Danube InGrid

SMART GRID PCI PROJECT

Action No. Project: 12.3-SK-W-M-24-DanubeInGrid2ndPhase

Co-funded by
the European Union

GENERAL PROJECT INFORMATION

Project Code:

12.3-SK-W-M-24-DanubeInGrid2ndPhase

Implementation start: **11/2024**

Duration: **50 months (until 1/2029)**

Expected project costs: **EUR 65,760,307.00**

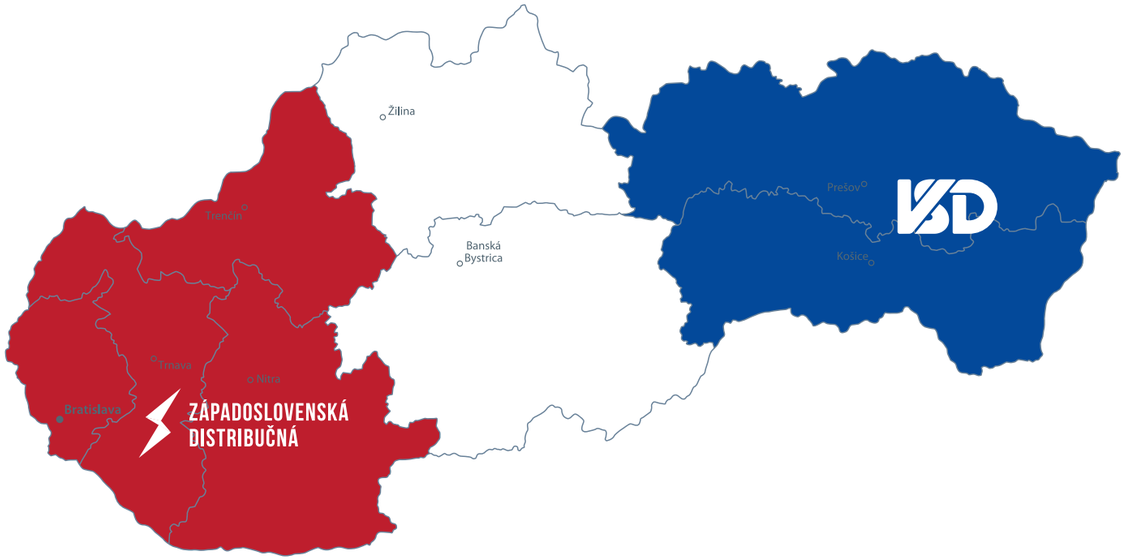
EU grant: **EUR 32,880,153.50**

The project has a very complex set of objectives, addressing the necessity for infrastructure upgrade and capacity development related to following areas:

- Strengthening reliability, quality and security of supply
- Higher flexibility of DSO, TSO operations
- Integration of RES
- Support of e-mobility
- Stronger cross-border co-operation of HU and SK
- Environment & sustainability
- Cyber security
- Demand Side Management support
- Digitalization of the distribution systems
- Increasing the observability of the network
- Data based decision making

IMPLEMENTATION AREA

(SELECTION OF CONSTRUCTIONS IN 2025)



INCREASING OF THE TRANSFORMATION (TS) CAPACITY IN EXISTING 110/22 KV SUBSTATION ROŽŇAVA (D2)

Work Package (WP) 2: Distribution system management

Size of area supplied: 453 km^2

Number of electricity supply points: 17,967

Location: The area near the Slovak Karst National Park with UNESCO sites

Description:

Expanding the transformer capacity to handle higher loads and improve system resilience by replacing the existing transformer (25 MVA to 40 MWA).

Expected Result:

Potentially more than 2,000* PV systems than can be connected to DSO network in the future.

* Average installed power 8 kW/1 household PV system

IMPLEMENTATION PHOTOS

Status: completed, equipment in operation

Optical fiber route on 22 kV line (V477-UBĽA-cabling)

Work Package (WP) 4: Optical communication infrastructure

Size of supplied Ubľa area: 14.5 km^2

Number of electricity supply points: 672

Location: Slovak – Ukrainian border crossing (3 km distance)

Description:

WP4 focuses on the deployment of 100 km of new or upgraded 22 kV lines with inclusion of optical cable routes. Optical cables bring new possibilities to improve communication, monitoring and controlling capabilities with the grid and contribute to establishing a backbone optic fiber grid. These investments are boosting the distribution grid power, stability and reliability.

