



Department for
Business, Energy
& Industrial Strategy

CAPACITY MARKET CONSULTATION ON FUTURE IMPROVEMENTS

Consultation

Closing Date: 2 March 2020



OGI

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Executive summary

Since its introduction in 2014, the Capacity Market (CM) has been an important part of the Great Britain (GB) energy market, ensuring that we maintain and bring forward sufficient capacity to ensure secure supplies of electricity.

On 24 October 2019¹, the European Commission completed their in-depth investigation into the GB CM scheme and published their final decision on State aid for the scheme (“the Decision”). The Decision brought the eleven-month ‘standstill period’, imposed by the 15 November 2018 judgment of the General Court², to an end. The General Court judgment had the effect, at the time, of annulling the European Commission’s State aid approval for the scheme and introducing a standstill period, during which aid could not be granted under the CM unless and until the European Commission conducted a second-stage State aid investigation into and approved the CM. The Commission began a second-stage investigation into the CM shortly after the judgement of the General Court. The Decision meant the scheme was approved under State aid rules and was found to have been compliant with State aid rules at all times since its implementation in 2014, including during the standstill period.

In the Decision, the Commission noted that the UK Government has committed to implement a number of improvements to the CM’s design to reflect recent market and regulatory developments, including those identified through our recent five-year-review of the effectiveness of the CM³ (“the Five-year Review”). Implementation of these commitments is intended to ensure the continued compatibility of the CM with State aid rules in the future and relate to:

- (i) the lowering of the minimum capacity threshold for participating in the auctions;
- (ii) the direct participation of cross-border capacity;
- (iii) the participation rules for new types of capacity;
- (iv) the access to long-term agreements;
- (v) the volume of capacity to be secured in the year-ahead auction and
- (vi) compliance with the new Electricity Regulation (EU 2019/943)⁴, in particular the implementation of carbon emissions limits.

The Decision (at Section 4.3.2) also noted that we intend to review whether it is appropriate to allow capacity with Long-term STOR (Short-term Operating Reserve) contracts to be eligible to participate in future capacity auctions.

This consultation seeks views on proposals to implement five of the six commitments referenced in the Decision, as well as a review of the exclusion from the CM of plants with Long-term STOR contracts and other minor improvements identified in the Five-year Review. We also intend, in due course, to publish a call for evidence (separate to this consultation) to gather views on issues relating to the implementation of the sixth State aid commitment on the direct participation of cross-border capacity, as well as issues related to the penalty regime,

¹ https://ec.europa.eu/commission/presscorner/detail/en/ip_19_6152

² <http://curia.europa.eu/juris/document/document.jsf?text=&docid=207792&pageIndex=0&doclang=en&mode=req&dir=&occ=first&part=1&cid=1430154>

³ <https://www.gov.uk/government/publications/capacity-market-5-year-review-2014-to-2019>

⁴ https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.2019.158.01.0054.01.ENG&toc=OJ:L:2019:158:TOC

and connection capacity, which were identified in our Five-year Review as priority areas for improvement.

This consultation will be brief - running for four weeks only - to ensure we have time to make the necessary amendments to the Electricity Capacity Regulations and the Capacity Market Rules before the prequalification window for the next auction round opens in Summer 2020.

1. Introduction

1.1 Background

The Capacity Market (CM) is at the heart of the Government's plans for a secure and reliable electricity system. The CM provides all forms of capacity capable of contributing to security of supply with the right incentives to be on the system and to deliver during periods of electricity system stress, for example during cold, still periods where demand is high and wind generation is low.

The CM works by allowing eligible capacity providers to bid into competitive, annual auctions – (generally) either four years or one year ahead of delivery. Capacity providers who are awarded an agreement in an auction receive a steady payment intended to ensure sufficient reliable capacity is in place to meet demand at times of system stress. CM revenue from capacity payments incentivises the necessary investment to maintain and refurbish existing capacity, and to finance new build capacity. Capacity providers face penalties if they fail to deliver when needed.

The CM is technology neutral, meaning it does not seek to procure specific volumes of capacity from particular types of technology. All types of capacity are able to participate – except for capacity providers in receipt of other specific categories of Government support – but must demonstrate sufficient technical performance to contribute to security of supply. The CM operates alongside the Great Britain (GB) wholesale electricity market and the services National Grid Electricity System Operator (NG: ESO) contracts to provide ancillary services to, and ensure second-by-second balancing of, the electricity system.

On 15 November 2018, a judgment of the General Court of the CJEU (Court of Justice of the European Union) annulled the European Commission's original State aid approval of GB's CM, on grounds that the Commission should have carried out a second stage investigation into the scheme. The General Court judgment put the CM in a standstill period whilst the Commission carried out a second stage investigation. During the standstill period the Government was unable to make capacity payments or grant capacity agreements conferring a right to receive capacity payments⁵.

On 24 October 2019, the Commission concluded its investigation and found that the CM, as operated since 2014, including during the Commission's investigation, complies with European Union (EU) State aid rules, bringing the standstill period to an end.

The Commission's decision of 24 October 2019⁶ ("the Decision") noted that the United Kingdom (UK) Government has committed to implementing a number of improvements to the CM's design to reflect recent market and regulatory developments, including those identified through our recent five-year-review of the effectiveness of the CM⁷ ("the Five-year Review"). Implementation of these commitments is intended to ensure the continued compatibility of the CM with State aid rules in the future. The commitments relate to:

- (i) the lowering of the minimum capacity threshold for participating in the auctions;
- (ii) the direct participation of cross-border capacity;
- (iii) the participation rules for new types of capacity;

⁵ <https://www.parliament.uk/business/publications/written-questions-answers-statements/written-statement/Commons/2018-12-06/HCWS1154/>

⁶ https://ec.europa.eu/commission/presscorner/detail/en/ip_19_6152

⁷ <https://www.gov.uk/government/publications/capacity-market-5-year-review-2014-to-2019>

- (iv) the access to long-term agreements;
- (v) the volume of capacity to be secured in the year-ahead auction; and
- (vi) compliance with the new Electricity Regulation (EU 2019/943) (the “Electricity Regulation”)⁸, in particular the implementation of carbon emissions limits.

The Decision (at Section 4.3.2) also noted that we intend to review whether it is appropriate to allow capacity with Long-term STOR (Short-term Operating Reserve) contracts to be eligible to participate in future capacity auctions.

This consultation seeks views on proposals to implement five of the six commitments referenced in the Decision (see Table 1 below for a list), as well as a review of the exclusion from the CM of plants with Long-term STOR contracts and other minor improvements identified in the Five-year Review. We also intend, in due course, to publish a call for evidence (separate to this consultation) to gather views on the sixth State aid commitment on the direct participation of cross-border capacity, as well as issues related to the penalty regime and connection capacity, which were identified in our Five-year Review as priority areas for improvement.

This consultation will be brief – running for four weeks only – to ensure we have time to make any necessary legislative changes to the Electricity Capacity Regulations 2014 (the “Principal Regulations”) and the Capacity Market Rules (“the Rules”) to implement five of the six commitments covered in this consultation before the prequalification window for the T-4 2024/25 and T-1 2021/22 auctions opens in Summer 2020. We also intend to make any legislative changes that may result from the review of the Long-term STOR exclusion in the same timeframe.

Regarding the commitment related to emission limits, we have already made changes to the Rules in 2019 to implement emission limits in respect of new build capacity. More recently, we ran a consultation between July and September 2019 on applying the emission limits to existing capacity in the CM,⁹ the response to which will be published in due course. This consultation therefore covers residual issues relating to the implementation of carbon emission limits that were not covered in the July 2019 consultation, which emerge upon analysis of the Agency for the Cooperation of Energy Regulators (ACER) Opinion (Opinion No 22/2019) published on 17 December 2019¹⁰.

The sixth commitment (on the direct participation of cross-border capacity) will take additional time to deliver and will be the subject of a call for evidence, which we intend to publish in due course (separate to this consultation). We are endeavouring to implement this commitment as quickly as possible, although it raises significant design challenges and is subject to the development of common methodologies currently under development by the European Network of Transmission System Operators for Electricity (ENTSO-E)¹¹. We therefore expect that further stakeholder engagement will be needed, and our intention is to bring forward a consultation before implementing any amendments to the Rules or Principal Regulations on this matter.

⁸ https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.2019.158.01.0054.01.ENG&toc=OJ:L:2019:158:TOC

⁹ <https://www.gov.uk/government/consultations/capacity-market-carbon-dioxide-emissions-limits>

¹⁰ https://www.acer.europa.eu/Official_documents/Acts_of_the_Agency/Opinions/Opinions/ACER%20Opinion%2022-2019%20on%20the%20calculation%20values%20of%20CO2%20emission%20limits.pdf

¹¹ The European Network of Transmission System Operators for Electricity (ENTSO-E) is required to submit proposals for common methodologies under Article 26(11) of the Electricity Regulation to ACER by 5 July 2020 to the Agency for the Cooperation of Energy Regulators (ACER) and under Article 27, ACER will either approve or amend those proposals.

In light of the project being undertaken by the Delivery Body to replace the IT portal used for the CM and Ofgem’s intention to minimise change to the scheme during the delivery of this project¹², any legislative change associated with the proposals in this consultation which are not referenced in the Decision (see Table 1), except those which are for the purpose of correction only (see Section 2.8), will be implemented after the portal refresh has been delivered. The portal refresh is expected to be delivered before the prequalification window opens in 2021.

Full details on timings related to each proposal in this consultation are set out in relevant sections below.

Table 1. A summary of the improvements covered in this consultation

Proposed improvement	Referenced in the Decision?	Intended implementation date of legislative changes
Commitment on agreement lengths	Yes	Before the 2020 prequalification window opens
Commitment on the minimum capacity threshold	Yes	Before the 2020 prequalification window opens
Commitment on the amount of T-1 set aside capacity	Yes	Before the 2020 prequalification window opens
Commitment on incorporating new technologies into the CM	Yes	Before the 2020 prequalification window opens
Commitment on emissions limits	Yes	Before the 2020 prequalification window opens ¹³
Review of the Long-term STOR exclusion	Yes	Before the 2020 prequalification window opens
Minimising the risk of fraud and error	No	Following the completion of the Delivery Body’s portal refresh project
Minor corrections to the Rules	No	Before the 2020 prequalification window opens

¹² <https://www.ofgem.gov.uk/publications-and-updates/decision-adjustments-electricity-market-reform-delivery-body-allowances>

¹³ To account for the ACER opinion (on the issues of reporting, verification and monitoring), and amendments in respect of existing capacity who will hold capacity agreements for delivery years beyond 1st July 2025.

