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France speeds up with EVs

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Abstract

In France the Electric Vehicle programme for the present decade is supported strongly by the government with a large approval of all the partners of industry as well as the public opinion.

The experience of the 90's proves to be very important to avoid traps and difficulties.

The government supports the national industry of EVs and Plug-In-Hybrids with a system of bonus-malus on car sales as well as the municipalities who are in charge of the implementation of public charging infrastructures.

Sen. Louis Negre has been especially appointed to issue major directives of this programme.

In France, the stakeholders of the EV programme are very numerous (automotive industry, battery industry, electric appliances industry, electricity producers and suppliers, R&D laboratories, long-term car leasing companies, insurance companies, public institutions, municipalities, counsel bureaus, engineering bureaus, etc) and they gather their strengths in an association, AVERE-France, which is a member of AVERE, one of the three members of WEVA.

AVERE-France has the support of the government and represents the continuity since 1978 in the EV development.

AVERE-France pushes forward original initiatives especially in developing or supporting local initiatives, as well as organizing competitions between municipalities or private companies with appropriate award ceremonies meeting a growing success.

AVERE-France represents the complete « eco-system » of electro-mobility in France and brings to the common efforts additional competences due to the possibility of gathering entities not used to work together.

AVERE-France ambition is to go to an end within one or two decades when it is no more necessary to support EVs because in the future they will be a permanent element of life.

Keywords: French program, realizations, associations

The official French EV program

A new EV program since 2008 and a solid support from the French government

The carbon vehicles have become a government priority since the Grenelle Environment Forum.

The President of the Republic, Nicolas Sarkozy, announced October 9, 2008 the initiation of a government plan to promote research and deve-

lopment of "clean vehicles". He announced a budget of 400 million euros for this purpose on four years. He added: "France will now engage in a comprehensive research plan and support low-carbon vehicles, that is to say vehicles with the lowest CO2 emission levels possible, all-electric vehicles or PHEVs. To encourage consumers to buy cleaner vehicles, the President added: "The environmental bonus of 5,000, already available for all vehicles emitting less than 60 grams of CO2/km will be of one hand extended to light commercial vehicles and other maintained in these terms by 2012".

The "national plan for the development of electric vehicles and plug-in hybrids," presented October 17, 2009 by the French government plans to move 2 million electric vehicles and plug-in hybrids in 2020. The plan includes 14 specific actions to promote development of electric cars and plug-in hybrids:

1 ó Giving a start in 2010 to demonstration charging infrastructures by a government agency (ADEME environment and energy management agency) with an endowment of 70 million þ.

2 - Integrating carbon vehicles in the new mobility solutions : reducing CO2 emissions requires new mobility solutions with electric vehicles or hybrids. In this perspective, ADEME has to establish a specific roadmap for new mobility solutions, dealing with changes in the transport of persons or goods, from both technological and organizational points of view. The agency will then launch a new bid for mobility projects, with 25 million þ.

3 ó Creating a national battery production system Renault will build a battery plant in Flins, near Paris in partnership with the Atomic Energy Commission (CEA). Bollore Group and Saft also conduct parallel projects.

4 ó Organizing a massive purchase of electric vehicles from 2012 to 2015 by private and public companies.

Thanks to Jean-Paul Bailly, Chairman of the Post Office Group, a group of large companies and associations of local and state officials have established a use oriented list of specifications, for the call for bid for private and public electric vehicle with a range of at least 150 km.

5 - Confirming the super bonus of 5,000 euros for the purchase of vehicles until 2012. The existing system provides assistance to 5,000 euros to anyone who acquires a vehicle (in the category of approval of passenger cars or vans) with CO2 emissions less than or equal to 60 g / km. Hybrids whose CO2 emissions are less than or equal to 135 g may receive a bonus of þ 2,000.

6 ó Preparing the definition of a standard socket-plug system to charge electric vehicles.

7 - Charging points in new buildings. From 2012 the construction of buildings (offices and dwellings) with parking must integrate charging facilities

8 - In condominiums facilitating the decision of

charging equipment investment by the co-ownership.

9. Facilitating implementation of sockets for recharging vehicles at work and in public infrastructures

In existing offices and other working places the creation of charging points will be facilitated

Public infrastructure will be less than 10% of the needed charges, most of the needs being provided by charging at homes and offices. However they will be needed to get over apprehensions of drivers of electric vehicles and allow them to travel great distances by taking advantage of frequent recharging.

10 ó Participating to the standardization of charging facilities at European level

11 - Supporting municipalities in the deployment of public charging infrastructure

12 - Organizing the operational deployment of the infrastructure network load

13 - Providing non-fossil energy production to carbon-free vehicles by ensuring that electricity is produced from non-fossil energy, to ensure an ecological balance for optimal carbon vehicles.

14 - Giving a second life to the battery and its components

The second life of batteries is an important research issue because of its cost and its environmental impact. Automakers and the French producers of batteries shall take into account, from the design of batteries, their entire life cycle.

