

San Francisco International Airport 2008 Environmental Sustainability Highlights



The Sustainable Airport of Choice

San Francisco International Airport was recently named North America's Best Airport by Skytrax International, the industry's leading quality research firm. Passengers ranked SFO the highest because of the wide variety of services and efficiency at the airport. While we are proud of this recognition, and have gone to great lengths to create services and develop operations that make air travel more enjoyable for our customers, we have been mindful of our role as a steward of the environment.

Whether it's diverting 90% of our waste from the landfill, or building 50,000 sq. ft. of solar panels, renovating Terminal 2 to achieve LEED Silver certification, or creating a green rental car program, SFO is committed to drastically reducing its environmental impact over the next decade.

SFO is the airport of choice for today's passengers – and is committed to achieving a level of sustainability that ensures it remains the airport of choice for future generations.

Air Quality Enhancement

SFO's air quality enhancement program reduces air pollution from both mobile and stationary sources including aircraft, ground service equipment, automobiles, and facilities. Solutions include increasing efficiency, reducing consumption, and switching to renewable sources of fuel.

- **Reduce Auxiliary Power Unit Use:** Since 2003, SFO has provided 400 Hz power and pre-conditioned air to aircraft at the new International Terminal gates in order to reduce the use of APUs at the gate. This effort has achieved significant reductions in global warming gas emissions as well as other air pollutants such as nitrous oxide, methane, and sulfur dioxide.
- **Transit First Policy:** For employees and passengers, SFO encourages and subsidizes car-free commutes to the airport. In 2008, nearly 30% of SFO employees avoided driving alone to the airport. Nearly 10 percent of passengers took BART, Caltrain, buses and other modes of transit to and from the airport. Currently, SFO is looking to increase public transit travel by employees through a Caltrain-SFO shuttle service and a BART fare incentive program.
- **Fleet Vehicle Transition:** SFO has begun a program for replacing up to 60 percent of its gasoline-powered vehicles with CNG vehicles. SFO's two CNG fueling stations, the largest in Northern California, offer fast and efficient refueling of the fleet.

Noise Abatement

SFO remains a national leader in noise reduction procedures and policies. Through close coordination with the neighboring communities, the FAA and the airlines, SFO has achieved Zero-Noise-Impact since 2002, under California Code of Regulation Title 21.

- **Residential Sound Insulation Program:** SFO has one of the most extensive home insulation programs in the country. Over the past three decades, more than 15,000 homes in San Mateo County – including more than a dozen churches and schools – have been insulated and now experience interior noise levels well below the 65 decibel community noise equivalent level.
- **Ground Run-Up Noise Protection:** SFO has coordinated with the airlines to perform maintenance run-up procedures during daylight hours, when the impact on people in their homes is lessened, as much as possible. SFO has installed electronic surveillance equipment to monitor the airfield and runways to ensure compliance.

Water Conservation and Water Quality Enhancement

SFO reduces the amount of water consumption at Airport facilities by installing efficient bathroom fixtures and reusing treated wastewater for landscape irrigation. Additionally, SFO has built a state-of-the-art wastewater treatment plant and stormwater management facilities to enhance water quality in the San Francisco Bay. The stormwater management system includes nine million gallons of stormwater detention ponds for collecting and treating the first flush of stormwater runoff during each rainfall event.

Solid Waste Reduction and Recycling

- **Zero Waste Plan:** In 2007, SFO recycled more than 55% of its municipal waste and 90% of construction waste.
- **Food Waste Separation and Composting:** As nearly 25% of the solid waste generated at the terminals consists of food waste, SFO has embarked on an ambitious food waste separation and recycling program. Additionally, SFO is working with its food vendors to require the use of compostable tableware and with airlines to separate food waste onboard aircraft.

Climate Change

In the past decade, SFO has implemented a series of greenhouse gas (GHG) reduction measures that, in 2007 alone, offset the GHG emissions from operations under direct control of SFO by more than 20,000 tons. Additionally, the BART extension to SFO offset another 19,500 tons. These practices, which include providing pre-conditioned air and 400 Hz power to planes at the International Terminal, implementing energy efficiency measures, installing solar panels, operating an automated people mover, biofuel use, and solid waste recycling have helped SFO reduce GHG emissions by 35% from the 1990 emission levels.

- **Terminal 2 Green Renovation:** SFO has embarked on a major renovation of Terminal 2. The renovation is projected to achieve the LEED Silver standard for commercial buildings with a design that improves indoor air quality and reduces energy consumption. Terminal 2 will include many innovative sustainable elements, including the installation of energy efficient equipment and an HVAC system that takes advantage of ambient climate conditions. These measures will reduce greenhouse gas emissions from Terminal 2 by an estimated 1,667 tons per year.

Energy Conservation and Renewable Energy

In 2007, SFO and the San Francisco Public Utilities Commission completed a preliminary audit report with a recommended set of measures for SFO to implement in order to increase energy efficiency and reduce energy consumption. SFO is now completing a detailed design for these measures that includes electrical lighting, natural gas use and HVAC systems.

- **Reduce Energy Use:** The San Francisco Mayor's Office has embarked upon a program to achieve a 5% reduction in energy consumption in all city departments. SFO's program includes many common sense approaches such as turning off lights and other electrical equipment when not in use, as well as implementing operational protocol such as keeping the thermostat at 68 degrees in cold weather and 78 degrees in hot weather.
- **Harnessing the Sun:** In conjunction with the SFPUC, SFO installed 50,000 sq. ft. of solar panels on the Terminal 3 roof. These panels offset 215 tons of CO2 emissions and generate more than 582 megawatt hours of clean electric energy per year.
- **Indoor Lighting Energy Saving:** Lighting improvements alone over the last two years have saved more than 32 million kilowatt hours. In 2007 – 2008, SFO replaced 24,500 incandescent light bulbs with energy efficient bulbs. SFO plans to replace tens of thousands more in 2009. In many maintenance areas, SFO is installing motion sensor light switches that will automatically turn off the lights when these areas are empty.
- **Renewable Energy Sources:** Electricity for SFO (including AirTrain) and tenant facilities is predominantly hydroelectricity supplied by the Hetch Hetchy Water and Power System. SFO uses 13.5 million kWh per month from this source. When compared to CO2 emissions from a fossil fuel-generating plant, this represents an offset of 56,050 tons of CO2 emissions per year.

Save Some Green When You Rent Green at SFO

SFO launched the nation's first Green Rental Car program that rewards customers for renting "green" alternative-fuel vehicles. Customers who rent hybrid cars at SFO, such as the Honda Civic Hybrid, Nissan Altima Hybrid or Toyota Prius, will receive a \$15 discount at the counter. It is estimated that **more than 4,000 tons of CO2 emissions per year will be eliminated through the implementation of this program.**

Likewise, airport rental car companies will qualify for significant incentives when they increase the rentals of high-mileage and alternative-fuel vehicles. Car companies that rent 15% or more of these vehicles will qualify for a 20% reduction of their airport rental fee.

Currently, 10% of the rental car fleet at SFO is comprised of high-mileage cars – such as the Toyota Camry, Honda Accord and Ford Focus – in addition to alternative-fuel cars. By offering these incentives to customers and rental car companies, SFO hopes to increase the total number of these cars in the rental car companies' fleet to more than 15%.

drive green.



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