Energy for generations

ESB GT's response to

Call for Comments on the EY Review of the Performance of the SEM CRM

(Ref: SEM-22-054)

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1. EXECUTIVE SUMMARY

ESB Generation and Trading (ESB GT) welcomes the opportunity to comment on the recommendations from the EY Review of the CRM under consideration by the SEM Committee.

Given it is almost five years since the inaugural CRM auction process was held a review of the overall effectiveness of CRM is timely. The EY review offers the opportunity to identify changes to the current arrangement that would build on its strengths while remediating any weakness identified. This is particularly important in the context of the pressing security of supply concerns but also importantly in terms of the current dynamics of the market – where project consenting is taking extended periods of time, supply chains for equipment are particularly challenged, equipment prices are rising rapidly, and project developers are facing significant costs and risks in delivering capacity.

1.1 EY CRM Review

ESB GT welcomes many of the findings of the report. ESB GT also notes that market participants and potential investors across the industry were not afforded an opportunity to contribute to the framing of the terms of reference for EY's review.

The EY Review of the CRM arrangements has been limited to being a desk top study with very limited involvement of the broader industry. ESB GT believes a broader process involving industry would have provided a more rounded view of the issues affecting the current arrangements, how they have arisen and what can be done to improve effectiveness of the CRM arrangement in delivering security of supply at best value in the long term.

The CRM arrangements are a key component of the wider ISEM arrangements, whose role in retaining existing dispatchable generation and attracting new generation to the market will only increase as the level of zero marginal cost renewable generation supported through out of market arrangements continues to increase in the period to 2030.

In ESB GT's view the fundamental structure underlying the current CRM arrangements can deliver the required investment to ensure security of supply. However, the ability of the CRM

arrangements to sufficiently counter the challenges being faced by the system and support the maintenance of security of supply has been undermined to date in two key areas, price discovery and sending a consistent signal that new entry is required.

The EY review states that the impact of regulatory intervention in the market through the application of price caps has been to limit price discovery and to increase the risk of existing plants being unable to recover their ongoing fixed costs. EY go on to propose a more proportionate approach which would seek to focus bidding restrictions on exceptional cases either by raising the ECPC or through making USPC applications approved by default except where there is material evidence to warrant intervention.

ESB GT strongly agrees with EY's proposal and believes the current level of regulatory intervention is limiting the market's ability to determine the value of capacity and blocking the price signal required to allow the market to redress the forecast capacity deficit. ESB GT proposes that the remedies identified by EY to allow the value of capacity to be revealed be consulted upon with a view to implementation in the next T-4 auction process.

1.2 CRM Qualification Criteria

ESB GT also believes that, at least in part, the forecast capacity deficit issues that are currently being seen in SEM are an unintended consequence of the approach to the transition from the previous SEM arrangements. The related period of market uncertainty resulted in a hiatus in new capacity project development. This resulted in a subsequent overcorrection in policy which sought to expedite the development of new projects through the approach adopted for connection offers that largely disapplies the application of qualification criteria to the CRM arrangements for new entrants in Ireland. This reduced level of qualification criteria has increased the exposure of the market to non-delivery risk due to third-party delays during project implementation.

In ESB GT's view the best approach to mitigating this non-delivery risk would be to reinstate the qualification requirements as set out in the CMC but amend connection policy so that any generation project with a sufficiently high de-rating factor that achieves planning consent can immediately apply for a connection offer from the relevant System Operator. This proposal

should be applied in addition to the adjustment to the capacity requirement to reflect an expected likelihood of non-delivery as proposed by EY.

ESB GT agrees with EY's assessment on page 39 of their review that:

"A more permissive approach to extension applications could have secured capacity sooner and at lower cost to consumers"

ESB GT welcomes EY findings in relation to the treatment of developer applications for extensions of time on specific deadlines.

1.3 Adequacy Standard

ESB GT is disappointed that the SEM Committee have seemingly discounted EY's recommendation that the adequacy standard applied in Ireland be tightened to align with other European markets or as an interim measure align to the tighter standard applied in Northern Ireland. In addition, ESB GT has, under Appendix A, made some proposals that we believe can be enacted immediately and would improve market efficiency.

