# High level design options for CRM 2.0

## Consultation Paper

## SEM-26-037

## 03 July 2026

# EXECUTIVE SUMMARY

This consultation paper sets out proposed design options for the next iteration of the Capacity Remuneration Mechanism (CRM 2.0) in the Single Electricity Market (SEM), to inform the forthcoming State aid application. The current CRM arrangements, in place since 2018, are approved until May 2028. In preparing for the next approval period, the SEM Committee is considering enhancements to ensure continued alignment with evolving EU policy frameworks, including the Climate, Energy and Environmental Aid Guidelines (CEEAG) and the Clean Industrial State Aid Framework (CISAF), as well as wider decarbonisation objectives across Ireland, Northern Ireland and the European Union.

This paper is accompanied by a report prepared by AFRY, which provides a high-level review of the existing CRM and assesses a range of design options for CRM 2.0. Building on this analysis, the SEM Committee is consulting on a set of proposals intended to support security of supply, facilitate the transition to a low-carbon electricity system, and ensure compliance with State aid requirements, while maintaining cost efficient provision.

The consultation focuses on six key design areas:

- Delivery Timeframe
- Enhanced Availability Incentives
- De-Rating Factors
- Cost Recovery Mechanism
- Decarbonisation
- Flexibility Integration

The first four areas are proposed for development and potential implementation in line with the next State aid approval. Decarbonisation is included for potential implementation over the lifetime of CRM 2.0, rather than at the outset, whilst Flexibility Integration is introduced as a key consideration for CRM 2.0, which is not yet sufficiently developed to support detailed consultation, due to ongoing development of Flexibility Needs Assessments.

They are intended to future-proof the CRM framework and maintain flexibility to respond to evolving system and policy needs within the terms of the State aid approval. There is also an opportunity for wider comment on the CRM, reflecting requirements of the CEEAG on Member States to undertake a public consultation covering the proportionality and competition impacts of measures to be notified under State aid.

Across these areas, the SEM Committee is considering measures to: improve delivery certainty of New Capacity; strengthen availability incentives; better reflect the contribution of emerging technologies such as storage and demand-side response; enhance the efficiency and cost-reflectivity of capacity cost recovery; and ensure the CRM remains adaptable to future flexibility and decarbonisation requirements.

Stakeholders are invited to respond to the consultation by close of business on 04 September 2026. Responses should be submitted to both CRMsubmissions@cru.ie & crmsubmissions@uregni.gov.uk.

Responses will inform the SEM Committee's assessment of the preferred design elements for inclusion in the CRM 2.0 State aid application.

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## Glossary of Terms and Abbreviations

| Abbreviation or Term | Definition or Meaning |
|---|---|
| ASP | Administered Scarcity Pricing |
| CEEAG | Climate, Energy and Environmental Aid Guidelines |
| CISAF | Clean Industrial State Aid Framework |
| CMU | Capacity Market Unit |
| CRM | Capacity Remuneration Mechanism |
| DRF | De-Rating Factor |
| DSU | Demand Side Unit |
| EU | European Union |
| FNA | Flexibility Needs Assessment |
| ILC | Intermediate Length Contract |
| LoLP | Loss of Load Probability |
| NFFSS | Non-Fossil Flexibility Support Scheme |
| RO | Reliability Option |
| SEM | Single Electricity Market |
| TSO | Transmission System Operator |

# 1. Introduction

## 1.1 Background and context

In 2024, the SEM Committee considered the alignment of the current Capacity Remuneration Mechanism (CRM) with the updated State aid guidelines, the Climate, Energy and Environmental Aid Guidelines (CEEAG)[1]. Subsequently, the SEM Committee published in its Forward Work Plan 2024-25 and Interim Forward Work Plan, a series of actions regarding CRM development and preparation for the next State aid application. These included assessing measures to reduce carbon emissions within the current CRM framework, reviewing of the current CRM in the context of legislative alignment, best practice and planning for the next State aid application.

To assist, AFRY were engaged to undertake this analysis and assess options for the next iteration of the CRM and State aid application. The SEM Committee is publishing the Review and Design Report (the Report) alongside this consultation paper, which consists of a high level review of the current CRM and design options for the next iteration of the CRM (CRM 2.0).

