



**Single Electricity Market
(SEM)**

**Capacity Market Code Working Group 32
Decision Paper**

CMC_17_23: Updates to Locational Capacity Constraint (LCC) Areas

SEM-23-061

02 October 2023

EXECUTIVE SUMMARY

The purpose of this decision paper is to set out the decision relating to a proposed modification to the Capacity Market Code (CMC). The proposed modification, CMC_17_23, was discussed at Working Group 32, held on 20 July 2023.

The decision within this paper follows on from the associated consultation ([SEM-23-054](#)) which closed on 04 August 2023.

➤ **CMC_17_23: Updates to Locational Capacity Constraint (LCC) Areas**

This modification seeks to:

Part A) provide more flexibility in the determination of LCC areas; and

Part B) provides for instances where the defined methodology does not fully capture particular effects on the transmission system.

Seven responses were received to the Capacity Market Code Working Group 32 Urgent Modification Consultation Paper (SEM-23-054) with none being marked as confidential. These have been published alongside this decision paper.

Summary of Key Decisions

Following consideration of the proposal and the responses received to the consultations, the SEM Committee have decided to:

Modification	Decision	Implementation Date
CMC_17_23: Updates to Locational Capacity Constraint (LCC) Areas	Make Part B of the Modification and not make Part A of the Modification	3 rd October 2023

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1. OVERVIEW

1.1. BACKGROUND

1.1.1. The SEM CRM detailed design and auction process has been developed through a series of consultation and decision papers, all of which are available on the SEM Committee's (SEMC) website. These decisions were translated into legal drafting of the market rules via an extensive consultative process leading to the publication of the Trading and Settlement Code (TSC) and the Capacity Market Code (CMC). Updated versions of the CMC and the TSC are published on the SEMO website.

Process for modification of the CMC

1.1.2. Section B.12 of the CMC outlines the process used to modify the code. It sets out the processes for proposing, consideration, consultation and implementation or rejection of modifications to the CMC.

1.1.3. The purpose of the modifications process is to allow for modifications to the CMC to be proposed, considered and, if appropriate, implemented with a view to better facilitating code objectives as set out in Section A.1.2 of the CMC. (B.12.1.2).

1.1.4. Modifications to the CMC can be proposed and submitted by any person, (B.12.4.1), at any time. Unless the modification is urgent, modifications are subsequently discussed at a Workshop held on a bi-monthly basis. Each Workshop represents an opportunity for a modification proposer to present their proposal(s) and for this to be discussed by the Workshop attendees.

1.1.5. For discussion at a Workshop, Modification Proposals must be submitted to the System Operators at least 10 working days before a Workshop meeting is due to take place. If a proposal is received less than 10 working days before a Workshop and is not marked as urgent it is deferred for discussion to the next Working Group.

1.1.6. Following each Workshop, and as per section B.12.5.6 of the CMC, the RAs are required to publish a timetable for the consideration, consultation and decision relating to the modification(s) proposed during a Workshop.

1.1.7. If a proposal is received and deemed contrary to the Capacity Market Code Objectives or does not further any of those objectives, the Regulatory Authorities (RAs) will reject the proposal on the grounds of being spurious, as set out in section B.12.6 of the CMC.

1.1.8. If a proposed modification is deemed urgent by the RAs, CMC Section B.12.9.5 will become active and the RAs will determine the procedure and timetable to be followed in the assessment of the Modification Proposal. The CMC states that the procedure and timetable may vary from the normal processes set out in the code, allowing for the modification to be fast-tracked.

Process and Timeline for this Modification

- 1.1.9. On 06 July 2023, the System Operator submitted an Urgent Modification Proposal under B.12.9.1. As per section B.129.3 of the CMC, the RAs assessed the proposal and deemed it Urgent.
- 1.1.10. As Workshop 32 was already arranged, the RAs determined that a separate Workshop was not required for the Urgent Modification as it could be considered within the timeline of the already established Workshop 32.
- 1.1.11. The timetable for the proposed modifications includes:
 - i. The System Operators convened a Workshop where the Urgent Modification Proposal was considered on 20 July 2023.
 - ii. The System Operators, as set out in B.12.7.1 (j) of the CMC, to prepare a report of the discussions which took place at the workshop, provide the report to the RAs and publish it on the Modifications website promptly after the workshop has taken place.
 - iii. The RAs to consult on the Proposed Modification.
- 1.1.12. As stated in B.12.11, the RAs will make their decision(s) as soon as reasonably practicable following conclusion of the consultation and will publish a report in respect of these. The purpose of the decision paper is to set out the decision relating to the System Operators Urgent Modification Proposal discussed during Working Group 32 to either:
 - a) Make a Modification;
 - b) Not make a Modification; or
 - c) Undertake further consideration in relation to the matters raised in the Modifications Proposal.
- 1.1.13. This decision paper provides a summary of the consultations' proposals for CMC_17_23 and sets out the SEM Committee's decision.