1.4 Key Issues

In summary ESB GT are:

- Supportive of quite a number of the recommendations within the review as detailed under Section 4 of this response.
- Concerned that the scope of the review did not facilitate an opportunity for the broader industry to contribute at the report stage. This was a lost opportunity to develop a broader report for consultation which could have identified additional causal factors and potential solutions.
- Of the view that the market is not currently configured appropriately to deliver new capacity because:
    - There are inadequate price signals in the market for both new and existing plant given the risks within the market. Key issues here are the levels at which the ECPC, USPC etc are set but also the lack of price indexation over the contract period.

- The market is not providing clear and consistent signals to invest over an extended period – capacity volumes being sought in the market should be consistent for extended periods to give markets confidence.
- There is a lack of clarity on how the DS3 market will operate - interventions in DS3 markets reducing incomes for recently built assets and new assets are a negative signal to investment in the capacity market.

1.5 Structure of Response

In Section 2 ESB GT's concerns with the case study included within the EY CRM review are set out. Section 3 details ESB GT's principal concerns with the current CRM arrangements and proposals to address them. Section 4 addresses the EY recommendations that are under consideration by the SEM Committee. Under Appendix A are a set of additional amendments to the CRM arrangements that ESB GT believe will improve the market efficiency.

2. THE EY REVIEW – CASE STUDY

A case study was included in the review which relates to ESB GT projects. While the concern about industry input to the review has already been highlighted, ESB GT is disappointed that there was no engagement by EY with ESB GT when specifically citing ESB GT as a case study. Commentary has been included in the review, which has not been confirmed with ESB GT. In particular the statement on Page 40:

- "Performance securities were not high enough to prevent ESB from making a financial gain from terminating their new-build capacity agreements and then re-contracting at a higher price for a subsequent delivery year."

The statement is not an accurate or fair reflection of the facts in terms of ESB GT's intentions and actions or the position of ESB GT at any point.

Equally, ESB GT is disappointed that the SEM Committee have published this review, including this statement, without caveat or engagement with ESB GT to seek input or allow response.

The conclusions set out in the review in relation to the case study and ESB GT's position on same highlights the importance of engaging with relevant stakeholders to avoid forming an inaccurate perspective. The counterfactual to ESB GT bringing the aero derivative units back to the T-3 2024/25 auction would have been a higher shortfall in the capacity awarded for the Ireland and Greater Dublin locational constraint areas with higher risk to the security of supply as a result.

ESB GT agrees with EY's assessment on page 39 of their review that:

"A more permissive approach to extension applications could have secured capacity sooner and at lower cost to consumers"

ESB GT welcomes EY identifying that the customer's interest has not been best served in the approach adopted by the CRU to date in their determinations on whether to grant extension applications. This is particularly the case where the qualification criteria as a result of instructions issued to the System Operators by the CRU increases the third-party risk within a given project.

3. ESB GT PRINCIPAL CONCERNS WITH CRM ARRANGEMENTS

In ESB GT's view the fundamental structure underlying the current CRM arrangements can deliver the required investment to ensure security of supply. However, the ability of the CRM arrangements to sufficiently counter the challenges being faced by the system to support the maintenance of security of supply has been challenged in two key areas, price discovery and sending a consistent signal that new entry is required.

3.1 Inadequate Price Signals

In 2014 ISEM high level design decision paper (SEM_14_085a), two of the key benefits that the ISEM design was assessed by the SEM Committee as being best placed to deliver were security of supply and establishing a level playing field for competition to flourish. The HLD specified that the CRM would be settled on a pay as cleared basis so that all successful bidders would receive the same price.

In order to retain and attract investment from both existing participants and new entrants the CRM arrangements must be able to signal scarcity in the supply of capacity through the price at which auctions are cleared, and these prices should not be dampened. As a result of the level at which price caps have been set within in the auction processes the value of capacity has not been revealed to the wider market. The application of Local Capacity Constraint Areas (LCCAs) and related pre-qualification requirements exemptions have fractured the market, reducing liquidity and as a result limited competition.

The application of price caps and LCCAs has dulled, and confused price signals and the market is now in a stage of playing catch-up.

