



Gulf Coast Reconstruction: Department of Energy Perspective

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Overall Efforts by DOE

- Provide expertise on energy efficiency and renewable energy technologies:
 - Rebuilding homes and commercial buildings
 - Rebuilding schools
 - Policy
- Solar America City

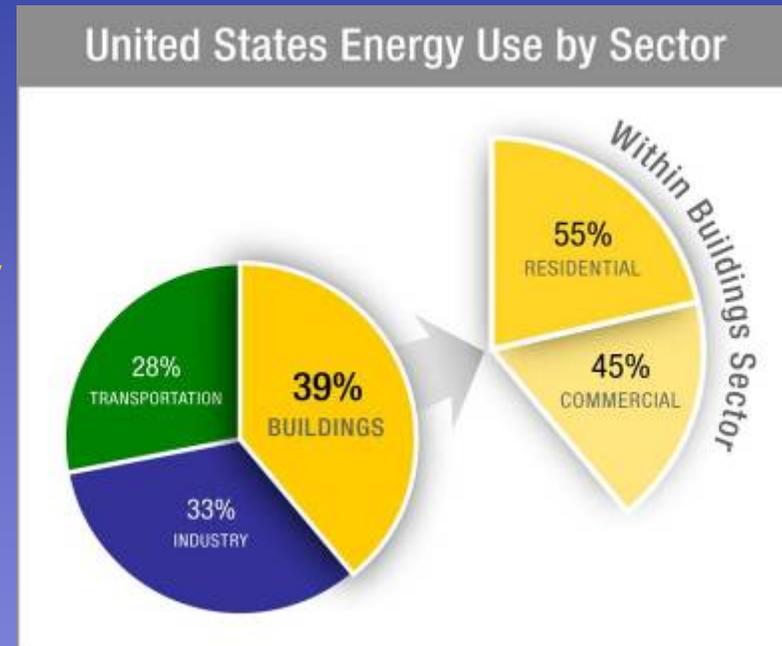


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Benefits of Energy Efficiency and Renewable Energy

- Buildings consume
 - 40% of today's energy
 - 2/3^{rds} of electricity
- Carbon-free electricity and heat (space, hot water, etc.) necessary to stabilize greenhouse gas emissions
- Greater use of efficiency and renewables can significantly impact the residents of New Orleans by assuring more affordable energy bills



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Implementing Efficiency and Solar Today



DOE/NREL analysis shows 35% energy savings can be achieved using today's technologies in residential buildings on a cost-neutral life-cycle basis.

- Future milestone is up to 50% energy savings on a cost-neutral basis
- Cost-competitive PV technology enables ultimate vision of affordable net-zero energy homes/commercial buildings

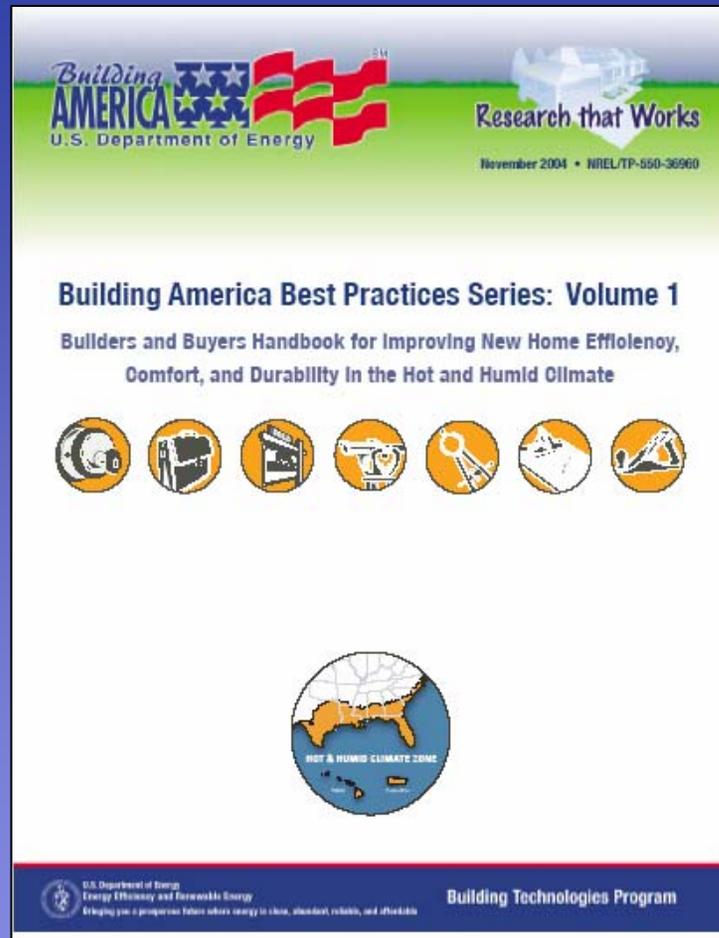


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DOE Building America Program

