



PRESS RELEASE

Thursday, April 7, 2011

THE SAVE PROJECT HITS THE ROAD

The SAVE (Seine Aval Véhicule Électrique) project, the biggest field test in France, involving around 100 electrical vehicles of the Alliance and over 200 battery-charging points, is up and running. The first vehicles have been delivered to users, the first charging stations have been installed with the customers, and the Renault sales network is ready and waiting.

The SAVE project was effectively launched on Thursday, April 7 in the Renault dealership of Mantes-la-Ville (Paris region) by the partners sponsoring the project, the Renault-Nissan Alliance and EDF, supported by the Ile-de-France region, the Conseil Général of the Yvelines department and the EPAMSA (Établissement Public d'Aménagement du Mantois Seine Aval), in collaboration with Schneider Electric and Total. All the customers were present for the occasion, with their electric vehicles, and Thierry Koskas, Head of the Renault Electric Vehicles Program, and Bernard Cambier, Senior Vice-President, Market Area France for Renault, handed over the keys of a Renault Fluence Z.E. to EDF (Mureaux Campus) and a Renault Kangoo Z.E. to Sotrema.

This event marks the first phase in the operational deployment of the test, to run between March 2011 and July 2012.

The Renault-Nissan Alliance provides the electric vehicles, coordinates the test and will study customer usages and the associated services, in particular those linked to onboard and remote communications. EDF is involved in the deployment of the charging infrastructure, the analysis of user recharging behavior and the testing of business models. Schneider Electric contributes to the production of the charging infrastructures and the associated energy management mechanisms, and Total will be installing quick-charge stations in two of its service stations.

This project has received support from the “research demonstration vehicle fund” as part of a call for projects managed by ADEME concerning vehicles with low greenhouse gas emissions.

