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ESB Generation and Trading Response:

Capacity Remuneration Mechanism 202021 T-1 Capacity Auction and 202122 T-2 Capacity Auction – Parameters (SEM-19-010)

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Contents

1.	Intro	oduction	1
2.	Exe	cutive Summary	1
3.	Res	sponse to Consultation Questions	2
3	3.1	The final capacity requirement for the capacity year to be used in the capacity auction	2
3	3.2	Indicative Demand Curve	3
3	3.3	Existing Capacity Price Cap	3
3	3.4	Indicative Annual Capacity Payment Exchange Rate	9



1. INTRODUCTION

ESB Generation and Trading (GT) welcomes the opportunity to respond to the Capacity Remuneration Mechanism 2020/21 T-1 Capacity Auction and 2021/22 T-2 Capacity Auction – Parameters Consultation Paper (SEM-19-010). The purpose of this Consultation Paper is to consult on the auction parameters for the 2020/21 T-1 Capacity Auction and the 2021/22 T-2 Capacity Auction. It is proposed to use the same auction parameters for the two auctions.

ESB GT's response is set out in two sections; the first is an executive summary of ESB GT's response to the Consultation Paper and the second section lists ESB GT's response to the consultation questions.

2. EXECUTIVE SUMMARY

ESB GT would like to take this opportunity to once again raise its concern with the timetable for responses for these Auction Parameter Consultations¹. Considering the impact auction parameters can have on the clearing price, winner determination and thus the participants' financial future, ESB GT believes that this consultation should have been allocated a minimum of a six week consultation period. The SEM Committee's (SEMC) minded to position to reduce the Existing Capacity Price Cap (ECPC) is a substantial proposal that can have ramifications for all participants in the market and requires careful consideration with a greater consultation period and evidence. The previous shortened consultation timelines was accommodated by market participants due to the tight timelines during the ISEM implementation phase and the deadlines that were imposed upon the market. Considering there are no longer such tight timelines and market participants are now exposed to an un-forecasted amount of known issues in the Balancing Market, the minimum period of six weeks should be re-instated as the default period for consultations to reflect the better regulation and engagement commitments of the RAs.

As per our response to SEM-18-009, ESB GT believes a review of the previous auctions would have enabled the improvement of the CMC and efficiency of future auctions. Such a review/audit would have been extremely beneficial in identifying market participant's perspective of the workload and financial consequences due to the ECPC being set at 0.5 x Net Cone. The market perspective appears not to have been acknowledged in this Consultation Paper.

As discussed in previous ESB GT responses, ESB GT believes the current ECPC value of 0.5 times the Auction Price Cap is too low and needs to be revaluated². Therefore, ESB GT strongly disagrees with the SEMC's minded to position to reduce ECPC. The evidence used to support it appears to be based purely on the RAs workload and a very small subset of auctions for assessing market behaviour with little regard to the economic principles that underpinned the value, something that ESB GT had grave concerns with. Furthermore, the potential impact (including the unintended consequences) of reducing the ECPC does not appear to have been assessed at any level. The consultation period of four weeks has hindered ESB GTs ability to perform a full assessment of the impact of reducing the ECPC, however, in this response, ESB GT has tried to highlight the potential implications of the lower ECPC. The potential impact ranges from implications of the increased market distortion from the LRSA contracts, increased burden on participants, undermining of investor confidence, deviation from the previously consulted methodology, inaccurate modelling assumptions, potential price setting implications, unqualified impact of the new auction format with lower ECPC levels, and the treatment of DS3 revenues.

¹ ESB GWM's response to the SEM-18-009 T-1 Auction CY 2019/20 Parameters Consultation Paper

² In the T-1 CY 2018/19, there was 9 existing thermal units that either cleared above the ECPC or didn't clear at all. Of these 9 units, 4 units exited the market, 4 were given a side contract and 1 participated in the market with the awarded USPC. The percentage of plant that were given a side contract would raise questions whether the ECPC was too low or if the USPC process left the generating units with insufficient funds.



