

CUSC Alternative Form – Non-Charging

CMP434 Alternative Request 21:

Overview: The intention is to create a levelized playing field in terms of project flexibility. We suggest applying a 12-month grace period to move red line boundaries after gate 2 acceptance to achieve that, while still maintaining the commitments to ongoing project progression milestones.

The current rules allowing 50% of any project to be built outside of the red line boundary disproportionately favours technology applicants that require large areas of land for a given TEC capacity, in particular solar (which is already heavily oversubscribed based on analysis provided by National Grid in 2024's Future Energy Scenarios). When combined with the minimum acreage rules for the technology, the rule allows the level of project definition upon Gate 2 application for a co-located solar and battery project to be materially lower compared to that of any of another applicant. Unlike solar, any small design deviations caused by local issues would require nearly all other applicants, to exit the grid connection queue due to their smaller land footprints, despite the fact that a 50-acre data centre consumes more electricity than what can be supplied by a 2,000-acre solar project.

Under the assumption that all parties accept that flexibility is required for early-stage developments that do not have confirmed grid connection points & have unknown contestable/non contestable costs, we believe that a 12-month grace period to move red line boundaries after gate 2 is required to ensure a levelized playing field between applicants.

If such an amendment is not made, the unintended consequence will be that the generation mix will become largely solar focused due to their softer ongoing commitments after gate 2 acceptance by the applicants being able to shift large proportions of its capacity to any location (something that a data centre will not be able to do).

A large market failure will occur if softer red line boundary rules are being applied to an 800-900GW pipeline of generation projects supplying electricity, that simultaneously makes it more challenging for any large-scale demand user from getting access to the grid network to consume that electricity.

Proposer: Philip John, Epsilon Generation Limited

☒ I/We confirm that this Alternative Request proposes to modify the non - charging section of the CUSC only

What is the proposed alternative solution?

The current rules allowing 50% of any project to be built outside of the red line boundary disproportionately favours technology applicants that require large areas of land for a given TEC capacity, in particular solar (which is already heavily oversubscribed). The rule allows the level of project definition for a co-located solar and battery project to be extremely low compared to that of many demand customers, who under the current rules would require highly defined projects due to the small land areas, and any small deviation caused by local issues would require them to exit the queue (something that solar projects covering 1000+ acres will not be at risk of). A 50-acre data centre consumes more electricity than what can be supplied by a 2,000-acre solar project.

Under the assumption that all parties accept that flexibility is required for early-stage developments that do not have confirmed grid connection points & have unknown contestable/non contestable costs, we believe that a 12-month grace period to move red line boundaries after gate 2 is required to ensure a levelized playing field between applicants.

If such an amendment is not made, the generation mix will become largely solar focused over time due to the technology's softer ongoing commitments after gate 2 acceptance by being able to shift large proportions of its capacity several kilometres away (something that a data centre will not be able to do). A large & highly consequential market failure will occur if softer red line boundary rules are being applied to an 800-900GW pipeline of generation projects supplying electricity, that simultaneously makes it challenging for any large-scale demand user from getting access to the grid network to consume that electricity.

What is the difference between this and the Original Proposal?

We propose a 12-month grace period to move the red line boundary after Gate 2 acceptance while still maintaining the commitments to ongoing project progression milestones.

Under the current proposal, 50% of any project can be located outside of the original red line boundary. This gives an unfair competitive advantage for technologies with low ratios of capacity to land usage, such as solar. 90% of all applicants to the grid network have substantially smaller land footprints than solar for the same level of TEC capacity, which makes them highly vulnerable to site change requirements due to local issues through the development lifecycle. A 2,000-acre solar project with the same TEC capacity as any other applicant, can easily amend the design to cover any potential local development problem without breaching the 50% criteria rule.