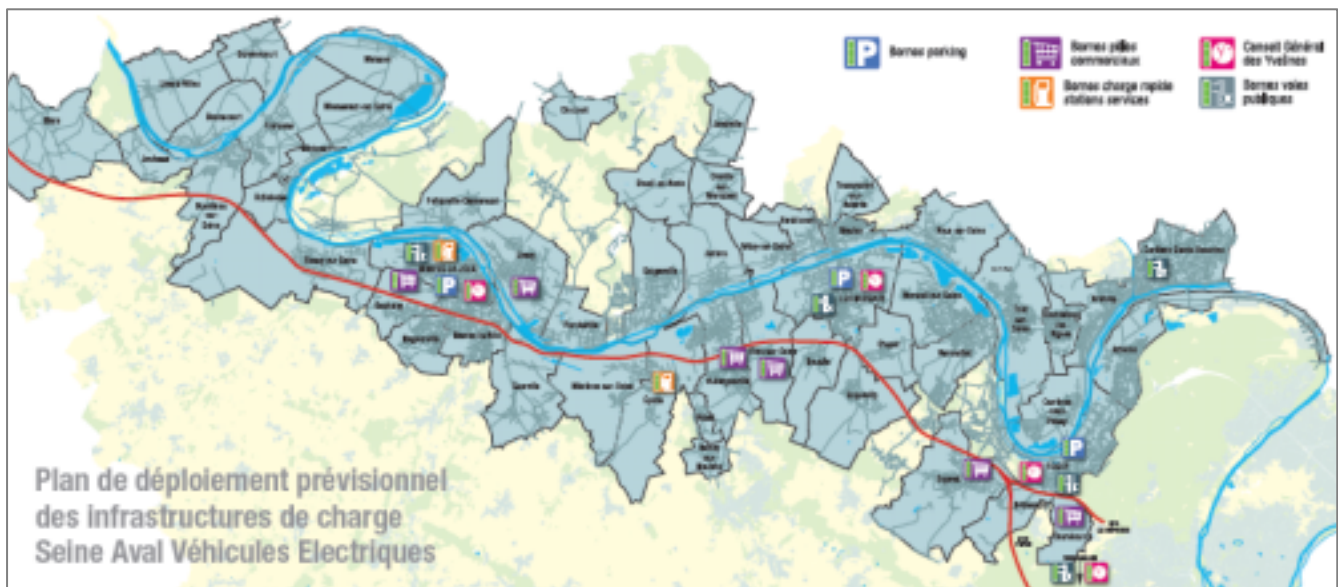
CONTENTS

1.	SAVE: eight partners working together on the biggest test of electric mobility in France	p.3
2.	Operational feedback to help in the deployment of the charging station network in France	p.4
3.	Professional and private customers with a variety of usages	p.5
4.	The project's 100% electric vehicles: Renault Fluence Z.E., Renault Kangoo Z.E. and Nissan LEAF	p.6
5.	Connected and "after-sales" services	p.8
6.	The charging infrastructure	p.8
7.	Media contacts	p.10

1. SAVE: eight partners working together on the biggest test of electric mobility in France

SAVE is the biggest electric vehicles test ever carried out in France in terms of:

- **Territory:** the geographical range of the test corresponds to that of the Seine-Aval National Regeneration Initiative ("Opération d'Intérêt National") in the Yvelines department to the west of Paris, and covering 51 towns and 5 metropolitan areas.
- **Partners** sponsoring the project: 8 public and private partners.
- **Customers:** over the duration of the test, some 40 customers will take part in the SAVE initiative.
- **Uses:** business users for a variety of purposes (deliveries, business journeys, etc.) and private individuals.
- **Number of vehicles:** in all, around 100 electric vehicles of the Renault-Nissan Alliance will be used in the testing.
- **Number of charging stations:** 200 charging points at the roadside, in company car parks, at customer homes, in shopping centers, etc.



Partners sponsoring the project



The SAVE project reflects the mutual desire of the Renault-Nissan Alliance, EDF, the Conseil Général of the Yvelines, the EPAMSA and the Ile-de-France Region to carry out major testing of electric mobility on the Seine-Aval territory. Schneider Electric and Total have subsequently joined the ranks of the partners.

- **The Renault-Nissan Alliance** provides the electric vehicles, coordinates the test and studies the customer uses and associated services.
- **The EDF Group** handles the battery-charging infrastructure solutions for the customers, supervises the charging points as a whole and is involved in the collation of the operational feedback.
- **Schneider Electric** provides the battery-charging infrastructures (on private premises and in the allocated public car parks) along with the technical supervision and the data collection and power management systems for the stations, and also takes part in collation of the operational feedback.
- **Total** will be installing and testing quick-charge stations in service stations.
- **EPAMSA** (Etablissement Public d'Aménagement du Mantois Seine Aval, a local development entity) coordinates the technical and financial partnership involving all public and private stakeholders.
- **ADEME** (French Agency for the Environment and Energy Management) participates financially via the demonstrator fund for the "demonstration project for new energy technology" initiative, and will be supporting the SAVE carbon inventory studies.
- The **Conseil Général des Yvelines** is on the steering committee will also be a user of Electric Vehicles.
- The **Ile-de-France Region** is a member of the steering committee.

The global budget of the SAVE project amounts to €23 million.

The SAVE project benefits from the demonstrator fund managed by ADEME, to the tune of **€5 million**. The Conseil Général des Yvelines is also contributing €0.7 million to the project, and the Ile-de-France Region will complete the financing package.

2. Operational feedback to help in the deployment of the charging network in France

The objectives of the SAVE project are as follows:

- to test the **business models** of electric vehicles and the battery-charging infrastructures,
- to obtain information about **driver usage** and find out how drivers **appreciate** the vehicles and the recharging systems,
- to test the associated **services**: connected services, after-sales services, etc.
- to confirm the **carbon inventory** of the electric vehicle.

The analysis of the project feedback will be used in the deployment of future public and private charging infrastructures.

Testing the business models:

Several customer offerings will be tested according to usage. As far as the vehicles are concerned, the financial contribution requested from the pilot-scheme customers will be adjusted to take account of the constraints linked to the prototypes and will not therefore be necessarily representative of the final sales price.

