



Newsletter no. 1, September 2018

System operation & flexibility solutions required to meet the ambition of 50% renewables on the European electricity grid by 2030

Message from Project Director John Lowry MBA, CEng.:



Hello and welcome to the first edition of [the EU-SysFlex](#) project newsletter.

The newsletter will appear twice a year and is designed to inform you about progress on the project. It will also look at how our work impacts the electricity sector as we transition to a renewable and co-ordinated European Energy Union. The first edition reflects on our first six months, which was about establishing how we operate from a management and administrative perspective, the working relationships within the consortium, as well as driving forward technical aspects of the project.

Our project is aimed at addressing key operational challenges associated with the transition to a low-carbon power system. There are a number of primary factors that must be considered when addressing the needs of the system in meeting the ambitious European target of 50% renewable electricity sources (RES) by 2030.

Firstly, we must integrate far greater levels of variable sources of electricity such as wind and solar. To date, on a pan-European basis, the level of variability is still relatively low. The majority of renewables actually comes from a more predictable source, namely hydroelectricity.

The transition will not only require far greater volumes of wind and solar, it will also require far greater flexibility from a system operation perspective. This is to ensure electricity grids remain stable and capable of operating at very high levels of RES.

Secondly, where electricity is generated on the system is also changing. Traditionally, electricity is generated in central locations at very large power stations. This is changing.

Electricity is now being generated much further down the network chain, a trend that is expected to continue. For example, it is now possible to generate electricity at home and offer it back to the grid. So over time, the system is becoming more decentralised and more distributed. This also adds to system operation complexity.

Thirdly, electricity use is estimated to increase from 20% of the overall European energy use today to 40% of energy needs by 2050. As well as general increase in demand, a major factor in this will be the electrification of heat, cooling and transport.

From a system operation perspective this is both a challenge and an opportunity. It may help to ensure grid stability, but at the same time it puts greater pressure on electricity grids.

Fourthly, consumer action! Technical advances enable citizens to become more engaged in how and when they use electricity and offer the opportunity to drive down costs through demand side management. Again, this creates both opportunity and complexity for system operation.

Finally there is a clear strategy for the European Energy Union. This will result in electricity grids becoming far more integrated from an infrastructural, market, regulatory and operational perspective.

In summary, we are moving towards a much more complex environment that requires innovative solutions from a system operation, technology, market and regulatory perspective.

The EU-Sysflex project will create a roadmap for European system operation that takes account of this complex environment.

I hope you find the newsletter informative and invite you to sign up to our distribution list to find out more and keep up to date with this exciting project!

John Lowry MBA, CEng.

Project Director.

AVAILABLE PROJECT RESULTS

[Deliverable 11.1 Project website and social media channels](#)

[Deliverable 11.18 Project flier and brochure](#)

NEWS AND EVENTS



Launch event of EU-SysFlex in Brussels with Ireland's Energy Minister Denis Naughten

MARCH 2018 / Ireland's energy minister Denis Naughten, Member of the European Parliament Seán Kelly and senior representatives from DG Energy, EDF and EirGrid joined EU-SysFlex for the Brussels launch. The event took place on March 5th 2018 and included a discussion on the key challenges facing EU-Sysflex.



Concept grid: a new test platform set-up by EDF R&D for smart grid systems

APRIL 2018 / EDF R&D's Concept Grid is a full-scale smart grid test facility designed to anticipate and facilitate the transition to smart grids. Built as a closed circuit, but representing real power distribution grids, Concept Grid makes it possible to conduct a range of grid optimization scenarios in complete safety.



Elering and ESO signed cooperation agreement to pilot cross-border data exchange

JULY 2018 / Cooperation of Estonia's Elering and Lithuania's ESO will serve as one of the first ever smart meter data exchanges between the two European countries. It will contribute to harmonized processes and functionalities and ensure interoperable data exchange. The pilot is one of the demonstrations of EU-SysFlex project.



EU-SysFlex was presented at EU Sustainable Energy Week 2018 in Brussels

MAY 2018 / EU-SysFlex had an opportunity to present its aims at EU Sustainable Energy Week 2018 taking place in June in Brussels. EU SEW is the annual flagship event uniting policy makers, authorities, industry, stakeholders, NGOs, researchers and academia in the European sustainable energy sector.



EU-SysFlex participated at Innogrid 2018 in Brussels

MAY 2018 / EU-SysFlex was presented by experts from EirGrid, Innogy, VITO and Enel at Innogrid 2018 in Brussels. InnoGrid2020+ is the EU event on innovation in electricity networks regularly organised by the ENTSO-E and the EDSO.



Eole Industrie in France hosted EU-SysFlex experts

JUNE 2018 / EDF and Enercon consortium members of the EU-SysFlex project were invited to have a common presentation during the Eole Industry workshop in France. Their presentation consisted of the project overview with special focus on the EDF - Enercon demonstration project.

IN THE MEDIA



EURACTIV: Minister says Ireland is 'the global leader' in integrating renewables

MARCH 2018 / The Irish system is now able to cope with 65% of electricity coming from intermittent electricity sources – an expertise Energy Minister Denis Naughten believes can be replicated on a larger scale as Europe moves towards 50% renewable power by 2030.



Energetyka24: Polish transmission system operator PSE begins work under EU-SysFlex

NOVEMBER 2017 / PSE SA together with PSE Innowacje have decided to participate in EU-SysFlex. The project research issues are convergent with one of the main strategic objectives of the PSE: to prepare for rapid changes on the electricity market and to strengthen the flexibility of the TSO.

Find out more about the structure of the EU-SysFlex project

AVAILABLE PROJECT RESULTS



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