



Repsol and IBIL develop the first recharging station for electric vehicles with energy storage in Spain

- The recharging point for electric vehicles at a Repsol service station on the N-I as it passes through the Basque town of Tolosa (Gipuzkoa) is the first in Spain to use energy stored in second-life batteries.
- This technological and industrial development simplifies and facilitates the installation of 50 kW recharging points in locations where there is insufficient electrical power or where the necessary network investments make other alternatives unfeasible.

Repsol and IBIL have developed the first recharging station for electric vehicles that incorporates energy storage at a Repsol service station on the N-I highway as it passes through the Basque town of Tolosa, in the province of Gipuzkoa.

For this development Repsol and IBIL have relied on the technological and industrial capacities of the national value chain, through a collaboration with companies such as Irizar, Ingeteam, Cidetec, and Gureak. The latter, a company that employs disabled people from Gipuzkoa, has carried out the entire industrial assembly of the storage module designed by IBIL.

This project, a benchmark for Spanish industry, has also had the support of the Basque Regional Government and the Provincial Council of Gipuzkoa, through the Hazitek and SmartMobility Industry R&D aid programs.

IBIL, a joint venture between Repsol and the Basque Energy Agency (EVE), has more than ten years of experience in the development of recharging technology and solutions. This new technological and industrial project carried out by IBIL has the following benefits:

- It allows the installation of fast recharging points (50 kW) in places where it would otherwise be unfeasible, either due to a lack of sufficient electrical power connections or where the technical difficulties derived from the connection to the electrical grid entail an excessive increase in investment.
- The grid power required to provide the service is reduced by 70%. Thus, a 50 kW fast-charging point can be put into operation using a grid connection of only 15 kW.
- It allows the intallation of charging points at almost any location due to the minimal space required for the storage module (less than one square meter).







- It significantly reduces infrastructure operating costs, by up to 50%, mainly due to lower contracted power.
- It provides a second life for electric bus batteries, promoting circular economy and sustainability.
 Both companies thus respond to one of the main challenges facing the electrification of mobility, namely the treatment and re-use of batteries for stationary storage applications once their life cycle in the vehicle is over.

In this way, the technical difficulties derived from the installation in places where it is ideal to install electric recharging points from a mobility point of view, such as service stations, are solved with an innovative solution that provides autonomy and efficiency to the recharging system while facilitating the integration of local distributed generation and self-consumption of electrical power.

The new recharging facility in Tolosa becomes part of Repsol's electric recharging network, one of the most important in Spain. It has more than 250 public access points, including 70 fast charging points, most of which are located at service stations, and it positions the multi-energy company as the leader in fast charging at service stations in the country.

The network also includes the first two ultra-fast charging points on the Iberian Peninsula, installed during 2019 at Repsol service stations in Lopidana (Álava) and Ugaldebieta (Bizkaia). These charging points enable recharging of the vehicle batteries that support this technology in five to ten minutes, similar to the time needed for conventional refueling. Each of the four charging points at these installations is capable of delivering up to between 350 kW and 400 kW.

This project is fully aligned with the Energy Storage Strategy of the Ministry for Ecological Transition and the Demographic Challenge (MITECO) that was approved by the Council of Ministers yesterday and which will support the deployment of renewable energies to guarantee the security, quality, sustainability, and economy of supply.

Intelligent recharging

The user who recharges his electric vehicle at this new charging point will not notice any difference with respect to recharging points without storage since it is an intelligent installation that is integrated into the Repsol network. It also accepts the usual means of payment used by the multi-energy company, such as Waylet.

The system is designed to know when to draw power from the grid to charge the battery and when to draw power from the battery to recharge the car. This function is monitored in real time from IBIL's control center that operates Repsol's recharging network. It is also designed to optimize the flow of energy from the grid and the storage system at all times.







Technology that responds to the challenges of the energy transition and the PNIEC

One of the challenges of the energy transition, as expressed in the National Integrated Energy and Climate Plan (PNIEC) of the Ministry for Ecological Transition and the Demographic Challenge (MITECO), is to achieve 74% renewable primary generation in Spain by 2030. To this end, given the intermittent nature of renewable generation, the deployment of this energy storage technology developed and implemented by IBIL and Repsol will provide the electricity system with flexibility, aggregation, and balancing mechanisms through the management of distributed resources that are essential to provide stability to the national electricity system. This technological development responds to the challenges posed by the MITECO, by combining the objectives of decarbonization of mobility, circular economy, and the promotion of the national industry in the value chain of energy and mobility solutions.

Repsol

Repsol is a global multi-energy company that is transitioning to an energy model with lower emissions. It offers solutions for all types of mobility needs through the development of the most efficient fuels, which are supplied at the 3,400 service stations of the Repsol Group in Spain; Leaders in vehicular LPG (AutoGas) with more than 400 supply points; and the expansion of the network of recharging points for electric vehicles, one of the largest in Spain, made up of more than 250 public recharging points, including 70 fast-charging points, most of which are located at service stations. The company also operates more than 1,000 electric charging terminals installed at companies' facilities and private homes. It also has the first two ultra-fast recharging points commissioned in the Iberian Peninsula, installed during 2019 at Repsol service stations.

IBIL

IBIL was founded in 2009 as a result of a collaboration agreement between Repsol and the Basque Energy Agency (EVE) with the aim of developing technology, services, and capabilities in the field of electric vehicle recharging as well as developing sustainability initiatives. Currently, IBIL is the benchmark company in electric vehicle charging technology in Spain and Portugal. In accordance with its industrial technological mission, IBIL leads an ecosystem formed by technology suppliers, manufacturers of charging points, service providers, and key players in electric mobility, to ensure the best service to its customers and thus contribute to an orderly and efficient energy transition.

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