The nature of developing a new generation project requires a significant commitment in terms of time and resources, for a price signal to be effective in attracting new projects it needs to be clear and persistent for a sufficient period to allow the market to respond. For clarity, this period is in advance of the auction process where the resultant candidate projects would be contracted. Dulling and confusing the price signal coming from the capacity market through the application of price caps and applying LCCAs which divide the market will limit rather than foster the

competition required to deliver long term security of supply at best value as envisioned under the ISEM HLD.

Within the EY review it is noted that several auctions held to date were not sufficiently subscribed, with some auctions not achieving the de-rated capacity requirement in LCCAs. Separately, EY notes that the volume-weighted average auction clearing of the auctions covered in the review is 47,405€/MW per year and they chart the flat profile of auction clearing prices over the period under review. Increasing demand and the related expected tightening of the capacity margin over the course of the capacity auctions under review and the evidence of the flat clearing price observed demonstrates the absence of a high price signal from the capacity auction to incentivise the new capacity that is required.

This lack of price signal for new capacity is, at least in part, due to the approach taken to the application of LCCAs within the auction process. While new entry has been contracted within the LCCAs this does not offer a stable price signal to the wider market. And as the definition of local constraint areas and related capacity requirements are set on an auction-by-auction basis project developers face the risk that any project that they bring to market will be outside the local constraint areas defined for that auction.

ESB GT believes that the impact of LCCAs on the CRM should not negatively impact on capacity providers that have cleared in the unconstrained auction. An arrangement is required that would provide compensation to any projects that are cleared as part of the unconstrained auction but then not contracted because of the resolution of a LCCA requirement in the auction process. This would allow the cost of transmission system constraints to be transparently identified and form the basis of appropriate incentive structures to encourage the required re-enforcements be deployed in a timely manner.

The EY review notes that the impact of regulatory intervention in the market through the application of price caps has been to limit price discovery and to increase the risk of existing plants being unable to recover their ongoing fixed costs. EY go on to propose a more proportionate approach which would seek to focus bidding restrictions on exceptional cases

either by raising the ECPC or through making USPC applications approved by default except where there is material evidence to warrant regulatory intervention.

Methods exist, such as applied in the GB Capacity Market, where an ex-post review process can be applied to submitted bids that are considered anomalous to protect against any risk of market abuse while allowing the value of capacity to be revealed.

ESB GT agrees with EY that the price caps need to be amended as they perversely increase the risk of inefficient exit.

ESB GT is disappointed that in their summary of proposed remedies to address the low level of subscription seen in several auctions EY failed to propose measure to allow improved price discovery in future auctions. ESB GT proposes that the remedies identified by EY to allow the value of capacity to be revealed be consulted upon with a view to implementation in the next T-4 auction process.

3.2 Consistency of Market Volume Signal

As highlighted in the EY report there has been significant year on year volatility in the capacity requirement with the capacity auctions held to date. In the T-4 process for the capacity periods 2024/25 and 2025/26 there was a significant reduction (approx. 400MW) from the capacity requirements for the T-4 process for the preceding capacity periods of 2022/23 and 2023/24. The indicative capacity requirement for the T-4 process of the capacity period 2026/27 shows an increase of approx. 400MW.

While ESB GT recognises the challenge in forecasting demand growth there is a need for year-on-year consistency within the capacity auction process to minimise the risk of inefficient exit and to signal the requirement for new capacity. In forming the auction capacity requirement ESB GT believes the wider policy context of the decarbonisation of the transport and heat sectors through electrification should be considered. Not only as part of demand forecasting but also by also recognising the requirement of security of supply to be maintained to support wide scale public adoption of related measures.

In recognition of this and the asymmetry of the risks resulting from capacity requirement forecast errors, ESB GT proposes that for future capacity processes the requirement would be set to the

greater of the forecast capacity requirement calculated through the existing process and the requirement applied in the preceding auction.

ESB GT believes that the asymmetry of the risk resulting from over/under forecasting capacity requirement needs to be recognised in the auction processes.

3.3 Interaction with DS3 Market

While not directly related to the EY CRM Review, ESB GT notes that in a recent consultation the TSOs have proposed a range of measures to ensure expenditure on DS3 system services are held below the regulatory cap of €235m. Each of the options proposed would see the DS3 tariff rates paid to service providers fall significantly. ESB GT strongly believes that before any changes to the DS3 tariff rates are implemented the analysis that underpinned the determination of the €235m expenditure cap in the 2014 should be replicated based the system service requirements of the TSOs out to 2030. Cutting the DS3 tariff rates to adhere to an expenditure cap that is outdated will significantly undermine confidence in the services market with spill over impacts on the capacity market.