There are a few points that we would like to note in making this proposal:

1. **It is accepted by all parties that it is not possible to fully define a project at the stage of grid application.** It will be impossible to fully define a project, before completion of planning, knowledge of contestable costs, knowledge of non-contestable grid costs and even having the confirmed location of the grid connection point. Similar rules have been applied by DNOs in the past, but under non comparable circumstances where:
 - i) Capacity is much more available.

- ii) The lag between application and secured capacity was 3 months, instead of 12 months in today's proposals.
 - iii) Typical project sizes for solar projects of 20-150 acres, as opposed to 1,000+acre projects spanning across several kilometres seen today.
2. **Under the current proposal, large scale solar projects require significantly less project definition at the application stage than any other applicant due to their lower ratio of land/MW usage.**
- i) Due to the modular nature of solar projects, it is possible for it to spread the development across large, disconnected areas across several kilometres, where 50% of a project can be built in one location and 50% can be built in another several kilometres away. However, for most other applicants, this will not be possible (for example a datacentre is not modular in nature).
 - ii) The actual land density for solar can easily double what is put in the minimum acreage requirements (i.e., 2acres/MW). As an example, a 400MW solar project, may require 1,600 acres of land but is only required to put a lease option for 800 acres. This means that in the gate 2 application, a 400MW connection only really must commit to the location of 100MWs, and the remaining 300MWs can be located at any location, anywhere else across the country. Because of the modular nature of solar, the development can be split apart in locations that are several kilometres away from the original site boundary, unlike most other customers who are demand consumers. This makes the requirement of project definition for solar much lower than any other applicant.

The unintended consequence of the ESO proposal, is that it is likely that the grid queue will likely become highly concentrated around solar projects as time progresses, (despite the fact that the technology is already oversubscribed in the connection queue based on Future Energy Scenarios run by National Grid and all power price forecasters), as the measures to remove projects out of the connection queue are more applicable to all other technologies due to the higher level of project definition required for them at an early stage (due to the smaller land sizes), without those applicants being able to having all of the necessary information available to make that commitment.

This is especially problematic as the scope of the connection reform includes directly connected demand customers. The economics of all energy generation projects assume a doubling of electricity demand, without which all generation projects become economically unfeasible.

One 50-acre data centre requires more energy than what can be produced by a 2,000-acre solar & battery project. However, the current proposals make it substantially harder for a major energy user to have access to a grid connection than a solar project despite having a similar TEC capacity, given that the results of the ESO survey suggest that most applicants, across all technologies, consider it extremely easy to satisfy the gate 2 criteria of acquiring the necessary land rights.

A distortion in the market exists if 800-900GW pipeline of generation projects can be allowed to exist but we are making it harder for large scale consumers of electricity to easily connect to the network to consume it due to the rules around the grid connection process.

We propose a 12-month grace period to move the red line boundary after Gate 2 acceptance.

The ability to move the red line boundary is the only way for 90% of the applicants to appropriately react to the outcome of a gate 2 application with a confirmed grid connection compared to other solar & wind applications.

The short time limitation and immediate obligations around planning submission ensure that projects are required to progress quickly and limit the scope for any kind of privately traded capacity.

What is the impact of this change?

As per original but additionally: -

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 By ensuring that there is a level playing field in terms of project definition requirements for solar projects and all other applicants, it improves the deliverability of projects and ensure that the Licensee can deploy resources more efficiently.
(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 Ensuring that there is not unfair competition between solar projects and all other applicants, by ensuring that there is not a lower bar of project definition.
(c) Compliance with the Electricity Regulation and any relevant legally binding decision of the European Commission and/or the Agency *; and	Neutral
(d) Promoting efficiency in the implementation and administration of the CUSC arrangements.	Positive The more coordinated and efficient network design for connections also delivers benefits

	for customers and consumers as it ensures that projects within the connection queue can more easily become ready to proceed which should lead to lower overall costs to the licensee.
*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.	

When will this change take place?

Implementation date:

As per Original proposal

Implementation approach:

As per Original proposal