

3RD FORUM OF THE EU STRATEGY FOR THE ADRIATIC CATANIA 24-25 MAY 2018 AND IONIAN REGION

THE ITALY-MONTENEGRO HVDC LINK

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The Italy-Montenegro HVDC link

The project is confirmed in the third list of Projects of Common interest (PCI) under the Reg. UE 347/2013, is included in TYNDP of ENTSO-E and in Terna NDP since 2009

The HVDC MONITA introduces a new electrical border inside the Continental Europe synchronous area (SEE region): the border between Terna (IT) and CGES (ME)

Cooperation between Terna and CGES for the implementation of the new HVDC interconnection MONITA started in 2007

- Terna is responsible for the construction, maintenance and operation of the entire HVDC interconnection (including the HVDC converter substation in Montenegro)

- CGES is responsible for the reinforcements and improvements of its electric grid

Now the project is approaching its completion

The HVDC link MONITA contributes to:

promote the exchange of renewable energy

opportunities for new generation investments in whole SEE region and the exploitation of RES potential

create a stronger interconnected European grid

connect the Italian peninsula with Balkan area

enhance Operation Security in Italy and in the Balkan area

linking the Italian and the Montenegrin networks allows the mutual support



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General framework of the Italy-Montenegro project



- Total length: approx. 445 km of HVDC connection between the substations of Villanova (IT) and Lastva (ME), of which 423 km of undersea cable
- Max depth: 1200 m
- DC Voltage: ± 500 kV
- Power flow: bidirectional
- Rated Power: 1200 MW (2 LCC modules each of 600 MW)
- The interconnection consists of two modules of 600 MW each, which will be installed in sequence, with the first 600MW available by December 2019 (of which 200 MW in the availability of the Montenegrin TSO, CGES)
- A postponement of the second module is required taking into account the current status of transmission infrastructures and markets in the Balkan area



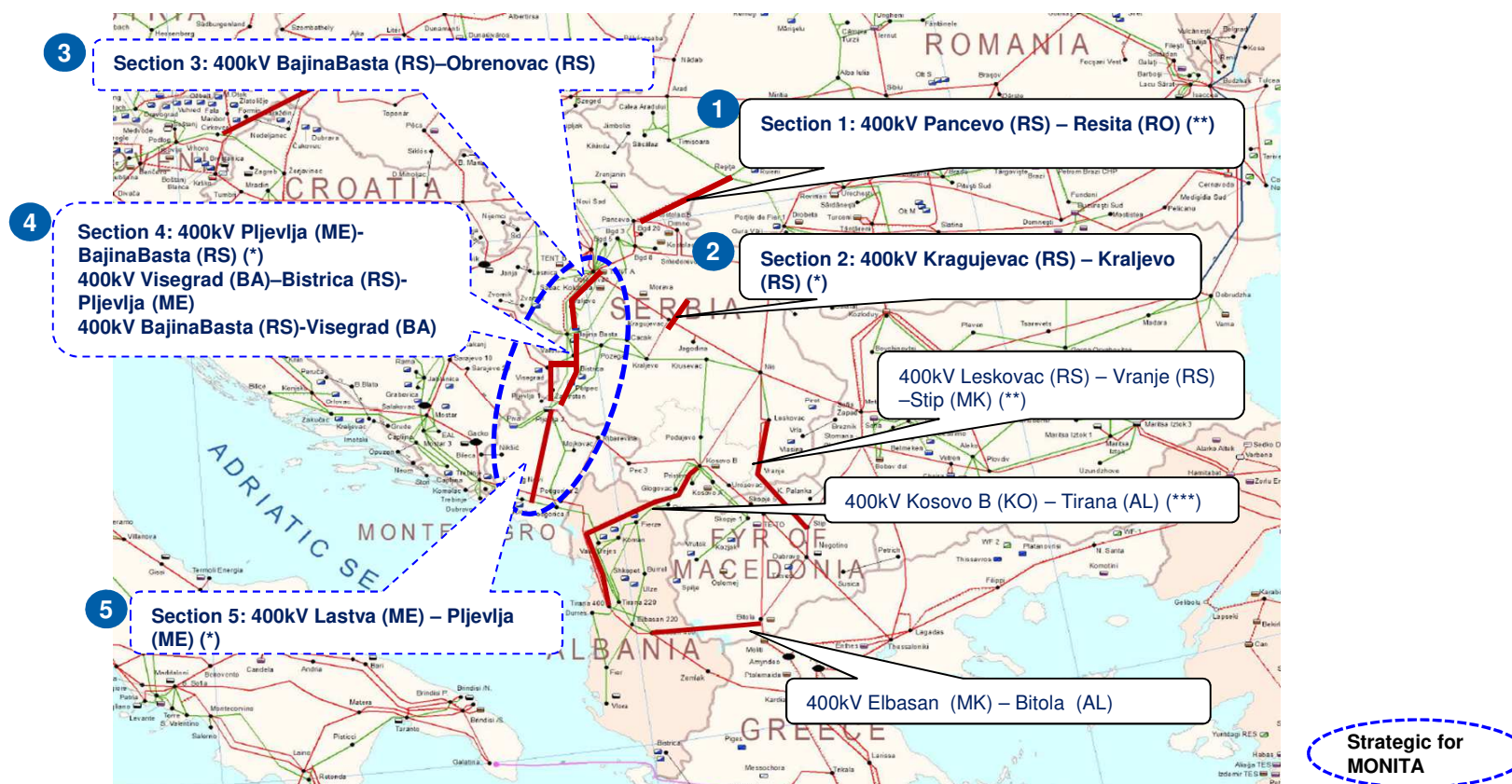
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Transbalkan Corridor and other strategic interconnections