1.2 Summary of proposals put forward

In summary, the Government proposes to:

- **Allow all types of capacities (except interconnectors) to apply to prequalify to bid for all the agreement lengths available in the CM (up to fifteen years) if they can demonstrate they meet the relevant capital expenditure (CAPEX) thresholds (Section 2.1).** The only technology other than interconnectors that cannot currently access multi-year agreements is Demand Side Response (DSR). In practice, therefore, the proposal is to allow DSR to access multi-year agreements. The legislative framework for agreement lengths is complex and is not currently designed around DSR, which has different characteristics to generation. Therefore, we will have to make a range of changes to the Principal Regulations and the Rules to allow DSR to access multi-year agreements. We are proposing to keep the framework for DSR access to multi-year agreements as similar to generation as possible. We have only deviated from the framework for generation where there has been a justification to do so, due to the differing nature of DSR compared to generation. Therefore, in this consultation we have only listed the areas in which the application of multi-year agreements for DSR will need to differ relative to the application for generation. For any areas of the framework which are not discussed in this consultation, it can be assumed that arrangements will be exactly the same for DSR with multi-year agreements as for generation.
- **Reduce the minimum capacity threshold to participate in the CM from 2MW to 1MW (Section 2.2).** This will ensure that the CM remains aligned with other markets, in which there is a trend towards lower capacity thresholds, and will ensure that operators can effectively stack revenues from other markets with CM revenues. We signalled our intention to make this change in our Five-year Review.
- **Enshrine in legislation our commitment to procuring at least 50% of the capacity set-aside for the T-1 auction, and to set a methodology for determining the minimum amount of capacity to be set aside (Section 2.3).** This change will guarantee auction volumes in the T-1 auctions. In practice, it involves enshrining existing commitments and practice in the legislation that implements the CM, rather than representing a change in policy. The commitment to procure at least 50% of the capacity set-aside for the T-1 auction was included in the original 2014 State aid decision and therefore we have always acted to meet this commitment. Regarding the methodology for calculating the minimum amount of capacity to be set aside, the existing practice of applying a 95% confidence interval will also be enshrined in legislation. Given this is the same methodology as applied in recent years, as for the 50% commitment, this proposal represents a formalisation of existing policy rather than a change in policy.
- **Ensure the incorporation into the CM of any new capacity type which can effectively contribute to addressing the generation adequacy problem, as soon as such capacity has the potential to contribute to addressing the generation adequacy problem (Section 2.4).** The aim of this proposal is to supplement and formalise our existing processes for incorporating new technologies into the CM, to ensure that there are no delays in the future.
- **Establish a reporting and verification mechanism for the carbon emission limits to be applied to the CM (Section 2.5).** These proposals support the implementation of emission limits into the CM by ensuring that there is a mechanism for reporting and verifying emissions from each CMU.

- **Remove the exclusion of plants with Long-term (LT) STOR contracts from the CM (Section 2.6).** When the CM was first implemented in 2014, the payment of CM revenues to plants that also held Long-term STOR contracts was expected to yield windfall profits, which is against State aid rules. Since 2014, the market conditions have changed such that windfall profits are no longer expected in future and therefore the exclusion on plants with Long-term STOR contracts is no longer necessary.
- **Add additional information items to future Capacity Market Registers to help reduce the risk of fraud and error (Section 2.7).**
- **Make minor corrections and clarifications to the Rules (Section 2.8).**

1.3 How to respond

This consultation will be open from Monday 3rd February until Monday 2nd March. Please submit your response to this consultation by 11:59pm on Monday 2nd March. A summary of responses and our Government response will be published shortly after the consultation closes. When responding, please state whether you are responding as an individual or representing the views of an organisation. Your response will be most useful where it is framed in direct response to the questions posed, though further comments are also welcome.

The consultation is hosted on the online consultation portal Citizen Space and this is our preferred way for stakeholders to submit their responses to the consultation questions. There is a mandatory 'about you' section and it will not be possible to submit responses unless this section is completed. The questions can be answered in any order and, aside from the 'about you' section, respondents can answer as many questions as they choose. Each question has a corresponding open text box without a character or word limit. For each question, there is also the option to upload supporting material (e.g. graphs, charts). Responses can be copied and pasted into the text boxes from other software e.g. Microsoft Word or entered directly. Responses on the portal can be saved and returned to later. There is also a PDF version of this consultation document available on the portal homepage for reference.

Consultation Portal:

<https://beisgovuk.citizenspace.com/energy-strategy-networks-markets/capacity-market-consultation>

Alternative methods of responding to the consultation are available and include:

Email to: energy.security@beis.gov.uk

Write to:

Energy Security Team
Department for Business, Energy and Industrial Strategy
3rd Floor, 1 Victoria Street
London, SW1H 0ET

1.4 Confidentiality and data protection

Information you provide in response to this consultation, including personal information, may be disclosed in accordance with UK legislation (the Freedom of Information Act 2000, the Data Protection Act 2018 and the Environmental Information Regulations 2004). **If you want the information that you provide to be treated as confidential please tell us in your response to the consultation but be aware that we cannot guarantee confidentiality in all**

circumstances. An automatic confidentiality disclaimer generated by your IT system will not be regarded by us as a confidentiality request. We will process your personal data in accordance with all applicable UK and EU data protection laws. See our [privacy policy](#).

We will summarise all responses and publish this summary on [GOV.UK](#). The summary will include a list of names or organisations that responded, but not people's personal names, addresses or other contact details.

1.5 Quality assurance

This consultation has been carried out in accordance with the Government's [consultation principles](#). If you have any complaints about the way this consultation has been conducted, please email: beis.bru@beis.gov.uk.

2. Consultation

2.1 Agreement lengths

2.1.1 Introduction

As stated in the Decision, we committed:

- a) *to allow all types of capacities (except interconnectors) to apply to prequalify to bid for the various contracts lengths available if they can demonstrate they meet the capital expenditure (CAPEX) thresholds described in recital (75) of the present decision and;*
- b) *to keep these CAPEX thresholds under review to ensure that they remain appropriate.*

Presently, only new build and refurbishing generation can access multi-year agreement lengths, if they can demonstrate that they meet the CAPEX thresholds. Therefore, in order to deliver on this commitment, we need to amend the Principal Regulations and Rules to allow DSR that meets the CAPEX thresholds to access multi-year agreement lengths. Our proposals for achieving this are set out in Sections 2.1.3 – 6 below. Annex A sets out key extracts from the legislative framework on agreement lengths, contained in the Principal Regulations and the Rules, which provides useful context to our proposals. Where relevant, we have cross referenced specific parts of the legislation in the sections below.

2.1.2 Context

As stated in our Five-year Review, our preference is to maintain one-year agreement lengths wherever possible, as multi-year agreements expose the consumer to price, competition and volume risks¹⁴. Fifteen year and three year agreements are an exception to this preference, as they provide the necessary incentives for promoting competitive new entry into the market, i.e. for new build and refurbishing generating capacity, which must incur high CAPEX and may therefore face difficulties in securing financing without multi-year agreements.

In relation to DSR, our view to date has been that its lower capital cost requirements mean it does not need multi-year agreements to obtain financing. However, the participation of DSR in the CM auctions is increasing and it cannot be excluded that, in the future, some DSR providers may incur CAPEX at levels corresponding to the thresholds. Therefore, to ensure that, in the future, DSR capacity meeting these thresholds will not be prevented from accessing multi-year agreements, we have committed to allowing eligible DSR to access multi-year agreement lengths.

The exclusion of interconnectors from multi-year agreements will continue, as their participation in the CM has always been an interim solution until a common approach to direct cross-border participation in capacity mechanisms is introduced.¹⁵ Article 26 of the Electricity Regulation¹⁶ now requires the implementation of direct cross-border participation, and the development of a set of common rules and methodologies by ENTSO-E.

As noted in Section 1.1, we intend to launch a call for evidence in due course, separate to this consultation, which will seek views on how to enable the direct participation of cross-border

¹⁴ The volume of capacity that we'll need to procure through the CM in the future to ensure security of supply is uncertain, as is the price for which this capacity will be available. Therefore, multi-year agreements create a risk that we will end up with more capacity than we need in the future or pay a higher price than necessary.

¹⁵ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/396566/Government_Response_to_CM_Supplementary_Design_Consultation_v.pdf

¹⁶ <https://ec.europa.eu/energy/en/topics/energy-strategy-and-energy-union/clean-energy-all-europeans>

capacity. Allowing interconnectors to access multi-year agreements would frustrate the switch to direct cross-border participation and therefore would be inappropriate.

Whilst our immediate priority on agreement lengths is to deliver the State aid commitment, in the longer term and as indicated in our Five-Year Review, we intend to carry out a broader review of agreement lengths for all technologies. This may include a review of the proposals set out below. We will continue working with stakeholders and the Delivery Body in order to gather the evidence needed to inform this review and may come forward with proposals in due course.

2.1.3 Unproven and proven DSR

In the CM, there are two different types of DSR Capacity Market Unit (CMU): Proven and Unproven. Proven DSR CMUs have had their capacity tested by the Delivery Body and can provide a certificate to prove this at prequalification. Unproven DSR CMUs have not had their capacity tested and must complete this testing by one month before the start of the delivery year (known as the DSR Test).

There are restrictions on which CMUs can access multi-year agreements¹⁷. Presently, Prospective Generating CMUs and Refurbishing CMUs can access agreement lengths of up to either three or fifteen years depending on which of the CAPEX thresholds they meet. DSR (both Unproven and Proven) CMUs, Interconnectors and Existing Generating CMUs can only access agreement lengths of one-year.

