Trans-Balkan Electricity Corridor: Kragujevac – Kraljevo Grid Section

Project Financing

Beneficiary Contribution	Own Contribution		€ 8,000,000
WBIF	Grant	WB-IG00-SRB-ENE-01	€ 6,754,600
KFW	Loan		€ 15,000,000
Total			**€ 29,754,600**
Total Grants			€ 6,754,600
Total Loans			€ 15,000,000

Project Description

This project contributes to the establishment of a Trans-Balkan Power Corridor which would connect the electricity transmission systems from Serbia, Montenegro, Bosnia and Herzegovina to Croatia, Hungary, Romania and Italy through either 400 kV overhead lines or submarine cable. A new 400 kV transmission line between Kraljevo and Kragujevac will be built and the substation in Kraljevo will be upgraded to 400 kV. These investments are needed as the existing transmission system is seriously outdated and thus prone to system failures and high operational and maintenance costs.

The Kragujevac – Kraljevo section is on the list of Projects of Energy Community Interest, being located in one of the Energy Community Treaty Contracting Parties. It will upgrade the electricity distribution system in Central and Western Serbia and interconnect it with systems in the neighbouring EU states.

Other investments in the Serbian electricity transmission network are being considered to capitalise on or complement the Kragujevac – Kraljevo section. These include building 400 kV transmission lines (with ancillary upgrades of substations, if appropriate) from Pan?evo to Resita (Romania), Kraljevo to Bajina Bašta, and from Bajina Bašta to Višegrad and then to the border with Montenegro and undersea to Italy. EMS also plans to build a 400 kV interconnection between Serbia and Hungary.

This project improves the security of the electricity supply for the one million residents of Zlatiborski, Moravi?ki, Rasinski and Raški districts, who are now connected, via 220 kV lines, to the hydropower plant in Bajina Bašta and the 400/220/110 kV substation in Niš. Moreover, the new transmission line is expected to reduce EMS's network losses by approximately 10,800 MWh/year, equating to annual savings of around €540,000.

The new developments will have a low to moderate social and environmental impact as the new facilities are being built in close proximity to the existing transmission corridors. The construction works commenced in May 2020 and will be completed by the second quarter of 2022.

The investments are co-financed by a €6.6 million EU grant under the Connectivity Agenda through the WBIF.

Links

Start of Works on the EU-supported Project Trans-Balkan Electricity Corridor: Grid Section in Serbia (Kragujevac – Kraljevo)

First Construction and Supply Contract Signed for the EU-supported 2015 Connectivity Project in Serbia

Results and Benefits

- Secure power supply in Western and Central Serbia for more than 1 million consumers (15% of the total population of Serbia) by eliminating overloads in the existing system and thus reducing outages.
- 60 km of 400 kV overhead transmission line from Kragujevac to Kraljevo.
- Upgrade of the existing substation in Kraljevo (Kraljevo 3) to 400/220/110 kV and new equippment for the bay at the substation Kragujevac 2.
- Reduction of transmission losses by approximately 10,800 MWh/year, i.e. savings of around €540,000/year.
- CO2 emissions reduced by 10,000 tonnes/year.
- 86 new jobs created during construction as well as operation and maintenance periods.

- **Countries:** Serbia
- **Code:** PRJ-SRB-ENE-008
- **Sector:** Energy
- **Lead IFI:** KFW
- **Status:** Completed
- **Beneficiary:** Public Enterprise Elektromreza Srbije (EMS)

Related Documents

- Krusevo and Zeleni Vir Hydropower Plants in Bosnia and Herzegovina