



# MIAMI AIRPORT'S ENERGY MAKEOVER SAVES POWER, MONEY

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With millions of lights spread around three terminals and two parking garages, changing burned-out bulbs at Miami International Airport is no easy task.

So, sometimes when lights go -- especially on fixtures 90 feet high -- they stay out for a while, leaving some areas dim.

But a new energy-saving, environmentally friendly overhaul of the massive airport will replace 64,000 fixtures with more modern ones that use longer-lasting bulbs. That means the terminals and garages will stay brighter for longer and eventually cost less, too, airport leaders say.

"We are actually using less energy and there is more light," Carlos Jose, assistant director for facilities management for the airport, said as he recently showed off some of the new lighting fixtures in the Flamingo garage. "No one likes a dark parking garage."

Miami International Airport going green

Miami International Airport is getting an environmentally friendly makeover, which is expected to save the airport \$40 million over 14 years. Video by Pedro Portal/El Nuevo Herald Staff

The two-year project, which began in June, also includes water conservation retrofits, air-conditioning and ventilation upgrades and other green initiatives. The changes will help slash the airport's hefty \$2.6 million-a-month electric bill and reduce the airport's carbon footprint.

"There are some benefits that are hidden that passengers won't notice," said Jorge Marin, chief of Engineering for the Miami-Dade Aviation Department. "But at the end of the day, it is good for everyone."

The \$32 million project -- paid for by third-party financing -- will not cost the airport anything and is expected to save the airport \$40 million during the 14-year life of the contract. The note will be paid off by the savings it will see by upgrading the lighting fixtures, replacing an air-condition chiller and upgrading other air-conditioning equipment.

As part of the project, a new chiller unit will be installed in the airport's chiller plant -- which cools the entire airport at a cost of nearly \$160,000 per month. The unit is expected to shave \$13,000 off the cost to run the unit.

Alexander Acosta, a senior sales associate with FPL Services, said Florida Power & Light guarantees that the upgrades will produce the savings promised.

"If they don't get the savings we promised we cover the difference," he said during a recent tour of the eight-story chiller plant located near Concourse J. The building houses several units that pump millions of gallons of water through pipes to cool the airport's three terminals.

According to the airport, the U.S. Environmental Protection Agency said the project will reduce the airport's annual electricity consumption by approximately 35 million kilowatt hours and annual water consumption by more than 28 million gallons.

The reduction in energy, the airport says, is equivalent to the energy emissions of 5,110 cars or 8,700 tons of waste sent to the landfill annually. The reduction in water consumption is enough to fill approximately 43 Olympic-size swimming pools.

Local companies benefit, too, Jose said, as electricians and other workers are brought in to make necessary modifications.

Over the last 14 years, FPL Services has completed 11 energy-saving projects across Miami-Dade County including courthouses, correctional facilities and county operations buildings.

At the airport, there already have been several energy saving projects that addressed lights and air conditioning, but this is the largest, Acosta said. Miami-Dade Aviation is the second largest electric customer in the county, falling behind the county's water and sewer department.

"The airport is so large, we have to do it in phases," he said.

Last year alone, nearly 41 million passengers traveled through the airport, which sits on more than 3,200 acres and houses about 100 passenger and cargo airlines.

While the work is going on, passengers will likely not notice much and not be affected by the improvements. There may be some workers in the garages -- which have a total of more than

8,000 spots -- changing the fixtures or inside the terminals.

Jose said the hope is that others will catch on and others will consider energy efficient makeovers.

"We want to be the leaders and show the community we care about the environment," Jose said.  
"We want people to know we are cognizant of our carbon footprint."

22 AUGUST 2015

**SOURCE: AVIATIONPROS**

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