There are currently two CAPEX thresholds in the CM. The first, lower threshold must be met by a Prospective Generating CMU (which includes both New Build CMUs and Refurbishing CMUs) in order to obtain an agreement length of up to three years. The second, higher threshold must be met by a Prospective Generating CMU in order to obtain an agreement length of up to fifteen years. These thresholds are auction parameters set by the Secretary of State for each auction¹⁸, and so can vary from one auction to the next. However, to date, the thresholds set in 2014 (when the CM was implemented) have only been updated in line with inflation. For the 2020 T-3 auction, they were set at £135/kW for a three-year agreement and £270/kW for a fifteen-year agreement.

We propose that Unproven DSR should be given access to multi-year agreements based on CAPEX thresholds. We propose that Proven DSR should be treated the same as Existing Generating CMUs and should continue to only be able to access agreement lengths of one-year. This is because any changes to a Proven DSR CMU which involve CAPEX (e.g. the refurbishment of existing components or the acquiring or building of new components) would require a new DSR Test to confirm that the CMU's declared amount of capacity is available. Therefore, the CMU would become Unproven DSR again and would need to enter the capacity auction as an Unproven DSR CMU.

Specifically, we propose that:

- Unproven DSR should be allowed to access the same agreement lengths as Prospective Generating CMUs i.e. up to either three or fifteen years depending on which CAPEX threshold they meet. See Section 2.1.4 for an explanation of our proposals on how the CAPEX thresholds will apply to Unproven DSR.
- Unlike Prospective Generating CMUs, Unproven DSR CMUs will not be sub-divided into New Build and Refurbishing categories, as we recognise that this categorisation would

¹⁷ See the definition of Maximum Obligation Period in Annex A.

¹⁸ These thresholds are set as auction parameters under Chapter 2 of the Principal Regulations.

not be appropriate for DSR CMUs, which can be made up of a range of components, each with differing characteristics.

- In line with the current arrangements for other technologies, Unproven DSR CMUs which fail to meet the relevant CAPEX threshold will have their agreement length reduced to either three years or one year, as appropriate (see Section 2.1.5.6).
- Multi-year agreements will continue to be available in T-4 auctions only (as well as the January 2020 T-3 auction).

Question 1

We would welcome your views on the impacts that access to multi-year agreements might have on Unproven DSR participation in the capacity auctions, including on levels of participation and bidding behaviour¹⁹.

2.1.4 Determining how the capital expenditure thresholds should apply to Unproven DSR CMUs

2.1.4.1 International accounting standard 16

CAPEX²⁰, as it applies to the CAPEX thresholds in the Rules and Principal Regulations, is defined with direct reference to International Accounting Standard 16²¹ (IAS16). IAS16 outlines the accounting treatment for Property, Plant and Equipment.

In light of DSR being allowed to access multi-year agreements, we believe that whilst the definition of CAPEX in the legislation should continue to be defined with direct reference to IAS16, there is a need to amend the definition slightly to ensure clarity over which costs are appropriate to include. We propose that the definition should be amended to refer only to the CAPEX of Property, Plant and Equipment which has the *primary purpose of delivering capacity*. This change would apply to all CMUs to ensure a level playing field is maintained.

For example, for DSR:

- Behind-the-meter generation²² that is being used to reduce a DSR customer's demand would fall within the definition, as the primary purpose of this equipment is to deliver capacity.
- Communication and metering equipment installed on a DSR customer's site to facilitate turn-down and generation-derived DSR would fall within the definition, as the primary purpose of this equipment is to deliver capacity.
- Equipment which, although it can be turned down in order to deliver capacity, has a primary purpose other than to deliver capacity (e.g. air conditioning units, freezers or office lighting) would not fall within the definition.

Componentisation of costs under IAS16 is recommended but not required. It is not currently a requirement in the CM. However, for Unproven DSR specifically (not for any other CMU types), we propose that CAPEX must be componentised. This is because, unlike other CMUs, DSR is typically made up of a wide variety of components which may be located on different sites and

¹⁹ For example: the exit bid submitted, the amount of unproven DSR capacity entered into the auction and the bidding strategy during the auction.

²⁰ "Capital expenditure" is defined in Rule 1.2. This definition is in Annex A.

²¹ <https://www.iasplus.com/en/standards/ias/ias16>

²² Generation which meets the definition of a "permitted on-site generating unit" in Regulation 2(1).

contain different technologies. This will ensure that the CAPEX of Unproven DSR CMUs can be verified accurately by the Delivery Body and an Independent Technical Expert (ITE) (see Section 2.1.5.6).

2.1.4.2 Whether the CAPEX thresholds should be applied at CMU or component level

Prospective Generating CMUs are currently required to demonstrate they meet the CAPEX thresholds (which are in £/kW) by dividing the Total Project Spend by the de-rated capacity of the CMU²³ to give a £/kW figure for the whole CMU. We have considered whether the CAPEX thresholds for Unproven DSR should apply at CMU level (i.e. the same arrangement as for Prospective Generating CMUs) or at component level. Applying the CAPEX thresholds at component level would involve dividing the Total Project Spend of each component by its de-rated capacity, to give a £/kW figure for each component. The £/kW figure for each component would then be compared to the CAPEX thresholds and the Unproven DSR CMU would only be awarded a multi-year agreement if every component in the CMU met the relevant CAPEX threshold.

Applying the CAPEX thresholds at CMU level for DSR may allow DSR operators to include components in their portfolio which would not meet the CAPEX threshold on their own, and still secure a multi-year agreement for the whole CMU. This would only be possible if the portfolio also includes some components which are well above the CAPEX threshold on their own, thereby bringing the average CAPEX (in £/kW) of the CMU above the CAPEX threshold. Applying the CAPEX thresholds at component level removes this risk but is not consistent with arrangements for Generating CMUs, which can also involve aggregation.

We think that on balance, it is reasonable to apply the threshold at CMU level to DSR CMUs to maintain consistency with other technologies. We believe it is unlikely that significant amounts of low capex components could be included in an Unproven DSR CMU without bringing the CAPEX of the CMU below the threshold(s), as this would require very high (potentially unrealistically high) CAPEX components to also be included. This position will be kept under review.

2.1.4.3 Total project spend and the 77-month cut-off date

To prevent a hiatus in investment in capacity during the period between when the CM was first announced (2012) and when it was implemented (2014), Total Project Spend (see Annex A) in relation to New Build CMUs is defined as CAPEX incurred up to 77-months before the start of the first delivery year of the agreement (approximately 2 years before the relevant Prequalification Window opened). This 77-month cut-off date applies to all auctions, not just the first one held in 2014. Whilst the original rationale for the 77-month cut-off date clearly no longer applies, it has not, to our knowledge, created any unintended consequences in relation to New Build CMUs. We are therefore not at this time proposing to amend the cut-off date for New Build CMUs from 77-months.

However, once DSR can access multi-year agreements on the basis of CAPEX, there is a risk that allowing DSR CMUs to count CAPEX incurred before the relevant Prequalification Window opened toward CAPEX thresholds for the same period could result in unintended consequences. Notably, it contributes to the creation of opportunities for gaming through component reallocation (see Section 2.1.6.3). It could also enable some DSR CMUs to access multi-year agreements, even if they had previously held a one-year agreement. This is not

²³ Rule 8.3.6

possible for generation as they cannot prequalify as a New Build CMU if they have already been put into operation.

Section 2.1.6.3 covers our proposed solution to prevent gaming through component reallocation, which does not involve any changes to the cut-off date. Regarding the risk of gaming by DSR CMUs that have already had a CM agreement and that are seeking to access a multi-year agreement, we expect this to be low even if the cut-off date was set at 77-months for DSR. This is because the window of time in which the CAPEX must have been spent in order for gaming to be possible is short and the CAPEX thresholds are relatively high.

We are, therefore, still considering whether it is necessary to apply a different cut-off date for Unproven DSR CMUs with a multi-year agreement than for New Build CMUs with a multi-year agreement. For example, the cut-off date for Unproven DSR CMUs could be made the same as the cut-off date for Refurbishing CMUs, which is tied to the Auction Results Day of the relevant T-4 auction (approximately four years before the start of the first delivery year). Components for which CAPEX was incurred before this date could be included in the CMU, but their CAPEX would not be able to be included in the Total Project Spend. Alternatively, we could leave the cut-off date as 77-months to align with arrangements for New Build CMUs. We'd welcome views on this.

Question 2

Is the proposed application of the CAPEX thresholds for Unproven DSR fit for purpose? In particular:

- (i) the definition of CAPEX for Unproven DSR
- (ii) the application of thresholds at CMU level
- (iii) the 77-month cut-off date. Should we reduce the cut-off date for DSR seeking to access multi-year agreements?

2.1.5 Prequalification and delivery assurance for DSR with multi-year agreements

Currently, access by Prospective Generating CMUs and Refurbishing CMUs to multi-year agreements comes with a range of prequalification checks and delivery assurance milestones²⁴. This reflects the fact that consumers will be reliant on this capacity for a prolonged length of time and, therefore, greater assurances are needed that it will be delivered.

The current prequalification checks and delivery assurance processes for DSR CMUs are relatively light touch by contrast. We believe that these arrangements remain proportionate for Proven and Unproven DSR bidding for a one-year agreement. However, once DSR is allowed to bid for multi-year agreements we think that additional information will be needed on these CMUs at both the prequalification stage and during the period between the auction and delivery year, including a milestone at which the Qualifying £/kW Capital Expenditure of an Unproven DSR CMU with a multi-year agreement is checked against the CAPEX thresholds. This will ensure a level playing field is maintained between DSR and other technologies and avoid any unintended consequences, such as incentivising Prospective Generating CMUs to attempt to prequalify as DSR in order to reduce administrative burdens.

²⁴ E.g. the Financial Commitment Milestone.

