



**Single Electricity Market
(SEM)**

**Capacity Remuneration Mechanism
2023/24 T-4 Capacity Auction Parameters**

**Decision Paper
SEM-19-043**

10 September 2019

In May 2019, the SEM Committee consulted on the relevant parameters to apply in the 2023/24 T-4 capacity auction, scheduled to take place in March 2020. Eight responses were received to the CRM T-4 CY2023/24 consultation. All responses were non-confidential and have been published on the SEM Committee website.

Following its review of the consultation responses, this paper sets out the SEM Committee's decisions for the relevant parameters to apply in the 2023/24 T-4 capacity auction and the parameter decisions are described within this decision paper. The decisions within this paper all align with the proposals made in the consultation (SEM-19-023) which closed on 28 June 2019.

Summary of Key Decisions

The SEM Committee has made the following decisions:

- De-Rating Curves, De-Rating Factors and Capacity Requirement
 - De-rating curves and de-rating factors will continue to be calculated by the System Operators in accordance with the least-worst regrets methodology published in June 2018. The Capacity Requirement will continue to be calculated by the System Operators. These will be submitted to the Regulatory Authorities for determination prior to the publication of the Initial Auction Information Pack.

- Auction Price Cap and Net CONE
 - APC will continue to be set at 1.5 times Net CONE. The Auction Price Cap for the 2023/24 T-4 capacity auction will be €138,450 / de-rated MW / year.

- Existing Capacity Price Cap
 - The Existing Capacity Price Cap for the 2023/24 T-4 capacity auction will therefore be €46,150 / de-rated MW.

- New Capacity Investment Rate Threshold
 - Remains at €300/kW.

- Annual Stop Loss Limit Factor
 - The Annual Stop Loss Limit Factor for the 2023/24 capacity year will be 1.5.

- Billing Period Stop Loss Limit Factor
 - The Billing Period Stop Loss Limit Factor for the 2023/24 Capacity Year will be 0.5.

- Performance Securities and Termination Charges
 - The Qualification criteria for an auction are well defined within the Capacity Market Code and termination charges will remain as is.

- Full and Reserve Administered Scarcity Pricing
 - The Full Administered Scarcity Price will be set at 25% of VOLL.

- Transmission Constraints
 - Option 1 (multi-year pay-as-bid Reliability Options only where there are no other solutions available to satisfy the minimum MW in the constrained area) is the appropriate solution to the issue of constraints in the auction.

- Auction Format
 - Auction Format C (simple sealed bid auction, with a heuristic based second step to offset additional locational capacity secured) will continue be used for the T-4 CY2023/24 Capacity Auction.

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3 INTRODUCTION AND BACKGROUND

The SEM Capacity Remuneration Mechanism (“**CRM**”) was developed through an extensive series of consultation and decision papers. The CRM allocates capacity payments through ex-ante capacity auctions, with penalties being issued for capacity that is not delivered when it is needed.

Before each capacity auction, the Capacity Market Code (“**CMC**”) requires a number of auction parameters to be determined by the Regulatory Authorities (“**RAs**” (the Utility Regulator in Northern Ireland and the Commission for Regulation of Utilities (“**CRU**”) in Ireland)).

On 17 May 2019 the SEM Committee consulted on the values of these parameters for the 2023/24 T-4 capacity auction¹. A list of parameters and their proposed values are provided in the following table:

Parameter	Proposed Value for 2023/24 T-4 capacity auction
De-Rating Curves, defining De-Rating Factors by unit Initial Capacity and by Technology Class (including for Interconnectors)	To be calculated by the System Operators and submitted to the Regulatory Authorities for determination prior to the publication of the Initial Auction Information Pack.
Capacity Requirement	To be calculated by the System Operators and submitted to the Regulatory Authorities for determination prior to the publication of the Initial Auction Information Pack.
Indicative Demand Curve	The Demand Curve will be based on the following principles: Horizontal at the Auction Price Cap of 1.5 times Net CONE, from 0MW to 92.5% of the Capacity Requirement.

