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# Integrated Single Electricity Market

## Consultation on CRM 2023/24 T-4 Locational Capacity Constraint Areas

SEM-19-048

### Consultation Response from



October 2019

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## 1 Context & Summary

Bord na Móna welcomes the opportunity to respond to this important consultation paper. Our response is holistic in that it considers the three main revenue streams, energy, ancillary services and capacity. We believe that it is fundamentally important that decisions which affect capacity revenue need to be informed by the overall participant revenue dynamic across these revenue streams, and that consideration of capacity revenue in isolation would be a flawed approach.

Furthermore, our responses are mindful of the increasing intermittent supply on the system and the need for system inertia and of local reactive power.

In direct response to the substantive question, Bord na Móna firmly recognises and supports the need for a Level 2 Rest of Ireland LCCA within the T-4 CY2023/24 capacity auction.

This support is based on our recognition from the paper that there are deliverability constraints, that the locational need is clear and significant, and that, to not provide a Level 2 Rest of Ireland LCCA within T-4 CY2023/24 would be contra to the high-level decisions and key principles which underpin locational capacity framework decisions within the CRM.

The deliverability constraints are well highlighted within the paper, recognising that over-concentration of capacity within the greater Dublin LCCA could lead to breach of circuit capacity limits. Furthermore, should a significant concentration of Ireland's capacity be served in Dublin, it is recognised there could be a risk of excessive plant exit in the Rest of Ireland, precipitating an operational shortage in that region, ie, the Rest of Ireland.

In the context of potential plant exit, it is important to recognise the contribution from what might be regarded as base load plant in supplying significant system inertia in the Rest of Ireland as well as locally required reactive power and frequency control – both much needed in the context of our carbon targets and of increasing intermittent renewable supply, the majority of which is located in Level 2 Rest of Ireland LCCA.

Secondly, we believe that the proposed formula for setting the proposed min MW level for Level 2 Rest of Ireland LCCA is flawed at a most fundamental level in so far as it is economically inefficient, thereby resulting in higher prices/lower value to the consumer in comparison to the proposal by Bord na Móna, being:

Level 2 Rest of Ireland LCCA min MW = Level 1 Ireland min MW – **Dublin Locational Capacity Constraint Area Volume**<sup>1</sup>      <sup>1</sup> Substituting for the proposed wording: 'Dublin Maximum MW'

The reason for this is that by substituting the 'Dublin Maximum MW' with the Dublin Locational Constraint Area Volume it results in reducing volumes in the more costly 'greater Dublin LCCA'.

Without this proposed change, the impact on the consumer across the three revenue streams: energy, capacity and ancillary services is likely to be considerably greater costs (ie, more costly to the consumer) from plant located in the greater Dublin LCCA vs that located elsewhere, eg, in the Level 2 Rest of Ireland LCCA. This is because plant within this region is more likely to capture greater energy constraint

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payments<sup>2</sup>, and will likely benefit from Locational Scalar multipliers (with associated substantially boosted ancillary services revenues) which will be restricted to this area alone, AND where participants will receive the RO price which will be at approximately the clearing price, set at the higher level determined by capacity outside of the Dublin LCCA rather than the lower 'Dublin LCCA offer price' contemplated by the RAs in the context of this consultation.

It could be argued that these additional revenues might be discounted by participants in the form of reduced capacity offers at auction within the Dublin LCCA, but to do so would amount to the participant 'giving away' the locational scalar<sup>3</sup> boost, which is classed as 'the investment signal'. However, this would be irrational behaviour. This counter argument supports the premise of this submission that consumers would be negatively impacted by the equation proposed within the consultation paper, by the use of the '*Dublin Maximum MW*' term.

Our analysis shows that use of the '*Dublin Maximum MW*' provision would have resulted in a sizeable and costly quantum, ie, an extra 418MW to 618MW of expensive Dublin LCCA capacity, with the associated increased cost to the consumer.

So, it is in the interests of the consumer to minimise capacity volume in Dublin to the 'Dublin Locational Capacity Constraint Area Volume', rather than the more expansive, and expensive 'Dublin Maximum MW'.

