



## Nissan and Enel launch groundbreaking vehicle-to-grid project in the UK

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- First ever vehicle-to-grid (V2G) trial in the UK
- Nissan electric vehicles become mobile energy hubs supplying the grid
- Trial comprises of 100 V2G units
- Nissan EV owners can sell stored energy in their vehicles back to the grid for a profit

**London, UK – May 10<sup>th</sup>, 2016** – Automotive industry leader **Nissan** and multinational power company **Enel** today confirmed plans to launch a major vehicle-to-grid (V2G) trial – the first ever carried out in the UK. The trial will work by installing and connecting one hundred V2G units at locations agreed by private and fleet owners of the Nissan LEAF and e-NV200 electric van. By giving Nissan electric vehicle owners the ability to plug their vehicles into the V2G system, owners will have the flexibility and power to sell stored energy from their vehicle battery back to the National Grid. This announcement follows the signing of the Nissan-Enel V2G partnership agreement in Paris in December 2015 during the 21<sup>st</sup> UN Conference on Climate Change (COP21) and the subsequent kick-off, in January 2016, of the installation of 40 V2G units in Denmark.

Today's announcement heralds an exciting era for energy management in the UK. Not only will Nissan electric vehicle owners be able to play an active role in grid stability, providing an alternate source of income, but it will revolutionise how energy is supplied to the grid. Once scaled up, the V2G technology can become a game-changer for owners of Nissan EV in the UK as they become fully fledged and active participants in the UK energy market.

**Paul Willcox**, Chairman of Nissan Europe, said: *"Today's landmark trial in the UK is a significant step forward in renewable energy management, helping shape the future of industries, cities and societies. Smart energy management is one of the biggest challenges any nation faces for the future which is why this trial is so critical in assessing the feasibility of using variable, more flexible energy sources. We see Nissan electric vehicles as being the mobile energy hubs of the future, pioneering a self-sustaining energy infrastructure that will help solve the capacity issues of the future."*

*"This is the first time this has ever been done in the UK and by enabling customers to sell energy back to the grid, we're providing a financial incentive to choose the sustainable option."*

This endeavour is part of Enel and Nissan's commitment to support the entire EV ecosystem, going beyond the car itself and delivering new services to the energy industry. Moreover, there will be an increasing number of EVs on the roads across Europe in the future and it is vital that V2G technology is rolled out to ensure the grid can satisfy the demands made upon it for increased energy.

*"We are thrilled about the launch of this project in the UK," said **Ernesto Ciorra**, Enel's Head of Innovation and Sustainability. "The installation of our innovative two-way charging technology will encourage the integration of non-programmable renewable energy flows into the grid and will help the spread of electric mobility in the country, benefitting the energy sector and the environment, while also having a positive impact on electric owners' wallets. The fact that Nissan has chosen Enel's charging technology to trial in the UK is the perfect demonstration of just how much potential the Group's V2G electric vehicle charging system has to revolutionise not only transport but also the way electricity distribution works."*

Industry projections show that by 2050 there might be twice as many cars on the road as there is today - a staggering 2.4 billion. Delivering and managing that growth in a way that is sustainable for the world, requires smart thinking.

Nissan, as the pioneer of electric vehicles, alongside Enel, a worldwide leader in smart grid technology and advanced energy metering, have been looking at ways to use electric vehicles beyond traditional mobility. Nissan electric vehicles will be used for more than just getting from A-to-B. They will turn into clean mobile energy units whose unused power can be sent back to the grid to power homes, offices, schools and hospitals.

**Steve Holliday**, former CEO at National Grid, said: *"At National Grid we are constantly looking to the future to ensure we have the capacity to meet national energy demand - it's our job to future proof the national transmission network. The rapid uptake of electric vehicles is certainly positive yet could also be challenging if we don't plan ahead. One of our future energy scenarios indicates that there could be up to 700,000 electric vehicles in 2020 requiring an extra 500 MW of energy. That's why we support innovative technologies and pioneering projects such as this one that have the potential to make a real difference to the way we manage energy supply and demand."*

Currently if all 18,000 Nissan electric vehicles in the UK were connected to the energy network, they would generate the equivalent output of a 180 MW power plant. If that was scaled up in a future where all the vehicles on UK roads are electric, vehicle-to-grid technology could generate a virtual power plant of up to 370 GW. This energy capacity would be enough to power the UK, Germany and France.

V2G technology allows electric vehicles to be fully integrated into the electricity grid and will help improve grid capability to handle renewable power, making renewable sources even more widely integrated and affordable. V2G charging infrastructure developed by Enel gives private EV owners and businesses with large EV fleets the opportunity to create mobile energy hubs by integrating their vehicles into the grid. The system works by allowing Nissan EV owners to connect to the grid to charge at low-demand, cheap tariff periods, with an option to then use the electricity stored in the vehicle's battery at home and at work when costs are higher, or even feed back to the grid which could generate additional revenue for the EV owner.

#### About Nissan in Europe

Nissan has one of the most comprehensive European presences of any overseas manufacturer, employing more than 17,600 staff across locally-based design, research & development, manufacturing, logistics and sales & marketing operations. In 2014 Nissan plants in the UK, Spain and Russia produced more than 675,000 vehicles including award-winning crossovers, small cars, SUVs, commercial vehicles and electric vehicles, including the Nissan LEAF, the world's most popular electric vehicle with 96% of customers willing to recommend the car to friends. Nissan now offers a strong line-up of 23 diverse and innovative models in Europe under the Nissan and Datsun brands.

#### About Nissan Motor Co., Ltd.

Nissan is a global full-line vehicle manufacturer that sells more than 60 models under the Nissan, Infiniti and Datsun brands. In fiscal year 2014, the company sold more than 5.3 million vehicles globally, generating revenue of 11.3 trillion yen. Nissan engineers, manufactures and markets the world's best-selling all-electric vehicle in history, the Nissan LEAF. Nissan's global headquarters in Yokohama, Japan manages operations in six regions: ASEAN & Oceania; Africa, Middle East & India; China; Europe; Latin America and North America. Nissan has a global workforce of 247,500, and has been partnered with French manufacturer Renault under the Renault-Nissan Alliance since March 1999.

#### About Enel

Enel is a multinational power company and a leading integrated player in the world's power and gas markets. Enel Group operates in over 30 countries across 4 continents, producing energy through a net installed capacity of around 90 GW and distributes electricity and gas through a network of approximately 1.9 million kilometers. With over 61 million business and household customers worldwide, Enel has the largest customer base among European competitors. Enel is the largest integrated utility in Europe in terms of market capitalisation and figures among Europe's leading power companies in terms of installed capacity and reported EBITDA.

For further details please contact.

**Edwards Kayleigh**

Tel+441234755860

[Kayleigh.Edwards@ntc-europe.co.uk](mailto:Kayleigh.Edwards@ntc-europe.co.uk)

<https://newsroom.nissan-europe.com/ua>