The project will also enable the testing of the marketing proposals for the charging infrastructures. However, the real cost of the charging stations made available as part of the test will not be representative of the target prices, mainly on account of the low volumes involved. (Excluding fast charge which information will be communicated later)

Vehicles and charging stations are fitted with instrumentation to provide operational feedback.

The vehicles are equipped with data collection units (incidents, drive data, battery and engine load).

All the stations will be remotely managed using a supervision system:

- remote readings of consumption,
- availability monitoring,
- connection/disconnection to/from the power grid,
- etc.

The project's customer partners undertake to answer questionnaires about their satisfaction and their vehicle usage. They will also be interviewed on quality matters, in order to get an accurate picture of how they appreciate the various aspects of electric mobility. On the basis of the conclusions of these studies, the project's sponsoring partners will be able to obtain valuable information in order to develop their proposals.

3. Professional and private customers with a variety of usages

The SAVE project has also been made possible thanks to the **involvement of many customers** who have agreed to take part in the electric mobility adventure. In all, around forty business and private customers will be playing their part in testing a form of mobility that is altogether more environmental friendly. This broad customer base will allow us to test different usages and therefore optimize the quality of the operational feedback: short-distance deliveries, inter-site business travel, visits to customers, etc.

The **business customers** taking part in the launch of this project are as follows:

SOTREMA, EIFFAGE, ISTDY, OTIS, CARREFOUR, COLIZEN, ERDF and France TELECOM. The partners, EPAMSA, the Conseil Général of the Yvelines and EDF, are also customers of the SAVE test program.

The **private customers** will be, in the main, employees of the companies and administrations that are partners in the SAVE project.

4. The project's all- electric vehicles: Renault Fluence Z.E., Renault Kangoo Z.E. and Nissan LEAF

In all, around 100 Renault and Nissan electric vehicles will be delivered to the customers in the course of the SAVE test program. The vehicles involved are the Renault Kangoo Z.E., Renault Fluence Z.E. and Nissan LEAF.

The Renault electric vehicles used in the test will all be the same color. They will bear the initials Z.E. (Zero (tailpipe) Emissions) on one side and have the customer's livery on the other side.

Renault Fluence Z.E.



The Renault Fluence Z.E. is a large (4.75 m long), 100% electric family sedan that will go on sale in France in Fall 2011 at prices starting from €21,300 (including VAT, and with deduction of the €5,000 tax incentive subsidy), at the same price therefore as its internal combustion engine equivalent. Battery rental costs from €79 (including VAT) per month.

Renault Kangoo Z.E.



The Kangoo Z.E. is an all-electric van aimed at professionals that will go on sale in Fall 2011 in France at prices starting from €15,000 (excluding VAT, and with deduction of the €5,000 tax incentive subsidy).

Battery rental costs from €72 (excluding VAT) per month.

This van will also be available in "Maxi" configuration at prices starting from €16,200 (excluding VAT, and with deduction of the €5000 tax incentive subsidy). The Renault Kangoo Maxi Z.E. will be offered in 2-seater and 5-seater versions:

- the two-seater version offers a payload space of 4.6 m³,
- the five-seater version can comfortably carry up to five occupants.

Nissan LEAF



The Nissan LEAF, voted Car of the Year 2011 by an independent European panel, is an all-electric compact hatchback that comes fully equipped as standard. Its AC motor develops up to 109 hp and 280 Nm torque, for a top speed of 145 km/h. When fully charged, the LEAF can cover a range of 175 km on a single charge (NEDC* cycle). The Nissan LEAF will go on sale in Summer 2011 in France at prices starting from €30,990 (including batteries and the €5000 tax incentive subsidy).

* NEDC: New European Driving Cycle

The batteries:

The batteries will be supplied by AESC, the Nissan and NEC joint venture, through the Renault-Nissan Alliance. The same technology, Lithium-Ion, is used for the three vehicle models in the project. The layout of the modules differs from one vehicle model to the next according to the vehicle's structure.

