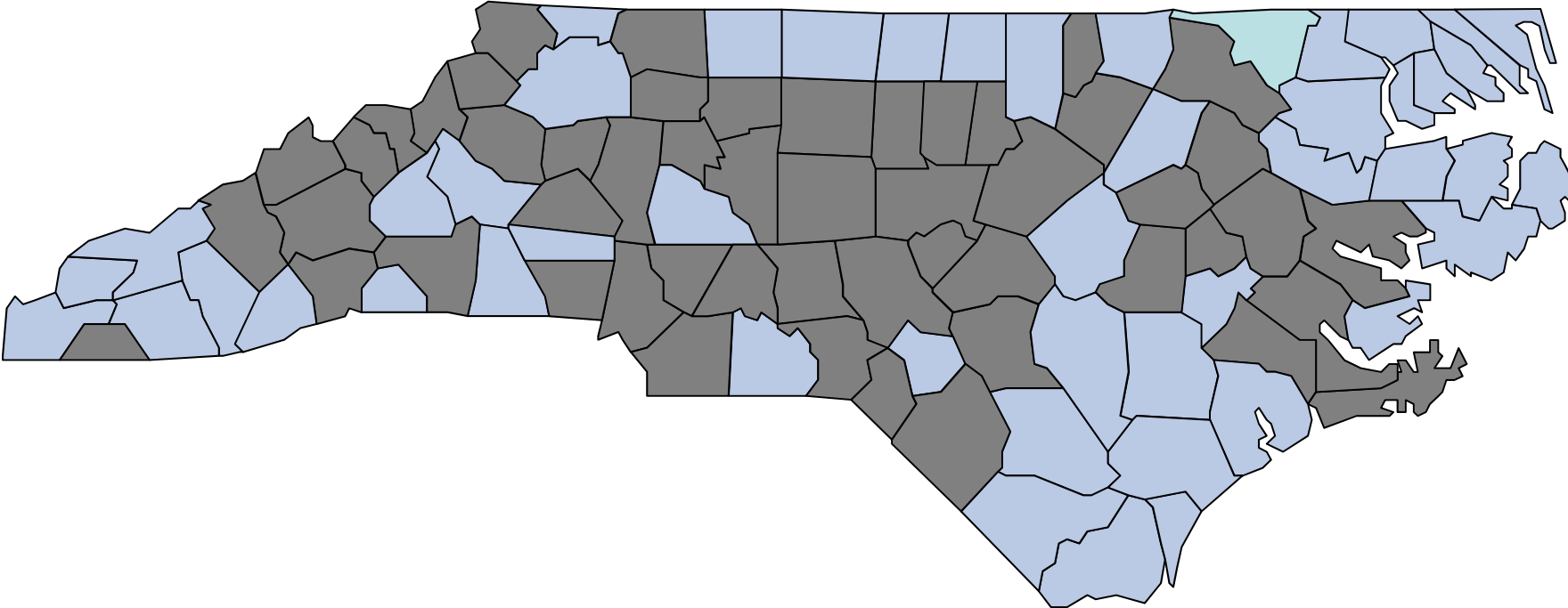
Background: Goal

- ▶ *Institutionalize* a new base platform for affordable housing that is
- ▶ Achievable
- ▶ Cost-effective
- ▶ Not shooting for “greenest” or “healthiest” etc.

The Foundation of Good Homes



SystemVision





HEATING AND COOLING
GUARANTEED
TO COST LESS THAN
\$31 A MONTH*

Results to Date

- ▶ Over 2,200 homes certified
 - > Energy Star Plus
 - > Heating & Cooling Use Guarantee
 - > Comfort Guarantee
- ▶ 50 counties (out of 100)
- ▶ 74 Developers
 - > 37 Habitat for Humanity Affiliates
 - > 15 Community Dev. Corporations
 - > 4 Local Governments
 - > 3 Public Housing Authorities
 - > 15 Other Nonprofits

