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Capacity Market participants,
prospective participants and
other interested parties

Email: EMR_CMRules@ofgem.gov.uk
Date: 21st July 2016

Dear colleague

Consultation on further amendments to the Capacity Market Rules (the "Rules") pursuant to Regulation 79 of the Capacity Market Regulations 2014 (the "Regulations")

Summary

- On 5 July 2016 we published our decision on our Statutory Consultation on amendments to the Rules[1] (the "April consultation") and an amended version of the Rules including the changes we were making. Together with amendments made by the then Department of Energy and Climate Change (DECC)[2], our changes came into force as the Capacity Market (Amendment) Rules 2016 (the "Rules") on 14 July 2016.

- In our decision we committed to consulting further on two issues over the summer. These were:

    - the definition of Mandatory CMUs; and

    - to ensure the Load Following Capacity Obligation (LFCO) formula scales obligations correctly during the first delivery year of the Transitional Arrangements (TA).

- We are also consulting on one further amendment which corrects the legal drafting relating to the demonstration of satisfactory performance for CMU Portfolios. This correction affects a change taken forward from our April consultation.

- We are now inviting your views on our resulting proposed amendments to the Rules. We are consulting on these at this time so that any necessary amendments can be made before the start of the first TA delivery year.

- **The deadline for responding to this consultation is 5pm on 19 August 2016.** Please reply to EMR_CMRules@ofgem.gov.uk.

[1] Ofgem, *Statutory consultation on amendments to the Capacity Market Rules*, 29 April 2016, www.ofgem.gov.uk/publications-and-updates/statutory-consultation-amendments-capacity-market-rules-0

[2] The duties of the Department of Energy and Climate Change are now the responsibility of the Department for Business, Energy and Industrial Strategy which was formed on 16 July 2016.

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Regulatory context

The CM is governed by a combination of the Regulations[3] and the Rules, as amended from time to time. The Regulations permit us to amend, add to, revoke or substitute any provision of the Rules, other than to confer functions on the Secretary of State or additional functions on ourselves. When changing the Rules, we must have regard to our principal objective and general duties,[4] and the specific objectives set out in the Regulations (the "CM Rules objectives")[5]:

- promoting investment in capacity to ensure security of electricity supply
- facilitating the efficient operation and administration of the Capacity Market
- ensuring the compatibility of the Capacity Market Rules with other subordinate legislation under Part 2 of the Energy Act 2013.

The Regulations require us to consider any proposal we receive for a Rule change. We must also consult on amendments to the Rules before making our final decision. We published guidance in August 2014 on our process for making changes to the Rules (the "CM Rules Guidance").[6] The Secretary of State also has the power to change the Rules, subject to consultation.

Rule change proposals

We currently run an annual process for receiving, assessing and deciding on proposals from stakeholders. We recently completed the process for changes to the Rules ahead of the 2016 prequalification window. We published our decision on changes to the Rules on 5 July 2016 (the "July decision")[7]. The amendments came into force on 14July 2016 immediately after changes introduced by DECC[8].

In our decision we committed to consulting further on two issues over the summer:

- **the definition of Mandatory CMUs:** to ensure it no longer includes any types of 'excluded capacity' as defined by the Regulations. This to prevent 'excluded capacity' from having to meet the requirements of a Mandatory CMU under the Rules during the prequalification period, when they are in fact unable to participate in the CM. In our July decision, we amended the definition to exclude those in receipt of low carbon support from being Mandatory CMUs but recognized that respondents to the consultation had identified other types of excluded capacity that fell within the current definition of Mandatory CMU. We set out our intention to consult to cover all categories of 'excluded capacity'. We are now consulting on our proposed change to the Rules to address this issue.

- **the LFCO formula:** Respondents to the April consultation had raised concern that the LFCO formula, which is used to calculate the 'Load Following Capacity Obligation' for a Capacity Provider in the CM, would not scale obligations correctly during the first delivery year of the Transitional Arrangements (TA). As detailed in Annex A, the multiplier in the current formula would, in the context of the TA, likely be set at 1