¹ <https://www.semcommittee.com/publications/sem-19-023-2023-24-crm-t-4-parameters-consultation>

	<p>Slopes down in a straight line to 115% of the Capacity Requirement. The line passes through the point at where the volume is equal 100% of the Capacity Requirement and the price equals Net CONE.</p> <p>The demand curve for the auction will also include adjustments for reserves and demand withholding. Decisions on these volumes will be made prior to the publication of the Final Auction Information Pack.</p>									
Auction Price Cap	1.5 times Net CONE i.e. €138.45 / de-rated kW.									
Existing Capacity Price Cap	0.5 times Net CONE i.e. €46.15 / de-rated kW.									
New Capacity Investment Rate Threshold	€300 per de-rated kW									
Annual Stop Loss Limit Factor	1.5									
Billing Period Stop Loss Factor	0.5									
Indicative Annual Capacity Exchange Rate	The Exchange Rate will be proposed by the System Operators and included in the Initial Auction Information Pack.									
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Performance Securities	Date / Event	Performance Security Rate (€/MW)
	More than 13 months prior to the beginning of Capacity Year	10,000
	From 13 months to beginning of Capacity Year	30,000
	From beginning of Capacity Year	40,000
Termination Charges	Date / Event	Termination Charge Rate (€/MW)
	More than 13 months prior to the beginning of Capacity Year	10,000
	From 13 months to beginning of Capacity Year	30,000
	From beginning of Capacity Year	40,000
Full Administered Scarcity Price and Reserve Scarcity Price	Short Term Reserve (MW)	Administered Scarcity Price (€/MWh)
	Demand Control	25% of VoLL
	0	25% of VoLL
	500	500

Values for determining strike price in accordance with the Trading and Settlement Code	The SEM Committee proposes to retain the existing values for the 2023/24 T-4 capacity auction. .
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In addition to these parameters, the consultation on parameters for the 2023/24 T-4 capacity auction also made the following proposals:

- Transmission constraints will continue to be included in the auction,
- The auction will be based on Auction Format D (full combinatorial).

Eight non-confidential responses were received to the consultation:

Bord Gáis Energy (BGE)	Energia
Bord na Móna (BnM)	ESB Generation and Trading
EirGrid and SONI	SSE
Electricity Association of Ireland (EAI)	Tynagh Energy Limited (TEL)

These responses are published in full alongside this paper, and the most pertinent points are summarised below, along with the SEM Committee's comments.

De-Rating Curves and De-Rating Factors

BGE suggested that rather than just looking at the market outcomes, perhaps there is a role for the Auction Monitor or Auditor to have in governing the market inputs and the processes that relate to them as well.

The roles of the Capacity Auction Monitor and the Capacity Market Auditor are described under the Code. As described in the Terms of Reference, published in April 2017², while there is no intention for either the Monitor or the Auditor to directly investigate market manipulation, if in performing their duties they come across any incidents of potential market manipulation, they should bring this to the attention of the RAs.

The Terms of Reference for both the Capacity Auction Monitor and the Capacity Market Auditor were published in April 2017. This limited the scope of the both the Auditor and the Monitor to those activities set out in the CMC.

Before any changes to the terms of reference, the RAs will consult with parties to the CMC. The scope of the Auditor and Monitor is likely to be included in any such consultation.

² [SEM-17-023](#)

Energia asked for meaningful tolerance bands for de-rating factors to be re-instated, and that there should be a meaningful positive tolerance band for Gas Turbines.

The de-rating of capacity reflects the expected level of breakdowns at periods of system stress. The SEM Committee decided in SEM-16-082 that, with the exception of DSUs, the tolerance bands should be set to zero for the transitional auctions. One of the key reasons stated in SEM-16-082 for setting the tolerance to zero (except for DSUs) was that the SEM Committee did not want to blunt the exit signal for unreliable outliers, by allowing them to utilise a high tolerance to de-rate their plant and reduce their exposure to Reliability Option Difference Payments. Since SEM-16-082, if anything, there has been a trend towards greater unreliability, with higher forced outage rates resulting in lower derating factors. This reinforces the argument that exit signals should not be blunted for unreliable plant. The SEM Committee noted that it was appropriate to strike a balance between incentives and risks. In SEM-16-082 the SEM Committee stated that it might review the approach to de-rating if the value of Full Administered Scarcity Price (ASP) was increased, as this would change the balance of risk for generators. However, the value of Full ASP remains below €3,000/MWh, and has been set at 25% of VOLL. Therefore, the SEM Committee does not intend to re-visit this decision at this time but will keep the tolerance bands under review.