4. ESB GT COMMENTS ON EY RECOMMENDATIONS UNDER SEMC CONSIDERATION

Detailed below are ESB GT's views on the recommendations from the EY CRM review under consideration by the SEM Committee:

> Greater transparency of target setting through a panel of technical experts (PTE) assessment of Eirgrid recommendations, with findings published, and explanation of process by which TSO forecasts are translated to Target Volume to procure in capacity auctions.

ESB GT would welcome greater transparency in the capacity target setting process for both the auction demand curve and the local capacity constraints, the lack of detail on the adjustments to the capacity requirement targets made prior to the auction creates ambiguity and increased exposure to participants.

Under section F.3 of the CMC the TSOs are required to forecast the capacity requirement in respect of a given capacity year using an approved methodology. The RAs then apply a set of adjustments to this capacity requirement to define part of the demand curve for a given capacity auction. Section F.3 of the CMC sets out that the RAs adjustment shall reflect existing awarded capacity, an allowance for changes in the forecast requirement, where deemed appropriate, and an allowance for capacity requirement to be withheld for later auctions and an allowance for non-participant capacity.

ESB GT would welcome additional clarity on the methodologies applied by the RAs in forming these adjustments, how these methodologies have been changed over time and the resulting capacity adjustment values applied in each auction process. Also, whether there are any additional adjustments that have been included by the RAs and the basis for their calculation.

Similarly, section F.4 of the CMC requires that the System Operators undertake analysis to calculate the locational capacity constraint required quantities. The RAs having adjusted the capacity requirement for the auction demand curve may modify the quantity calculated by the System Operators for one or more of the locational capacity constraints.

ESB GT would welcome additional clarity on whether such adjustments have been specified by the RAs, the methodology applied to determine any adjustment to the locational capacity constraint requirements, how these methodologies have been changed over time and the resulting adjustments to the required quantities, if any.

The current lack of clarity in the capacity target setting and the approach to locational capacity constraints are acting to undermine confidence in the CRM arrangements.

More explicit accounting of non-delivery in setting target volume, with two options for implementation:

Introduce process to monitor progress reports for early indication of non-delivery.

OR

Apply a standardised adjustment to the capacity requirement to account for the likelihood of non-delivery and review inputs to adjustment % periodically.

ESB GT welcomes the proposal to introduce a process to monitor progress reports for early indications of non-delivery risk to give assurance to the market. In addition to the proposal to apply a standardised parameter to adjust the target capacity requirement to account for non-delivery, the qualification requirements as set out in the CMC should be given effect to reduce the risk of non-delivery of new capacity.

Increase lead-time to at least 4 years from the announcement of auction results to start of the relevant capacity delivery year.

ESB GT supports the proposal to increase the lead time for T-4 auctions to at least 4 years from the announcement of the auction results to the start of the relevant capacity delivery year. The CMC allows T-4 auctions to be held anywhere between 42 months (3 years and 6 months) and 54 months (4 years and 6 months) ahead of delivery. However, each T-4 auction to date has been held closer to the minimum of this range rather than the maximum. Consideration should be given to increasing the maximum timeframe to 60 months. ESB GT recognises that increasing the lead time for T-4 auctions would increase forecasting uncertainty but considers that the improved deliverability of resulting new entry projects would outweigh this risk.

There is a considerable amount of planning required for market participants in qualifying for each capacity auction. The absence of an indicative auction schedule can negatively impact on efficient planning and increase the possibility of issues arising during qualification. ESB GT proposes the development of an indicative timetable of the upcoming T-4 and T-1 auctions over a multiple year horizon to be published and updated on at least an annual basis.

Requirement of new prospective capacity to have all necessary consents to prequalify for auction.

ESB GT believes that the qualification requirements as set out in the CMC should be given effect to reduce the risk of non-delivery of new capacity.

