



Los Angeles Convention Center

## L.A.'S PREMIER "GREEN" FACILITY

*"Earth Aware, Doing Our Share!"*

The Los Angeles Convention Center is a "Green Community," both physically and environmentally. As a Los Angeles landmark, with its towering emerald green facade, the Los Angeles Convention Center defines the Los Angeles cityscape and is a devoted advocate of environmental programs. The Los Angeles Convention Center's constant efforts to progressively explore, test, and implement new and innovative earth-friendly initiatives throughout the 54 acre facility typify its commitment to environmental stewardship.

The Los Angeles Convention Center has implemented the following programs and continuously undergoes reviews to help show organizers produce environmentally responsible meetings, conventions, and trade shows in a "green-friendly" setting:

### NATIONAL RECOGNITION

#### USGBC LEED-EB Certification



In September of 2008, the Los Angeles Convention Center became the first U.S. convention center of its age and size, and the first City of Los Angeles Building to achieve the national distinction of being certified in Leadership for Energy and Environmental Design for existing buildings (LEED-EB) from the United States Green Building Council (USGBC). Without delay, LACC is already underway in enhancing its LEED certification with new earth-friendly programs like thermal storage and creating green space for its community.



LACC is registered with the USGBC as a member of the Los Angeles and National Chapter. Certification in LEED-EB is the Green Building Council's rating system that serves as the national green benchmark for high performance "Existing Buildings."

#### United States Environmental Protection Agency (EPA)



The United States Environmental Protection Agency (EPA) recently welcomed the Los Angeles Convention Center as a national Green Power Partner. The Los Angeles Convention Center facility has made a strong commitment with the EPA to help reduce the risks associated with climate change by supporting technologies that are more sustainable for businesses and communities. For more information, visit: [www.epa.gov/greenpower](http://www.epa.gov/greenpower).



Preserving Resources,  
Preventing Waste

The EPA recently awarded the Los Angeles Convention Center with national recognition for their efforts in convention-wide waste diversion practices. As a result, the Los Angeles Convention Center is now a qualified member of the EPA's national WasteWise program. For more information, visit: [www.epa.gov/wastewise](http://www.epa.gov/wastewise).

(more)

## LACC FOOD SERVICES

### 100% Eco-Friendly Public Food Cafes and Restaurants



The Los Angeles Convention Center public Food Services operates with a 100% environmental-friendly approach using service ware products that can either biodegrade or can be composted. The service ware products are made from materials derived from natural ingredients such as: sugarcane pulp, raw bamboo pulp, palm fiber, wheat chaff, rice chaff, bull rush (tulles), savanna grass, corn starch, and organic substances.

### Food Waste Diversion

As part of its routine operation, the Los Angeles Convention Center has also upgraded its food waste diversion program in alignment with the City of Los Angeles' Bureau of Sanitation Food Waste Collection program which diverts all food, food-soiled paper, and plants. The Los Angeles Convention Center has diverted 17 tons from its November 2007 start date to March 2008 by way of either composting or recycling food waste material that would otherwise end up in the landfills. By including a food composting and recycling program, the Los Angeles Convention Center continues to diversify and adopt innovative recycling activities in our commitment to offer our employees and patrons a truly comprehensive "green" experience.

### 95% Food Product Cleaning Materials



The Los Angeles Convention Center recently changed all of its food service cleaning products to the Ecolab brand, an earth-friendly, non-toxic product line. For more information, visit: [www.ECOLab.com](http://www.ECOLab.com).

### 100% Free Range Organic Grass Fed Beef



The Los Angeles Convention Center now uses 100% free range organic grass fed beef with no use of steroids in all hamburgers provided in both our catering and public food services.

### Food Safety



The Los Angeles Convention Center's Food Services promotes and practices safe selection and handling of seafood products using the Monterey Bay Aquarium seafood watch program. This approach is designed to raise consumer awareness about the importance of buying seafood from sustainable sources. The program recommends which seafood to buy or avoid, helping consumers to practice safety and become advocates for environmentally friendly seafood.

## ENERGY EFFICIENCIES

### Sustainable Roofing Reflectance and Emittance



The Los Angeles Convention Center's 145,000 square foot West Hall third level roof is now a "cool roof." What we mean by "cool roof" is that it's a white colored reflective surface which reflects and emits the sun's heat back to the sky instead of transferring it to the building below. The reflective coating can reduce the roof's surface temperature by more than 75 degrees, while adding insulation value inside the building. Numerous benefits can be realized from this type of roof: significant reduction in the demand for air conditioning, reduction in energy usage, extend the lifecycle of the air conditioning maintenance equipment, and help reduce operating costs associated with cooling the building. You can say that this white cool roof is really, "green!"

