Statutory consultation on changes to the Capacity Market Rules pursuant to Regulation 79 of the Capacity Market Regulations 2014

Consultation by Ofgem

Response by E.ON SE Group

Our response below is based on Ofgem's proposals for consultation and draft changes to CM Rules. All views expressed in this response are subject to review of final drafting of any changes to the Rules.

Consultation questions

Q1. CP136 (interconnector capacity): Do you agree that de-rating from CEC rather than TEC is a more appropriate way to measure the De-rated Capacity of Interconnector CMUs? Do you agree with the suggestion to cap Interconnector de-rated capacity at TEC, or should the requirement for interconnectors to hold sufficient TEC be removed altogether?

1. Our continued view is that interconnectors are part of the transmission system and thus should not be eligible for the CM. Notwithstanding this, we are not in favour of CP136 at this stage: such changes should be delayed until Ofgem has completed its broader review of Connection Capacity.

2. Although interconnectors do not pay TNUoS charges, their ability to import on to the GB transmission system is limited by their TEC. With the exception of the Maximum Generation service a User is not permitted to exceed TEC under the CUSC. Linking the ability of a party to deliver against its CEC may not be appropriate as it may not be possible for a User to reach that level under a stress event. TEC is a better indication of what maximum output could realistically be achieved. Moyle provides a good example of this where a 500MW link will from November 2017 only have 80MW of TEC for import purposes. We think it is necessary for interconnectors to continue to have TEC as a measure of what they could be expected to import on to the transmission system and for network planning purposes. The TEC value also then provides important information regarding what de-rating factor should be applied to each interconnector link.

Q2. CP129 (adding DSR components): Do you agree there are overall benefits to creating a bespoke process for adding new DSR CMU components? (Please provide evidence to support your answer)

3. In principle, allocation and reallocation of DSR CMU components should be delivered through secondary trading. We will continue to work with Ofgem and DECC to ensure secondary trading rules can deliver this in the longer term.

4. On balance, and in line with a fundamental principle that DSR capacity should be able to compete on a fair and equal basis with generation capacity, with neither being advantaged or disadvantaged against the other, we agree with this proposal which would increase flexibility for DSR capacity.

5. In particular we agree that only new components themselves need to be subject to a DSR test when added to a CMU. There is no need to retest an entire CMU when components are changed, this simply increases administrative costs. However, to ensure fair and equal treatment of all capacity, we would add that similar principles should be applied to generating units within a generating CMU.

6. It is important that any change does not allow retrospective increases in connection capacity which should be based on the capacity agreement issued after the auction.

Q3. CP95 (reallocating DSR components): Do you agree that the combination of CP124, CP129 and CP130 would be a better solution to the issues that CP95 seeks to address?

7. We support the principle behind CP95 but agree with Ofgem that, by accepting changes CP124, CP129 and CP130, the benefits can be achieved with less administrative cost.

Q4. CP108 (CM warnings): Do you think there is a need to align Capacity Market Warnings with other existing system warnings? If so, how would you suggest this is done? Are there any associated risks?

8. We do not think it is necessary to align Capacity Market Warnings with other existing System Warnings, however it may be appropriate to include Capacity Market Warnings in the Grid Code (OC7) to reflect how a Capacity Market Warning is relevant to and sits alongside other existing, established System Warnings.

Q5. CP128 (LFCO formula): Do you agree that the LFCO formula will not scale delivery obligations appropriately during the first TA Delivery Year? Is this issue significant enough to require changes before first TA Delivery Year (starting in October 2016)? If so, how should the formula be amended?

9. We agree that the LFCO formula needs to be reviewed and believe Ofgem has underestimated the impact of this error.

10. As LFCO uses the performance of capacity committed CMUs versus their obligations as a proxy for demand in a stress event as a proportion of peak demand, the LFCO formula, with limited capacity in the TA, will scale obligations based on the performance of capacity in the TA relative to its obligations. This is likely to bear little resemblance to demand in a stress event as a proportion of peak demand. For example, overnight in summer, when LFCO should scale obligations back to represent lower demand, this error could result in TA CMUs being required to meet 100% of their obligations (in other words, if all other TA CMUs meet their obligations in full).

