



EUROPEAN CONSORTIUM WITH PORTUGUESE PARTICIPATION SELECTED BY EU TO PRESENT AT INTERNATIONAL EVENT

THE PORTUGUESE PARTNERS OF THE € 15M EUROPEAN PROJECT CALLED SENSIBLE ARE:
EDP LABELEC, EDP DISTRIBUIÇÃO, INESC TEC AND SIEMENS PORTUGAL

The €15M European project SENSIBLE has just been selected by the European Commission (EU) to pitch at the [Cleantech Capital Day](#) in Malmo, Sweden, as an innovation project in the field of energy. Cleantech Capital Day is one of the most emblematic events in the sustainable innovation sector, joining around 200 professionals, such as industry, investors, public sector or start-ups. This year the event is held during May 22 and 23.

SENSIBLE is developing solutions in key EU research and innovation priority areas: energy storage, enabling the electrical energy savings and a more efficient and reliable management of the power grid.

There are four Portuguese institutions that are part of this consortium: EDP Labelec, EDP Distribuição, the Institute for Systems and Computer Engineering, Technology and Science (INESC TEC) and Siemens Portugal.

The technologies are being tested in Portugal, in particular in Valverde village in Évora. There are also other demonstration areas in Nottingham (United Kingdom) and Nuremberg (Germany).

But after all, what was the project's big innovation that resulted in it being selected by the European Commission to attend this international event? "The integration of distributed energy storage solutions is essential to increase the integration of renewable energy sources in distribution networks. Distributed storage solutions allows us to store the energy produced from renewable sources for using it in periods



of higher demand, "explains Clara Gouveia, senior researcher of INESC TEC's Centre for Power and Energy Systems.

The project is exploring the benefits of using energy storage technologies such as batteries in our homes, communities and even in power grids to create a more sustainable and reliable energy supply, as well as reducing power losses in the grid.

In the case of Portugal, the project is focused on showing how the flexibility of battery storage systems can benefit both the grid operator and the consumer through new business models and market mechanisms.

The residential self-consumption solution that incorporates solar panels, battery system and storage water heaters was installed in Valverde in August 2017. In nine months, savings in energy have reached 20% in both households and commercial establishments.

When it comes to the distribution grid, battery storage systems can be controlled to ensure a more efficient management of the grid as well as increase its control capacity in the event of disturbances. Rural distribution networks are usually composed by overhead power lines, being exposed to adverse atmospheric phenomena. Under normal operation, storage systems are controlled in order to improve operation efficiency and in emergency conditions they can provide electricity to a small community for at least a few hours.

"On the other hand, we will start to see more active consumers with the ability to manage their consumption and consequently being able to save more money, more participative and with more information", explains the INESC TEC researcher.

These systems, based on lithium-ion batteries, are supported by the algorithms developed under the project and are intended to be a new asset in the portfolio of the distribution grid operator when ready.

"In Évora, the SENSIBLE project has developed applications to manage energy that, simultaneously, optimize self-consumption and allows that new energy services are available to clients, optimizing the operation of the electrical system as a whole", explains Ricardo Mendes André, project manager at EDP.

Following this recognition, SENSIBLE may be able, like other projects participating in the Cleantech Capital Day event, to be part of the World Alliance for Efficient Solutions portfolio¹, which will be presented to Heads of State and Government at COP24, in Katowice, Poland, later this year.

Project SENSIBLE is coordinated by Siemens AG and besides Portuguese institutions counts with the participation of other 8 institutions, namely: ARMINES, EMPOWER IM OY, GPTech, INDRA SISTEMAS S.A., MOZES, Technische Hochschule Nürnberg Georg Simon Ohm (THN), The University of Nottingham, Seville University and finally K&S project management.

¹ <https://solarimpulse.com/world-alliance/solutions>
<http://ccd.cleantechscandinavia.com/>