### The Control Room



The Saving Power Energy Management System, a highly sophisticated new system at the Los Angeles Convention Center, automates energy use and atmosphere management throughout the building. Managers are now able to "trend" the data in advance and automate much of the management, taking far less time to arrive at optimal temperatures and fresh air introduction than earlier pneumatic systems. In addition, this system allows for the temperature and air quality to be changed from a central point, rather than requiring a staff member to walk to a location and change the conditions there.

### Solar Heating Attenuation



The Los Angeles Convention Center's dual signature glass towers include patterned glass inlays. These inlays are thicker where solar exposure is the greatest, providing passive solar heat attenuation without the need for additional air conditioning.

### Efficient Lighting

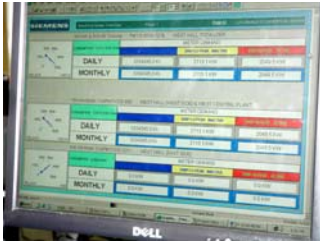


The Los Angeles Convention Center has upgraded to over 1,900 high efficiency lighting units in our exhibit halls, reducing electrical consumption by 50% while providing the same level of illumination.

### Air Conditioning Efficiencies

Air conditioning is a major energy consumption component of a facility's infrastructure, and the Los Angeles Convention Center has taken significant steps to improve air conditioning efficiency. Recent upgrades to the air conditioning chiller units have resulted in a 38% improvement in energy efficiency for these units, along with a transition to an environmentally-friendly form of Freon (R-123).

## Efficient Energy Conservation Management



Effective energy conservation is the responsibility of every employee. Facilitating this message and implementing new energy conservation programs is a responsibility of the Convention Center's Energy Task Team. The Energy Task Team brainstorms, evaluates, and implements a variety of energy conservation programs and builds the energy-conscious environment necessary to minimize energy consumption and conserve natural resources.

The implementation of multiple energy conservation measures, energy awareness education, and processes to control electrical demand charges has resulted in significant energy savings and cost reductions, and contributes to the environmentally-green nature of the Los Angeles Convention Center.

## Renewable Energy

The use of renewable energy reduces the environmental impacts associated with the production and consumption of traditional fuels. In addition, renewable energy minimizes problems such as acid rain, smog, global climate changes, and human health problems resulting from air contaminants. Green Power means cleaner air and a greener world.



### *Solar Power*

The Los Angeles Convention Center is considered the largest solar energy-generating convention center in North America, with an electrical capacity of 450,000 Kilowatt-Hours per year of renewable and environmentally safe electrical power. This solar-generated electrical energy is connected to the primary power grid for Los Angeles, with the ability to generate enough energy to support nearly 100 Los Angeles homes.

### *Natural Resources*

The Los Angeles Convention Center is enrolled in the Los Angeles Department of Water and Power's Green Power Program at a level of 30% of the facilities consumption as of February 2008. Some of the environmentally-friendly renewable energy resources are derived from hydroelectric, geothermal, solar, biomass, and wind energy sources.

## RE-USE

### Recycle Programs



The Los Angeles Convention Center is committed to increasing landfill diversion and product reuse at every available opportunity. It prides itself on the progressive steps it has taken over the last 5 years to increase diversion and provide leadership as an environmental leader in public venue recycling. To date, the Los Angeles Convention Center recycles the following commodities:

- Cardboard
- Glass, Aluminum, and Plastic beverage containers
- MRF Commodities (commingled recyclable material)
- Other Metals
- Pallets
- Paper (all grades)
- Scrap Metal / Steel
- Toner / Ink Cartridges
- Wood

The Los Angeles Convention Center Recycling Program first launched in 1999. However, at that time and through 2000, the program was in the "pilot stage" largely organized and managed by the Department of General Services City Facilities Recycling Program. In 2001, the Los Angeles Convention Center officially implemented an internal and independent recycling program that reported diversion numbers directly to the Bureau of Sanitation.

The Los Angeles Convention Center annually diverts and recycles over 733 tons (1.46 million lbs.) of recyclable goods. Diversion efforts at the Los Angeles Convention Center increased from 33.5% in 2004 to 49.8% in 2005.

Recently, the Los Angeles Convention Center recycled 860,000 lbs. of concrete in 2006 derived from a needed concrete slab renovation project. It also recycled 20 tons of gravel with the 2007 cool roof replacement project.

### Recycle Programs (continued)

Additionally, in collaboration with GES ([www.ges.com](http://www.ges.com)), one of the Los Angeles Convention Center's vendors in the exposition services industry, the facility diverts recyclable material that is left over from exhibitor's use. For example, according to GES, they estimate that the following materials were recycled from Los Angeles Convention Center activity:

<p><b>Aluminum</b> (2006) Total: 3,333 lbs LACC: 511 lbs (No data to date for 2007)</p>	<p><b>Steel</b> (2007) Total: 80,000 lbs LACC: 11,008 lbs</p>	<p><b>White Paper</b> (2007) Total: 5,400 lbs LACC: 743 lbs</p>
<p><b>Carpet Padding</b> (2007) Total: 12,199 lbs LACC: 1,668 lbs</p>	<p><b>Plastic</b> (2007) Total: 10,327 lbs LACC: 1,421 lbs</p>	<p><b>Carpet</b> (2007) Total: 200,000 lbs LACC: 27,527 lbs</p>

