



About Us

GreenTechEurope.org

(GTE) is a production of London Research International, a global research and consulting firm with expertise in the energy, environment, and chemical sectors. GTE is a video-based technology platform showcasing innovative technologies from Europe.

The GTE Newsletter

Our interview-based newsletter features innovative energy technologies and businesses from around the world.

Announcements

GreenTechEurope.org launches! A single platform for all of Europe's environmental technologies relating to energy, transport, carbon reduction, energy efficiency, water, and more. Check in to see Europe's latest technologies or to submit your own innovations.



Featuring: Circontrol

In the latest edition of the newsletter, LRI Staff interviewed Circontrol's Joan Comellas, the EV Charging Division Manager. With a strong history in the parking and energy efficiency sectors, Circontrol have parlayed their expertise into the creation of their CirCarLife Electric Vehicle (EV) charger portfolio. The CirCarLife line offers a variety of charging solutions for EVs, including rapid-charging, outdoor charging posts for urban areas, and multi-point parking systems that can distribute power to vehicles based on local grid availability.

Charging the next automotive market

For fifteen years, Circontrol's main international business has been Mobility. Their operations are broken down into two divisions; *efficient parking solutions*, including parking guidance, LED lighting and energy efficiency; and, *electric vehicle charging stations*, sold under their CirCarLife portfolio.

For efficient parking and guidance systems, Circontrol have installations worldwide in a variety of settings, ranging from airports to sport stadiums to public parking systems, with a total installed base of nearly 200,000 bays controlled with parking guidance solutions. For electric vehicle charging, there are more than 4,500 charging points controlled with Circontrol systems in nearly 15 countries. These charging arrangements vary from single box or post systems to fleets of more than 300 electric vehicles.

Circontrol entered the EV charging market with their CirCarLife line almost 5 years ago. The move was natural given that the technology inside their charging units—electrical protection, energy meters, software, communication components, converters, and much more—is just a new application of the same products they have made

for years. Although Circontrol's parking solutions are found on every continent, Europe is the natural market for their EV charging stations. The UK has shown specific growth in recent months, while other European nations are stalling or delayed. Looking forward, Circontrol see electric vehicles as a key engine for change in the energy sector and are working to be a part of that change as the industry gathers momentum.

CirCarLife is one of the more complete ranges of electric vehicle charging stations in the world. The selection includes:

- Smart boxes for multi dwelling parking in communities
- Solutions for vehicle fleets
- Charging posts for outdoor installations
- Multipoint parking solutions
- Two-wheel vehicle charging points



Integrating electric vehicle charging with the “smart grid”

What is a smart grid?

There are many definitions for a “smart grid”. Most often, it is termed as a modernized electric transmission or distribution system that utilizes digital technology to provide real-time information about the status of the system, as well as energy production and consumption.

Where do electric vehicles fit in?

A common criticism for the massive rollout of EVs is the danger that they could pose to the stability of the electric grid if a large number of vehicles are plugged in during times of peak demand. “Smart” systems, such as the CirCarLife Multipoint product, are not only designed to prevent such overloads, but can also enhance grid stability by turning the EV into a storage device to receive excess energy on the grid (possibly due to renewables), and even to deliver energy back into the grid. This technology is young, but is increasingly under investigation.



Outdoor Electric Charging Post

Cost: ~ €4,000

Power Source: *Versatile*

The Outdoor Post

Using AC power, the CirCarLife Outdoor Charging Post is capable of servicing all vehicles from electric motorbikes up to three phase 63Amps cars and buses. For quick charges during a long trip, fast charging poles are available to charge vehicles in a matter of minutes.

Installation Time

Circontrol specializes in the design and manufacturing of EV chargers, working with local distributors to handle installation and marketing. The time for installing a Post depends largely on the country and the place of installation. The key issues are obtaining a power source, being granted permission, and fulfilling any other zoning requirements. Once ground installation is complete, a charging station can be up and running in a matter of minutes.



Cost

A standard price for a Post charger is around €4,000. The exact cost of installing a Post is difficult to establish given the variables involved and the range of distributors who carry out the installations. Warranties of two years are applied to all products and can be upgraded depending on the specifications of the customer. All posts are designed to withstand vandalism on the street, rough weather conditions, and other forms of ambient destruction. As a testament to their durability, there are many posts that were installed on the street 4+ years ago and are functioning today with the same excellence as they did their first.

