

**Infrastructure for Recharge of Electric Vehicles
Gimelec supports the proposal of convergence from « EV Plug Alliance »**

Legrand¹, Scame and Schneider Electric² announced on March 17, 2010 the creation of the « EV Plug Alliance » open consortium, in order to promote the use of a unified connecting system with high safety plug and socket to charge electric vehicles on the infrastructure side.

Gimelec considers that the dedicated plug for IRVE must meet the highest safety levels for consumer protection and should not downgrade the existing normative levels regarding safety of electrical installations in Europe.

The selected plug and socket must take into account the increase of power levels for electric vehicles and acknowledge the fact that most of the charging stations, in large quantities, will be installed in residential areas and buildings, hence accessible to non-professional and even non-trained users, including vulnerable ones, such as children.

The choice of the plugs and connectors satisfying this level of requirements is the object of debates taking into account the regulations in force in the different countries of the European Union.

In this context, the « EV Plug Alliance » proposal represents an immediate point of convergence.

Without promoting one technology rather than the other, this proposal would encourage to find a unique connecting solution between the electric car and the charging infrastructure, totally interoperable throughout the European Union.

The proposed European point of convergence solution consists in standardizing a detachable connection cable, with a different plug at each end (as the USB standard did in the field of computers), complying with the IEC standard in its final stage:

- On vehicle side, a so-called type-2* plug, as proposed by some companies and adapted to French regulations, for a power ranging from 3 to 43 kW
- On infrastructure side (buildings, car parks or residential areas), a type-3* as proposed by « EV Plug Alliance », with a unique shape for single or three-phase, 16 or 32 A, for a power up to 24 kW, with safety shutters.

Above this power of 24 kW, outside the buildings or residential areas, cords will be permanently attached to the terminals and manipulated by trained users only. A Type-2 connector will be used for this connection.

This solution providing a unique connecting system throughout Europe, reconciles the interests of all participants, users and manufacturers thus allowing the best usage of technologies offered by the different European companies. Consequently, all cars would be able to connect without any difficulties to all sockets, with a unique detachable or fixed cable, for fast charging in specific charging stations.

* The IEC international standard, in its final stage, defines 3 possible types of connectors to charge electric cars, i.e. Type 2 proposed by Mennekes and Type 3 by the EV Plug Alliance

Gimélec is a group of 230 companies that supply electrical and automation solutions for the energy, construction, industrial, and infrastructures markets.

These companies, based in France, generate an annual turnover of 11.4 billion euros, 61% of which is from export, and employ 71,000 persons in the country. The consolidated worldwide turnover of Gimélec's member companies is 41.2 billion euros. Among Gimélec's members are major groups, and innovative "SMEs" who are often leaders at the national, European and international levels.

¹ Member of national trade associations Gimelec and Domergie

² Member of national trade associations Gimelec and Domergie