1.2. RESPONSES RECEIVED TO CONSULTATION

- 1.2.1. This paper includes a summary of the responses made to Capacity Market Code Modifications Consultation Paper [SEM-23-054](#) which was published on the 25 July 2023 and closed on 04 August 2023.
- 1.2.2. A total of seven responses were received to consultation SEM-23-054 with none being marked confidential.
 - DRAI

- Energia
- SSE
- ESB GT
- BGE
- EirGrid / SONI
- EPUKI

2. CMC_17_23 – UPDATES TO LOCATIONAL CAPACITY CONSTRAINT (LCC) AREAS

2.1. CONSULTATION SUMMARY AS PRESENTED BY THE SYSTEM OPERATORS (SOS)

- 2.1.1. This proposal was submitted by the System Operators (SOs) and aims to:
- Part A) provide more flexibility in the determination of LCC areas; and
 - Part B) provide for instances where the defined methodology does not fully capture particular effects on the transmission system.
- 2.1.2. In regards to Part A of the Modification Proposal regarding more flexibility in the determination of LCC areas, the Proposal noted while the SOs intend to provide as much useful information to Participants to help inform their offers to the Capacity Market, circumstances can arise where an LCC Area is not defined, and based on the Applications for Qualification it would not be possible to clear all qualified capacity without exceeding limits on the transmission system.
- 2.1.3. The Proposal stated that in these instances, the SOs are of the view that it is preferable to allow units to compete for scarce transmission capacity rather than to reject units outright. As such, the SOs proposal allows for the specification of additional LCC Areas after the Initial Auction Information Pack (IAIP) in the Final Auction Information Pack (FAIP).
- 2.1.4. With regards to Part B of the Proposal to provide for instances where the defined methodology does not fully capture particular effects on the transmission system, this references the Maximum Constraints within the Capacity Market which the SOs are currently in the process of implementing. The Proposal states that while systems and process development are underway, adapting the enduring methodology to account for short circuit current assessments is a complex undertaking and will not be completed by the next T-4 2027/2028 Capacity Auction to be held in September 2023.
- 2.1.5. The modification is proposed to enable the SOs to determine and submit reasonable values to the RAs for consideration and if approved, inclusion within the auction process at the FAIP stage.
- 2.1.6. The SOs stated within the Modification Proposal that they believe it is necessary to introduce a degree of flexibility into the definition of LCC Areas and the associated Required and Maximum Quantities to ensure competition can be maximised within the tolerable limits of the transmission systems.
- 2.1.7. Failure to implement the Modification Proposal may result in the SOs being unable to ensure Capacity Auction outcomes are technically feasible in terms of the transmission system capability as emerging constraints may not be fully captured as is currently, during an auction process.

2.2. RESPONSES TO SEM-23-054

- 2.2.1. Six responses to CMC_17_23 opposed the Modification Proposal with one response (from the Proposer) supporting it.
- 2.2.2. Responses are outlined below under the two sections of the Modification Proposal as some responses only covered one element while others covered both.

