

ACER Consultation: The influence of existing bidding zones on electricity markets

EDF Response

30th September 2013

EDF welcomes this consultation on the influence of existing bidding zones on electricity markets.

EDF is aware that the Capacity Allocation and Congestion Management (CACM) network code aims at increasing efficiency in the use of transmission infrastructure in order to enhance cross-border trade. It deals with transmission capacity calculation (introduction of “Flow-Based”) and capacity allocation between bidding zones¹. For the purpose of an efficient congestion management and an overall market efficiency², this code calls for a regular assessment³ of the bidding zones’ configuration³.

EDF understands the process foresees 4 steps: a technical report by ENTSO-E on the technical impacts of existing bidding zones on the operation of the grid (step 1), an economic report by ACER on the impacts of existing bidding zones on market functioning (step 2), on the basis of these reports, the formal decision by regulators to launch an assessment of a reconfiguration (step 3), and an assessment of existing bidding zones against possible reconfiguration by ENTSO-E (step 4). Then the final decision to reconfigure or not is made.

EDF understands that the anticipated implementation of CACM has led to the launch of a pilot project to implement the provisions related to the review process of bidding zones.

EDF considers this Commission/ACER/ENTSO-E initiative as an opportunity to develop the methodologies and indicators required to assess bidding zones configuration on a relevant application case. Initiating this learning process is essential to define, improve and share methodologies (e.g. assessment criteria⁴) that will support potential bidding zones reconfiguration decisions in the future. At this preliminary stage, it appears necessary to

¹ A Bidding Zone is defined as follows in CACM : “means the largest geographical area within which Market Participants are able to exchange energy without Capacity Allocation”.

² Recital 23 of the code recalls that “Bidding zones will be defined to ensure efficient congestion management and overall market efficiency. Bidding zones can be subsequently modified by splitting, merging or adjusting the zone borders. Bidding zones will be consistent across different market timeframes and will be relatively stable across time, while reflecting changing network conditions”.

³ CACM network code, Articles 37,38, 39, 40

⁴ For the time being, these assessment criteria are limited to network security, market efficiency, stability and robustness of the bidding zones.

clarify whether this pilot project aims or not at supporting effective decisions regarding bidding zone reconfiguration.

EDF considers that there may be an interest to address in the longer run the relevance of existing bidding zones and a possible reconfiguration, however **underlines this issue as currently rather premature.**

1. The objective pursued first needs to be clarified.

The objective pursued needs to be clarified, referring to the desired European target model in mind. This will be a challenging task by itself but essential for involved parties to share the conclusions of the process.

There is no simple and objective definition of what an optimal bidding zone configuration is. This definition should balance the need (i) to mutualise costs and resources in a common market and (ii) to keep every Member State responsible for the possible physical tensions induced in adjacent networks.

These possible tensions induced in adjacent networks could depend on the grid topology, generation and demand localization generating physically non acceptable loop flows and network internal congestions. EDF considers that limiting the impacts resulting from these different issues between adjacent bidding zones should be set as an objective when reviewing the bidding zone configuration. Increasing economic and social welfare should be considered as a relevant indicator but should not be set as the lone objective to be pursued without taking into account precisely the well-functioning of the market.

2. Once the objective is set, all the possible and available set of solutions (all available alternatives in the short and long terms) should be examined.

Once defined, it is essential to ensure that the most cost-efficient solutions are promoted for the goal pursued. Different alternative solutions should be compared taking into account all potential benefits and costs related to their implementation.

EDF underlines that several possible alternative solutions could be available in the short and long terms and should be examined:

- **More cooperation between TSOs through**
 - (i) **coordinated operation of the grid:** notably regarding cross-border redispatching with well defined cost-sharing rules.

(ii) **coordinated capacity calculation:** for example, a closer coordination between TSOs when proceeding to capacity calculation could lead to increase the volume of capacity available for the market. In the same way, the achievement of market coupling and the future implementation of the flow-based method for capacity calculation, could lead to foster an optimal use of existing transmission infrastructure.

- **grid reinforcement:** for example, AC reinforcement in the German grid could lead to reduce the negative impacts for adjacent bidding zones (Poland, Czech Republic) related to existing internal congestions and loop flows ; more generally, grid reinforcement to reduce internal congestions on a critical branch in the grid.