[3] The Electricity Capacity Regulations 2014 No. 2043 which came into force on 1 August 2014
[4] Ofgem's principal objective and general duties can be found on our website www.ofgem.gov.uk/publications-and-updates/powers-and-duties-gema and is set out in section 3A of the Electricity Act 1989
[5] Regulation 78 sets out these objectives. Regulation 77(3)(a) states that the Authority must not make any provision in capacity market rules which is inconsistent with the Regulations.
[6] Ofgem, *The Change Process for the Capacity Market Rules,* August 2014 www.ofgem.gov.uk/publications-and-updates/final-guidance-capacity-market-cm-rules
[7] Ofgem, *Decision on the statutory consultation on amendments to the Capacity Market Rules*, July 2016 www.ofgem.gov.uk/publications-and-updates/decision-statutory-consultation-amendments-capacity-market-rules-0
[8] https://www.ofgem.gov.uk/system/files/docs/2016/07/consolidated_publication_cover_letter_.pdf

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and not function to scale obligations based on demand, which was the intention. The delivery year starts in October 2016 and therefore any changes to the LFCO formula must be made by then to have full benefit.

We are also consulting on one further amendment which corrects the legal drafting of a change taken forward from our April consultation:

- **satisfactory performance for CMU portfolios:** the current drafting of Rule 13.4.1B which relates to the demonstration of satisfactory performance by CMU Portfolios is not aligned with the policy intent which requires the demonstration on three separate days during the Winter of the relevant Delivery Year. Currently the Rules are not clear that three separate Satisfactory Performance Days are required. The proposed amendment would clarify this and make Rule 13.4.1B consistent with the performance requirements of individual DSR CMUs detailed in Rule 13.4.1.

List of annexes

- Annex A summarises each Rule change proposal, our minded to decision and reasoning.

Questions

Q1a. Do you agree with the proposal to amend the definition of Mandatory CMUs? Please provide evidence and clear reasoning for your answer.

Q1b. Do you think our proposed drafting accurately reflects the policy intent we have outlined?

Q2. Do you think our proposed drafting accurately reflects the policy intent we have outlined?

Q3: Do you agree with our preferred option for amending the LFCO formula? Please provide evidence and/or clear reasoning with your answer.

Next steps

Please send your response to the consultation to EMR_CMRules@ofgem.gov.uk by 5pm on 19 August 2016.

We intend to publish our final decision and the final amendments to the Rules in autumn 2016 before the start of the first TA delivery year.

Yours faithfully

Philippa Pickford

Associate Partner, Wholesale Markets
For and behalf of the Gas and Electricity Markets Authority

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Annex A: Rule change proposals

Of10 – Ofgem

This proposal would amend the definition of Mandatory CMU under Rule 1.2 so that all types of capacity defined as 'excluded capacity' in the Regulations are excluded from the definition of Mandatory CMU. We believe that given this excluded capacity cannot take part in the CM it should not be subject to the requirements for Mandatory CMUs specified in the Rules.

In our statutory consultation on amendments to the Rules[1] (the "April consultation") we consulted on amending the Rules to stop those in receipt of low carbon support from being defined as Mandatory CMUs. Responses were in support of the change. However, a respondent identified that the same issue applies to long term STOR CMUs classed as excluded capacity by Regulation 18. We agree; we do not think that any CMU falling within the definitions of excluded capacity under the Regulations should fall within the definition of a Mandatory CMU. We said in our decision on the April consultation that we would consult further to address the issue.

We propose to amend Rule 1.2.1 as follows so that CMUs which are considered to be 'excluded capacity' under Regulations 16, 17 and 18 are not Mandatory CMUs:

Mandatory CMU: means an Existing Interconnector CMU, or an Existing Generating CMU each Generating Unit of which is owned by a licensed generator unless all such Generating Units are Exemptable Generating Plant or are ~~in receipt of Low Carbon Exclusion or a Low Carbon Grant~~ ~~[CP112]~~ excluded capacity by virtue of Regulations 16 to 18 [OF10].

Q1a. Do you agree with the proposal to amend the definition of Mandatory CMUs? Please provide evidence and clear reasoning for your answer.

Q1b. Do you think our proposed drafting accurately reflects the policy intent we have outlined?

Of11 - Ofgem

This proposal would add drafting within Rule 13.4.1B to ensure that CMU Portfolios are demonstrating satisfactory performance on three separate days during the Winter of the relevant Delivery Year, as is required of individual CMUs under Rule 13.4.1. The original policy intent was for CMU Portfolios to be able to demonstrate performance on aggregate, but with the same restrictions applying for both individual CMUs and Portfolios in relation to Satisfactory Performance Days, ie. on three separate days during the Winter of the relevant Delivery Year. This point was not reflected in our recent amendments and we are accordingly correcting this oversight.