## 1.2 Related Documents

This consultation paper should be read in conjunction with the Report, which provides AFRY's review of the existing CRM and design options for the CRM 2.0. The Report includes a review of the current CRM against legislative alignment, international best practices, and a proposed shortlist of design options to include in the CRM 2.0 State aid application. It serves as a key reference underpinning the proposals outlined in this consultation.

## 1.3 Structure of Paper

The consultation paper is structured as follows:

- Section 2 presents the following proposed options for consideration as follows:
    1. Delivery Timeframe
    2. Enhanced Availability Incentives
    3. De-Rating Factors
    4. Cost Recovery

[1] EUR-Lex - 52022XC0218(03) - EN - EUR-Lex

5. Decarbonisation
6. Flexibility Integration

The first four of these design options are intended to be developed and implemented in line with the commencement of the next State aid approval, whilst Decarbonisation is intended to assist in "future proofing" the next State aid approval, with its refinement, detailed design and implementation to follow if and when appropriate. Flexibility Integration is introduced as an important and evolving consideration for CRM 2.0; however, given the ongoing development of Flexibility Needs Assessments and associated frameworks, it is not yet sufficiently advanced to support consultation on a detailed approach at this time. Also included is an opportunity for wider comment on the CRM, particularly covering the proportionality and competition impacts of measures to be notified under State aid.

- Section 3 outlines the next steps in the consultation process, including timelines and instructions for submitting stakeholder responses.

The consultation period will run until 04 September 2026, and responses should be sent to both CRMsubmissions@cru.ie & crmsubmissions@uregni.gov.uk.

# 2. Proposed CRM Design Options

The SEM Committee is considering options posed by AFRY based on the Report published alongside this consultation paper. The following sections set out the SEM Committee's proposals for the implementation of each of these design options and request respondents' feedback, including to the specific consultation questions posed. In some cases, supporting evidence is requested.

## 2.1 Delivery Timeframe

The SEM Committee's consultation SEM-26-003 and decision SEM-26-024, which considered options for the timing of upcoming CRM auctions, primarily focused on shorter term auction options, with the SEM Committee deciding on a solution that prepares for a glide-path towards a longer lead time, whereby there would be consecutive auctions for CY2031/32 and CY2032/33. Respondents were also invited to provide views on a potential transition to T-5 auctions in the context of the CRM Development Programme and forthcoming State aid approval, which has fed into the design options discussed below.

A majority of respondents expressed support for a move to T-5 auctions in the longer term, noting that this timeframe is more closely aligned than T-4 when considering the practical timelines associated with planning and grid connection processes across the SEM.

The CISAF framework provides that:

- A main auction covering 75–90% of target demand should take place 4–6 years ahead of delivery; and
- Adjustment auctions may occur closer to delivery, reflecting the shorter lead times of demand response and storage technologies.

Whilst the SEM Committee acknowledges that development timelines vary by technology and jurisdiction, consideration has been given to Capacity Auction frameworks across other European markets along with delivery outcomes for new capacity awarded under the CRM up to and including the 2025/26 Capacity Year. Taken together with stakeholder responses, this evidence supports consideration of a T-5 timeframe for the main auction and T-1 top-up auction, with further review as further delivery data emerges. This is also consistent with CISAF which requires the

main auction to occur 4–6 years ahead of the delivery window. The SEM Committee is aware that moving to a T-5 timeframe increases uncertainty in forecasting future capacity requirements, including demand projections. However, it believes this may be offset by improved delivery certainty, as longer lead times reduce the risk of project termination.

It is also thought the T-1 auction will address upward revisions in capacity requirements and provide an accessible route for DSU participation, noting that DSUs may face greater challenges participating in a T-5 auction than in a T-4 auction.

The SEM Committee also recognises that the optimal timeframe for delivery of battery storage may need to be kept under review in case an intermediate timeframe may be better suited to this technology type. In this regard, it may be appropriate to allow flexibility to hold other timeframe auctions over the lifetime of CRM 2.0 in the State aid approval.

