

Examples of Eco-Building Opportunities in Savannah, Georgia to Enter U.S. Market

Bridget Lidy and Martin Fretty, City of Savannah
Jamie Wolf, Savannah Economic Development Authority

Visitor Center

- Approximately 8 million visitors
- 40,000 square foot building
- Circa 1850s
- Comprised of 2 structures
- Multiple stakeholders
- Collaborations



Interior Improvements



Exterior Improvements

- Stabilize structure
 - Re-roof
 - Repair windows
 - Repoint brick



Georgia Tech Enterprise Innovation Center

- Collect energy system data
- Determine operating schedules
- Conduct diagnostic measurements
- Use collected operational information to identify energy savings opportunities
- Analyze opportunities
- Prioritize projects



Opportunity ID: Energy Balance

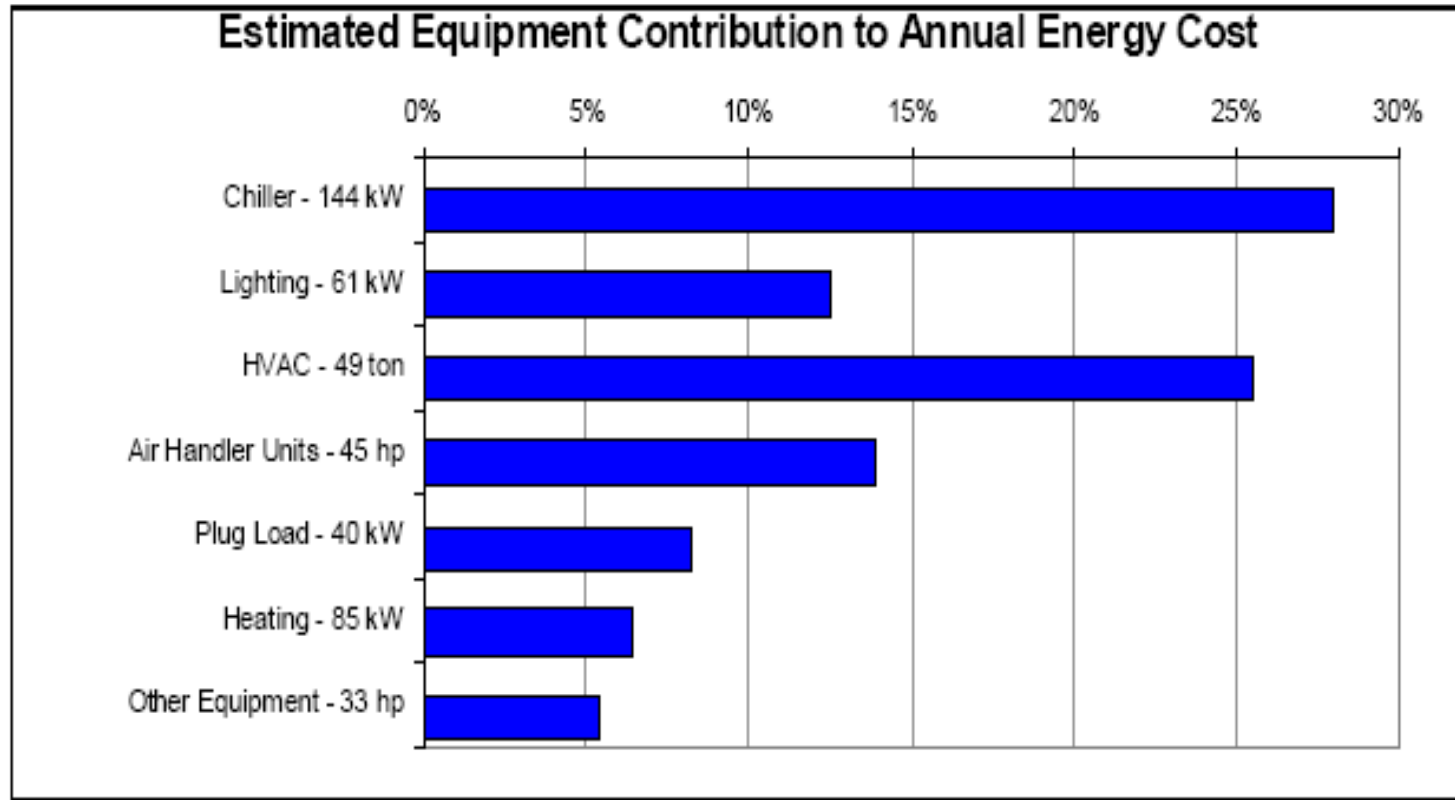


Figure 1.1. Energy balance in terms of percentage of total cost.