Part A – Provide more flexibility in the determination of LCC Areas

- 2.2.3. DRAI argued that the proposed modification is untenable for aggregated unit types such as DSUs. They state as DSUs can be composed of several Individual Demand Sites (IDS) which can connect to the transmission system at different electrical nodes, an aggregator must ensure all IDSs are connected to nodes within the relevant LCCA when qualifying for an auction. Adapting the proposed modification would provide no opportunity for a DSU to adjust their qualification submission and could result in some units not being able to participate in the Capacity Auction.
- 2.2.4. DRAI state the proposal is discriminatory against multi-asset units such as DSUs and AGUs and redefining LCCAs after the qualification deadline for an Auction is not workable for DSUs.
- 2.2.5. Energia noted their opposition to this part of the modification as participants invest significant resources in deciding whether or not to qualify new capacity and therefore it is preferable that the final LCCs are determined at the IAIP stage in order to incentivise participants to qualify new capacity.
- 2.2.6. SSE noted that publishing additional constraints information as transparency is important for the auction but raised a number of issues for consideration. With regards to LCC Areas, they state that any information on unknown and new constraint areas should be made available prior to the FAIP and should be published when known earlier.
- 2.2.7. ESB also opposed the modification and noted it is not consistent with the CMC objectives, specifically (b), (d), (e) and (g). They argue it introduces a new level of ambiguity into the capacity market which is in direct conflict with the CMC objectives.
- 2.2.8. ESB point to a previous SEMC Decision Paper ([SEM-17-040](#)) which states in section 2.4.5 “*The SEM Committee has previously stated in [SEM-16-081](#) that a locational need must be clear and significant to be included within the CRM mechanism. This policy effectively prevents the emergences of a proliferation of small L2 zones.*” ESB believes this modification is in direct conflict with this statement from the SEM Committee.
- 2.2.9. BGE were also opposed to the modification (and noted they also opposed previous modifications CMC_08_22 and CMC_14_23) on the basis they reinforce constraints on the system rather than addressing them as this undermines the proper functioning of the market.
- 2.2.10. BGE also noted that the proposal creates a lack of transparency that will send negative investment signals in a market that is tight on capacity and facing a Security of Supply crisis.

- 2.2.11. BGE, along with other market participants, are also concerned that this modification is not in keeping with the CMC objectives, particularly (b), (e) and (f) and introducing additional LCC areas late in the process (FAIP) will lead to a more constrained auction, less transparency for participants and a less efficient outcome.
- 2.2.12. BGE pointed to the SOs rationale for the change to LCC Areas at FAIP stage to account for *“scenarios where a number of new units may come forward during the Qualification stage which weren’t previously known in advance.”* BGE state their understanding that the number of units applying for an area won’t impact the constraints on the transmission network driving the need for the LCC as they are determined by network capabilities which are unrelated to the quantity of applicants qualifying. They are of the view that qualifying more units should result in more competition within the LCC Area.
- 2.2.13. EPUKI also noted their opposition to the modification and noted major concerns on the impact it would have on both Security of Supply within the SEM and the effectiveness of the CRM. They too, noted the modification does not align with the recommendations of the EY Report, nor with the generation adequacy requirements of the SEM or the original design of the CRM.
- 2.2.14. EPUKI argues the ability to LCC Areas to change late in the process reduces investment certainty which will discourage competition in the Capacity Auctions.
- 2.2.15. EPUKI state both the original CRM design papers and State Aid Approval that the use of constraints to address locational issues was a temporary measure which would be rolled back in the years following implementation. They note the State Aid Approval that the constraints are due to grid congestion which should be *“resolved to a large extent by the end of the transitional period i.e., 2024.”* EPUKI are concerned that this modification (and previous CMC_08_22) would make constraints more prevalent and result in outcomes which are ineffective and inefficient for consumers.
- 2.2.16. The SOs, as proposer, supported the proposal and reiterated the rationale for each part. They state proposal facilitates the implementation of a LCC Area only where it is required to qualify capacity that would otherwise be rejected.
- 2.2.17. The SOs note the intention of the modification is to maximise the capacity that can be safely accommodated. Qualifying capacity which cannot be used at all times (when available) may not improve Security of Supply and may increase risk to existing capacity while adding costs for the consumer.
- 2.2.18. The SOs noted concerns voiced by a number of participants at Workshop 32 with a perceived focus on introducing constraints to the Capacity Market. The SOs state that alleviation of constraints is a priority for EirGrid and SONI and refer to the recently published ‘Shaping Our Electricity Future v1.1’ which collates their views on network, operation and market requirements needed for 2030.
- 2.2.19. The SOs in their response state the identification of LCCAs and the introduction of associated limits does not undermine or mitigate delivery against strategic objectives.