Expected Result:

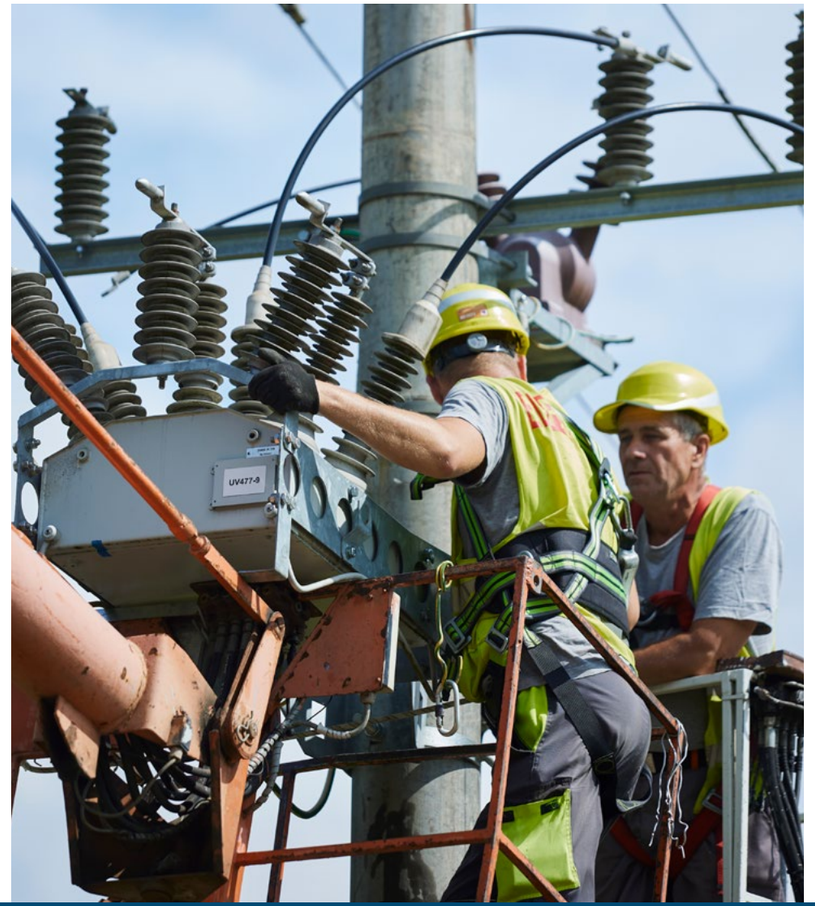
To improve network control, data exchange, data security, communication capabilities, also better utilization of smart elements, etc. The power line in Ubľa (routed in exposed terrain) also becomes less sensitive to meteorological extremes*.

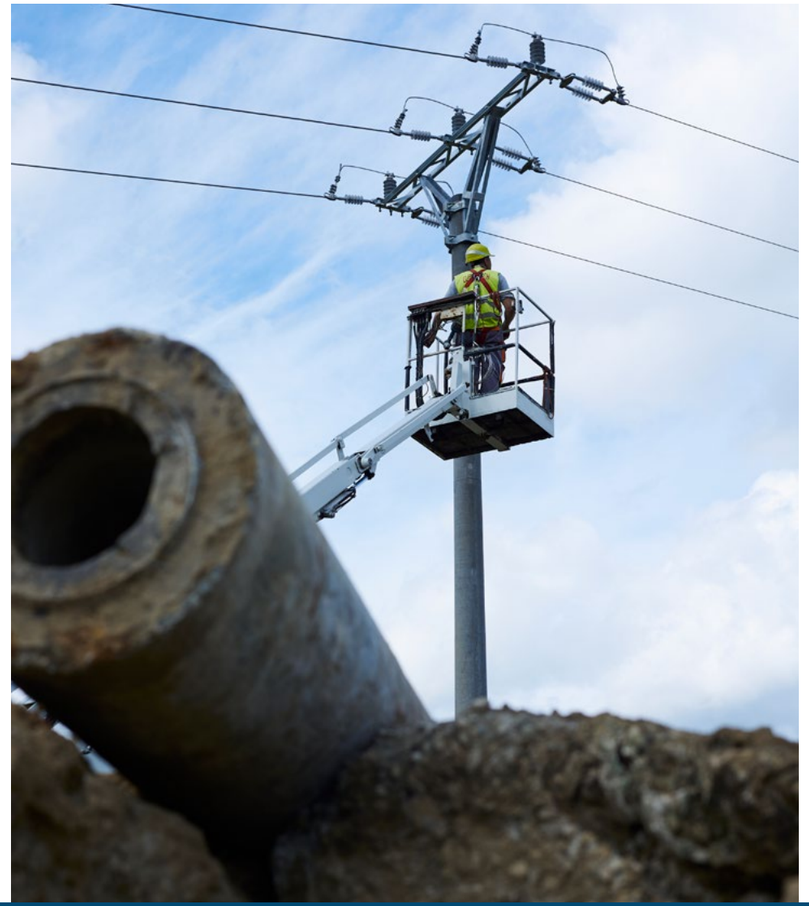
* Average time to fix the problem will be reduced from 7.5 day/year to almost 0.

IMPLEMENTATION PHOTOS

Status: completed, equipment in operation

Watch the video





Promoters:

ZÁPADOSLOVENSKÁ DISTRIBUČNÁ

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