

Capacity Market participants,
prospective participants and
other interested parties

Email: EMR_CMRules@ofgem.gov.uk

Date: 19 November 2015

Dear colleague,

Electricity Market Reform: Open letter and consultation on changes to the Capacity Market Rules

Summary

- This letter invites your views on our proposed priority areas for potential changes to the Capacity Market (CM) Rules.
- Our two suggested priorities are: simplifying arrangements for prequalification, and making the Rules clearer.
- We also want your views on several proposals which were submitted last year, which required further consideration before changes.
- The proposals from last year which we are considering now relate to connection capacity; DSR components; and the definition of a stress event (see Annex 1).
- We also set out several proposals identified during prequalification¹ (see Annex 2).
- The deadline for responding to this letter and for submitting CM Rules change proposals is **5pm on 15 January 2016**. Please reply to EMR_CMRules@ofgem.gov.uk

Introduction

This letter explains our initial views on the changes we are considering to the CM Rules (the Rules). We are asking for respondents' views on the areas where we consider change to be a priority before the 2016 four-year-ahead (T-4) auction and the second Transitional Auction. It also invites comment on additional changes which were proposed last year but were not introduced at that time. We have further identified potential need for changes as a result of learnings from the prequalification process.

¹ See our FAQ published in August for some of the areas that arose during this years prequalification: <https://www.ofgem.gov.uk/publications-and-updates/capacity-market-frequently-asked-questions>

Our priorities for Rules changes in 2015/2016

As we did in the first year of the CM, we intend to only make changes where there is good evidence for doing so. There are risks from changing areas of the Rules which have not yet come into operation, or before there has been sufficient time for arrangements to be tested in practice. We also need to avoid confusion with changes to the Rules and the Electricity Capacity Regulations 2014 ("the Regulations") which DECC are introducing as a result of their recent consultations. All rule changes must also be in line with the objectives in the Regulations and the state aid approval for the Capacity Market.

Simplifying prequalification arrangements and making the Rules clearer

Last year, we received a number of proposals related to simplifying or reducing the existing information requirements during prequalification and we made several changes, such as removing the requirement to submit a legal opinion. We think there are benefits to both participants and consumers in improving this process further and continue to see it as a priority.

We encourage submission of specific, justified Rule change proposals areas aimed either at simplifying prequalification or making the Rules clearer - and are seeking views on whether there are any other aims we should prioritise.

Rule change proposals

In our statutory consultation on rule changes in 2015² there were three proposals which we decided to consider further as a result of their complexity. These related to connection capacity, DSR component reallocation and stress events. Having considered these issues further we set out in Annex 1 our thoughts on these proposals and ask for views.

In addition to the above, we have identified several areas in which changes to the Rules may be beneficial as a result of learnings from the prequalification process. This includes issues which were mentioned in our FAQ, published during prequalification this year, and one proposal relating to planning consents. We have set out our thoughts on these issues in Annex 2 and ask for views.

Submitting CM Rules change proposals

Views are invited on our proposal to prioritise rule changes which are aimed at clarifying the prequalification criteria or simplifying the Rules and whether there are any other categories of changes that should be prioritised. We also welcome proposals for rule changes, including those which do not relate to clarity and simplification of the Rules.

To propose a specific rule change, send the form available on our website to **EMR_CMRules@ofgem.gov.uk**. Please support the proposal with arguments and evidence as fully as possible. We will be unable to take forward proposals which are not sufficiently backed up by evidence. Last year we rejected a number of proposals as there was no justification given for making the Rule change.

We will publish all proposals we receive on our website. Please indicate clearly if you wish any information within your proposal submission to remain confidential.

You can submit proposals at any time. However, we must receive them by **5pm, 15 January 2016** for us to be able to consider them in our subsequent consultation. Proposals received after this date may not be considered until the next round of Rules changes. We will make an exception to this only if we think a proposal is urgent.

² <https://www.ofgem.gov.uk/publications-and-updates/statutory-consultation-amendments-capacity-market-rules>

Next steps

We intend to hold a stakeholder workshop, possibly jointly with DECC and National Grid, following the December auction. This will provide an opportunity to discuss potential changes to the Rules in light of the auction results.

