

Single Electricity Market (SEM)

Capacity Remuneration Mechanism T-3 2027/2028 Capacity Auction Parameters

Consultation Paper SEM-24-012

09 February 2024

1. EXECUTIVE SUMMARY

The SEM Committee notified industry on 12th January 2024 of its decision to hold a 2027/28 T-3 Capacity Auction (<u>SEM-24-003</u>). Subsequently, the SEM Committee hosted a Senior Stakeholder Forum on 26th January to invite feedback from industry participants on actions that could facilitate investment and discuss issues faced by industry in terms of delivery and timings. A note outlining some of the matters discussed at this event has been published today (SEM-24-011). It outlines the SEM Committee's intention to increase the APC for this auction and consider setting an Increase Tolerance (INCTOL) value greater than zero.

Under the revised SEM arrangements, implemented in October 2018, capacity revenues are allocated by capacity auction for a relevant capacity year. Prior to each capacity auction, a number of capacity auction parameters must be set. The list of parameters to be determined by the Regulatory Authorities is described in paragraph D.3.1.3 of the Capacity Market Code.

This consultation paper describes the SEM Committee's proposals for the relevant parameters to apply in the 2027/2028 T-3 Capacity Auction, scheduled to take place on 26th September 2024.

The proposed parameters for consultation are:

Parameter	Proposed Value for 2027/2028 T-3 capacity auction
De-Rating Curves, defining De-Rating Factors by unit Initial Capacity and by Technology Class (including Interconnectors)	As per the T-4 2027/28 Capacity Auction.
Capacity Requirement	Initial Capacity Requirement as per the T-4 2027/28 Capacity Auction

Indicative Demand Curve	 The Demand Curve for the 2027/2028 T-3 auction will be set as the following: Horizontal at the Auction Price Cap from 0 MW to 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. The Demand Curve will take appropriate account of already awarded capacity
Auction Price Cap	SEM Committee proposes to increase the APC by applying a higher multiplier to Net CONE.
Existing Capacity Price Cap	0.5 x Net CONE i.e. €54,586 / de-rated MW /year. As above, this is subject to change.
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 (IAIP).
Increase Tolerance and Decrease Tolerance by Technology Class	The SEM Committee is considering whether to set a non-zero INCTOL, and if so, what value to set INCTOL at. The SEM Committee is also considering whether a non-zero INCTOL should apply to all capacity, New Capacity only, or only capacity which is less than a certain threshold number of years old.

	Technology Class		rease ance (%)	Decrease Tolerance (%)
	All Except DSUs	7	ГВС	0
	DSUs	7	ГВС	100
	Date / Event			nance Security ate (€/MW)
	From Capacity Au	ıction		
	completion to 27 m	nonths		20,000
	prior to the beginn	ing of		20,000
Performance Security Posting	the Capacity Yo	ear		
Dates / Events	27-13 months prior	to the		
	beginning of the Ca	apacity		30,000
	Year			
	From 13 months	s to		
	beginning of Cap	acity	40,000	
	Year			
	From beginning of			50,000
	Capacity Year		50,000	
	Date / Event		Terminat	ion Charge Rate (€/MW)
	From Capacity Auction			
	completion to 27 months		20,000	
	prior to the beginning of		20,000	
	the Capacity Y	ear		
Termination Charges	27-13 months prior	to the		
Termination Charges	beginning of the Ca	nning of the Capacity 30,000		30,000
	Year			
	From 13 month	s to		
	beginning of Cap	acity	40,000	
	Year			
	From beginning	g of	50,000	
	Capacity Yea	ır		

	Short Term Reserve (MW)	Administered Scarcity Price (€/MWh)	
Full Administered Scarcity	Demand Control	25% of VOLL	
Price and Reserve Scarcity	0	25% of VOLL	
Price Curve	500	RO Strike Price	
Anticipated values to be applied in determining the Strike Price	Current inputs to be re-applied.		

Responses to the proposals within this consultation should be sent to both mailboxes CRMSubmissions@uregni.gov.uk and CRMSubmissions@cru.ie by 23 February 2024 giving a two week consultation period. We intend to publish all responses unless they have been marked as confidential.

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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.

The SEM Committee notes that a consultation (SEM-23-093) considering the introduction of intermediate length contracts to facilitate refurbishment was published late last year and signaled that if a decision was taken to proceed with this policy change, the intention would be to implement any necessary CMC modification(s) prior to the issue of the relevant operational process documents for the 2028/29 T-4 auction. This intention remains as stated.

