

**acon**

**ACON**  
SMART GRIDS

Project No. 10.4 of the Union list of projects of common interest,  
as defined in Commission delegated regulation No. 2018 / 540

# ACON PROJECT DESCRIPTION

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The ACON (Again Connected Networks) Smart Grids project refers to the effort that will deepen and facilitate the cross-border cooperation between the Czech Republic and the Slovak Republic at the Distribution system operator (DSO) level. The project promoters are the Slovak DSO Západoslovenská distribučná and the Czech DSO E.ON Distribuce.

The main objective of the ACON SG project is to improve the existing power distribution grid primarily in the border areas of both countries concerned, but the project activities will also impact other parts of project promoters' distribution areas. This will create greater capacity for the development and connection of distributed electricity production and adequate space for possible connection of new distribution grid users in the region. Moreover, the distribution grid will be modernized through implementation of smart elements and new IT framework in order to create the "smart grid" energy network within the project impact area.

Above mentioned goals will be fulfilled primarily through modernization and reinforcement of the existing 110 kV as well as the 22 kV voltage level interconnections. Medium voltage level interconnection has a supportive effect on the security of supply of the adjacent regions in the border areas. This is important particularly during outage incidents on the infrastructure of the transmission level. The base of the project will be built on the historical interconnection and cooperation between both countries.

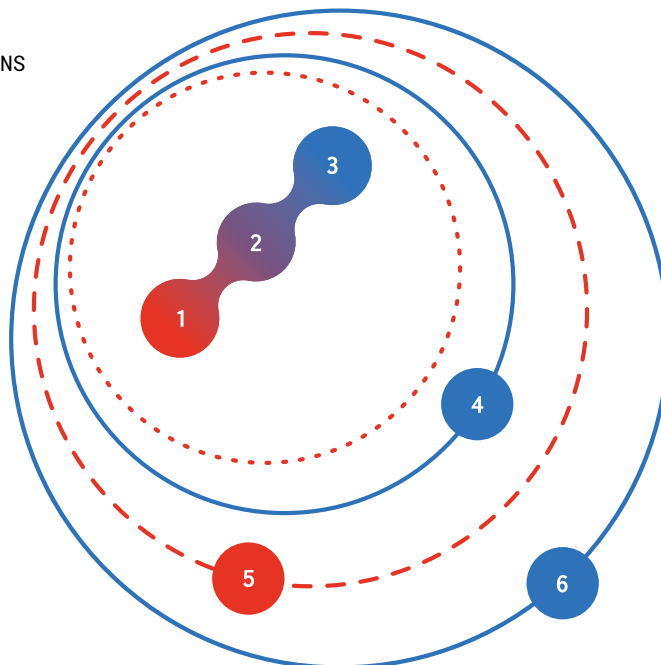


# ACON PROJECT ACTIVITIES



The project consists of 6 major activities:

1. CROSS-BORDER INTERCONNECTION IMPROVEMENT
2. MANAGEMENT OF DISTRIBUTION GRID IN NEW CONDITIONS
3. DISTRIBUTION GRID COMMUNICATION ELEMENTS
4. SMART GRIDS IT SOLUTIONS
5. COMMUNICATION AND DISSEMINATION
6. ACTION MANAGEMENT



REALIZATION PERIOD

2018-2024

ESTIMATED BUDGET

EUR 221 mil.



The project realization consists of several sub-activities, that aim to implement smart elements into the current distribution grid, such as:



**Border areas and cross-border connections improvement** with focus on improvement of existing distribution grid in the border areas of the Czech Republic and Slovak Republic, which will include operation change of 2x110 kV High Voltage level interconnection, together with reconstruction and automation of Medium Voltage feeders and construction of new 22 kV lines connecting Holič (SK) and Hodonín (CZ) substations. Taking such steps will create technical backup to enable cross-border cooperation in case of accidents or other safety threatening operational situations.



**Construction and improvement of existing distribution grid backbone** leading to increased reliability of electricity supply and more flexible connection of additional points of delivery.



**Deployment of technologies improving the reliability** of electricity supply, leading to increased added value of applied equipment.