(*)Transbalkan Electricity Corridor - IPA/WBIF 2015 grant co-financing (I): **Grid Section in Montenegro**: total investment: 145,8 M€, EU Grants: 26,8 M€ (18%); EBRD loan: 60M€; KfW loan: 25M€; (II) **Grid Section in Serbia** (OHL Kraljevo-Kragujevac): total investment: 29,6 M€; EU Grants: 6,6 M€ (22%); KfW loan: 15 M€ [Source: WBIF]

(**) In operation

(***) Works are completed but entry into operation is expected by end of 2018



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Integration of Western Balkan electricity markets

Terna involvement in Energy Community initiatives and CESEC

Energy Community (EnC) and Western Balkans 6 (WB 6) Energy Connectivity

- Closer **cooperation between Western Balkans and EU Member States**, with the support of the EC and the EnC Secretariat, is needed for **market development** (cross-border balancing cooperation and regional coupling of day-ahead markets) and for **transmission infrastructures investments**
- **Adequate legal, regulatory and institutional framework in SEE Region** shall be put in place for timely implementation of “soft measures” under the **WB 6 Energy Connectivity Initiative**
- **The MoU of WB 6 on Regional Electricity Market Development** was signed by Terna on 4 April 2017 in order to be an active part of the electricity market integration in SEE

Central and South-Eastern European Energy Connectivity (CESEC)

- **CESEC** initiative scope in the area of electricity is to make rapid progress in the implementation of **priority electricity market coupling projects between EU Member States and EnC Contracting Parties** as well as **priority electricity infrastructures**
- The enhancement of transmission capacity along the East-West corridor → from Italy to Romania via the Balkans, **Trans-Balkan electricity corridor**, is one of CESEC **electricity priority project**
- Terna is involved in CESEC initiatives through CGES (Terna's equity stake of 22,0899%)

Sofia Summit (17 May 2018) confirmed EU and WB countries commitment

- To accelerate the **completion of the Regional Electricity Market** and its integration to the EU internal electricity market through **CESEC**
- To increase « **Energy Connectivity**» through **WB Investment Framework** (with EU grants as leverage for projects)