The SEM Committee also notes a decision (SEM-23-101) published on 30th November 2023 to implement two CMC Modifications to allow holders of Multi-Year New Capacity contracts to apply for extensions to the Long Stop Date and Capacity Quantity End Date and Time. This decision applies to auctions with capacity delivery from Capacity Year 2024/25 onwards and includes auctions due to take place in 2024.

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 ("UR") in Northern Ireland and the Commission for Regulation of Utilities ("CRU") in Ireland).

Parameters to be determined

Paragraph D.3.1.3 of the CMC requires the Regulatory Authorities to determine the following parameters for each Capacity Auction, and provide them to the System Operators for inclusion in the applicable Initial Auction Information Pack:

- (a) the De-Rating Curves, defining De-Rating Factors by Technology Class (including for Interconnectors).
- (b) the Capacity Requirement.
- (c) an indicative Demand Curve.

- (d) the Auction Price Cap.
- (e) the Existing Capacity Price Cap.
- (f) the €/MW rate of the New Capacity Investment Rate Threshold.
- (g) the Annual Stop-Loss Limit Factor.
- (h) the Billing Period Stop-Loss Limit Factor.
- (i) the indicative Annual Capacity Payment Exchange Rate.
- (j) the Increase Tolerance and Decrease Tolerance by Tolerance Class that may be applied by a Participant in its Application for Qualification to Capacity Market Unit de-ratings.
- (k) in respect of Performance Securities:
 - the final Performance Security Posting Dates/ Events applicable to
 Awarded Capacity allocated in the Capacity Auction; and
 - (ii) for each Performance Security Posting Date/ Event, the final €/MW rate to be applied in setting Performance Securities applicable to Awarded Capacity allocated in the Capacity Auction.
- (I) the €/MW fee rates for calculating Termination Charges.
- (m) values for the Full Administered Scarcity Price and the Reserve Scarcity Price;
- (n) anticipated values for the parameters to be applied in determining the Strike Price; and
- (o) the Final Capacity Aggregation Threshold for the Capacity Auction.

4. PARAMETERS REQUIRED BY THE CAPACITY MARKET CODE

As described, the Regulatory Authorities must determine the following parameters:

(a) the De-Rating Curves, defining De-Rating Factors by Technology Class (including for Interconnectors).

A De-Rating Curve is a curve for a Technology Class that represents the De-Rating Factor applicable by unit Initial Capacity and Initial Maximum On Time to be used in a Capacity Auction. A De-Rating Factor describes the proportion of Initial Capacity of a Generator Unit or Interconnector that can contribute towards satisfying the Capacity Requirement to be used in a Capacity Auction.

For the 2027/28 T-3 Capacity Auction, the SEM Committee proposes using the same De-Rating Factors as used in the 2027/28 T-4 Auction.

(b) the Capacity Requirement.

The Capacity Requirement is the de-rated capacity required to satisfy the SEM Security Standard for a specific Capacity Year to be used in a Capacity Auction.

For the 2027/28 T-3 Capacity Auction, the SEM Committee proposes using the same Capacity Requirement as used in the 2027/28 T-4 Auction.

(c) an indicative Demand Curve.

The Demand Curve is a curve determined by the Regulatory Authorities representing the deemed per MW value of each level of capacity that could be awarded in the Capacity Auction. The Demand Curve for the T-3 2027/2028 auction will be set as the following:

- Horizontal at the Auction Price Cap from 0 MW to 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.

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 (FAIP).

The Capacity Requirement described above will be adjusted to account for these volumes. In accordance with paragraph F.3.1.4 of the Capacity Market Code, other adjustments to the Capacity Requirement will include:

- an allowance for changes in forecast capacity requirements (as considered appropriate by the Regulatory Authorities).
- an allowance for capacity to be procured in later auctions for the Capacity Year (as considered appropriate by the Regulatory Authorities); and
- 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 (as considered appropriate by the Regulatory Authorities).

(d) the Auction Price Cap.

