New Actors on the Energy Market:

Aggregators and Energy Communities

Summary of the 8th REKK Energy Futures Event, November 11, 2020

The aim of the **REKK Energy Futures seminars** is to focus on emerging policy issues related to the energy transition. For each occasion, 2-4 prominent experts and researchers are invited to address topics such as the role of energy storage; power-to-gas; decarbonization of the transport sector; the optimal integration of intermittent production in electricity systems and the role of demand side response in the future power systems. Former speakers *include Michael Hogan, senior advisor of the Regulatory Assistance Project, Endre Ascsillán, the Vice-President of GE Hungary, dr. Aleksandra Gawlikowska-Fyk, senior expert at Forum Energii, Jan Namylso from Fluence (AES-Siemens) Energy or prof. dr. Michael Sterner from OTH Regensburg.*

The 8th Energy Futures event dealt with the topic of new actors on the energy markets: aggregators and energy communities. These new actors will enter the markets with the transposition of the Electricity Market Directive (EMD) till the end of 2020 and the recast Renewable Energy Directive (RED2) till June 30, 2021. Frameworks developed for renewable energy communities, as defined by RED2 and citizen energy communities, as introduced in the EMD will enable prosumers to organise themselves and act collectively when consuming, selling, storing, or even sharing their energy. Aggregators will play an important role as intermediaries between old and new customer groups and the market.

The aim of the bilingual online event was to present the EU framework for energy communities and aggregators to stakeholders of the Central and Eastern European region and to show best practices of already functioning models. In the second part of the event we gave the floor to Hungarian representatives of the energy sector to discuss current practices of aggregation in Hungary, and the needs for further transposition of the Clean Energy Package related to energy communities and aggregators.

Marion Malafosse, policy officer at DG ENER presented the legal framework for the new actors in the Clean Energy Package. She emphasised that energy communities are an effective tool to involve citizens into the energy transition, by mobilising private capital and increasing social acceptance for clean energy investments. The definitions of renewable energy communities (RECs) and citizen energy communities (CECs) make it clear that the focus in creating and operating energy communities shall be on social gains for the community, rather than on profit. Energy cooperatives already exist in several EU member states. The new EU framework makes it possible to share the energy, also in a peer-to-peer model. These new configurations must be regulated appropriately by all member states.

More than 1500 energy cooperatives already operate within the REScoop network in Europe. **Dirk Vansintjan**, president of REScoop, showed in his presentation that the concept of energy communities is not new, energy cooperatives have for example already been formed at the very beginning of the 20th century in Germany. But in Eastern Europe the appearance of energy communities is in a very early stage. REScoop's members provide a variety of services: most are producers and/or suppliers of energy, some of them are also distribution system operators. Some members engage in energy monitoring, home retrofitting, public lighting, flexibility services, e-car sharing or training programs. REScoop assists the development of further energy communities with advice and guidance. Scotland serves as a good example for the transposition of the Clean Energy Package regarding renewable and citizen energy communities.

Elias de Keyser, energy and flexibility expert at Next Kraftwerke believes that the next power plants are virtual. Thanks to digitalisation reliable and relatively cheap communication technologies are available which enable the participation of different sized and differently located players in the electricity market. As part of a virtual power plant solar plants can better monitor their production and this way improve forecasting and reduce imbalance penalties. The output of solar power plants can also be managed, so solar power plants can become a solution of the problem. Virtual power plants not only aggregate different producing assets but also storage and demand response processes from active customers, energy communities or businesses. Next Kraftwerke connects more than 9000 assets including wind and solar power plants, a big electrolyser in the harbour of Rotterdam, farmers with big light systems and schools with boilers that can temporarily be switched of and close to 1000 electric vehicles in the Netherlands.

In the second part of the event Hungarian representatives of the energy sector discussed current practices of aggregation in Hungary, and the needs for further transposition of the Clean Energy Package related to energy communities and aggregators. The panel discussion was moderated by **Tamás Jászay**, energy expert.

Csaba Tóth (Head of Climate and Sustainability Cabinet, Municipality of the 7th District, Budapest) presented a pilot project which the municipality submitted to an innovation tender published by the Ministry for Innovation and Technology. The municipality aims at creating an energy community in which roof top solar panels would provide electricity to the community's members. As part of the pilot projects also legal barriers would be analysed. **Erik Aal**, manager at PV-Invest Magyarország planned to form a community solar park in cooperation with Energiaklub NGO in 2017. The project failed due to obstacles within the Hungarian Electricity Act and the Act on Credit Institutions and Financial Enterprises. Erik Aal hopes that these barriers will be removed, as the RED2 obliges member states to provide enabling frameworks that can ensure that there are no unjustified regulatory barriers to community energy. **Péter Luczay**, director of wholesale energy trading and VPP management at ALTEO told the audience that they have had good experiences with aggregating gas fired power plants, renewable energy and storage assets in their virtual power plant. Péter Luczay sees good business

opportunities in aggregation. **Sándor Herczeg**, deputy CEO for network, system and market development at MAVIR TSO emphasised the importance of electricity networks in today's and tomorrow's energy systems. Grids must be prepared for a growing amount of decentralised and intermittent electricity generation, and a closer cooperation of DSOs and TSOs will be seen in future. MAVIR already has good working relationships with Hungarian virtual power plants, which participate in balancing markets and contribute to frequency control.

Márk Alföldy-Boruss, head of department at the Ministry of Innovation and Technology informed the audience that the draft modification of the Electricity Act to transpose the EMD was passed to the Hungarian parliament one day before this workshop. The ministry will focus on the transposition of the RED2 in the first half of 2021. By issuing innovation tenders for pilot projects for energy communities the ministry not only aimed at collecting ideas for technical solutions but also for needs to amend current legislation. The aim is to provide a general framework for both citizen energy communities and renewable energy communities.

The presentations of the first block of the conference are available at REKK's website.