

# Carbon footprint reduction

**Aéroports de Paris achievements**

**Press kit**

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# Aéroports de Paris cuts back CO<sub>2</sub> emissions and receives the Airport Carbon Accreditation

*Airport Carbon Accreditation* is an ACI-Europe programme rewarding airport operators' efforts and achievements in cutting back greenhouse gas emissions.

## This programme has 4 levels:

**Level 1, mapping:** the airport operator determines emissions sources and calculates carbon emissions

**Level 2, reduction:** the airport operator provides evidence of effective carbon management procedures (policy, goals, organisation, monitoring, personnel training in the field). It must also show that footprint reduction targets have been achieved.

**Level 3, optimisation:** the airport operator must widen the scope of carbon footprint to include third party emissions (air and road traffic). It must have an inciting carbon reduction policy to engage third parties at and around the airport.

**Level 4, carbon neutrality:** the airport operator must offset remaining emissions to achieve carbon neutral operations through a certified programme.

Airport accreditation data is checked by Bureau Veritas.

## Aéroports de Paris receives level 2 "Reduction"

Six months after achieving level 1 certification, Aéroports de Paris were awarded level 2 for reduction of CO<sub>2</sub> emissions in the Paris- Charles de Gaulle and Paris-Orly airports.

This certification rewards Aéroports de Paris's investment in the fight against climate change. For several years now the company has implemented an ambitious programme to reduce its carbon footprint.



### Aéroports de Paris commitments after the *Grenelle de l'environnement*

- Reducing average taxiing time by 10% at Paris-Charles de Gaulle airport by 2015, working with the involved parties.
- Applying a high environmental quality approach to new construction projects.
- Reducing the company's per passenger internal energy consumption by 20% between 2004 and 2020, and by 40% by 2040.
- Launching a renewable energies installation programme.
- Cutting carbon emissions per km by 30% for the company's vehicles and light utility vans by 2012.
- Working with the airlines to help cut back aircraft use of auxiliary power units.
- Promoting car-pooling among the 120,000 people working at the Paris airports.

# Reducing energy consumption in our buildings

## Ambitious goals

Aéroports de Paris has set itself the target of reducing energy consumptions per passenger by 20% by 2020 relative to 2004 levels. In 2004, Aéroports de Paris produced 125,000 tonnes of CO<sub>2</sub> to satisfy its energy needs. Today, these carbon emissions represent less than 100,000 tonnes

## True energy organisation and management in existing buildings

For this purpose, an energy control organisation has been set up. In the terminals, accurate consumption monitoring coupled with centralised building management tools help cut back energy consumption.

## Construction of high environmental quality buildings

For new buildings and renovation projects, Aéroports de Paris applies the High Environmental Quality (HQE<sup>1</sup>) approach intended to reduce the impact on the environment, and energy consumption in particular. This commitment was initiated with the construction of Terminal 2G at Paris-Charles de Gaulle. This building's energy consumption was reduced through maximum use of natural light, continuous air-conditioning management and recycling of some of the ambient air.

## Green building practices for a boarding lounge

With the work in progress for satellite 4, future boarding lounge at Terminal 2E of Paris-Charles de Gaulle airport, Aéroports de Paris wished to lead the way in eco-building in the airport industry.

## Overall energy consumption 30% lower than the average for existing terminals

The future boarding lounge should allow Aéroports de Paris to achieve a high energy and environmental performance. Indeed, energy consumption should be 30% less than average overall consumption for existing terminals. These results will be obtained thanks to an improved building architecture, innovative insulation materials and windows, economical heating and cooling equipment and an energy production and distribution system (heating and cooling pump).

## Cœur d'Orly, future eco-friendly business quarter

Located at the heart of Paris-Orly airport, the future *Cœur d'Orly* business district will have a very low environmental footprint. The entire district was designed to meet the requirements of the certifications *NF Bâtiments Tertiaires – Démarche HQE®* and *BBC-effinergie®*.

With an exemplary environmental dimension, *Cœur d'Orly* will employ renewable energies such as geothermal and solar power.

### BBC-effinergie® label

The *effinergie®* label applies to buildings whose very low energy consumption requirements help attain the international goals of cutting greenhouse gas emissions four-fold by 2050.

<sup>1</sup> Tr's note: HQE = Haute Qualité Environnementale

# Producing renewable energy

## Geothermal power station at Paris-Orly airport

### A 9,000-tonne reduction in CO<sub>2</sub> emissions every year

Paris-Orly airport is ideally located above a vast 15,000 km<sup>2</sup> natural hot water reservoir, the Dogger, which supplies water at 74 °C. The heat is extracted through a heat exchanger and transmitted by conduction to the heating water. The hot water is immediately distributed by a 35-km network to the terminals. The geothermal power station saves up to 9,000 tonnes of CO<sub>2</sub> emissions every year and should eventually account for 30% of the total thermal energy consumption of Paris-Orly airport.