Increase performance securities following the auction

ESB GT does not support an increase in performance security. EY demonstrated that the current performance security applied in SEM is in-line with or higher than other European capacity auctions and concluded that the level of SEM performance securities are not the principal reason for the non-delivery of new capacity seen to date. ESB GT believes that where the termination of a capacity contract has resulted from a third-party issue outside of control of the developer termination charges should be waived.

A permissive approach to requests for extensions from new build projects

ESB GT support the proposal that a more permissive approach to requests for extensions be adopted by the RA's for those projects that are contracted under a capacity auction process where a regulatory instruction was issued to the System Operators as these projects have a higher exposure to the risk of third-party delays. Further, ESB GT proposes that where there are delays in securing planning consents or environmental licensing because of third-party delays outside of the developer's control, provision should be made to allow the contract start date and long stop date to be amended to provide a day for day extension so as to avoid contract erosion.

However, to assure the market of consistency of approach to requests for extensions or changes to contract start and long stop dates all decisions on such matters should be published alongside the rationale applied in their determination.

Recalibrating the administrative scarcity pricing function so BM pricing better reflects market scarcity and causes a higher frequency of periods with prices above the RO strike price

ESB GT notes that the issue of administered scarcity pricing, how it is triggered and whether it should be made more sensitive and align more closely with triggers for system alerts was the subject of a SEM Committee discussion paper as recently as May 2021 (SEM-21-042). In a subsequent information paper published in November 2021 (SEM-21-083), the SEMC stated that they did not intend to proceed with changes to the administered scarcity pricing arrangement in SEM but were minded to review this area in future.

ESB GT notes that since the beginning of the revised market arrangement there have been no scarcity events where there has been a lack of reserve provision and as a result administered scarcity pricing has not been triggered. There is a clear need for consistency in the approach to the definition of the auction capacity requirement and the definition of scarcity in delivery. Where the auction capacity requirement is derived on forecast demand plus an allowance for reserve requirements, the subsequent definition of scarcity should be aligned to this approach.

ESB GT believes that the EY report mistakenly conflates the issuance of an amber alert with a capacity scarcity event, an amber alert can result from a wide range of circumstances many of which are not linked to a scarcity of capacity. Any changes to the calibration of the administered scarcity pricing mechanism should be considered only where system alerts occurred as a result of shortfall of available contracted capacity, in addition the impact of any changes should be reflected in the level of capacity targeted in the capacity auction process.

ESB GT notes that in a recent consultation on the application of RO non-performance difference charges to available in-merit units (SEM-22-030), the SEM Committee stated their intention to re-examine the operation of administered scarcity pricing. ESBGT looks forward to engaging with the SEM Committee on any consultation that results from this work. But any changes to the operation of administered scarcity pricing should only be applied to capacity periods that have yet to be contracted. Amendments to the administered scarcity pricing mechanism will directly impact the level of risk that capacity providers hold which capacity providers need to be able to reflect in their auction bids.

Refining the principle of flagging interconnector actions from SEM BM prices to drive prices that are more likely to exceed the RO strike price and more reflective of the value of generation.

EY suggest in their review that the incentive on RO holders to not bid above the RO strike is perverse and is a result of market concentration. ESB GT disagrees with this assessment and believes that EY have failed to recognise that the risk appetite of RO holders is reflected in their bidding behaviour.

RO holders determining that the balance of their economic interest is to bid below the RO strike price results in a disconnect between the market conditions in SEM and BETTA. In BETTA there has been an observed tendency for market participants to respond to scarcity by increasing their bid prices to capture scarcity rents. Given this disconnect, care is required to ensure that the flagging of TSO interconnector actions is reflective of the nature of that action, that being either energy only or non-energy. ESB GT is conscious that it is possible, if unlikely, for interconnector

actions to be energy only but would be happy to work towards developing a methodology that would reliably identify in-merit energy only interconnector actions and include this subset of interconnector actions within BM price formation.

Greater monitoring of technology performance in stress events to inform future de-rating factor setting

ESB GT understands that the current approach to the calculation of derating factors undertaken by the System Operators looks to evaluate the contribution of different technologies to the system generation adequacy on a probabilistic basis across a set of demand/capacity portfolio scenarios. One of the principal inputs to these calculations are the availability of units over the previous five-year period, accounting for forced outage rates, scheduled outages and ambient factors.