**SEM Committee proposal**

Having considered the evidence from the Report, responses to SEM-26-003, other jurisdictional experience, and the requirements of the CISAF framework, the SEM Committee proposes the following approach for auction timings under CRM 2.0.

a. The SEM Committee proposes that the main capacity auction is held on a T-5 basis as the standard design under CRM 2.0. This approach reflects:
    - Evidence from delivery outcomes indicating that T-3 and T-4 timeframes have not consistently supported timely delivery, particularly for gas-fired generation;
    - The majority view expressed by respondents to SEM-26-003 that T-5 is more closely aligned with planning, consenting and grid connection timelines within the SEM; and
    - The requirement under CISAF that the main auction is held 4–6 years ahead of the delivery window.

The SEM Committee considers that a move to T-5 will improve delivery certainty for New Capacity and better align the CRM framework with the practical lead times associated with infrastructure development.

The SEM Committee proposes to retain a T-1 auction as the standard top-up auction that will:

- Provide a mechanism to address residual capacity requirements, including any upward revisions to demand forecasts; and
- Facilitate the participation of DSUs and other shorter lead-time technologies, for which the evidence indicates that T-1 represents an effective contracting point.

b. The SEM Committee proposes that 5% to 25% of the capacity requirement may be withheld from the T-5 auction and procured at T-1. This range:
   - Is largely consistent with the CISAF requirement that 75–90% of capacity is procured in the main auction. A lower minimum bound is proposed however, which the SEM Committee considers appropriate in light of the greater forecasting uncertainty associated with the T-5 timeframe relative to T-4[2];
   - Supports demand response and other non-fossil flexibility, consistent with SEM Committee objectives; and
   - Reflects observed CRM delivery outcomes, including stronger delivery performance for DSUs at T-1 relative to earlier auction timeframes.

c. It is proposed that a range, rather than a fixed proportion, is specified, thereby allowing the SEM Committee to determine the appropriate volume for each auction, having regard to system needs and prevailing market conditions.

d. Based on the evidence to date, the SEM Committee considers that the proposed T-5/T-1 structure is capable of accommodating battery storage at this stage. However, noting the evolving characteristics of storage technologies, the SEM Committee proposes to:
   - Keep the optimal auction timeframe for storage under review, as further evidence on delivery performance becomes available; and
   - Consider, where appropriate, the introduction of an intermediate auction timeframe (e.g. T-2), should this better align with storage development timelines.

Any such development would require further consideration of the allocation of reserved volumes across multiple auction timeframes.

[2] The SEM Committee is also cognisant that there may be an additional requirement to effectively withhold volumes from the main auction to the top up auction for foreign capacity once explicit cross-border participation is implemented.

e. Finally, the SEM Committee proposes that the CRM 2.0 State aid approval should provide appropriate flexibility in relation to auction timings. This would enable the SEM Committee, where justified, to:
   - Introduce additional auction timeframes; and/or
   - Adjust the timing and structure of auctions over the lifetime of CRM 2.0 in order to ensure continued alignment with system requirements, technology developments, and State aid obligations.

The SEM Committee considers that such flexibility is necessary to ensure that the CRM framework remains robust and adaptable, while continuing to support security of supply and the transition to a more flexible, low-carbon system.

**Consultation questions**

1. Do stakeholders agree with the proposal to adopt a T-5 timeframe as the standard for main capacity auctions under CRM 2.0? Please include supporting rationale.
2. Do stakeholders agree that a T-1 auction remains appropriate as the standard top-up timeframe?
3. Is the proposed reservation of 5% to 25% range of the T-5 capacity requirement for the T-1 auction appropriate?
4. Do stakeholders consider that the proposed T-5/T-1 structure adequately accommodates battery storage and other emerging technologies?
5. Should the CRM 2.0 State aid framework include flexibility to introduce additional auction timings if required?

## 2.2 Enhanced Availability Incentives

The Reliability Option (RO) provides an availability incentive for Capacity Market Units (CMUs) during extreme periods of system stress and where the energy price reflects scarcity. These are the periods in which the system is extremely “scarce”, and the Loss of Load Probability (LoLP) is high. The strike price is set at a level corresponding effectively to the (estimated) maximum marginal cost of a CMU. At market prices above this level, CMUs must pay back any revenue they earn (or would have earned if they were running), essentially giving back to consumers the value of scarcity reflected in the energy market, in return for the Capacity Payments they receive.

The RO is designed to operate in conditions of acute system stress. However, historical evidence indicates that such conditions have arisen in only a very limited proportion of hours (typically below 0.21% annually), suggesting that availability incentives under the current framework are concentrated in a narrow set of extreme events.