The SEMC's minded to position is potentially putting market participants in a perverse situation where they could have implemented a strategy for recovering investment costs through their offers in the first four transitional auctions but are now going to be potentially prevented from recovering those costs in the third and fourth transitional auctions because of the requirement to enter the exemption process which would treat the investment as a sunk cost and prevents it from being included in the calculation of NGFC (or potentially only allows a portion to be recovered). Such a perverse regulatory intervention that prevents commercial strategies from being effectively deployed under normal circumstances is not a reflection of a working and efficient market and as has previously been advised leads to unintended consequences and an increase in outside of the market contracts (LRSA).

Of the three elements for originally setting the ECPC at 0.5, as highlighted in section 3, the burden of excessive workload on market participants and RAs should not be the driving influence for determining or changing the ECPC value. To date, there has been no assessment of the workload placed upon participants and the RAs.

Considering the lack of detailed assessment or evidence provided in the Consultation Paper, the current SEMC proposal to reduce the ECPC from its current level of 0.5 times the APC appears to be a price setting exercise. The current ECPC and USPC process prohibits the inclusion of sunk costs and a potential cost for RO non-performance and difference payments that are outside of the control of generators (4 non-ASP events experienced in ISEM to date that have resulted in a significant payout from Generators (~€6million on the 24th of January alone)), something that ESB GT has stated are real costs that need to be included in the BNE, ECPC and USPC calculations. The SEMC's minded to position to reduce the ECPC appears to be an intervention to prevent an even greater number of generators from recovering this true cost that is required to make a generating unit whole. In the absence of any real information of market power concerns and a limited historical data set (2 data points; 2018/19 CRM auction and 2019/20 CRM auction), a reduction of the ECPC can only be viewed as the SEMC actively seeking to control participants auction bids rather than cultivating an auction than enables fair competition that creates a competitive auction clearing price with efficient exit/entry signals.

In summary, ESB GT considers the SEMC's minded to position to reduce the ECPC, based solely on the RAs workload, could have detrimental effects on investor confidence, solvency and viability of incumbents, and confidence in future regulatory governance.

3. RESPONSE TO CONSULTATION QUESTIONS

In this section ESB GT has listed its response to the questions in the Consultation Paper.

3.1 The final capacity requirement for the capacity year to be used in the capacity auction

ESB GT's response to this question is separated into two section; (a) the Locational Capacity Constraints Area Capacity Requirement and (b) the Auction Capacity Requirement.

The Capacity Market Code modification CMC_14_18 allowed the Regulatory Authorities to set the Locational Capacity Constraints to a value other than that proposed by the System Operators under paragraph F.4.1.5 and "shall give reasons in regards to any change which would be reflected in the Final Auction Information pack" (FAIP). In the recent T-4 Auction FAIP (FAIP2223T-4), section 2.4 Locational Capacity Constraints states that "the Regulatory Authorities have determined the final Locational Capacity Constraint Area (LCCA) minimum MWs to be employed in this Capacity auction. These include adjustments (where appropriate) associated with the CRM Reserves and Withholding decision made by the SEMC Committee in February 2019." It is unclear from this statement whether or not the RAs have used CMC F.4.1.5 to change the LCCA



values for the T-4 Auction. In the interest of transparency, consistency and impartiality, ESB GT suggests further clarification on what these adjustments are should be provided in all future FAIPs.

As per SEM-18-173, the SEM Committee decided "[f] or future T-4 capacity auctions the proposed level of reserves will be considered in the corresponding parameters consultation for each specific T-4 auction". Considering the auction format for the T-1 Capacity Year (CY) 2020/21 and T-2 CY 2021/22 is the same as the T-4, the breakdown of the capacity requirement for future auctions should be provided in either the Auction Parameter decisions or the FAIP. As it currently stands, the methodology for adjusting the capacity requirement could act as a barrier to encouraging new investment as it is unclear and unpredictable to market participants.

3.2 Indicative Demand Curve

ESB GT supports the RAs minded to position to implement a demand curve similar to the previous T-1 auctions. However, ESB GT requests greater clarity to be provided in FAIPs for the adjustments to the demand curve. In the T-4 auction FAIP (FAIP2223T-4), the construction of the auction demand curve is not clear about which volumes have been held back for the T-1 auction, demand forecast concerns and non-participating generation. The information on the adjustments for non-participating generation for the Final Demand Curve should be included in the FAIP or in the publication of the auction results. The provision of this information ensures impartiality for all Capacity Market parties especially considering the undesirable implications of the new auction format i.e. unhappy winners replaced with locational constrained units (an market design feature that ESB GT has commented on in the past and with which ESB GT continue to disagree with³).