We aim to publish the final version of the revised Rules in summer 2016, before the next prequalification round opens. However, the timings of our statutory consultation and publication of the revised Rules may be affected by possible revisions of the Rules and Regulations by DECC arising from its recent consultations and any subsequent DECC reviews of the second capacity auction. We will work with the EMR Delivery Body and the Settlement Body to ensure that any impacts on their systems are considered thoroughly.

We are also considering the timetable for Rule changes in future years and are likely to move away from an annual cycle of Rule changes.

Views sought

We welcome your views on all the issues discussed in this letter, and in particular on the questions below. Please indicate if you wish your response to remain confidential. We will publish all non-confidential responses on our website.

Q1: Do you agree with our priorities? Are there other priorities which we should consider for this round of Rule changes?

Q2: Do you think there are issues with the current methodology for calculating connection capacity, as described in Annex 1? Are there other issues we have not considered?

Q3: Do you believe that any of the options presented in Annex 1 would improve the calculation of connection capacity? Are there other options we have not considered?

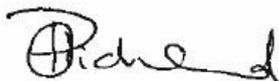
Q4: Do you believe that the benefits of allowing DSR CMUs to add, remove and reallocate outweigh the costs of increased testing and prequalification? Does volume reallocation already provide sufficient flexibility for DSR CMUs?

Q5: Do you agree that Emergency Manual Disconnection, as covered in section OC6.7 of the Grid Code, should be included in the definition of System Stress Event, Capacity Market Warning and Involuntary Load Reduction?

Q6: Do you agree with the proposals in Annex 2?

Three more detailed questions, listed 3a, 3b and 3c are presented in Annex 1 and we encourage responses to all questions if possible.

Yours faithfully



Philippa Pickford
Associate Partner
Wholesale Markets

Annex 1 – Proposals we have considered further

A: Connection Capacity

Background

Last year we received two proposals which suggested that the current options for calculating connection capacity could lead to Generating CMUs receiving a connection capacity, which once derated, is very close to their entry capacity, and that this was not consistent with the policy intent. We recognise this is a significant area of interest, as it affects the supply curve in the auction and therefore both the clearing price and the risk of over and under-procurement. Last year we decided to consider both of these proposals further.

Below we consider the current methods for determining connection capacity and note the possible issues. We ask whether the current methods present a significant issue and whether an alternative methodology would be better. We list several potential changes, including the two proposals from last year.

We also explore three other issues related to connection capacity, which arose from stakeholder responses and our own thinking. These are:

- A correction to the formula for using TEC;
- How to deal with connection agreements which contain more than one figure; and
- How to treat CMUs which want a lower connection capacity

Each of these issues is described in more detail below.

The issues arising under current Rules primarily concern the connection capacity of Existing Generating CMUs. We do not look at the connection capacities for New Build CMUs or the DSR capacity of DSR CMUs.

Current methods

Connection capacity represents the maximum output a generating unit can deliver during a stress event. The connection capacity of a Capacity Market Unit (CMU) is the aggregate of the connection capacities of each individual generating unit. This figure is derated to give the final size of capacity agreement.

There are currently three options for determining the connection capacity of a transmission connected generating unit³:

1. Use the **Connection Entry Capacity (CEC)**
2. Take the **average of the three highest outputs** in the past two years
3. Use the **Transmission Energy Capacity (TEC)** of the plant. If the plant is split into multiple generating units, the TEC will be shared among them in proportion to their share of the plant's CEC

All of these options have potential issues:

- It may be unreasonable to use CEC as the connection capacity as some plants may not be able generate at this level. Plant may also be able to modify their CEC to a level above that which the plant can truly deliver.

³ Equivalent options exist for Disitribution Connected CMUs

- Using TEC may also be unreasonable. Plant may be able to deliver above their TEC in a stress event⁴. It may also be reasonable to assume some plant have a TEC which does not represent their maximum capable output during stress, as it was chosen for commercial reasons.
- It may not be possible to test a plant's maximum capacity as under normal circumstances it could lead to a breach of the CUSC. Using historical output therefore may not be a good measure of a generator's true capability during stress.

Q2 – Do you think there are issues with the current methodology for calculating connection capacity? Are there other issues we have not considered?

