



UKRENERGO

State enterprise | National power company

**EU4ENERGY REGIONAL MEETING – IDENTIFICATION OF KEY ENERGY
INFRASTRUCTURE PROJECTS**

(Energy Community Secretariat, Vienna)

PROJECT

Construction of a 750/400 kV transformation substation (TS) "Prymorska" with 400 kV double-circuit overhead line "Prymorska - Isakcha"



- In the period of **1962-1968**, a number of 220-400 kV overhead lines were built.
- They connected the power grids of the USSR and Hungary, Czechoslovakia, Romania and Poland leading to the creation of an interstate integrated power system "Myr" (IPS "Myr").
- In **1972**, the energy system of Bulgaria was connected to the Energy Complex "Mir" (400 kV overhead line Moldova's DRES - Vulcanesti – Dobrudja).
- In **1978**, Western-Ukrainian-Albertirha (Hungary) overhead line was built.
- In **1984**, Khmelnitsky NPP – Rzeszow (Poland) overhead line was built.
- The last electrical connection built in the Soviet Union period which connected Countries of Economic Mutual Assistance, was the 750 kV overhead line Uzhnoukrainska NPP - Isakcha, commissioned in **1987**.
- Given the relevant interstate connections, the export of electricity to the Eastern Europe countries increased up to 30 billion kWh per year.

All these overhead lines (with some reserve exceptions) - are currently working and providing a stable exchange of electric energy with the European Union countries.

For today, there is a link with Romania on the OHL 400 kV Mukachevo-Roshiory, which is part of the "Burshtyn TPP Island" . The average volume of power transmitted over this line is 200 MW/h.

But the 750 kV OHL Uzhnoukrainska NPP-Isakcha has been actually destroyed due to a serious ice formation.

A number of recent studies, both within the Black Sea Region Energy Infrastructure Development project and the research of the ENTSO-E proved the importance of resumption the connection between the Ukrainian and Romanian power grids at a voltage of 400 kV by way of construction the double-circuit 400 kV OHL along the route of destroyed 750 kV OHL Uzhnoukrainska NPP - Isakcha.



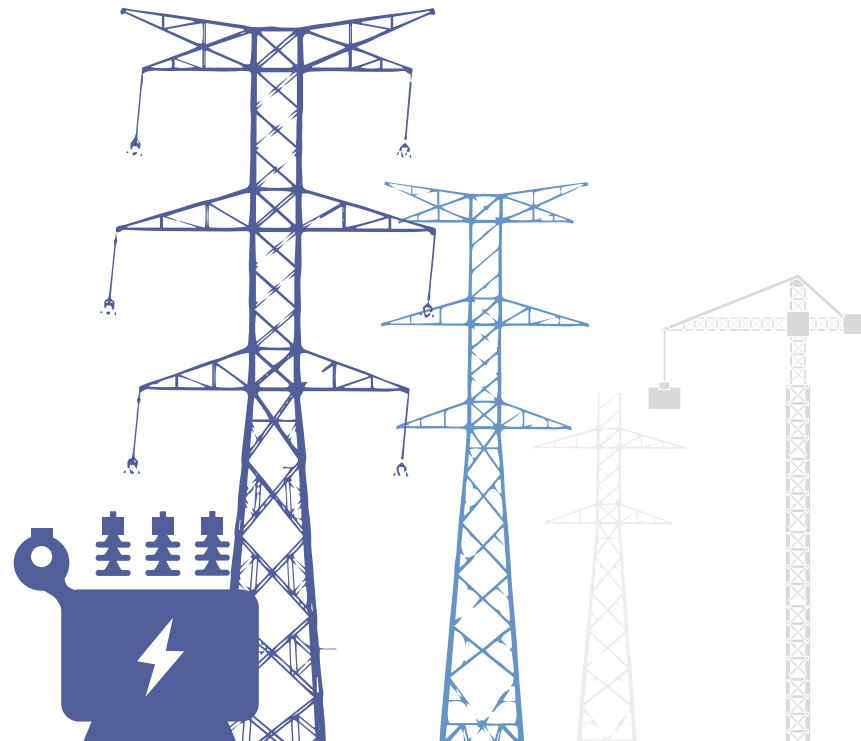


Main constituents of the projects are as follows:

- Recommencing of the 750 kV OHL Uzhnoukrainska NPP - Isakcha on the site from the Uzhnoukrainska NPP to the 750 kV SS “Prymorska” site, with an approximate length of 220 km;
- Construction of the 750 kV Substation “Prymorska” including 750 kV switchgear and 400 kV switchgear installing as well 750/400 kV ATs with a capacity of 1250 MVA each;
- Recommencing the 750 kV OHL Uzhnoukrainska NPP-Isakcha on the site from new 750 kV Substation “Prymorska” to the 750 kV Substation Isakcha by way of construction a double-circuit 400 kV overhead line with an approximate length of 230 km along the relevant route;
- Reconstruction of the 400 kV switchgear of the SS Isakcha in a scope sufficient for the connection of a new double-circuit 400 kV OHL Prymorska-Isakcha.

ABOUT THE PROJECT

The project involves the construction of the following objects:
Distribution unit 750/400 kV at Primorsk (2 AT-750/400 kV);
VL 400 kV Primorskaya - Isakcha length 230 km;
Overhead transmission line 750 kV Primorskaya - Yuzhnoukrainskaya length 120 km.



Start Point in Country (Substation)
Planned TS 750/400 kV "Prymorska" (Ukraine)

**End Point in Country
(name of the Interconnection Point(s))**
TS 400 kV "Isakcha" (Romania)

Project CAPEX - total (mEUR)	225,9
Year 1	1
Year 2	1,5
Year 3	28,5
Year 4	31,5
Year 5	31,4
Year 6	47
Year 7	20
Year 8	20
Year 9	25
Year 10	20

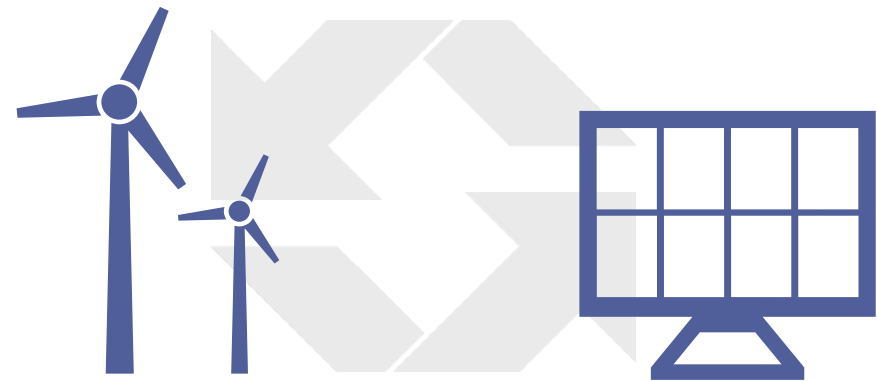
**1000
1200** MVt



Implementation of the project within future integration of the Ukrainian and Moldovan power systems into the ENTSO-E **will increase the volume of capacity exchange up to 1000-1200 MVt.**

Besides, it will improve the reliability of electricity supply to consumers of the southern regions of the IPS of Ukraine and PS of Moldova.

It will also deepen the renewable energies integration being developed in the following regions strengthening a potential electricity output.





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