

Research Toward Zero Energy Homes

**Palm Harbor Homes – Bimini II – “Green” Home
2008 International Home Builders’ Show
Orlando, FL**

Bimini II – “Green” Home Statistics

- 3,312 square feet, 3 bedroom, 3½ bath

Energy Efficiency and Renewable Energy Features

- Low-E double glazed, impact resistant vinyl windows (U=0.35, SHGC= 0.30)
- 17 SEER/9 HSPF heat pump (dual fuel) by Carrier with programmable thermostat
- Icynene spray foam insulation (walls = R13, roof = R21)
- Duct system performance tested
- ENERGY STAR® appliances
- 92% use of compact fluorescent lighting
- AllSolar domestic hot water system sponsored by SunBuilt Program with Rinnai tankless, gas back up
- Meets Builders Challenge Standards with an EnergySmart Home Scale (E-Scale) = 57

Indoor Air Quality and Noise Reduction Features

- VOC source control including zero VOC paint and use of 75% reduced VOC caulks and sealants by Henkel
- Outside air ventilation
- Central vacuum system by Beam
- Quiet exhaust fans
- Formaldehyde-free cabinets
- Duct system sealed with mastic and fiberglass mesh

Other Green Building Features and Certifications

- Resource efficient modular construction and construction waste management
- Water efficient appliances and fixtures
- Meets Gold level in all sections except lot design, preparation, and development per the new NAHB National Green Home Building program (nahbgreen.com)
- Certified Florida Green Home by the Florida Green Building Coalition
- Progress Energy Home Advantage Premium Energy Saver Program
- Built for 140 mph wind zone
- Builder is Building America Partner and Builders Challenge participant

More information at the house in the Professional Builder Show Village or at booth #W3659



Builders Challenge

Recognizing Energy Leadership in Homebuilding



Florida Solar Energy Center leads the Building America Industrialized Housing Partnership Consortium



A Strong Energy Portfolio for a Strong America

Energy efficiency and clean, renewable energy will mean a stronger economy, a cleaner environment, and greater energy independence for America. Working with a wide array of state, community, industry, and university partners, the U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy invests in a diverse portfolio of energy technologies.

Research and Development of Buildings

Our nation's buildings consume more energy than any other sector of the U.S. economy, including transportation and industry. Fortunately, the opportunities to reduce building energy use—and the associated environmental impacts—are significant.

DOE's Building Technologies Program works to improve the energy efficiency of our nation's buildings through innovative new technologies and better building practices. The program focuses on two key areas:

• Emerging Technologies

Research and development of the next generation of energy-efficient components, materials, and equipment

• Technology Integration

Integration of new technologies with innovative building methods to optimize building performance and savings

For more information contact
EERE Information Center
1-877-EERE-INF (1-877-337-3463)
www.eere.energy.gov



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

An electronic copy of this publication is available on the Building America Web site at www.buildingamerica.gov

U.S. Department of Energy Launches Builders Challenge

The U.S. Department of Energy is scheduled to launch Builders Challenge, based on Building America high-performance home strategies, Thursday, February 14, 2008 at 3 PM in the Professional Builder Show Village during the International Builders' Show in Orlando, Florida.

The Challenge — to build 220,000 high-performance homes by 2012. Leading builders will join senior DOE officials to “take the challenge” to build homes that are between 70 and 0 on the EnergySmart Home Scale (E-Scale). The E-Scale allows homebuyers to understand — at a glance — how the energy performance of a particular home compares with others.

Visit our Web sites at:

www.buildingamerica.gov

www.pathnet.org

www.energystar.gov



Building America Program

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Consortium for Advanced Residential Buildings (CARB)

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Industrialized Housing Partnership (IHP)

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