The SEM Committee has decided that the de-rating curves and de-rating factors will continue to be calculated by the System Operators in accordance with the least-worst regrets methodology published in June 2018. These will be submitted to the RAs for determination prior to the publication of the Initial Auction Information Pack.

Capacity Requirement

Some respondents noted that the consultation paper erroneously referenced the Capacity Requirement for the T-1 and T-2 auctions scheduled later this year.

The RAs acknowledge the error in the consultation referencing the T-1 and T-2 auctions rather than the T-4. All comments requested were in relation to the 2023-24 T-4 auction.

Energia requested a tightening of the LOLE from 8 hours to 3 hours.

In maintaining an 8 hour Loss of Load Expectation (LOLE) standard for the revised SEM arrangements, the SEM Committee noted that there are a number of ‘conservative’ factors built into the calculation of the Capacity Requirement and/or the way in which capacity is procured via the auction. These include:

- The use of a least worst regrets approach, which tends to result in the Capacity Requirement being based on a demand forecast which exceeds the median scenario;
- The fact that the sum of the Level 1 Northern Ireland and Ireland zonal requirements exceeded the all-island requirement in previous auctions;
- The use of a sloping demand curve.

In addition, since the original decision was made in SEM-15-103, the SEM Committee has decided to include a measure of reserve in the demand curve, in addition to the 8 hour LOLE Capacity Requirement.

The original decision has been reinforced by the evidence of recent auction outcomes. For the first T-4 auction, the sum of the Level 1 requirements exceeded the all-island Capacity Requirement by nearly 250MW. All auctions have resulted in significant extra volume being procured as a result of the sloping demand curve – a minimum of 500MW in each auction.

The recent evidence reinforces the original decision, and the SEM Committee is not currently re-visiting its decision originally made in SEM-15-103, and confirmed for the first T-4 auction in SEM-18-155, on an 8 hour LOLE.

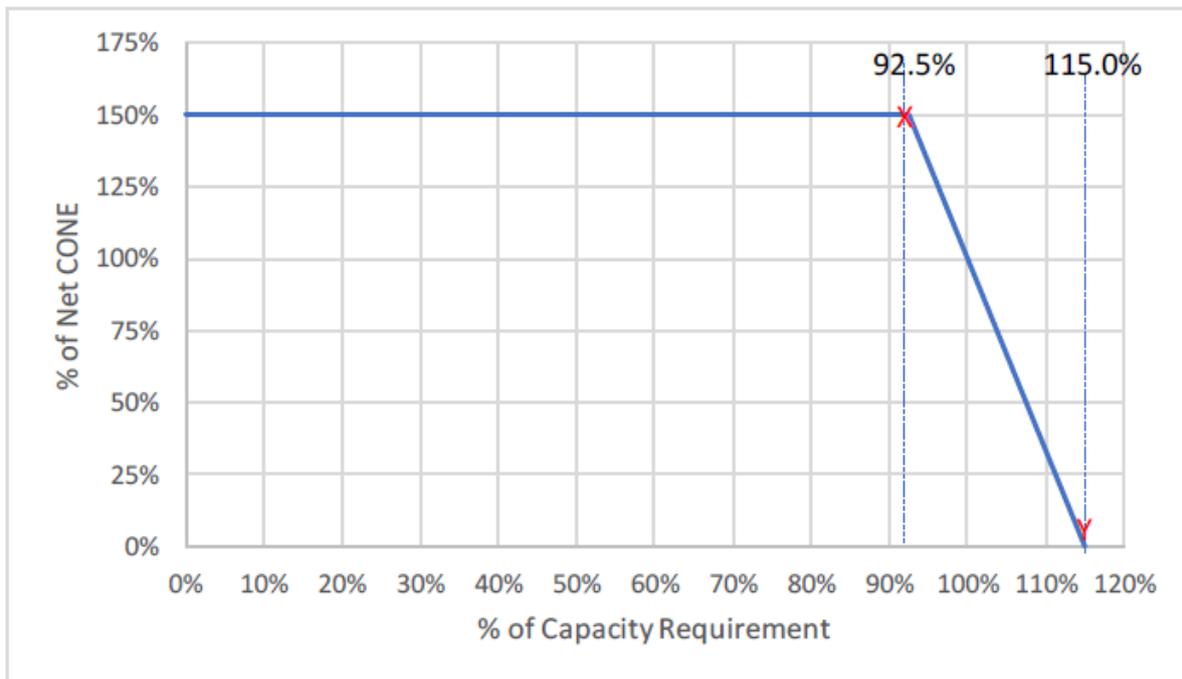
The SEM Committee has decided that the Capacity Requirement will continue to be calculated by the System Operators and submitted to the Regulatory Authorities for determination prior to the publication of the Initial Auction Information Pack.

