Consortium for Advanced Residential Buildings (CARB)

Beazer Homes "PowerHouse"

Roseview Subdivision – Sacramento, California

The "PowerHouse" is a high-performance house with an optional integrated photovoltaic roof shingle system. Generating nearly 6000 kWh annually, this more than offsets the anticipated annual electrical usage, creating a true "zero-net-electric" house.

Features

- 3.3 kW integrated photovoltaic array
- R-17 walls
- R-38 ceiling
- Insulation buried ducts (R-20 equivalent)
- Mastic-sealed ducts, less than 6% leakage
- Vinyl frame, low-E windows in, Solar Heat Gain Coefficient (SHGC)=0.33
- SEER 14 air conditioner

Hickory Consortium

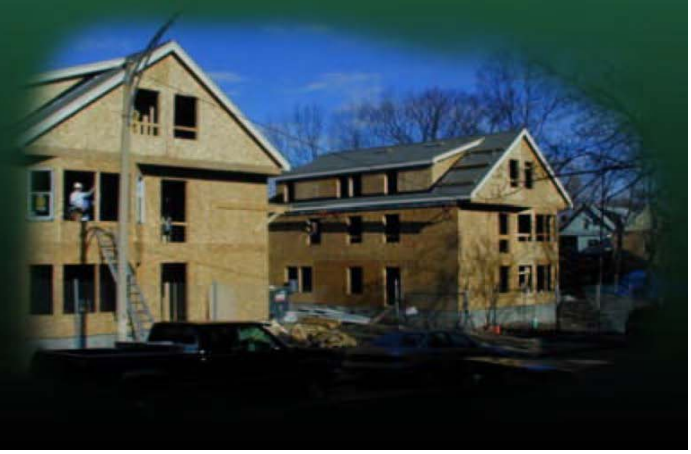
Erie-Ellington Communiuty

Dorchester Neighborhood
Boston, Massachusetts

This 50-unit, affordable housing development and community center has an award-winning environmental design, emitting less pollutants and providing a healthier indoor environment. Each unit saves an estimated $780/year in water and energy costs and $26/ft^2 in construction costs.

Features

- Centralized high efficiency HVAC system
- Programmed exhaust ventilation
- Panelized construction
- Durable, high quality, low impact materials
- Energy-saving windows
- ENERGY STAR® appliances
- Fiber-cement siding



IBACOS Consortium

Summerset at Frick Park

Pittsburgh, Pennsylvania

This energy-efficient house is located on a redeveloped industrial waste site that has been cleaned and stablized. All the houses being built in this area will meet ENERGY STAR® standards and will have a minimum HERS score of 86.

Features

- 93% air handler/12 SEER condensing unit
- 5" fresh air duct w/45 cfm constant airflow regulator
- Mechanical ventilation, 60 cfm continuous
- Reduced duct leakage by applying sealant
- All duct work in conditioned space
- Insulated foundation
- Low-E argon-filled windows
- Minimum HERS score of 86

Industrialized Housing Partnership

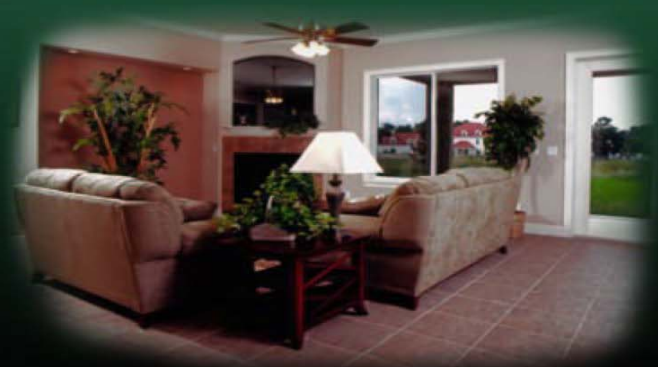
DREAM Home

Fallman Design and Construction – Central Florida

The DREAM Home (a Durable, Resource Efficient, Achievable Model for new housing) has a HERS score of 90, predicting an energy savings of 50%, exceeding ENERGY STAR® criteria by 20%. It has been certified as the first official Green Home by the new Florida Green Builder Coalition. With this package of cost-effective, off-the-shelf products and proven techniques adjusted for climate appropriateness, builders can achieve similar results using their own designs.

Features

- Adaptable to many designs and climates
- High-efficiency heating and cooling equipment
- Window shading
- Humidity-controlled ventilation
- Inside house, sealed duct system
- Solar water heater
- ENERGY STAR® Appliances



