

CASE STUDY 3

Staff canteen just the start of airport-wide efforts

Who: Orly Airport, Paris

Where: France

What: Solar powered staff canteen

When: 2005

Why: Reduces energy consumption, emissions and cost and is a test case to show feasibility

Project

The 650 meals prepared at Paris-Orly South staff canteen require about 5,000 litres of hot water per day. Previously, this hot water was supplied by two hot water tanks connected to 240-watt electrical resistors operating during cut-rate electricity time. A solar water heater coupled to the system now makes substantial savings.

Results

The south-facing roof of the building now has 80 m² of thermal solar panels angled at 45°. A fluid flowing through dedicated pipes carries the absorbed heat and releases it in a separate hot water storage tank. If the water is not hot enough, an electric resistor increases the temperature. The results are extremely encouraging: 42% of the restaurant's annual needs are met by the solar cells, representing a saving of four tonnes of carbon dioxide a year.

Wider efforts: controlling power consumption

Aéroports de Paris has committed itself to a 20% reduction in energy consumption in its terminals by 2010 (compared with 2004 levels).

To achieve this, an 8-point programme of technical proposals has been developed; it implies actions such as awareness-raising campaigns on energy savings including a profound change in work practices and specific training sessions for 75 specialists.



As a starting experiment, a number of energy saving actions were taken during the refurbishing of Hall 2 at Paris-Orly airport (installing 4,200 low energy consumption light bulbs, electrictronically-controlled lighting levels, uncoupling strip lights, improving heat insulation, installing automatic doors, installing controlled hot air curtains, airflow return). As a result, Paris-Orly airport reduced its internal total consumption of energy (electricity, heating, cooling) by 6% between 2005 and 2006.

Paris-Charles de Gaulle Airport carried out energy audits in Terminals 1 and 2F, highlighting potential energy savings. Consequently, between 2005 and 2006, a total reduction of around 4% in energy consumption was achieved.

Green building promotion

The French standard for green building is called "Haute Qualité Environnementale" (HQE). The HQE culture is a managerial approach to curb the environmental impact both at the construction stage and for the entire lifetime of the building. It aims at better integrating buildings into their environment, managing energy, water and waste as well as the comfort and health of all airport staff.

Aéroports de Paris has adopted this approach and has finalised its numerous building and development projects and instilled its line teams with an HQE culture. One of the strongest signs was the company joining the HQE association in 2005, a think-tank on such issues in France.

Terminals 2G and S4, scheduled to open at Paris-Charles de Gaulle by 2008 and 2012, have been designed setting environmental performance goals from the planning stage. Work has already been done on several environmental issues such as management of rainwater, selecting the most suitable power supply according to the lifespan of the building and alternative, efficient management of air conditioning to reduce power consumption.



Company profile:

Aéroports de Paris builds, develops and manages airports including Paris-Orly, Paris-Charles de Gaulle and Paris-Le Bourget. ADP is the second largest European airport group in terms of airport turnover and the largest European airport group in terms of cargo.

Aéroports de Paris accommodates nearly 460 airlines and last year the group handled 82.5 million passengers at three airports.

In 2006, Aéroports de Paris Group had a turnover of 2,076 million euros.

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