Demand Curve

There were concerns that the indicative demand curve will reduce the amount of capacity procured in the T-4 auction. It was also stated that the shape of the demand curve must not be subject to arbitrary adjustments.

The proposed demand curve for the 2023-24 T-4 auction is the same shape as that used in the 2022-23 auction.

The SEM Committee have decided that the demand curve will be based on the following shape and principles:



- Horizontal at the Auction Price Cap of 1.5 time Net CONE, from 0MW to 92.5% of the Capacity Requirement
- Slopes in a straight line to 0 times Net CONE at 115% of the Capacity Requirement. The curve passes through the point at which volume is equal to 100% of the Capacity Requirement and the price equals Net CONE.

The SEM Committee do not consider that the adjustments made in previous auctions for effects such as Reserve, or withholding due to uncertainty, have been arbitrary.

Reserves and Capacity Withholding

Correction to errata within the consultation paper.

In the consultation, it was indicated that in the CRM reserves decision paper (SEM-18-173), the SEM Committee determined that for the 2022/23 T-4 auction, the jurisdictional values to be included for reserves would be as follows:

- Northern Ireland: 100MW
- Ireland: 225MW
- Dublin: 70MW

However, SEM-18-173 did not actually determine specific values for the volumes of reserve in the 2022/23 auction. The above were the values of reserve to be included in the 2019/20 capacity auction.

Instead, the paper stated that a measure of reserves would be included in the all-island demand curve. The specific volume of reserves for the 2022/23 T-4 auction was determined closer to the date of the capacity auction, and published in SEM-19-021. The actual volumes of reserve included in the 2022/23 auction were:

- Ireland: 225MW, to reflect the level of operating reserve at which the System Operators have advised the RAs that they are likely to undertake demand control actions within Ireland; and
- Northern Ireland: 150 MW, to reflect level of operating reserve at which the System Operators have advised the RAs that they are likely to undertake demand control actions within Northern Ireland;
- Dublin: 70 MW (roughly one-third of the total for Ireland) is broadly a pro-rata allocation of the Ireland reserve to Dublin.

EAI (whose response was endorsed by several other respondents) suggest that the RAs are making a decision without consultation, and urge the RAs to consult separately on the specific volume they propose to withhold for demand uncertainty and DSU participation, both on an all-island level and in LCCAs.

Bord na Móna recognised the importance in setting the appropriate level of reserves, and that it is less costly to have surplus capacity than to have a shortage.

SSE asked that sight of these values be provided in advance of the publication of the IAIP. While they consider that the withholding of capacity for DSUs is reasonable, the

fact that some DSUs had sufficient certainty to bid into the last T-4 auction should be noted.

In SEM-18-173, the RAs committed that in future, the proposed level of reserves will be considered in the corresponding parameters consultation for each specific T-4 auction. This was covered within the demand curve section of the consultation, where the SEM Committee stated their proposal to:

- Include reserves within the demand curve,
- Withhold capacity for demand uncertainty, and
- Withhold capacity for DSU participation.

The parameters consultation therefore provided participants with the opportunity to respond on these areas. The SEM Committee notes the comments received, especially in relation to the balance between over-procurement and under-procurement. We also note the comments on DSU participation in the 2022-23 T-4 auction.

The SEM Committee does not see benefit in committing to specific levels of reserve for inclusion in an auction so far in advance. Situations can change and information only becomes final with the publication of the Final Qualification Results (which under the Capacity Auction Timetable are only provided to the Regulatory Authorities four weeks in advance of an auction) which will influence the final decision.

The SEM Committee has been made aware that the System Operators are considering the proposal of a new LCCA to cover the 'Balance of Ireland' region – that part of the network within RoI that is outside Dublin. The RAs plan to consult on this and the potential method used to calculate a minimum quantity ahead of the formulation of the Final Auction Information Pack.