Energy Efficiency Opportunity

Mechanical Systems

- Replace Head House DX Units w/Chilled Water
- Replace Train Shed Air Handler Units
- Replace HVAC Units

Lighting

- Replace Incandescent Exit Sign w/LED
- Improve Fluorescent Lighting Efficiency
- Replace Incandescent Lamps w/CFL
- Replace Flood and Spot Lights w/LED





Windows:

- Install Window Film on Train Shed Windows
- Install Interior Storm Windows on Head House Windows



Additional Opportunities

- Install ground source heat pump
- Building Automation System
- Solar water heating
- Roof mounted PV
- Improve outdoor lighting
- Lighting controls: Special Collections



Results

Table 1.1. Energy consumption and proposed cost savings.

Resource	Current Annual Consumption*		Proposed Savings		
Electricity	1,584,000 kWh	\$ 140,909	1,020,000 kWh	\$ 90,900	65%
Other				\$ 1,880	
Total:		\$ 140,909		\$ 92,800	66%

* May 2008 to December 2008



South Carolina

Port of Savannah

Tammers Bridge

Savannah International Trade & Convention Center

Westin Savannah Harbor Resort

Civic Center

HISTORIC DISTRICT

Riverwalk

Forsyth Park

Savannah River

Harry S. Truman Parkway

Wheaton Street

President Street

Savannah Golf Club

Goebel Avenue

Shuman Middle School

Gwinnett Street

Savannah High School

Long Drive

Elgin Street

Treat Avenue

Pennsylvania Avenue

STRATHMORE ESTATES



Neighborhood Revitalization & Affordable Housing

Smart Growth, Green & Energy Efficiency

- Economy, Costly Fuel and Environmental Concerns Creating Opportunities
- Strong support from City, State & Federal Governments
- Ashley Midtown – Complete
 - Housing Authority of Savannah (HAS)
 - 315 Units of New Housing
- Sustainable Fellwood (HAS) -- Nearing Completion
 - 333 Units of New Housing
 - Neighborhood Friendly Retail
- Savannah Gardens (CITY/CHSA) -- Under Design / Nearing Construction
 - 500 to 600 Units of New Housing
 - Neighborhood Friendly Retail
- Hitch Village (HAS) – Preliminary Planning Underway
 - 337+ Units of New Housing
- Other Public Housing Properties (HAS) – Under Consideration
 - 8 remaining communities contain about 1,750 housing units to be redeveloped
- Tax Credits / HUD 202
 - 150 new housing units to Savannah every other year



Savannah Gardens

- 44 Acre Urban Redevelopment Project
- 3 Miles From Downtown Historic District
- Demolish 380 Dilapidated WWII Housing Units
- Build 500 to 600 New Affordable Housing Units
 - 125 to 140 Single Family Detached
 - 400 to 460 Multi Family Attached
- Build 40,000 + Square Feet New Neighborhood Retail
- Build New City Infrastructure/Parks
- \$100 Million Estimated Development Cost



Implementation Time Line

- Acquired site: November 2007
- Infrastructure and house design: Underway
- Infrastructure improvements: January 2010
- Phase-I Housing (165 units): July 2010
- Phase-II Housing (208 units): January 2011
- Phase-III Housing (207 units): January 2012
- Neighborhood Retail: 2011



Savannah Gardens

“Green” & Energy Efficient Opportunities

- **Building materials, products and technologies**
 - Housing (Building Envelope/Skin, Floor, Wall & Ceiling Finishes, Appliances, etc.)
 - Site Infrastructure (Roads, Sidewalks, Water, Sewer, Storm Sewer, etc.)
 - Parks/Open Space (Landscape, Hardscape, Play Equipment, Irrigation, Trash Collection, etc.)
- **Heating/cooling systems**
 - High Efficiency Heat Pumps
 - Geo Thermal



- **Plumbing fixtures and systems**
 - Water Saving Toilets
 - Water Saving Faucets
 - High Efficiency & Compact Water Heaters
- **Electrical fixtures and systems**
 - Compact Florescent Lighting
 - LED Lighting
- **Solar**
 - Water Heating
 - Photo Voltaic



Savannah Economic Development Authority (SEDA)

- Improves the standard of living for all citizens of Savannah/Chatham County by stimulating the economy thru the attraction of investment, the creation of jobs, and the support of established businesses already in the area
- Offers confidential site selection services, access to state and local incentives and resources, and also provides established business support to companies once they locate in Savannah



Georgia – Gateway to US

- Labor – availability, quality, cost
- Costs – property, construction, power
- Transportation
 - Port: 4th largest, fastest growing, 7% of mkt
 - Airport: 6 continents, 150 US cities
- Government / Taxes
- Quality of life



Market Opportunities

- B-B, MOU agreement:
 - Environment + Social sustainability, Innovation, Economic Development
- Savannah as gateway to US:
 - next 30 yrs of changing technology
 - Ease of entry/starting point
 - History of action in Savannah, representative of activity all over US
 - Ahead of the curve in GA but lots to learn from Sweden
 - Access to capital – with some requirements



Next Steps

- Opportunities to enter US market through
 - Licensing technology to US company
 - Joint ventures with US company
 - Create US subsidiaries
 - Supplying products & services
 - Launching new businesses in US
- SEDA will help your business help Savannah work towards a better future for us all!

