



News Release

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Contact: Judy Knight
Email: jknight@southface.org
Tel: 404-604-3591

New "Eco Office" Office Building Uses 84 Percent Less Water, 53.3 Percent Less Energy



*More than 200 Organizations Donate Time, Materials, Money to Complete
Southface Eco-Office; Building Dedication on Aug. 18, 2009*



ATLANTA, August 18, 2009 – The "office of the future" opens today in Atlanta, introducing a building that saves approximately 61,000 gallons of municipal water annually and uses 53 percent less energy than comparable buildings. Scientists worldwide are expected to study the Southface Eco Office, which was constructed by a consortium of companies using widely available off-the-shelf products, materials and technologies.



The Eco Office is a three-story structure with a rooftop green roof. At 10,100 square feet, it is about the same size as 74 percent of commercial buildings in the U.S.



"The Eco Office demonstrates that small commercial buildings can be green and achieve high performance standards at a reasonable cost," said [Southface](#) executive director Dennis Creech. "Our building design and construction teams have collaborated to make the Eco Office one of the greenest commercial buildings in the world."



The Eco Office has achieved Platinum [LEED](#)[®] (Leadership in Energy & Environmental Design) certification from the [U.S. Green Building Council](#). It has also qualified for [ENERGY STAR](#) and EarthCraft Light Commercial certifications, and meets [The 2030 Challenge](#) launched by the non-profit group [Architecture 2030](#).



Along with being an office building, the Eco Office serves as a demonstration and training facility, showcasing the possibilities for high-performance buildings to reduce operating costs.

Southface measures the Eco Office's performance through a [Lucid Design Group's Building Dashboard](#)[®], which presents real-time and historical data on the [facility's resource use](#) including electricity consumption; daily kilowatt hours of electricity produced onsite through its photovoltaic solar array; daily gallons of water consumed and saved; current rainwater levels in the building's above- and below-ground cisterns; and more.



The energy usage model projects the building will use 53.3 percent less energy than a comparable code-built building which puts it among the top 9 percent of such U.S. buildings.

Strategies and products that accomplish these energy savings include:

- Site orientation to maximize daylighting.
- Louvers on the building's south and east sides to control glare, minimize solar heat gain in the summer and maximize it during the winter.
- A high-performance thermal envelope with insulated concrete form walls.
- A 6.4-kilowatt photovoltaic canopy which has produced ~7 percent of the building's energy over the last 12 months.
- Electrochromic glazing to shade east-facing windows. This glazing uses a low-voltage electrical current to switch clear glass to dark while preserving views.
- A 1,937-square-foot extensive green roof, which reduces the urban heat island effect, stormwater runoff and energy demands.
- Super-efficient fresh air ventilation that uses an evaporative cooler, energy recovery ventilator and liquid desiccant system to remove moisture and capture waste heat.
- A high-performance lighting system.

Captured rainwater saves energy by cooling the air-source heat pump condensing units. Each kilowatt-hour of electricity saved saves approximately 1 gallon of water from being evaporated at a power plant.

The Eco Office also uses 84% less water by eliminating the use of potable water for sewage conveyance and irrigation, saving ~61,000 gallons of municipal water annually. Saving potable water also saves the energy needed to treat and pump water.

More than 200 organizations donated products and services to the project. Creech cited the exceptional cooperation and green building know-how of partners Lord, Aeck & Sargent (architect) and contractor consortium members, normally competitors - DPR, Hardin, Holder, R.J. Griffin, Skanska, and Winter.

"The Eco Office demonstrates the considerable depth of talent and expertise that exists within the Atlanta building design and construction community," he said.

About Southface

Southface is the Southeast's non-profit leader in the promotion of sustainable homes, workplaces and communities. Please visit Southface at www.southface.org.

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