

## Environmental and Social Data Sheet

### Overview

Project Name:	AUTOLIB ELECTRIC CAR SHARING BOLLORE	
Project Number:	2011-0479	
Country:	France	
Project Description:	The project concerns the investments in the electric car sharing programme to be implemented in the Paris metropolitan area.	
EIA required:	No	
Project included in Carbon Footprint Exercise <sup>1</sup> :	No	
(Details are provided in section: "Carbon Footprint")		

### Summary of Environmental and Social Assessment, including key issues and overall conclusion and recommendation

The project concerns investments which consist of (i) a RDI part that is expected to be carried out in existing facilities already authorized for the same purpose, and (ii) the physical deployment of an interconnected infrastructure of open on-street and publicly available covered stations for recharging batteries and parking vehicles, and (iii) the operational phase of the short-term electric vehicle rental scheme. None of the latter interventions fall under Annex I nor Annex II of the Directive 2011/92/EU, and do not require an Environmental Impact Assessment (EIA).

The project is the experimental starting point of a new and more sustainable urban mobility concept, expected to add value to the society by introducing a publicly available environmentally friendly urban transport option, enriching the existing transport offer to which it is intended to progressively be integrated. The project's implementation is expected to: (i) contribute to the reduction of the number of rolling vehicles in the city, thus the urban noise, pollution and green house gases emissions; (ii) delocalize the transport pollution sources, and contribute to creating awareness on energy efficiency, emphasizing the need of electricity generation from more sustainable/renewable sources; (iii) promote more sustainable urban transport through a change in the use of cars and the behavior of the drivers, diminishing the households' secondary vehicle fleet, thus improving the urban traffic flow and releasing parking places. Furthermore Autolib', through its visibility, shall significantly contribute to widening/disseminating the awareness of ecomobility, broadening the environmental benefits, as a result of an increased adoption of electric vehicles; all the more so if the initiative is replicated in other urban conglomerations throughout France and in other countries and cities of the EU.

Overall, the project is expected to be acceptable with positive environmental impact, including its contribution to an improvement in urban environment by decreasing urban traffic externalities and contributing to Climate Change objectives.

### Environmental and Social Assessment

#### Environmental Assessment

Considering different scenarios and crossing the promoter's (Syndicat Mixte Autolib') preliminary studies and conclusions with the Bank's assumptions, a quantified approach of the potential reduction in CO<sub>2</sub> emissions and reduction in the energy demand has been carried out.

The CO<sub>2</sub> emissions reduction and energy savings potentially resulting from the project's implementation have been quantified on the basis of the number of rental operations per electric vehicle (rotation) and on the average kilometres to be driven each time, crossed by the potential

<sup>1</sup> Only projects that meet the scope of the Pilot Exercise, as defined in the EIB draft Carbon Footprint Methodologies, are included, provided estimated emissions exceed the methodology thresholds: above 100 000 tons CO<sub>2</sub>e/year absolute (gross) or 20 000 tons CO<sub>2</sub>e/year relative (net) – both increases and savings.

substitution effect of internal combustion engine vehicles by electric Autolib' vehicles. The estimations are based on the cruise level fleet of 2 800, to be achieved in 2014.

The project's expected benefits in terms of reduced CO<sub>2</sub> emissions are comprised between 4 200 and 7 900 CO<sub>2</sub> eq [in t]. Benefits in terms of energy savings are comprised between 17 and 32 GWh/annum (net difference between ICE and equivalent EV energy consumption).

## **Other Environmental and Social Aspects**

### Environmental impact sound – Noise/ Local emissions

The most efficient and with lower loudness ICE vehicles emit noise in the range of 71dB. In the decibels scale, it is estimated that a reduction of 3 dB equals to reducing the sound level to half. The source of the noise emitted by the electric vehicles in an urban cycle mainly comes from the rolling tyres. An additional positive element is that during the night traffic the mitigated noise contributes to improve the quality of the sleep and therefore the health of the population. In a further stage this absence of noise suits well for urban logistics services that can be served during the night.

The reduction in the number of vehicles in the city will also contribute to the reduction of local emissions such as NO<sub>x</sub>, SO<sub>2</sub>, particulate matter, etc..

### Environmental risk related with the recycling of the batteries and vehicles

According to the promoter, the LMP (Li-Ion Metal Polymer) battery does not contain any heavy metal or toxic element. Its recycling is ensured by and follows a process defined in the contractual terms and conditions in the concession contract, signed by the promoter, the Syndicat Mixte, and the concessionaire, Société Autolib'; File 1 - chapter 5.3.6.

According to the concession contract, mitigating measures are linked to the commitment of the concessionaire (Société Autolib') to recycle the batteries following the hydro-metallurgic procedure, in line with the recycling of lithium batteries. In addition, the concessionaire guarantees that 85% of the vehicle's parts will be re-used and that the Bluecar<sup>2</sup> will be recycled following the same procedures and standards than the established for the classic thermal vehicles.

Road safety. There is a potential risk due to the practical absence of noise that vehicles produce when circulating and that could surprise pedestrians. In addition, the fact of electric vehicles being automatic could make drivers used to gear vehicles requiring more time to get used to the Service. According to the concessionaire, road safety management is a key element in the implementation of the service and therefore they have reinforced the information and support given to users in this regard.

## **EIB Carbon Footprint Exercise**

Project is not included - the EIB draft Carbon Footprint Methodologies only include emissions from Investment Loans, and large allocations under Framework Loans, above the methodology thresholds.

## **Public Consultation and Stakeholder Engagement, where required**

There is a formal process and list of permits required for issuing the approval by the entitled authorities – and that the concessionaire is fulfilling - for the deployment of subscription, rental and electric vehicle charging stations of the programme Autolib'. Three types of authorisations have to be fulfilled for each station (technical<sup>3</sup>, administrative<sup>4</sup> and from the public promoter<sup>5</sup>), and include public consultations.

1. Technique (Instruction Technique, Autorisation du projet, raccordement réseaux (electricity (ERDF) and communication (France Télécom) connections, etc.)
2. Administrative (Réunion de Police/Mairie/Préfecture – Procès verbal de remise de parcelle & autorisation d'intervention)
3. Syndicat Mixte Autolib' (public entity).

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<sup>2</sup> Bluecar® - Electric Vehicle developed by Groupe Bolloré, and selected for the car sharing service Autolib' - Paris.

<sup>3</sup> Instruction Technique, Autorisation du projet, raccordement réseaux (electricity (ERDF) and communication (France Télécom) connections, etc.).

<sup>4</sup> Réunion de Police/Mairie/Préfecture – Procès verbal de remise de parcelle & autorisation d'intervention.

<sup>5</sup> Syndicat Mixte Autolib'.