Western Balkans Investment Framework WBIF

BUILDING THE EUROPEAN FUTURE TOGETHER

ENERGY SECTOR

NORTH MACEDONIA - ALBANIA POWER INTERCONNECTION

GRID SECTION IN NORTH MACEDONIA

European Bank for Reconstruction and Development

MEPSO

PROJECT BACKGROUND

This EU-funded project is part of the European Commission's initiative to establish an East-West electricity transmission corridor between Bulgaria, North Macedonia, Albania, Montenegro and Italy. The section between Bulgaria and North Macedonia (financed by the EBRD) has been completed, and a new 400 kV connection between Albania and Montenegro as well as the undersea power interconnector between Montenegro and Italy are already operational.

ABOUT THE WBIF PROJECT

Around 60% of the power generated in North Macedonia is from coal, while in Albania it is predominantly based on hydropower. By providing the first interconnection between the two countries, this project completes the 400 kV electricity ring between Albania, North Macedonia and Greece, which will enhance cross-border exchanges in electricity and contribute to the development of the regional market.

Connecting the systems of North Macedonia and Albania will help balance the two power markets and enable more efficient management of the reserve and emergency capacities in the region and Greece. Moreover, the new transmission line will trigger better and less expensive energy supply to residents and businesses in North Macedonia by normalising voltage levels, stabilising load flow and frequency fluctuations, and decreasing technical losses in the overall transmission system.

Investments include a 400 kV transmission system from Bitola to the border with Albania, a new 400/110kV substation in Ohrid, upgrading of 400/110 kV Bitola 2 substation with a new bay, and introduction of grid efficiency components in the Electricity Transmission System Operator of North Macedonia (A.D. MEPSO).

Smart grid components of this project have already facilitated the upgrading of the remote monitoring and control system (SCADA) in the Dubrovo substation in Negotino, installation of hardware and software to improve energy forecasting and load dispatch for renewable power plants, more sophisticated automated demand response mechanisms in meeting requirements for balancing and ancillary services, a Wide Area Monitoring System (WAMS), and a study on the effects of plug-in electric vehicles. As a result, the regional dispatching of energy between the power systems of North Macedonia and Albania and the Balkan countries more widely will be improved, leading to market expansion, enhanced supply stability, and inclusion of renewables the current energy mix.

ESTIMATED TOTAL INVESTMENT	EU GRANTS	EBRD LOAN	NATIONAL CONTRIBUTION (A.D. MEPSO)
€50m	€12m	€37m	€1m

Energy Community

This project is important for the integration of European electricity markets and is a Project of Energy Community Interest (PECI) since 2013. It is included in the Strategy for Energy Development of North Macedonia until 2040 and is funded under the Connectivity Agenda of the European Commission, one of the EC's highest priorities for the Western Balkans. Its investments strengthen the power systems in the region, enhance cross-border exchanges in electricity, and contribute to the development of the regional market.

Ambassador David Geer
Head of EU Delegation to North Macedonia

'Reflecting on the European Green Deal, this project supports the creation of a reliable interconnector which enables free energy flow without any technical barriers. It provides secure, sustainable and affordable energy, and at the same time delivers on jobs, competitiveness and empowerment of citizens beyond national borders.'

Related WBIF Project

GRID SECTION IN ALBANIA

KFW

Estimated total investment	**€70m**
EU Grants	**€14m**
KfW Loan	**€50m**

RESULTS

95 km of 400 kV overhead transmission line between 400/110 kV Bitola 2 substation and the border with Albania

New 400/110 kV substation in Ohrid and 400/110 kV Bitola 2 substation upgraded with a new bay

Contribute to the integration of European electricity markets and the creation of a balanced regional market

BENEFITS

At least 270 jobs created by MEPSO and its contractors for the duration of building works, i.e. a minimum of 36 months

Reduced transmission losses in the grid

Power supply in the region secured by eliminating overloads in existing systems and reducing outages

Improved capacity and reliability of the power supply system

Enhanced cross-border exchanges in electricity and contribution to the development of a functional regional market

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