

PRESS RELEASE

Intelligent software from The Mobility House makes an entire island fossil free

Porto Santo/Munich, May 23rd 2019 -

An entire island fossil free: This is the goal of a joint project from The Mobility House (TMH), the car manufacturer Groupe Renault and the electric utility EEM, Empresa de Electricidade da Madeira, S.A. Together, they want to transform the island of Porto Santo in Madeira Archipelago, Portugal, into a role model for sustainability under the title "Smart Fossil Free Island".

Since the [beginning of the project](#) in early 2018, the three project partners have been working to increase the share of wind and solar power plants through the intelligent integration of electric cars and second-life battery storage systems. For this purpose, TMH has developed an intelligent software, the so called "Marketplace". It optimizes the interplay of electric cars, stationary second-life battery storage and bidirectional electric vehicles (Vehicle-to-Grid, V2G), which are capable of feeding back energy from their batteries to the electricity grid.

Renewable energies (wind and solar) currently account for around 15 % of the island's electricity supply. The flexible system currently includes 22 unidirectional and bidirectional electric cars from Renault and two stationary battery storages from second-life Renault vehicle batteries. It ensures the optimization of the electricity generation capacity and can be seen as a groundwork for further efficient development of renewable energies. The flexible cloud platform "Marketplace" fully harmonizes demand and supply of the different producers and consumers. If there is a surplus of renewable energy, this power is buffered in the stationary storage and the electric cars. If there are clouds covering the photovoltaic system and calm periods slowing down the generation of wind energy, the stationary storage and the bidirectional vehicles feed back their energy into the system. The unidirectional electric cars do not charge in this case. This way, fluctuations in production are being compensated for.

In order to meet the mobility needs of the users at all time, they can input via an app at which departure time how much energy is needed. The system then ensures that there is at least that much energy in the battery of the vehicle. Thus, the desired minimum range of the vehicle is available when needed.

The "Marketplace" proves that the sectoral coupling between the energy and the mobility world is technically possible. Porto Santo is the first project in the world to intelligently control the three forms of flexibility - [intelligent charging](#), [Vehicle-to-Grid](#) and [second-life battery storage](#) - via one central software platform. On a small scale the three project partners are already testing the integration of technologies that can support the energy transition on the continent as well.

The pilot system is the foundation for the planned expansion of Porto Santo's energy supply with green electricity and proves that various requirements can be intelligently linked with one another so that the share of renewable energies can be increased. The next goal is to get both power generation and mobility on Porto Santo completely free from fossil fuels - currently most of the electricity for the island comes from diesel generators. Gradually the entire system will be supplemented by additional electric vehicles, further stationary storage and other solar and wind power plants. The "Marketplace" software can flexibly integrate these expansions into the overall system and thereby ensure a constant and reliable power supply.

Contact:

Anja Strunz, +49 89 4161 430 34, E: communication@mobilityhouse.com

About 'The Mobility House'

The goal of The Mobility House is to create a zero-emission energy and mobility future. Our technology platform unites the automotive and energy sectors. We integrate vehicle batteries into the power grid using intelligent charging, energy and storage solutions. This way, we promote the development of renewable energies, stabilize the power grid and make electric mobility more affordable. The technology company was founded in 2009 and operates globally from its Munich, Zurich and Sunnyvale (CA) sites, serving customers in over 10 countries. These include leading automotive manufacturers, fleet operators, installation companies, energy suppliers and electric car drivers. For more information, visit mobilityhouse.com.