Held at the Euskalduna Conference Centre on 2 and 3 October

Over 200 experts met in Bilbao to analyse the future of power grids

- **The Basque Energy Agency (EVE), Orkestra and TECNALIA organised the 16th International Electric Equipment Conference, where the digitalisation of grids, new energy distribution services and the role of the consumer were analysed.**
- **Developing power grids is vital for the promotion of renewable energy and the new energy/electrical management paradigm; in short, they are essential to ensuring an efficient energy transition.**

08 October 2019. **Power grids are the backbone of the energy system and a key element to ensure efficient energy transition. In this context, the 16th International Conference on Electric Equipment Conference brought together more than 200 experts at the Euskalduna Conference Centre in Bilbao on 2 and 3 October to address, from different perspectives, aspects relating to the transcendent development of smart grids in sectors such as consumption electrification (from electric vehicles to heating); the development of flexible services related to the management of distributed energy resources; and the digitalisation of networks, such as data processing and cybersecurity.**

The main objective of these conference organised by the Basque Energy Agency, the Orkestra-Basque Competitiveness Institute and TECNALIA is to promote a meeting point in which experts and researchers from different countries and fields can exchange ideas and debate about the current state-of-the-art and the progress made in the electrical sector. The meeting focused particularly on the important role played by electrical networks in the energy

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transition, analysing regulatory issues and reviewing the evolution of the most relevant aspects related to the future of grids in other countries.

Day 1: Digitalisation and electrification of grids

The conference was officially opened at 9:30 on Wednesday 2 October by the Chairman of Orkestra, **Iván Martén**; the Vice-president of TECNALIA, **Alex Belaustegui**; and the Minister for Economic Development and Infrastructures of the Basque Government and President of the Basque Energy Agency (EVE), **Arantxa Tapia**.

This was followed by the first session of the day which addressed the important implications of the energy transition for electrical networks in the European and international context. The session was moderated by **Susana Bañares**, the Director of Smart Grids at REE, and involved: **Stephanie Bashir**, the Founder of NEXA Advisory (Australia); **Vahan Gevorgian**, Manager of Grid Integration at the National Renewable Energy Laboratory - NREL (USA); **Kwawu Mensan Gaba**, an energy specialist at The World Bank; and **Ana Mozos**, Head of Smart Grid Digital Transformation at Iberdrola Brazil. This panel of experts was charged with analysing the challenges and crucial implications of the transition from the current electricity transmission and distribution business models towards new business models based on smart grids. This is the main challenge for energy utilities worldwide. Said evolution will imply the widespread adoption of new technologies and processes, and will likely mean a profound change in business strategies.

A second round table on the same subject took place which involved **Robert Denda**, the Director of new technologies and innovation at ENEL; **Carmen Gimeno**, the Secretary General of GEODE; **Phillip Nicholson**, a specialist in power grids at the Department for International Trade UK; **Manuel Sánchez-Jiménez**, Director of Smart Grids for the European Commission; and **Johannes Uhl**, Project Director of Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ). **Jorge Fernández Gómez**, the Coordinator of Orkestra's energy lab, was in charge of moderating the second part of the debate.

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The development of smart grids, the increasing digitalisation of the energy system, and the growing electrification of energy consumption require a wide range of innovative and smart technologies to be deployed. The industry's technological offer has evolved towards a portfolio of digital products, in which the presence of ICTs is key to improving grid performance and facilitating the deployment of distributed energy resources and the development of new business models. In this session, senior representatives from multinational electrical equipment manufacturers shared their views on the technological implications of this transformation and how their products and solutions will help achieve an increasingly electrified energy supply. It was moderated by **Pedro Mier**, the President of AMETIC and involved **Rafael Ángel Bago Sotillo**, VP Smart Metering Global of Schneider Electric; **Eduardo Jaureguibeitia**, systems engineer from Aclara Meters; **Pablo Jiménez Canencia**, Director of Digital Transformation at ABB; **José Miguel Yarza**, General Manager of ZIV I+D and **Markku Suvanto**, Director of Energy and Smart Grids, Siemens.

