

e-on | Hálózat

**ZÁPADOSLOVENSÁ
DISTRIBUČNÁ**

šeps
Slovenská
elektrizačná
prenosová
sústava



Danube InGrid

Technical progress of the Danube InGrid project in 2020-2022



Co-funded by
the European Union

The contents of this publication are the sole responsibility of Západoslovenská distribučná, a.s., E.ON Észak-dunántúli Áramhálózati Zrt. and Slovenská elektrizačná prenosová sústava, a.s. and do not necessarily reflect the opinion of the European Union.

General information

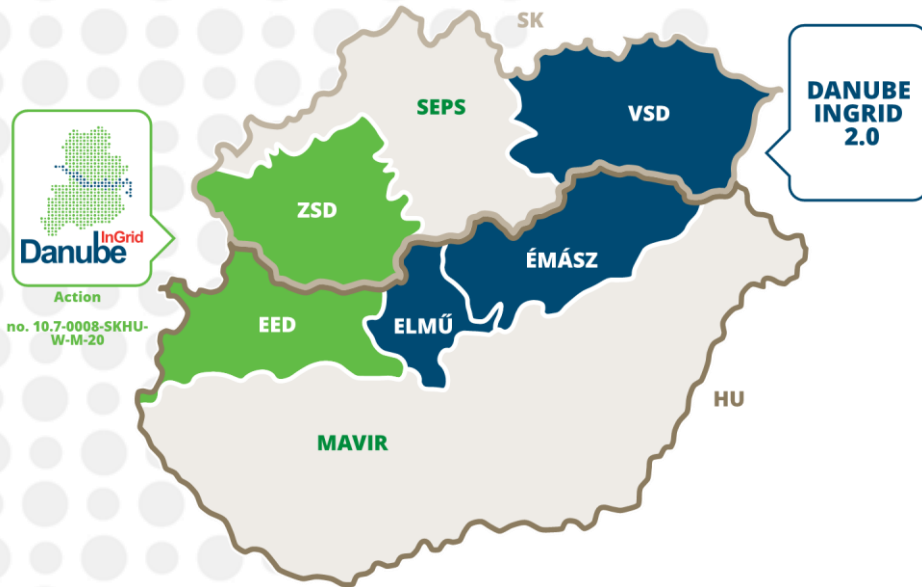
The main goal of the Danube InGrid Project is to develop a smart grid in the CEE region in order to integrate more renewables generators to the distribution grid, while keeping high quality and security of supply for the energy consumers. The Project will create greater capacity for the development and connection of distributed electricity production and adequate space for possible connection of new distribution grid users in the region. The Project will improve connection of more new renewable energy generators, quality of electricity supply, security of supply, network connectivity for all users and reduce the negative environmental impact.

The Project consists of:

- Smart devices on High Voltage and Medium Voltage lines
- Construction and modernization of smart substations
- Optical fiber network on High Voltage and Medium Voltage
- IT management for the smart grids
- Battery energy storage system and meteorological data for supporting network operation
- Reactive power flow management in TSO/DSO interface
- Digitalization of grid process, cybersecurity, digital platform
- Project management, communication and dissemination

General information

Candidate project for EU co-financing within Call for proposals CEF-E-2022-PCI-WORKS



Action no. 10.7-008-SKHU-W-M-20 is co-financed from CEF

DANUBE INGRID ACTION 10.7-0008-SKHU-W-M-20

€ Project Value and Time of Realization

Project value: 291 mil. EUR
Time of realization: 2020 - 2025



Promoters:

Slovenská elektrizačná prenosová sústava, a.s.
E.ON Észak-dunántúli Áramhálózati Zrt.
Západoslovenská distribučná, a.s.

Supporting member

MAVIR Magyar Villamosenergia-ipari Átviteli
Rendszerirányító Zrt.

