

Best Paths discusses the future of the European energy grid

Madrid, 23rd November 2017 – The workshop on "**Innovating grid technologies for sustainable energy**", held on 22nd November in Madrid, gave an overview of the future of the European power grid. The workshop was organised by Red Electrica de España and Iberdrola in the framework of **BEST PATHS**, the largest FP7 research project ever financed by the European Commission in the energy sector. Its consortium partners include transmission grid operators, energy players, research centres and academia.

While the importance of renewables is growing and more countries are increasingly relying on them, the BEST PATHS project is addressing the next steps necessary for the consequential grid evolution. The projects focuses on integrating offshore wind power into the electricity grid, designing new materials and technologies for ultra high capacity cables, as well as upgrading and refurbishing existing electricity transmission lines: Alternate Current, Direct Current applications and High Voltage Direct Current transmission (HVDC).

As the project coordinator, Vicente Gonzalez Lopez, from Red Eléctrica de España stated during the workshop, "The whole European power sector is under great pressure to keep its traditional technological leadership and system competitiveness. Innovation is one of the key answers to the challenge of the energy transition and to face the competition from outside the European Union. But synergy among Member States and companies is critical. The individual demonstrations composing the Best Paths project are running in parallel, and show a great deal of cooperation among different - in some cases competing - players".

During the workshop, the leaders of the five project demos delivered **detailed presentations illustrating the developments achieved in the last year of work**, while a panel discussion with major international experts animated a lively audience of nearly eighty attendees.

Many of the results presented are approaching their final stage, as the project will come to an end in September 2018. As the public debate about energy gains momentum, the project is developing tests, methodologies, technologies and prototypes to **ensure a powerful and flexible grid**. The main results include in particular:

- Real life simulation of off-shore wind energy integration into HVDC grids (<u>Demo 1</u>)
- Testing of the interoperability of electricity HVDC converters from different manufacturers (<u>Demo 2</u>)



- Developing innovative components (converters, cables, overhead lines) for High Voltage Direct Current interconnectors to upgrade the present Sardinia-Corsica-Italy connection (Demo 3)
- Repowering Alternate Current transmission lines, improving live-line maintenance of electricity cables and developing a dynamic line rating system based on low cost sensors (<u>Demo 4</u>)
- Developing and testing a new superconducting cable with ultra high capacity performance (<u>Demo 5</u>)

Note to editors

All the <u>presentations of the workshop can be found here</u> and the <u>agenda of the workshop</u> here

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BEST PATHS stands for 'BEyond State-of-the-art Technologies for rePowering Ac corridors and multi-Terminal HVDC Systems'. It involves 39 partners from 11 European countries and with a budget of 63 million Euros that will be 56% co-funded by the European Commission under the 7th Framework Programme for Research, Technological Development and Demonstration under grant agreement no. 612748. It is coordinated by Red Eléctrica de España (REE), and is set to run until September 2018.