Important to note that inherent in this whole mechanism, and in the context of either and both wordings – ('Dublin Maximum MW' and 'Dublin Locational Capacity Constraint Volume') there is a requirement to modify the auction solution methodology to allow such maximum limits to be put in place within the auction solution/result.

Lastly, whether the addition of a Level 2 Rest of Ireland LCCA is appropriate within the methodology set out in SEM-17-040 is a moot point.

The terms of reference for this consultation are entirely aligned with those which led to the Decision paper on Locational Capacity Constraints Methodology SEM-17-040 in so far as the TSOs *were tasked with developing a methodology to identify significant capacity constraints and to calculate the levels of generation required in constrained areas to ensure security of supply.*

It is entirely appropriate that it be added; conversely it would be entirely inappropriate for it not to be added.

## 2 Responses to Consultation Questions

**Q1. Do you agree in principle with the need for a Level 2 Rest of Ireland LCCA within the T-4 CY2023/24 capacity auction (being proposed by the TSOs in the T-4 CY2023/24 Initial Auction Information Pack and referenced in the RAs T-4 Parameters decision paper published 10 September 2019 (SEM-19-043)? Please provide rationale**

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<sup>2</sup> Driving imperfections costs – all of which are passed on to the consumer

<sup>3</sup> Which we understand is the 'minded to' position from 'Dublin Security of Supply: Locational Scarcity Scalars for System Services in the Dublin Region': CRU/19/011 4/2/2019

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Yes, SEM 16 081<sup>4</sup> sets out both high level decisions as well as key principles which would be appropriate for any locational capacity framework within the CRM, which underpin the principle supporting the need for a Level 2 Rest of Ireland LCCA.

To start, there is clearly a capacity deliverability issue; the consultation paper<sup>5</sup> itself clearly sets out this out. It clearly recognises that over-concentration of capacity within the greater Dublin LCCA could lead to breach of circuit capacity limits. Furthermore, it recognises that should a significant concentration of Ireland's capacity be served in Dublin, there could be a risk of excessive plant exit in the Rest of Ireland, precipitating an operational shortage in that region, ie, the Rest of Ireland. In this context, it is important to recognise the contribution from what might be regarded as base load plant in supplying significant system inertia in the Rest of Ireland as well as locally required reactive power and frequency – both much needed in the context of our carbon targets and of increased intermittent renewable supply, the majority of which is located in Level 2 Rest of Ireland LCCA.

Having identified the issue, we refer and align our recommendations with the above mentioned high level decisions and key principles. In doing so we fully support SEMC's advocating 'a prudent approach' towards addressing this capacity deliverability issue for the forthcoming T-4 capacity auction (ie, CY2023/24).

'1.4 Key Decisions from Locational Issues Decision Paper (SEM 16-081)' as set out in SEM 17-040, explicitly recognises, in its decision, that there is a need for a solution for dealing with transmission constraints that affect capacity deliverability:

- 'In as far as is practical, the SEM Committee wishes to implement a market based solution *for dealing with transmission constraints that affect capacity deliverability*

Furthermore, the SEM Committee decision identified a number of key principles which would be appropriate for any locational capacity framework within the CRM. We refer to two, which relate to i) 'deliverability constraints', as well as ii) the requirement for the need to be 'clear and significant' as a condition for a locational solution

- 'Any locational constraint taken into account within the CRM mechanism would only be used to represent *local* capacity deliverability constraints'
- 'A locational need would only be included in the CRM where the need is *clear and significant*'

It is clear from the paper that there are deliverability constraints, that the locational need is clear and significant, and that, to not provide a Level 2 Rest of Ireland LCCA within T-4 CY2023/24 would be contra to the high-level decisions and key principles which underpin locational capacity framework decisions within the CRM.

## **Q2. Do you have any views as to the proposed calculation of the Level 2 Rest of Ireland LCCA minimum MW level?**

Yes, we believe that the proposed calculation is defective and that its needs to be modified.

