



**Single Electricity Market
(SEM)**

**Capacity Remuneration Mechanism
2022/23 T-1 Capacity Auction Parameters**

**Decision Paper
SEM-21-019**

30 March 2021

1. EXECUTIVE SUMMARY

On 11 January 2021, the SEM Committee consulted on the parameters for the 2022/23 T-1 capacity auction.

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

| Parameter | Value for 2022/23 T-1 capacity auction |
|---|--|
| De-Rating Curves, defining De-Rating Factors | To be determined by System Operators prior to publication of Initial Auction Information Pack. |
| Capacity Requirement (CR) | To be determined by System Operators prior to publication of Initial Auction Information Pack. |
| Indicative Demand Curve | Horizontal at the Auction Price Cap between 0 MW and 100% of the adjusted Capacity Requirement; Vertical at 100% of adjusted Capacity Requirement between the Auction Price CAP and Net CONE A straight-line slope with a zero-crossing point at 115% of the Capacity Requirement. |
| Auction Price Cap (ACP) | 1.5 times Net CONE i.e. €138,450 / de-rated MW / year |
| Existing Capacity Price Cap (ECPC) | 0.5 times Net CONE i.e. €46,150 / de-rated MW / year |
| New Capacity Investment Rate Threshold (NCIRT) | €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. |

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| 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 Pak for the auction, which is scheduled to take place on 21 October 2021. A detailed timetable for the auction is also available¹.

¹ See this link for details [CAT2223T-1-2022-2023-T-1-Capacity-Auction-Timetable.pdf \(sem-o.com\)](#)

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3. SUMMARY OF PROPOSALS IN THE CONSULTATION PAPER

On 11 January 2021, the SEM Committee issued a consultation on parameters for the 2022/23 T-1 capacity auction (SEM-21-001²). Within the consultation, the SEM Committee proposed to predominantly retain the parameters from the 2024/25 T-4 capacity auction for the 2022/23 T-1 auction.

4. SUMMARY OF RESPONSES

Six responses were received from:

1. BGE
2. SSE
3. DRAI
4. SONI/EirGrid
5. Energia
6. ESB

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

SSE raised issue with late publication of both the Initial Auction Information Pack and the Final Auction Information Pack, and note that this meant they were then left waiting for the de-rating factors.

DRAI had concerns relating to the de-rating factors in relation to the volatility, planning and a perception of distorting competition. They wish to seek greater transparency from the System Operators as to the incremental value of time-limited capacity response to better aid investment and planning decisions.

EirGrid and SONI agree with the approach of determining the de-rating factors (as per the 2019/20 T-1 Capacity Auction), and recommend that the methodology be kept under regular review to ensure that it continues to meet the objectives of the Capacity Market.

² [SEM-21-001 Parameters Consultation for 22-23T-1.pdf \(semcommittee.com\)](#)

ESB wish to see a full timetable process for examining the de-rating factors, moving forward to each new auction.

Existing Capacity Price Cap (ECPC)

Energia wish for the ECPC to be increased. The rationale put forward relates to the perceived economic shock due to the Covid-19 pandemic.

Capacity Requirement

SSE note that the Final Auction 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 to compete for. Therefore, they wish that reporting can be as timely as possible to provide this information.

Indicative Demand Curve

SSE note that the intention for the demand curve being set at the proposed points is to avoid the potential for under procurement. They are supportive of this approach to the demand curve for this auction.

Energia stated that it would be prudent not to withhold capacity identified as being required in T-4 auctions, particularly in constrained areas where the risk to security of supply may be acute.

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. ESB suggest that the decision to apply the continuous sloped curve to future T-4 auctions is reviewed following the experience of T-1 auctions participation. For example, if participation is low in the T-1 auctions, then the risk associated with under procurement due to the T-4 slope curve needs to be re-assessed.

New Capacity Investment Rate Threshold (NCIRT)

There were no comments on the Investment threshold from interested parties.

Locational Capacity Constraint Areas (LCCAs)

ESB do not support the inclusion of LCCAs in the CRM Auction as they contend that it leads to a flawed market. They consider that the mechanism ends up failing to provide efficient entry and exit signals.