# ACON

## TECHNICAL DIMENSION OF THE PROJECT

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Applying **advanced communication and diagnostic methods** with the aim to increase the convenience of customers receiving energy services.



Deployment of **distribution grid communication (smart) elements** which will enable more efficient management of distribution grid through remote access, transmission of data regarding failures, information on system load and remote switching (deployment of optical cables on selected existing overhead lines and implementation of GPRS (LTE) and BPL communication technology).



**Implementation and integration of smart grids IT solutions**, which will allow DSOs to gather larger volumes of data as a major enabler for more accurate data analysis and more addressed decisions towards the requirements of distribution grid during the whole lifecycle of distribution assets (direct impact on distribution grid management, process management, optimization of distribution grid operation or distribution grid maintenance and renewal planning).

# ACON LOCALIZATION OF THE PROJECT



Source of geographic location of the project

[ec.europa.eu/energy/infrastructure/transparency\\_platform/map-viewer/main.html](https://ec.europa.eu/energy/infrastructure/transparency_platform/map-viewer/main.html)



# ACON BENEFITS



## **Local**

Better quality of electricity supply, potential for new renewable energy connections improvement of competitiveness, network connectivity for all users, long-term reduction of negative environmental impact.



## **Global**

New experiences in the field in area of CEE region, better energy stability, security of supply, wider environmental impacts, intensification of international cooperation, strengthening of physical interconnection between the Slovak and Czech republic.







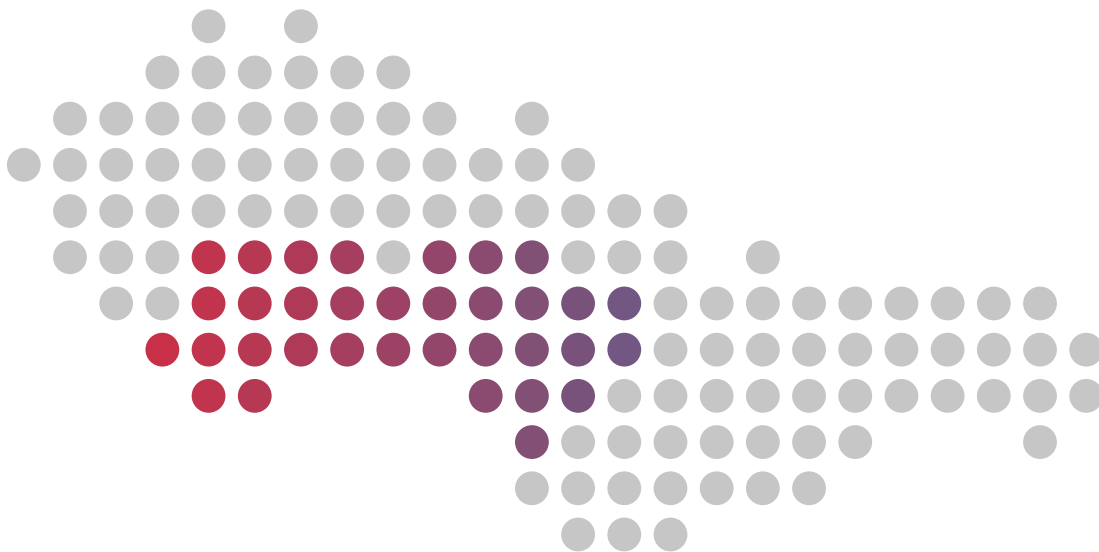
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Further information regarding the projects of common interest is published on the European Commission website, within the infrastructure section:

[ec.europa.eu/energy/en/topics/infrastructure/projects-common-interest](https://ec.europa.eu/energy/en/topics/infrastructure/projects-common-interest)

Detailed information regarding the ACON SMART GRIDS project is published on the project's website:

[www.acon-smartgrids.eu](http://www.acon-smartgrids.eu)



ACON SMART GRIDS

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E.ON DISTRIBUCE, a. s.  
F. A. Gerstnera 2151/6,  
370 01 České Budějovice

[www.eon.cz](http://www.eon.cz)



ZÁPADOSLOVENSKÁ DISTRIBUČNÁ, a. s.  
Čulenova 6,  
816 47 Bratislava

[www.zsdis.sk](http://www.zsdis.sk)