DANUBE INGRID 2.0

€ Project Value and Time of Realization

Project value: 243 mil. EUR
Time of realization: 2022 - 2028



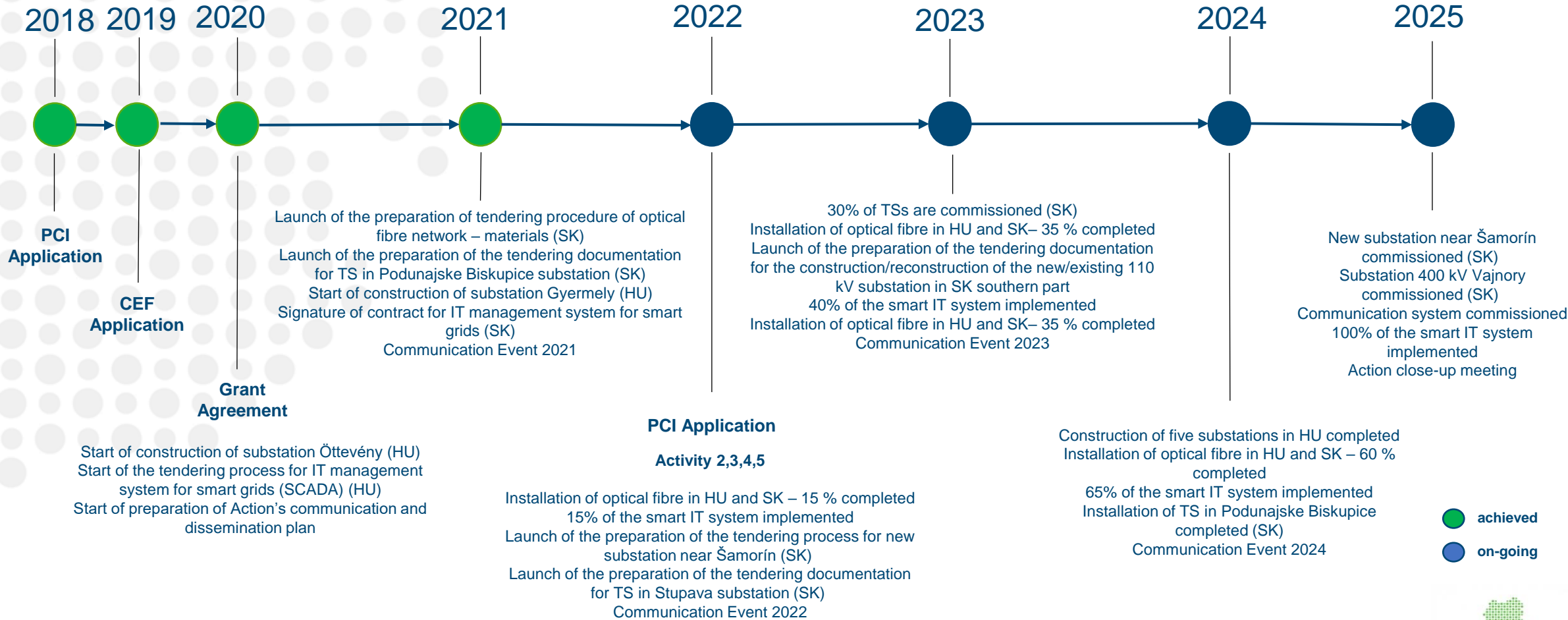
Promoters:

Východoslovenská distribučná, a.s.
Slovenská elektrizačná prenosová sústava, a.s.
ELMŰ Hálózati Kft.
MVM ÉMÁSZ Áramhálózati Kft.

Supporting member

MAVIR Magyar Villamosenergia-ipari Átviteli
Rendszerirányító Zrt.

Danube InGrid Action Plan



These milestones correspond to the plans in the Grant Agreement.



PCI Danube InGrid

1st wave: ACTION 10.7-0008-SKHU-W-M-20

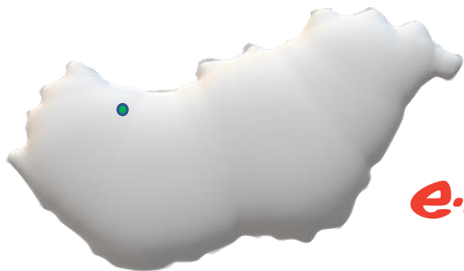
Activity 1 Smart installations/devices on HV/MV level

M1 Start of construction of substation Öttevény (HU)



BEFORE	AFTER
2020	2021

Under the Action, in 2021 new transformer station was built in Öttevény with the connected distribution networks.



e-on | Hálózat

PCI Danube InGrid

1st wave: ACTION 10.7-0008-SKHU-W-M-20

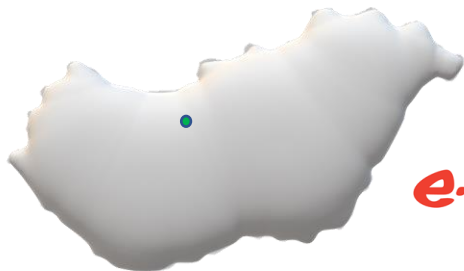
Activity 1 Smart installations/devices on HV/MV level