#### Geothermal power in figures

**1,750 metres:** the depth of the Dogger

**10 MW:** the production power obtained at a rate of 250m<sup>3</sup> per hour

**9,000:** quantity in tonnes of CO<sub>2</sub> that Paris-Orly airport will save through the use of geothermal power.

## Biomass energy at Paris-Charles de Gaulle airport

### A biomass boiler to generate one quarter of the airport's heating requirements

Aéroports de Paris plans to supply the Paris-Charles de Gaulle airport heating circuit using biomass energy. This bio-energy will raise the share of renewable energies in the Aéroports de Paris energy mix.

Located in the airport grounds, the biomass plant will allow Aéroports de Paris to produce heat through the combustion of wood waste from tree pruning, supplied in the form of wood chips. This implies recovering green waste and converting it into heat.

With a 14 MW capacity, the plant will be capable of meeting 25% of the airport's annual heat production needs.

The biomass boiler should be commissioned by end 2012 and will save some 18,000 tonnes of CO<sub>2</sub> emissions every year at Paris-Charles de Gaulle airport.

# Reducing our vehicles' carbon emissions

In order to meet its goal of reducing 30% of carbon emissions per km for its vehicles and light utility vans by 2012, Aéroports de Paris relies on its fleet of clean vehicles and is considering the acquisition of second generation electric vehicles.

This approach is in line with the national scheme for the development of electric and hybrid vehicles. Through a call for tender steered by La Poste, and grouping some twenty French companies, Aéroports de Paris has undertaken to acquire 200 electric vehicles in the short term.

# Appendices

## Aéroports de Paris environmental policy

### 1. Systematically including the environment in its activities: the ISO 14001 standard

Aéroports de Paris is committed to deploying existing best practices in all its activities (maintenance, operation, purchase, management, contracts, etc). An Environmental Management System head coordinates application of the ISO 14001 standard in each airport. In addition, an Environment correspondent is designated to ensure the standard's application in each entity of the company.

### 2. Being a responsible player

Aéroports de Paris acts in favour of local and global reduction of pollutants emissions for which it is directly responsible. There are many examples of this: use of "clean" transport, low-consumption lights, and presence detectors. In April 2007, Aéroports de Paris also started running CDGVAL at Paris-Charles de Gaulle airport, a fully-electric automated train that replaced a score of shuttle buses and so cut back the carbon footprint by almost 2,500 tonnes.

### 3. Preventing

Aéroports de Paris has also undertaken to implement the necessary technical and human resources to prevent the risk of collective pollution at its airports (rainwater, waste-treatment). As regards water management, three large rainwater treatment stations make it possible to discharge in the rivers downstream of the airports water that meets local legal quantity and quality targets. This applies to the water requirements of Aéroports de Paris but also to those of other operators at the airport.

### 4. Informing

Last but not least, Aéroports de Paris has undertaken to provide transparent communications regarding its environmental impact, promoting communication, dialogue and consultation. At each airport, a *Maison de l'environnement* (Environmental Resource Centre) is open to the public and offers visitors free access to terminals to consult subjects of interest to local communities: airport environmental policy, economy, employment, businesses, training, sound-proofing, etc.

Every year, Aéroports de Paris presents its environmental and sustainable development policy in its annual "Corporate Social Responsibility Report" available on the company website at: [aeroportsdeparis.fr](http://aeroportsdeparis.fr), Group tab.

# Aéroports de Paris in brief

## **Aéroports de Paris owns and operates:**

- 3 airports: Paris-Charles de Gaulle, Paris-Orly and Paris-Le Bourget
- 10 airfields in Ile-de-France
- 1 heliport: Paris-Issy-les-Moulineaux

## **2nd European airport group** (in terms of airport revenue)

- 83 million passengers in 2009
- 175 customer airlines in 2009
- 350 cities served in 115 countries

## **1st European group for freight and mail**

- 2.09 million tonnes handled in 2009
- Aéroports de Paris is number one in Europe for this activity.

## **6,684 hectares: Europe's biggest airport estate.**

## **12,097 employees** (group workforce average in 2009)

## **Key figures for 2009 (in millions of euros)**

- Revenue: 2,633.4
- EBITDA: 883.0
- Net results, group share: 269.5

## **Paris-Charles de Gaulle airport:**

- 57.9 million passengers handled in 2009
- 2nd in Europe and 6th in the world in number of passengers
- 1st European hub with 23,800 connecting flights within two hours per week
- Global hub for Air France-KLM and main European hub for SkyTeam
- European hub for FEDEX

## **Paris-Orly airport:**

- 25.1 million passengers handled in 2009
- 2nd French airport and 10th European airport in number of passengers
- Destinations in metropolitan France, Europe, French overseas departments and territories, North America and North Africa

## **Paris-Le Bourget airport:**

- 1st European business aviation platform