

## EAI Response to ACER consultation on the influence of existing bidding zones on electricity markets

**Electricity Association of Ireland** 

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The Electricity Association of Ireland (EAI) is the trade association for the electricity industry on the island of Ireland, including generation, supply and distribution system operators. It is the local member of Eurelectric, the sector association representing the electricity industry at European level.

EAI aims to contribute to the development of a sustainable and competitive electricity market on the island of Ireland. We believe this will be achieved through cost-reflective pricing and a stable investment environment within a framework of best-practice regulatory governance.



#### **EXECUTIVE SUMMARY**

- The Electricity Association of Ireland (EAI) welcomes the opportunity to respond to ACER's consultation on the influence of existing bidding zones on electricity markets. Our comments are made primarily in the context of the Irish Single Electricity Market (SEM).
- The design of bidding zones is of particular relevance to the SEM, which merged the separate electricity markets/bidding zones of the Republic of Ireland and Northern Ireland in 2007.
- The general consensus for SEM among regulators and market participants is that, the benefits from the larger zone have outweighed the costs / inefficiencies that existed when under two separate markets/zones and this has been beneficial to consumers.
- It would be considered a retrospective step were SEM, re-configured into two (or more) zones as a
  result of any review conducted in the context of market integration. Such a move should only be
  countenanced following a rigorous cost-benefit analysis and impact assessment where other
  measures, including in particular the potential benefits of grid reinforcement and/or investments, to
  alleviate or facilitate resolve of the issues have proven insufficient.
- It is our belief that splitting zones should not be considered as a means to addressing the issue of transmission congestion on the island of Ireland, as this should be dealt with through the appropriate infrastructure investment. Furthermore zones should not be split in order to create what would be temporary price signals for generation investment, which is in effect either imposing a permanent fix to a temporary problem or would lead to a continuous reconfiguration of zones with the consequent instability of investment conditions.
- Possible benefits that may be gained from increasing the size of bidding zones as part of this process would be reliant on there being sufficient and effective/ operating interconnection between SEM and GB for example. However, any such enlargement must be justified by both a robust cost benefit analysis and impact assessment.

#### Detailed Response to queries raised in the consultation paper

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?

Regular re-configurations of bidding zones would lead to uncertainty for market participants and could lead to withheld investments and reduced liquidity in forward markets.

EAI does not consider the redefinition of bidding zones on a regular basis to be a viable long term solution to dealing with transmission congestion and/or loop flows (in this case the redefinition would presumably be to reduce the size of the zone). Where transmission congestion has been identified, appropriate steps should be taken to ensure the appropriate infrastructure investment takes place as the long term solution, provided there is a positive cost/benefit signal for doing so (taking into account the trade-offs between transmission investment and redispatch).

Until such a time as a positive cost-benefit signal is demonstrated, it is appropriate that redispatching actions should continue with TSOs incentivised to minimise the costs of such actions for consumers. The EAI therefore urges ACER to take such issues into consideration when determining whether a bidding zone re-configuration would be the most economical course of action while at the same time being able to preserve the objective of market integration.

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?

The market (in this case we refer to the Single Electricity Market (SEM) in Ireland) is considered efficient, due to; it achieving least cost dispatch of generation; reducing costs for consumers; the existing network topology; rules for dispatching and re-dispatching plant that exist under the Trading and Settlement code and; the optimisation window used by the TSO in determining the least cost dispatch schedule.

It is therefore not simply a matter of the size of the bidding zone. There is a trade off in achieving overall market efficiency, the size of bidding zones (taking to the extreme, bidding zones could be broken down to nodal pricing to achieve locational pricing signals, reflecting transmission congestion etc. while minimising re-dispatch costs), and having a functioning market. There is no simple definitive solution to achieve overall market efficiency through the use of the appropriate bidding zones and each existing market must be assessed on its current merits.

