



**Single Electricity Market
(SEM)**

**Capacity Remuneration Mechanism
2024/25 T-3 Capacity Auction Parameters**

**Decision Paper
SEM-21-058**

03 August 2021

1. EXECUTIVE SUMMARY

On 11 February 2021, the SEM Committee consulted on the parameters for the 2024/25 T-3 Capacity Auction.

A total of seven non-confidential responses were received. Having considered these responses, the SEM Committee has decided to retain all parameter values as published within the consultation paper. These are summarised in the following table:

Parameter	Proposed Value for 2024/25 T-3 capacity auction
De-Rating Curves, defining De-Rating Factors by unit Initial Capacity and by Technology Class (including for Interconnectors)	To be frozen at the same values used for the 2024/25 T-4, pending a more detailed review of derating factors.
Capacity Requirement	To be determined by System Operators prior to publication of Initial Auction Information Pack.
Indicative Demand Curve	<p>The Demand Curve will be based on the following principles:</p> <ul style="list-style-type: none">• horizontal at the Auction Price Cap between 0MW and 100% of the adjusted Capacity Requirement;• vertical at 100% of the adjusted Capacity Requirement between the Auction Price Cap and Net CONE;• a straight line slope with a zero-crossing point at 115% of the adjusted Capacity Requirement. <p>The Demand Curve will take appropriate account of already awarded capacity</p>
Auction Price Cap	1.5 times Net CONE i.e. €138,450 / de-rated MW / year
Existing Capacity Price Cap	0.5 x Net CONE i.e. €46,150 / de-rated MW /year
New Capacity Investment Rate Threshold	€300,000 /de-rated MW / year.

Annual Stop Loss Limit Factor	1.5											
Billing Period Stop Loss Factor	0.5											
Indicative Annual Capacity Exchange Rate	To be determined by System Operators prior to publication of Initial Auction Information Pack.											
Increase Tolerance and Decrease Tolerance by Technology Class	<table><tr><th>Technology Class</th><th>Increase Tolerance (%)</th><th>Decrease Tolerance (%)</th></tr><tr><td>All Except DSUs</td><td>0</td><td>0</td></tr><tr><td>DSUs</td><td>0</td><td>100</td></tr></table>			Technology Class	Increase Tolerance (%)	Decrease Tolerance (%)	All Except DSUs	0	0	DSUs	0	100
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Termination Charges		
	Date / Event	Termination Charge Rate (€/MW)
	More than 13 months prior to the beginning of the 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 Curve		
	Short Term Reserve (MW)	Administered Scarcity Price (€/MWh)
	Demand Control	25% of VOLL
	0	25% of VOLL
	500	DSU Theoretical Price
Anticipated values to be applied in determining the Strike Price	Current values to be re-applied.	

These parameters are included within the Initial Auction Information Pack for the auction, which is scheduled to take place on 20 January 2022. A detailed timetable for the auction is also available¹.

¹[CAT2425T-3-2024-2025-T-3-Capacity-Auction-Timetable.pdf \(sem-o.com\)](#)

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3. SUMMARY OF PROPOSALS IN THE CONSULTATION PAPER

On 11 February 2021, the SEM Committee issued a consultation on parameters for the 2024/25 T-3 Capacity Auction (SEM-21-011²). Within the consultation, the SEM Committee proposed to predominantly retain the parameters from the 2024/25 T-4 capacity auction for the 2024/25 T-3 auction.

4. SUMMARY OF RESPONSES

Seven responses were received from:

1. BGE
2. Tynagh Energy Ltd
3. The DRAI
4. Energia
5. ESB GT
6. Captured Carbon, and
7. EP UK

None of the responses were marked as confidential and are published in full alongside this decision. BGE agreed with all proposals raised within the paper.

De-Rating Curves and De-Rating Factors

EP UK state that enough time has passed since the commencement of the new SEM that there is ample evidence to support the claim that the probability that capacity will be available to import from GB is low at times of scarcity. EP UK note that during periods of scarcity in the SEM the interconnectors have been exporting.

Tynagh wish to stress the need for a revisit of Interconnector de-ratings, in light of observed occurrences of frequent exporting, coupled with high price events by setting the price through SO-SO trades. Tynagh state that the 'high' value in the IC de-rating factor reduces the available capacity in other technologies.