**SEM Committee proposal**

The SEM Committee is not minded to amend the operation of the RO and Administered Scarcity Pricing (ASP) further at this stage, noting that ASP has recently been subject to review and modification (SEM-25-029), with updated arrangements in the process of implementation. However, as an alternative approach to enhancing availability incentives, the SEM Committee are considering the possibility of a supplementary mechanism that could broaden the reach of availability incentives beyond periods of the most extreme system conditions in which the RO will trigger, based on the Report's recommendation and drawing on the Belgian and French designs. This mechanism would:

- Extend availability incentives beyond extreme scarcity periods captured by the RO;
- Target a broader set of system stress periods, aligned with 1-5% of annual hours, consistent with CISAF cost allocation principles; and
- Apply lower financial exposure than the RO, reflecting lower system risk in these periods.

Design

In terms of the proposed design, availability incentives under the supplementary mechanism would apply during periods of elevated system stress, rather than uniformly across all trading periods. These periods should correspond to a broader scarcity band than that captured by the RO, reflecting the relationship between capacity margins and LoLP; and the limited historical frequency of RO-triggered events (typically <0.21% of hours)[3].

Trigger

[3] See table 2 of AFRY report.

Two approaches are presented in the Report for triggering the supplementary availability incentive, the first of which is based on the energy price. This trigger would be activated when market prices exceed a defined threshold below the RO strike price and align with scarcity pricing signals, though it's worth noting this may also influence bidding behaviour. As such, reliance on a price-based trigger may introduce additional complexity and may not fully reflect underlying system adequacy conditions.

The second would be based on a measure of margin and be activated when system margins fall below a defined threshold. This would provide a more direct adequacy signal. The trigger for Administered Scarcity Pricing, as amended via SEM-25-029, is based on the quantity of Replacement Reserve available, relative to the Operating Reserve Requirement. This measure of margin is appropriate for the identification of periods of extreme scarcity or high LoLP, when the RO should be triggered. The SEM Committee proposes the use of an alternative margin metric that would correspond to the 1-5% of tightest hours across the year and would be forecast at the start of the Capacity Year. This could be calculated, for example, based on the excess total available capacity relative to the demand in each period. The TSOs are requested to propose in their response a suitable margin metric and supporting evidence for the purpose of the supplementary mechanism such that the tightest 1-5% of hours in the year would be captured.

The RO would take primacy, such that where both mechanisms would apply, only the RO would be active. With this approach, the TSOs could provide advance notice of expected scarcity periods where feasible.

The SEM Committee notes that the introduction of this supplementary mechanism could create an incentive to over declare availability, and that it may be appropriate to introduce additional testing requirements in parallel.

Charging Structure

In periods when the availability obligation was triggered, there would be charges applied to CMUs in respect of any unavailable capacity relative to their obligated capacity. The level of financial exposure under the supplementary mechanism would be lower than under the RO, reflecting the lower level of system stress in the relevant periods and ensuring proportionality of incentives. The SEM Committee proposes that the charge for unavailability during periods when the supplementary availability

mechanism is triggered would be set as a function of the Capacity Payment Price of each CMU. A scalar would be applied such that a higher charge rate would be associated with unavailability that is not notified to the TSOs in advance than to unavailability that is notified in advance.

The maximum exposure could be subject to stop loss limits, noting that the annual stop loss limit applied to RO difference payments is typically 1.5 times the annual revenue of a CMU, while the billing period stop loss limit is typically 0.5 times the annual revenue.

Interaction with Unit-specific DRFs

With this approach, the SEM Committee also highlights the need to ensure consistency between the supplementary availability mechanism and any future unit-specific Derating Factor (DRF) methodology.

**Consultation questions**

6. Do stakeholders agree with the proposal to introduce a supplementary availability monitoring and charging regime alongside the Reliability Option (RO) to incentivise availability during a broader set of scarcity periods (e.g. 1–5% of hours)? What design features are critical to ensure effectiveness without introducing excessive risk for CMUs?
7. What is the preferred approach for defining the trigger for the supplementary availability incentive: (i) an energy price-based threshold (below the RO strike price), or (ii) a margin-based threshold linked to system adequacy? What are the relative advantages, risks, and potential market impacts of each approach?
8. Is there a risk of incentivising CMUs to over-declare availability, and should additional testing be introduced to mitigate this?
9. Is the proposed charging structure appropriate? At what level should the charges for unavailability be set in both the case where unavailability is notified to the TSO in advance and where it is not notified in advance?
10. How should the supplementary availability mechanism be calibrated to avoid double counting if combined with unit-specific Derating Factors (DRFs)? What safeguards or coordination mechanisms should be implemented to ensure consistency and proportionality of incentives and penalties?