After the break, **Enrique Monasterio**, the Director of Innovation of the Basque Energy Agency moderated a group of local experts who concluded by presenting their vision about how new technologies for power grids are facilitating the digitalisation and electrification of the energy demand which the progressive development of our society requires. This last part of the round table involved: **Aitor Arzuaga**, General Manager of IBIL; **Roberto Ortiz de Zarate**, R&D Manager of Grupo Arteche; **José María Torres**, Director of Smart Grids at Ormazabal; and **Alberto Guerrero**, CTO of the Ingeteam group.

Day 2: The market and its new players

The 2nd day of the conference on 3 October was opened by **Inés Romero**, the Regional Director of ABB. The important role of the distribution business in the energy transition in Spain was discussed throughout the morning. **Ángel Díaz Gallo**, Director of Smart Grids at TECNALIA was in charge of moderating **Luis Álvarez**, Director of Distribution at EDP Spain; **Nicolás Arcauz**, Director of Smart Grids at Global, i-DE (Iberdrola Distribución Eléctrica); **Leonardo Hervás**, General Director of CIDE; **Manuel Sánchez**, General Director of Infrastructures at Viesgo; and **Raúl Suárez**, Director of Electricity Networks Spain at Naturgy.

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Finally, from 12:00 onwards, the last panel of the conference began,. It dealt with the key role that flexible markets, new players and services (aggregators and prosumers) have in the new energy management paradigm.

As power grids become smarter and the incorporation of distributed energy resources increases, utilities demand more flexible services to ensure a secure and efficient energy supply. Distributed energy resources should provide network services on a local scale and achieve more flexible energy systems, capable of coping with the operational changes resulting from a completely decarbonised energy supply. New actors such as prosumers and aggregators will play key roles in the future energy supply chain under promising business models based on self-consumption, demand response, etc. **Hugo Lucas**, Head of the Regulatory Framework for the Energy Transaction at IDAE, moderated a debate which involved **Pedro Basagoiti**, Markets Director at OMI – Polo Español (OMIE); **Alicia Carrasco**, Executive Director of ENTRA (Association of Electricity and Energy Services Agents and Companies); **James Johnston**, CEO and co-founder of Piclo Flex (UK); **Mehdi Madani**, Smart Grids and Markets Consultant at N-SIDE (Belgium); and **Martin Möller**, Director of Regional and International Markets at Innogy SE (Germany).

The 16th International Electric Equipment Conference was brought to a close by Javier Marqués, the Technical Director of EVE; Jorge Fernández, the Coordinator of the Orkestra energy lab; and Luis Pedrosa, the Director of Energy and Environment at TECNALIA. They all agreed that smart grids are key to fulfilling the much sought-after objectives of decarbonisation and power decentralisation, which ensure efficient energy transition. However, to do so, some ambitious challenges will be faced, and technology is a powerful ally to address them.

Examples of the technological developments that are changing the energy system were seen throughout the conference. The new digital technologies are enabling the efficiency of the grids and the energy quality to be improved, as well as increasing the integration of renewable energies and decentralising power grids. These technologies are also contributing towards the development of new forms of interaction and integration between the different players, among which we must not forget the aggregators or the final users, whose role is changing from mere consumer to producer-consumer.

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We were presented with innovative products and services with a high technological level throughout the different sessions, which provide us with a glimpse of a promising future. Technological deployment has an important benefit for the industry, and initiatives such as this conference promote meeting points to exchange ideas and discuss the state-of-the-art and recent developments in the electricity sector. They also provide spaces to jointly identify and develop new business opportunities in the field of Smart Grids based on Technology.

Further information at: https://jieec.com/

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About the Basque Energy Agency

In 1982, the Basque Government created the Basque Energy Agency (EVE) and laid the foundations for an energy policy weighted differently during different periods: energy efficiency, energy source diversification and promotion of renewable energy. Since then, the EVE has been the energy agency in charge of developing projects and initiatives in line with Government-defined policies.

www.eve.eus

About Orkestra

Orkestra - the Basque Competitiveness Institute is an initiative from the University of Deusto through the Deusto Foundation to study competitiveness and territorial development from its different research laboratories with three objectives: (1) To contribute to improving the Basque Country's competitiveness; (2) To promote the improvement of citizens' well-being; (3) To generate knowledge in regional competitiveness.

www.orkestra.deusto.es

About TECNALIA

TECNALIA is a leading Research and Technological Development Centre in Europe, with 1,400 experts representing 30 different nationalities, focusing on transforming technology into GDP to improve people's quality of life, by creating business opportunities for companies. www.tecnalia.com

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