ESB GT would like to take this opportunity to comment on the SEMC's decision⁴ to change the shape of the demand curve for the T-4 auctions. The SEMC have decided that the benefits of procuring capacity (under the assumption that it will be cheaper) in later auctions outweighs the increased development risk. This decision has now left the market open to not procuring the necessary capacity requirement and exposing generators to a greater commercial risk. This is another commercial risk (Unavoidable Future Investment costs, shared costs, exchange rate setting in FAIP (incompatible performance bonds and termination fees), RA modelling assumptions in exemption qualifications, changes to DS3 revenues) unnecessarily placed on generators that needs to be realised in the setting of the ECPC and Exception qualification process.

3.3 Existing Capacity Price Cap

ESB GT strongly disagrees with the SEMC's minded to position to reduce ECPC as it appears to be based purely on the RAs' workload and a very small subset of auction outcomes and assumed behaviours. In terms of reducing the ECPC, ESB GT does not believe the minded to position is proportionate as the risks or regulatory impact from such a move do not appear to have not been fully considered nor is it transparent. This minded to position appears to be more aligned with the traditional interventionist approach of having regulated outcomes rather than allowing the market to increase the efficiency of the capacity auctions⁵. ESB GT has provided a number of concerns about the impact the minded to position may have on market participants and also highlights why in fact the ECPC needs to be increased from its current 0.5 times the APC.

• The existing ECPC = 0.5xAPC is already creating too much of a burden on market participants.

³ ESB GWM's response to SEM-18-028

⁴ SEM-18-155 Capacity Remuneration Mechanism (CRM) Parameters for T-4 2022/23 Capacity Auction Decision Paper

⁵ ESB GWM's response to SEM-18-009 highlighted our concern that the current ECPC methodology was a creation of a regulated auction price rather than allowing the formation of a market drive price under competitive conditions in the CRM auctions>



The way in which the RAs consultants have developed the exemptions process, with the use of historic cost & revenue data as a means to assess future capacity requirements, the subjective recovery periods over which required investment can be recovered for different units and the application of continually changing modelling methodologies, has left an already significant burden on market participants. As a participant that has a large number of generation units participating on an annual basis this has forced a number of unforeseen changes that impact widely across our entire organisation in order to meet timelines set with no regard to the workload on the participants. Some examples of key processes impacted include:

- Annual generator financial submission formats and timelines have been severely impacted
 as these submission now form the basis of any application. This was decided without any
 engagement with participants as to how this impacts on an established existing process.
- Long Term Asset Planning has now been materially impacted by the discussion regarding recovery periods and allowable cost that have made investment approval and scheduling increasing difficult to manage.
- Generation unit revenue modelling for each individual participant is an increasingly difficult exercise in the new market arrangements. It has become increasingly impossible for a participant to develop strategies and model the outcomes when all decisions are based on the RAs model output. These interventions into the market mean that a participants modelling capability becomes irrelevant and more time and resources are spent attempting to replicate a changing set of RA modelling assumptions, chosen scenarios and averaging methodologies that have never been consulted upon.

The Capacity Market Code (CMC) currently does not allow for any appeal of the USPC and considering the iterative nature of the exception qualifications⁶, market participants are left exposed to applying for USPC for the wrong plant due to the lack of transparency on the assumptions employed during the determination of the exception qualifications. Taking this to its logical conclusion, the outcome would be to have all unit submissions as USPC candidates as the lack of transparency and governance (not codified in the CMC) creates uncertainty as to which units the RAs view as requiring a USPC.