2.1.5.1 Additional prequalification checks for unproven DSR CMUs with multi-year agreements

Prospective Generating CMUs bidding for multi-year agreements are currently required to provide additional information in their prequalification applications, including a Construction Plan²⁵. The Construction Plan must include:

- where the duration of the Capacity Agreement is greater than three delivery years, a declaration that the CMU will meet the Extended Years Criteria²⁶;
- a schedule of Construction Milestones;
- the Total Project Spend;
- confirmation as to whether the Qualifying £/kW Capital Expenditure exceeds the three or fifteen year Minimum £/kW Threshold²⁷; and
- a declaration that the Construction Plan is based on reasonable assumptions, accurate and not misleading.

In contrast, the information which is required²⁸ to be provided by Unproven DSR CMUs at prequalification currently consists of:

- A Business Plan, which must include a summary of the steps already taken and relationships established with customers, the strategy for securing any remaining capacity and a declaration that the Business Plan is based on reasonable assumptions, accurate and not misleading;
- Confirmation on required testing, including a DSR Test or Joint DSR Test, Metering Assessment and Metering Test (if applicable); and
- Information on existing Applicant Credit Cover (if applicable)

As Unproven DSR CMUs may still be making arrangements, after prequalification or the auction, to secure clients and components, it is not possible for these CMUs to provide the same information at prequalification as provided by New Build and Refurbishing CMUs. We want all Unproven DSR CMU providers to continue to retain the flexibility to recruit components between prequalification and the start of the delivery year. But equally we think that Unproven DSR CMUs bidding for a multi-year agreement should have a well-defined plan at prequalification for how the CAPEX thresholds will be exceeded and a multi-year agreement justified.

We therefore propose that applicants for Unproven DSR CMUs prequalifying to bid for a multi-year agreement must provide the following additional information (compared to Unproven DSR prequalifying to bid for a one-year agreement), in order to provide confidence that they will meet the relevant CAPEX threshold and to reduce the likelihood of speculative bidding:

- Confirmation of whether the *expected* Qualifying £/kW Capital Expenditure will exceed the three or fifteen year Minimum £/kW Threshold²⁹;
- Information in the Business Plan that explains the Applicant's recruitment strategy for components and why the Applicant believes that the components which have been or

²⁵ Depending on the type of CMU, Relevant Planning Consents, Connection Agreements and a Declaration about refurbishing works may also be required. Rules 3.7 and 3.8 set out the full details of the information required at prequalification for Prospective Generating CMUs.

²⁶ See Annex A for the definition of this phrase.

²⁷ See Annex A for the definitions of these terms in the Rules.

²⁸ by Rule 3.10

²⁹ See Annex A for a description of these terms.

will be recruited are *expected* to result in a Qualifying £/kW Capital Expenditure which exceeds the CAPEX threshold nominated by the applicant. This should include an estimate of the *expected* Total Project Spend for each individual component that has already been recruited; and

- A declaration on whether any of the components of the CMU comprises, or is *expected* to comprise, a storage component (see Section 2.1.6.1 for an explanation of why we are requiring this declaration).

Question 3

Do the proposed additional checks at prequalification provide sufficient certainty that the CAPEX thresholds will be met by Unproven DSR? If not, what additional requirements should be applied at prequalification?

2.1.5.2 Credit cover

It is important that we disincentivise speculative bidding for multi-year agreements, which has the potential to distort competition and create security of supply risks. Whilst the proposal for Unproven DSR CMUs to provide additional information at prequalification will help to prevent speculative bidding to some extent, we believe there is also a need to make changes to the credit cover requirement, in order to further reduce this risk and to provide confidence that DSR which bids for multi-year agreements genuinely expects to meet the CAPEX thresholds.

We therefore propose that for Unproven DSR bidding for a multi-year agreement, both up to three years and up to fifteen years, the level of credit cover required should be increased from £5,000/MW to £10,000/MW³⁰. This will also ensure consistency between DSR and New Build CMUs which are already required to post £10,000/MW credit cover. Unproven DSR bidding for a one-year agreement will continue to only have to post £5,000/MW credit cover.

If higher credit cover alone is not enough to deter speculative bidding by Unproven DSR, then we may in the future have to consider whether there is a need for either partial or full draw down of credit cover if and when the agreement length of an Unproven DSR CMU is reduced as a result of the CMU not meeting the CAPEX threshold(s) at the Evidence of Total Project Spend milestone (see Section 2.1.5.6). We would need to consider how this draw down of credit cover would interact with any draw down required as a result of the DSR Test. We will keep this under review.

Question 4

Is the proposed increase in credit cover for Unproven DSR bidding for a multi-year agreement suitable for ensuring that these CMUs will be committed to delivering their capacity, and will it prevent Unproven DSR from speculatively bidding for multi-year agreements?

Is there a need to consider, in addition to increased credit cover for Unproven DSR bidding for a multi-year agreement, draw down of credit cover for Unproven DSR that has its agreement length reduced?

³⁰ This will require changes to regulation 59(2)(a)(ii) of the Principal Regulations.

2.1.5.3 The extended years criteria

Prospective Generating CMUs with agreements of four or more delivery years must meet the Extended Years Criteria³¹. The purpose of the Extended Years Criteria is to provide assurance that high-CAPEX Prospective Generating CMUs with agreements of four or more delivery years contain equipment which is new and built to a high standard, and therefore likely to last for the full term of the agreement and not significantly degrade in capacity during the agreement. It prevents operators from gaming by purchasing old, degraded generation equipment and entering it as a New Build CMU to obtain an agreement length of up to fifteen years.

In addition, the Extended Years Criteria, as currently drafted, is focused on generation. It would be difficult to draft the Extended Years Criteria in a way that is suitable for all types of DSR, in particular turn-down DSR, as the nature of turn-down DSR means that the capacity which can be delivered by these CMUs is more closely related to the total demand of the site before demand reduction rather than the quality of the equipment. We'd welcome views on whether and how the Extended Years Criteria could be applied for DSR.

Question 5

Should the Extended Years Criteria be applied to DSR? If so, how could it be applied to turn-down DSR?

2.1.5.4 The DSR partial credit cover release milestone

Prospective Generating CMUs and Refurbishing CMUs are required to complete a Financial Commitment Milestone (FCM) no later than 16 months after the Auction Results Day of the relevant Capacity Auction³². In order to complete the FCM, 10% of the Total Project Spend stated at prequalification must have been incurred and paid and a Final Investment Decision must have been taken for the full value of the Total Project Spend. A certificate prepared by an Independent Technical Expert (ITE) must be submitted to the Delivery Body confirming this.

Credit cover for New Build CMUs is either released in full or increased from £10,000/MW to £15,000/MW 11 months after Auction Results Day, based on whether the ITE certificate has been submitted to the Delivery Body by this date³³. Failure to meet the FCM obligation by 16 months after the auction is a Termination Event³⁴.

Unproven DSR CMUs, on the other hand, have to maintain credit cover until a DSR Test certificate is provided to the Delivery Body confirming that the CMU has completed its DSR Test³⁵. Satisfactory completion of the DSR Test provides certainty on the capacity of the CMU. This can occur up to one month before the start of the delivery year. We propose to maintain this arrangement for Unproven DSR with a multi-year agreement.

However, as we will be increasing the credit cover requirement for Unproven DSR bidding for a multi-year agreement from £5,000/MW to £10,000/MW this will mean that DSR bidding for a multi-year agreement will potentially have to post the same amount of credit cover as New Build CMUs, but for a longer period (as the FCM must be completed by 16 months after

³¹ See Annex A for a definition of this phrase.

³² Rule 6.6.1.

³³ Rule 6.6A.

³⁴ Rule 6.10.1(ba)(i).

³⁵ The DSR Test must evidence proven capacity as set out in Regulation 60(1).

Auction Results Day, whereas the DSR Test does not have to be completed until one month before the start of the delivery year). Therefore, to more closely align the length of time for which credit cover must be maintained with New Build CMUs, and to create an incentive for Unproven DSR CMUs with multi-year agreements to make early progress in recruiting components in exchange for a reduction in credit cover, we propose to create an optional interim milestone for Unproven DSR CMUs with multi-year agreements, the “DSR Partial Credit Cover Release”.

Completing the milestone will require the capacity provider for an Unproven DSR CMU with a multi-year agreement to provide the Delivery Body with information and declarations similar to the FCM, including:

- an update of all information provided at prequalification that has changed since it was submitted at prequalification (set out in Section 2.1.5.1);
- a director’s declaration that at least 50% of the CMU’s capacity (listed by component) has been recruited and that the CMU is on track to exceed the relevant CAPEX threshold;
- a director’s declaration that the recruited components will not be moved out of the CMU or changed between the date of the DSR Partial Credit Cover Release milestone and the DSR Test, unless one of the components has failed. This is to prevent operators using the same DSR components to meet the requirements of the DSR Partial Credit Cover Release milestone for multiple CMUs (by recruiting the components, meeting the milestone and then moving them out of one CMU and into another); and
- an ITE certificate confirming that at least 50% of the CMU capacity (listed by component) has been recruited and that the CMU is on track to exceed the relevant CAPEX threshold.

If the Unproven DSR CMU with a multi-year agreement achieves the DSR Partial Credit Cover Release milestone, 50% of the credit cover held (£5,000/MW) will be released, provided 50% or more of the DSR capacity has been recruited. There will be no testing of capacity at the DSR Partial Credit Cover Release milestone, as some of the components may still be under construction. Successful completion of the milestone will reduce the credit cover required to be posted from £10,000/MW to £5,000/MW. Credit cover cannot be released in full at this milestone because without testing, the DSR CMU’s capacity remains ‘unproven’ and therefore Unproven DSR CMUs must maintain some credit cover until the completion of the DSR Test.

Prospective Generating CMUs have to provide a progress report every six months to the Delivery Body which includes an updated version of the Construction Plan they provided at prequalification. We are minded not to require Unproven DSR CMUs with multi-year agreements to provide progress reports, given the more flexible nature of DSR recruitment compared to the construction of a generation asset.

The DSR Partial Credit Cover Release milestone would not be mandatory and therefore there would be no credit cover increase for not achieving the milestone. Nor will there be a deadline for completing the milestone (as there is for the FCM), other than that it must occur before the Notifying DSR Components milestone (see Section 2.1.5.5). This reflects the flexible nature of DSR component recruitment which can occur at any point in the period between the auction and the Notifying DSR Components milestone. Like the FCM, it would be possible for the Unproven DSR CMUs with multi-year agreements to meet the DSR Partial Credit Cover Release milestone before the auction and therefore only ever have to post £5,000/MW credit cover.