## 2.3 De-Rating Factors

In conventional electricity systems, Capacity Derating Factors (DRFs) are used to reflect the non-availability of dispatchable generation due to planned and forced outages, as well as unit size which is factored into the calculation as a diminishing calculation variable.

As the system transitions to net zero, non-fossil flexibility—particularly demand side units (DSUs) and storage—will play an increasingly important role in delivering adequacy. Unlike conventional generation, the adequacy contribution of these technologies is influenced not only by availability, but also by energy limitations, such as finite shutdown duration for DSUs and finite storage capacity.

These characteristics introduce additional complexity into DRF calculation. The contribution of energy-limited resources varies over time, as they may both reduce and increase LoLP across different periods (e.g. due to storage charging or demand shifting). Their overall adequacy contribution reflects the net impact across all periods, rather than performance in any single interval. The SEM Committee understands that the TSOs' current ISAC modelling tool is expected to be replaced by a more advanced framework capable of better capturing the adequacy contribution of energy-limited technologies.

Analysis of outturn data for the 2024/25 Capacity Year indicates significant variation in availability within technology classes, particularly for DSUs and storage, both annually and during scarcity periods (defined as the highest 5% of price periods).

This supports consideration of unit-specific DRFs, particularly for non-fossil flexibility. The SEM Committee also notes that such an approach would strengthen availability incentives at unit level and could be designed to distinguish between system-wide factors and individual unit performance.

A move to unit-specific DRFs would be broadly consistent with the CISAF, which requires that capacity providers be permitted to deviate from default DRFs subject to associated risks.

**SEM Committee proposal**

The SEM Committee proposes to further develop a unit-specific DRF methodology, applied across all technology types.

This proposal is based on the following considerations:

- Unit-specific DRFs would strengthen availability incentives for individual providers;
- The approach is particularly relevant for non-fossil flexibility, where performance variability is highest;
- The methodology broadly aligns with CISAF principles for market-wide capacity mechanisms.

The SEM Committee recognises that:

- There is an interaction with other availability incentives;
- A detailed impact assessment is required, including effects on DRF values and overall capacity requirements; and
- Full implementation is dependent on delivery of the TSOs' enhanced DRF modelling tool.

The SEM Committee notes that full methodological detail may not be required at State aid approval stage but will be necessary prior to the commencement of the first auction under the revised CRM 2.0 auction.

In this consultation, the SEM Committee's objective is to obtain feedback on the proposal to introduce unit-specific DRFs for all technology types, and on the interaction with the proposed supplementary availability incentive regime. If a decision is taken to implement unit-specific DRFs in the design of CRM 2.0, the SEM Committee expects to request that the TSOs propose an appropriate detailed methodology for consideration.

**Consultation questions**

11. Do stakeholders agree that a unit-specific DRF methodology should apply to all technology classes? If not, which technologies should be excluded and why?
12. How should the interaction between unit-specific DRFs and other availability incentives be managed?

## 2.4 Cost Recovery Mechanism

The EU framework for capacity mechanisms establishes the principle that the costs of these mechanisms should be recovered from those consumers who drive the requirement for capacity. This is operationalised through cost recovery mechanisms that target periods of system scarcity, when LoLP is highest.

As noted, under the CISAF, at least 90% of capacity mechanism costs must be allocated based on consumer demand during a limited set of high-price periods, defined as between 1% and 5% of the highest-priced hours (or market time units) each year.

The economic rationale underpinning this requirement is that cost-reflective signals during scarcity periods will incentivise consumers to reduce or shift demand away from peak times. This demand response can, in turn, reduce the total capacity requirement on the system and lower the overall cost of the capacity mechanism.