· Implication of LRSA contracts

Without an impact assessment provided in the Consultation Paper, the lack of detail surrounding the existing Local Reserve Services Arrangement (LRSA) and the relatively short consultation period, ESB GT has been restricted in its ability to determine if the potential reduction in the ECPC will cause an even greater regulatory discrimination amongst market participants due to the CRU's awarding of a LRSA to some market participants. ESB GT is concerned that reducing the ECPC could further increase the regulatory derived competitive advantage LRSA holders possess (in simple terms for such participants their LRMC is covered by the LRSA whereas other participants have to recover any shortfall in their LRMC in the energy markets where this is not guaranteed as the market continues at the same time to use these same assets to accommodate a greater volume of subsidised zero marginal cost renewables plant) over a greater number of units thus placing more participants at a disadvantage in the energy markets.

⁶ SEM-18-024 CRM Exception Application and Opt-Out Notification Process for T-1 2019/20 Capacity Auction



Undermining of investor confidence (Treatment of sunk costs from T-1 auction)

The SEMC's minded to position is potentially putting market participants in a perverse situation where they could have implemented a strategy for recovering investment costs through their offers in the first four transitional auctions but are now going to be potentially prevented from recovering those costs in the third and fourth transitional auctions because of the requirement to enter the exemption process which would treat the investment as a sunk cost and prevents it from being included in the calculation of NGFC (or potentially only allows a portion to be recovered). Such a perverse regulatory intervention that prevents commercial strategies from being effectively deployed under normal circumstances is not a reflection of a working and efficient market and as has previously been advised leads to unintended consequences and an increase in outside of the market contracts (LRSA).

• Evidence for deviating from international benchmarks

As per this Consultation Paper, the rationale used to originally set the ECPC at 0.5 was that;

- 1) It was estimated that the vast majority of plant required to meet the Capacity Requirement could bid at its Net Going Forward Cost without needing to apply for a unit specific bid limit;
- 2) It is consistent with relevant international benchmarks⁷; and
- 3) It strikes an appropriate balance between the objectives of protecting consumers from the potential for bidders to exercise market power, and not placing an excessive workload on market participants and RAs from having to respectively submit and review significant volumes of USPC applications.

Considering all of the SEMC's previous international analysis⁸ and the importance of the ECPC, it is not proportional to make a decision to change the ECPC based on the workload placed on the RAs (point 3) alone. ESB GT is of the view that the SEMC would have considered the first two determining characteristics to carry greater economic weight when considering the argument for changing the ECPC. To reduce the ECPC would be to deviate from the internationally benchmarked⁹ Non-Fuel Operating Costs, Fixed and Variable Operating and Maintenance costs¹⁰ without any analysis having been performed or not having been made available. ESB GT would wish to see the new evidence used to support the deviation from the previous position in a consultation document with an appropriate regulatory impact assessment.

ESB GT believes, in the interest of transparency and clarity, that the SEMC should consult on a detailed methodology for the calculation of the ECPC as to base the ECPC purely on the RAs workload (it should be noted that no survey of market participants burden has been performed) appears to deviate away from the previously consulted on methodology¹¹.

Price setting on the basis of RA work load

Of the three elements for originally setting the ECPC at 0.5, as discussed above, the third which aims to manage the burden of excessive workload on market participants and RAs should not be

⁷ Values which ESB have suggested caution when using as well as the outstanding issue of non-recovery of sunk costs.

⁸ SEM-16-073

⁹ SEM-16-073

¹⁰ ESB GT's response to the consultation highlighted that this analysis needed to be viewed with a degree of caution due to currency issues and lack of other factors taken into account (plant age, unit availability etc).

¹¹ Figure 8: Setting the ECPC and unit specific bid limits SEM-16-073



the driving influence for setting the ECPC. To date, there has been no assessment of the workload placed upon participants.

Modelling assumptions.