Driving ranges:

The range between charges of electric vehicles depends on several factors: speed, journey type, use of air conditioning and heating, external temperature and manner of driving (sporty, normal or eco-mode). "Anticipatory" driving enables major energy savings to be made, and it is in town, in dense traffic, that the electric vehicle is most economical. In part, this may be explained:

- by the absence of power consumption when static (red lights, dense traffic, etc.),
- by the deceleration energy recovery system, which allows frequent braking and stopping to partially compensate for the energy consumption during urban driving.

5. Connected and "after-sales" services

Fleet Asset Management is a useful service for the project's fleet managers. It provides daily information to the customer about the distances covered, the energy consumption, the charge status of the battery, etc. (60 or so items of data transferred daily).

Connected services onboard the vehicle and with remote access (via smartphone and PC)

Users of a Renault electric vehicle may at any time consult the details of their vehicle and battery status: charge level, drivable distance, energy consumption mode, graphic display of the vehicle's operating radius based on the range remaining in the batteries, etc.

Away from the vehicle, drivers will also have access to a host of information concerning the vehicle status via mobile phone or PC. In this way, whether at home or at work, or wherever else they may be, drivers are able to find out about the state of their vehicle's battery: charge level, time remaining until fully charged, drivable distance, recharge status (ongoing / terminated / problem), alert indicating that the battery is run down, and recharging history (standard service on the Fluence Z.E., option on the Kangoo Z.E.).

"After-sales" service for electric vehicles in the project:

During the project, the battery maintenance will be carried out either at the repair center of the Renault plant at Flins, or at the Renault Technocentre. The maintenance of Renault electric vehicles will be carried out by the Renault network.

24/7 breakdown assistance

This service provides the customers with vehicle breakdown assistance to take their cars to the repair center or to the nearest charging station in the event of a flat battery.

The **specific services** for the SAVE test are as follows:

- a specific assistance hotline
- scheduled vehicle downtimes

6. The recharging infrastructure

Schneider Electric and EDF propose a complete **battery charging solution**, suited to the specific needs of customers, and including the purchase or rental, installation and maintenance of the charging stations.

In all, there will be around 200 recharging points involved in the SAVE project. They will be installed in user homes (including condominiums, as the case may be), company car parks, private store car parks, public car parks, at the roadside and in 2 Total fuel stations.

To date, three municipalities have confirmed their intention to install roadside charging stations: Mantes-la-Jolie, Les Mureaux and Poissy.

A supervision system will allow all the stations to be remotely managed: remote readings of consumption, availability monitoring, connection/disconnection to/from the power grid, etc.

1. **Daily recharging:** "normal" charging at home, on company sites or at the roadside.

Recharge in 6 to 8 hours:



Wall box



Normal charging station

2. **Top-up recharging:** quick or accelerated recharging at the roadside, in public car parks, fuel stations, shopping center car parks, etc.

Quick charge:

- Full recharge in 30 minutes = 30 minutes extra driving distance per 5 minutes recharge
- Mixed station delivering both AC and DC current so that all the electric vehicles in the test are able to use it.



Accelerated charging:

- Full recharge in 1 hour = 30 minutes extra driving distance per 10 minutes recharge

- Same type of station as a normal charging station but delivering more power (3 to 22 kW).
- Alternative solution to the quick-charge station, simpler to install and less expensive.

7. To find out more, please contact:

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APPENDIX

HISTORY OF THE SAVE PROJECT

- **June 2009:** The SAVE project is proposed in response to the ADEME call for expression of interest: "Demonstration project for new energy technology".
- **April 2010:** ADEME confirms the financing of the SAVE project.
- **June 2010:** The project partners gather on the ECO-Campus of EDF in order to present officially the SAVE test mechanism to all stakeholders, local authorities and professionals who wish to take part in the test program.
- **June 2010 to April 2011: intensive project preparation**
- **April 2011:** The first vehicles are delivered to the customers, and the first charging stations are installed on the sites of the corporate customers.
- **April 2011 to June 2012:** Operational phase of the project, involving the delivery of the other Renault and Nissan vehicles to the partner customers and the deployment of charging stations in shopping centers, at the roadside and in the allocated car parks. Quick-charge stations will be installed in Total service stations.