In addition to efficiency considerations, there is an increasing policy emphasis on consumer empowerment, particularly in the context of the transition to a decarbonised energy system. More dynamic and time-varying charging structures can enhance consumers' ability to actively manage their demand, while also contributing to system security. Conversely, where charges are largely fixed, or fixed for extended periods, opportunities for consumer engagement and demand-side response are reduced.

However, the effectiveness of more granular charging arrangements depends on the ability of consumers to observe, understand, and respond to the relevant price signals. This, in turn, requires appropriate metering and settlement capabilities. A charging methodology based on a narrow window (e.g. 1% of annual hours) would require interval-level consumption data that is not available from traditional meters (e.g. standard or day/night meters). As such, widespread deployment of smart metering infrastructure would be a key enabler. While rollout in Ireland is well advanced, the deployment in Northern Ireland is at an earlier stage, with initial installations expected from early 2028 and a rollout period of up to three years.

The SEM Committee notes there is a range of approaches to targeted capacity cost recovery across Europe:

- In France, time-of-use tariffs (e.g. “Tempo”) apply significantly higher rates during a limited number of high-stress “red days”;
- In Italy, a “short-peak” charge applies to a defined number of tight system hours, with rates significantly higher than off-peak;
- In Poland, capacity charges incentivise flatter demand profiles particularly with larger energy consumers, with reforms planned to extend this approach to all consumers.

Within the SEM, capacity charges are currently recovered through the Supplier Capacity Charge, applied at a flat €/MWh rate across weekday daytime hours (07:00–23:00), representing approximately 48% of the year.

Analysis of alternative cost recovery windows indicates that concentrating recovery into a smaller number of hours would significantly increase the €/MWh charge during those periods, while leaving total charges unchanged. For the 2024/25 Capacity Year (€603 million total), indicative charge rates increase as follows:

- €26.25 /MWh under the current approach (48% of hours);
- €49.60 /MWh if applied to 25% of hours;
- €227.31 /MWh if applied to 5% of hours;
- €1,059.68 /MWh if applied to 1% of hours.

This would redistribute charges across consumers depending on their consumption profiles, with higher charges for those consuming during peak periods. In doing so, the capacity charge would complement energy price signals.

**SEM Committee proposal**

The SEM Committee is considering the extent to which the current approach to the allocation of capacity mechanism charges remains aligned with EU requirements and policy objectives, including efficient price signalling and consumer empowerment.

In this context, the SEM Committee proposes to:

- Examine options for increasing the temporal granularity of capacity charge allocation, including moving towards a narrower charging window consistent with the CISAF requirement of allocating at least 90% of charges within 1% to 5% of highest price hours.

- Assess the extent to which such changes would strengthen demand-side response and minimise overall market charges.
- Consider the readiness of the SEM in terms of metering infrastructure, data availability, and retail market arrangements to support more granular charging signals.
- Evaluate transitional arrangements, recognising that smart meter deployment is not yet complete across all jurisdictions. Such as introduction of a staged transition reflecting current metering capabilities:
    - Initial narrowing of the charging window to approximately 25% of hours (e.g. 8 hours per weekday, aligned with peak demand periods);
    - Subsequent progression towards a narrower window (within the 1–5% range) as smart meter rollout and retail market readiness improve.

The SEM Committee also notes the potential to differentiate capacity charges across consumer categories, for example:

- To reflect differences in ability to pay; and/or
- To recognise differing capacity to respond to time-varying price signals.

Further consideration would be required to assess the implications of such differentiation.

**Consultation questions**

13. Do stakeholders agree that capacity charges should be more strongly targeted at periods of system scarcity? Please provide rationale.
14. To what extent do stakeholders agree that increasing the granularity of capacity charge allocation would minimise overall market charges and promote efficient demand response?
15. Is a phased approach (e.g. moving from 25% to 5% over time) appropriate, and if so, over what timeframe?
16. Should capacity charges vary across consumer categories? If so, on what basis should differentiation be applied?
17. Are there other practical or operational impacts to consider if implementing a more targeted cost recovery mechanism?

The first four design options are proposed for development and implementation alongside the commencement of the next State aid approval. In contrast, the remaining two sections mark a shift in focus, addressing flexibility integration and decarbonisation as longer-term considerations. These are intended to support the "future-proofing" of the next State aid framework, subject to engagement with the State aid authorities, with further refinement and detailed design to be undertaken so they can be implemented at an appropriate later stage.

