



To ACER (Agency for the Cooperation of  
Energy Regulators)

Milano, September 30<sup>th</sup> 2013

**EDISON'S RESPONSE TO THE ACER CONSULTATION DOCUMENT ON THE  
INFLUENCE OF EXISTING BIDDING ZONES ON ELECTRICITY MARKETS**

**GENERAL REMARKS**

Edison welcomes the opportunity to answer this ACER public consultation on the “Influence of existing bidding zones on electricity markets”, since we consider the involvement of all interested stakeholders as important in this pilot phase of the process for the review of bidding zones as established in the CACM NC. Market participants, on the grounds of their experience, can provide a valuable point of view on how bidding zones configuration can affect market functioning and on what could be the trade-off between the different measures aimed to reduce congestions and to make the management of the European electricity system more efficient.

We understand that the introduction of bidding zones can help TSOs to carry out their dispatching activity by reducing the use of costly remedial actions (e.g. redispatching and countertrading), thus keeping system costs at a level acceptable to NRAs and final customers. Nevertheless, it should be considered that specific bidding zone configurations may reduce the incentives for TSOs to invest in the transmission network which is the only long-term measure that would permanently solve congestions leading to a significant reduction of re-dispatching costs.



Moreover, when considering a possible review of bidding zones, enlargement and reduction should be clearly differentiated on the basis of the impact of these two measures on the functioning of electricity markets. In our opinion the enlargement of bidding zones should be preferred since it may result in higher market liquidity and wider market access which would benefit European market integration, competition and consumers. On the other hand, a redefinition of bidding zones in terms of splitting the existing zones could emphasize certain drawbacks related to bidding zones reconfiguration, such as:

- Lower liquidity and depth of the market;
- Lower level of integration with neighboring national markets;
- Stability of commercial transactions and long-term contracts;
- Impacts on hedging opportunities and on the liquidity of forward markets;
- Impacts on market access and on the opportunities of market participants located in different bidding zones;
- Market power issues and investment conditions.

Thus, we believe that NRAs and TSOs should carefully assess the opportunity to perform bidding zones reconfiguration through an accurate cost-benefit analysis which takes into account the potential impact of this process on the efficient functioning of European electricity markets (e.g. hedging costs etc.) and the availability of alternative solutions (e.g. grid development, better coordination between TSOs in capacity calculation and congestion management etc.). Yet, in case of merger of existing bidding zones, we also believe that the immediate impact of the envisaged measures on system costs should be compared with the medium/long term benefits to market participants and consumers generated by this solution.

Our answers to the questions proposed by ACER in this consultation document are mostly focused on the Italian market where the present zonal configuration of the electricity markets has been designed to cope with the structural congestions characterizing the Italian power system. Nonetheless, Edison believes that the current process started by ACER could be a valuable opportunity for the Italian NRA and TSO to carefully evaluate the potential benefits resulting from a merger, at least partial, of the existing Italian bidding zones especially in terms of integration with the other European electricity markets. Therefore, even if we



understand from the CACM NC<sup>1</sup> that changes of internal zonal configurations may be out of the scope of the coordinated review of bidding zones at European level, we deem it important to address this issue in this ACER consultation document considering the potential benefit a merger of the existing Italian bidding zones could generate at European level. The remarks and suggestions presented in the answer to this consultation should be intended as a starting point for further considerations and assessments to be developed by the Italian NRA and the TSO in close cooperation with interested stakeholders.

However, Edison believes that the general approach to the process of review of bidding zones configuration at European level should be further investigated during the different steps envisaged in the current pilot project, in order to reach a common understanding on the methodologies and indicators to be used to assess existing bidding zones. Moreover, NRAs and TSOs should consider that, even if in some cases a reconfiguration of bidding zone may produce significant benefits (e.g. in case of merger), the stability of bidding zones over time has to be in any case ensured to avoid excessive regulatory uncertainties which may deter investments and have a negative impact on the availability of hedging products in forward markets.