We propose to amend Rule 13.4.1B as follows:

[1] Ofgem, *Statutory consultation on amendments to the Capacity Market Rules*, 29th April 2016, www.ofgem.gov.uk/publications-and-updates/statutory-consultation-amendments-capacity-market-rules-0

Subject to Rule 13.4.1C and for the purposes of the definition of "Satisfactory Performance Day" in Rule 13.4.1, in the case of a group of Capacity Committed CMUs with the same Capacity Provider (a "CMU Portfolio"), where those CMUs are either:

(a) DSR CMUs which consist of DSR CMU components on two or more sites; or
(b) Non-CMRS Distribution CMUs, where, for each such CMU the aggregate connection capacity of all generating units is no greater than 50MW.

the demonstration that can be made instead of Rule 13.4.1 is capacity delivered in aggregate by the CMU Portfolio at a level equal to or greater than their combined Capacity Obligations (subject to Rule 9.5.1) for at least one Settlement Period (which Settlement Periods may fall within a System Stress Event) on three separate days [OF11] during the Winter of the relevant Delivery Year.

Q2. Do you think our proposed drafting accurately reflects the policy intent we have outlined?

CP128 – Energy UK

Proposal and consultation responses

In this proposal, Energy UK sought a review of the LFCO formula to ensure it scaled obligations correctly during the first Delivery Year of the Transitional Arrangements (TA). In our April consultation we agreed there could be an issue and invited specific suggestions on how to amend the formula.

The majority of responses thought this was a significant issue that should be fixed before October 2016, the start of the first TA delivery year. Two respondents, Energy UK and E.ON put proposals forward with drafting, while three others put suggestions forward without drafting. We have considered the five proposals submitted to us and believe three of them are potentially workable solutions. Below we set out an overview of the current formula, the two proposals we think are most suitable (one of which is our preferred option) and the alternative options considered.

As noted in our consultation, we believe the LFCO formula is appropriate once there is a significant proportion of the total capacity participating in the delivery year, and therefore a change will only be needed for the first TA delivery year. We therefore propose to amend the formula for 2016/17 only.

Overview of current LFCO formula

The purpose of the LFCO formula is to scale delivery obligations according to demand and is calculated by the following formula.

$$LFCO = \frac{AACO_{ij} + PTCO_{ij} - SCO_{ij}}{2} \times \min\left(\frac{[2 \times \sum_i E_{ij}] + [2 \times ILR_j] + RfR}{\sum_i [AACO_{ij} - SCO_{ij}]}, 1\right)$$

Where

$AACO_{ij}$ is the Auction Acquired Capacity Obligation,

$PTCO_{ij}$ is the Physically Traded Capacity Obligation,

SCO_{ij} is the Suspended Capacity Obligation of that Capacity Committed CMU 'i' for Settlement Period 'j'.

$\sum_i E_{ij}$ is the sum of the capacity delivered by a Capacity Committed CMU 'i' during the occurrence of a Stress Event in Settlement Period 'j',

ILR_j is the Involuntary Load Reduction, being the aggregated volume of load shed by Distribution Network Operators in Settlement Period 'j',

RfR is the reserve for response amount (in MW)

For a full overview of the LFCO see page 30 of our statutory consultation on changes to the Capacity Market Rules[2].

Issue with the current formula

The total capacity agreements for the first TA are so small that the sum of RfR, ILR and $\sum_i E_{ij}$ will more than likely always exceed the total supply $\sum_i [AACO_{ij} - SCO_{ij}]$. The scaling factor, given by the second part of the formula, will therefore more than likely always be one, and obligations will not scale according to demand.

Our lead options

We have identified two lead options (and one preferred option) out of the approaches proposed to us. Both of these have a number of benefits but also risks attached.

1. **The first of our lead options (and our preferred option)** is to scale obligations based on a historical average demand shape, as suggested by Green Frog Power. An illustrative formula is included below, where the average demand is taken as a proportion of the year.

$$LFCO_{ij} = \frac{AACO_{ij} + PTCO_{ij} - SCO_{ij}}{2} \times \frac{AD_j}{max(AD_j)}$$

Where:

- *ADj* is the average system demand in period j over the past five years
- *Max(ADj)* is the highest average system demand over the past five years

This has a number of benefits:

- We think this is the most straight-forward approach put forward and strikes an appropriate balance between accuracy and simplicity for stakeholders. It will also help to reduce the chance of unintended consequences
- Participants will know in advance how their obligation will scale throughout the year and therefore have greater certainty of their exact obligation
- The formula does not use Involuntary Load Reduction, which was noted by National Grid to potentially cause settlement issues

There could be disadvantages to this approach. In particular, the obligation will not scale perfectly with the system demand in the delivery year. It might be expected that the majority of capacity in the first TA will come from generation[3]. However, the imperfect scaling may be problematic for those providers whose ability to deliver is dependent on demand, for example some demand side response. This risk is mitigated by the use of average historical demand which should approximate system demand; therefore, we consider that the disadvantages are outweighed by the benefits listed above.

