# Serbia: Balancing market framework and regional interdependency

**Categories :** News Serbia Energy

**Date :** September 23, 2015

In Serbia there is a dominant participant which in our case has all balancing entities (power utility EPS). A solution that has been applied should limit, through the restrictions imposed to the dominant participant, its great influence on the behavior of the market.

The clear and transparent rules for making the, clearing price and engaged balancing energy price allow the future participants to participate without concern in the electricity market in Serbia.

Capacities meant for secondary and tertiary regulation (according to the Network Codes RR mFRR and aFRR) are provided by the Agreement on additional services provision between PE EMS and PE EPS (only BSP in Serbia). The amount of capacity is determined in accordance with the ENTSO-E recommendations. Price capacity for secondary and tertiary regulation is regulated, i.e. it is determined annually by the Energy Agency because there is no capacity market meant for balancing. This is a guaranteed capacity provided from balancing entities within the control area of Serbia (according to the Network Code OO) of which TSO grid company PE EMS Elektromreze Srbije disposes and balances the system in real time.

PE EPS (i.e. all BSP) is obliged to put at disposal of PE EMS, for the purposes of system balancing, all available regulatory capacity that have remained after the reported daily operation plans, and minimally defined by the Agreement on additional services provision. In the case of need, if PE EMS, through a planned analysis, estimates that there is no sufficient capacity provided by the balancing entities, PE EMS can procure tertiary balancing energy from the neighboring transmission system operators as well as from suppliers of electricity. Procurement of balancing energy between PE EMS and other transmission system operators is regulated by the emergency energy transaction agreements, and procurement of balancing energy from the supplier is regulated by the agreements on system services provision between transmission system operators and suppliers. Problem with the procurement of this kind is a balancing energy engagement for at least two hours in advance, as well as the necessity of the free cross-border capacity.

PE EMS activates the automatic secondary regulation in accordance with the submitted daily operation plan, Agreement on system services and the Rules on transmission system operation and the tertiary regulation is activated based on the list of balancing reserves engagement. Unlike the capacity, the price of engaged balancing energy (secondary and tertiary energy) is determined according to the market principles, i.e., depends on the engaged bids for tertiary energy.

Based on the calculation of engaged balancing energy in the secondary and tertiary regulation for the purposes of the system balancing, as well as on the engagement of the

balancing energy prices, the clearing price used in calculation for the needs of compensation for deviations of balancing groups is calculated, i.e. financial clearing of BRP which is responsible for their balancing groups' deviations. The clearing price for each calculation interval is determined as a weighted average price of activated bids from tertiary regulation, engaged contractual balance reserve and engaged secondary regulation.

Next steps of EMS towards the regional balanced energy market establishment

EMS as a part of SMM regulation block (Serbia, Macedonia, and Montenegro) has a good starting point to establish the Coordinated Balanced Area in a short period of time and to apply the Network Code on Balancing. At the same it should be worked on introduction of certain products with the regulatory block SCB (Slovenia, Croatia, Bosnia) as well, in order to obtain a regional dimension and a good basis for further integration into the European single market.

From May 1$^{st}$ 2015 begins the free exchange of tertiary balance reserves (mFRR) between PE EMS and CGES. According to the Network Code, the requirements of a single product have been met, TSO-TSO model has been applied and the time of gate closing and a way of activating bids for balancing energy have been defined. The thing that is missing so that this model would be in full compliance with the obligations is that both TSOs have undivided reserve (cheapest) which is used only for balancing its control area, and don't have a common list of engagement, as well as a unique calculation of price deviations. In addition, it is necessary to find a way for market purchase of reserves for mFRR, exchange of all bids for all reserves and establishing a common list of engagement, cover the cost of the reserve purchase and the reduction of the accounting interval to 30 minutes.

In parallel with this, it is necessary to find a model for the application of aFRR, the way of market purchase of reserves and valuation of activated energy. When finding the adequate solutions, the experience of the hierarchical model applied within the control block with the modification and the introduction of the market valuation of activated energy should be used.

Development of a model for the netting deviation process is perhaps the easiest to apply. It requires the consent of the participants within the control block, the manner in which it is applied and determination of the economic price that will enable lower costs compared to those that would have occurred in the case of activating additional aFRR within its own control area.

In addition to the technical and organizational challenges that should be dealt with during the model implementation, the biggest obstacle will be the compliance of the regulatory framework that would allow the full implementation of the Network Balancing Code at the regional level. In addition, the constant investments in new information and telecommunication systems are necessary.

Practice has shown that it is difficult to establish a national balancing market which would reflect the real situation on the market, because in almost every case there is one or more dominant participants and a lack of competitiveness. Recognizing this problem, the European

Union has launched the initiative to establish a single internal electricity market by introducing the binding Regulation and the Network Codes for balancing. The first step is the introduction of regional balancing markets in order to provide a reliable and safe supply of the consumers, standardization of products, increase of competitiveness and reduction of the balancing cost. PE EMS as part of the SMM control regulation block has a good base to fulfill, in a short time frame, the obligations according to the Network Code on balancing and to get equally involved in the establishment of a single European balancing market, transmits Serbia-energy.eu