Auction Price Cap and Net CONE

Energia highlight that the APC multiplier is at the lower end of international norms and there is justification for increasing this to 2 times Net CONE. EAI asked that if Net CONE is not updated, some form of indexation should be applied.

The RAs do not consider that it is yet necessary to conduct a full Net CONE review. The current Net CONE was set for the 2022-23 capacity year. This is therefore only the second T-4 auction that will utilise this value.

The RAs also do not intend to apply indexation to Net CONE. A value of €92,300 was used to determine the Auction Price Cap and the Existing Capacity Price Caps for the 2020/21 Capacity Year and 2021/22 Capacity Year³. The Net CONE will remain at a value of €92,300 for all auctions until the next full review is carried out.

The RAs are not presently minded to amend the APC multiplier. APC will continue to be set at 1.5 times Net CONE. The Auction Price Cap for the 2023/24 T-4 capacity auction will therefore be €138,450 / de-rated MW / year.

Existing Capacity Price Cap

Various comments were received stating that no further consideration should be given to reducing the ECPC multiplier from its current value of 0.5. It was also stated that the level of USPC applications should not be a driver for considering a reduction in the ECPC.

Tynagh also stated that DS3 revenue is being counted twice: once against a payback on upgrades and once against capacity.

While specific comments were sought in previous consultations regarding reducing the ECPC multiplier, no such comments were sought in this consultation. However, the RAs continue to keep the multiplier under review, and will use various factors in considering such a review.

The ECPC is a filter on whether or not the RAs scrutinise costs; if the costs of an individual generator have increased in line with inflation, they have the option to submit a USPC application. Inflation will be taken into account by the RAs when assessing Net Going Forward Costs.

³ [SEM-19-018](#)

The BNE Net CONE is used to set the Existing Capacity Price Cap, and is based on a hypothetical low cost generator. The decision of any existing or new generator to invest in upgrading its own DS3 capability, will have no impact on the BNE Net CONE or the ECPC.

The Existing Capacity Price Cap for the 2023/24 T-4 capacity auction will therefore be €46,150 / de-rated MW.

New Capacity Investment Rate Threshold

Energia continues to seek an additional threshold for plant refurbishment at a rate of €50/kW of de-rated capacity. Once the threshold is met, bid limits should be determined by APC.

In CRM Decision 2 (SEM-16-022), the SEM Committee decided that any “plant requiring significant new investment” will be able to fix its Reliability Option fee for multiple years (which was fixed as a maximum of 10 years in CRM Decision 3, SEM-16-039). The rationale for setting this approach is that any investor making a significant investment would not be able to recover that investment over one year, and would need to de-risk that investment by having a fixed-price Reliability Option for up to 10 years. In the CRM Parameters paper, SEM-17-022, the SEM Committee, decided that the appropriate threshold above which investment needed de-risking was €300,000/MW (based on approximately 40% of the gross BNE investment cost), with this threshold being termed the New Capacity Investment Rate Threshold.

During the detailed design phase the SEM Committee considered whether it was necessary or appropriate to introduce an additional lower threshold for refurbishing plant, which might be able to get a shorter multi-year contract, by committing to a lower level of spend. The SEM Committee recognised that this approach has been used in GB, but rarely used (in GB it was set at £135,000/MW, i.e. approximately three times the proposed threshold). The SEM Committee explicitly rejected the use of such an “intermediate” category during the detailed design phase, noting that:

- It was reasonable to expect investors investing smaller amounts / MW to bear a degree risk which is entailed in exposure to annual auction prices; and
- The intermediate category had been rarely used in GB;

The SEM Committee reviewed this decision in SEM-18-156, and decided that there was no new evidence which should cause it to change that decision for the first T-4 auction. There has been no evidence resulting from the subsequent CY2019/20 T-1 auction or the CY 2022/23 T-4 auction that would cause the SEM Committee to review its decision either. Therefore the SEM committee will retain a single NCIRT at €300,000/MW.

Annual Stop Loss Limit Factor

Energia considers that the current value is too high, and it exposes generators to losing more than their entire capacity revenue over a couple of RO events.