The Auction Price Cap (APC) is the maximum bid price allowed in a Capacity Auction. As noted in SEM-24-XXX, Significant feedback was received from the industry regarding the Auction Price Cap and the impact of generally declining derating factors on the financial viability of projects. This Parameters consultation presents an opportunity for respondents to submit more detailed evidence (which can be submitted confidentially, or as part of a confidential annex) to substantiate an appropriate value. The SEM Committee intends to increase the APC for this auction and seeks feedback on setting this parameter. For the 2027/28 T-3 capacity auction, the SEM Committee intends to use the same Net CONE value of € 109,172/derated MW, as used for the 2027/28 T-4 capacity auction. However, the SEM Committee proposes to increase the APC by applying a higher multiplier to Net CONE

(e) the Existing Capacity Price Cap

The Existing Capacity Price Cap ("ECPC") is the price cap applicable to Existing Capacity in a Capacity Auction. It is a uniform non-technology specific cap on the price that Existing Page 10 of 21

Generators and interconnectors can offer volume at unless they apply to the RAs for a Unit Specific Price Cap ("USPC")¹. New Capacity and DSUs are not subject to the ECPC, and may bid up to the Auction Price Cap.

ECPC performs two key functions:

- Firstly, it limits the ability of generators with market power (but low Net Going Forward Costs ("NGFCs")) to exercise their market power through making high offers. Given the significant concerns about market power in the CRM (see SEM-16-010), it is important that the ECPC is not set at a level significantly above where the market is expected to clear in current market conditions.
- Secondly, it provides a filter to ensure that the RAs only scutinise costs where
 necessary (because they may have a material impact on the clearing price or pay-asbid prices). If the ECPC is set too low, then offer prices which are below the clearing
 price (and therefore will have no impact on the clearing price or pay-as-bid prices) will
 need to be reviewed, imposing an unnecessary administrative burden on both the RAs
 and bidders.

In all capacity auctions to date, ECPC has been set at 0.5 times Net CONE. The rationale for this value was:

- 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 USPC.
- It is consistent with relevant international benchmarks.
- 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.

The SEM Committee's proposal is to continue to set the ECPC at 0.5 times Net CONE (€54,586 / de-rated MW / year), and the Sterling equivalent using the indicative Annual Capacity Payment Exchange Rate from the Initial Auction Information Pack. Any existing capacity with Net Going Forward Costs higher than the Existing Capacity Price Cap will retain the option to submit a USPC application to the RAs.

¹ Or submit an Opt-Out Notification on the grounds that they are going to close before the end of the relevant Capacity Year.

(f) the €/MW rate of the New Capacity Investment Rate Threshold.

The New Capacity Investment Rate Threshold ("NCIRT") is an amount determined by the RAs that must be exceeded by the cost per MW of constructing New Capacity for that capacity to be eligible to be allocated Awarded Capacity with a duration of more than one year.

New Capacity is eligible to bid to fix its Reliability Option for up to ten years. In order to do so, a capacity provider must meet a substantial financial commitment threshold. This threshold is known as the NCIRT.

The intention of setting the NCIRT is to ensure that only plant making a substantial financial commitment equivalent to the commitment for a new build plant is able to obtain a multi-year Reliability Option.

Multi-year ROs should not be available to plant making a minor refurbishment. However, the threshold should not penalise investors who are able to build efficiently at low capital cost.

As described in the initial CRM parameters decision paper², NCIRT for the first transitional auction was set at approximately 40% of the gross BNE cost, or €300,000 / de-rated MW. The BNE was re-evaluated in 2023 but the SEM Committee proposes to retain the value of NCIRT at €300,000/de-rated MW for the 2027/28 T-3 Auction.

(g) the Annual Stop-Loss Limit Factor

The Annual Stop Loss Limit is the multiplier used to establish the annual stop-loss limit for Non-Performing Difference Charges from a Capacity Market Unit.

A stop-loss is a cap on Reliability Option Difference Payments. Reliability Option Difference Payments are charges that must be paid by a generator during a scarcity event. The purpose of the cap is to limit risk on the generator and improve investability. However,

² SEM-17-022, paragraph 7.2.18

a cap on RODPs means that there will be insufficient money to hedge suppliers, which has to be funded through the socialisation fund.

The stop-loss limit applies only to uncovered difference payments. It does not apply where the capacity provider has received revenue through the energy market to cover the difference payment. The stop-loss limit applies to the annual option fee. To date in the capacity market, the Annual Stop-Loss Limit Factor has been set at 1.5.

The SEM Committee propose to continue to apply an Annual Stop-Loss Limit Factor of 1.5 to Awarded Capacity allocated in the 2027/2028 T-3 auction.

(h) the Billing Period Stop-Loss Limit Factor.

The Billing Period Stop-Loss Limit Factor is a multiplier used to establish the billing period stop-loss limit for Non-Performance Difference Charges from a Capacity Market Unit.