Question 6

Are the proposed arrangements for a partial release of credit cover suitable for incentivising Unproven DSR with a multi-year agreement to make early progress towards delivery? Is there anything we could change to improve the incentive? Do you agree that Unproven DSR with multi-year agreements shouldn't have to provide progress reports, as is required of generation?

2.1.5.5 The long-stop date

New Build CMUs are required to achieve a Substantial Completion Milestone (SCM)³⁶, the final milestone in their construction plan, before their capacity agreements can take effect and they can start receiving capacity payments³⁷. In order to complete the SCM, New Build CMUs must have completed a variety of actions, including a Metering Assessment and Metering Test (if needed). In addition, they are required to submit the Evidence of Total Project Spend (see Section 2.1.5.6) to the Delivery Body by three months after the start of the first delivery year.

For New Build CMUs, these two milestones (the SCM and the Evidence of Total Project Spend) are subject to a Long-Stop Date which allows them to be met up to twelve months after the start of the first delivery year in which the capacity obligation imposed by their agreement has effect. In practice this allows them an additional year to finish construction without their agreement being terminated, if construction is delayed. The Long-Stop Date is designed to avoid unnecessarily terminating New Build CMUs which achieve SCM not long after the start of the delivery year, as this would not be overall beneficial to security of supply, even if the capacity is not available for some or all of the first delivery year.

The total agreement length is reduced if the capacity agreement takes effect after the start of the delivery year but before the Long-Stop Date and capacity payments are not paid until the capacity agreement has taken effect. So, for example, if a CMU has a fifteen-year agreement but does not complete its SCM³⁸ until the Long-Stop Date, then only fourteen years' worth of payments will be made.

The corresponding milestone to the SCM for Unproven DSR is the DSR Test. At this milestone, the CMU must provide a DSR Test Certificate to the Delivery Body which demonstrates that a DSR Test has been completed and states the proven capacity of the CMU. The DSR Test is required to be completed one-month before the start of the delivery year. In addition to the DSR Test, Unproven DSR CMUs are required to have completed:

- a Metering Assessment four months before the start of the delivery year;
- a Metering Test (if needed) two weeks before the start of the delivery year; and
- a notification to the Delivery Body proving information on the components in the CMU³⁹, by either the Metering Assessment or the DSR Test whichever comes first (Notifying DSR Components).

Once we allow Unproven DSR CMUs to access multi-year agreements, operators of these CMUs will also need to submit Evidence of Total Project Spend to the Delivery Body by three months after the start of the first delivery year (see Section 2.1.5.6).

There is no Long-Stop Date that currently applies to the DSR Test or the other DSR milestones discussed above (Metering Assessment, Metering Test, Notifying DSR Components and

³⁶ or the Minimum Completion Requirement (MCR) (see Section 2.1.5.7)

³⁷ Rules 6.7

³⁸ or the Minimum Completion Requirement (MCR) (see Section 2.1.5.7)

³⁹ Rule 8.3.3A

Evidence of Total Project Spend). However, we propose that for Unproven DSR CMUs with multi-year agreements, the Long-Stop Date should apply to all these milestones in the same way that it applies to the SCM and Evidence of Total Project Spend for New Build CMUs. This is because the same rationale for the Long-Stop Date (discussed in the second paragraph of this sub-section) applies for Unproven DSR CMUs with multi-year agreements as for New Build CMUs, as they are likely to involve the construction of behind-the-meter generation. DSR CMUs with a one-year agreement will still not be able to utilise the Long-Stop Date as we do not expect these CMUs to involve significant construction.

We propose the following:

- Unproven DSR CMUs with multi-year agreements should be able to delay the DSR Test by up to 12 months i.e. up to one month before the start of the second delivery year in which the capacity obligation imposed by their agreement has effect. The capacity agreement would not take effect, and no capacity payments would be made, until the DSR Test was satisfactorily completed.
- Credit cover would need to be maintained as appropriate during the Long-Stop period. Credit cover would continue to be released or drawn down in the same manner, depending on the amount of proven capacity at the DSR Test. If the DSR Test is not completed by one-month before the start of the *second* delivery year, then the CMU would be terminated. Termination arrangements, including fees, for Unproven DSR with multi-year agreements will remain the same as for Unproven DSR with one-year agreements.
- Unproven DSR CMUs with a multi-year agreement should be able to delay the Metering Assessment and the Metering Test (if needed) by up to twelve months i.e. up to four months before the start of the second delivery year for the Metering Assessment and up to two weeks before the start of the second delivery year for a Metering Test⁴⁰.
- Unproven DSR CMUs with a multi-year agreement should be able to delay the Notifying DSR Components until either the Metering Assessment or DSR Test, whichever comes first, including if these milestones are postponed using the Long-Stop Date.
- As for New Build CMUs, for Unproven DSR CMUs with multi-year agreements the Evidence of Total Project Spend (see Section 2.1.5.6) should be submitted no later than three months after the start of the first Delivery Year, or on the date that the Capacity Agreement takes effect if the Long-Stop Date is utilised.
- The DSR Partial Credit Cover Release milestone (see Section 2.1.5.4) can be completed up until the Notifying DSR Components has been met, including if this milestone is postponed using the Long-Stop Date.

Question 7

Is the proposed application of the Long-Stop Date to Unproven DSR CMUs with a multi-year agreement suitable? Are there any risks or unintended consequences that we should be aware of?

2.1.5.6 The evidence of total project spend milestone

Prospective Generating CMUs are required to submit an Independent Technical Expert (ITE) certificate stating the Total Project Spend incurred, and confirming, on the basis of evidence

⁴⁰ See Rules 8.3.3(b), (c) and (e)(i), 13.3.2A(a).

reviewed, whether the Total Project Spend incurred, divided by the de-rated capacity of the CMU, meets the relevant CAPEX threshold for the length of agreement held by the CMU. The ITE certificate must be submitted to the Delivery Body no later than three months after the start of the first delivery year, or on the date that the capacity agreement takes effect if the Long-Stop Date is utilised such that the capacity agreement begins more than three months after the start of the first delivery year. If the Total Project Spend in the ITE certificate does not meet the relevant CAPEX threshold, then the Delivery Body reduces the CMU's agreement length as appropriate.

We propose that the same requirements and deadlines (including the Long-stop Date – as discussed in Section 2.1.5.5) for the Evidence of Total Project Spend should apply for Unproven DSR with multi-year agreements. However, as stated in Section 2.1.4.1, we propose that, for Unproven DSR with multi-year agreements, the Total Project Spend must be broken down into components in the ITE certificate.

We have noted that the deadline for the Evidence of Total Project Spend (three months after the start of the first delivery year) could, with the ability for DSR to reallocate components (see Section 2.1.6.3), allow a DSR operator to use different components to meet the DSR Test than for meeting the Evidence of Total Project Spend requirements. We believe the risks associated with this are minimal and therefore we do not propose to take action to prevent this. We would welcome your views.

If the Total Project Spend stated in the ITE certificate does not meet the relevant CAPEX threshold, then the Delivery Body will reduce the CMU's agreement length as appropriate. As discussed in 2.1.5.2, we are also considering whether there is a need to draw down the credit cover of Unproven DSR CMUs with multi-year agreements which do not meet the relevant CAPEX thresholds in the Evidence of Total Project Spend, in order to provide a strong disincentive for speculative bidding.

Question 8

Is the proposed application of the Evidence of Total Project Spend milestone to Unproven DSR CMUs with multi-year agreements suitable, in particular the requirement to componentise costs?

Are there any risks or unintended consequences due to the Evidence of Total Project Spend occurring after the start of the delivery year and DSR CMUs being able to reallocate components?

2.1.5.7 The minimum completion requirement and increases in capacity after the substantial completion milestone

At any time up to eighteen months after the start of the first delivery year of the capacity agreement, Prospective Generating CMUs may increase the capacity obligation they commit to delivering in their capacity agreement up to but not exceeding 100% of the original capacity obligation⁴¹. A minimum of 90% of the capacity obligation must be met in order for a Prospective Generating CMU to meet the SCM⁴². Therefore, the eighteen-month period allows Prospective Generating CMUs which have met the SCM with between 90% and 100% of their capacity obligation to increase their capacity obligation to up to 100%.

More importantly, the eighteen-month period allows New Build CMUs which have met the Minimum Completion Requirement⁴³ (proven capacity exceeds 50% of their capacity

⁴¹ Rule 6.7.6.

⁴² Rule 6.7.2.

⁴³ Rule 6.8.3.

obligation) by the Long-Stop Date another six months increase their amount of operational capacity. The purpose of the eighteen-month period is to allow New Build CMUs which have completed the SCM or Minimum Completion milestone additional time to increase the amount of operational capacity for which they can receive CM revenues.

We do not propose to allow Unproven DSR with a multi-year agreement that has completed the DSR Test to increase their capacity obligation after the DSR Test or to have a Minimum Completion Requirement for Unproven DSR. This is because arrangements for the DSR Test are in some ways already more lenient than the SCM. In particular, Unproven DSR CMUs can complete the DSR Test with less than 90% of their capacity obligation (albeit credit cover is drawn down in proportion to the amount of missing capacity), whereas the SCM cannot be met unless at least 90% of the capacity obligation is operational. Therefore, the inclusion of the Minimum Completion Requirement and the eighteen-month window for generation counterbalances this leniency and ensures that, overall, arrangements for generation and DSR are broadly similar (although not identical, as the differing processes reflect the different nature of the two technologies). Allowing Unproven DSR CMUs to increase their capacity obligation after the DSR Test would also interfere with credit cover arrangements at the DSR Test, in which credit cover may be partially or fully drawn down depending on the amount of capacity missing.

Question 9

Do you agree that Unproven DSR with multi-year agreements should not be able to increase their capacity obligation after the DSR Test, or be subject to a Minimum Completion Requirement? Please provide reasons. Are there any unintended consequences that may arise from this proposal?