In the case of the SEM two smaller zones were merged in order to gain benefits for consumers (from greater liquidity, reduced market power etc.) in the knowledge that there was congestion between the two zones, but with the expectation that planned network investments would mitigate that congestion in the future. The general consensus with SEM is that the benefits from the larger bidding zone have outweighed the inefficiencies of the separate markets and congestion management costs (that to this day still exist albeit with plans in place for their removal). The EAI considers that a move to smaller zones on the island of Ireland would be a backward step and not in the interests of market participants or consumers.

Given that the SEM is still (relatively speaking) a small bidding zone (when compared with neighbouring regions), there is a possibility that increasing the size of the zone may achieve additional benefits, but this is reliant on there being sufficient effective interconnection between SEM and neighbouring bidding zones. Together with such investment, in order to gain potential benefits in terms of reduced market power, and forward liquidity that enlargement might bring, a robust CBA and an impact assessment would need to be carried out to justify this from generation, supply and consumer perspectives. EAI would therefore prefer a focus, in the first instance, by policy makers and regulators on improving further the synergies between the Republic and Northern Ireland. This can be achieved not least by delivering the intended grid connection between the two jurisdictions.

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?

EAI encourages a focus on improving synergies in the current SEM zone in the first instance - a second transmission line between the Republic and Northern Ireland is anticipated to occur in the short term which should increase the efficiency in trading outcomes on the island. EAI strongly believes that the build of this interconnector as planned in the near term would increase the optimisation of the transmission infrastructure on the island.

Given that the SEM is located on an island with limited interconnection capacity and with a relative zone size already much smaller than many other zones in Europe, we do not believe that changing (i.e. reducing) the zone configuration would lead to a more optimal outcome. Additionally market design measures currently in place within SEM deal effectively with market power concerns within this relatively small zone. While there may be a case for expanding the size of the zone to achieve benefits such as reduced market power, greater liquidity, reduced remedial actions it is necessary that sufficient interconnection exists with GB which requires the appropriate investment in such infrastructure. 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?

The SEM is a single bidding zone that interfaces with the single bidding zone of GB via two sub-sea interconnectors. The current bidding zone configuration does not limit cross border capacity offered, (a single bidding zone into another single bidding zone.) Market participants are therefore not impacted by the current bidding zone structure in terms of potential discrimination.

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?

The on-going integration of the European day-ahead and intraday markets is an important building block for the achievement of the Internal Energy Market. Possible reconfigurations of bidding zones could seriously hurt and delay this process. Grid investment is considered the primary solution to resolve congestion issues and would also assist in increasing liquidity within and subsequently between markets.

However, in the case of the DA and ID markets, for the SEM:

- Reducing the size of the bidding zone would reduce liquidity running contrary to the objectives of the Internal Energy Market
- Enlarging the bidding zone may improve liquidity for SEM participants (however it is likely increased liquidity would be off-set by transmission congestion across the islands and a resultant increase in redispatch)

In the case of the Forward market for the SEM the same considerations that apply for the DA and ID markets apply including the reduction of forwards liquidity if zones are split.

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?

Fundamentally, bidding zones should be stable to facilitate sufficient possibilities to hedge electricity prices. In the case of the SEM a combination of mandated (volumes and prices mandated by regulators) and nonmandated forward contracts are offered to market participants by incumbent operators which has improved SEM liquidity. Any decision to split bidding zones would lead to a deterioration of hedging possibilities and thus weaken the market. Reduced liquidity also increases hedging transaction costs as is currently evident in markets across Europe.

# 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?

As noted above the decision was made to merge the two electricity markets of Northern Ireland and the Republic of Ireland in the knowledge that transmission investment in planning would address the issue of congestion within the merged zone. Transmission investments should be carried out on the basis of a cost-benefit analysis and not on price signals alone. Within bidding zones, related redispatch measures result in costs attributable to specific lines, which can in turn help to identify new grid investments. Consequently, a significant number of redispatch actions related to a specific transmission line provides an adequate signal to reinforce / invest in new infrastructure. Between bidding zones, the congestion income must primarily be used for remedial measures or grid investments according to the EU Cross-Border Regulation. This obligation must be enforced where necessary.

