

While the European Commission defined Projects of Common Interest (PCIs), the Energy Community in 2013 defined and adopted so called Projects of Energy Community Interest (PECIs) as key infrastructure projects, which will help countries to physically integrate their energy markets, enable them to diversify their energy sources and help to bring an end to the energy isolation some of them are facing.

Among the PECI projects are a number of 400 kV transmission projects in the Western Balkans. The PECI projects mainly focus on projects enabling regional cooperation and on some country internal grid enhancements to enable links to the emerging corridors.

In order to establish an east west corridor through the Western Balkans the interconnection between Italy, Montenegro, Serbia and Bosnia and Herzegovina will be enhanced and connected to pump storage plants, most importantly in Bajina Basta in Western Serbia. In more detail the planned inter-connection Italy-Montenegro will be complemented by a 400kV east west connection within Montenegro (ET017) and a new Montenegro-Serbia interconnection (ET002). New connections are planned between central Serbia (ET018, ET022, ET 021) and Bajina Basta and a new interconnection between Bajina Basta and Visegrad in Bosnia and Herzegovina. A double circuit OHL 400 kV SS Bajina Basta (Serbia) - SS Pljevlja (Montenegro) - SS Visegrad (BIH) will secure the supply for a large area and provide regional market integration and connection of pump storage. The connection of this circuit as part of the new east west corridor to Italy to a new pump storage facility of at least 700 MW (Bistrica) and the existing pump storage Bajina Basta with 2*300 MW will allow for an increased use of volatile RES from wind and solar energy in the region, and will facilitate a regional balancing market.

Also a planned Macedonia-Albania interconnection (ET001) aims to strengthen the second east west corridor by increasing transfer capacity between countries in South East Europe and towards Italy. The new interconnection therefore will increase grid capability to transmit power from countries with surplus generation (BG and RO) towards Greece, FYRO Macedonia, Albania and Italy.

The new Montenegro-Italy electricity interconnection

In 2012 TERNA started a strategic partnership with the Montenegrin TSO (CGES), and became minority shareholder with the State of Montenegro keeping the position of majority shareholder. In 2015 TERNA will build a new undersea interconnection from Montenegro to Italy (to the converter station of Tivat/Kotor included), estimated CAPEX about 760 M€.

CGES will construct the infrastructures necessary to allow in the mid-long term the functioning and the full utilization of the new Inter-connection link and of the grid connections to the existing transmission network, estimated CAPEX about 100M€.

TERNA mentions as benefits for the Italian electricity system (Manduzio, 2009):

□ Large and cheap energy resources, particular hydraulic and lignite, and a surplus of perspective electricity generation.

High differences in electricity prices are expected

The complementarities of the energy sources for electricity supply, mainly lignite reserves and hydroelectric potentials complementing oil and gas in Italy.

Greater security and efficiency of supplies for the Italian electricity system, diversifying sources and increasing competitiveness in the Italian market. Montenegro already has existing connections with Bosnia-Herzegovina, Serbia, Kosovo* and through Serbia, with Bulgaria and Romania, thus enabling the possibility for electricity market operators to import electricity at lower costs as compared to the Italian market.

Of all the Balkans - which are a top priority for business growth - Montenegro is the most important for TERNNA because of its optimal location for the requirements of the Italian market and the availability of a transmission grid that is in good shape and well connected with the future production hubs of the region (Bosnia-Herzegovina, Serbia, Kosovo*, and - via Serbia - Bulgaria and Romania).

The north-south corridor is planned to be improved by connecting the north of Bosnia and Herzegovina with Croatia allowing electricity export to Slovenia and Italy. The project will strengthen the Croatian transmission grid along its main north-south axis allowing for additional long-distance power transfers from existing and new power plants (RES/wind and conventional/hydro and thermal) in the coastal parts of Croatia and Bosnia and Herzegovina to major consumption areas in Italy and north Croatia.

The planned new grid connection will significantly change the regional energy market, allowing for more energy security, increased penetration of volatile RES and export of electricity. It will create new business model for renewables, but also for lignite production due to the export perspective and the electricity price differences between Italy and the Balkans. However, there is a risk of carbon leakage from Italy to the Balkans, which have no CO₂ targets and fewer environmental obligations than EU countries before their EU accession. The planned implementation dates are all after 2016 towards 2020. There is the risk that some of them will not be functional by 2020 and therefore not available for Joint Projects for 2020 target achievement. The undersea cable between Italy and Montenegro or Albania has large transmission capacities and economically makes sense only if sufficient electricity is exported. As the Italy Montenegro cable will be built in 2014 strong delays in the regional grid corridor to Serbia, Bosnia and other SEE countries may trigger additional coal generation and export from Montenegro.