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<sup>4</sup> CRM Locational Issues Decision Paper SEM-16-081 08 December 2016

<sup>5</sup> CRM 2023/24 T-4 Locational Capacity Constraint Areas Consultation Paper SEM 19 048

We believe that the proposed formula for setting the proposed min MW level for Level 2 Rest of Ireland LCCA is flawed at a most fundamental level in so far as it is economically inefficient, thereby resulting in higher prices/lower value to the consumer in comparison to the proposal by Bord na Móna, being:

Level 2 Rest of Ireland LCCA min MW = Level 1 Ireland min MW – **Dublin Locational Capacity Constraint Area Volume**<sup>6</sup> <sup>1</sup> Substituting for the proposed wording: ‘Dublin Maximum MW’

The reason for this is that the impact on the consumer across the three revenue streams: energy, capacity and ancillary services is likely be considerably greater (ie, more costly to the consumer) for plant located in the greater Dublin LCCA vs that located elsewhere, eg, in the Level 2 Rest of Ireland LCCA. This is because plant within this region is more likely to capture greater energy constraint payments<sup>7</sup>, and will likely benefit from Locational Scalar multipliers (with associated substantially boosted ancillary services revenues) which will be restricted to this area alone, AND where they will receive the RO price which will be at approx. the clearing price, set at the higher level determined by capacity outside of the Dublin LCCA rather than the lower ‘Dublin LCCA offer price’ contemplated in the context of this consultation.

One could suggest that these additional revenues could be discounted in the form of reduced capacity offers at auction within the Dublin LCCA, but to do so would amount to the participant ‘giving away’ the locational scalar<sup>8</sup> boost, which is classed as the investment signal. However, this would be irrational behaviour. This counter suggestion supports the case that consumers would be negatively impacted by the proposed equation, by the use of the ‘Dublin Maximum MW’ term.

So, it is in the interests of the consumer to minimise capacity volume in Dublin to the ‘Dublin Locational Capacity Constraint Area Volume’, rather than the more expansive, and expensive ‘Dublin Maximum MW’.

Analysis shows that use of the ‘Dublin Maximum MW’ provision would have resulted in an extra 418MW to 618MW of expensive Dublin LCCA capacity, with the associated increased cost increase to the consumer. These figures arise from the volumes set out in the consultation paper:

| Indicative range for the Level 2 Rest of Ireland minimum MW <sup>9</sup> (A) | T-4 CY2022/23 Level 2 Greater Dublin LCCA minimum de-rated MW value (B) | Extra Expensive Capacity in Level 2 Greater Dublin LCCA which would result from the flawed proposed mechanism (A) minus (B) |
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| Greater Dublin max MW range between 2,100 – 2,300 MW (de-rated)              | 1,682 MW  | 418 MW to 618 MW  |

<sup>7</sup> Driving imperfections costs – all of which are passed on to the consumer

<sup>8</sup> Which we understand is the ‘minded to’ position from ‘Dublin Security of Supply: Locational Scarcity Scalars for System Services in the Dublin Region’: CRU/19/011 4/2/2019

<sup>9</sup> Based upon the Final Auction Information Pack associated with the T-4 CY2022/23 capacity auction (and as stated within the current consultation paper)

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**Q3. Do respondents view the addition of a Level 2 Rest of Ireland LCCA as being appropriate within the methodology set out in SEM-17-040a? Please explain.**

Whether the addition of a Level 2 Rest of Ireland LCCA is appropriate within the methodology set out in SEM-17-040 is a moot point.

We remind that in reaching the Decision paper on Locational Capacity Constraints Methodology SEM-17-040 that the TSOs were tasked with developing a methodology to identify significant capacity constraints and to calculate the levels of generation required in constrained areas to ensure security of supply.

This consultation complements the above, and is entirely compatible with delivering on the identified task objective.

We hope that you find these comments of use and submit them for your consideration. We would be pleased of course to discuss any aspect of our responses should you so wish.

For and on behalf of Bord na Móna



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