2.1.6 Avoiding unintended consequences

2.1.6.1 Standalone storage units entering the capacity market as DSR

DSR CMUs provide capacity through reducing metered volumes of imported electricity below a baseline, by a means other than a permanent reduction in electricity use. This can be achieved using one of two methods, either 'turn-down' DSR where the demand reduction is caused by the turning down of a customer's electricity consuming equipment, or 'behind-the-meter-generation' DSR where the demand reduction is caused by the activation of a customer's permitted on-site generating unit⁴⁴. In order to be a permitted on-site generating unit, the unit must be primarily used to provide supply to an on-site customer. Permitted on-site generating units can export electricity to the distribution network, but only during periods when the demand of the on-site consumer is met fully and exclusively by the permitted on-site generating unit.

We are aware that some operators may be entering or intending to enter 'standalone' storage units into the CM as Unproven DSR CMUs in order to gain a more favourable de-rating factor than they would receive if they were entered into the CM as storage, and in turn receive higher CM revenues. By 'standalone' storage unit we mean a storage unit which primarily imports from (whilst charging) and exports to (whilst generating) the distribution network, rather than primarily providing supply to an on-site customer.

Standalone storage units entered into the CM as Unproven DSR create security of supply risks because the CMU's contribution to security of supply is overestimated and therefore, we will

⁴⁴ "Permitted on-site generating unit" is defined in Regulation 2(1) of the Principal Regulations.

have less capacity than expected to call upon during a system stress event. Whilst we believe this practice is limited at present, as it is difficult to finance new build storage on the basis of only one year of CM revenues, once Unproven DSR can access multi-year agreements this may lead to the problem becoming more widespread.

We are clear that standalone storage units do not meet the definition of a 'permitted on-site generating unit', because they are not primarily used to provide on-site supply. Because of this, standalone storage units are not DSR and should be entered into the CM as a Generating CMU from a storage generating technology class (or as a component of that CMU). This position has also been communicated by the Delivery Body to industry⁴⁵.

Whilst standalone storage units do not meet the definition of 'permitted on-site generating unit', they may still, in metering data, appear similar to DSR CMUs which are demonstrating reduced metered volumes of imported electricity below a baseline. This is because the periods during which the standalone storage units are charging from the distribution network can look similar to a 'baseline' of imported electricity.

Therefore, to ensure that our policy intent remains as clear as possible going forward, and to remove any doubt about whether standalone storage units can hold capacity agreements as DSR, we propose to amend the descriptions of DSR in the legislation that implements the CM. This amendment will clarify that the baseline of imported electricity below which metered volumes are reduced cannot be primarily comprised of electricity used to charge a storage unit. We welcome views on whether this proposed amendment is suitable.

We note that Rule 6.10.1(o) establishes a termination event if any information or declaration submitted in or with a prequalification application is not true and correct. Following such a termination, a capacity provider is liable to repay capacity payments beginning on the date on which capacity payments began under the capacity agreement and ending on the date of the termination of the agreement (i.e. all capacity payments paid under the agreement⁴⁶).

Question 10

Will the proposed amendment suitably clarify our policy intent and address the issue of standalone storage units being entered into the CM as DSR CMUs?

2.1.6.2 Behind-the-meter storage units in DSR CMUs with multi-year agreements

The Government believes that all storage in the CM should be de-rated according to its duration, to ensure that its contributions to security of supply are accurately and fairly reflected. This avoids any risks to security of supply resulting from an overestimation of a CMUs potential contribution during a stress event. Standalone storage units, as discussed in the previous section, should therefore be entered as Generating CMUs from a storage generating technology class.

Behind-the-meter storage units are storage units which meet the definition of a 'permitted on-site generating unit' in Regulation 2(1) of the Principal Regulations, because they are primarily used for supply to an on-site customer. Behind-the-meter storage units can therefore be entered into the CM as part of a DSR CMU. Whilst this results in the de-rating factor for DSR being applied to the behind-the-meter-storage unit, rather than the unit being de-rated

⁴⁵ We are aware that during the 17 July 2019 CM launch event the Delivery Body stated that batteries such as those described in this consultation as standalone storage facilities should not be entered into prequalification as DSR CMUs.

⁴⁶ Rule 6.10.3A(aa)

according to its duration, we see this risk as acceptable, provided that the DSR CMU does not contain high proportions of behind-the-meter storage units. This is in part because we are aware that DSR operators tend to 'overfill' their portfolios with capacity in order to ensure that they can deliver their capacity obligation.

We think that there are unlikely to be many DSR CMUs containing high proportions of behind-the-meter storage in the CM, as it is difficult to finance new build storage on the basis of only one year of CM revenues. However, as with standalone storage units entering the CM as DSR, once Unproven DSR can access multi-year agreements this may no longer be the case. There will be a strong incentive for operators to build behind-the-meter storage and enter it as an Unproven DSR CMU with a multi-year agreement rather than as a storage CMU with a multi-year agreement, because the de-rating factor for DSR is more favourable. New build storage also tends to have high upfront costs and therefore Unproven DSR CMU's containing high proportions of new build behind-the-meter storage are likely to exceed the CAPEX thresholds.

In order to ensure that DSR CMUs which contain high proportions of behind-the-meter storage are de-rated accurately, we propose that all Unproven DSR CMUs prequalifying for multi-year agreements which are expected to contain storage components⁴⁷ should be subject to exactly the same de-rating factor and Extended Performance Test (i.e. demonstration that it can maintain its capacity for the duration claimed) as those applied to Generating CMUs in a storage generating technology class. The storage de-rating factor and Extended Performance Test would be applied to the whole CMU even if the storage unit is only one component of the CMU and regardless of the proportion of the CMU that is comprised of storage. One Extended Performance Test would need to be completed in the winter of the first delivery year for which the capacity agreement applies, and every third delivery year thereafter. Other than de-rating and the Extended Performance Test, Unproven DSR with a multi-year agreement containing a storage component will be treated in the same way as an Unproven DSR CMU with a multi-year agreement.

DSR bidding for a one-year agreement will still be able to use behind-the-meter storage in their portfolios without changes to their de-rating factor, as we do not believe there is a risk of these CMUs containing high proportions of behind-the-meter storage. We intend to keep this assumption, and arrangements for DSR CMUs with multi-year agreements that contain storage components, under review, to ensure that we are de-rating DSR CMUs fairly and accurately.

Question 11

Are there any unintended consequences that may arise as a result of applying storage de-rating factors and requiring extended performance testing for DSR CMUs with multi-year agreements that contains behind-the-meter storage components? Is our proposal to check whether these CMUs contain a storage component through a declaration at prequalification suitable?

2.1.6.3 Component reallocation

Component reallocation allows DSR providers to replace failed components and adapt their portfolios of components during the delivery year to ensure they can deliver their capacity obligations. As noted in Section 2.1.4.3, this may provide gaming opportunities once Unproven DSR CMUs that meet CAPEX thresholds have access to multi-year agreements. In particular, component reallocation creates the potential for a single high-CAPEX component to be passed

⁴⁷ As per our proposal in Section 2.1.5.1 above, an Unproven DSR CMU prequalifying for a multi-year agreement must provide additional information at prequalification including declaration on whether any of the components comprises, or is *expected* to comprise, a storage component.

around multiple DSR CMUs in order to secure a multi-year agreement for each CMU. It is important that we take action to avoid component reallocation being exploited in this way.

We are considering two options for addressing gaming opportunities arising from component reallocation. Our preferred option is to allow component reallocation, albeit ensuring that each DSR component can only ever be used by one CMU to meet the Evidence of Total Project Spend requirements. This would mean that if a component were counted towards the Total Project Spend of a DSR CMU, then its costs could not be counted towards the Total Project Spend of another DSR CMU if subsequently reallocated. This would be checked by the Delivery Body at the Evidence of Total Project Spend milestone, using the metering information for each component.

An alternative, more robust option is to prevent Unproven DSR CMUs with multi-year agreements from reallocating components until the components would be ineligible from being counted toward another CMU's Total Project Spend because the expenditure was made too far in the past, beyond the cut-off date. As discussed in Section 2.1.4.3, we are undecided as to what the cut-off date for DSR CMUs with multi-year agreements should be and would welcome views on this. The disadvantage of preventing component reallocation until after the cut-off date has passed is that it creates a security of supply risk, because DSR operators cannot replace failed components or adapt their portfolios of components during this time. We would welcome views on which option would be most proportionate relative to the risks of gaming through component reallocation.

In addition to the two options set out above, we are considering collecting the serial numbers of equipment used in each component of Unproven DSR CMUs with multi-year agreements at the Notifying DSR Components milestone, to remove the potential for high CAPEX equipment to be moved between CMUs even if the metering information remains fixed. We would welcome views on whether the risk of this kind of gaming occurring is high enough that it would be proportionate to impose the additional burden of reporting equipment serial numbers on all DSR CMUs with multi-year agreements.

Currently, DSR CMUs which have undergone component reallocation and have an agreement for the next delivery year have to complete a DSR Test by the end of the current delivery year. We have noted that, in response to Ofgem's consultation on component reallocation⁴⁸, stakeholders were concerned about the burdens of additional testing on DSR and were not in support of testing every time a component was reallocated. Therefore, assuming DSR with multi-year agreements is allowed to reallocate components, we propose that, in line with current arrangements, these CMUs should continue to be required to only complete a DSR Test before the start of the next delivery year if they have engaged in component reallocation in the current delivery year, regardless of how many times they have reallocated components. The capacity obligation and agreement will be reduced in line with the results of the DSR Test, if necessary. All other rules around component allocation, e.g. the frequency and number of permitted reallocations, would remain the same for DSR with multi-year agreements.

Question 12

Is the proposal to restrict each DSR component to being used only once to meet Evidence of Total Project Spend requirements sufficient to prevent gaming through component reallocation?

Do we need consider preventing DSR with multi-year agreements from reallocating components until the cut-off date has passed?

