Building Back Green

Due to the catastrophic losses of Hurricanes Katrina and Rita, the Sierra Club Gulf Coast Environmental Taskforce was formed with the goals of protecting communities, encouraging green rebuilding and restoring our natural storm barriers. More structures were destroyed than in any other natural disaster in history. Hundreds of thousands of homes, small businesses and offices in New Orleans and along the Gulf Coast suffered unprecedented storm and flood damage. The Taskforce was confident that the Gulf region would recover and in the process would have the opportunity to build back greener, cleaner and safer.

This brochure was developed within months after the storm and is now being updated to provide residents with new tools to get information about green building. Our goal is to encourage homeowners to construct new buildings and renovate damaged ones using sustainable materials, to recycle existing materials, and most importantly to make energy and water efficiency a priority. Taking these steps will result in safer and healthier environments for all.

Using Green Building principals is within the average homeowner's ability and budget. These choices can be a benefit to your family by saving on utility bills, providing healthier indoor air quality and ultimately decreasing your personal contribution to global warming.

The Sierra Club does not endorse any of the websites nor the products mentioned in this guide. We do hope that you will find them helpful. Please consult a professional before starting any major construction project.

FOR MORE INFORMATION:
The Sierra Club's New Orleans Office
(504) 861-4835
www.sierraclub.org

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Get More Information

Green Building Technology
www.usgbc.org
(US Green Building Council)
www.buildinggreen.com

Green on TV
www.buildinggreentv.com
www.dbiynetwork.com

Green Building Gulf Coast
www.louisianahouse.org
(LSU Ag Center)
www.southface.org
(Resource center)
www.greenbuildingcompanies.com
(AL and MS)
www.home-builders.org
(HBA Greenbuilders)
www.helpholycross.org
(Zero carbon footprint community)
www.lagreencorps
(Green job training)

Local Help with Energy Solutions
www.all4energy.org
(Alliance for Affordable Energy)
www.greenlightneworleans.org
(Low cost bulbs)
www.ases.org
(American Solar Society)
www.globalgreen.org
(Model home)

Global Warming and Conserving Energy
www.sierraclub.org/energy
www.carbonfootprint.com/calculator.aspx

Energy Star Products
www.energystar.gov

Recycled and Sustainable Products
www.thegreenproject.org
(New Orleans Salvage Store)
www.habitat.org
(Habitat Restores)
www.recycleminnesota.org
(Guide to products made from recycled materials)
www.freecycle.com
(Way for people to donate and get stuff for free)

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Building Green, Clean and Safe

A SIERRA CLUB GUIDE TO GREEN BUILDING PRINCIPLES

REBUILDING GREEN, CLEAN AND SAFE

Is your house hurricane ready?

Here are some basic tips.
For more detailed construction information, contact your local Home Builder's Association.

Entry Doors: Each outside door should have at least three hinges and a dead bolt security lock with a one-inch bolt. Doors should open out to prevent them from blowing in and letting in storm debris.

Patio Doors: Replace your sliding glass doors with impact-resistant door systems made of laminated glass or plastic glazing.

Garage Doors: Replace your garage door with a stronger wind and debris resistant product.

Roofs: Have your roofing contractor install metal straps to anchor the walls to the roof.

Windows: Replace yours with impact resistant, plastic coated insulated windows.

Plan how to handle your construction debris.

Minimize the amount of material that goes into the landfill. Most wood and concrete debris can be recycled or reused in your project. If asbestos or lead paint is present, follow EPA mandated safety procedures. Make sure that your contractor disposes of the material legally.

Donate light fixtures, plumbing, windows, wood and other building materials to a local salvage yard or advertise on Freecycle (www.freecycle.com). Tree debris and yard waste can be ground up for mulch. Leftover paint can be donated to community organizations that recycle paint. Consult your local government about how to dispose of any other hazardous materials safely.

How will my building green effect my wallet?

Building green will save your household money over the short and long term. The materials and building methods may be more expensive than conventional methods but they will pay off.

For example, purchasing Energy Star appliances can save from 10%-90% on your utility bills over standard models. Insulated windows and more efficient heating and cooling units are eligible for federal tax credits and will lower your utility costs. Check for state tax credits too. Fiber cement siding lasts 30 years more than regular siding and requires less maintenance.

Natural flooring and counter tops are durable and long lasting as well as contemporary and elegant alternatives. A home built with low VOC paints, nontoxic building materials and good air barriers has been shown to reduce allergens which lowers the likelihood of respiratory problems and should result in fewer doctor visits. Each house is unique but there is strong evidence that building green will save you money.

How can my building project make my community more sustainable?

If you build more energy efficiently, you will use less energy. If you use recycled and renewable resources to rebuild, you are saving the energy to produce these goods and reducing your personal carbon footprint.