M2 Start of construction of substation Gyermely (HU)



BEFORE | AFTER
2021 | 2022

In 2021, the construction of Gyermely substation started and it was commissioned in January 2022.



e-on | Hálózat



PCI Danube InGrid

1st wave: ACTION 10.7-0008-SKHU-W-M-20

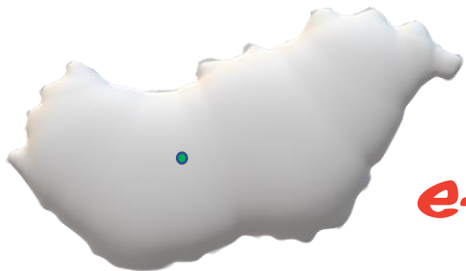
Activity 1 Smart installations/devices on HV/MV level

M5 Start of construction of substation Székesfehérvár Dél (HU)



BEFORE | AFTER
2021 | 2022

In February 2022, the extension of the southern substation of Székesfehérvár was completed.



e-on | Hálózat



PCI Danube InGrid

1st wave: ACTION 10.7-0008-SKHU-W-M-20

Activity 1 Smart installations/devices on HV/MV level

M5 Start of construction of substation Kisbér (HU)



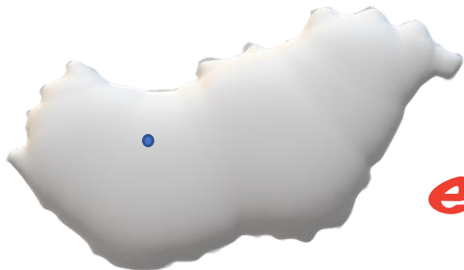
BEFORE

May 2022

IN PROGRESS

July 2022

Completion of Kisbér substation expected by summer 2023.



e-on | Hálózat





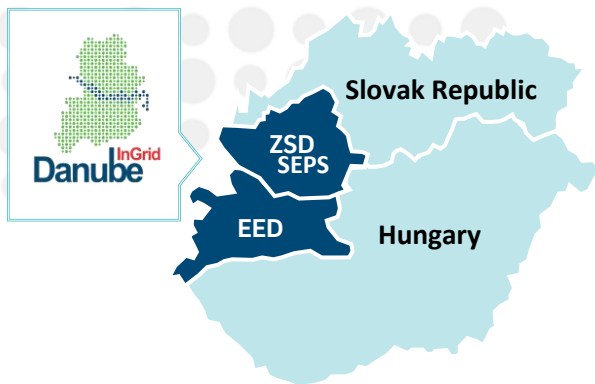
Example

Fault indicator – Héreg - Hungary

Meteo station – Mužla – Slovakia

May 2022

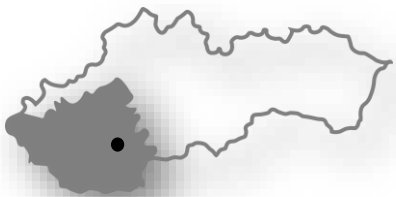
November 2021





Optical Fibre route in the Municipality of Vrábľe - constructed in 2021. Method of optical fiber cable wrapping around power MV line used.

ZSD continues to build optical fiber routes with a goal of 320 kms to be implemented totally in Danube InGrid Action.

