ELEXON

Capacity Market Advisory Group (CMAG) Briefing

Date	**25/10/24**	Classification	**Public**
CP or Subject	**Surgery Item on 6.10.1(g)/(ga)**	Document version	**Draft**

Objectives

- Address concerns that 6.10.1(g/ga) mean a Transmission Connected site with 4 Prospective Generating CMUs, where one is not developed so their Agreement is Terminated, cannot reduce the site Transmission Entry Capacity (TEC) without risking Termination for the remaining 3 operational CMUs.

Overview

- Key Findings
  - Existing Termination reasons (g)/(ga) concerning Transmission Connected CMU Grid Connection Agreement (GCA) and TEC appear inappropriate:
    - They relate to De-Rated Capacity (DRC) or Capacity Obligation, not Connection Capacity determined under 3.5 at Application
    - They do not take account of other Generating Units (GU) on the site that are not part of a CMU (see DQ7)
    - They do not take account of when a Capacity Agreement becomes effective (Operational) (see DQ8/9)
  - What should the requirements and Termination reasons be based on:
    - Agreement becomes Effective (Operational)
    - Takes account of phased implementation and scheduled maintenance
    - Recognises the contract period and flexibility of TEC contracts

- Outstanding queries
  - DQ1 & 6 Why are TEC requirements based on DRC?
  - DQ2, 3 & 10 How flexible is TEC within a Financial Year (FY, Apr-Mar)?
  - DQ4 Why should a GCA/TEC be required that covers each DY of an Agreement or PTCO-in, when Rules allow for Prospective CMUs to become effective (Operational) by their Long Stop Date (LSD) or even 120WD thereafter, or when their PTCO-in takes effect?
  - DQ5 Existing TEC control at Application (Rule 3.5.1A) is already acknowledged as ineffective, a separate CP to address this issue is already outstanding.
  - DQ11 Are there any current Balancing Services that provide for Output exceeding TEC, e.g. where the aggregated Connection Entry Capacity of a site ($\sum_s$CEC) exceeds the contracted for TEC?

- Conclusions
  - Neither existing Rule appears effective at delivering on the Policy intent, Termination of Agreements if there is ‘insufficient’ TEC for Transmission Connected CMUs.
  - Separating out between (g) no GCA/TEC (or TEC<DTC) and (ga) TEC < Max Capacity Obligation during the DY, appears unnecessary.
  - A more appropriate Rule would appear necessary.

Analysis

1. What is the purpose of Termination reasons (g)/(ga)

1.1 **Reason (g)** appears to be trying to ensure GCA TEC >DRC

1.1.1 Is this appropriate? The use of Generating Technology Class (GTC) and related De-rating Factor (DF%), to determine De-rated Capacity (DRC) per Generating Unit (GU) in a CMU, is designed (see Rule 2.3.4) to reflect:

a) For dispatchable generation that is not Duration Limited, the Technology Class Weighted Average Availability ("TCWAA") of that GTC;

b) For Duration Limited Storage GTCs and Non-dispatchable GTCs, the Equivalent Firm Capacity ("EFC") (see Schedule 3B) of that GTC;

c) For Interconnectors, the Equivalent Firm Interconnector Capacity ("EFIC"), (see Schedule 3A).

1.1.2 The DF% will always be <1, so these DRC are all lower than the Connection Capacity of each GU determined according to Rule 3.5 (see Annex, derived from page [Rule_3.5_CC] of file [Rules_flow_diagrams.vsd]). For a Transmission Connected CMU this means each GU CC can be:

a) Existing or Prospective CMU comprising a single GU as the only GU covered by a GCA, so TEC is for that GU under Rule 3.5.2(a); or

b) Existing or Prospective CMU comprising a one or more GU from a GCA that may cover those and other GU, then use the formula under Rule 3.5.5 to apportion GCA TEC by GU CEC; or

c) An Existing CMU can use Average Output under Rule 3.5.4, using 3x SP over the 24 months before PQ Window under Rule 3.6.1(a).