During the detailed design phase the SEM Committee made clear that the design should incentivise reliable capacity. The SEM Committee was clear that, unlike some other markets, unreliable capacity should not be able to gamble on absence of scarcity, knowing that at worst, it would earn no capacity revenue, and at best it may be well remunerated for unreliable capacity. For that reason, the SEM Committee decided to set the Annual Stop Loss Limit at more than 1. The first T-4 auction managed to attract significant new investment on this basis. Therefore, the SEM Committee continues to consider that the Stop Loss Limit Factors are set at an appropriate balance between incentivising performance and being overly punitive.

The Annual Stop Loss Limit Factor for the 2023/24 capacity year will be 1.5.

Billing Period Stop Loss Limit Factor

Energia's view is that the Billing Period Stop Loss Limit Factor is too high. Bord na Móna see merit in further consideration of the implementation of daily or event driven Stop-Loss Limits.

The shorter (than annual) stop loss limit period was set to align with the billing period used for energy settlement. This increases the possibility for netting of payments and charges in settlement and will help to manage the credit risk from participants and improve the efficiency of the market. During the detailed design phase the SEM

Committee considered the possibility of defining stop-loss limits based upon “events” but recognised that:

- (i) events may span a billing period, which would create complexity in settlement; and
- (ii) there were practical difficulties in defining what constituted an “event”.

The Billing Period Stop Loss Limit was set in the expectation that there would not be many instances of scarcity, and that even in the event of scarcity tending towards the 8 hour LOLE standard, scarcity would be concentrated in few billing periods, and it was therefore appropriate to ensure that the Annual Stop Loss Limit could be reached if a capacity provider failed to provide capacity in the few billing periods in which scarcity materialised.

The SEM Committee continues to believe that the proposed Billing Period Stop Loss Limit is appropriate and achieves the required balance between maintaining incentives during one billing period, and maintaining incentives across multiple events.

The Billing Period Stop Loss Limit Factor for the 2023/24 Capacity Year will be 0.5.

Increase and Decrease Tolerance Limits

ESB GT expressed surprise at the recent decision to retain the mandatory participation requirement.

In SEM-19-027, the SEM Committee decided to retain mandatory participation requirements on dispatchable REFIT 3 supported capacity in the CRM. This allows REFIT 3 supported capacity to participate in the CRM and maintains the current overall incentives on this capacity to perform.

The Increase and Decrease Tolerance values for the 2023/24 T-4 capacity auction will be as follows:

Tolerance Class	Increase Tolerance (%)	Decrease Tolerance (%)
All Except DSUs	0	0
DSUs	0	100

In accordance with SEM-18-030 and CMC Modification CMC_12_18, separate decrease tolerance values may be applied to units with emission or run-hour limits.

Performance Securities and Termination Charges

Energia referenced the CRU direction that relaxed the requirement to have a connection offer to qualify for capacity locating in the Dublin LCCA. Until it is clear whether this direction applies to the 2023/24 T-4 auction, it is premature to set the Termination Charges for that auction; it is not appropriate to set the Termination Charges regardless of the qualification criteria that apply.

The SEM Committee considers that if a generator fails to deliver capacity, the capacity provider should pay termination charges. Even if the qualification requirements have been relaxed by virtue of the CRU decision, the capacity provider still has an obligation to honour, and the cost to the consumer of non-delivery is no different.

Should a provider believe that it has greater delivery risk because it doesn't yet have a connection offer, it should reflect that risk in its offering into the auction.

The Qualification criteria for an auction are well defined within the Capacity Market Code and termination charges will remain as per the above response for the reasons set out.

The Performance Securities for the 2023/24 T-4 capacity auction will be:

Date / Event	Performance Security Rate (€/MW)
More than 13 months prior to beginning of Capacity Year	10,000
From 13 months to beginning of Capacity Year	30,000
From beginning of Capacity Year	40,000

The Termination Charges for the 2023/24 T-4 capacity auction will be:

Date / Event	Termination Charge Rate (€/MW)
More than 13 months prior to beginning of Capacity Year	10,000
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From beginning of Capacity Year	40,000

Full and Reserve Administered Scarcity Pricing

Energia is supportive of keeping the Full ASP at 25% of VOLL.

The Full Administered Scarcity Price will be set at 25% of VOLL. The Reserve Scarcity Price Curve will be set in relation to this value, in accordance with the following table:

Short Term Reserve (MW)	Administered Scarcity Price (€/MWh)
Demand Control	25% of VOLL
0	25% of VOLL
500	500

Values for determining Strike Price

Energia state that it remains incorrect to reference monthly price indices.