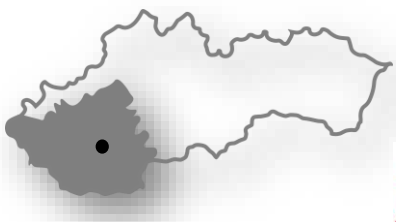


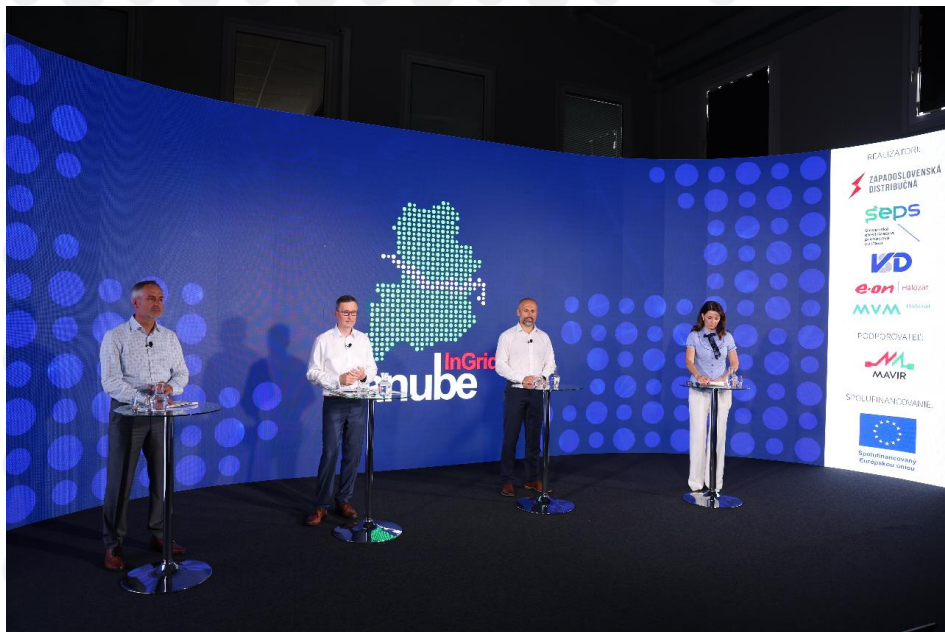


BEFORE	IN PROGRESS
June 2022	July 2022

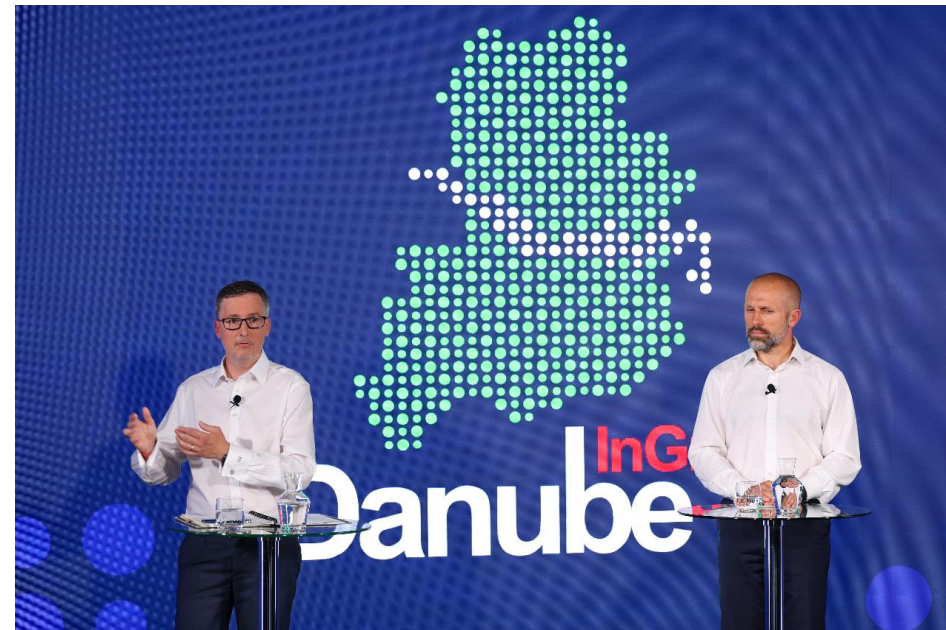
ZSD Smart Station in Nitra, Slovakia.

Works were performed in summer 2022, station is now equipped with smart devices enabling remote monitoring and control. ZSD is planning to introduce 150 transformer stations with smart devices as a part of DanubeInGrid Action.

