TECHNICAL PROFILE

PROVISIONS ON THE DIVISION OF THE SIGNIFICANT GRID INTO BIDDING ZONES AND START OF DIVISION REVIEW PURSUANT TO REGULATION 2015/1222 (CACM)
22/2018/R/eel (*)

With Resolution 22/2018/R/eel, the Italian Regulatory Authority for Energy, Networks and Environment (ARERA) formalises the *start of the review of the bidding zone configuration* of the national system (the current bidding zone configuration is in force until 31 December 2018) and defines the methods of execution of future configuration reviews.

The purpose of the bidding zone configuration review is to promote the efficiency of electricity markets, avoiding potentially high re-dispatching costs on the Dispatching Service Market (MSD) by means of resolving the most frequent congestions in the Day-Ahead Market (MGP) and in the Intra-Day Market (MI), that is to say – conversely – deferring to the MSD the resolution of less significant and infrequent congestions only.
ARERA is the first European regulator to launch a review of national bidding zones pursuant to Regulation EU 2015/12 22 (*Capacity Allocation and Congestion Management* – CACM), which establishes the guidelines on capacity allocation and congestion management.
This measure, already announced to the regulatory authorities in neighbouring countries (Greece, France, Austria and Slovenia), only concerns the grid managed by Terna (Electricity Transmission Grid Operator) and has an insignificant impact on the neighbouring TSOs.

Pursuant to the CACM regulations, the identification of bidding zone configurations can be performed using either an expert-based or a model-based approach.

- With an expert-based approach, the TSOs identify the corrections to be made to the existing bidding zone configuration based on market evidence and information garnered from grid management: essentially, it is a corrective approach in which the existing configuration is taken as a starting point and the main associated critical issues are identified (e.g. intra-zonal congestion or the lack of congestion between two or more zones, etc.), then the various corrections to be made are defined.
- Vice versa, in the model-based approach, the zones are defined based on a mathematical model: usually, one or more variables are associated with each grid node (e.g. the nodal prices of electricity or the Power Transfer Distribution Factors, the latter expressing the impact that injections into each node have on certain critical grid elements) and clustering algorithms are used to group the various grid nodes, placing adjacent nodes that have the same values for these variables in the same zone. Therefore, it is a bottom-up approach that determines the bidding zone configurations not by starting with the existing configuration, but by the nodal model of the grid.

In particular, Resolution 22/2018/R/eel requires that:

- Terna consults the final report containing the bidding zone configuration proposals developed using expert-based analysis, organizing for this purpose also a seminar open to market operators;
- Terna sends the Authority, and publishes on the internet, the proposal for the new bidding zone configuration (or the proposal to confirm the existing configuration) by 15 May 2018, together with the observations gathered during consultation and its own evaluations.
  The Authority undertakes to adopt a decision on the above mentioned proposal within 45 days of its receipt.
  The start date for the new bidding zone configuration will depend on both the specific configuration to be implemented and the update times of the market coupling resolution algorithm at European level.

Finally, for the purposes of future zonal reviews, the measure launches a pilot project to develop model-based bidding zone configurations. The project will be run according to the timings that will be established by the Authority.

(*) Data sheet for information purposes only