Power Source

The Post functions in the same manner no matter what the power source. Circontrol have worked on several projects using clean energy sources, and they are involved in several large-scale projects at present. Slow and semi-fast charging Posts are best placed in locations where a vehicle can be parked for long periods of time. While points along the entrances and exits to cities are good candidates for fast-charging products.

Multipoint Charging System

One new product to the EV market is the CirCarLife Multipoint charging solution. The system charges multiple EVs in large parking areas, handling upwards of 140 charging points.

The product consists of two units:

- (1) The charger unit where the car plugs in
- (2) The master control unit that supplies the intelligence

The system is unique for how it uses the master control unit to balance available supply from the grid with the power demand of all the vehicles within the charging network. If there is not sufficient power for all of the vehicles to charge at the same time, the system divides the available power between each individual vehicle.





Building on expertise in a young industry

Market Challenges

Given the early maturity of the EV market, it's difficult for companies to form business models or chart out revenues for EV chargers today. In many countries, EV sales are in the mere hundreds; clearly not enough to create a business model. Many car manufacturers are working hard to develop EV technology, but only a few are offering models that are ready for the market. Large projects for EV charging are currently few in number across Europe. Yet despite this market uncertainty,

Circontrol expects greater growth for the EV industry in the next 2-3 years. This will be due to larger volume rollouts and lower prices. When this surge hits, Circontrol feels confident that its experience in the mobility sector, energy efficiency and charging station technology, financial stability, and proved experience with large installations will give them a strong head start.

Advantages

The CirCarLife line enjoys two main advantages over rising and future competition. First, half of the natural market for EV stations

is the same as Circontrol's current market; providing an existing source of clients. Second, Circontrol already have a developed expertise with internal EV charger station components, and have 8 factories and production lines in place to achieve global production volumes. For those companies focusing solely on EV chargers, it's difficult to maintain a life without external capital or resources. For Circontrol, however, CirCarLife is less of a risk, and more of a sound investment.

“2.5 Chargers for every Electric Vehicle”

Within ten years, Circontrol anticipates that up to 55% of parking bays in Europe, especially inside parking, will require EV charging units. Some proactive countries will need more than others, but overall demand will increase. From rapid- to slow-charging stations, Circontrol foresees the need for having a strong network spread across the Continent. Some countries like Norway are very active in EV development, and in many cases the government facilitates progress and funding. is prioritized for EV dissemination. Whatever the local variables, Circontrol embraces the challenge to adapt.

Circontrol predicts that EV chargers will become more “intelligent”, and we will see an evolution in integrating smart grids with charging. The key variable is EV demand: there will need to be more chargers than cars, approximately 2.5 chargers/car by Circontrol's count, meaning that charger growth will occur in proportion to EV proliferation.

Work with Circontrol

Circontrol is not seeking capital investment, but is open to contact from customers and projects in select countries. Their products are commercially feasible and they welcome any regarding their CirCarLife EV charger line.

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- Follow Circontrol on Twitter: [@circontrol_com](https://twitter.com/circontrol_com)

- Explore Circontrol's offerings on [YouTube](https://www.youtube.com)

- Visit the CirCarLife [website](https://www.circontrol.com).



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Related Upcoming Events – Electric Vehicles and Chargers

- [World EV Summit 2012](#)

12-14 June 2012 | Copenhagen, Denmark

Leading international experts will share knowledge on high level strategic planning, technical advances and the latest on opportunities for growth within the sector. The forward looking agenda will discuss and share European and International case studies and business models for the push towards large scale implementation of electric transportation.

- [Electric Vehicle Infrastructure World Congress](#)

26-27 June 2012 | Berlin, Germany

Hear from leading automakers, fleet owners, local authorities, and utilities on how they are integrating EVs into their businesses and what they need from each other and the industry to take electric vehicles mass market.

- [Plug-In 2012](#)

23-26 July 2012 | San Antonio, Texas

Nowhere else will you have a more complete, more open and more direct dialogue about plug-in hybrid and electric transportation than at the Plug-In 2012 Conference & Exposition.

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