Most important realizations of this program

Municipalities' engagement for the deployment of public charging infrastructures

After signed an official protocol on April 13, 2010, with twelve municipalities and major automakers, the government has initiated the preparation of a Green Paper published in October 2010 on the establishment of a conceptual and organizational framework essential for the deployment of public charging infrastructure, as a guide to assist local governments in implementing their projects.

The massive and rapid diffusion of carbon vehicles, which arrive on the market requires the deployment in the field of public charging infrastructure. The law intends to entrust this power to municipalities. The government decided to facilitate the financing arrangements to help local communities with state loans. A direct support of 50 million euros was also

decided to help the twelve cities up to 50% of their programs. Municipalities have undertaken the implementation of the investment through 2011 and 2012. These communities are: Bordeaux, Grenoble, Rennes, Nice, Angouleme, Aix-en-Provence, Orleans, Paris, Rouen, Strasbourg, Le Havre and the Greater Nancy. The French automotive industry (Renault and PSA) confirmed to be able to sell 60,000 electric vehicles in France in 2011-2012, targeting the cities that develop a network of charging infrastructure sufficient.

Program of the 1st large bulk order of 50,000 electric vehicles

The government initiated the establishment of a group of public and private companies intended to place an initial order of 50,000 electric vehicles, a range of at least 150 km, to ensure that French manufacturers faced sufficient demand for them to start producing electric vehicles, safely, on an industrial scale.

This group, led by La Poste, is composed of twenty private or public companies: ADP, Air France, AREVA, Bouygues, EDF, ERDF, Eiffage, France Telecom, GDF Suez, Suez Environnement, GRT Gaz, GRDF, La Poste, RATP, SAUR, SNCF, SPIE, UGAP, Vinci and Veolia.

The tender procedure was launched on April 23, 2010 by competitive dialogue with manufacturers to bring out the best deals, with a bonus of 5000 euros for the purchase of vehicles until 2012 (a guarantee that electric vehicles will be sold at the same price as conventional vehicles).

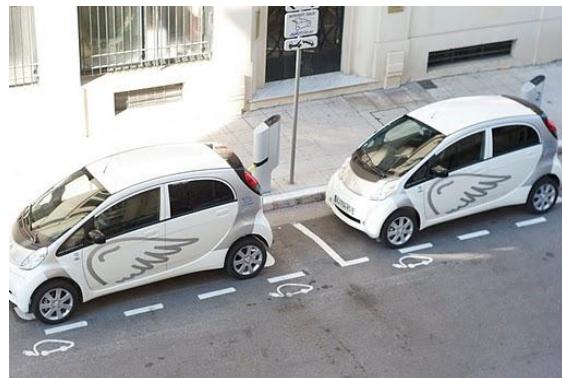
The result of the first tender is an order of 15637 Renault Kangoo ZE light commercial vehicles and 3074 Peugeot Ion 2 seats vehicles. Other tenders are planned in 2012.

EV car sharing or renting

Furthermore, some large cities have decided to implement EV-sharing and EV-renting self-service solutions, for example the experience "AUTO Bleue" in Nice and the operation "Autolib" in Paris.

Auto Bleue is an innovative system that lets rent a self-service car, quickly and easily, 24 hours a day, 7 days a week, available by making a reservation online, at the agency or by phone.

35 stations and 105 cars have been established throughout the Urban Community of Nice Côte d'Azur.



Cr Auto Bleue

In Paris, the system is different and bigger. Different because you can pick a car at any station where it is available and drop it at any station where a parking place is available. The service opened in December 2011 with 250 stations and 250 cars. The next target is 1100 stations and 1740 cars in June 2012.



Cr Autolib

Lessons from experience

The government has taken an important responsibility in the establishment of a comprehensive EV program with an overall coordination of the main stakeholders in the sector. The experience gained by the same actors in the 1990s during which had been deployed a first national development of electric vehicles will save much time since a number of complex situations met today had been resolved. Moreover the superiority given to the development of the commercial vehicle market will greatly facilitate the take-off market, which had not been realized in the 90s.

The prominent part of AVERE France in the development of EVs

The stakeholders of the development of EVs are very numerous.

In the national program, the government easily leads a permanent coordination of the main ones. An association as AVERE-France allows all the potential partners, even the small ones, to join their efforts to act without the constraints of the official apparatus of governmental actions

Objectives of AVERE-France

The main objectives of AVERE-France are to:

- ♣ Communicate on the challenges and benefits of EVs, particularly among market participants (fleet managers of companies and communities, media...)
- ♣ Encourage and promote the acquisition and use of EVs, particularly with government or local authorities and private companies. AVERE-France organizes and participates in trade shows, conferences, one-day regional roundtables or exhibitions, and all specific events related to electric mobility.
- ♣ Propose legislative and regulatory changes
- ♣ Encourage and support the deployment of EVs in the territories, and support community support
- ♣ Create linkages and synergies between its members, industrial, commercial and institutional.
- ♣ Collaborate with actions of the European AVERE (the European Association for Battery, Hybrid and Fuel Cell Electric Vehicles): participation in European lobbying and contribution to the organization of international conferences "EVS" - Electric Vehicle Symposium
- ♣ Organize and implement, particularly for its members, several actions to promote their business (technological newsletter, regional ödaysö on "electric mobility", breakfast debates, thematic working groups ...).