In addition, EAI believes that setting incentives for investments in generation through the reconfiguration of bidding zones is not effective (ultimately, if taken to its extreme, this leads to nodal/locational pricing). Price formation in bidding zones is influenced by a number of factors beyond the generator's sphere of influence (investments in grid reinforcement or generation assets). Decisions in this sphere on the part of any third parties result in unforeseeable movements of price levels. In contrast, other location factors like the proximity to harbours, the use of existing power plant sites and the availability of cooling water are much more decisive criteria for plant localisation and have permanence to them not related to third party actions over which investors have little control.

The most important prerequisite for setting effective price signals in generation is that these price signals are reliable in the long-run and do not succumb to unanticipated changes in the future; because investments in generation are long-term oriented. In this context bidding zones and their possible reshaping in the future constitute an additional risk factor for investors.

Finally, the joining of the Republic and Northern Ireland zones in SEM has allowed for the exploitation of synergies particularly in the area of capacity surpluses. If the zone was reduced, this would likely result in overcapacity in Northern Ireland while some capacity in the Republic would not be made use of. Such an outcome would run contrary to the objectives of regional market integration.

EAI would encourage the commitment from regulators to existing bidding zones, focusing first on improving the interaction between the Republic and Northern Ireland particularly with regard grid reinforcement and new build (the latter which is planned in the near term) with proposals for enlargement only being considered pursuant to a robust CBA and impact assessment.

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 implementation of the SEM addressed (at least in part) market power concerns on the island of Ireland (by merging two bidding zones with two incumbents present in each). Additional Market Power considerations are also an important function of the SEM trading rules which deals with the issue by mandating the offering of forward contracts on incumbents, bidding controls on market participants in the spot market and affording visibility of trades to market monitors as well as market participants via the gross mandatory pool.

Regulatory interventions to address market power issues are not ideal, but they have proven necessary in the case of the SEM. While the appropriate investment in SEM-GB interconnection alongside integrated forward, day-ahead, intraday and balancing markets, could result in reduced market power concerns, no single indicator is sufficient as a measure (as it can exist even for the smallest generator behind a congested transmission line). Therefore ensuring sufficient infrastructure investment and implementation of the internal market are important to improving market power issues, and this should be where policy makers and regulators focus over the coming years should lie.

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 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?

Only after grid development has been proven an insufficient solution to congestion issues within a particular zone, should reconfiguration be considered. ENTSO-E should ensure that any review of zonal configuration should consider a full impact assessment taking account of the following:

- Geographical factors
- Existing zonal configuration
- Network topology and planned network investment
- Cross border interconnection
- Impact on liquidity and existing contracts
- Costs versus benefits of zone reconfiguration (investment costs vs. savings in re-dispatch costs)
- Stability and investment risk
- TSO incentives
- The objective of sharing competencies across regions envisaged by the EU Target Model/Market Integration (e.g. surplus capacities, technological advantages)

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?

In the first instance, EAI believes that congestion issues on the island should be dealt with by grid reinforcement and new grid. If zone reconfiguration is subsequently considered necessary to investigate, the most important factors that NRAs should consider relate to the cost and benefits from zone reconfiguration in the short term from generation, supply and consumer perspectives as well as the impact on long term investment decisions.

Furthermore, in the context of market integration where there is an objective to avail of efficiencies from natural competencies in different member states, e.g. capacity surpluses, different technologies' advantages (e.g. wind etc.), splitting bidding zones could jeopardise the sharing of these competencies. What is actually required is investment in more interconnection between jurisdictions to allow for the sharing of surpluses otherwise, one might see an overcapacity in two bordering areas. The price of redispatching or balancing needs to send the appropriate economic signal to build the required infrastructure – the problem is TSOs are not incentivised to take notice of such signals and build the required infrastructure and such incentives are intrinsic to achievement of required infrastructure development. EAI urges ACER to take such issues into consideration when determining whether a bidding zone re-configuration would be more economical while at the same time being able to preserve the objective of market integration as mentioned earlier in this paragraph.



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