- 1) How appropriate do you consider the measure of redefining zones compared to other measures, such as, continued or possibly increased application of redispatching actions or increased investment in transmission infrastructure to deal with congestion management and/or loop flows related issues? What is the trade-off between these choices and how should the costs attached to each (e.g. redispatching costs) be distributed and recovered?**

The redefinition of bidding zones as a measure to manage network congestions and loop flows should be carefully evaluated against its possible impact on the functioning of electricity markets, taking into account that new transmission investments and reinforcements should be considered as the primary long-term measure in removing grid congestions.

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<sup>1</sup> According to art. 37.1 let. C.



As far as the Italian case is concerned, the current bidding zones configuration and the price dualism resulting from the coexistence of a single national purchase price and several zonal selling prices poses some problems to market participants (generators, traders etc.) in terms of, inter alia:

- Significant costs incurred by market participants to hedge from the risk of congestion cost volatility;
- Possible market-access restrictions due to excessive ex-ante limitations to trade subsequent to specific zonal configurations (e.g. the case of national virtual zones<sup>2</sup>).

The current bidding zones configuration does not create enough incentive for the TSO to invest in the transmission network reinforcement needed to solve congestions. The congestion rent is collected by the TSO either through an explicit fee on injection schedules resulting from bilateral contracts (i.e. the “cost of the right to use transport capacity” or CCT)<sup>3</sup> or, implicitly, through the transfer by the market operator (GME) of an amount corresponding to the difference between the value of purchases and sales in the spot markets (in case of different zonal prices). The TSO primarily uses this income to support the financial flows resulting from the issue of hedging products (CCC<sup>4</sup>) and it returns the remaining part to final customers by cutting system charges (the so called uplift), so the congestion costs paid by consumers are therefore used to discount network tariffs rather than to invest in the transmission network.

A merger, at least partial, of the existing bidding zones would lead to a decrease of day-ahead market prices since the costs of congestions would be transferred to the ancillary services market as a consequence of the growth of the re-dispatching and countertrading actions carried out by the TSO. The subsequent increase of dispatching costs (socialized in network tariffs), in parallel with a regulatory

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<sup>2</sup> National virtual zones are constrained zones (or point or pole of limited production) where a set of generating units is connected to a portion of the national electricity transmission grid (RTN) without withdrawal points; its maximum generation exportable to the rest of the grid is smaller than its maximum possible generation owing to insufficient transmission capacity.

<sup>3</sup> Such fee is calculated as the difference in each hour between the hourly purchase price in contract withdrawal zones and the hourly sale price of electricity in contract injection zones: thus, the resulting fee must be paid (charge) to inject electricity into exporting zones, since it contributes to increasing the number of congestions, and must be received (aid) for injection into importing zones, since it contributes to reduce congestions; finally, no fee is charged where no congestion occurs.

<sup>4</sup> CCC (copertura dal rischio di volatilità del corrispettivo di assegnazione della capacità di trasporto) indicates Financial Transmission Rights used to hedge from the risks of Congestion Cost (CCT).



framework aimed to keep under control the share of these costs to be charged on network users by the TSO, could introduce stronger incentives for the TSO itself to invest in the transmission network to reduce congestions. Moreover, the introduction of locational grid tariffs could be a further valuable instrument to provide significant and precise signals to grid users and public authorities located in the most congested area, by charging them with the higher dispatching costs generated in their territory.

Therefore, a merger of the existing Italian bidding zones can positively affect the competition and the liquidity of the Italian electricity market by allowing operators to compete on an equal footing in the day-ahead and intraday electricity markets irrespective of their location on the national territory. This solution would also facilitate the efficient integration of the Italian market with neighboring national bidding zones following the implementation of market coupling<sup>5</sup>, since the costs of internal congestions would not be reflected in the day-ahead and intraday electricity prices leading to a partial convergence with foreign prices.

Thus, the possible immediate increase of dispatching costs generated by this measure could be more than offset by the benefits resulting from efficient investment signals, incentivizing the TSO to invest on the most congested sections of the grid, and from a higher liquidity, competition and integration of the electricity markets. Furthermore, under the current market conditions characterized by overcapacity, the risk to generate wrong economic signals in ancillary services market, which could incite market participants to locate new power plants in already highly congested areas, seems to be negligible compared to the past decade.