² [SEM-21-011 Capacity Remuneration Mechanism 2024_25 T-3 Capacity Auction Parameters.pdf \(semcommittee.com\)](#)

ESB GT emphasise the need for a rethink in modelling Storage and DSUs DRFs, and cite the TSO Technical Note *Shaping our Electricity Future* by quoting that the “appropriate modelling of storage will be essential as the system evolves to have greater levels of storage, so that we [the TSOs] can maximise the resources adequacy contribution storage can make”.

Echelon Data Centres were in broad support of the fixing of the parameters, from the T-4 24/25 auction.

Existing Capacity Price Cap (ECPC)

Energia wish for the ECPC to be increased. The rationale put forward is due to the Covid-19 pandemic.

Capacity Requirement

SSE note that the Final Auction Information Pack for the recent T-4 24/25 Capacity Auction was published beyond the timetable milestone. The FAIP confirms the final Capacity Requirement, an important indicator of the total pot of capacity that auction participants can compete for. Therefore, they wish that reporting can be as timely as possible to provide this information.

Indicative Demand Curve

BGE note that in securing electricity supply on the island of Ireland, the RAs ensure enough is sought so as not to rely upon any LRSAs moving forward.

Energia stated that it would be prudent not to withhold capacity and run the risk of under procuring Capacity which may risk security of supply. They believe a better way moving forward would be to not withhold any capacity in a T-4 auction, citing the issue around withholding in the past and then securing nearly this amount in New Capacity, some of which has now been terminated.

ESB GT supports the proposed application of the Demand curve with the vertical line at 100% of the adjusted Capacity requirement between the auction price cap. They feel this demand curve should be applied to every auction.

New Capacity Investment Rate Threshold (NCIRT)

There were no comments on the Investment threshold from interested parties

Locational Capacity Constraint Areas (LCCAs)

ESB GT supports the retention of the current treatment of allowing the constrained element auction to solve using multi-year New Capacity

Termination Charges

The DRAI are in support of fixing the Termination charges as per SEM-21-019, as do Echelon Data Centres. In the case of the latter's response, they cite the need for a proper study of system benefit to understand if the assurance of new capacity significantly outweighs the increased financial impact on Participants.

Net CONE

EP UK recommend reviewing the value of Net CONE for two main reasons. Firstly, the CONE calculation has not been reviewed since the commencement of the CRM for the T-1 2018/19 Auction and secondly, given this, there is a greater proportion of renewables within the generation mix, thus likely pushing up the value of Net CONE. They agree with setting the multipliers for both APC and ECPC at 1.5 and 0.5 respectively.

However, Energia see no reason to keep the Net CONE multiplier of 0.5 in determining the ECPC. They argue that due to recent negative economic shocks, the more prudent way forward to accurately capture Net Going Forward Costs would be to increase the Net CONE multiplier.

Treatment of Constraints

Echelon Data Centres welcome the letters between the Commission for Regulation of the Utilities (CRU) in their letters to EirGrid (CRU/21/030a) and ESB Networks (CRU/21/030b) to provide for connection agreements to successful New Capacity in the Level 1 Ireland Constraint Group. They welcome these directions as a prudent method of maximising the potential capacity which can be offered into the auction.

Energia strongly supports the proposal to include transmission constraints within the T-3 auction, and they believe this is clearly justified for Dublin and Northern Ireland where there are local transmission capacity delivery constraints affecting security of supply.

However, Energia do not support the suggestion allowing new capacity seeking a multi-year contract to compete with existing capacity for a pay-as-bid Reliability Option. They consider, this would be clearly inefficient given the emphasis placed elsewhere on resolving grid constraints.

In response to the question on treatment of multi-year contracts in LCCAs, ESB GT does not believe any evidence has been provided that would justify changing the treatment of constraints in the T-1 auctions compared to the T-4 auctions. Therefore, ESB GT supports the retention of the current treatment of allowing the constrained element auction to solve using multi-year New Capacity.

5. SEM COMMITTEE RESPONSE

Existing Capacity Price Cap

The SEM Committee note the proposals to increase the ECPC, however the Committee do not consider that there is a compelling reason to do so for this T-3 auction, noting that the USPC process still allows existing units to apply for permission to bid prices above the ECPC.