## 2.5 Decarbonisation

In the previous consultation, "Options for Decarbonisation of the existing CRM design" (SEM-25-070), a range of potential options to support decarbonisation within the existing CRM were assessed. The SEM Committee consulted on the preferred options, and the consultation responses, along with a summary of these consultation responses have been published in SEM-26-036.

Consultation feedback indicated a broad preference for the introduction of a Green Scalar. However, respondents noted that:

- further detail would be required to enable a full and robust evaluation; and
- such changes may be more appropriately considered in the context of the next State aid application, given the limited remaining lifetime of the current CRM arrangements.

In light of this feedback, the SEM Committee has undertaken further consideration of the Green Scalar, particularly from a longer-term, CRM 2.0 perspective.

Assessment across technology categories indicates:

- For fossil generation, existing incentives (including Intermediate Length Contracts and commercial drivers for efficiency improvements) are likely to be more effective, and a Green Scalar would not provide a clear additional incentive.
- For non-fossil flexibility (e.g. storage and DSUs), existing participation in CRM auctions and the development of separate flexibility mechanisms may limit the

need for additional support, with a risk of overcompensation if a Green Scalar were applied.

- For decarbonised dispatchable technologies (e.g. CCS, hydrogen, ammonia, biomethane), although technically viable, these technologies currently face both policy and infrastructure constraints, as well as cost disadvantages (capex and/or opex) relative to unabated gas generation. This suggests that broader support frameworks beyond the CRM are required at present.

The Green Scalar is therefore considered primarily relevant as a potential future mechanism, where wider policy and market conditions evolve such that the CRM can play a targeted role in addressing residual investment gaps.

**SEM Committee proposal**

The SEM Committee proposes that provision be made within the CRM 2.0 State aid application to enable the future introduction of a Green Scalar, consistent with the objective of maintaining a dynamic and adaptable market design.

Under this approach:

- State aid approval would allow for the use of a Green Scalar;
- The mechanism would not be implemented immediately; and
- The SEM Committee would undertake periodic (e.g. annual) reviews to determine whether conditions are appropriate for its deployment.

Implementation would be contingent on:

- Sufficient maturity of relevant technologies;
- An appropriate policy and infrastructure framework; and
- Evidence that the CRM can address a “missing money” gap for eligible low-carbon technologies.

<u>Illustrative design</u>

The Green Scalar is intended to support low-carbon capacity by helping to bridge cost differentials relative to higher-carbon technologies.

The mechanism would operate as follows:

$$CPP_{act} = \max(CPP_{orig}, GS \times BP)$$

Where:

- $CPP_{act}$: Actual Capacity Payment Price of the low-carbon unit
- $CPP_{orig}$: Capacity auction clearing price
- $GS$: Green Scalar applicable to the low-carbon unit
- $BP$: Bid price of the low-carbon unit

Key design features include:

- The Green Scalar would only apply where the auction clearing price is lower than the Green Scalar times the bid price of the low-carbon unit.
- It would not affect the clearing price or payments to other capacity providers.

Eligibility criteria

Eligibility for the Green Scalar would be based on two conditions:

1. Emissions criterion
    - The unit must have zero (or near-zero) emissions, consistent with applicable electricity regulation thresholds (i.e. no more than 0g $CO_2$ of fossil origin per kWh).
2. Value-for-money criterion
    - The value of avoided carbon emissions (on a €/MW basis), based on modelled displacement and forecast carbon prices, must exceed the additional capex cost associated with the technology.

This second criterion is intended to ensure that supported technologies deliver tangible emissions reduction benefits at system level, and to avoid outcomes where supported assets do not materially displace higher-carbon generation.

Intended outcome

The proposed approach would future-proof the CRM design, allow the SEM Committee to respond flexibly to evolving technology and policy developments and ensure that any future deployment of the Green Scalar is targeted, proportionate, and economically justified.