**2) Do you perceive the existing bidding zone configuration to be efficient with respect to overall market efficiency (efficient dispatch of generation and load, liquidity, market power, redispatching costs, etc.) or do you consider that the bidding zone configuration can be improved? Which advantages or disadvantages do you see in having bidding zones of similar size or different size?**

As already mentioned, the current bidding zone configuration of the Italian electricity market could be improved by a gradual merger of existing zones, with

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<sup>5</sup> Here we intend both the day-ahead price coupling and the envisaged solutions for cross border intraday markets integration (i.e. continuous trading and complementary regional auctions) as provided in the CACM Network Code .



particular attention to national virtual zones. Generators located in these latter zones are subject to a de-facto limitation of their production potential and are fully exposed to the price differential between the selling price of the virtual zone and the National Single Price (PUN) since the former does not have any influence on the latter. This situation results in considerable hedging costs (need to acquire CCC) for generators producing in these areas to the detriment of a sound competition with market players located in other larger market areas. The integration of national virtual zones into the other physical bidding zones should be then considered a priority in order to guarantee the level playing field of generation units located in this areas compared to the other market players.

We believe that zones of different size do not entail particular advantages or disadvantages, provided that they ensure well-functioning and liquid markets across all timeframes (forward, day-ahead, intraday and balancing) and the level of competition and market access conditions are sufficiently homogeneous and do not introduce undue discrimination. Yet, small bidding zones may pose more problems in terms of market liquidity and market power compared to larger ones and, for this reason, a bidding zone review process, where needed, should prioritize merger rather than splitting of existing bidding zones, and should be complemented by measures supporting investments in transmission capacity.

**3) Do you deem that the current bidding zones configuration allows for an optimal use of existing transmission infrastructure or do you think that existing transmission infrastructure could be used more efficiently and how? Additionally, do you think that the configuration of bidding zones influences the effectiveness of flow-based capacity calculation and allocation?**

TSOs should be adequately incentivized to ensure the optimal use of transmission infrastructures through an adequate bidding zone configuration and efficient dispatching actions based on an economic merit order. Market participants usually do not have enough technical information on the functioning and management of the transmission network (e.g. topology of the network, the distribution of generation and load etc.) to thoroughly assess TSOs practices. Moreover, the flow-based capacity calculation method is still in a development phase and market



parties are consequently in a learning stage. Edison then considers that the link between bidding zones configuration and flow-based efficiency is a new issue to be properly assessed, though an accurate analysis will be possible only once its implementation is extended.

Therefore, it is important to improve the level of transparency concerning TSOs' practices, including re-dispatching and countertrading, in order for market participants and NRAs to have a clear picture on the procedures followed by TSOs in carrying out their dispatching activities. The adoption and implementation of Regulation 543/2013 UE<sup>6</sup> seems to go in the right direction by ensuring a proper level of transparency, even though NRAs should continue to closely monitor TSOs pushing them to keep an acceptable level of transparency on dispatching actions. For instance, the publication ENTSO-E Technical Report together with the ACER market report can contribute to increasing the understanding of the use of the existing transmission infrastructure and on the impacts of the current bidding zones configuration.

**4) How are you impacted by the current structure of bidding zones, especially in terms of potential discrimination (e.g. between internal and cross-zonal exchanges, among different categories of market participants, among market participants in different member states, etc.)? In particular, does the bidding zones configuration limit cross-border capacity to be offered for allocation? Does this have an impact on you?**

Please refer to the previous answers for the remarks on the impact of the current structure of Italian bidding zones in terms of potential discrimination between market participants, e.g. the case of market participants located in national virtual zones.

Concerning the impact of the current bidding zones configuration on cross-border capacity made available to allocation to market participants, we do not see significant issues, as far as the northern Italian borders are concerned, since the method to calculate NTC and ATC within the Pentalateral Agreement already takes

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<sup>6</sup> Regulation 543/2013 UE on submission and publication of data in electricity markets and amending Annex I to Regulation (EC) No 714/2009 of the European Parliament and of the Council



into account all the constraints (the nodal structure) of the Italian power system independently of the bidding zones configuration.