1.1.3 So although a CMU may obtain Capacity Obligation equivalent to their DRC and receive Capacity Payments on that basis, if there were to be a System Stress Event (SSE) they could produce Output up to at least their Connection Capacity (or even higher if their TEC allowed). The fact that their Adjusted Load Following Capacity Obligation (ALFCO) during each Relevant Settlement Period of a SSE may be significantly lower than their Connection Capacity or de-rated Capacity Obligation is irrelevant – that is just the basis for assessing their (under)/over-delivery and potential Capacity Penalties.

1.2 **Reason (ga)** is testing that GCA TEC is at least enough to cover the maximum aggregate Capacity Obligations for the CMU during any period of the DY.

1.2.1 As with (g) this will be limited to the CMU's DRC.

1.2.2 However, if a CMU with AACO has used Secondary Trading to PTCO-out some of its obligation for the whole DY, eg during maintenance of some plant, this could be significantly less than DRC. This Rule would therefore allow the CMU to 'TEC down' during such maintenance.

1.2.3 A CMU without AACO for the DY but who was an Acceptable Transferee and had taken on some PTCO-in could have a maximum Capacity Obligation during the DY anywhere from the (Reg 15) 1MW 'minimum capacity threshold' up to its DRC. However, to have Prequalified, the Acceptable Transferee CMU would have to have a GCA TEC related to the CMUs Connection Capacity.

1.3 **Policy Intent**

1.3.1 We see in DESNZ March 2016 Consultation, review of Termination Fee Rates in paragraph 1.2.16:

Rule 6.10.1. ref	Description of termination event
g	Generating or interconnector CMU ceases to have TEC [This implies the intention of 6.10.1(g) is to only Terminate if the CMU ceases to be covered by a GCA and the reference to 'DRC' is superfluous?]
ga	Generating or interconnector CMU reduces TEC below level of aggregate capacity obligations (new provision)

2. What should the enduring requirement be?

2.1 **GCA and TEC at Application** for Transmission Connected CMUs

2.1.1 Evidence is required when determining Connection Capacity under 3.5.2(a) or 3.5.5:

a) Existing CMU by 3.6.3(a) (Generating) and 3.6A.2 (Interconnector), at least equal to DRC;

b) New Build CMU by 3.7.3, again at least equal to DRC.

2.1.2 The above requirements are for TEC for the whole of the relevant DY, so that the CMU can be Operational from the first day of the DY.

2.1.3 DQ1 Why is the TEC required above based on DRC and not the Connection Capacity, that the TEC is used to determine? As per paragraph 1.1.1 above the DRC is designed to address average availability or equivalent firm capacity – not the level at which the CMU is able to produce Output.

2.2 **Timing**

2.2.1 I believe TEC is contracted for on a Financial Year (FY, Apr-Mar) basis under CUSC.

2.2.2 So if Application requires evidence of TEC for the whole of the relevant DY, that will require contracts over two FY, FY1 covering Sep-Mar and FY2 covering Apr-Sep.

2.2.3 DQ2 how flexible is TEC within that FY:

a) 'TEC-down' to reduce costs by reducing TEC; or

b) Short-term increased TEC

2.2.4 DQ3 can the FY contract for TEC include specific start, or ramp up, or scale down, dates. For example:

a) Effective from an anticipated Operational date for New Build CMUs;

b) Phased TEC to allow for new GU coming on stream at different dates, eg achieving MCR but then increasing Operational capacity, within the DY for an Interconnector (under Rule 6.7.6A), or within 18 months of the start of the 1st DY (under Rule 6.7.6); or

c) When there is scheduled maintenance of a GU?

2.3 **What could be used to trigger Termination**

2.3.1 If a CMU no longer has a valid GCA and cannot replace it before the first DY.

a) DQ4 why should this trigger Termination if a Prospective CMU has until its Long Stop Date (LSD) +120WD (MCR under Rule 6.8.2)?

2.3.2 If a CMU no longer has a valid GCA during the term of an effective (ie Operational) Agreement.

2.3.3 If a CMU's TEC is less than its Connection Capacity during the term of an effective (ie Operational) Agreement, or transferred part thereof (ie an effective PTCO-in), even if its DRC or Capacity Obligation is less than that Connection Capacity.