[2]DECC, *Consultation on further reforms to the Capacity Market*, March 2016 www.gov.uk/government/uploads/system/uploads/attachment_data/file/504217/March_2016_Consultation_Document.pdf

2. **The second of our lead options (though not our preferred option)** was suggested by National Grid. They proposed a formulation where the scaling factor could be based on the proportion of system demand during stress to the peak system demand.

$$LFCO_{ij} = \frac{AACO_{ij} + PTCO_{ij} - SCO_{ij}}{2} \times min\left(\frac{SD}{PSD}, 1\right)$$

Where:
- *SD* is system demand during the stress event
- *PSD* is peak system demand assumed when setting capacity to procure

This has a number of benefits:
- The obligation will scale with demand in the delivery year
- The formula is simpler than the current one
- The formula does not use Involuntary Load Reduction, which was noted to potentially cause settlement issues

Like the Energy UK proposal described below, the obligations would depend to some extent on whether peak demand was forecast accurately. This formulation would exclude Involuntary Load Reduction (ILR) and therefore may lead to obligations being smaller than they otherwise would be during stress events which have ILR. National Grid note that the inclusion of ILR may cause settlement issues.

Alternative option considered

We considered a third option to have potential benefits. While this approach can help to avoid the issues for the Transitional Year we think the disadvantages of this approach are greater than those associated with the two lead options above.

Energy UK suggested using different terms to approximate the demand and total peak capacity so that they were not dependent on the quantity of capacity obligations. They proposed the following formulation.

$$LFCO_{ij} = \frac{AACO_{ij} + PTCO_{ij} - SCO_{ij}}{2} \times min\left(\frac{D + \left(2 \times ILR_j\right) + RfR}{C}, 1\right)$$

Where:
- D is National Demand (a defined term in the Grid Code)[4]
- C is Total Peak Capacity for the relevant Delivery Year, as published in the most recent Electricity Capacity Report

We believe Energy UK's proposal would approximately scale obligations with demand. However, the level of obligations will depend on how close forecast peak demand is to actual peak demand. If peak demand is underestimated it would lead to higher obligations, whereas the reverse would be true for overestimation.

Discounted options

We received two other proposed approaches which we are not minded to consider further for the reasons below.

EON suggested using "unrestricted national demand"

[4] We note using "National Demand" would ignore interconnection; however "system demand" could be used instead to account for this.

$$LFCO_{ij} = \frac{AACO_{ij} + PTCO_{ij} - SCO_{ij}}{2} \times min\left(\frac{(2 \times \sum_i max(0, QM_{ij}) + \left(2 \times ILR_j\right) + RfR}{\sum_i \left[AACO_{ij} - SCO_{ij}\right]}, 1\right)$$

Where:

- *QMij* is the BSC variable for metered generation

However we believe this option to be problematic as the nominator considers unrestricted national demand whereas the denominator only considers CM capacity.

EDF suggested scaling the ILR and RfR terms to reflect the proportion of demand which is expected to be covered by the TA:

$$LFCO_{ij} = \frac{AACO_{ij} + PTCO_{ij} - SCO_{ij}}{2} \times min\left(\frac{(2 \times \sum_i E_{ij} + a[\left(2 \times ILR_j\right) + RfR]}{\sum_i \left[AACO_{ij} - SCO_{ij}\right]}, 1\right)$$

Where:

- *a* is the proportion of demand which the TA is expected to meet, eg if the scale of the TA was 2% of a normal CM then a = 0.02

Scaling down the ILR and RfR terms this amendment would make it less likely that obligations would always be scaled to 100%. However, unlike for a delivery year when a large amount of capacity is participating, it is not clear the ratio of Eij to auction acquired volume will be a good approximation of total system demand and therefore this formula may not scale obligations correctly.

Question

Q3: Do you agree with our preferred option for amending the LFCO formula? Please provide evidence and/or clear reasoning with your answer.