- Specific to Hot and Humid Climates
- The guide provides information for:
 - Homeowners
 - Managers
 - Marketers
 - Site Planners
 - Designers
 - Site Supervisors
 - Trades



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Building America Residential Energy Analysis

New Orleans Efficiency Scenarios	1,000 sqft Single Family Home	1,500 sqft Single Family Home
Energy Efficiency Savings	34%	36%
Incremental Cost – Efficiency Increased Mortgage / Lease Costs (\$/yr)	\$3,834 \$136	\$4,536 \$161
Annual Utility Bill Savings	\$1,040	\$1,087
Net Cash Flow Savings (\$/yr)	\$904	\$926

- Assumes New Orleans electricity \$0.12 / kWh
- Uses state average NG rate at \$1.17/therm
- Baseline is 2006 IECC (code required in Louisiana)



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Affordable Energy Efficient Features

- Crawl space construction on grade
- Energy Star Appliances
- Tankless Gas Water Heater
- CFL's throughout the house
- Tight construction with R30 ceilings and walls
- Heating and cooling needs met by SEER 16 Heat Pump



Design by Building Science Corporation, LSU and Catholic Charities Group (30% efficiency savings)



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DOE Partnerships through Building America to Address Gulf Coast Needs

- Building Science Corporation-
 - design assistance to Global Green for their 9th ward Holy Cross project
 - collaboration with LSU for new house designs (several parishes)
- Florida Solar Energy Center
 - Partnership with Habitat for Humanity to certify Energy Star homes
 - Partnership with Federation of American Scientists for energy efficient factory built homes



DOE partnered with HUD, and the Home Depot to sponsor a series of hurricane preparedness and home recovery workshops in Alabama, Mississippi, and Louisiana. The workshops for builders and trades attracted over 3,000 participants.



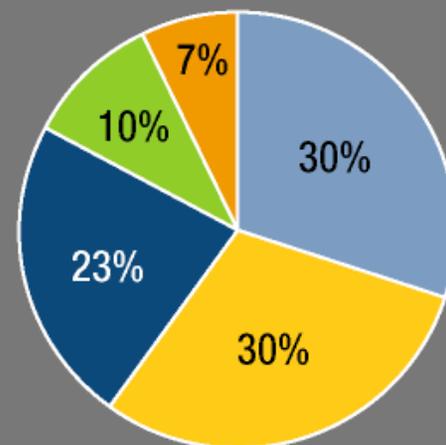
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Rebuilding Schools Vital to Rebuilding Neighborhoods

- **Energy is Second Largest Cost after personnel**
- K-12 spend \$8 billion annually on energy, 1,000 new schools built annually
- Average school is 42 years old – renovations are becoming necessary and commonplace
- Estimated \$60 billion over next 3 years for new construction, and retrofits
- In 2002, 47% of nation's school districts renovated or retrofitted facilities
- In 2005, \$21.6 billion spent on school construction – \$12.8 billion new, \$5 billion additions, and \$3.9 billion renovations

Typical School Energy Use Distribution
(varies by climate zone)



