

Sustainability Takes Flight



Airport Sustainability

represents a holistic approach to managing an airport to ensure the Economic viability, Operational efficiency, Natural resource conservation, and Social responsibility (EONS), as defined by the Airports Council International of North America (ACI-NA).

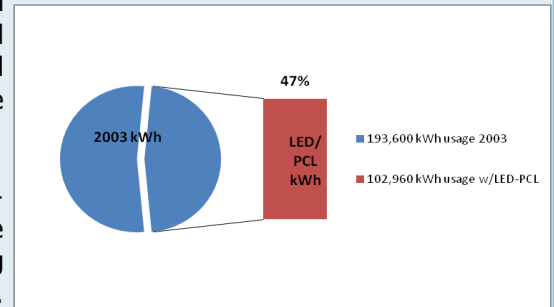
Sustainable development has redefined the values and criteria for measuring organizational success: the "triple bottom line" captures the need to consider economic, ecological, and social aspects in planning and development decisions. This underscores the need to develop initiatives based on their economic, environmental, and social impacts.

Monterey Peninsula Airport District began its Airport sustainability efforts as far back as 1999 with the purchase of an **Electric Maintenance Vehicle** that is still in service today. In 2000, **motion sensors** for sinks and toilets in the Airport terminal restrooms were installed to maintain water conservation. Since 2008, a Terminal wide **Recycling Program** has been in place. MPAD maintains appropriate recycling containers in District offices as well as throughout the Terminal building. This recycling is environmentally important since the benefits extend beyond saving energy to also reducing area landfills and reducing greenhouse gas emissions.

Monterey Peninsula Airport District

Current Efforts Underway

The first initiative of the **Airport Energy Lighting Program** began in 2004, funded by FAA Airport Improvement Program grants. MPAD Staff began replacing airfield lighting with energy efficient options including LED lights on the taxiways and pilot controlled lighting (PCL) for both runways. The chart to the right depicts the energy savings in kWh usage after the final component, the PCL, had been in operation for one year.



For 2003, the baseline year, electrical usage for all airfield lighting totaled 193,600 kWh hours. For the 12 months following the completion of the Airport Energy Lighting project, the total usage recorded on the same airfield meter was 102,960 kWh, a **47% reduction** in kWh due to these energy conservation measures.

The second initiative of the **Airport Energy Lighting Program** to address the Airport Terminal lighting began in late spring 2009 when the District's Board of Directors approved the Airport Lighting Energy Efficient Capital Improvement Project.

After the new Airport Terminal lighting had been in operation for six months, the following analysis of the savings in kWh usage was provided in March 2010:

For the six months, July through December 2008, total electrical usage for terminal lighting was 694,720 kWh hours. For the same 6-month period one year later in 2009, total usage recorded on the same terminal meter was down 91,944 kWh to 602,776 kWh. This represents a **13% reduction** in kWh derived from this energy conservation measure.

According to "Electrical Energy." *The New Book of Popular Science. Grolier Incorporated.* 2000 edition. 1998, "The average household in the United States uses about 8,900 kilowatt-hours of electricity each year." Using this calculation, the reduction in kWh's from the Airport Energy Lighting initiatives currently in place could power approximately 20 households per year.



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MPAD Staff began the third initiative of the **Airport Energy Lighting Program** in the fall of 2010, retrofitting the street lighting beginning on Fred Kane Drive and wrapping around to the North Side of the Airport. Energy efficient induction (ECH-ED) lights were installed. The induction lamps produce high quality light output and are energy efficient and long lasting with low maintenance. This portion of the program was completed by year-end 2010.

For the terminal and street lighting projects, the Airport District teamed with the Association of Monterey Bay Area Governments (AMBAG), Ecology Action's *RIGHTLIGHTS Energy Efficiency Program* implemented through Lumenature, and the Pacific Gas and Electric Company (PG&E) by applying for incentives and receiving rebates offered by the AMBAG Energy Watch Program.

The AMBAG Energy Watch Program is a partnership of AMBAG and PG&E. It is the regional leader in providing energy efficiency in Monterey, San Benito and Santa Cruz counties. MPAD joined this partnership by submitting its request for rebates for the terminal lighting and street lighting projects.

The AMBAG Energy Watch program is funded by California utility ratepayers. It is administered by AMBAG in partnership with PG&E under the auspices of the California Public Utilities Commission (CPUC).

By participating in Energy Watch and RIGHTLIGHTS Energy Efficiency Program, the Monterey Peninsula Airport is taking a leadership role by demonstrating energy efficiency actions and how taking these measures can better manage energy use, reduce operating costs, and help protect the environment.



As MPAD continues to seek ways to enhance service to the customer, it strives to balance sustainability with necessary enhancements.

In November 2010, the District completed the installation of a **Flight Information Display System**. The FIDS system uses energy rated display screens to transmit the flight information. Using smart software, the screens are programmed individually to power on and off as appropriate for the customer traffic in each area.



A proposed **electric vehicle charging station** is scheduled for installation in the near future. MPAD has made a request to Green Fuse Energy that it be included in the regional collaboration for the implementation of electric transportation. Green Fuse Energy is currently the lead facilitator for the Monterey Bay Electric Vehicle Alliance (MBEVA) that involves business, government, labor, higher education, non-profit organizations, and other interested groups. The Alliance is designed to increase regional collaboration to prepare communities for the successful implementation of electric transportation (both vehicles and infrastructure). This initiative is funded through the California Energy Commission (CEC).

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