The purpose of stop-loss limits is described above. The purpose of the Billing Period Stop-Loss Limit Factor is to limit the level of losses in any Billing Period (week).

If there were no Billing Period Stop-Loss Limit Factor, and there were a number of scarcity events at the start of the Capacity Year so that a capacity provider reached its Annual Stop-Loss Limit, that capacity provider would have a reduced incentive to maximise its availability for the remainder of the capacity year.

By limiting the losses that can apply in any Billing Period, the incentive to remain available for the remainder of the Capacity Year is maximised.

The Billing Period Stop-Loss Limit Factor is currently 0.5³. The SEM Committee proposes to retain this value for Awarded Capacity allocated in the 2027/2028 T-3 capacity auction.

³ Note: in the parameters decision paper for the first capacity auction (<u>SEM-17-022</u>), the SEM Committee decided that the Billing Period Stop-Loss Limit should be 50% of the Annual Stop-Loss Limit. Because the Annual Stop-Loss Limit Factor was set to 1.5, the Billing Period Stop-Loss Limit Factor was set to 0.75. However, because of the way the Annual and Billing Period Stop Loss Limit Factors interact within paragraph F.18.3.2 and F.18.3.4 of the Trading and Settlement Code, in order to achieve a relation of 50%, a Billing Period Stop-Loss Limit Factor of 0.5 is required.

(i) the indicative Annual Capacity Payment Exchange Rate.

The Annual Capacity Payment Exchange Rate is an exchange rate applicable to a Capacity Year which converts the Capacity Payment Price for a Primary Trade or a Secondary Trade from Euros to Sterling. This is determined by the System Operators using a methodology approved by the RAs.

Only the indicative exchange rate is calculated for the Initial Auction Information Pack. This will be calculated immediately prior to its publication. The exchange rate will then be updated for inclusion in the Final Auction Information Pack (FAIP).

(j) the Increase Tolerance and Decrease Tolerance by Tolerance Class that may be applied by a Participant in its Application for Qualification to Capacity Market Unit de-ratings.

The Increase Tolerance is a percentage upwards tolerance that a Participant is permitted to apply to Capacity Market Unit de-ratings in an Application for Qualification. There may be different Increase Tolerances for different Technology Classes.

A Decrease Tolerance is a percentage downwards tolerance that a Participant is permitted to apply to Capacity market Unit de-ratings in an Application for Qualification. There may be different Decrease Tolerances for different Technology Classes.

The SEM Committee Decision SEM-15-103⁴ allowed for the possibility of tolerance bands to be applied to the unit-level De-Rating Factors determined for capacity providers. These tolerance bands would allow some flexibility in the level of participation required from dispatchable plant in the auction. This allowance was made in relation to mandatory participation, although all generators would still be required to participate. It would reflect the fact that not all generators of the same technology class have the same degree of reliability.

⁴ SEM-15-103

In previous auction, the Increase Tolerance (INCTOL) has been set at zero for all capacity. The SEM Committee is considering changing this decision for the 2027/2028 T-3 auction, and is consulting on:

- Whether to set a non-zero INCTOL, and if so, what value to set INCTOL at.
- Whether a non-zero INCTOL should apply to all capacity, New Capacity only, or only capacity which is less than a certain threshold number of years old.

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

Setting INCTOL greater than zero would allow units to bid for a greater volume of Reliability Option than would be allowed for based on the standard derating factors, as published in the 2027/28 T-4 IAIP. For instance, in the 2027/28 T-4 auction, the standard derating factor (DRF) for a 470MW nameplate CCGT⁵ was 0.744. So, a 470MW CCGT would be able to bid for a 349.68MW Reliability Option.

There has been a substantial decline in DRFs in recent years. DRFs are based on historical availabilities of SEM units of that technology and have declined due to the declining performance of the aging fleet, and low availabilities of DSUs. However, it is arguable that new units should have better availabilities and should not have the DRFs reduced to such an extent by the poor performance of units which may be as much as 40 years old.

If, for instance, INCTOL was set at 10%, a new 470MW CCGT would be able to bid for a Reliability Option of 384.648MW_d and would be able to earn 10% more income for a given €/MW_d/year.

