

CASE STUDY 5

Cleaning up the fleet

Who: Dallas/Fort Worth Airport

Where: United States of America

What: Ground service equipment vehicle conversion

When: 2005

Why: Local air quality enhancements and greenhouse gas emissions reduction

Project

In the 1990's, the airport set out to reduce its NO_x, CO and other emissions mainly to address local air quality issues but at the same time reducing some of its greenhouse gas emissions. The main efforts focused on converting the fleet of ground vehicles, ground power and pre-conditioned air infrastructure, and addressing stationary sources.

Source emissions reductions

As of 2005, the following had been achieved:

- 100% of the light and medium duty fleet and 72% of the heavy duty and off-road fleet had been converted to alternative fuel vehicles (AFV), mainly CNG.
- 87% of the light and medium fleet meet or exceed super ultra low emission vehicle standards (SULEV)
- 3% of the light and medium fleet were hybrid and electric vehicles

- all of the bus and shuttle van fleet had been converted to AFV
- a total of almost 400 AFV are envisaged by the year 2010
- In the central utility plant, boilers and chillers were replaced with low emission technology resulting in a 97% NO_x reduction.
- 18 rapid rechargers for electric vehicles have been installed to supply both the airport vehicles and those purchased by airlines.

Achievement

In 1996, the airport sources produced just under 120 tonnes of emissions dominated by NO_x and CO. By 2005, with the above measures in place, the annual emissions figure was less than 15 tonnes. Continuation of the vehicle fleet replacement programme will improve this figure.



Company profile:

Located halfway between the cities of Dallas and Fort Worth in Texas, Dallas/Fort Worth International Airport handles nearly 1,900 flights each day and 60 million passengers annually.

DFW has services to 133 domestic and 36 international destinations worldwide.

With a land area of 28 square miles (72 km²), the airport is larger than Manhattan.

Facilities include 7 runways, 3 control towers, 5 terminals and 137 gates.

DFW is the only airport in the world where four aircraft can land simultaneously.

www.dfwairport.com



Two vehicles 'fill up' with electricity at one of the rapid recharge stations for electric vehicles at DFW airport.