

**UNDER EMBARGO UNTIL 12:00PM (MIDDAY) ON WEDNESDAY
18TH APRIL**

OVO VEHICLE-TO-GRID CHARGER AND OVO SMART CHARGER

OVO Vehicle-to-Grid Charger | Product Information

The world's first widely available domestic bi-directional electric vehicle charger

The OVO Vehicle-to-Grid Charger is the world's first widely available domestic bi-directional charger. With a 6kW charge and discharge power rating, this intelligent device has been designed to give drivers the option to discharge excess electricity from their cars back to the electricity grid, providing flexibility services and helping to supply energy at times of peak demand.

Using VCharge AI, the OVO Vehicle-to-Grid Charger will optimise vehicle charging to take advantage of cheaper electricity when it's available and when there are more renewables on the system.

The OVO Vehicle-to-Grid Charger also gives customers the option of selling power back to the grid at peak time, earning revenues from energy arbitrage and new flexibility services.

Available to Nissan LEAF drivers, the OVO Vehicle-to-Grid Charger could enable Nissan drivers to have free power for their electric vehicles by selling energy back to the grid. This is an important step for both companies to deliver their mission to offer customers free power for their electric vehicles.

The first such product to be produced and deployed at volume in the UK, this small and beautifully designed charger is playing its role in helping develop the country's high-tech manufacturing sector.

Rolled out from summer 2018 to 1,000 Nissan LEAF electric vehicle owners as part of a two-year trial, and with co-funding from the UK's innovation agency, Innovate UK, the charger will be free for OVO customers on the trial.

OVO Vehicle-to-Grid Charger | Production specification

General Specification	
Model Name	OVO Vehicle-to-Grid Charger
Mode	Mode 4: CHAdeMO protocol
Overall Dimensions	520mm x 210mm x 690mm
Weight	17kg
Operating temperature	-25°C to 50°C

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Storage temperature	-20°C to 80°C
Operating humidity	10% to 85%
Installation	Indoor / Outdoor wall mounted
Communications	Ethernet or wireless module
User Interface	<ul style="list-style-type: none"> - Membrane panel - Customer app - Emergency stop
Grid Connections	<ul style="list-style-type: none"> - G83 compliant - G59 compliant
Certification	<ul style="list-style-type: none"> - CE certified - CHAdeMO certified
Electrical Specification	
Nominal output power	6kW, charge and discharge
Input voltage	230V, AC ± 10% (1P)
Output current	Variable up to 32A
Nominal frequency	50Hz
Metering	Accuracy to 0.2s
Degree of protection	IP65 protection
Overvoltage category	CAT III

OVO Smart Charger | Product Information

OVO's first 7kW Smart Charger uses VCharge AI advanced scheduling to optimise grid balancing and battery longevity. The device responds to signals on pricing and demand from the grid. It can automatically charge cars during off-peak periods when demand for electricity is lower and energy is cheaper and possibly greener. It can also pause charging during peak periods to manage strain on the grid, saving money and avoiding the risk of local blackouts caused by surges in demand.

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OVO Smart Charger | Product Specification

General Specification	
Model Name	OVO Smart Charger
Mode	Mode 3: Type 2 socket, Type 1 or Type 2 tethered cable
Overall Dimensions	200mm x 130mm x 420mm
Weight	3.5kg
Operating temperature	-20°C to 50°C
Storage temperature	-20°C to 80°C
Operating humidity	10% to 85%
Installation	Indoor / Outdoor wall mounted
Communications	Ethernet or wireless module
User Interface	<ul style="list-style-type: none"> - Membrane panel - Customer app
Certification	<ul style="list-style-type: none"> - CE certified
Electrical Specification	
Max. output power	7kW (1P)
Input voltage	230V, AC ± 10% (1P)
Output current	Variable up to 32A
Nominal frequency	50Hz
Metering	Accuracy to 0.2s
Degree of protection	IP65 protection
Overvoltage category	CAT III

FAQ

What is the opportunity for electric vehicles?

Electric vehicles are among the most promising low carbon technologies driving mass market electrification. There will be an estimated one million electric vehicles in the UK by 2020-22, which will collectively hold more than four times the energy of the UK's largest pumped power station, Dinorwig.

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Why is OVO investing in electric vehicles?

With the urgent need for decarbonisation, rising electrification, demand for more renewable energy and increasingly complex customer needs, energy systems are under a lot of pressure. We see the potential for technology to transform the energy sector, and OVO is at the forefront of harnessing that potential.

What is Vehicle-to-Grid technology?

Vehicle-to-Grid technology enables energy stored in electric vehicles to be fed back into the electrical grid to help supply energy at times of peak demand. Drivers will be able to decide what percentage of their electric vehicle battery they are willing to allocate for usage by the grid. This lets households with electric vehicles take a significant role in grid balancing, delivering enhanced flexibility and storage options to local grid networks.

What is the financial benefit for customers?

By enabling VCharge, the OVO Vehicle-to-Grid Charger could allow certain electric vehicle drivers to drive for free by saving more than £250 per year by selling unused energy back to the grid.

Where will it retail and what is the price point?

The OVO Vehicle-to-Grid Charger and OVO Smart Charger will be available via OVO's website. The OVO Vehicle-to-Grid Charger will be free to all Nissan LEAF customers taking part in the two-year trial. The project is co-funded by the UK's innovation agency, Innovate UK. Where applicable, OLEV (Office for Low Emission Vehicles) funding of up to £500 may be available for the OVO Smart Charger. We will be announcing price points for the OVO Smart Charger later this year.

What will the offering include?

We are planning for OVO Energy's EV Everywhere bundle to include the option of an OVO Smart Charger as a bolt on product. EV Everywhere is the only bundle to include 100% renewable energy and free membership to the POLAR plus network of 6,000 charge points nationwide, thanks to OVO's partnership with Chargemaster. A free app which allows customers to set their user parameters and provides detailed usage analytics is also available with the OVO Vehicle-to-Grid and Smart Chargers

Who is manufacturing the chargers?

UK based Indra Renewable Technologies, in which OVO acquired a minority stake in 2017, will be manufacturing the OVO V2G and Smart Chargers.

Will the chargers work with any energy provider?

The chargers will be able to charge an electric vehicle with any supplier, but the smart functionalities and discharging will only be possible if the customer is signed up to OVO Energy.

Will customers need any other devices to use the chargers?

Customers will need to own a smart meter to use the OVO Vehicle-to-Grid Charger and in order to obtain full functionality from the OVO Smart Charger.