



ENERGY CONSERVATION AND SUSTAINABILITY

The efficient use of energy and the incorporation of green power are critical factors in developing and maintaining sustainable operations at Long Beach Airport (LGB).

Stormwater Treatment:

- Construction of the Los Cerritos Channel Sub-Basin 4 Stormwater Capture Facility Project within a portion of the LGB property
- The new underground facility will divert stormwater and non-stormwater runoff from flowing into the Los Cerritos Channel to the new stormwater capture system
- The stormwater will be treated, thereby preventing the transport of metals and bacteria constituents that would otherwise flow downstream into the Los Cerritos Channel Estuary, the Alamitos Bay and City beaches
- The first phase is being funded by an \$11-million CalTrans grant and will divert up to 14 acre-feet (AF) of stormwater from the Los Cerritos Channel
- Once fully constructed, the project will capture and divert up to 147 AF of stormwater over a 24-hour period from the Los Cerritos Channel

Parking Structure A:

Parking Structure A Improvement project includes replacement of over 240 High Pressure Sodium (HPS) fixtures with light-emitting diode (LED) lights

- In addition, all streetlights along Donald Douglas Drive, Barbara London Drive, and within the Ground Transportation/ Cell Phone Waiting and Rideshare/Taxi and Rental Car Facility Parking Lots, will also be replaced with LED fixtures
- The new LED fixtures conserve energy by using lower wattage and providing the soft neutral white illumination, which is superior to the orange glow produced by the HPS lights
- The fixtures also have longer lifespans (100,000 hours or 20 years of 12 hours/day operation) and employ smart control technology to modify the brightness based on available ambient light
- The increased light level will enhance the safety and security of the parking garage and areas surrounding the Airport



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Waste Management:

Contractors are required to:

- Achieve end of project rates for salvage/recycling of 95 percent by weight of total nonhazardous solid waste generated by demolition and construction
- Practice efficient waste management in the use of materials in the course of the work
- Use all reasonable means to divert construction and demolition waste from landfills and incinerators
- Facilitate recycling and salvage of materials

HVAC:

- The Historic Terminal HVAC Replacement project includes the replacement of an air handling unit, condensing unit, and associated ductwork and piping
- The new 75-ton unit is a more efficient unit that has a rated Seasonal Energy Efficiency Ratio (SEER) of 11.0, compared with the older equipment that has approximately 5.5 SEER
- In addition, the new equipment is equipped with state-of-the-art electric/electronic controls for optimized energy savings
- It also includes economizer for free cooling, diagnostic and fault detection per 2016 Title-24, and state codes

Renewable Energy:

- City of Long Beach Public Works, in coordination with Long Beach Airport, is executing a Solar Energy Power Purchase Agreement with PFMG Solar Long Beach, LLC
- The City of Long Beach and Long Beach Airport seek to reduce its carbon footprint and reduce the City's cost to purchase energy by increasing the use of renewable energy
- Proposed solar project to be installed by PFMG under a PPA and solar site easement agreement will generate cost savings
- One of the proposed sites is Parking Structure B at Long Beach Airport
- The anticipated benefits of entering this PPA include a projected present value savings of approximately \$4.5 million (\$9.5 million cumulative over 25 years)
- The installation of the proposed solar PV system will significantly reduce the carbon footprint of the affected facilities since their energy usage will be partially, or in some instances, entirely offset with renewable energy