

CUSC Alternative Form – Non Charging

CMP434 WACM 4: Codifying restrictions on changes to project site location – “Red Line Boundary” (RLB) – post-Gate 2.

Overview:

This Alternative Request would codify the proposed restrictions on changes to project Red Line Boundary (RLB) post-Gate 2 (contained within Element 11.3 of the Original solution). The Original solution does not propose to codify these new restrictions, instead proposing to house the restrictions in the proposed Gate 2 Criteria Methodology.

Proposer:

Ed Birkett, Low Carbon.

I/We confirm that this Alternative Request proposes to modify the non - charging section of the Connection and Use of System Code (CUSC) only



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What is the proposed alternative solution?

This Alternative Request is broadly in line with the Original solution but would codify the proposed restrictions on changes to project RLB post-Gate 2 (Element 11.3 of the Original solution). The Original solution does not propose to codify these new restrictions, instead proposing to house the restrictions in the proposed Gate 2 Criteria Methodology.

We believe that the new RLB change restrictions should be codified for two reasons:

1. To provide certainty to Users about how the changes will work in practice, and to allow Users the opportunity to propose Alternatives and to raise future modification proposals; and
2. The Original solution would house the restrictions in the Gate 2 Criteria Methodology, which would imply that the penalty for breaching these restrictions is for the project to have to go back through Gate 2, resulting in a loss of queue position etc. However, the proposed penalty is actually to reduce the User's capacity using powers introduced by Connections Action Plan 150 ([CAP150](#)). It is therefore not clear that the Original solution is legally operable.

What is the difference between this and the Original Proposal?

The National Energy System Operator (NESO) has set out its intention for how the proposed RLB change restrictions would work – see Element 11.3 of the Original solution (pages 22-24 of the CUSC Modification Proposal 434 (CMP434) Workgroup Consultation).

This Alternative Request is broadly in line with NESO's intention. This Alternative Request is different in the following ways:

1. The RLB change test is based on installed capacity rather than Transmission Energy Capacity (TEC), as TEC is a commercial concept rather than something that can be "built" in a particular location;
2. Clear process for handling hybrid sites and agreements with multiple Stages; and
3. Clarifies that the RLB change restrictions are separate to the proposed "sufficient land and consents" test to ensure that, at each Queue Management Milestone, developers have secured sufficient land and/or consents to develop to full capacity of each technology in their connection agreement. This test is set out in Element 11.3 of the Original solution (the second paragraph on page 23 of the CMP434 Workgroup Consultation).

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Please see worked examples below on for each of the three differences outlined above.

Difference #1: States that the RLB change restrictions are based on installed capacity rather than TEC, as TEC is a commercial concept rather than something than can be “built” in a particular location.

AND

Difference #2: Clear process for handling hybrid sites and agreements with multiple Stages.

The Proposer’s stated intention is that the RLB change restrictions will be based on how much TEC is built inside or outside the Original RLB. However, TEC is a commercial concept rather than a physical concept; therefore, we don’t believe that this formulation is operable.

Instead, we propose that the RLB change restrictions are based on capacity installed inside or outside the Original RLB.

This would require developers to clearly state the “Installed Capacity” of each technology within their Connection Agreement, which could be operationalised by amending Appendix O (User’s Data) of Construction Agreements (a.k.a. ConsAgs).

The proposed RLB change restrictions are as follows:

- At Gate 2 (see Worked Example 1):
 - o The developer must provide an Original RLB for each technology in their construction agreement. For example, a project with both “Onshore Wind” and “Battery” in the connection offer must provide an “Onshore Wind Original RLB” and a “Battery Original RLB”.
 - o The Original RLB (for each technology) can only contain land on which the developer has the rights to install that generating technology – i.e. no cable routes or environmental offsetting land can be included.
 - o The Developer must also state the Installed Capacity (of each technology).
 - o The land area of the Original RLB (for each technology) must be sufficient to develop the 100% of the Installed Capacity (of that technology), using the same test introduced for Letters of Authority (LoAs) by [CMP427](#).¹
 - o If the Original RLBs of different technologies overlap, then the developer must demonstrate that they have secured sufficient land for all technologies (e.g. by

¹ i.e. primarily based on the Energy Land Density Table, but with exceptions if the developer can satisfy the NESO that it can build the full capacity (of that technology) within that area.