From SEM-16-073, it could be viewed that the current approach for setting the ECPC is based more on the estimate of the NGFC of units than the RAs workload. As per SEM-16-073, the revenues for the NGFC calculation is determined via a PLEXOS model. Currently there is limited information published on the modelling assumptions used for the setting of the ECPC, Exemption Qualifications and PLEXOS model being developed for the significantly interrelated ISEM DAM and BM markets. ESB GT have responded to previous workshops on the potential limits of the PLEXOS model. Below is a list of the issues ESB GT believes exist with the current RA modelling for ECPC and Exemption Qualifications:

- Suppliers are now bidding in prices and are not acting as price taking in the DAM.
 - We have still not been advised if this has been included in the model.
- The inclusion of all embedded generation in the DAM.
 - Considering there is now three months of real market data, how much embedded generation is participating in the DAM? If this generation is not participating in the DAM it could have a significant effect on the merit-order as the PLEXOS file illustrates that the embedded generation can range from ~100MW to ~250MW.
- o All Forecast Demand and Generation in the DAM.
 - The impact of assuming all forecast generation and demand needs to be addressed. The current market data does not reflect the assumption that all generation and demand enters the Day Ahead Market (DAM).
- The Moyle export capacity is not always constrained to 80MW, it is dependent on system conditions in GB as per the system operational constraints report.
 - Considering the importance of interconnector capacity to a small islanded market, the impact of artificially constraining the Moyle interconnector to 80 MW could have a significant impact on the validity and accuracy of the PLEXOS model. This assumption could have a significant impact on the outputs of the model.

Model Setting:

- As stated in the document, RR is faster than MIP. However, this should not be a
 deciding factor for selecting a solver that accurately reflects EUPHEMIA.
 - The question that needs to be addressed is how often are these models running? ESB GT understand that the model is used for a number of different exercises (DCs and CRM), however, considering the financial implications of these decisions and the influence the run time has over the solver selection, the timing should be published along with the quantitative analysis that supports this decision.
- o Which solver matches EUPHEMIA?
 - ESB GT is of the view that to replicate the outputs of the EUPHEMIA solver, the method for determining the outputs should also align otherwise the



model is at risk of requiring additional adjustment factors to align the outputs. As published in previous papers, the usage of a different solvers (MIP or RR) can result in different schedules for generating units. To ignore the importance of aligning the operation of the solver and its scheduling outputs leaves the model open to criticism of being solely a price control mechanism rather than a tool for the accurate forecast of future prices.

- There is no look ahead in EUPHEMIA yet it is included in the PLEXOS model.
 - Optimising the DAM is done on a 24 hour basis not on a 30 hour basis (24 hour + 6 hour lookahead). Such a timeframe could result in different scheduling outputs. ESB GT believes the PLEXOS model should optimise over the same time horizon as the EUPHEMIA model as such difference could result in unnecessary differences. As per the information notes SEM-17-079, SEM-17-088 and SEM-18-175, it is not reasonable to assume participants will look into the future to plan trading behaviour. This appears to be a hangover from the previous SEM model as there is no information to support the logic for selecting a 6 hour look ahead for participants bidding behaviour.
- 6am start time for the DAM.
 - EUPHEMIA optimises over a 24 hour period starting at 11pm. Changing the start time of the optimisation is an easy change to the model. ESB GT requests greater clarity on why such a change would not be implemented.
 - It is strange that the RAs assume that participants will bid using a Korean Uplift methodology with no evidence to back this up yet when it comes to aligning the timeframes of the market it is decided not to until more ISEM data has become available.
 - The PLEXOS model document briefly states this model setting has "a modest affect". ESB GT believes model changes that ensure closer similarity to the real market solver should be implemented and not rejected on the basis it has a modest affect. It is ESB GT's understanding that the aim of the PLEXOS should be to replicate how the market is run rather than as it currently appears, which is to select the inputs and settings to determine a desirable price.
- Korean uplift does not reflect participants behaviour in the DAM.
 - The interpretation that participants will apply a Korean Uplift methodology does not take into account the T&SC implications of constraint payments.
 - Under F.11 of the T&SC, participants are required to pay back start-up costs (static hot, warm and cold values) and not portions of the values entered into the DAM bids. ESB GT suggests the RAs address this methodology as it is not reflective and does not align with the implication of the T&SC.
- Generator Mark Up:
 - ESB GT does not agree with a mysterious generator mark-up that results in a lower price of €0.7/MWh. For transparency and clarity, more information is required on this input considering this PLEXOS model appears to be used for the DC determination and CRM qualifications.



 ESB GT would also request further clarity on the REMIT implications of a participants identify below cost bidding and whether or not this is seen as predatory pricing.