If you live in a healthy environment, your family will be healthier. If you build a walking path at the front of your house or keep your existing sidewalks clear, you are making your neighborhood more walkable. Front porches encourage community interaction. If you donate to or buy from your local recycled building materials store, you help put less waste in landfills. You can make your neighborhood sustainable, one building project at a time.

What else can I do?

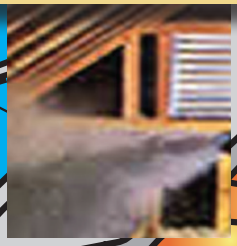
Let elected officials know that you are building green. Encourage them to promote and reward green building practices for residential and commercial buildings. Promote conservation at the city and state level, after all it is our tax money that could be saved on utility bills and used to improve our community in other ways.

Roof

Photovoltaics, or solar panels can be used to power your house, heat water and in some areas you can sell power back to your local utility.

Attic

Eco-friendly insulation blown in and a radiant barrier installed equals lower cooling costs.



Lighting

Compact flourescent bulbs are available in every size and wattage. Use them for all of your indoor and outdoor needs.

HVAC

Make sure the one you buy is Energy Star rated.

Doormat

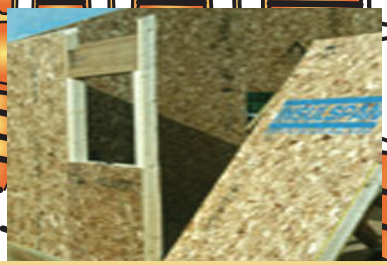
One recycled doormat saves 60 plastic bottles from the landfill.

Windows

Low E argon filled windows are a good investment. Wooden or metal shutters close to protect from wind damage and create shade from the mid-day sun.

Exterior

Choose lumber certified to be from sustainable forests. Structured insulated panels can come to the site pre-made. Cement fiber board makes lasting low maintenance siding. Insulate walls to keep out air and insects.



Interior Choices

Counter tops: Concrete, recycled paper and glass are today's stylish green choices.

Appliances: Go Energy Star rated on everything including your TV. Some states have tax credits for refrigerators.

Plumbing: Low flow faucets and low flush toilets conserve water. Consider a tankless or a solar hot water heater.

Flooring: Sustainable choices include salvaged lumber, bamboo, linoleum, soft carpet made of recycled materials, recycled content glass and ceramic tiles. Most are available from local retailers.

Principles of Green Building

The purpose of green building is to shelter people and to protect the earth. There are five ommon principles in green building:

Site Location: Designing a building based on location.Our homes are being rebuilt under a thinner tree canopy so the green or sustainable way to plan is to take the increased solar heat into consideration as we rebuild.We need to create shade yet strive to take advantage of winter daylight.

Energy Efficiency: Reducing energy use will save money, conserve resources and cut pollution while curbing global warming. We are able to achieve this goal by using energy efficient construction materials like double glazed windows and insulation. Just the simple installation of compact flourescent bulbs and Energy Star rated products can reduce a household's energy usage overnight.

Conserving Water: Reducing water waste conserves the resource and cuts pollution. Recycling the rainwater into our gardens and using low flow faucets, showerheads, washing machines and toilets, lowers the amount of water going into waste treatment plants.

Indoor Air Quality: Building green works to reduce the allergens, pesticides and strong smells from chemicals in our homes. A well sealed house keeps dust and insects out. Using formaldehyde free particle board helps protect against the serious health effects of outgassing.

Recycled and Non-toxic Materials: Using affordable and sustainable construction materials such as bamboo, cement made from fly ash, recycled glass tile and natural linoleum will last for a long time, make your home healthier and reduce the amount of waste in our landfills.

What Can You Do?

Deciding to build green

Whether you are rebuilding your home, building a new home or would like to retrofit your existing home, there are many sources available for information about green building that weren't available just a few years ago. You can find out more about building green on many websites; look for local classes, seek out local architects that specialize in green building and find a wide selection of green products even at the big box websites. Locally, check your local newspaper for green home tours and demonstrations in your area.

Solar Tax Credits

Louisiana has the best in the USA.
Check out your state:
www.solarrocks.com.

Create a budget

The federal government is offering tax incentives and there are often state tax incentives available to help defray the cost. Solar panels, tankless hot water heaters, insulation and Energy Star rated heating and air conditioning systems may all qualify you for a tax credit. Check with a qualified accountant to determine what rebates and tax credits are available in your state. When you consider how much you are going to spend, look at the lifecycle of the products available, which includes their durability and in the case of Energy Star appliances, the future benefits of lowering your utility bills.

Create a sustainable plan

Look at your house and landscape as a whole system working together. Making changes to one part of your house influences other needs, for example a tree removed from the property may give the house less shelter from the sun. In that case you might need to add insulation to your attic and use insulated curtains in your home to offset the shade loss. By changing your windows to insulated windows, you may be able to operate a smaller, less expensive heating and cooling unit. Take the time to plan and get expert advice so that your house is the most energy efficient it can be.