



INNOVATION FUND

Driving clean innovative technologies towards the market

EVVE: First European Large-Scale Vehicle-To-Grid Demonstrator for an efficient decarbonisation of the energy sector



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Deliverable N° :

D1.6

Due Date :

31/12/2021

DELIVERABLE NAME :

Construction : Report on EVVE first deployment

Working Package :

WP1 – Activities before Financial Close

Lead Beneficiary:

DREEV

Sensitivity :

- Public – fully open (automatically posted online on the Project Results platforms)
 Sensitive – limited under the conditions of the Grant Agreement

DELIVERABLE DESCRIPTION

Report summarizing the deployment activities between April 2021 and December 2021.

Summary of the EVVE first deployments in 2021

The objective of the EVVE project is to deploy and operate 800 distributed Bidirectional Charging Stations (“BCS”) across Europe, with a strong focus on France. The first deployment phase leverages on the already existing V2G standard and vehicles in CHAdeMO (V2G chargers associated to Nissan Leaf and e-NV200). The second phase will follow with the upcoming V2G European standard in Combo CCS, with new compatible vehicles from other car manufacturers.

The BCS are deployed for private B2B charging needs and associated to cars with a compatible technology and usage-pattern (electric vehicles often connected to their charging station at depot during night and weekend for example). EDF, with the largest V2G-compatible EV fleet in France (more than 450 Nissan Leaf and e-NV200), plays a major role in the project as it is planned to install roughly 400 BCS (half in CHAdeMO, half in CCS) for its own sites during the project.

EVVE project deployment officially began in April 2021. During the first months, most of the deployments have been done for EDF own sites across France: for large industrial sites such as the power plants of Tricastin (10 BCS), Civaux (16 BCS) or Paluel (12 BCS) but also for conventional offices such as Dijon Char (2 BCS), Tours (2 BCS), Maxéville (2 BCS), Rouen (1 BCS) or Vannes (1 BCS) for example. At the end of the year, deployments of ABB BCS have also been done for external B2B customers like Hotravail (near Bordeaux) and Titifloris (near Nantes), which were already engaged into V2G and wanted to extend or upgrade their previous installations.

In most cases for EDF sites, the electric vehicles and chargers correspond to a car-sharing use case. The electric vehicles are plugged to their BCS most of the time and employees can use them during working days for daily missions. Therefore, during the evenings, nights and weekends, the cars are available for storage services. For other B2B fleets, the usage-pattern is the same: the vehicles are used during the working days for their daily missions and are parked to their BCS during most of the nights and weekends.

The objective in 2021 was to install at least 83 BCS. The objective has been more than achieved with 87 BCS installed between 01/04/2021 and 31/12/2021:

- 55 BCS installed on EDF industrial sites
- 24 BCS installed on EDF offices
- 8 BCS installed for external B2B customers in France

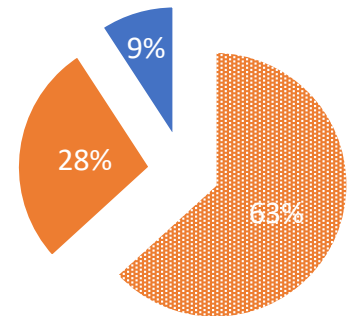
The following table gathers all the sites where BCS have been installed in 2021, with the associated number of chargers per site.

Detailed list of BCS installed per site

Site name/country	Number of BCS	Site type
EDF CNPE Bugey - France	2	EDF industrial site
EDF CNPE Civaux - France	16	EDF industrial site
EDF CNPE Cruas - France	5	EDF industrial site
EDF CNPE Golfech - France	10	EDF industrial site
EDF CNPE Paluel - France	12	EDF industrial site
EDF CNPE Tricastin - France	10	EDF industrial site
EDF CNEPE TOURS - France	2	EDF offices site
EDF HYDRO Saint Martin Le Vinoux	10	EDF offices site
EDF DCR Dijon Char - France	2	EDF offices site
EDF DCR Maxéville - France	2	EDF offices site
EDF DCR Nimes Lenoir - France	2	EDF offices site
EDF DCR Rivesaltes - France	2	EDF offices site
EDF DCR Rouen - France	1	EDF offices site
EDF DCR Toulon - France	2	EDF offices site
EDF DCR Vannes - France	1	EDF offices site
Hotravail Cestas - France	3	B2B customer site
Hotravail La Teste - France	1	B2B customer site
Titi Floris Nantes - France	4	B2B customer site
Total BCS delivered at 31/12/2021	87	

EVVE V2G chargers installation split

- EDF industrial sites - France
- EDF offices sites - France
- B2B customers - France



Please note that the BCS listed corresponds to those which have been delivered to the customers. Other sites are under construction and will be delivered in the coming weeks (the chargers have already been installed physically but they are not officially delivered to the customer), please see the map of the sites delivered (Appendix 1).

In 2022, the deployment will continue with more EDF sites to be equipped, new external customers in France and in Europe, and other important partners coming into the projects to install BCS for their own fleet, in order to reach 200+ BCS by the end of the year.

APPENDIX 1: MAP AND PICTURES OF BCS INSTALLED - EVVE PROJECT

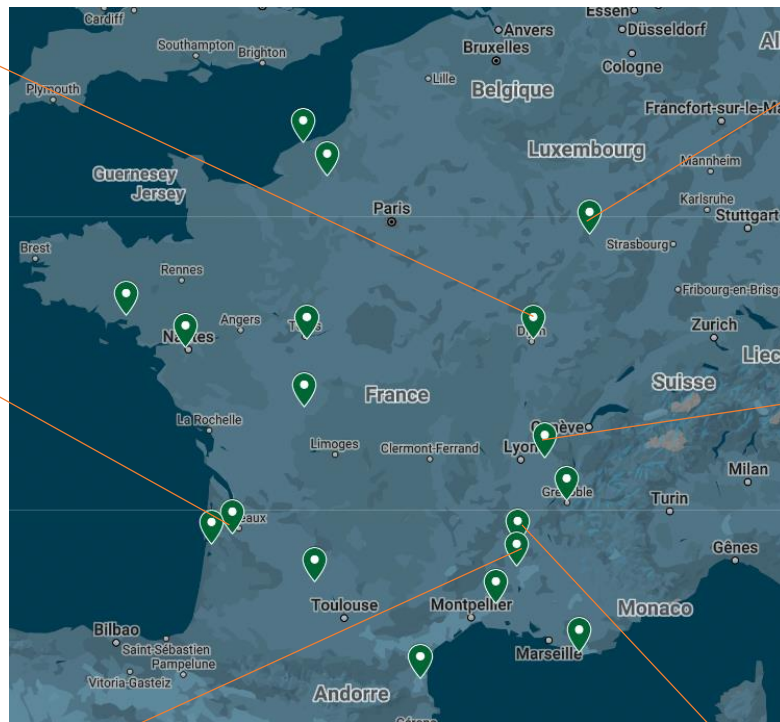
EDF offices of Dijon Char
Dijon, France




EDF offices of Maxéville
Near Nancy, France



EVVE V2G charging stations map
Sites delivered at 31/12/2021



 : Sites delivered

Hotravail offices of Cestas
Near Bordeaux, France



EDF power plant of Bugey
Near Lyon, France



EDF power plant of Tricastin
Near Pierrelatte, France



EDF power plant of Cruas
Near Montelimar, France