One proposal last year specifically noted a problem if units within a single CMU use different methodologies. An example of this is provided in Annex 3. We are minded to agree that this could be an issue and present one option below to prevent this.

Potential Changes

Given the issues above, we considered both the two proposals received last year and a wider range of possibilities based on stakeholders' feedback and our own thinking. These are not mutually exclusive and we ask for views on whether any or a combination of these options would be sensible and whether there are further options we should consider.

1. Options for determining connection capacity

- Option A: Test up to connection capacity, rather than de-rated capacity
- Option B: Use a range of, or more granular, de-rating factors
- Option C: Use the minimum of Historical Output and Transmission Entry Capacity
- Option D: Use an alternative figure to determine connection capacity
- Option E: Let NGET determine the connection capacity
- Option F: Only allow one method to calculate connection capacity

2. Correction to the TEC formula

- Option G: Always use the sum of unit CECs when apportioning TEC

3. How to deal with connection agreements which contain more than one figure

- Option H: Choose the lowest metered output in the three Settlement Periods identified
- Option I: Allow applicants to choose a lower connection capacity

4. How to treat CMUs which want a lower connection capacity

- Option J: Where multiple figures exist, allow a choice of which figure to take

1. Options for determining connection capacity

❖ Option A: Test up to connection capacity, rather than de-rated capacity

⁴ Stress events are Emergency Instructions, as defined under the Grid Code, and therefore a generator may deliver above their TEC. See Para 2.2.4 of the CUSC <http://www2.nationalgrid.com/UK/Industry-information/Electricity-codes/CUSC/The-CUSC/>

Currently a Generating CMU, in order to prequalify, must demonstrate three periods where they have generated above their derated capacity. We received one proposal⁵ last year which suggested requiring historical performance up to the connection capacity. This would ensure applicants can deliver their maximum capacity.

Our initial decision was to reject the proposal. If, as noted above, the maximum that could be delivered in a stress event was above TEC, then under normal circumstances it would not be possible to test this without breaching the CUSC. One respondent noted that plant would not submit a figure which would lead to a breach of the CUSC. However, this could mean plant nominate an amount which is below the level at which they could deliver during a stress event. Following our statutory consultation we said that we would consider this proposal further, as part of our work on connection capacity.

❖ **Option B: Use a range of, or more granular, de-rating factors**

We received one proposal last year⁶ that suggested removing any choice in the connection capacity, but creating a range of derating factors. Our decision from the April 2015 statutory consultation was to consider this further. However, we are now of the view that the implementation of more granular derating would require changes to the Regulations and therefore we are not consulting on this option.

❖ **Option C: Use the minimum of Historical Output and Transmission Entry Capacity**

This proposal would replace the current options for determining connection capacity with a rule based on the minimum of historical output and TEC. This would mean both historical output and TEC would need to be high enough to meet connection capacity. This is an equivalent way of “testing” that a unit can meet its connection capacity that should not lead to breaches of the CUSC

❖ **Option D: Use an alternative figure to determine connection capacity**

We considered whether other figures, defined in the CUSC or Grid Code could replace the three current options for determining connection capacity. This included Registered Capacity, Generation Capacity and Rated MW. However, we do not believe that any of these figures represent a more reliable indicator than the current options.

❖ **Option E – Allowing NGET to choose connection capacity**

The choice of connection capacity methods could be removed completely and replaced with a deterministic methodology, implemented by NGET. We recognise this could be difficult to implement in practice. However, we wish to consider whether such a methodology could be developed.

❖ **Option F – Only allowing one method to calculate connection capacity**

By choosing multiple methods to determine connection capacity, it is easier for a CMU to get a derated capacity very close to their maximum capacity. An example of this is attached in Annex 3. A way to stop this particular behaviour would be to only allow one method to choose connection capacity for each CMU.

⁵ <https://www.ofgem.gov.uk/publications-and-updates/e-capacity-market-rules-change-proposal-3>

⁶ <https://www.ofgem.gov.uk/publications-and-updates/national-grid-capacity-market-rules-change-proposal-19>

Consultation question:

Q3 – Do you believe that any of the options presented would improve the calculation of connection capacity? Are there other options we have not considered?