Termination Charges

EirGrid and SONI do not object to the Termination Charges proposed by the SEM Committee. However, for a Capacity Auction where New Capacity has been successful greater than 13 months prior to the beginning of the Capacity Year, EirGrid and SONI propose that this Termination Fee should be increased from 10,000 (€/MW) to 20,000 (€/MW).

Anticipated values to be applied in determining the Strike Price

EirGrid and SONI note that it may be worth considering reviewing the components of the Strike Price formula to ensure that the incentive to deliver remains while recognising the need for investment certainty. They place concern (for example) on the use of Heavy Fuel Oil index within the formula, specifically within light of the new CO₂ limits.

Net CONE and Value of Load Load (VOLL)

The DRAI and Energia queried an RA stated commitment within the Updated Roadmap for Clean Energy Package Implementation that the market parameters such as VoLL and Net CONE will be reviewed some time in 2021.

Auction Format D

Both ESB and SSE request a report outlining the performance of Auction Format D. In particular, greater documentation should have been provided to market participants on the difference between the Auction Format C and D, and the impact of the change.

Treatment of Constraints

EirGrid and SONI support the exemption of offers that are greater than the Auction Clearing Price and have a duration of greater than 1 year from being automatically cleared to zero under paragraph F.8.4.3 of the Capacity Market Code.

The SEM Committee proposed to remain open to allowing the auction to solve constraints using multi-year New Capacity. SSE are in favour of this.

Energia strongly supports the proposal to include transmission constraints within the T-1 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-1 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 the revision of both VOLL and Net CONE. At this time there is no definitive date for the conclusion of the review of these parameters.

De-Rating Curves and De-Rating Factors

The SEM Committee acknowledges Eirgrid and SONI's opinion that it is necessary to keep the methodology following the T-1 2019/20 auction.

The SEMC acknowledges the change in derating factors highlighted by the DRAI that followed an update to the treatment of time-limited units by the TSOs in the operation of their models. The SEMC does not expect changes of this magnitude in deratings to regularly occur from auction to auction, but notes that the methodology deployed by the TSOs will naturally tend to produce lower deratings for time-limited technology with the more volume that is added, due to the decreasing marginal contribution to security of supply from each MW added.

The Auction Strike Price

The SEMC notes the point raised by Eirgrid/SONI regarding the strike price formulation. There is some complexity and care needed in the review of this formulation and the Committee has decided to retain the existing values for this auction, but may consider potential revisions to this in future auctions.

Capacity Requirement

The SEM Committee notes Energinet'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.

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;
- (a) an allowance for changes in forecast capacity requirements;
- (b) an allowance for capacity to be procured in later auctions for the Capacity Year; and
- (c) 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.

In response to the calls from Energinet for greater transparency on the level of reserves to be included, and the specific volumes proposed to be withheld for demand uncertainty and DSU participation within the demand curve, the SEM Committee intends to continue to publish an Information Note on Auction Volumes following each T-4 auction.

Termination Charges

The SEM Committee notes Eirgrid and SONI's suggestion for increasing the early termination charges. The Committee agrees that this change would be better considered in the context of the future T-4 auctions. For the purpose of this T-1 auction, the Committee is content to retain existing values as proposed.

LCCAs

The SEMC note ESB GT's views on the application of LCCAs in the CRM Auctions. While the Committee acknowledges that there is an interaction between the CRM settings and the

energy markets (particularly the Balancing Market as highlighted), we consider that the LCCAs within the CRM form an important tool via which the minimum locational requirements for new investment can be guided.

Auction Format D

The SEMC will liaise with the TSOs on the potential publication of additional information about the difference between auction formats C and D.

Treatment of Constraints

The SEM Committee notes the comments received on the treatment of constraints within the 2022/23 T-1 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. 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 2022/23 T-1 capacity auction:

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| Anticipated values to be applied in determining the Strike Price | Current values to be re-applied. | | | | | | | | |

Auction Format D

The System Operators in liaison with the RAs have now implemented Auction Format D as the primary solver for the auction. This therefore will also be in place for this T-1 22/23 Capacity Auction.

Treatment of Constraints

For the 2022/23 capacity auction, the SEM Committee remains open to allowing the auction to solve using multi-year New Capacity. A decision on this will be made prior to the publication of the Final Auction Information Pack, after the System Operators have provided the relevant information on Locational Capacity Constraint Areas.