Building Science Consortium

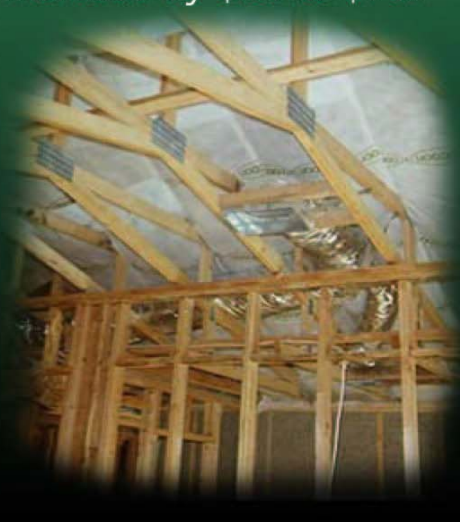
Copper Moon

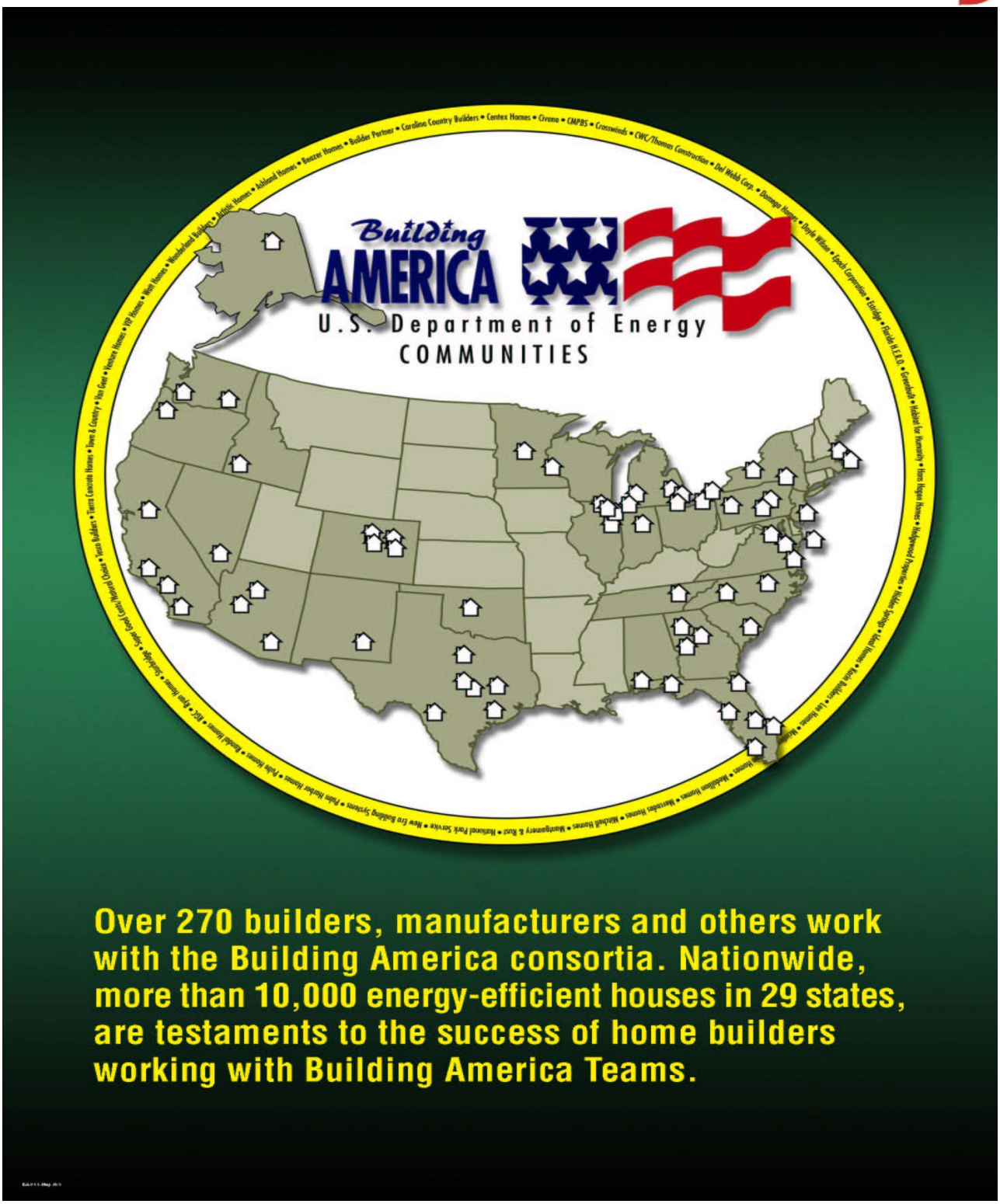
Pulte Homes – Tucson, Arizona

The Copper Moon House meets Building America and ENERGY STAR® standards. Homeowners will save predicted annual savings compared to standard construction of $150 to $250 on heating, cooling and domestic hot water. With the optional upgrade from a 10 SEER to a 12 SEER air conditioning unit, the predicted annual savings increase by $50 to $70.

Features

- Unvented cathedral attic
- Low-E^2 spectrally selective windows
- Sealed ducts with mechanical ventilation
- Stack framing
- Blown cellulose wall and ceiling insulation (uniform insulating value; reduces infiltration and exfiltration)
- Air pressure relief to each bedroom
- Combustion safety measures and carbon monoxide detectors
- Reduced sizing of air conditioning equipment
- Heating and cooling bill guarantees




Building
AMERICA
U.S. Department of Energy
COMMUNITIES
Over 270 builders, manufacturers and others work with the Building America consortia. Nationwide, more than 10,000 energy-efficient houses in 29 states, are testaments to the success of home builders working with Building America Teams.

Building AMERICA

How Can Builders Work With Building America?

Visit the Building America web site

www.eren.doe.gov/buildings/building_america
for information on events in your area and to get practical information on cutting energy and construction costs.

Contact a Building America Team for free technical assistance:

Building Science Consortium
Betsy Pettit
(978) 589-5100
e-mail: Betsy@buildingscience.com

Industrialized Housing Partnership
Subrato Chandra
(407) 638-1400
e-mail: subrato@ucf.edu

IBACOS Consortium
Brad Oberg
(412) 765-3664
e-mail boberg@ibacos.com

Technical Director
Ren Anderson
(303) 384-6191
e-mail: ren.anderson@nrel.gov

Hickory Consortium
Mark Kelley
(617) 491-1888
e-mail: dragon@world.std.com

DOE Program Manager
George James
(202) 586-9472
e-mail: george.james@ee.doe.gov

Consortium for Advanced Residential Buildings (CARB)
Steven Winter
(203) 857-0200
e-mail: swinter@swinter.com

Outreach Manager
Pat M. Love
(865) 574-4346
e-mail: lovepm@ornl.gov

Visit the Building America web site
www.eren.doe.gov/buildings/building_america

PATH