⁴⁸ https://www.ofgem.gov.uk/system/files/docs/2017/06/20170628_cm_rules_decision_final.pdf

Should we collect the serial numbers of equipment in each DSR component in order to help prevent high CAPEX equipment being moved between components?

Question 13

If we allow DSR with multi-year agreements to reallocate components, is the proposal for an annual repeat of the DSR Test for CMUs that have reallocated components (in line with current arrangements for DSR) suitable and are there any unintended consequences that may arise?

2.1.6.4 Secondary trading

At present, Unproven DSR CMUs are able to secondary trade all or part of their capacity obligations for all or part of the delivery year to which the capacity obligations relate before they have completed the DSR Test⁴⁹. New Build CMUs and Refurbishing CMUs cannot do so unless they have achieved their Substantial Completion Milestone (SCM) by the Prequalification Results Day for the T-1 Auction for the relevant delivery year⁵⁰. There is a risk of gaming created by these arrangements, as Unproven DSR CMUs could be entered into the CM just to secondary trade, with no intention of ever completing the DSR Test. This gaming has the potential to create distortions and inefficiencies in capacity auctions, which in turn could increase costs to the consumer.

Currently, the risk of gaming is minimal, because Unproven DSR CMUs can only access one-year agreements and so can only secondary trade up to one year's worth of capacity obligation without completing the DSR Test, if they are successful in an auction. However, once Unproven DSR CMUs can access multi-year agreements, the risk of gaming will increase significantly because DSR CMUs will be able to secondary trade capacity obligations for up to fifteen delivery years, without completing the DSR Test.

In order to mitigate this risk, we propose that a capacity provider for an Unproven DSR CMU with a multi-year agreement should not be allowed to secondary trade its capacity obligation until after the DSR Test is satisfactorily completed.

Question 14

Are there any unintended consequences which may arise from preventing Unproven DSR CMUs with a multi-year agreement from secondary trading until after completing the DSR Test?

Question 15

Are further legislative changes required to enable DSR to access longer-term agreements, which have not been identified in Section 2.1 of this consultation? Please provide details.

2.2 The minimum capacity threshold

As stated in the Decision, we committed:

⁴⁹ Rule 9.2.4(a).

⁵⁰ Rule 9.2.5(a).

- a) *to reduce the minimum threshold to participate in the CM as described in recitals (30) and (31) of the present Decision to 1 MW for all auctions for which prequalification starts from January 2020, and*
- b) *to reassess this threshold by October 2021 to examine the potential for a further reduction.*

As described in our Five-year Review⁵¹, when the CM was implemented in 2014, the 2MW minimum threshold was low when compared to other energy markets at that time. Moreover, at that time this threshold was believed to achieve the correct balance between maximising liquidity of the capacity auctions and minimising the administrative costs of running the auctions.

Since 2014, the energy systems in both GB and internationally have changed. In particular, there is a trend towards the deployment of smaller, more distributed energy resources such as DSR and reciprocating engines. In line with this, transmission system operators (TSOs) are handling capacity in smaller increments. For example, the forthcoming Trans European Replacement Reserve Exchange Project⁵² (Project TERRE) will use a threshold of 1MW for trading. We are therefore proposing to reduce the minimum capacity threshold in the CM from 2MW to 1MW. We also intend to keep the minimum capacity threshold under review and consider the need for a further reduction by October 2021.

The reduction of the minimum capacity threshold will ensure that the CM remains in line with other markets, so that revenues from these markets can continue to be stacked easily and effectively with CM revenues. We welcome any evidence from stakeholders as to the cost-impacts of the proposed changes to help inform our assessment.

As the minimum capacity for secondary trading is linked to the minimum capacity threshold, this will also fall from 2MW to 1MW when the minimum capacity threshold is reduced.

Question 16

How much participation of CMUs sized 1-2MW do you expect there will be in future capacity auctions and what impact might this have on auction liquidity and price?

2.3 The amount of T-1 set aside capacity

As stated in the Decision, we committed:

- a) *to continue procuring in the year ahead auctions at least 50% of the capacity reserved four years earlier as part of the parameter setting process for the four year ahead auction for the same delivery year; and*
- b) *to continue using the set-aside methodology based on a 95% confidence interval described in recital (62) of the present Decision to determine the minimum amount of capacity that will be set aside for a year ahead auction.*

The European Commission's original State aid approval of GB's CM contained a commitment to auction at least 50% of the amount of capacity originally set-aside for the T-1, regardless of whether our projections closer to the delivery year indicate that this capacity is needed to meet

⁵¹ At paragraph 117

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/819760/cm-five-year-review-report.pdf

⁵² https://www.entsoe.eu/network_codes/eb/terre/

the reliability standard⁵³. In addition, since 2016, we have been using a methodology based on the 95% confidence interval of the T-4 capacity target to determine the amount of capacity we set-aside for T-1. To ensure that capacity providers continue to have visibility of the minimum volumes of capacity to be secured through the T-1 auctions, we propose to amend the legislation that implements the CM so that both the long-standing 50% set-aside commitment and the methodology for determining the minimum amount of set-aside as applied since 2016 is required to be applied as part of the auction parameter setting process to all T-1 auctions going forward.

It is important to note that these two commitments act together to determine the *minimum* amount of capacity to be secured through the T-1 capacity auctions. As the amount of capacity set aside for T-1 auction is an auction parameter, the Secretary of State therefore retains the ability to increase the T-1 targets above this minimum for any capacity auctions where this is considered appropriate⁵⁴. In this way, the T-1 targets will continue to be set to balance competing risks of over- and under-procurement.

Fixing a minimum amount of set-aside entails a slight risk of over-procurement and therefore potential increased costs to the consumer (e.g. if the projections before the T-1 auction show that the auction is no longer needed to meet our reliability standard) because once it is determined that a capacity auction is to be held it may not be cancelled, postponed, or stopped other than in the circumstances described in Regulation 26. However, we consider the scale of any over-procurement based on implementation of this commitment to be minor as it is simply a continuation of existing practice. We would welcome any evidence from stakeholders on the impact of the proposed changes.

Question 17

Are there any unintended consequences which may arise from formalising the 50% set-aside commitment and the 95% confidence interval methodology in legislation?

2.4 Incorporating new technologies into the CM

As stated in the Decision, the Government is committed:

To develop all rules necessary (for instance, but not limited to de-rating factors) to ensure the effective participation of any new capacity type which can effectively contribute to addressing the generation adequacy problem, as soon as such capacity has the potential to contribute to addressing the generation adequacy problem⁵⁵.

The purpose of the prequalification application process is to enable the Delivery Body to determine whether a CMU wishing to prequalify for a capacity auction is a Generating CMU, an Interconnector CMU or a DSR CMU (either Proven or Unproven), and in the case of a Generating CMU or Interconnector CMU, whether the CMU comprises an Existing CMU, a New Build CMU or a Refurbishing CMU. In the case of a Generating CMU, the prequalification application must also specify the Generating Technology Class (GTC) to which each

⁵³ The decision on how much capacity to secure in each capacity auction is informed by the statutory reliability standard. This is an objective level of security of electricity supply representing the trade-off between the cost of providing additional back up capacity and the level of reliability achieved. It is expressed as LOLE i.e. the number of hours/periods per annum in which it is statistically expected that supply will not meet demand. For the GB electricity market, the reliability standard required is 3 hours LOLE per year (providing a system security level of 99.97%). The reliability standard is defined in regulation 6 of the Regulations.

⁵⁴ In line with the powers provided for under Regulation 12 and 13 of the Principal Regulations.

⁵⁵ Paragraph 197

generating unit that comprises the CMU belongs. The GTCs are set out in Schedule 3 to the Rules.

The classification of a CMU (and, where relevant, its GTC) is important as it determines which de-rating factor is to be applied to the stated capacity of the CMU to assess the contribution to security of supply expected to be made by a unit of that class of capacity. De-rating factors ensure CMUs are not over (or under) remunerated for their expected contribution to security of supply.

Table 2 lists the CMU classes and their associated de-rating factors specified for the auctions to be held in early 2020.

Table 2. De-rating factors by technology⁵⁶

Technology		De-rating factors (%)		
		2019 T-3	2019 T-1	2019 T-4
Oil-fired steam generators		91.26	91.26	91.26
Open Cycle Gas Turbine (OCGT)		94.98	94.98	94.98
Reciprocating engines		94.98	94.98	94.98
Nuclear		81.22	81.22	81.22
Hydro (excluding tidal / waves / ocean currents / geothermal / storage)		89.65	89.65	89.65
Storage	Various Duration categories (0.5h – 5.5h +) and associated de-rating factors	10.59 - 95.08	12.26 - 95.08	10.21 - 95.08
Combined cycle gas turbines (CCGT)		90.00	90.00	90.00
Combined heat and power (CHP)		90.00	90.00	90.00
Coal		85.81	85.81	85.81
Biomass		85.81	85.81	85.81
Energy from Waste		85.81	85.81	85.81
Onshore wind		8.20	8.98	7.42
Offshore wind		12.30	14.45	10.55
Solar PV		3.13	2.34	3.22
DSR		86.14	86.14	86.14
Interconnectors	IFA (France)	69.00	n/a	63.00
	IFA2 (France)	71.00	87.00	65.00
	Eleclink (France)	75.00	92.00	69.00
	BritNED (Netherlands)	50.00	n/a	36.00
	Greenlink (Republic of Ireland)	n/a	n/a	42.00

⁵⁶ EMR Auction Guidelines 2020:

<https://www.emrdeliverybody.com/Capacity%20Markets%20Document%20Library/Auction%20Guidelines%202020.pdf>

Technology		De-rating factors (%)		
		2019 T-3	2019 T-1	2019 T-4
	Moyle (Northern Ireland)	56.00	n/a	44.00
	EWIC (Republic of Ireland)	56.00	n/a	44.00
	NemoLink (Belgium)	58.00	82.00	46.00
	NSL (Norway)	88.00	n/a	88.00
	VikingLink (Denmark)	n/a	n/a	32.00

If a Generating CMU comprises a new technology which is not covered by the existing list of GTCs, and the Rules do not set out a methodology for calculating its de-rating factor, then it cannot prequalify to participate in the auctions.