### Composting



Although the Los Angeles Convention Center does not perform on-site composting, in October of 2007, the Los Angeles Convention Center contracted Mariposa Landscaping Services handle all diversion efforts specifically for all landscaping green waste, with the exception of palm tree fronds. The Los Angeles Convention Center receives a monthly report of composted green waste for record keeping and use in our overall annual diversion report. With the recent implementation of the Los Angeles Convention Center's Food Waste Collection Program, the facility also anticipates composting or recycling 138,940 lbs. of food waste material that would otherwise end up in the landfills.

## CLEAN AIR AND WATER CONSERVATION

### Clear Air Initiatives



The Los Angeles Convention Center upgraded to new low NOx and CO2 emission steam boilers. With the completion of this project, the Los Angeles Convention Center was able to increase its operating efficiency and performance, all while contributing to cleaner air for Los Angeles.

## Chemical-free Water Treatment Technology



Traditionally, the 21,000 gallons of re-circulating cooling water was treated with chemicals to avoid damaging scale, corrosion, and biological growth. These chemicals are dangerous to handle, and drained water may present a hazard to the environment. The Los Angeles Convention Center staff explored alternatives and adopted a new capacitor-based water treatment. Instead of using harmful and expensive chemicals, electrically charged rods now prevent bacteria and scale from binding to equipment. It has proved extremely effective and safe.

By using this type of water treatment technology, we avoid having to drain harmful chemicals into our sewer and storm drains, thus helping the environment. The Los Angeles Convention Center also received a Quality and Productivity Award from the City of Los Angeles for the pollution avoidance program. The environmentally safe results include the elimination of scale and corrosion cleaning, and reduced water consumption, while increasing employee safety and equipment life.

The Convention Center is cooled by a water chiller system - water is chilled at a central location and the piped throughout the building in a loop to localized air handlers. The new R123 chillers - the building's primary three, out of a total of seven - use the new generation of refrigerant, just like newer automobiles do, that is much more friendly to the ozone layer. In addition, the new chillers are approximately 100% more energy-efficient than the previous generation, which are used at the Convention Center strictly as backup. The Los Angeles Convention Center has plans to replace the remaining older-generation chillers in the near future.

## The Cooling Towers



These new cooling towers connect to the new chillers down below. Replaced at the same time as the new chillers, they are more energy-efficient than previous models.

## Restroom Water Use



Water conservation is a priority of the Los Angeles Convention Center. Reduced flow diaphragms for toilet and urinal flush valves, low-flow faucets, motion sensor supported hand washing stations, and landscaping specifically designed to thrive with reduced irrigation all work together to reduce water requirements.

In April 2009, the Los Angeles Convention Center (LACC) installed new restroom Zurn urinals that use an eighth of a gallon of water per flush (gpf) compared to the one and a half gpf that the previous urinals uses. LACC has approximately 190 urinals that are being replaced. LACC now conserves over 900,000 gallons of water annually as a result of the new Zurn urinal installations throughout the facility.

## Kitchen Dishwasher Efficiency



The Los Angeles Convention Center's main kitchen dishwasher has been replaced with a newer more efficient machine. This implementation reduced the dishwasher water consumption by 55%, rendering an annual savings of 627,000 gallons of water.

## The Bicycle Program



By instituting an employee bicycle ridership program and facilities - a bike rack, a nearby shower, and scheduling - the Los Angeles Convention Center was able to score points that it was implementing traffic mitigation.

## Planting Trees



In its quest to plant one million new trees in the City of Los Angeles, the Million Trees LA initiative has set out to create an extraordinary environmental legacy that will serve as a watershed for other environmental changes. Sharing in its same mentality, the Los Angeles Convention Center adopted three Podocarpus trees in October 2008 to help transform the City of Los Angeles to a green, sustainable city.

The podocarpus species trees were specifically adopted as a result of their aesthetic and sustainable core features:

- Approved by the Air Quality Management District
- Low water usage
- Drought Tolerant
- Native to the L.A. region
- Roots grow straight down

The City of Los Angeles currently has a tree canopy cover of 21%. The national average for tree canopy cover is 27%. Help us make L. A. greener.

“Each tree planted needs water and care for its entire life. It’s worth the work. Over its lifetime, that tree will pay you back in lower energy bills, higher property values, cleaner air and water.”

**--Honorable Mayor Antonio R. Villaraigosa.**

**Trees are the only utility that increases in value as it ages:** absorbs noise, calms traffic, reduces stress, increases property values, and stabilizes a city's economy

*Data source: Center for Urban Forest Research, USDA Forest Service*

For more information on Million Trees LA, please visit: [www.milliontreesla.org](http://www.milliontreesla.org).

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