2. Correction to the TEC formula

Where a site is split into multiple CMUs, the TEC is split between each unit in proportion to that unit's share of the total CEC. Currently, the total CEC used is the maximum of the station level CEC or the sum of individual units' CEC. However, using the station level CEC could result in a connection capacity that is not equal to the total TEC, which we don't believe is the intention of the formula.

❖ **Option G: Always use the sum of unit CECs when apportioning TEC**

We propose removing the option under Rule 3.5.5(a)(i) to ensure that only the sum of individual CECs is used to apportion TEC.

Consultation question:

Q3a – Do you agree that the sum of unit CECs should always be used when apportioning TEC?

3. How to treat CMUs which want a lower connection capacity

As a general principle we wish to encourage participation in the Capacity Market. Currently there is no ability to choose a lower capacity figure, which can lead to plant not prequalifying, rather than participating with a smaller agreement. This could reduce the competition in the auction and lead to a higher clearing price. Examples are given in the two options below.

❖ **Option H: Choose the lowest metered output in the three Settlement Periods identified**

Rule 3.5.3 allows an applicant for an Existing Generating CMU to nominate a Connection Capacity equal to the average of the three highest outputs from the last two years. To prequalify, Rule 4.4(f) requires that each of these outputs are greater than the Anticipated De-rated Capacity. It is possible for a plant not to prequalify if any of their three periods cannot meet the average, once derated.

It could be beneficial to allow this capacity to participate, but with a lower connection capacity, rather than excluding it completely. One option would be to allow an applicant for an Existing Generating CMU to nominate a Connection Capacity equal to the lowest number among the three physically generated net outputs of that Generating Unit in the three Settlement Periods identified. However, this must also be balanced with the risk of allowing plants that are very unreliable into the CM.

❖ **Option I – Allow applicants to choose a lower connection capacity**

Some stakeholders have suggested that they may want to take on a smaller agreement. This could be done by making the connection capacity calculation a "maximum" and allowing capacity providers to choose a lower figure if they wish. We recognise that this could be sensible in certain situations, for example for a CHP plant where the historical maximum may not be a good representation of what the CHP will be able to reliably provide during a stress event. However, it could also lead to a higher clearing price if some providers were risk averse and additional capacity was purchased at a higher price as a result. It may also allow applicants to withhold capacity in order to drive up the capacity price.

Consultation question:

Q3b – Do you think that not being able to choose a lower connection capacity is a problem? What are your views on the options considered?

4. How to deal with connection agreements which contain more than one figure

We received one proposal last year which suggested where a connection agreement has more than one figure, to take the lowest figure. We accepted this proposal as this was the original policy intention, as clarified by DECC in their FAQ⁷.

However, we received one response which argued this could under-estimate the contribution capacity with more than one connection capacity figure. The respondent suggested that the difference in the two figures would likely be due to ambient conditions. In winter, the connection capacity would be higher, which is also when the capacity agreement is at its greatest. In summer, the connection capacity would be lower but the load following nature of the agreement would mean the obligation is also lower, and able to be met by the lower connection capacity. This could lead to a higher clearing price if a plant with a higher bid is taken, rather than existing capacity whose contribution was underestimated. We said we would consider this issue further.

❖ Option J – Where multiple figures exist, allow a choice of which figure to take

This option would allow capacity providers to choose which figure in their connection agreement is most appropriate.

We note this could lead to the opposite problem – where a CMU was to pick the highest figure, relating to winter, it would result in underprocurement of capacity in the Summer. It was put to us that this is not an issue, because the obligation is lower in Summer. However, capacity providers would still be able to trade up to the level of their connection capacity, and therefore it would be possible in summer for such a capacity provider to have an obligation above that which they can feasibly deliver.

Consultation question:

Q3c – Do you think there is an issue with taking the lowest figure in a connection agreement? Do you believe that a choice of figures should be allowed?

⁷ <https://www.gov.uk/government/publications/electricity-market-reform-capacity-market-frequently-asked-questions>

B: Reallocation of DSR components

Last year we received one proposal which aimed to amend the provisions for allocation and removal of CMU components from DSR CMUs under Rules 8.3.3 and 8.3.4 to align them with the rules governing balancing services. Increasing the flexibility of component allocation was proposed to aid demand-side participation.