Appendices

1.2 Definitions

1.2.1 In these Rules:

Connection Capacity [CC]	means, with respect to a Generating CMU or a Generating Unit, the capacity of that Generating CMU or Generating Unit as determined pursuant to Rule 3.5
Connection Entry Capacity [CEC]	has the meaning given to that term in section 11 of the CUSC [DN CUSC definition: "the figure specified as such for the Connection Site and each Generating Units as set out in Appendix C of the relevant Bilateral Connection Agreement;"] [DN Grid guidance: "Connection Entry Capacity (CEC) is a CUSC defined term. Essentially it represents the maximum physical capability of the transmission connection assets installed at a connection site. At each transmission connected Power Station both the Power Station as a whole and each Generating Unit at that Power Station will have a CEC. Power Station owners are required by the CUSC not to export power in excess of their CEC from a generating unit or Power Station."]
Transmission Entry Capacity [TEC]	has the meaning given to that term in the Grid Code [DN The Grid Code states "Has the meaning set out in the CUSC."] [DN CUSC definition: "the figure specified as such as set out in Appendix C of the relevant Bilateral Connection Agreement or Bilateral Embedded Generation Agreement;"] [DN Grid guidance: "Transmission Entry Capacity (TEC) is defined in the CUSC. TEC (and its short term derivatives) cumulatively represent the maximum level of transmission access at which a Power Station owner wishes to purchase and use for a given financial year [Apr-Mar]. It is measured on a Power Station basis only and is specified at the relevant Connection Site."]

3.3 Submitting an Application for Prequalification

:

3.3.3 An Application may not be made for a CMU for a Capacity Auction if:

:

(e) subject to Rule 3.3.3A(a) [re CM restart], the Application is for a Generating CMU or an Interconnector CMU in respect of which a Capacity Agreement has previously been awarded that has been terminated in consequence of a Termination Event within Rule 6.10.1(g), Rule 6.10.1(ga) or Rule 6.10.1A(a)(iii) at any time during the preceding two years provided that if the CMU previously ceased to be Prequalified as a result of this Rule when read with Rule 4.4.3AC, this Rule does not operate to prevent an Application for the CMU in respect of auctions in more than two consecutive Auction Windows as a result of the same termination; or

[So Termination of Agreement by 6.10.1(g)/(ga) 'sterilises' the CMU for 2 years]

3.5 Determining the Connection Capacity of a Generating CMU

3.5.1A The aggregate Connection Capacity of all Generating Units comprised in a Generating CMU must not exceed the sum of the Transmission Entry Capacity and Maximum Export Capacity (as applicable) which apply to each of the Generating Units comprised in that Generating CMU.

[DQ5 3.5B.1(a) specifies that only GCA/DCA in place at Application can be used by 3.5, so only TEC/MEC from those can be considered by 3.5.1A, ie this control only applies at Application, not arising from any subsequent change in GCA TEC or DCA MEC.]

:

3.5B Clarifications for determining the Connection Capacity of CMUs

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

(a) reference is made to a Grid Connection Agreement, Distribution Connection Agreement or connection offer for a Generating Unit these refer to the agreement or offer in force at the date on which the Application is made;

6.10 Termination

6.10.1 Termination Events

Each of the following events is a Termination Event with respect to a Capacity Agreement (other than a Capacity Agreement that has been transferred under Rule 9.2.4(a)), and the Capacity Provider must notify the Delivery Body if any of the following events has occurred and is continuing:

:

(g) where the Capacity Agreement relates to a Generating CMU or an Interconnector CMU, the Capacity Provider ceases to have a Grid Connection Agreement that secures Transmission Entry Capacity for each relevant Delivery Year at least equal to the De-rated Capacity of the Capacity Committed CMU and any other CMUs to which the Grid Connection Agreement applies, except as a result of a failure by a Transmission Licensee to provide a connection point when required to do so in accordance with a valid Grid Connection Agreement[1];

[This reason is for TC CMUs only and refers to not having a GCA with TEC >= $\sum_i$DRC of the CMUs related to that GCA, but refers to the primary 'Capacity Committed CMU' and 'any other CMUs' under that GCA]

[DQ6 TEC should not be related to DRC at all, but to the aggregate Connection Capacity of the Generating Units (GU) on the site. Otherwise there is no certainty that the CMUs can output to their Operational capacity, even if it is for a limited duration.]

