First trade on flexibility platform enera completed successfully

enera partners and EPEX SPOT launch Germany’s first exchange-based flexibility market for grid congestion management

Essen, 5 February 2019. Premiere at the e-World in Essen, the leading trade fair for the energy industry:

The grid operators Avacon Netz, EWE NETZ and TenneT and the European Power Exchange EPEX SPOT confirm at a press conference the successful completion of a trade of local flexibility via a power exchange platform, in order to avoid a congestion in the electricity grid.

As part of the SINTEG research programme (“Schaufenster intelligente Energie”), Avacon Netz, EWE NETZ and TenneT have developed a joint marketplace for short-term flexibility on the EPEX SPOT exchange.

Background: In the course of the Energiewende, there is growing input from wind power plants in the north of Germany, while the main consumption areas are located in the south. As a result, grid congestions at all voltage levels are increasingly occurring. This causes high costs for grid-stabilizing measures such as feed-in management and redispatch. The transmission grid is particularly concerned by this, but congestions are also increasingly occurring on the distribution grid level.

Against this backdrop and within the framework of the enera research project, Avacon Netz, EPEX SPOT, EWE NETZ and TenneT are demonstrating that a voluntary market-based instrument can
prevent forecasted grid congestions. This is to be achieved by better matching generation and consumption while taking into account local flexibility assets. In addition to other providers of local flexibilities, the automobile manufacturer Audi is participating in the enera flexibility market with its power-to-gas (P2G) plant in Werlte, Lower Saxony. Other participants in the start-up phase are Alpiq SA, BayWa r.e. renewable energy GmbH, EWE Trading GmbH, Quadra Energy GmbH and Statkraft Markets GmbH.

EWE Board Member for Technology Dr. Urban Keussen sees market-driven solutions for eliminating congestions as indispensable elements for the efficient and sustainable integration of renewables into our electricity system. “The flexibility market we have launched today has the potential to be rolled-out throughout Germany, and to solve a central problem on the way to an energy supply with 100 percent renewable energies.” An attractive and long-term incentive system for the provision of flexibility, anchored in law, is an indispensable component of the Energiewende. “An appropriate regulatory framework has to be created, and we expect politics to be in the lead here,” says Dr. Keussen.

The official launch of the local market platform marks the start of the demonstration phase in the enera model region. Dr. Philippe Vassilopoulos, Director Product Development at EPEX SPOT, confirms: “This is the first concrete application of local order books. Supply and demand are the basis of an efficient pricing mechanism, and a concrete value is given to flexibility. The goal is to develop a consensus on a concept for a flexibility market.”

EWE NETZ Managing Director Torsten Maus described the advantages of the enera market for grid operation as follows: “We can use the enera market in foresighted grid operation to eliminate congestions more efficiently than with today’s feed-in management measures”.

"Together with Avacon Netz and EWE NETZ, we have developed a market model which allows to exploit flexibility potential across all voltage levels. It is important for us to consider the possibility of transferring such concepts to national and international markets and processes” explains Thorsten Dietz, Senior Manager Customers & Markets, TenneT. “The enera project is in line with our approach of testing as many concepts as possible for the use of flexibility within the framework of SINTEG.”

Dr. Hermann Pengg, Managing Director Audi Industriegas GmbH, explained at the press conference: "The enera market gives us the opportunity to react quickly to a local surplus of wind energy and to use this for the additional production of climate-neutral gas”. Audi’s e-gas plant has been operational since 2013. It uses wind power to produce hydrogen and synthetic methane from water and carbon dioxide.
Local order books as a link between flexibility and system operators

Avacon Netz, EWE AG, EWE NETZ, EPEX SPOT and TenneT, together with the enera project partners, have developed a clear and transparent market mechanism for flexibility providers who want to participate in market-based congestion management.

By introducing local order books, flexibility offers based on network topological information will be recorded. These offers can then be accessed by system operators which can use them to avoid grid congestions.

As a specialist for the operation of power markets, EPEX SPOT acts as a neutral intermediary between system operators and flexibility providers.

The participating system operators Avacon Netz, EWE NETZ and TenneT expect the project to provide answers to the following questions: Can such a market-based approach reduce the costs for congestion management? Can a sufficient number of providers be found to make such a flexibility market work in the long run, and can the designed solution serve as a coordination mechanism between transmission and distribution system operators, to efficiently access flexibilities?

With the experience from the demonstrator of enera, further concepts for the use of flexibility for congestion management shall be developed. enera is part of the funding programme "Schaufenster Intelligente Energie - Digitale Agenda für die Energiewende" (SINTEG) of the Federal Ministry of Economics and Energy.

The aim is to develop and demonstrate scalable solutions for a safe, economical and environmentally friendly energy supply with a high proportion of intermittent power generation from wind and solar energy.

More on the enera project here: www.energie-vernetzen.de

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The European Power Exchange EPEX SPOT SE and its affiliates operate physical short-term electricity markets in Central Western Europe and the United Kingdom. As part of EEX Group, a group of companies serving international commodity markets, EPEX SPOT is committed to the creation of a pan-European power market. In 2018, its 289 members traded 567 TWh – a third of the domestic consumption in the eight countries covered. 49% of its equity is held by HGRT, a holding of transmission system operators. For more information, please visit www.epexspot.com.

EWE is an innovative service provider active in the business areas of energy, telecommunications and information technology. With over 9,100 employees and sales of EUR 8.2 billion in 2017, EWE is one of the largest utility companies in Germany. The company, based in Oldenburg, Lower Saxony, is primarily owned by the local government. It provides electricity to over 1.4 million customers in northwest Germany, Brandenburg and on the island of Rügen, as well as parts of Poland and Turkey, and supplies natural gas to almost 1.8 million customers. It also provides around 850,000 customers with telecommunications services. To achieve this, the various companies in the EWE Group operate around 207,000 kilometres of energy and telecommunications networks. EWE will be investing over EUR 1.2 billion in a comprehensive fibre-optic expansion over the coming years, creating the foundation for the digitalisation of northwest Germany. More information on EWE can be found at www.ewe.com.

Enera is a consortium project which unites 33 consortium members from energy industry, business and research. The main objective of enera is to develop and demonstrate scalable showcase solutions for the energy transition in the focus fields grid, market and data. The enera project is funded through the SINTEG (“Schaufenster intelligente Energie”) initiative of the Federal German Ministry of Economics and Energy.
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