ESB GT is concerned that linking the calculation of de-rating factors to technology performance in a small number of stress events could result in a high degree of volatility in the resulting de-rating factors. Analysis to understand the impact of any such changes to the calculation of derating factors in terms of their overall level and consistency should be undertaken before the implementation of any such revised approach.

Applying administrative penalties for non-delivery to plants in specific locations where an amber alert has been raised and a plant is unavailable

ESB GT considers that the localisation of administrative penalties for non-delivery would be a fundamental change to the CRM design and would significantly change the level of risk facing RO holders. As such were it deemed appropriate to adopt this approach it should only be applied on a ‘going forward’ basis, that being to capacity periods that have not yet been contracted, to allow participants to reflect this higher level of risk in their capacity bids.

Implement a baseline methodology for assessing the contribution of DSUs in reducing energy demand

ESB GT supports proposals that allow different technologies to compete on a level playing field.

Pay DSUs for negative generation up to the RO strike price

ESB GT supports proposals that allow different technologies to compete on a level playing field.

Determine energy-only stack within balancing market and compensate generators if instructed not to run for system reasons.

ESB GT notes that the applicability of RO non-performance difference charges to available in-merit units was the subject of a SEM Committee consultation published in July 2022 (SEM-22-030) and awaits the outcome of this consultation process.

5. APPENDIX A: ADDITIONAL CRM AMENDMENTS

5.1 Refurbishment cost spread over three years

Current rules force a generator to spread overhaul costs over a number of auctions/capacity years. The number of auctions that these costs are to be spread is dependent on the RAs' decision. This places too much risk on generators and leaves the market open to inefficient exit of generating units increasing the costs to consumers if they incur new unit development costs. Considering the potential security of supply concerns that can arise from forcing generators to spread overhaul costs over a number of auctions and the risk of not being awarded a contract in all auctions, participants should be allowed to recover all of their overhaul costs in one year rather than the cost being spread over three auction periods. This will reduce the risk of under recovery and any subsequent consumer risk from a disorderly exit.

5.2 Unit bid submission

In light of the number of modifications on addressing the combining of capacity market units, shared costs risk is a real concern for capacity providers with shared assets that still has not been rectified. While the recent modification CMC_06_22 may be a step in the right direction it still doesn't ensure the best outcome for the customer. ESB GT believes a change to the auction format to allow combinatorial bidding of units and their combinations can provide greater choice, cost recovery certainty, increased efficient market clearing and increased security of supply.

5.3 Contract Length

ESB GT agrees that providing longer-term revenue certainty could help ensure a more level playing field between technologies particularly the most capital-intensive technologies. A review of the contract length should be considered as lengthening the duration of capacity contracts would lower near term payments for the consumer and ensure that the capacity is available for longer.

Additionally, the termination of the first-year contract in the event of missing the start of the capacity year is a very penal position for generators and places a significant risk on the business case of the asset and delivering for the remaining part of the 10-year contract. ESB GT proposes a similar mechanism to that in RESS T&Cs, which allows the back end of the contract to be extended by a year "in the event of Force Majeure having been successfully claimed prior to

achieving Commercial Operation", should be applied to the CRM. Such a change would ensure assets that cannot deliver in the first year, through no fault of their own, are still incentivised to deliver the asset which should negate any security of supply concerns in subsequently held auctions and limit the security of supply risk to a single capacity year

5.4 Mothballing

Under the Grid Code plant are currently not allowed to mothball. If this had been allowed the units that exited the market from previous capacity auctions may still be available to solve the issue now being experienced. ESB GT proposes the decision relating to mothballing of plant be reconsidered especially for this period where there is a large number of new units trying to build in extremely challenging environments and existing assets which have been sent exit signals may still be needed. ESB GT believes there is a need to preserve the flexibility of retaining uncontracted assets in case of shortfalls in subsequent T-1 auctions for capacity years experiencing security of supply issues.

5.5 Reward for early delivery

In the context of the current capacity adequacy situation an incentive mechanism should be put in place to reward new capacity that is delivered early. It is proposed that contracted capacity which is delivered early would be able to receive their contracted capacity payment from the date of delivery rather than the start of the relevant capacity year.