Who are the members of AVERE-France?

Out of 45 in 2007, members were 60, ad 110 in 2011. They are now divided into the following categories:

-Manufacturers (two and three wheels, cars and vans, commercial and trucks)

-Transport companies

-Equipment manufacturers and energy suppliers

-Batteries

-Charging systems

-Energy suppliers

-Distribution and maintenance of electric vehicles

-Schools, universities and research organizations

-Associations

-Mobility operators

-Vehicle users

-Communities

-Public transport operators

-Businesses and other organizations

-Banks and insurance

-Public institutions and agencies

-Consultancy

-Others

Actions

AVERE-France carries out many communication operations with the media, the public and all opinion leaders.

The actions are based on both a permanent watch of everything related to electric mobility and on the internal workings that are achievable with members without being bound by any traditional rigidity.

Two of these actions deserve a detailed presentation:

- ♣ öAwards given for cities developing electromobilityö (created in 2010). Communities and municipalities have a vital part to play in the

evolution of mobility with a better respect of human environment.

In creating the "Trophées des Villes Electromobiles" which aims at identifying and sharing good practice on eco-mobility, Avere-France spotlights every year local authorities showing a particularly exemplary dynamics of sustainable mobility, including electric transport. The idea is to collect applications from cities that have advanced in the field of electromobility and are really consistent with their projects. The first issue was held in 2010 and a jury of experts has designated eleven communities to receive the famous award at a ceremony taking place in the "Mayors' annual event and conference" that brings together numerous elected officials around conferences and exhibitions.

In the second issue of 2011 the number of candidate cities had tripled, and nine communities have been rewarded. Of course the preparation of the 2012 is in active preparation. The group of rewarded cities will be specially animated by AVERE-France in order to establish a sort of guide of the most remarkable existing actions for the attention of cities that have not yet begun to address these issues.



Cr Etienne Begouen

• The "Grand Prix des Entreprises Eco-mobile" The Avere France and the "Corporate Vehicle Observatory" (OVE) have also organized in 2012 the "Grand Prix des Entreprises Eco-mobiles" - another award - for active eco-mobile companies

- , an operation that is designed for companies and all organizations especially proactive to develop a dynamic of sustainable mobility, including electric.



Both for environmental and economic reasons but also geopolitical and societal, eco-mobility is one of the high stakes of this century. It is a particular challenge for companies, which also have a major role to play on it to contribute to innovation - technological and business models - as well as behavioral changes.

In this context, Avere France, with OVE, has organized the first edition of the "Grand Prix des entreprises Eco-mobiles".

These distinctions will be awarded to private companies, public institutions, associations and NGOs showing particularly proactive in stimulating a dynamic of sustainable mobility, including electric.

This award also aims to highlight and encourage the initiatives taken by companies in favor of eco-mobility.

The selection of companies Eco-mobile take into account the following criteria:

- ♣ global thinking on mobility
- ♣ the number of green vehicles, including electric vehicles in the fleet
- ♣ the organization of work related to travel (mobility policies, eco-driving incentives for non-motorized traffic, carpool, or non-mobility (that is teleworking, video conferencing ...))
- ♣ services and mobility equipment (car sharing, bicycle parking ...)
- ♣ the type of cargo used, including subcontracting
- ♣ communication and awareness on eco-mobility

The award have been distributed with a special ceremony organized on the 11th of april.

When established in 1978 AVERE-France was mainly oriented towards academic research. Nowadays it gathers as many stake holders as possible in order to support electro-mobility and eco- mobility, the academics included.

The very strong development of the three past years has led to a level of activity never seen before.

We consider important to give such an example to countries that just start on this new but necessary track.

In fact we are sure that in 2050, travelling will be completely different of travels of today.

We just initiate paths, but our children, and moreover our grandchildren will build their future in this field as in others.

For these reasons, we consider most important to be altogether very proactive and modest for the future.

The final purpose AVERE-France is in fact very ambitious: we think of disappearing only when there is nothing to do because the EV would have become a very ordinary product of everyday.

It is a real privilege and a great pleasure to detail our "Awards concepts" in the city capital of the Academy Awards: no doubt we were inspired by LA!

Author

Philippe AUSSOURD, 67, graduated from three major scientific entities, worked for 8 years in the french ministry of industry, for 28 years in Electricité de France and 6 years as chairman of the Energy and Climate Commission of the french ministry for sustainable development.

Elected president of AVERE-France in 2010, and of AVERE in 2011.



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