11. We would also highlight that, in the longer term, the effectiveness of the LFCO formula as written will be reduced as the amount of low carbon plant receiving CfDs, and therefore ineligible for the

CM, increases. This will have the same effect as Ofgem highlights in its consultation: the LFCO proxy for demand in a stress event as a proportion of peak demand weakens.

12. The formula could be corrected by replacing 2 x $\sum E_{ij}$ with *unrestricted national demand*.

    So the formula becomes:

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

    Where QMij is the BSC variable for metered generation.

13. We note that the RfR element of this formula should be specified in the electricity capacity report published before the T-4 auction for the delivery year. No such figure exists for the delivery year commencing October 2016 (or for the period commencing October 2017).

Q6. CP115 (volume reallocation): Do you agree there is an issue with Rule 10.4.1 (c)(ii)? If so, would our suggested addition to this Rule fix the problem? If not, how should it be amended?

14. E.ON raised this issue in the original response and believes that Ofgem's proposed addition would correct this.

Q6. CP124 (portfolio testing): Do you agree with our assessment of the benefits and risks with CP124?

15. We agree with Ofgem's assessment of the benefits and risks and agree that on balance CP124 should be taken forward.

Q7. CP98 and CP148 (FFR): Do you agree with the solution put forward in these proposals to ensure the participation of dynamic FFR in the CM? If not, what changes to the DSR test and volume calculation are necessary to achieve this?

16. As outlined in the Rules, dynamic FFR is specified as a relevant balancing service. It is important therefore that CMUs providing FFR can prequalify and meet the various testing requirements.

17. We believe further work and analysis is necessary to explore precisely the barriers that may exist.

Q9. Do you agree with our analysis and conclusions in relation to connection capacity?

18. We agree with Ofgem's conclusions. As noted in our response to the open letter, we agree that a free choice of connection capacity is sensible, supported by a testing regime that tests up to that

connection capacity (not de-rated) and recognising that in some circumstances CMUs would have to adjust downwards their connection capacity to reflect their TEC to avoid breaching the CUSC during a testing event.

19. As highlighted in our response to the open letter, we also believe a review of the penalty regime is necessary in order to strengthen the incentives to deliver in a stress event. This is particularly important if providers are able to choose their own connection capacity.

20. One approach could be to base connection capacity on a demonstrated or proven metered output. This could either be demonstrated before pre-qualification or submitted as an anticipated amount to be evidenced through metered data before the delivery year (for example for new build or plant modification). The Applicant would still need its TEC in order to demonstrate and achieve its metered output

21. Please also see Appendix 1 for more detailed comments in relation to the present rules for determining Connection Capacity.

Q10. Would the satisfactory performance requirements remain appropriate if we test up to connection capacity? In particular, would it be appropriate to demonstrate satisfactory performance on three separate days, and for CMUs to lose all capacity payments if this is not met?

22. We do not think the satisfactory performance requirements would need to change if the Rules changed to enable an Applicant to specify its own Connection Capacity.

Q11. Would market rules around exceeding TEC result in genuine capacity being excluded under this approach? Does the ability to purchase short term TEC help address this? If not, is this a significant enough issue for concern?

23. It would be helpful if Ofgem could make its analysis available for review. In its assessment against MEL for example, there may be many other factors as to why there is a difference, such as weather, ambient temperatures, heat obligations and so on. We note that Ofgem has used the last seven years as its data set. This data may capture the characteristics of historic plant that has not participated in or will not be available for the Capacity Market.

24. There are commercial drivers regarding the level of TEC a generator holds (for example TNUoS charges), it is therefore likely that TEC represents the maximum value a capacity provider is confident of reaching under normal optimal operating conditions. The availability and ease of obtaining additional TEC short or enduring, and the associated timescales for obtaining it, should not be underestimated in certain regions, particularly with the growth and increasing interaction with non-TEC holding distributed generation.

25. As Ofgem has previously highlighted, generation above TEC during a testing event may result in a breach of the CUSC. Therefore capacity providers would be required to secure additional TEC or

adjust downwards their connection capacity in order to meet the proposed testing requirements. On balance, and on the assumption that capacity agreements already awarded are not altered retrospectively, we continue to believe this is the most sensible approach.