Decision from last year

We decided to consider this proposal further and encouraged submission of a more detailed proposal. We have not received a further proposal in this area and would still welcome one.

One of the key concerns from last year was ensuring DSR components could deliver. It was noted that each component would need to be prequalified before participating and that gaming of DSR tests could be a concern⁸. It is possible that these issues could be solved by requiring DSR components to prequalify in the usual way and then by testing each DSR CMU which swaps in or out a component. However there are costs involved to such testing and in tracking these changes. Therefore our consideration is whether the benefits in allowing flexibility outweigh the costs of increased testing.

We note that some of the benefits may already have been created through volume reallocation in a less burdensome manner. DECC have recently proposed changes to the Regulations which would allow volume to be reallocated to CMUs without capacity agreements, provided they are prequalified.

Consultation question

Q4 – Do you believe that the benefits of allowing DSR CMUs to add, remove and reallocate outweigh the costs of increased testing and prequalification? Does volume reallocation already provide sufficient flexibility for DSR CMUs?

C: Definition of Stress Events

Last year we received one proposal that suggested correcting the definition of Involuntary Load Reduction to include Automatic Low Frequency Demand Disconnections, which are covered by section OC6.6 of the Grid Code. We agreed with this proposal and questioned whether Emergency Manual Disconnections, covered by section OC6.7 of the Grid Code should also be added to this definition (and the definition of System Stress Events and Capacity Market Warnings). As this change does not take effect until the first Delivery Year, we decided to consider this further, with the intention of consulting in the next round of rule changes.

We believe circumstances covered under Emergency Manual Disconnections could constitute an issue of system adequacy and are therefore intended to be included in the definition of System Stress. If it later turns out that such issues were due to a fault in the transmission system or distribution network then these would be excluded by virtue of Rule 8.4.2.

Consultation question

Q5 – Do you agree that Emergency Manual Disconnection, as covered in section OC6.7 of the Grid Code, should be included in the definition of System Stress Event, Capacity Market Warning and Involuntary Load Reduction?

⁸ The concern was that working components would be used for the DSR test but less reliable components could be swapped into that CMU after the test

Annex 2: Other proposals

Frequently Asked Questions

In August this year we published three "Frequently Asked Questions" to clarify areas of the Rules used during prequalification. This year, we propose to make changes to the Rules to clarify these points:

1. We propose to fix an issue which would currently prevent some participants from entering the T-1 auction if they opted out of the T-4 auction.
2. We propose to clarify that connection capacity should be stated in MW to three decimal places
3. We propose to clarify what the DNO letter should contain in Rule 3.6.1(c)(i)(aa)

Please see our FAQ⁹ for more details about these issues.

Other Proposals

There are two other proposals which we have considered.

- The first is to clarify that New Build Generators must have planning permission for the duration of their capacity agreement. This helps to ensure that new build plant can deliver energy for the life of their capacity agreement.
- The second is to extend the definition of a defaulting CMU to include those who participated in the auction but were not successful in winning an agreement. This could be appropriate, for instance where misleading information was provided. Currently, only those who are taken out of the auction, by virtue of Rule 5.4 or who win agreements can become Defaulting CMUs.

Consultation Question:

Q6 – Do you agree with the proposals in this Annex?

⁹ <https://www.ofgem.gov.uk/publications-and-updates/capacity-market-frequently-asked-questions>

Annex 3: Example of Connection Capacity issue

The example below shows the ability of a CMU to choose two different options in order to receive a de-rated capacity that is very close to their Transmission Entry Capacity.

	Station	Unit 1	Unit 2	Sum 1 + 2
Highest metered output		110	40	150
Connection Entry Capacity	170	110	60	170
Station Transmission Entry Capacity	150			
Class de-rating factor	90%			

	Unit 1	Unit 2	Connection capacity	De-rated capacity	Comments
Option 1 CEC	110	60	170	153	Insufficient TEC
Option 2 Metered output	110	40	150	135	
Option 3 TEC	97	53	150	135	
Option 2 and 3	110	53	163	147	



Connection capacity
above transmission
entry capacity

De-rated capacity
close to transmission
entry capacity