Part B – Provide for instances where the defined methodology does not fully capture particular effects on the transmission system (Maximum Quantities)

- 2.2.20. DRAI support concerns raised by other market participants in relation to the implementation of LCCA maximum limits and argue it is not an appropriate solution to manage challenges faced by the SOs in accommodating required Grid Connections.
- 2.2.21. Energia argue the proposed modification is contrary to the Capacity Market Code’s requirement to promote transparency. They believe the introduction of binding maximum LCCs could have a significant impact on auction outcomes and need to be subject to proper process and an agreed methodology if they are to be introduced.
- 2.2.22. Energia raised concerns the SOs have not demonstrated a pressing need to ensure that binding Max LCCs to be in place for T-4 2027/2028 and on that basis alone, it should be rejected.
- 2.2.23. Energia also had concerns that setting the Max LCCs outside the methodology would increase the risk of them being set erroneously and through incomplete analysis. They noted that it is extremely important they are set according to a published methodology that takes all relevant factors into account and is consulted upon with participants.
- 2.2.24. Energia proposed, in the absence of a specific reason for why Max LCCs need to be introduced for the T-4 2027/2028, that a similar approach be taken as was adopted for the T-4 2026/2027.
- 2.2.25. Energia also noted, while being contrary to the CMC objective for transparency, it is also contrary to a number of recommendations within the EY Review, particularly 1.2, 1.3 and 2.1.
- 2.2.26. SSE also raised concerns that this modification goes against the 2022 EY Review.
- 2.2.27. SSE stated any new or adopted methodology for maximum constraints should be consulted on and approved as the process should not be rushed and all other options considered if available. They argue maximum locational constraints reduce the incentive for resolving system constraints and prevent the generation from being where it is needed to meet demand growth.
- 2.2.28. SSE also noted that information on the short circuit assessments and for any other Transmission Planning issues should be published for transparency, along with the rationale as soon as they are known.
- 2.2.29. ESB raised concerns that the modification may result in the capacity market not aligning with the description set out in the State Aid notification in 2017 as it would result in the capacity market being utilised to procure capacity to resolve transmission constraints with Min and Max LCC Area quantities, rather than competition between new and existing capacity provides.
- 2.2.30. In their response, ESB pointed to the original Modification Proposal from the SOs which stated, *“Changes may be required to this methodology to provide for this change, and these would need to follow the appropriate process as this methodology does not form part of the Capacity Market Code.”* ESB state industry have voiced the need for the new methodology to be developed and approved within the regular process to fully assess the impact of this change.

- 2.2.31. ESB stated in their response they do not support the proposal (changes to part C2.1.2) however if it is deemed necessary, they proposed the option is limited to the T-4 2027/2028 Capacity Auction.
- 2.2.32. BGE also point to the State Aid approval where the rules are adapted so that if MWs in the LCC Area auction runs were not cleared in the unconstrained run, then the LCC Area MWs can displace MWs from the unconstrained run which has the effect of minimising over-procurement while maximising competition. BGE argue that three weeks' notice (FAIP publication to auction) is too short and will effectively give capacity contracts on a "pay as bid" basis which will result in the consumer paying more than they should for capacity.
- 2.2.33. BGE also noted that the proposed modification is in the opposite direction of the EY Recommendations, particularly around 'Greater transparency of target setting'.
- 2.2.34. EPUKI raised concerns that a Maximum constraint has the intended effect of preventing New Capacity from clearing in the auction, resulting in reduced delivery. They note the Security of Supply issues, particularly in ROI, and referred to significant costs already incurred by consumers as a result of the Temporary Emergency Generation.
- 2.2.35. EPUKI noted concerns around the proposed accelerated implementation of the modification as the methodology has not yet been established and are opposed to implementing such constraints until the details are clear.
- 2.2.36. EPUKI state they expect the modification to have material long-term effects on the CRM and SEM as a whole while also creating significant transparency issues within the CRM.
- 2.2.37. As with other participants, EPUKI note the modification appears to be a step in the opposite direction of the recommendations proposed in the EY Review.

