

PROJECT

# Eu-SysFlex

System flexibility as the key to a decarbonised and resilient european power system

*The EU SysFlex project aims to create a long-term roadmap for the large-scale integration of renewable energy on electricity grids as well as providing practical assistance to power system operators on a pan-European scale. In a decentralizing energy system where the proportion of renewable energy penetration increases, enabling greater system flexibility of the EU energy market is crucial.*



This project is co-financed by the European Union

34

PARTNERS

15

COUNTRIES

€26.5

M TOTAL BUDGET

4

YEARS



IN ONE CLICK

Coordinator

EirGrid

Programme

HORIZON 2020

Period

2017-2021

Sector

RENEWABLE ENERGY

Web

<http://sysflex.vibration.sk/>

01

## The Challenge

The overall objective is to ensure an **efficient and sufficient level of system services** to facilitate meeting world-leading levels of renewables in electricity, while maintaining the level of **resilience** that consumers and society have come to expect from the **European electricity system**.

02

## The Solution

**EU-SysFlex joins** a multidisciplinary team of 34 partners from 14 European countries, led by the (Transmission System Operators) TSOs representing four different synchronous systems that integrate the pan-European interconnected electricity system: EirGrid & SONI (Ireland), PSE (Poland), AST (Latvia), Elering (Estonia), supported by the necessary (Distribution System Operators) DSOs, technology providers, and research & experienced entities. **In addition**, a group of three other European TSOs: Fingrid (Finland), LitGrid (Lithuania) and Ceps (Czech Republic), will join the advisory board of the project, in addition to EDSO for Smart Grids and USEF, in order to help the project maximising its impact.

03

## Impacts

**This requires** defining the right amount of flexibility and system services to support transmission system operators using a threefold approach. **Firstly**, the technical needs of the pan-European system. **Secondly**, the electricity market design and regulation needs to be augmented to efficiently and effectively procure the appropriate combination of these system services. **Thirdly**, implicit and explicit barriers to competitive forces being applied need to be removed. For this we need an in-depth understanding of all stakeholders' roles at all system levels (interconnected system, national transmission and distribution sub-systems and consumers).