**5) Would a reconfiguration of bidding zones in the presence of EU-wide market coupling significantly influence the liquidity within the day-ahead and intraday market and in which way? What would be the impact on forward market liquidity and what are the available options to ensure or achieve liquidity in the forward market?**

A merger, even if only partial, of the current Italian bidding zones and the possibility of getting over the dualism between zonal selling price and the National Single Price (PUN) could have a positive effect in terms of liquidity of electricity markets in all timeframes. As explained before, these measures would widen the range of players fully active in the markets regardless their physical location, thus ensuring their access to the EU-wide market coupling mechanism.

The transition towards a single national price on day-ahead and intra-day market could have a positive impact also on forward market liquidity since the available hedging products are so far differentiated according to their price reference, i.e. the zonal selling prices or the National Single Price (PUN). Thus, the introduction of a unique day-ahead market price could contribute to boosting the availability of these products with a positive impact on the liquidity of forward markets.

These benefits are of course strictly related to an enlargement of existing bidding zones which should be then followed by a sufficient guarantee on the stability of the new configuration in order to facilitate hedging of forward electricity prices and offer the necessary degree of price stability to consumers.

**6) Are there sufficient possibilities to hedge electricity prices in the long term in the bidding zones you are active in? If not, what changes would be needed to ensure sufficient hedging opportunities? Are the transaction costs related to hedging significant or too high and how could they be reduced?**





The current structure of the Italian market (bidding zones, dual pricing etc.) imposes significant hedging costs to market participants. Besides the already mentioned benefits related to the merger of bidding zones, we believe that there is room for improvement of the hedging opportunities offered to market participants within the current market structure. For instance, the introduction of weekly CCC auctions, in addition to yearly and monthly auctions, would allow market participants to hedge against the risk of congestion costs closer to real time, when they can rely on more precise information on network constraints between bidding zones and better estimate possible price differentials. It is also of utmost importance to ensure transparency on auction timing and timely delivery of auction information.

More generally, we wish to reiterate that bidding zones should be stable to facilitate sufficient possibilities to hedge forward electricity prices and offer the required degree of price stability to consumers whereas a higher market liquidity and stable regulatory framework would contribute to further increasing hedging opportunities. The integration of existing bidding zones is indeed expected to improve market liquidity in both short term and forward markets, which should be accompanied with lower transaction costs and lower forward risks.

**7) Do you think that the current bidding zones configuration provides adequate price signals for investment in transmission and generation/consumption? Can you provide any concrete example or experience where price signals were/are inappropriate/appropriate for investment?**

A well designed bidding zone configuration should deliver correct investment signals to power generators, incentivizing them to locate new generation in areas with higher prices which reflect a lower availability of power supply.

Nevertheless, it should be taken into account that lengthy and burdensome authorization procedures, often managed at regional/local level, as well as problems of social acceptability of certain categories of investment, can result in considerable delays in the realization of the necessary infrastructures and in a suboptimal location of generation facilities. Investors could therefore be obliged to



locate investments where they obtain the related authorizations rather than where this would be economically efficient, while the entry into operation of production facilities may be considerably delayed after the emergence of price signals. Moreover, possible significant changes of market conditions and of the relevant regulatory framework (e.g. RES support schemes etc.) occurring during the time period necessary to accomplish the investment can lead to an alteration of the economic fundamentals which originally justified the investment decision, to the detriment of the overall security and efficiency of the electricity system.

This second picture well describes the situation of the Italian electricity market in the last decade where the localization of investments in new power generation capacity, both thermal and RES, was strongly driven by the availability of local/regional authorities to grant permits and authorizations rather than considering price signals and the physical structure of the transmission network. This situation has led to a suboptimal distribution of power generation across the national territory with subsequent restrictions of power generation both from thermal power plants and RES. At the same time, the current zonal configuration and market regulation has not been able to introduce sufficient incentives to investments in the transmission network to relieve the most congested nodes.

Generally speaking, price formation in bidding zones can be influenced by several factors beyond the generators' control whereas many other location factors (e.g. RES support schemes, existing power plant site, authorization procedures etc.) can be decisive for the final localization of power plants. Thus, the use of bidding zones to set investment incentives may result less effective than initially estimated.