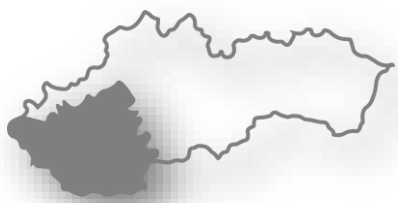




Online event



Public consultation, June 2022



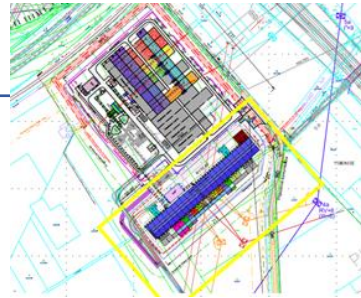
M7&M8 Launch of the preparation of the tendering documentation for TS in Podunajske Biskupice substation and Stupava (SK)



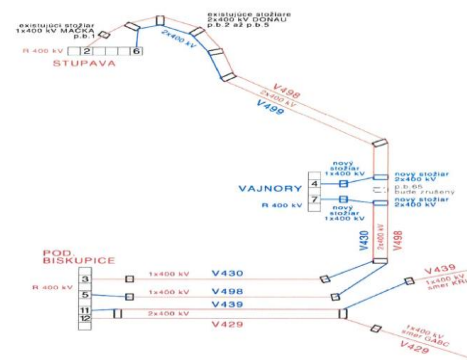
Area for new 400/110 kV substation in Vajnory



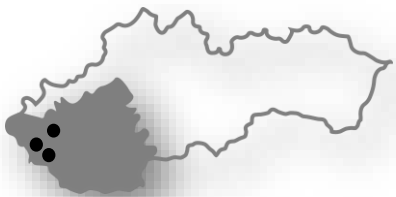
new 110/22 kV substation project design in progress in the south of SK



construction of new 400 kV loop line project design in progress

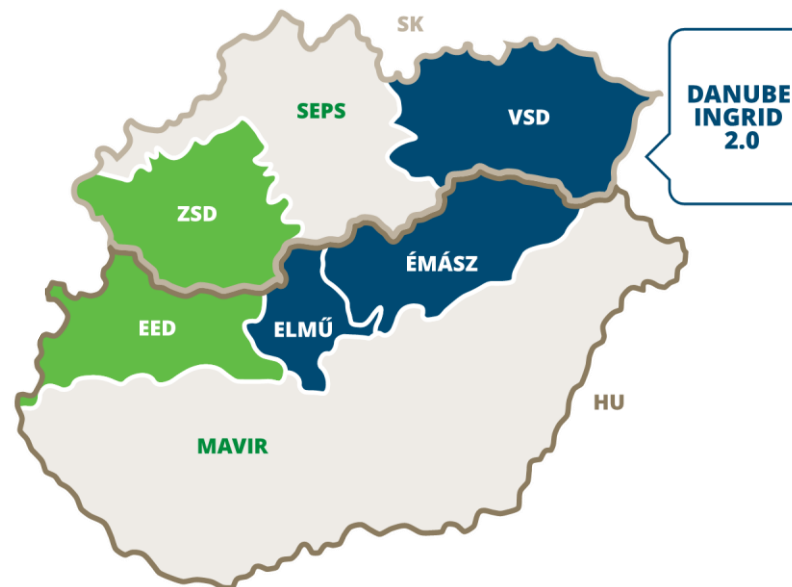


extension and modernization of 400/110 kV substation in Stupava and Podunajské Biskupice (project design in progress)



Danube InGrid 2.0

Candidate project for EU co-financing within Call for proposals
CEF-E-2022-PCI-WORKS





WP 2 Transmission and distribution system management

- Installation of two groups of dry compensating shunt reactors in existing 400 kV substation in Spišská nová Ves & one group of dry compensating shunt reactor in substation Voľa

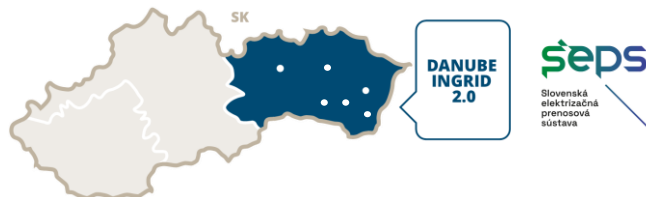


Foto: Siemens



WP 6 IT smart grids – digitalization of grid processes, cybersecurity, digital platform

- Digitalization of substation - installation of one unit of digital substation feeder
- Better remote and central system management; security of the network by modernization of secondary technology – central monitoring system (in 4 substations)
- Joint auctions on the SK / UA profile - modification of information system for business management of the transmission system in connection with the introduction of joint auctions on the SK / UA profile and modification of the scheduling system for the SK / UA profile



e-on | Hálózát

ZÁPADOSLOVENSKÁ
DISTRIBUČNÁ

šeps
Slovenská
elektrizačná
prenosová
sústava



Danube InGrid



Co-funded by
the European Union