[DQ7 A CMU effectively only becomes known to the CM scheme once an Applicant submits the CMU's details in Prequalification, under Rules Chapter 3. Other GUs on the same site and under the same GCA may not be part of a CMU. Any control over the TEC should therefore also cater for the Connection Capacity of such non-CMU GUs.]

[DQ8 The reference to 'any other CMUs' does not consider if those CMUs are Capacity Committed (ie have an Agreement or PTCO-in) for that DY, or Operational.]

[DQ9 The Rule refers to TEC for each relevant DY, ie that the TEC applies for the whole of the DY. This does not recognise that CMUs may not be Operational for the whole DY, eg their Agreement may only become effective by the Long Stop Date (LSD) or even up to 120WD thereafter.]

[DQ10 TEC is purchased for a Financial Year (Apr-Mar), not a CM DY, could this mean having TEC commitments from April for the start of the CM DY in October?]

[DQ11 In an earlier consultation on Connection Capacity some respondents noted that 'generators may be able to exceed TEC in a stress event as they may provide maxgen services, which would not breach the CUSC' [Grid Code BC2.9.2, Section 4 of the CUSC and the Maximum Generation Service Agreement. However, maxgen services are no longer being procured]. Meanwhle, as part of CP381 and Briefing on Connection Capacity we see that ∑CEC may exceed TEC for a Power Station. Is there any current Balancing Services that provide for Output in excess of TEC?]

[1] R(A)2018 added exemption ", except as a result of a failure by a Transmission Licensee to provide a connection point when required to do so in accordance with a valid Grid Connection Agreement"

(ga)[2] where the Capacity Agreement relates to a Generating CMU or an Interconnector CMU, the Capacity Provider reduces the Transmission Entry Capacity secured by its Grid Connection Agreement for a relevant Delivery Year so that it is no longer at least equal to the aggregate of all Capacity Obligations applying at any time in that Delivery Year in respect of:

(i) the CMU to which the Capacity Agreement applies, and

(ii) any other CMUs to which the Grid Connection Agreement applies,

except where such a reduction in Transmission Entry Capacity arises as a consequence of a failure by a Transmission Licensee to provide a connection point when required to do so in accordance with a valid Grid Connection Agreement[3];

