

City of Paris, France

Procurement objectives

The City of Paris' Climate Action Plan was launched in 2007 to provide a comprehensive strategy to reduce greenhouse gas (GHG) emissions. The City hopes that through the Climate Plan it will reduce emissions of GHG by a factor of 4 by 2050. Paris also decided to go beyond the EU and national targets and reduce GHG emissions of its public administration by 30%, and by 25% for other activities within its territory by 2020.

To achieve these goals, the City focused on, among other things, reducing the impact of road transport. Among the suggested actions was the development and promotion of car-pooling and car sharing schemes.

Background

The Autolib' system is a follow-up to Paris' Velib' bicycle sharing scheme, launched in 2007. Autolib' is a full electric public car-sharing service for customers and includes the deployment of an interconnected infrastructure of on-street stations for recharging batteries and parking vehicles. Although the City of Paris is the origin of the project, following its experiences in electric vehicles and the Velib' scheme, it has partnered with 47 surrounding municipalities to ensure a service that can uniformly cover the Parisian metropolis.



The scheme intends to deploy 3,000 all-electric cars for public use, initially based around 1,120 citywide parking and charging stations. Following the publication of the tender in December 2009, the system was launched in December 2011.

Criteria used

Subject matter of the contract:

Supply of approximately 3,000 electric vehicles and 1,000 recharging stations spread over the territory of the Ile de France.

Technical specifications

- Construction, management and maintenance of an infrastructure for the recharging electric cars
- Provision of a rental service of electric vehicles (7/7 - 24h/24) including the provision and maintenance of "zero-emission" electric vehicles
- Provision of customer service management, design and operation of a computerized management system for the network.

Award criteria

Technical capacity: 60%

- Quality of service offered to users: 25%
- Technical quality of the service: 15%
- Technical quality of the vehicles: 10%
- Quality of station equipment: 5%
- Condition of construction works: 5%

Cost: 25%

- Economic balance of the contract: 15% (assessed on the basis of an assumption of 10 and 12 years)
- Marketing strategy: 10%

Aesthetic: 10%

- Aesthetic quality of electric vehicles: 4%
- Aesthetic quality of charging stations: 4%
- Visual identity of the service: 2%

Risk management: 5%

Results

As part of a public-private partnership, the city of Paris and its communes set up the infrastructure, investing to create 12.5 kilometres of Autolib'-only parking spaces and a network of battery recharging stations. The costs of the vehicles themselves were borne fully by the contractor who won the public tender. The contractor is generating revenues by charging users a subscription fee as well as a variable rate for each half hour of use.

As of December 2012, the Autolib' fleet of vehicles has covered over 5,000,000 km since its launch 12 months earlier. This equates to a saving of nearly 630,000 kg of CO₂ when compared to the use of a typical passenger vehicle. So far, 65,000 registered subscribers have access to more than 1,800 vehicles spread across more than 670 stations which include 3,900 charging points. These stations are also open for private individuals wishing to charge their electric vehicles.

Environmental impacts

Road transport vehicles are responsible for 26% of EU final energy consumption and 24% of CO₂ emissions. Urban areas in particular suffer from local air and noise pollution. It is imperative to further the development and deployment of new and better environmental technologies for public vehicles as part of the solution to these issues. For all modes of transport, the extraction of raw materials, transport of components, assembly and vehicle disposal can cause environmental impacts. Electric vehicles are far less damaging during their use phase compared to petrol or diesel vehicles however, as they do not directly emit greenhouse gases such as CO₂, HC and NO_x.

The Clean Vehicles Directive provides a common methodology for considering GHG emissions and the energy consumption of road transport vehicles. Further information is available from [DG Mobility and Transport](#) and the [Clean Vehicles Portal](#).

Lessons learned

The Autolib' project was, in many ways, innovative, covering many areas such as technology and service, financing and legal aspects, as well as cooperation between different municipalities. The design and implementation phase of the project required, above all, expertise, vision and determination. With the near completion of the construction and implementation phase, the newer challenge will be to bring more of the surrounding municipalities on board to widen the availability of vehicles for users. So far, the Autolib' project is on its way to becoming a success and could provide a standard for other European cities wishing to do the same.