3. SEM COMMITTEE DECISION

3.1. SEM COMMITTEE DECISION

- 3.1.1. The SEM Committee welcomes the feedback provided by participants, both as part of the Workshop and the consultation responses.
- 3.1.2. The SEM Committee notes the varying opinions in relation to the proposal and the fact a significant number of responses were not supportive of the original proposal, either Part A or Part B.
- 3.1.3. The SEM Committee has reviewed this modification as two separate parts as outlined in this decision paper.
- 3.1.4. With regards to Part A to 'provide more flexibility in the determination of LCC Areas', the SEM Committee is of the opinion that a change in LCCAs so close to the issue of the FAIP, is not appropriate for the T-4 2027/2028 auction. In particular, the SEM Committee notes the negative impact that it could have on aggregated units, such as many DSUs, which have qualified their capacity on the basis of the LCCAs set out in the IAIP and could have difficulty bidding if it subsequently transpires that sites within a CMU end up spanning the boundary of a newly introduced LCCA.
- 3.1.5. The SEM Committee recognises that there could be instances where it is preferable to introduce a new LCCA post the publication of the IAIP, where there has been a large and unanticipated volume of New Capacity applications in a localised area, which cannot all be accommodated. If such a case occurs, it may be preferable from a competition perspective to introduce a new LCCA post-IAIP and impose a maximum constraint in that new LCCA to facilitate competition from new entrants. Such an approach may be preferable from a competition and an emissions perspective to not qualifying some or all of the proposed new entrants in that local area, on the grounds that not all of the applicants can feasibly be connected within the requisite timescales. However, the TSOs have not provided the SEM Committee with sufficient evidence that the benefits of introducing a new LCCA volume at a late stage outweigh the costs for the 2027/28 T-4 auction. However, if the TSOs wish to provide further information that is more detailed and demonstrates that the benefits outweigh the costs, this will be considered further for future auctions.
- 3.1.6. If the TSOs seek to reintroduce this proposal for future auctions, the TSOs should give further thought on how a process can be established to mitigate the impact on aggregated units, e.g., allowing them to split aggregated CMUs after Qualification applications have been submitted in response to any late introduction of new LCCAs.
- 3.1.7. The SEM Committee notes the comments from those respondents who argue that the TSOs should be doing more to resolve transmission constraints, in line with some of the key recommendations of the EY report.
- 3.1.8. The SEM Committee also asks the TSOs to give greater consideration to the potential impact of new entry on constraints prior to the IAIP and consider whether it is appropriate to introduce new

LCCAs at IAIP stage as a precaution, which then do not need to have binding values at FAIP stage, if significant volumes of subsequent applications do not materialise.

- 3.1.9. The SEM Committee has made a decision to approve Part B which is to 'provide for instances where the defined methodology does not fully capture particular effects on the transmission system' i.e., maximum quantities. The SEM Committee believe it is appropriate to implement a maximum quantity for the Greater Dublin LCCA for the 2027/28 T-4 auction. The maximum quantity is appropriate to mitigate the risk that otherwise, the auction would procure an amount of net additional capacity in the Greater Dublin area, which would mean that not all capacity contracted in the Greater Dublin area could be used simultaneously because of potential short-circuit issues. Not introducing maximum volumes could result in adverse impacts on security of supply and consumer welfare.
- 3.1.10. The potential for setting a maximum quantity in an LCCA was implemented via CMC_08_22, and further proposed by CMC_14_23, which provides a way to resolve otherwise infeasible auction outcomes which result from the introduction of maximum volume constraints alongside minimum volume constraints, and inflexibility constraints. However, the currently approved methodology for setting volumes, does not reflect the way in which the TSOs intend to propose the maximum quantity for the Greater Dublin area in the 2027/28 auction, based on taking account of short-circuit issues.
- 3.1.11. Therefore, Part B of CMC_17_23 is appropriate to implement maximum quantities for the 2027/28 T-4 auction and allow the TSOs to use a different methodology to set maximum volumes, subject to SEM Committee approval of the values. Going forward, the TSOs should consult on changes to maximum quantity setting methodologies.
- 3.1.12. Therefore, having reviewed the responses received, the SEM Committee have decided to implement Part B of the Modification Proposal and reject Part A.

3.2. NEXT STEPS

- 3.2.1. The SEM Committee will make the proposed modification CMC_17_23 to implement 'Part B' to the Capacity Market Code.
- 3.2.2. All SEM Committee decisions are published on the SEM Committee website: www.semcommittee.com