## YTHY HOUSE

PORTO SANTO SUSTENTÁVEL

SMART FOSSIL FREE ISLAND

BIDIRECTIONAL CHARGING

**Project facts** 

\* EV Batteries Pave The Way For A Fossil Free Future

GROUPE da Madeira RENAULT



• Charging and energy management marketplace platform from The Mobility House controls smart charging

- Integrated energy EV batteries help to integrate renewable energies and reduce the load on the grid
- 22 electric vehicles and two stationary storage systems provide flexibility
- 40 smart charging stations, 2 of them are bidirectional with AC



The Mobility House software makes a whole island CO<sub>2</sub>-free

"An entire CO<sub>2</sub>-free island" is the goal of the joint project by Groupe Renault and the local energy provider Empresa de Electricidade da Madeira S.A. (EEM). By making use of photovoltaics, wind power, electric vehicles and second-life batteries, the Portuguese island of Porto Santo wants to become a smart, fossil-free island. To make that a reality, The Mobility House developed the charging and energy management system with a smart marketplace. This optimizes the interaction between conventional electric cars, second-life stationary storages and bidirectional electric vehicles (Vehicle-to-Grid, V2G).

Special features of the project

• The first project in the world in which the three forms of flexibility smart charging, Vehicle-to-Grid and second-life stationary storage are intelligently controlled from a central software platform

- With the ability to return the energy from their batteries to the power grid, bidirectional electric vehicles contribute to stabilization of the power grid
- Technology reduces the need for expensive power from diesel generators, prevents the need for grid expansion and increases the proportion of renewable energies being used

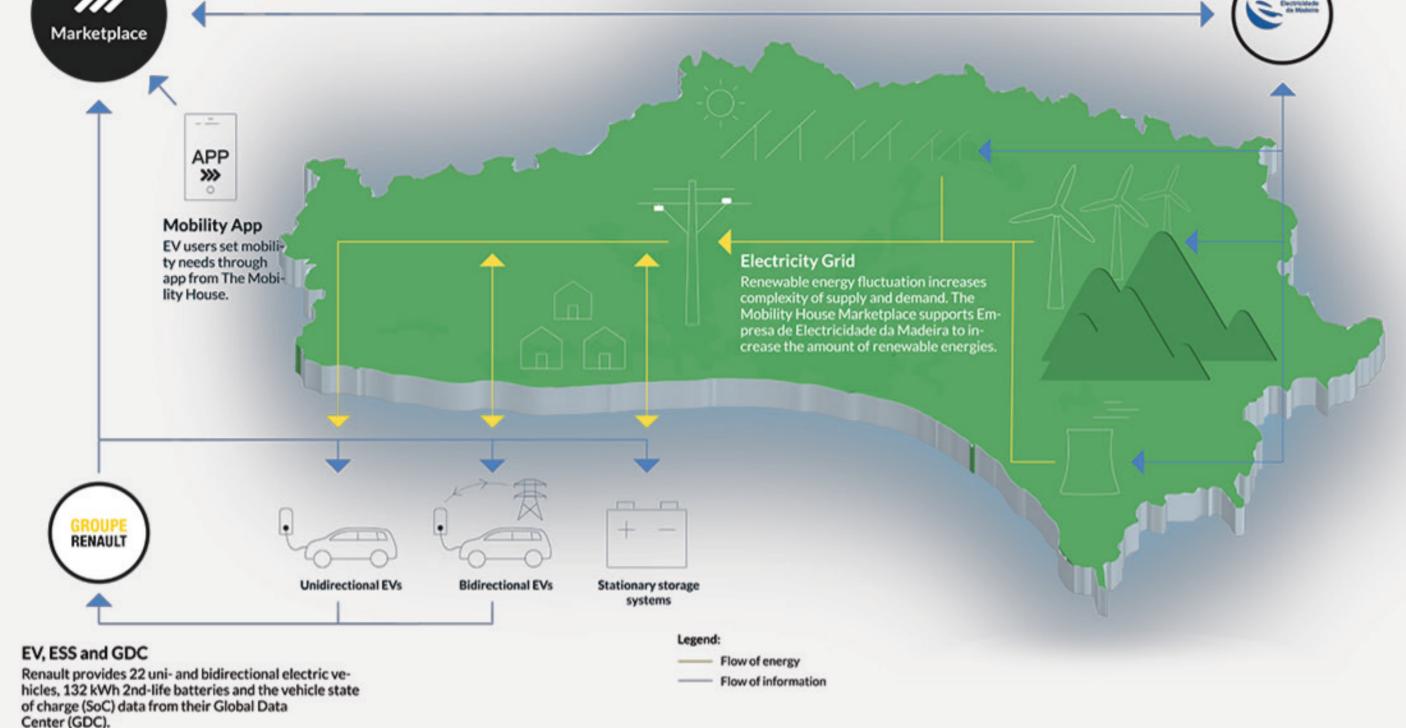
**EV Batteries Pave The Way For A Fossil Free Future** 

Marketplace Technology The Mobility House controls all charging incidents decentrally and intelligently based on driving requirements, grid load and share of renewables in real time.



Renewables Signal Empresa de Electricidade da Madeira loca utility and grid operator sends energy surplus or shortage from renewables to The Mobility





where we can discover how the electric revolution will change our daily life outside of transportation.

Eric Feunteun Program Director Renault EV Global