3. EDF considers reinforcing TSO obligations through bidding zone reconfiguration should only be the last resort solution, after the search for a coordinated solution and the investments by TSOs in their internal networks.

EDF considers that the obligations for a TSO not to solve internal congestions through a limitation of cross-border capacity and to keep induced loop flows in acceptable ranges must be enforced.

However, EDF believes that enforcing these obligations through bidding zone reconfiguration would acknowledge a failure in the search for a coordinated solution and the duty for TSOs to invest in their internal networks.

The above mentioned alternatives are no new nor one-shot solutions. These solutions have been continuously improved along market integration towards the European single market.

EDF considers that ENTSO-E should not only consider the current situation but also potential ongoing or future improvements when reviewing bidding zones configuration. In this regard, EDF wishes to underline that some major initiatives have not been yet fully achieved or implemented.

- Many of the TSO coordination practices considered in the draft CACM network codes do not exist yet or are not fully implemented.

For example, a regional entity like CORESO could be mandated to assess the cost of redispatching if TSOs were fully coordinated and act as one. ENTSO-E should also consider the evolution of interconnection capacity when coordinated capacity calculation will be implemented. In its assessment of loop flows, ENTSO-E should also consider the possibility to have renewable energy sources responsive to wholesale market prices which would limit their output in some circumstances.

- The existing transmission infrastructure could be used more efficiently, independently of the issue of bidding zone configuration. A first important step is to develop a common grid model to be used for a genuine coordinated capacity calculation performed at regional level at least. These elements are foreseen in the draft CACM network code and need to be implemented as soon as possible. Spreading best practices regarding TSO remedial actions and fostering cross-border redispatch with adequate cost-sharing rules is also necessary.
- Flow-based is still in a development phase where all days are not calculated yet and where market parties are still in a learning phase. EDF considers that the link between bidding zone size and flow-based efficiency is a new question and will require more in depth analyses to be properly assessed.

4. EDF stresses the existence of potential costs and risks to be compared with potential gains of a bidding zones reconfiguration.

Bidding zone reconfiguration can take different shapes (splitting, merging, ...), each of these solutions bringing its own cost/risks and benefits. Redefining bidding zones would lead to significant and extensive consequences for all stakeholders (market participants, generators, consumers) that should be duly justified and taken into account in the reviewing process. These consequences can raise major operational, technical or legal issues.

- **Bidding zones reconfiguration could lead to significant transition costs for all stakeholders**

In particular, it could lead grid users and network operators:

- to adapt their operational process (e.g. IT development) to the consequent evolutions of market design related to bidding zones reconfiguration;
- to comply with additional requirements : for example, extension of the “relevant grid users” defined in the network code “Operational planning and Scheduling”.

The robustness of the possible alternative configurations should be considered as an important criterion when redefining existing bidding zones.

- **Redefining bidding zones might constitute a step back in the market integration process**

EDF stresses the existence of potential risks to be compared with potential gains of a bidding zone reconfiguration to improve the well functioning of the market.

Redefining, more critically splitting, bidding zones could also lead to reduce forward hedging opportunities and to deter incentives for investors:

- Once the process of changing the existing zones is formerly started, it would introduce major uncertainties on the impacts of a reconfiguration for existing contracts in newly defined zones. Consequently, the liquidity of forward trading for the concerned zones would dramatically decrease until the new configuration is known, limiting hedging opportunities for market participants.

Regarding this issue of the well-functioning of the market, EDF considers that it is TSOs' role to perform forward capacity calculation and to allocate an adequate part of this capacity, either through PTR or FTR, in order to provide market participants with adequate hedging opportunities. TSOs are by definition the best able to forecast future available capacity and have a natural hedge against price differences through the congestion incomes. It is natural that transactions costs are higher on borders where there is no TSO-allocated hedging opportunity and market players have to resort to financial solutions emitted by non-TSO entities who have to charge a risk premium since they do not have themselves the natural hedge of the TSO.

TSO-issued transmission rights should be introduced on all borders and rules for splitting the capacity between timeframes should be developed as is foreseen in the draft Forward Capacity Allocation Network Code.