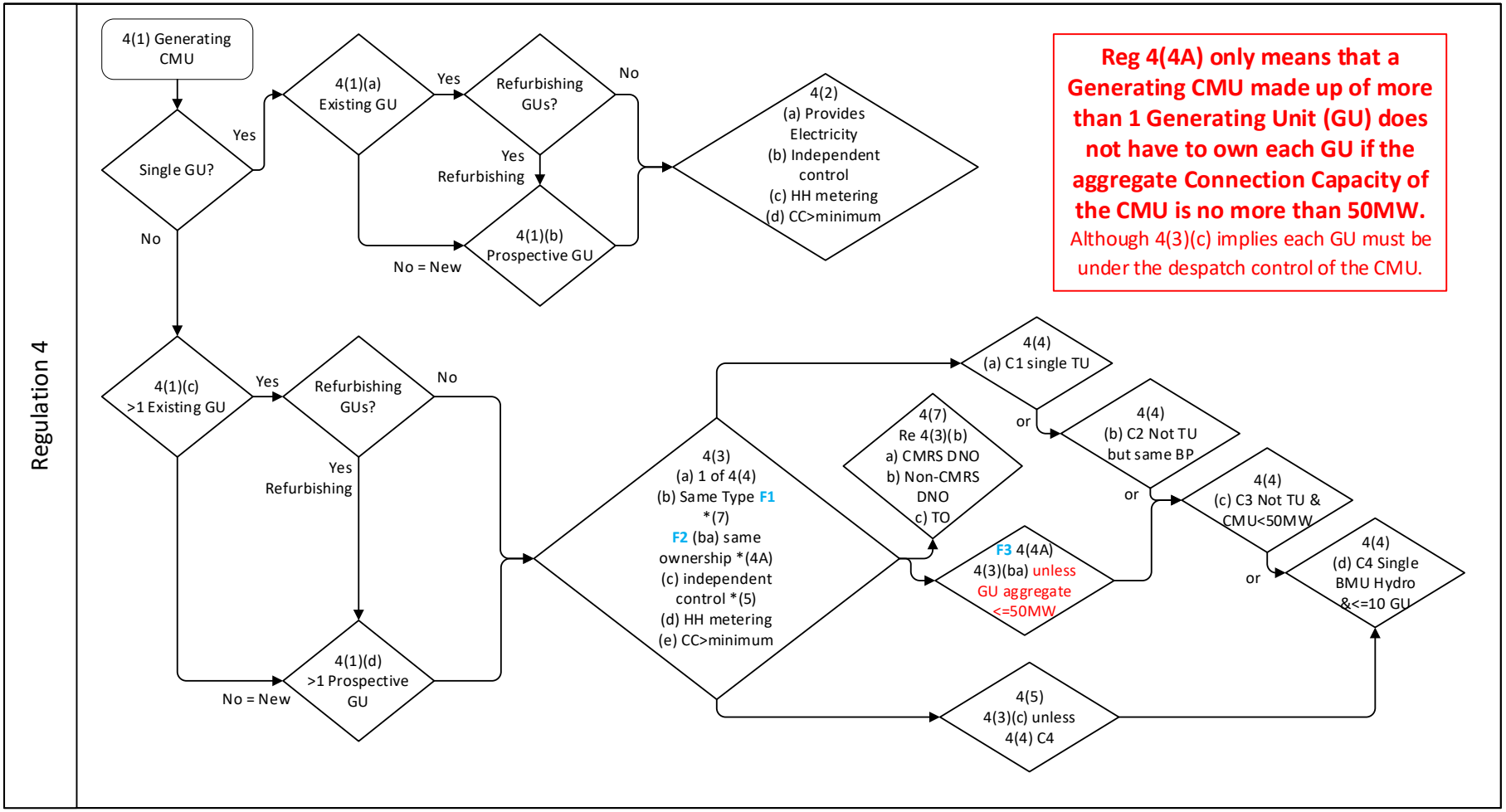
[Again for TC CMUs only, refers to where a GCA TEC is reduced so < Max_x $\sum_i$(AACO+/-PTCO) of the CMUs related to that GCA, but now relates to both the primary 'Capacity Committed CMU' and 'any other CMUs' under that GCA]

[DQ12 So if a CMU has PTCO-out some of its AACO, or only PTCO-in part of its capacity, then the TEC may be less than $\sum_i$CC without fear of termination?]

[DQ7 Does not take account of GU within the GCA TEC that are not part of a CMU.]

[2] Inserted by R(A)2016 (excluding exemption added by R(A)2018)
[3] R(A)2018 added exemption "except where such a reduction in Transmission Entry Capacity arises as a consequence of a failure by a Transmission Licensee to provide a connection point when required to do so in accordance with a valid Grid Connection Agreement"

CP377 SPD Portfolios and Reg 4 Generating CMU 50MW limit?



Textual Amendments

F1 Words in reg. 4(3)(b) omitted (24.3.2015) by virtue of The Electricity Capacity (Amendment) Regulations 2015 (S.I. 2015/875), reg. 1(2), **Sch. 1 para. 13(1)(a)**