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showing that they have sufficient land if they allocate X% of the overlapping area to technology A and (1-X) % to technology B).

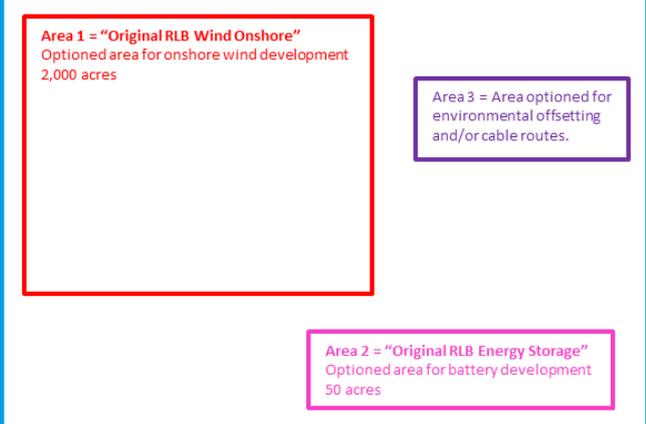
- Post-Gate 2:
 - o Whatever Installed Capacity (of each technology) the developer builds within the Original RLB (of that technology), the developer is permitted to build up to 50% additional Installed Capacity (of that technology) outside of the Original RLB (of that technology). This means that at least two-thirds of the Installed Capacity (of each technology) must be installed within the Original RLB (of that technology).
 - o At each Queue Management Milestone, NESO will check that the developer is compliant with this restriction. If not, NESO will reduce the Installed Capacity (of that technology) in line with the RLB Change Compliance Process outlined below.
- RLB Change Compliance Process:
 - o If, at any Queue Management Milestone, the developer is non-compliant with the RLB change restrictions (for one or more technologies), NESO will reduce the maximum Installed Capacity (of each technology that is non-compliant) in the connection agreement to make the agreement compliant (see Worked Example 2).
 - o If the Installed Capacity of a technology is reduced to 0 MW, then NESO will formally remove that technology from the connection agreement.
 - o If the sum of the Installed Capacity of all technologies is reduced such that it is less than the TEC in the connection agreement, then NESO shall reduce the TEC such that it is no higher than the sum of the Installed Capacities. NESO shall do this using powers introduced under CAP150 (as amended if necessary) (see Worked Example 3).
- Hybrid sites:
 - o As set out above, the RLB change restrictions apply separately to each technology.
- Connection agreements with multiple Stages:
 - o The application of the RLB change restrictions depends on whether all Stages of the agreement passed Gate 2 in the same Gate 2 Window:
 - o If all Stages of the agreement passed Gate 2 in the same Gate 2 Window:
 - There is a single Original RLB (for each technology).



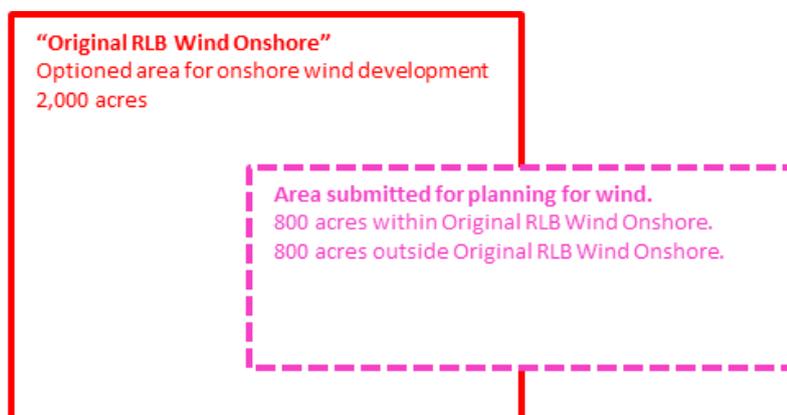
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Worked Examples:

Example 1: Establishing the Original RLBs at Gate 2

Landowner's full land holding	Notes
 <p>Area 1 = "Original RLB Wind Onshore" Optioned area for onshore wind development 2,000 acres</p> <p>Area 2 = "Original RLB Energy Storage" Optioned area for battery development 50 acres</p> <p>Area 3 = Area optioned for environmental offsetting and/or cable routes.</p>	<p>Original RLBs:</p> <ul style="list-style-type: none"> There is an Original RLB for each technology. The size of landowner's full land holding is not relevant, nor is land optioned for environmental offsetting or cable routes (Area 3). <p>Original RLB Wind Onshore:</p> <ul style="list-style-type: none"> The area optioned for wind development is 2,000 acres (Area 1). Area 1 becomes the "Original RLB Wind Onshore". According to the Energy Land Density Table, "Wind Onshore" requires a minimum area of 10 acres/MW. The developer can therefore use Area 1 as evidence that it has secured land to develop up to 200 MW of Wind Onshore. <p>Original RLB Energy Storage:</p> <ul style="list-style-type: none"> The area optioned for battery development is 50 acres (Area 2). Area 2 becomes the "Original RLB Energy Storage". According to the Energy Land Density Table, "Energy Storage" requires a minimum area of 0.02 acres/MW. The developer can therefore use Area 2 as evidence that it has secured land to develop up to 2,500 MW of Energy Storage.

Example 2: RLB Change Compliance Process



Notes – Connection Agreement for 100 MW Wind Onshore

- Developer sits planning for 1,600 acres of onshore wind.
- 800 acres within Original RLB Wind Onshore, 800 acres outside.
- Implies 80 MW inside and 80 MW outside Original RLB Wind Onshore.
- At this point, the developer is compliant, as the developer could build up to 80 MW inside the Original RLB and just 20 MW outside.
- However, there is a risk that the developer becomes non-complaint later.
- E.g. if the developer subsequently sought to build 50 MW inside and 50 MW outside.
- The capacity outside the Original RLB would be 100% of what is inside, i.e. in breach.
- In this case, the Installed Capacity of onshore wind would be reduced to 75 MW (50 MW inside, 25 MW outside).

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Worked Example 3: TEC reduction

Project Stage		Wind Onshore	Battery	Total Installed Capacity	TEC	Comments
At Gate 2		100 MW	200 MW	300 MW	200 MW	The wind and battery are shared TEC, as often happens with hybrid sites.
Following RLB Change Compliance Process	Scenario 1: No TEC reduction	100 MW	140 MW	240 MW	200 MW	Total Installed Capacity is 240 MW, which is higher than the original TEC of 200 MW. TEC is therefore unchanged.
	Scenario 2: TEC reduction	60 MW	100 MW	160 MW	160 MW	Total Installed Capacity is now only 160 MW, which is less than the original TEC of 200 MW. TEC is therefore reduced to 160 MW.

What is the impact of this change?

Proposer's Assessment against CUSC Non-Charging Objectives	
Relevant Objective	Identified impact
(a) The efficient discharge by the Licensee of the obligations imposed on it by the Act and the Transmission Licence;	Positive: Helps to ensure that only viable projects remain in the queue, which will help to meet GB's energy targets.
(b) Facilitating effective competition in the generation and supply of electricity, and (so far as consistent therewith) facilitating such competition in the sale, distribution and purchase of electricity;	Positive: Helps to ensure that only viable projects remain in the queue, which will enhance competition between those viable projects.
(c) Compliance with the Electricity Regulation and any relevant legally binding decision of the European Commission and/or the Agency *; and	Neutral: No impact
(d) Promoting efficiency in the implementation and administration of the CUSC arrangements.	Positive: Would introduce clear rules for what developers are and are not allowed to change, which will also encourage developers to leave the queue if they are not able to comply with the new rules.

*The Electricity Regulation referred to in objective (c) is Regulation (EU) 2019/943 of the European Parliament and of the Council of 5 June 2019 on the internal market for electricity (recast) as it has effect immediately before IP completion day as read with the modifications set out in the SI 2020/1006.



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When will this change take place?

Implementation date:

Aligned with the Original solution.

8

Implementation approach:

No different to the Original solution.

Acronyms, key terms and reference material

Acronym / key term	Meaning
CUSC	Connection and Use of System Code
NESO	National Energy System Operator
RLB	Red Line Boundary
TEC	Transmission Entry Capacity
CMP	CUSC Modification Proposal
CAP	Connections Action Plan
LoAs	Letters of Authority