Documented Actual Energy Savings

- ▶ Based on Billing Analysis
- ▶ >2400 kWh per year

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- ▶ Avg Cost of Upgrades = \$1500
- ▶ Cost of T & TA, Admin = 1050
- ▶ > TOTAL = \$2550

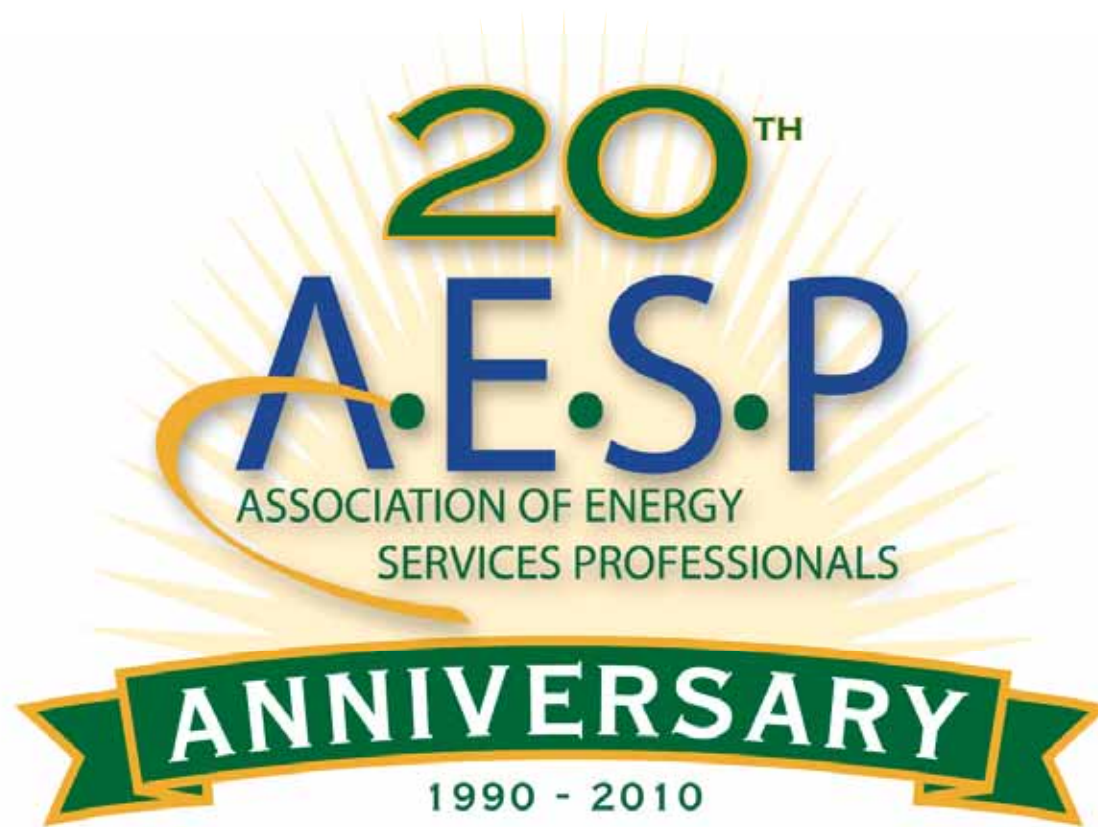
- ▶ Typical HFH Financing (20 year, zero interest) = \$10.63/mo
- ▶ Avg. Savings = \$20/mo
- ▶ Positive Cash flow for homeowner, if there's no subsidy, = \$9.37/mo, FROM DAY ONE!

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- ▶ Conventional Mortgage Scenario
 - > 30 yr fixed mortgage at 6%
 - > \$2550 will add about \$15/mo
 - > Savings = \$20 per month
 - > Positive cash flow from first month!
- ▶ As utility rates increase, savings increase!

If this is so good, Why isn't everyone doing it?

- ▶ Define barriers
- ▶ Develop strategies & process
- ▶ Assess results



CELEBRATE WITH US NEXT YEAR IN TUCSON!