Q12. Do you consider that there is a significant risk of capacity withholding if generators are given a free choice of connection capacity? Would any additional measures be needed to help mitigate this risk (e.g. minimum capacity thresholds or supporting justifications for going below certain thresholds)?

26. Incentives to maximise capacity in the auction are already strong. We do not accept that existing providers would have an incentive or ability to withhold capacity; in any case, existing regulations already prevent this.

E.ON SE Group
May 2016

Appendix 1

Defining Connection Capacity

Use of "Average Highest Output" and CMUs Comprising Several Generating Units

1 Multi-Generating Unit CMUs

- Rule 3.5.1 says:

  "3.5.1 The Connection Capacity of a Generating CMU is the aggregate of the Connection Capacity of each Generating Unit comprised in that Generating CMU as determined pursuant to Rule 3.5.2."

  From this it appears clear that you determine the Connection Capacity (CC) of each Generating Unit separately and then add these together to get the CC for the CMU.

- Rule 3.5.2 says:

  "3.5.2 Subject to Rules 3.5.3 or 3.5.5, the Connection Capacity of a Generating Unit must be calculated as follows:

  (a) for a Generating Unit forming part or all of a Transmission CMU, the Connection Entry Capacity stated in the Grid Connection Agreement for that Generating Unit;…"

  It thus gives three options for ***Generating Units*** which are contained in a Transmission CMU:

  1. Use the Generating Unit CEC (Rule 3.5.2)
  2. Apply Rule 3.5.3
  3. Apply Rule 3.5.5 (which is about the Generating Unit's share of TEC)

2 Use of Average Highest Output (AHO)

- Rules 3.5.3 and 3.5.4[1] say:

  "3.5.3 An Applicant for an Existing Generating CMU may, as an alternative to the determination of Connection Capacity set out in Rule 3.5.2, nominate a Connection Capacity for that Generating Unit equal to the Average Highest Output of that Existing Generating CMU."

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[1] Note OFGEM has announced in its recent Consultation that Rule 3.5.4 is to be amended to say "…in MW…" rather than "…in MWh…" [Response to CP 150]

3.5.4 For the purposes of Rule 3.5.3, the "Average Highest Output" of a Generating Unit is the mean average of the physically generated net outputs, in MWh to three decimal places of that Generating Unit in the three Settlement Periods identified by the Applicant under Rule 3.6.1(a)."

Rule 3.5.3 is both unclear and internally inconsistent with regard to its application to CMUs comprising several Generating Units.

1 It cannot be the case that the CC of the Generating Unit is the Average Highest Output (AHO) of the total CMU. This would result in the CMU having a CC which was N times its AHO (N being the total number of Generating Units it contains)

2 It is also not clear from this Rule whether an Applicant is free to use this Rule for one Generating Unit in a CMU, the TEC Rule (Rule 3.5.5) for a second and the CEC Rule (3.5.2) for a third. It is also not clear if when calculating the CC of a multi Generating Unit CMU using this method, the AHO of each Generating Unit should be determined and then summed or the AHO of the total CMU should be used. The Rules imply the former, but the recent OFGEM Consultation response suggests the latter:

"CP151 - RWE

"This proposal would amend Rule 3.5.4 so that a Generating Unit's Average Highest Output would be determined using the three periods where that unit generated its highest output, rather than the three periods where the overall CMU delivered its highest output.

Proposed Decision

We are minded to reject this proposal for two main reasons. Firstly we are concerned that it could create additional complexity and burden in administering the CM. This is because, where a CMU contains many generating units, a large number of periods would need to be submitted, increasing burden for parties and complicating calculations for the Delivery Body. Secondly we do not think sufficient evidence has been provided to suggest that there is currently a significant issue in this area. In particular, the assertion that the current Rules lead to out of merit running and associated emissions is not supported.

In addition, we note that we are conducting a wider review of the connection capacity methodology (see Annex C). We believe it is important to reach a final conclusion in this area before making any related changes which could conflict with this."