⁵ The CCGT chosen as the best new entrant CCGT in the 2023 BNE study was a 470MW nameplate unit

	200MW OCGT ⁶	470MW CCGT	50MW, 2h battery	5MW, 2h DSU
2022/23 T-4	0.905	0.860	0.554	0.599
2023 BNE Study	0.846	0.748		
2027/28 T-4	0.829	0.744	0.190	0.128

As shown in the table above, DRFs for certain technologies have declined since the first T-4 auction, for 2022/23. A 10% INCTOL for a 470MW CCGT would mean that it could bid at 81.84% of nameplate capacity, still below the standard DRF of 0.86 (86%) that applied in the 2022/23 T-4.

As discussed above, the SEM Committee intends to increase the Auction Price Cap, which would allow investors to obtain a higher price per derated kW and per unit of nameplate MW. A non-zero INCTOL would also allow investors to earn a higher return per unit of nameplate kW, further reinforcing the attractiveness of the market to investors.

Note that capacity which has won in recent auctions but has not yet been commissioned can still be classed as New Capacity if it has yet to complete commissioning under the Grid Code⁷. Therefore, some of the capacity which is in the process of being built could Qualify for the 2027/28 T-3 and use the INCTOL provision to obtain an incremental capacity contract, if it believed it could deliver higher availability and was prepared to take on a larger capacity obligation.

The SEM Committee is also seeking views on whether some or all Existing Capacity should be able to use INCTOL provisions. At the moment, DRFs are set by technology class, and the DRFs for units with higher availabilities are being adversely affected by

⁶ The best new entrant OCGT in the 2023 BNE study was approximately 200MW nameplate

⁷ In the CMC, New Capacity "means, in respect of the Qualification Process and its associated Capacity Auction, the planned capacity of a new Generator, Generator Unit or Interconnector forming the whole or part of a Capacity Market Unit or proposed Capacity Market Unit, or the incremental increase in the capacity of an existing Generator, Generator Unit or Interconnector forming the whole or part of a Capacity Market Unit or proposed Capacity Market Unit (which has yet to complete Commissioning under the relevant Grid Code), and the planned capacity or incremental increase in capacity of the Capacity Market Unit that comprises them. Where a Demand Site would otherwise be considered New Capacity for the sole reason of a change of its registered Demand Side Unit then it shall be considered Existing Capacity under this Code".

the DRFs of units with historically lower availabilities over the last 5 years⁸. It may be appropriate to allow owners of Existing Capacity, which can deliver higher availability going forward to take on a larger capacity obligation. If a capacity market unit takes on a larger Reliability Option, but fails to deliver on its capacity obligations, it will be subject to uncovered Reliability Option Difference Payments.

There are complexities in setting INCTOL, which may make it more challenging to set a "one size fits all" for units of different sizes and technologies. For instance, whilst it may be considered proportionate in setting INCTOL at 10% for a new 470MW CCGT which currently has a DRF of 0.744, would it be appropriate to set an INCTOL of 10% for a 10MW gas turbine, which currently had a DRF of 0.89 in the 2027/28 T-4 auction? A 10% INCTOL would allow it to bid for 9.79MWd of Reliability Option, and it is unlikely to deliver 97.9% of its nameplate capacity throughout the year. The SEM Committee recognises that it may have to apply a simple interim approach too INCTOL for the T-3 auction, which seeks to recognise typical availability levels attained by new capacity, but recognises that there is insufficient time to make changes to the CMC in time for the T-3 auction. There is the potential for later refinements, and the SEM Committee seeks feedback on the above points.

- (k) in respect of Performance Securities:
 - (i) the final Performance Security Posting Dates/ Events applicable to Awarded Capacity allocated in the Capacity Auction; and
 - (ii) for each Performance Security Posting Date/ Event, the final €/MW rate to be applied in setting Performance Securities applicable to Awarded Capacity allocated in the Capacity Auction.

A Performance Security is a security required as a condition of capacity award for Awarded New Capacity that has not reached Substantial Completion.

A Performance Security Posting Date/ Event is a date or event from which a specified €/MW rate shall be applied to Awarded Capacity in setting Performance Securities. There may be multiple different Performance Security Posting Dates/ Events.

⁸ According to the existing derating methodology, DRFs for a technology class are based on the average availability of all units in that technology class in the SEM over the last 5 years.

The Performance Security Posting Dates / Events applicable to Awarded Capacity allocated in a Capacity Auction are determined by the Regulatory Authorities and provided to the System Operators.

Interested parties are asked to comment in their response, on the amounts the SEM Committee have set with regards to the Performance Security Rate and the Termination Charges (of course the Bond amount should be a one for one to the Termination amount) but also on the milestones, participants are asked to give the SEM Committee their view as to whether the number of milestones is suitable and / or whether a greater timeframe is required.