In light of the above, the SEMC should review the ECPC setting of 0.5 times the APC as this was determined using a model that was not validated¹² and now has a different generation portfolio available¹³.

• Price setting regulation.

Considering the lack of detailed assessment provided in the Consultation Paper, the current SEMC proposal to reduce the ECPC from its current level of 0.5 times the APC appears to be a price setting exercise. It appears that the role of the USPC has changed from one which was designed to manage the market power of plants behind known constraints to becoming one to only put downward pressure on market outcomes through regulatory determinations which is, in the long run, detrimental to the consumer as the RAs appear to be focussed on short term outcomes rather than efficient long run equilibrium. This investment appraisal based on myopia raises the threat of inefficient exit (costly side contracts) and additional costs for the consumer. ESB has not to date seen any evidence provided by the RAs to the contrary. In the absence of any real information of market power concerns and a limited historical data set (two T-1 auctions), a reduction of the ECPC can only be viewed as the SEMC actively seeking to control participants auction bids rather than cultivating an auction than enables fair competition that organically creates a competitive auction clearing price with efficient exit/entry signals.

Unknown/unquantified impact on unhappy winners in the upcoming auctions.

ESB GT does not believe such an important auction parameter should be heavily determined based on the workload of a specific market party. As highlighted throughout this response, the ECPC can have a significant influence on the market especially moving into the new auction format where Capacity Market Units are now exposed to becoming an unhappy winner and not receiving an RO contract. The potential impact of aggressive bidding strategies in light of the auction format and a reduction in the ECPC could lead to the exit of efficient plant. The large scale impacts from not receiving an RO contract should not be lightly considered. The combination of the auction format and reducing the ECPC can have significant impacts on not just the consumer in the long term but also the companies and their staff, so to make a decision that may increase the risk of inefficient exit due to an unhappy winner auction format should be carefully considered.

Treatment of DS3 in CRM

The inclusion of DS3 revenues in the CRM (USPC, ECPC and BNE calculations) process removes any incentive for participants to invest in DS3 products. The cost based regulation approach applied to I-SEM, DS3 and CRM means any DS3 investment decisions results in a zero sum game as any impact on revenues from a DS3 investment is offset in the CRM IMR bid determination. ESB GT believes the design of I-SEM (DS3, energy markets and CRM) must be done in a holistic approach and not in the current silo approach. ESB GT is of the view that the current procedures for the calculation of the USPC, ECPC and BNE strips away the incentive to provide additional system services when the DS3 commercial advantage is removed from the potential capacity payment this is further magnified for plant that are being processed to get a USPC. The incentive to invest in

¹² No ISEM data available at the time

¹³ Exit of plant following the T-1 CY 2018/19 auction



system services no longer exists if the net sum position of a plant's "allowable" cost recovery, due to BMPCOP, NIV tagging in the BM and USPC less DS3 revenue calculation is zero.

ESB GT suggests that DS3 revenues from upgrades that provide additional DS3 system services should not be factored into the USPC applications for five years. It is important to recognise that even with this 5 year exemption there is still a significant risk to an investor from reduced certainty of ancillary services through uncertainty of EU regulation, DS3 contracts with one year termination clauses, unpredictable scarcity scalar and potential for a three month review of regulated tariffs.

3.4 Indicative Annual Capacity Payment Exchange Rate

The current rules require the Initial Auction Information Pack to finalise a number of parameters that are Euro and Sterling, however, the exchange rate is not finalised until the Final Auction Information Pack. The current rules are allowing for circumstances for an uneven playing field for participants in both Northern Ireland and Ireland. For example, in the T-1 2019/20 Capacity Auction, the finalisation of the Auction Price Cap and Existing Capacity Price Cap, but not the exchange rate, in the Initial Auction Information Pack resulted in a different price caps for Capacity Market Units (CMUs) in Northern Ireland compared to Ireland. In addition to the difference between the auction price caps, if a new generator was awarded a contract in sterling at the auction price cap, it is liable to performance securities and termination charges based on exchange rate in the Final Auction Information Pack which could result in over/under collateralisation. The current rules leave new generator and the market open to unnecessary over or under collateralisation. ESB GT would suggest this is addressed through the setting of the final exchange rate in the Initial Auction Information Pack.