- Besides, it would send a negative signal to investors who would face a risk with no way to hedge against. Investments are not driven by current price levels but by the expectation of future prices affected by regulatory uncertainties. As a general rule, all types of regulatory uncertainties that investors cannot hedge against tend to deter investment by increasing the risk level of projects.

Regarding this issue of the well-functioning of the market, EDF therefore considers that a relative stability of zones is necessary.

Redefining bidding zones could also raise legal issues. Indeed, legislation defined at national level differs from a Member State to another. Merging bidding zones could introduce a distortion between suppliers or customers governed by different legislations within a newly created bidding zone.

5. EDF underlines that redefining bidding zones should not be considered as an easy solution. At this preliminary stage, the definition of methodologies and indicators need to be clarified before addressing this issue.

At this preliminary stage, the overall efficiency of a reconfiguration has not yet been demonstrated. Assessing the efficiency of the current bidding zone configuration is difficult and will require an in-depth study like the one ENTSO-E will perform in "step 4".

The difficulty not only comes from the complexity of the task but also from the rapidly changing congestion patterns across Europe. For instance, in 2011 the price convergence rate in the CWE region was above 60 % but it fell significantly in 2012 and 2013. Furthermore, these congestion patterns might vary significantly throughout the day.

EDF considers that the volumes of congestion management through redispatching are a good indicator of the efficiency of bidding zones. The number of remedial actions performed by TSOs through changes in the network topology should also be considered since this might be a way to avoid internal congestions that could worsen loop flows issues. However, being a market party, we do not know what would be a good indicator for this.

Regarding redispatching costs, EDF believes that their assessments should be considered with caution on the two following points. Firstly, the actual cost of redispatching is the difference between what we currently label “redispatch cost”, i.e. what is paid to producers to redispatch their plants, and the loss the market would have incurred if this congestion management had been handled by the market, through a lower capacity on a given border, instead of congestion management. Secondly, coordinated cross-border redispatch is still very limited and the currently incurred costs of redispatching would decrease if cross-border coordination were improved. If redispatch costs are to be used in a quantitative study to be assessed against other costs, EDF considers that, on top of current values, an estimate of optimal redispatch costs should also be performed by a regional entity like Coreso, for example.

Regarding the size of bidding zones, EDF considers that it should be sufficient to ensure well functioning and liquid markets across all timeframes (forward trading, day-ahead, intraday and balancing). Having zones of different size is not an issue per se if it is consistent with network structure and market rules and organisations. EDF believes that coordination between TSOs should be strengthened and best practices in congestion management should be spread across Europe, yet, as long as congestion management practices and market access rules remain diverse it might be more important to have zones coherent with these distinctions rather than having zones of equivalent sizes.

Last, EDF wishes to underline the risk to start reconfiguring bidding zones, purely on the basis of historical data. Indeed, flows on the transmission grids do not only depend on the grid topology and interconnectors, but also on the activities of connected power plants, consumers and now also distributed generation. Large changes have been experimented during the last year: power plants not running because of negative spark spreads or even closing, industry in crisis and a boom of distributed renewable generation. These changes have an impact on the flows and the available interconnector capacities. For instance, the outage of two main Belgian nuclear power stations (Doel 3 and Tihange 2) during almost a

year (2012-2013) had an impact on the CWE market coupling. More closures of power plants (e.g. nuclear phase out) are announced for the coming years and the generation mix as well the location will drastically change. Consequently, at the preliminary stage, reviewing bidding zones could not be reviewed purely on the basis of historical data.

In conclusion, EDF considers that a possible reconfiguration of bidding zones as the adequate solution to the problems identified appears premature.

Before introducing additional over-complexities with the process of redefining bidding zones, coordinated solution between TSOs when dispatching or investing in their internal networks should be reinforced.

EDF considers the pilot project launched by EC/ACER/ENTSO-E as an opportunity to develop the methodologies and indicators required to assess bidding zones configuration on a relevant application case and initiate the learning process.

Besides, in terms of process, EDF would like to point out that that the regulators' decision (step 3) to engage into step 4 of the process (which is the evaluation of a reconfiguration of existing bidding zones) has already been made, before stage 1 and 2 (due by the end of the year 2013) were accomplished. It is essential that the pilot project respects each step of the process to be experimented, without rushing to tackle such a complex issue.

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