Date / Event	Performance Security Rate (€/MW)
From Capacity Auction completion to 27	20,000
months prior to the beginning of the Capacity Year	20,000
27-13 months prior to the beginning of the Capacity Year	30,000
From 13 months to beginning of Capacity Year	40,000
From beginning of Capacity Year	50,000

(I) the €/MW fee rates for calculating Termination Charges

A Termination Charge is a fee payable by a Participant where Awarded New Capacity is terminated.

The CRM detailed design decision paper⁹ noted that it is important that New Capacity is required to pay a Termination Fee if it fails to deliver capacity. The Termination Fee will be payable if the project:

⁹ SEM-16-022

- fails to deliver the Substantial Financial Completion milestones by the given date;
 or
- fails to achieve Substantial Completion by the Long Stop Date; or
- submits false or misleading information in the Qualification process.

For all capacity auctions to date, the Termination Charges have been set in accordance with the following table:

Date / Event	Termination Charge Rate (€/MW)
From Capacity Auction completion to 27 months prior to the beginning of the Capacity Year	20,000
27-13 months prior to the beginning of the Capacity Year	30,000
From 13 months to beginning of Capacity Year	40,000
From beginning of Capacity Year	50,000

The SEM Committee seeks feedback on the changes outlined above, and also those of the Performance Security rates.

(m) values for the Full Administered Scarcity Price and the Reserve Scarcity Price;

The Administered Scarcity Price ("**ASP**") sets a floor on the Balancing Market price when a scarcity event occurs. The Full Administered Scarcity Price is the maximum value of the Administered Scarcity Price. The Reserve Scarcity Price Curve is a piecewise linear curve defining the relationship between the Reserve Scarcity price and the Short-Term Reserve Quantity.

In the second CRM detailed design decision paper¹⁰, the SEM Committee decided that the piece-wise linear function of ASP will be static, and the price from which the function begins will be the Reliability Option Strike Price.

¹⁰ SEM-16-022, section 6.4

However, the Reliability Option Strike Price is not strictly static. As described below, it is set in relation to weekly carbon, gas, and oil prices, but has a floor price equal to the theoretical price of a Demand Side Unit (which has most frequently been set at €500/MWh).

The SEM Committee proposes to set the price at which the piece-wise linear function of ASP begins at the floor of the Strike Price, as determined below. The Administered Scarcity Price will therefore be set in accordance with the following table:

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

To clarify, ASP only applies when the available Short-Term Reserve is less than the operating reserve requirement. If the operating reserve requirement is only 450 MW and the available Short Term Reserve falls to 490 MW the ASP function does not apply and prices will be market determined.

At this stage, the SEM Committee proposes to retain setting the value of Full ASP in relation to VOLL. However, the SEM Committee requests respondents' views on whether any changes could be made to the parameters of the ASP function to encourage availability at times when system margins are tight.

(n) anticipated values for the parameters to be applied in determining the Strike Price; and

If the Market Reference Price exceeds the Strike Price, holders of Reliability Options must make Difference Payments. The formula for the calculation of the weekly Strike Price (PSTR_w) is contained in Section F.16.2 of the Trading and Settlement Code (Part B).

5. TREATMENT OF CONSTRAINTS

For the purposes of a Capacity Auction, a number of Locational Capacity Constraints Areas ("LCCA") can be determined by the System Operators. A Locational Capacity Constraint Required Quantity is the minimum de-rated capacity quantity that is required to satisfy the Locational Capacity Constraint.

The Capacity Auction is initially run on an unconstrained (i.e., location agnostic) basis. If following the initial solution, any of the Locational Capacity Constraints has not been satisfied, additional capacity must be procured ¹¹. This capacity will be procured on a payas-bid basis.

When procuring this additional capacity, New Capacity with an offered capacity duration of more than one year should be excluded. However, if there is insufficient capacity within an LCCA to allow the constraint to be met without it, this new, multi-year, Capacity must be considered.

For the 2027/2028 T-3 capacity auction, the SEM Committee remains open to allowing the constrained element 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 (FAIP), after the System Operators have provided the relevant information on LCCAs.

6. NEXT STEPS

Responses to the proposals within this consultation should be sent to both email addresses CRMSubmissions@uregni.gov.uk and CRMsubmissions@cru.ie, by 23rd
February 2024.

We intend to publish all responses unless they have been marked confidential.

¹¹ Under Auction Format C and D, this constrained capacity can replace capacity that was used to satisfy the initial solution.