It is also the case that technically, Rule 3.5.4 does not define the AHO for a CMU, only for a Generating Unit and furthermore that Rule 3.6.1 defines the AHO only for a CMU:

"3.6.1 Previous Settlement Period performance

(a) Each Applicant for an Existing Generating CMU must identify in the Application the three Settlement Periods on separate days in… which such Existing Generating CMU delivered its highest physically generated net outputs, or Metered Volume where applicable, and specify such physically generated net outputs or Metered Volume in MWh to three decimal places.

Finally, if OFGEM amends Rule 3.5.4 so that AHO is in MW, then it will be the case that in 3.5.4, AHO is in MW whilst in 3.6.1 it is in MWh (it is not clear if the Rules implicitly assume a conversion from one to the other).

3 Resolution

OFGEM needs to clarify how these Rules are meant to be interpreted and applied.

1 If Ofgem wants the AHO Rules to apply at the CMU level only, then we believe that the following changes need to be made to the wording of the Rules:

3.5.1 The Connection Capacity of a Generating CMU is the aggregate of the Connection Capacity of each Generating Unit comprised in that Generating CMU as determined pursuant to Rule 3.5.2 or Rule 3.5.3.

3.5.2 Subject to Rule~~s 3.5.3 or~~ 3.5.5, the Connection Capacity of a Generating Unit must be calculated as follows…:

3.5.3 An Applicant for an Existing Generating CMU may, as an alternative to the determination of Connection Capacity set out in Rule 3.5.2, nominate a Connection Capacity for that Existing Generating CMU ~~Generating Unit~~ equal to the Average Highest Output of that Existing Generating CMU."

3.5.4 For the purposes of Rule 3.5.3, the "Average Highest Output" of ~~a Generating Unit~~ an Existing Generating CMU is the mean average of the physically generated net outputs, in MWh to three decimal places of that ~~Generating Unit~~ Existing Generating CMU in the three Settlement Periods identified by the Applicant under Rule 3.6.1(a)."

2 If Ofgem wants the AHO Rules to apply at the Generating Unit Level, then we believe that the following changes need to be made to the wording of the Rules:

[Rule 3.5.1: unaltered]

[Rule 3.5.2: unaltered]

3.5.3 An Applicant for an Existing Generating CMU may, as an alternative to the determination of Connection Capacity set out in Rule 3.5.2, nominate a Connection Capacity for a Generating Unit comprised in that Existing Generating CMU *equal to the Average Highest Output of that Generating Unit ~~Existing Generating CMU~~."*

3.5.4 For the purposes of Rule 3.5.3, the "Average Highest Output" of a Generating Unit is the mean average of the physically generated net outputs, in MW to three decimal places of that ~~Generating Unit~~ Existing Generating CMU in the three Settlement Periods ~~identified by the Applicant under Rule 3.6.1(a)."~~ on separate days in:

(a) the 24 months prior to the date one month before the start of the Prequalification Window; or

(b) if the Generating Unit has not been operational in the 24 months prior to the date one month before] the start of the Prequalification Window:

(i) the most recent 24 months of operation; or

(ii) if the Generating Unit has previously been operational for less than 24 months, the most recent period of operation; or,

(c) if the Generating Unit has been subject to a continuous Transmission Restriction for the whole of the 24 months prior to the date one month before the start of the Prequalification Window, the most recent 24 months in which the Generating Unit was not subject to a Transmission Restriction,

in which such Generating Unit delivered its highest physically generated net outputs, or Metered Volume where applicable.

3.6.2 ~~Not Used~~ Where an Applicant opts to nominate a Connection Capacity for a Generating Unit under Rule 3.5.3, then the Applicant must include in the Application:

(a) the three Settlement Periods; and

(b) the physically generated net outputs or Metered Volume in MWh to three decimal places;

(c) the 24 month period which contains the three Settlement Periods.

Used in the calculation of the Average Highest Output.

Defining Connection Capacity

Auxiliary Load

Rule 3.5B says

"3.5B Clarifications for determining the Connection Capacity of CMUs

3.5B.1 For the purposes of Rules 3.5 and 3.5A, where:…

(c) reference is made to the Connection Entry Capacity, Transmission Entry Capacity, registered capacity or inverter rating, the values of those terms must be specified net of Auxiliary Load.

It is not clear how you define a CEC or a TEC net of auxiliary load, as station transformers do not have CEC or TEC.