Net CONE and VOLL

The RAs are engaging with ACER in relation to the implementation in the SEM of ACER's methodology for calculating VOLL and CONE. The process for calculating a new VOLL in accordance with the ACER methodology has commenced, but at this time this process is ongoing and hence no change is proposed for this auction. The RAs are also assessing the compliance of the current value of net CONE with the ACER methodology but as this process is also ongoing no changes are proposed for this auction.

De-Rating Curves and De-Rating Factors

The SEMC again acknowledges the comments highlighted by the DRAI on the De-rating Factors of time-limited units and note the request to minimise volatility on these values. The RAs are liaising with Eirgrid/SONI colleagues on this very point.

Capacity Requirement

The SEM Committee notes Energia's opinion that there is a direction of travel towards under procuring capacity when considering a T-4 auction. The SEMC is however content with the approach taken in the formulation of the T-4 auctions held so far, in the context of the available supply and demand in each and the uncertainties in future projections that exist over the medium term.

The Capacity Requirement for any Capacity Year is calculated by the System Operators using the methodology described in SEM-16-082a (Methodology for Calculation of the Capacity Requirement and De-rating Factors). That methodology builds on the generation adequacy methodology that is employed by the System Operators to produce the annual Generation Capacity Statements.

The SEM Committee note the agreement from respondents that the T-1 Capacity Requirement should feature the vertical component of the curve at the auction as had been proposed, to help ensure that sufficient capacity is procured.

The SEM Committee disagree with SSE that the recent T-4 24/253 was published beyond the milestone. The Capacity Auction timetable⁴ notes that the FAIP was to be published on 8 December 2020, the footnote in [3] counters SSE's comment and shows that both the milestone and the published date of the IAIP was 8 December 2020.

Indicative Demand Curve

The SEM Committee makes a decision prior to the publication of the Final Auction Information Pack for each auction to account for:

- a) existing Awarded Capacity in respect of the relevant Capacity Year ;
- b) an allowance for changes in forecast capacity requirements
- c) an allowance for capacity to be procured in later auctions for the Capacity Year
- d) an allowance for the de-rated value of capacity that is forecast to be operational during the Capacity Year but which will not be participating in the Capacity Auction.
- e) Reserves and other appropriate adjustments

In response to respondents requiring greater transparency in the amounts to be withheld each auction and the necessary reasons for doing so, the SEMC note that there will be an information paper published, setting out SEM Committee decisions taken on Volumes, just after the published Auction results.

Termination Charges

The SEM Committee notes the comment by the DRAI on fixing the Termination Charges for this auction. The SEM Committee intend to do so for this T-3 Auction.

The SEM Committee wish to make it known that prudent decisions on Termination Charges may be taken in future auctions, depending on the requirements of the local constrained MW required, and depending on the necessary New Capacity projects entering the Market.

³ [Final-Auction-Information-Pack_FAIP2425T-4.pdf \(sem-o.com\)](#)

⁴ [CAT2425T-4 \(sem-o.com\)](#)

LCCAs & Treatment of Constraints

The SEMC note ESB GT's views on the application of LCCAs in the CRM Auctions.

The SEM Committee notes the comments received on the treatment of constraints within the 2024/25 T-3 Capacity auction.

The SEM Committee will make a decision on allowing the auction to solve using multi-year New Capacity in advance of the publication of the Final Auction Information Pack, having considered the information from the System Operators on the Location Capacity Constraints.

6. ANNUAL RUN HOURS LIMITED PLANTS AND THE T-3 24/25 AUCTION

Participants will have been aware of the recent consultation on Annual Run Hours Limited (ARHL) Plants in which the RAs sought industry's opinion on the necessity of implementing a de-rating factor for ARHL plants.

The SEM Committee has decided against intervening for this T-3 24/25 Auction, and will look to incorporate new learning and work with key stakeholders for a solution to this problem in time for the T-4 25/26 Auction. A separate decision paper on this will be published in due course.

7. SEM COMMITTEE DECISION

The table below summarises the decisions taken by the SEM Committee in light of the responses above.

Auction Parameters

The following parameters will apply for the 2024/25 T-3 Capacity Auction:

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