**8) Is market power an important issue in the bidding zones you are active in? If so, how is it reflected and what are the consequences? What would need to be done to mitigate the market power in these zones? Which indicator would you suggest to measure market power taking into account that markets are interconnected?**

The market structure of bidding zones (i.e. the number of market participants, the available interconnection capacity with other bidding zones, internal congestions etc.) can pose issues related to market power. In particular intra-zonal and inter-



zonal congestions may facilitate the emergence of one or more “pivotal suppliers”, i.e. the suppliers whose capacity is necessary to serve the whole demand during specific hours, taking also into account the import capacity from adjacent bidding zones. These market participants have then the power to set market prices during the hours when they are “pivotal” even though this chance does not automatically imply their dominant positions in the concerned bidding area. Indeed, the dominant position of pivot suppliers, under competition law, actually depends on other conditions besides its ability to determine market price, e.g.:

- The market position of the supplier concerned in absolute term and compared with the other market participants.
- The share of demand covered by the market participants;
- The presence of market participants in the adjacent bidding areas.

As regards the measure of market power, we suggest the indicators used by the Italian Energy Regulatory Authority (AEEG) and Competition Authority (AGCM) in their assessment of the liberalization of energy markets<sup>7</sup>, i.e. the HHI index which measures the level of market concentration and the indicators aimed to assess the pivotal position of market participants. In our opinion, these indicators can be used for a good assessment of market power taking in due consideration the interrelations with adjacent bidding areas.

Therefore, a merger of existing bidding zones together with the resolution of internal congestions through investments in the transmission network can, in some cases, help decrease the number of pivotal generators within specific market areas reducing the opportunities of abuse of dominant position.

**9) As the reporting process (Activity 1 and Activity 2) will be followed by a review of bidding zones (Activity 4), stakeholders are also invited to provide some expectations about this process. Specifically, which parameters and assumptions should ENTSO-E consider in the review of bidding zones when defining scenarios (e.g. generation pattern, electricity prices) or alternative bidding zone configurations? Are there other aspects**

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<sup>7</sup> AGCM and AEEG “Indagine conoscitiva sullo stato della liberalizzazione dei settori dell’energia elettrica e del gas naturale (IC22)”, Annex to AEEG Resolution n. 19/05, February 9<sup>th</sup>, 2005.



**not explicitly considered in the draft CACM network code that should be taken into account and if so how to quantify their influence in terms of costs and benefits?**

TSOs should be required to provide all the technical information (e.g. information related to congestion management methods etc.) necessary for the NRAs' assessment of the actual efficiency of the current bidding zones configuration. Moreover, TSOs should use the TYNDP network and market scenarios to analyze the efficiency of the current bidding zones configuration in relation to the future management of the European electricity system.

When proposing alternative bidding zones configurations, TSOs should inform their actions taking into account the need to guarantee the level playing field to all market participants willing to participate in electricity markets, thus avoiding undue discrimination based for example on the location or the type of market participants. We believe that a wide participation in electricity markets can help improve market liquidity and can have a positive impact on market integration. In the Italian case, this could contribute to a progressive convergence of the Italian electricity prices with the ones of neighboring markets.

Moreover, as already highlighted, it is of utmost importance that TSOs ensure a sufficient level of transparency on the criteria used to take their dispatching decisions, to define bidding zones and to prioritize investments.

**10) In the process for redefining bidding zones configuration, what do you think are the most important factors that NRAs should consider? Do you have any other comments related to the questions raised or considerations provided in this consultation document?**

We believe that NRAs should concentrate their assessment on market efficiency, so any decision taken on bidding zones configuration should be aimed at strengthening competition, transparency and liquidity of energy markets.

NRAs should also pay utmost attention in monitoring TSOs' efforts for an effective cross-border cooperation and adequate investments in grid reinforcement and development which should be prioritized before taking any decision on the



splitting of bidding zones that may jeopardize market efficiency and integration with other national markets.

Concerning the possibility to enlarge existing bidding zones, NRAs should also take into account the medium and long-term benefits generated by this measure in terms of wider market participation and integration with neighboring areas together with more effective investment signals for the development of the transmission network. The analysis of NRAs should then be focused on the assessment of how these benefits can lead to a lasting decrease of system costs to the advantage of market participants and final customers.