



# Global Green USA Green Schools Initiative



# Global Green USA

- National environmental organization primarily focused on **stemming global climate change by creating green buildings and cities**
- Headquartered in Santa Monica and offices in New Orleans, New York City, & Washington, DC



# Green Schools Initiative Overview

- Accelerate the widespread adoption of green building practices in school design
- Focused on 2 Geographic Areas:
  - Los Angeles
  - Louisiana statewide & primarily New Orleans



# GSI in Louisiana

## Overview

- Launched in 2006
- Bush Clinton Katrina Fund (BCKF)
- 3 Components/Focus Areas



# GSI in Louisiana

## State of New Orleans Schools

- Pre-Hurricane Katrina
  - 126 public schools in operation
  - Many aging buildings, some 30 -50 years old
  - Legacy of disrepair and neglect
- Post-Hurricane Katrina
  - Over 100 schools suffered considerable damage
  - Flood & Wind Damage + Population Loss + State Takeover of Majority of Schools from Local Board = SCHOOL FACILITIES MASTER PLAN for ORLEANS PARISH



# GSI in Louisiana Components

## 1. Advocacy & Outreach:

- Promote implementation of green schools policy
- Build community support

## 2. Green Seed Schools

- Retrofit 4 Occupied Schools in New Orleans
- Investing \$75,000 direct funding to each school + Technical Assistance

## 3. Green Model Schools

- Assist in Development of 2 LEED Schools in New Orleans
- \$720,000 direct funding for both schools combined + Technical Assistance



# GSI in Louisiana Advocacy & Outreach

- **January 2007:** Authored green building standards; standards accepted into policy by the Louisiana Recovery Authority for any schools using CDBG grants to rebuild.
- **August 2007 – March 2009:** Conducted 3 green schools workshops around the state
- **May 2008:** Green Schools Resolution (GSR) drafted for City Council; passed unanimously
- **February 2009:** Ordinance drafted to give (GSR) some authority
- **November 2008:** Adoption of Master Plan; green building guidelines, technical support, and support of LEED Silver standard for rebuilt schools



# Green Seed Schools (GSS)

A.P. Tureaud Elementary



Dr. Martin Luther King Elementary



Gentilly Terrace

International School of Louisiana





# GSS Process

- Engage school officials & facilities personnel
- Perform energy audit
- Perform air quality tests (VOCs, Formaldehyde, Dust Mite Allergens)
- Review & analyze recommended energy & water conservation measures/retrofits
- Determine which conservation measures/retrofits to implement
- Gather quotes from local vendors to implement conservation measures/retrofits
- Implement measures and calculate utility and monetary savings



# Conservation Measures

Conservation Measures	A.P. Tureaud	International School	Dr. Martin Luther King	Gentilly Terrace
Install Solar Shades	Y	Y	N	Y
Replace Incandescent Lights with Compact Fluorescents	Y	N	Y	N
Relamp Fluorescents	Y	Y	Y	Y
Caulk/Weatherstrip	Y	N	N	Y
Adjust thermostat settings for occupancy load & season	Y	N	Y	Y
Install Occupancy Sensors	Y	Y	Y	Y
Install Daylighting Sensors	N	N	Y	Y
Install Rainwater Cistern	N	Y	N	N
Install Hot Water Heater Insulating Blanket	N	Y	Y	N



# GSS Outcomes

	A.P. Tureaud	International School	Dr. Martin Luther King	Gentilly Terrace
Estimated kWh Electricity Saved	211,079	167,869	178,229	187,216
Estimated MMBtu Natural Gas	471	420	450	784
Estimated Gallons of Potable Water Saved	N/A	90,000	N/A	N/A
Estimated lbs CO2 Reductions (lbs)	220,216	177,109	174,550	195,335
<b>Estimated Dollars Saved on Energy</b>	<b>\$26,588</b>	<b>\$21,781</b>	<b>\$21,519</b>	<b>\$24,021</b>
Estimated Dollars Saved on Water	N/A	\$34,000	N/A	N/A
<b>Payback Period</b>	<b>2.5 years</b>	<b>3.5 years</b>	<b>2.5 years</b>	<b>3.1 years</b>



# Green Model Schools

Provide over \$720,000 in funding and technical assistance to Recovery School District (RSD) to achieve **LEED Silver** on 2 schools in New Orleans--

- *Andrew Wilson Elementary – Major Renovation*
- *L.B. Landry High – New Construction*



# Green Model Schools





# Green Model Schools Features

- Solar thermal hot water systems
- PV-ready design with space reserved for 2.5 Kw system
- 2.5 PV system
- Incorporation of water reuse strategies, such as rainwater harvesting cisterns
- Interpretive signage



# Green Model Schools Features

- Web-based solar monitoring system
- Native landscape



# In Summary

- Green schools benefit everyone ....*students, teachers, administrators, facility managers, elected officials, the community*
- School districts cannot afford to **NOT** build high performance schools.
- Louisiana can be a national green schools **LEADER** as it rebuilds



# GLOBAL GREEN USA NEW ORLEANS

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