

RENEWABLE ENERGIES for MANUFACTURING INDUSTRIES

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IndustRE – Project Overview

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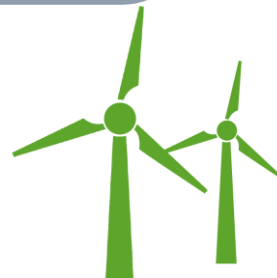
The Challenge

The cost-effective integration of variable renewable electricity into the power systems of Europe

The rising cost of electricity and its effects on the competitiveness of the European Industry

“the **energy price gap** between the EU and major economic partners has widened for a number of reasons, many of which Europe has little influence over. Moves to decarbonise electricity generation have led to strong growth in wind and solar power in particular, which has had a major impact on grids and energy production costs...”

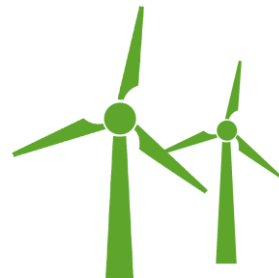
Source: EC Communication, Energy prices and costs in Europe, COM(2014) 21 /2, 29.1.2014



The Solution

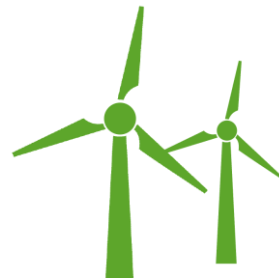
The **IndustRE** project identified the industrial electricity demand flexibility as an opportunity to facilitate integration of Variable Renewable Energy and reduce the industrial electricity costs

...if the energy-intensive industry in Europe works closely with the renewable energy sector in order to find common ground and create win-win situations.



Basic Business Models

- **FLEXIBLE INDUSTRIAL DEAND** ...means lower peak demand
- Reduce the energy bill as a result of shifting consumption to off-peak tariffs
- Offer reserve capacity for primary, secondary and tertiary control (balancing market), either directly or through an aggregator
- Variable **RENEWABLE ENERGY** “on-site” ... means that it can supply electricity to the industrial plant without using the public grid
- Revenues from selling excess electricity to the grid
- Other benefits (tbd)



Objectives

- Present suitable business models and facilitate their adoption
- Formulate policy recommendations
- Quantify the potential benefits for the power system
- Move industry and variable renewable energy plant operators into action

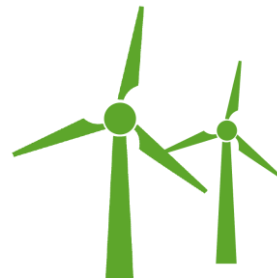
Two aims within two timeframes

 **2020**

Practical tools for
immediate impact

 **2030**

Quantify potential leading
to policy improvements



Scope

The project will apply to all European countries, with particular focus in Belgium, France, Germany, Italy, Spain and the UK. These six countries represent more than **65%** of the EU population and almost **80%** of Europe's installed wind and PV capacity.



IndustRE Focus

The project will be relevant to all industries in Europe, but the key focus is:



Chemicals



Non-ferrous metals



Steel

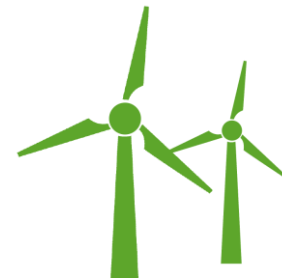


Cold storage



Water treatment

These five sectors - with 302 TWh/year - represent around **10%** of Europe's total electricity consumption.



We need your input!

Get involved !



Large industrial electricity users and variable renewable energy plant operators:

Get involved in the creation of innovative business models.
Be among the first to benefit from:

Tools for assessing the flexibility of your industrial units and their market value

Model contracts that facilitate bilateral agreements for the application of innovative business models



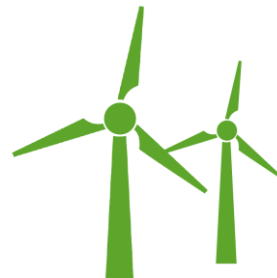
Consultancies, professional and service providers:

Learn how to apply the industrial flexibility assessment methodology in your country and industrial sector.



Power market actors, regulators and policy makers:

Help formulate improvements to the market and regulatory framework - respecting the main European and national energy policy principles - with quantified benefits for the power system.



Please visit: www.IndustRE.eu



IndustRE Team