■ Lighting
■ Cooling
■ Space Heating
■ Water Heating
■ Other

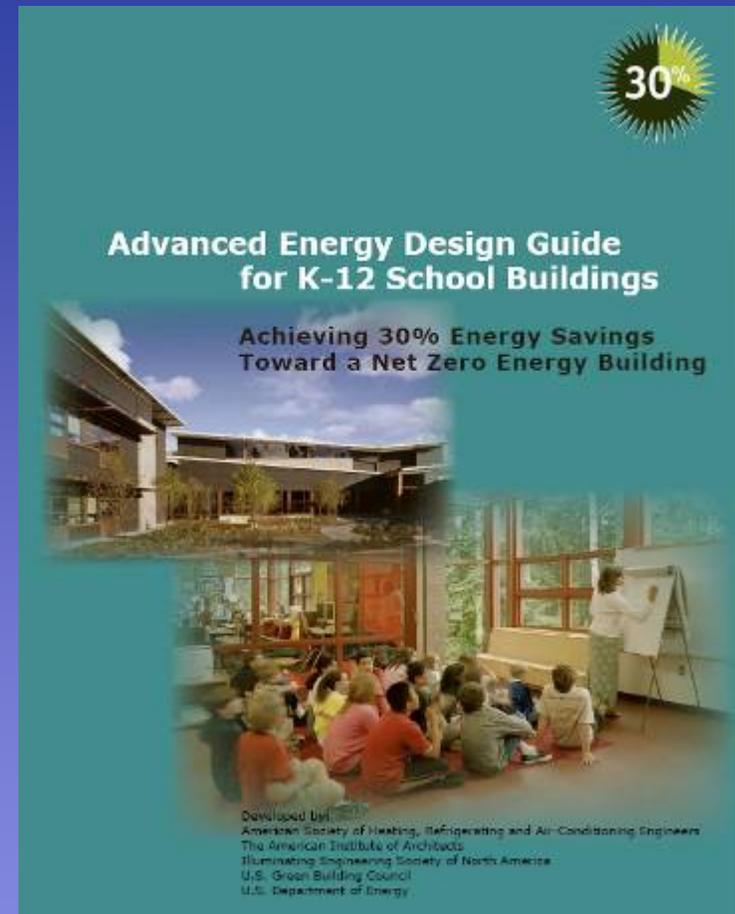


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DOE is Reinvigorating its EnergySmart Schools Initiative

- New Construction: Use DOE/ASHRAE Design Guide for 30% energy savings
 - Design charrettes with NOLA architects and workshops with builders
- Energy Audits for all New Orleans schools
 - Supports Energy/Global Green Solar Schools Initiative
- Secretary Bodman re-launching at Capdau in New Orleans, August 8, 2007



Also with AIA, IESNA, USGBC



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Policy Progress

Building Codes

- Louisiana Recovery Authority led implementation of new codes:
 - No uniform residential code before storm to 2006 IECC mandatory statewide
 - 2001 ASHRAE Commercial Code to 2004 Code



Secretary Bodman announced 6/20/2007

Solar

- 50% state tax credit for solar
- Net metering regulations (New Orleans)
- \$200K funding
- \$2.0M in technical assistance for project financing, codes/standards, solar policies, outreach



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Next Steps: Opportunities

- Continue support through Building America Partners, State Energy Office, and National Renewable Energy Laboratory (2 local energy experts)
 - Design guidance and economic assessments to Recovery School District and State Superintendent for schools, both new and major renovations
- Work with Office of Recovery Management and New Orleans Redevelopment Authority to implement cost-neutral energy efficient housing as they auction abandoned and blighted properties
- Pursue new opportunities with Global Green and other NGOs on efficiency and renewable energy projects that are replicable
- Work with city, state and utilities on energy policies (e.g., implementation of net metering, Solar America Cities, etc.)





For More Information:

visit www.eere.energy.gov

The screenshot shows the homepage of the U.S. Department of Energy's Energy Efficiency and Renewable Energy (EERE) website. The header features the EERE logo and the tagline "Bringing you a prosperous future where energy is clean, abundant, reliable, and affordable." A navigation menu on the left lists various programs and offices. The main content area includes a video player for a "Ratatouille" energy-saving campaign, a news article about the Biomass Research and Development Board touring NREL, and a sidebar with search, features, quick links, and popular topics.

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Saving energy is easy. Make the switch today.

RATATOUILLE
(rata-tooo-eed)

© 2007 Disney/Pixar | [View Video](#)

[Text Version](#). See the [press release](#) about the new campaign from DOE and Disney/Pixar.

Biomass Research and Development Board Tours NREL

July 16, 2007 – The Biomass Research and Development Board, the federal government's main coordinating body for the promotion of biobased fuels and biobased products, met today at the National Renewable Energy Laboratory in Golden, Colorado. After conducting its monthly board meeting, the group toured renewable energy research projects at the lab, including the Alternative Fuels User Facility. The interagency board includes representatives of major federal agencies and is co-chaired by DOE Assistant Secretary Alexander Karsner and Department of Agriculture Under Secretary for Rural Development Thomas



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New Orleans
August 5-8