



# TIGON

Demonstrating hybrid  
microgrid innovations  
for greener, more resilient  
and more secure power networks

## TRADITIONAL POWER GRIDS GENERALLY USE ALTERNATING CURRENT.

However, as electric vehicles, LEDs, batteries and renewable energy sources become more mainstream, the share of variable and unpredictable energy is increasing – and this requires the flexible use of direct current.

Connecting distributed DC-generated electricity to the AC main grid often means multiple – and inefficient – conversions.

The infrastructure therefore needs to become more bottom-up, interconnected. Integrating smarter local grids into the main electricity grid may be part of the answer.

4

YEARS

15

PARTNERS

8

COUNTRIES

4

SHOWCASES

## THE PROJECT

The EU project TIGON will design a **hybrid** alternating and direct current **microgrid system**, one that is decentralised and close to valuable **sources of renewable energy**.

TIGON's technical, digital and business solutions will be developed at two demo sites located in **France** with emphasis on photovoltaics and in **Spain** with a focus on batteries.

In addition, two use cases in the residential and urban railway sectors in **Finland and Bulgaria** will act as niche markets to increase replication potential.

## BENEFITS

Advanced hybrid microgrids will enable:

- people to pay less for their electricity;
- grid operators to balance supply and demand more effectively;
- renewable energy generators large and small to gain better access to the market.

## RELIABILITY



## RESILIENCE



## PERFORMANCE



## COST EFFICIENCY



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## Showcases Representatives



## Technology and Research Development



## Dissemination – Replication – Communication

## Technology manufacturers and Service providers



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 957769