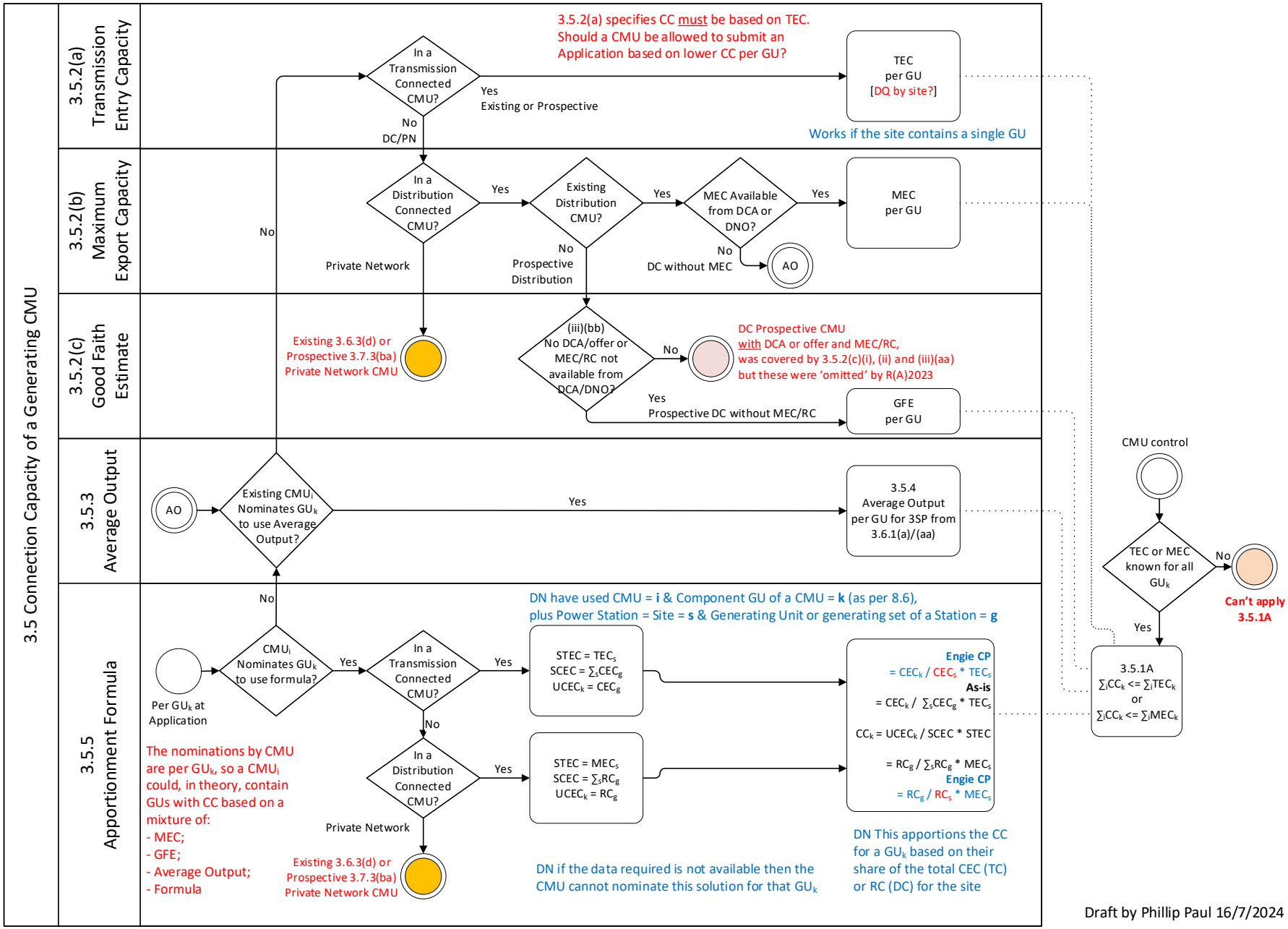
F2 Reg. 4(3)(ba) inserted (24.3.2015) by The Electricity Capacity (Amendment) Regulations 2015 (S.I. 2015/875), reg. 1(2), **Sch. 1 para. 13(1)(b)**

F3 Reg. 4(4A) inserted (24.3.2015) by The Electricity Capacity (Amendment) Regulations 2015 (S.I. 2015/875), reg. 1(2), **Sch. 1 para. 13(2)**

So in 2015 F1-3 split GUs in a CMU being under the "same ownership" from (3)(b) to its own (3)(ba), but made it subject to (4A), that common ownership is NOT required where the aggregate Connection Capacity for all GU in the CMU is <50MW.

This also ties in with 4(4)(c) Condition 3 where the CMU is made up of GU that are not a Trading Unit (TU) and not connected to the same Boundary Point (BP).

Annex Rule 3.5 Connection Capacity



Draft by Phillip Paul 16/7/2024