

Renewable Energy at the Olympics

Many energy efficiency and renewable energy technologies were featured at the 1996 Atlanta Olympics

As the world's greatest athletes demonstrated their impressive abilities at the 1996 Atlanta Olympics, so too did some of the world's greatest energy efficiency and renewable energy technologies. About 2 million people attended the Atlanta Olympics, and more than 3.5 billion people watched the television coverage. Many attendees had a chance to see these renewable energy and energy efficiency projects in action.

The largest power contribution came from a photovoltaic (PV) installation: 2856 PV modules are installed on the roof of the main swimming facility, the Natatorium, and

provide 340 kilowatts (kW) of peak electrical power to the swimming complex. Also part of the Natatorium is a solar-thermal pool water-conditioning system. A total of 274 solar collectors are installed on the roof to heat, and when necessary, cool the pool water economically and efficiently.

Meanwhile, on a busy pedestrian thoroughfare close to the Natatorium, a solar thermal dish/Stirling unit, rated at 7 kW, provided electricity to the local electricity grid. And in downtown Atlanta, in the parking lot of the new Martin Luther King Center, a PV project provides 62 PV-powered lights for the National Park Service.

The Office of Power Technologies is part of the Office of Energy Efficiency and Renewable Energy

Highlights

- ***Demonstrated eight energy efficiency and renewable energy projects at the 1996 Atlanta Olympics***
- ***Collaborated with many other federal, state, and local agencies, as well as with many key industry associations and businesses***
- ***Provides a beneficial legacy to the Atlanta community—the Olympics Natatorium, Southface Energy and Environmental Resource Center, and Cool Communities applications are permanent. The Southface Center is used to familiarize media, visitors, educators, and students with state-of-the-art energy efficiency and renewable energy applications.***



NREL/PIX 02149

The Olympics Natatorium uses photovoltaics (right side) to produce electricity and a solar-thermal heating system (left side) to heat pool water. The photovoltaic system provides 340 kW of peak electrical power and is one of the largest photovoltaic building installations in the world.

Project Partners

U.S. Departments of Energy, Agriculture, Commerce, Defense, Education, Housing and Urban Development, State, and Transportation.

U.S. Environmental Protection Agency

U.S. Information Agency

National Renewable Energy Laboratory

Sandia National Laboratories

Atlanta Gas and Light Company

Georgia Power, Inc.

National Park Service

Atlanta Committee for the Olympic Games (ACOG)

State of Georgia

City of Atlanta

Georgia Institute of Technology

Solarex Corporation

Photocomm, Inc.

Heliocoil USA, Inc.

American Forests

Cummins Engine, Inc.

Also in downtown Atlanta, energy efficiency technologies for buildings are being demonstrated at the Southface Energy and Environmental Resource Center, a permanent facility for visitors, educators, and students. The facility features a roof made up, in part, of PV



This solar thermal dish/Stirling system was located on a busy pedestrian thoroughfare close to the Olympics Natatorium. The unit, rated at 7 kW, provided electricity to the local electricity grid.

shingles that produce up to 2 kW of peak electricity, and uses a geothermal heat pump for heating, cooling, and hot water.

In addition, the Center demonstrates the "Cool Communities" concept of using strategically planted trees and light-colored building materials and pavements to reduce air temperatures in urban areas.

Emerging transportation technologies were featured at the Olympics. The U.S. Department of Energy, together with the U.S. Department of Transportation, local transportation authorities, and private sector companies, provided more than 600 alternative-fuel vehicles for Atlanta's use during the Olympics. A fuel-cell-powered electric vehicle was also used at the Southface Center during the Olympics.

The Olympics presented a rare chance to gain visibility and establish greater market credibility for renewable energy and energy efficiency technologies. Most of the projects that contributed to the Olympics continue to provide a meaningful demonstration and learning experience for the people of Atlanta.

For More Information:

Web sites:
Photovoltaics at the Olympics:
<http://www.eren.doe.gov/pv/olympics.html>

World's Largest Solar Parking Lot for Olympic Games:
<http://solarlighting.com/olympic.htm>

Solar Energy Industry Association, Solar in the '96 Olympics:
<http://www.seia.org/olympics.htm>

or contact:
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