The SEM Committee consider that the monthly price indices are the most appropriate values to be used in the determination of the strike price. The SEM Committee consider this more accurately tracks the movement of the variables concerned.

Transmission Constraints

There was broad support for the proposal to continue to be included in the auction. However, SSE thought it unfair to discriminate based on locational constraints in the capacity market; this is a network issue which the SEMC is attempting to solve through the CRM.

Constraints continue to be identified within the market, and to be able to run an auction, the SEM Committee considers that Locational Capacity Constraint Areas are required. While it would be preferable to run the auction without Locational Capacity Constraints, constraints continue to be identified within the market. The SEM Committee continues to consider that Option 1 (multi-year pay-as-bid Reliability Options only where there are no other solutions available to satisfy the minimum MW in the constrained area) is the appropriate solution to the issue of constraints in the auction.

Auction Format

Participants expressed concern about the proposal to move to a combinatorial auction for the 2023/24 T-4 auction. EirGrid and SONI highlighted the level of complexity associated with such a move, which would require a delivery programme of approximately 18 months, and recommend that Auction Format D is not progressed at this time. BnM believes it would be more appropriate to continue with Format C until such time as Format D is fully tried and tested, especially given its complexity.

Given the level of complexity required, the SEM Committee has decided to postpone the transition to Auction Format D, and it will not be implemented for the 2023/24 T-4 capacity auction. Auction Format C (simple sealed bid auction, with a heuristic based second step to offset additional locational capacity secured) will continue to be used. However, the SEM Committee continues to believe that Auction Format D is the optimum option, as in the longer run it will generate the most efficient (least cost) solution to meeting a capacity requirement in any given auction. This view was first provided in the decision paper on CRM Locational Issues⁴, published in December 2016. The approximate delivery time of 18 months provided by SONI and EirGrid in their

⁴ [SEM-16-081](#)

response is therefore regrettable. Given the two and a half years since the decision was made, the development and testing of this solution should by now be well advanced.

The SEM Committee expects Auction Format D to be implemented by the second half of 2020 and in place for use with the T-4 Capacity Auction associated with CY2024/25.

The SEM Committee further expect extensive interaction with the System Operator to ensure the completion of all relevant processes and steps towards implementation, including testing of the Auction algorithm to be used.

Other comments – Auction Process

SSE provided comments on the management of the process, particularly the squeezing of timelines and delays.

A Capacity Auction Timetable is published in advance of each auction, and all Parties endeavour to adhere to the subsequent timelines. From time to time however, there are mitigating circumstances whereby these timelines are missed. The RAs will continue to liaise with the System Operators to minimise such delays.

Parameters required under D.3.1.3 of the Capacity Market Code

Having reviewed and considered the responses to consultation SEM-19-023, the SEM Committee has decided that the parameter values for the 2023-24 T-4 capacity auction shall be equal to those consulted upon. These are summarised in the following table:

Parameter	Proposed Value for 2023/24 T-4 capacity auction
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From beginning of Capacity Year	40,000									

Termination Charges	Date / Event	Termination Charge Rate (€/MW)
	More than 13 months prior to the beginning of Capacity Year	10,000
	From 13 months to beginning of Capacity Year	30,000
	From beginning of Capacity Year	40,000
Full Administered Scarcity Price and Reserve Scarcity Price	Short Term Reserve (MW)	Administered Scarcity Price (€/MWh)
	Demand Control	25% of VoLL
	0	25% of VoLL
	500	500
Values for determining strike price in accordance with the Trading and Settlement Code	The SEM Committee proposes to retain the existing values for the 2023/24 T-4 capacity auction. .	

Transmission Constraints

Multi-year auctions pay-as-bid Reliability Options only where there are no other solutions available to satisfy the minimum MW in the constrained area is the appropriate solution to the constraints issue in the 2023-24 T-4 capacity auction.

Auction Format

Auction Format C (simple sealed bid auction, with a heuristic based second step to offset additional locational capacity secured) will continue to be used for the 2023-24 T-4 capacity auction.

The SEM Committee expects Auction Format D to be implemented by the second half of 2020 and in place for use with the T-4 Capacity Auction associated with CY2024/25.