Press Release Luzern, 17 November 2022

**European Horizon project ENFLATE: Digitalisation for the energy transition**

**In the Paris Agreement on Climate change of 2015, the signatory states are committed to climate neutrality by 2050 at the latest. The European Horizon project ENFLATE is making an important contribution to this overall goal with a dedicated platform for flexibility trading. The Lucerne University of Applied Sciences and Arts, St.Gallisch-Appenzellische Kraftwerke AG, CKW AG and the European Power Exchange EPEX SPOT are involved.**

There were times when it was not possible to turn on the washing machine over midday because housewives then needed electricity to cook lunch for their husbands. Role models, daily routines and energy sources may have changed - what still exists are peak loads in the power grid. With renewable energies that only generate electricity when the sun is shining or the wind is blowing, the situation is even more tense - especially because the demand for electricity is also simultaneously increasing. The European Horizon project ENFLATE aims to manage these peaks with digital consumer-centered trading platforms on which participants can offer their flexibility in power consumption in exchange for money. From Switzerland, CKW AG and St.Gallisch-Appenzellische Kraftwerke AG (SAK) are participating with their own sub-project under the leadership of the Lucerne University of Applied Sciences and Arts in cooperation with EPEX SPOT.

The expansion of decentralized renewable energy sources is changing the flow of electricity. However, the grid coping with this is still the same and usually not designed for this. That is when flexibility can be used, especially during peak-load periods. Flexibility describes the ability to ramp up or down electricity consumption depending on the situation on the grid. One of the tools used in the Swiss demonstrator of the ENFLATE project is a trading platformed specifically designed to make this possible: "Anyone who knows that they don't need to charge their e-car at a certain time should be able to sell this flexibility on the ENFLATE platform," explains Christoph Imboden, lecturer at the Lucerne University of Applied Sciences and Arts. Electricity providers then have the option of interrupting charging and making the electricity available to someone else. "We want to know whether this can work." That's why the offer is to be set up on a trial basis in a sample neighbourhood in eastern Switzerland. For Jürg Solenthaler, Head of the Grid Division SAK, this approach holds great potential: "The fundamental restructuring of the Swiss-wide energy system in the coming decades will have an impact on the individual distribution grids. The grid operators must be prepared for this - which is why we are also a member of this European research project. With this particular sub-project, we are looking forward to investigating the effects of flexibility markets on grid utilisation in practice."

"The market is the economically most efficient way to bring together supply and demand. The neutral reference price determined transparently by the Power Exchange creates the right incentives to make optimal use of flexibilities in the power system," explains Philippe Vassilopoulos, Director of Product Development at the European Power Exchange EPEX SPOT.

The project does not aim to reinvent the wheel, but to build on existing platforms. The 48-month European project will feature demonstrators in different countries. ENFLATE brings together a consortium of 30 organisations: transmission and distribution system operators, market operators, regulators, service providers, manufacturers, academia and other stakeholders. The members aim to promote clean energy in Europe, while reducing the cost of the transition and increasing its economic benefits. Ultimately, ENFLATE shall deliver the means for effective control of power trading at regional, national, and international interconnection points, better communication among distributed energy sources, increased consumer/prosumer participation in the energy trading process, and sustainable development of new multi-sectoral business models harnessing the participation of consumers/prosumers in cost-effective power trading.

**EU project with Swiss participation**

Since negotiations with the European Union on a framework agreement were broken off, Switzerland is no longer part of the €100 billion European research framework programme "Horizon Europe". Swiss universities therefore no longer receive EU funds and can no longer participate in large EU research projects on an equal footing, but only as associated partners. The State secretariat for Education, Research and Innovation SERI finances these participations directly as a substitute measure. ENFLATE is funded by the European Commission within the framework of its research and innovation programme Horizon Europe with more than € 7.5 million and is to be implemented with a total budget of more than € 14 million.



And by the State secretariat for Education, Research and Innovation SERI

**Images**

You can download two images here:

[**Windmill**](https://www.epexspot.com/sites/default/files/2022-11/Windkraft%20Copyright%20CKW%20AG.jpg): The production of renewable energies is not always predictable. This makes preparation all the more important in order to be able to avoid peak loads. ©ckw

[**Charging e-cars**](https://www.epexspot.com/sites/default/files/2022-11/Mobilitaet%20Copyright%20CKW%20AG.jpg)**:** Can it also be charged later? - Flexibility should pay off here in the future. ©ckw

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**The partners**

**The CKW Group** is a leading Swiss provider of integrated energy and building technology solutions. For over 125 years the company has been supplying electricity to its now over 200,000 end customers in the cantons of Lucerne, Schwyz and Uri. It also offers innovative products and services throughout Switzerland in the fields of electricity, photovoltaics, heating technology, e-mobility, building automation, ICT solutions and security. The CKW Group employs over 2,100 people. With around 350 apprentices in 14 professions, it is the largest private-sector training company in Central Switzerland.

Further information at www.ckw.ch

**The European Power Exchange EPEX SPOT SE** and its affiliates operate physical short-term electricity markets in 13 countries: in Central Western Europe, the United Kingdom, Switzerland, the Nordics and in Poland. Furthermore**,** EPEX SPOT newly offers local flexibility markets solution and Guarantees of Origin auctions, to foster the integration of renewable energy sources and to enhance the engagement of consumers and producers in the power market.

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. Over 300 members trade electricity on EPEX SPOT. 49% of its equity is held by HGRT, a holding of transmission system operators.

For more information, please visit [www.epexspot.com](http://www.epexspot.com/).

**The Lucerne University of Applied Sciences and Arts is** the university of applied sciences of the six cantons of Central Switzerland and unites the departments of Engineering & Architecture, Business, Information Technology, Social Work, Design & Art and Music. With over 8ʼ300 students in education and 5,200 participants in CAS, DAS and MAS programmes, almost 400 new research projects each year and over 1ʼ900 employees, it is the largest educational institution in the heart of Switzerland. hslu.ch

**SAK:** Our business areas include electricity generation, electricity and heat supply, a modern fibre optic network and high-performance internet, telephone, TV and mobile services, as well as the promotion of e-mobility and renewable energy solutions such as photovoltaic systems and heat pumps. With around 400 employees, we cover the entire value chain: From energy procurement to planning, construction, operation and maintenance of grids and facilities to sales and billing.