**Consultation questions**

18. Do stakeholders agree that provision for a Green Scalar should be included in the CRM 2.0 State aid application, but not implemented at this stage?
19. At what point in the future do respondents consider that decarbonised dispatchable technologies will be capable of being incentivised by the Green Scalar alone? What policy and infrastructure developments are necessary to reach this point?
20. Do stakeholders agree with the proposed design whereby the Green Scalar only affects payments to eligible units and does not influence the auction clearing price or payments to other participants?
21. Should the Green Scalar be set to reflect incremental capex costs relative to the Best New Entrant technology?
22. Do stakeholders agree with the proposed eligibility criteria (zero/near-zero emissions and positive value of avoided emissions relative to cost)? Are there additional or alternative criteria that should be considered?
23. What would be an appropriate proposal for periodic SEM Committee review (e.g. annually) to assess whether and when to implement the Green Scalar?

## 2.6 Flexibility Integration

While flexibility integration is a key consideration for CRM 2.0, the SEM Committee is of the view that it would be premature to prescribe at this time how flexibility and capacity procurement may be integrated in the future. Flexibility Needs Assessments (FNAs) are currently under development in Ireland and Northern Ireland, with first publications expected in Q3 2026. These assessments will inform, inter alia, national objectives for non-fossil flexibility, and identify priority areas for investment.

EU legislation enables the establishment of Non-Fossil Flexibility Support Schemes (NFFSS) for new capacity aligned with needs identified through FNAs. While FNAs are presently undertaken on a jurisdictional basis, it is conceivable that procurement of certain system-level flexibility needs on an all-island basis could become optimal over time and that in this case the CRM could in principle be the mechanism by which these needs were satisfied. However, flexibility procurement frameworks remain at an early stage of development and the precise delivery mechanisms are not yet defined.

Given this, the SEM Committee does not intend to prescribe a particular approach to the integration of flexibility procurement within CRM 2.0 at this time. Depending on the flexibility procurement mechanisms that may ultimately be put in place pursuant to the FNA processes, CRM 2.0 may need to be adapted accordingly, with due consultation and stakeholder engagement at that time.

**Consultation question**

24. Do you have any comments on the SEM Committee's intention to address the issue of flexibility integration, as required, once the flexibility procurement mechanisms are developed pursuant to the FNA processes?

## 2.7 Broader CEEAG Consultation Requirements

The SEM Committee notes that, under the Climate, Energy and Environmental Aid Guidelines (CEEAG), specific consultation requirements apply to aid measures where the estimated average annual aid exceeds €100 million. In particular, paragraph 348 of the CEEAG requires Member States to undertake a public consultation covering the proportionality and competition impacts of measures.

The SEM Committee considers that the current consultation, together with the broader CRM development programme, is designed to meet the requirements of paragraph 348. In particular:

- This consultation sets out the proposed new key design features of the CRM 2.0 mechanism;
- The consultation is supported by the Report, which provides an evidence-based assessment of the current CRM, including its performance and alignment with EU legislative and State aid frameworks; and
- The consultation builds on extensive prior stakeholder engagement, consistent with the iterative development of the CRM since its introduction;

The SEM Committee also notes that, as identified in the Report, the current CRM is already compliant in many respects with EU legislative and State aid requirements, and that CRM 2.0 represents an evolution of the existing framework, a view supported

by industry feedback. Therefore, parameters and design options not discussed here are not proposed to be changed significantly.

Notwithstanding this, and consistent with the SEM Committee's approach of facilitating a transparent and robust consultation process, stakeholders are invited to provide views on whether any additional aspects should be considered to fully satisfy the requirements of paragraph 348 of the CEEAG.

## 3. Next Steps

The SEM Committee invites views from stakeholders on the various questions presented in this consultation paper. The SEM Committee would welcome supporting evidence and information where relevant.

Responses to this consultation paper should be sent to both CRMsubmissions@cru.ie & crmsubmissions@uregni.gov.uk by close of business on 04 September 2026. It would be appreciated if responses are submitted in searchable PDF or Microsoft Word format.

Unless marked confidential, responses will be published on the SEM Committee website. Respondents may request that their response is kept confidential, and such request will be respected subject to any legal disclosure requirements. Respondents who wish to have their responses remain confidential should clearly mark their response to that effect. Confidential information should be contained in a separate appendix, if possible, to allow publication of the rest of the response.

The SEM Committee notes that some of the questions in this consultation call for detailed information, which may be confidential, and would encourage participants to submit such information, marking as confidential as necessary.

The SEM Committee will carefully consider all comments received, with the feedback responses options to be published in due course. The responses received will inform the RA decision making on options to take forward for formal inclusion in the CRM design within the State aid application process.