The Government believes that the existing range of CMU classes (Table 2) is comprehensive and currently captures all types of capacity that can effectively contribute to addressing the resource adequacy problem. The Government regularly reviews whether new capacity types have emerged. It also has well-established processes for introducing additional GTCs within the Rules where appropriate and for developing and consulting on de-rating factors in relation to these additional GTCs (see amendments over time to Rule 2.3 (De-rating of CMUs)⁵⁷). These processes should already be able to be completed between prequalification windows, to have effect before prequalification opens for the next round of auctions (assuming sufficient data on technical performance is available to enable the Delivery Body to calculate a de-rating factor and minimise the risk of new capacity types that can contribute to security of supply being excluded from future auctions).

That said, the Government believes there would be value in establishing a new duty on the Secretary of State to review annually whether there are any new capacity types, not currently participating in the CM, which can effectively contribute to addressing the resource adequacy problem. The review would commence in October each year and will be likely to take the form of a short call for evidence, open to the general public, through which proposals for new GTCs can be submitted together with supporting evidence to help demonstrate the contribution made by this type of capacity to addressing the resource adequacy problem. Following the submission of responses to the call for evidence, the Government will publish a response to the review summarising the information received and any next steps. If, based on the information submitted through the call for evidence, the Secretary of State considers it appropriate, the Secretary of State could direct the Delivery Body to develop and consult on an appropriate methodology for calculating de-rating factor(s) for any new GTCs.

The proposed timing of the review maximises the time available to make the necessary Rules changes and develop appropriate de-rating factors to, if possible, enable any new capacity types to prequalify for the next round of auctions. While the Government would aim to make the necessary changes to enable new capacity types to prequalify in the next round of auctions, this will be dependent on, for example, the availability of performance data for the new type of capacity. It is therefore in capacity providers' interests to engage with the Government (and the Delivery Body, where applicable) proactively and early (including outside

⁵⁷ E.g. amendments made in 2017 to de-rating for storage GTCs.

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/664272/capacity-market-consultation-improving-framework-response.pdf

of the proposed formal review process) as and when they are contemplating that a new capacity type could compete in the CM.

The Government does not intend to set out in legislation the process for assessing whether a new capacity type can '*effectively contribute to addressing the resource adequacy problem*' as the appropriate process for doing so, and for determining de-rating factors, will likely vary depending on the type of capacity. As noted earlier, the process for developing new de-rating factors is already established in the Rules and includes a requirement to consult.

Question 18

Are you aware of any new capacity types not currently participating in the CM which can effectively contribute to addressing the generation adequacy problem? If so, please provide details.

Question 19

Do you agree with the proposal to introduce a new duty on the Secretary of State to review annually whether there are any new capacity types, not currently participating in the CM, which can effectively contribute to addressing the generation adequacy problem? We would welcome your views on the scope and steps of the review itself.

2.5 Emissions limits reporting and verification mechanism

2.5.1 Introduction and the ACER opinion on carbon emissions limits

On 4 July 2019, the recast Electricity Regulation (“the Electricity Regulation”)⁵⁸ came into effect as part of the EU’s Clean Energy Package⁵⁹. Article 22 of the Electricity Regulation outlines design principles for capacity mechanisms in EU Member States including requirements in respect of existing mechanisms such as the GB CM. Article 22(4) introduced a new requirement for capacity mechanisms to include carbon emissions limits for both new build capacity and existing capacity.

In order to require compliance with the carbon emission limits in respect of *new-build* capacity participating in the early 2020 auctions, amendments were made to the Rules by the Capacity Market Amendment (No. 5) Rules 2019, which came into force on 18 July 2019 (prior to the prequalification window in 2019)⁶⁰.

The Government consulted⁶¹, between 22 July 2019 and 13 September 2019, on arrangements for applying the emissions limits in respect of generating units which are Fossil Fuel Components⁶² (including any included as part of DSR CMUs) that existed before 4 July 2019 (referred to in this section as “*existing capacity*”). The main issues covered in the consultation included:

- Whether carbon emissions limits for existing capacity should take effect on 1 July 2025, or 1 October 2024.
- What length of agreements should be awarded to Refurbishing CMUs that will not meet the emissions limits.
- How best to deal with false or inaccurate Fossil Fuel Emissions Declarations and the recovery of capacity payments in such cases.

The Government response to that consultation will be published in due course.

In accordance with the requirement in Article 22(4) of the Electricity Regulation, the Agency for the Cooperation of Energy Regulators (ACER) published its opinion on the application of Articles 22(4) and 22(5) of the Electricity Regulation (Opinion No 22/2019) on 17 December 2019 (“the ACER opinion”)⁶³. The ACER opinion proposes the detailed methodology for calculating compliance with the emissions limits and arrangements for the reporting, verification and monitoring of carbon emissions which it applies to ‘generation units’⁶⁴. The presumption is that Member States applying capacity mechanisms will implement the arrangements in the ACER opinion, although it is ‘non-binding’ and so there is scope to

⁵⁸ Regulation (EU) 2019/943 on the internal market for electricity <https://eur-lex.europa.eu/eli/reg/2019/943/oj>

⁵⁹ <https://ec.europa.eu/energy/en/topics/energy-strategy-and-energy-union/clean-energy-all-europeans>

⁶⁰ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/818851/Capacity_Market_Amendment_No_5_Rules_2019.pdf

⁶¹ <https://www.gov.uk/government/consultations/capacity-market-carbon-dioxide-emissions-limits>

⁶² A Fossil Fuel Component is any generating unit (including where it is a DSR CMU component) which produces electricity using a Fossil Fuel (as per the definition of ‘fossil fuel component’ in Rule 1.2.1).

⁶³ https://www.acer.europa.eu/Official_documents/Acts_of_the_Agency/Opinions/Opinions/ACER%20Opinion%2022-2019%20on%20the%20calculation%20values%20of%20CO2%20emission%20limits.pdf

⁶⁴ Note that the term ‘generation unit’ as defined in Article 2(71) of the Electricity Regulation is used in the ACER opinion. For the purposes of applying the carbon emissions limits to the CM, and in line with section 5(a) of the ACER opinion, we have read the term ‘generation unit’ as equivalent to the term ‘*generating unit*’ as defined in Regulation 2(1) of the Principal Regulations so that the carbon emissions limits are applied at component level to fossil fuel components.

implement GB-specific arrangements that vary from the opinion where there a strong rationale to do so.

To account for the ACER opinion, the Government is now consulting on amendments to the Rules in respect of arrangements relating to the reporting, verification and monitoring of carbon emissions.

2.5.2 Implementation in respect of existing capacity

As stated in the Government consultation, the Government is considering whether to apply the carbon emission limits from 1 October 2024 or 5 July 2025 to existing capacity. A decision will be announced in due course.

Irrespective of whether the decision is to apply the limits from 1 October 2024 or 5 July 2025, as both dates fall within the 2024/25 delivery year, we will need to amend the Rules to require existing capacity containing a Fossil Fuel Component which is prequalifying for an auction for the 2024/2025 delivery year, to demonstrate compliance from the chosen date with the carbon emission limits in Article 22(4)(b) of the Electricity Regulation (the Fossil Fuel Emissions Limit⁶⁵ and the “yearly limit” elaborated in Section 2.5.4 below) by submitting a Fossil Fuel Emissions Declaration (exhibit ZA to the Rules). This would build upon changes to the Rules already enacted in respect of New Build CMUs and Unproven DSR CMUs by the Capacity Market (Amendment) (No. 5) Rules 2019.

We propose that an applicant for a CMU which contains a Fossil Fuel Component will be required to submit during prequalification a Fossil Fuel Emissions Declaration to the Delivery Body⁶⁶ listing all the components in that CMU, with a calculation of emissions against each. This approach is more granular than the requirement currently in the Rules which requires CMUs comprising a Fossil Fuel Component to declare that the CMU as a whole complies with the emissions limit. The proposed approach of requiring a calculation against each component is in line with the ACER opinion and is necessary to enable the proper application of the emissions calculation (see further detail in Section 2.5.3 below), particularly in relation to DSR CMUs which can have a variety of different generating technologies present in any one CMU.

In line with the position already in the Rules, no declaration will be required for CMUs that do not contain a Fossil Fuel Component. An applicant’s decision not to submit a Fossil Fuel Emissions Declaration will be interpreted as a declaration that the relevant component does not produce electricity by using fossil fuels. The Delivery Body will in most cases be able to check whether a Fossil Fuel Emissions Declaration is required based on the declared Generating Technology Class (GTC) and fuel type. Any CMUs that should have submitted a Fossil Fuel Emissions Declaration but fail to do so will not prequalify. Any capacity agreement awarded as a result of a prequalification application which contains false or inaccurate information about fuel or technology type, in an attempt to circumvent the need for a Fossil Fuel Emissions Declaration, may be subject to termination as already provided for in the Rules⁶⁷.

2.5.3 Reporting and verification of carbon emissions

As well as providing a Fossil Fuel Emissions Declaration detailing each component, we propose to build upon the framework already established in the Rules, such as Rule 3.4.10 and

⁶⁵ This is defined in Rule 1.2.1 to align with Article 22(4) of the Regulation to mean “550g of carbon dioxide of Fossil Fuel origin per kWh of electricity generated”

⁶⁶ The Delivery Body for the CM is the ‘competent national body’ described in the ACER opinion.

⁶⁷ As per Rules 3.12.1, 6.10.1(o) and 6.10.3A(ca). These were also described in section 5.1 of the Government consultation: <https://www.gov.uk/government/consultations/capacity-market-carbon-dioxide-emissions-limits>.

Exhibit ZA, to require more information to be submitted to support the verification of compliance with the emissions limits and in line with the ACER opinion. We propose that the amount of carbon emissions be reported and calculated by applicants in line with the approaches elaborated in the ACER opinion and described in Annexes B to E to this consultation document. Specifically, an applicant must declare:

- The specific emissions of the generating capacity, to demonstrate compliance with the Fossil Fuel Emissions Limit (defined in the Rules to mean 550g of CO₂ of Fossil Fuel origin per kWh), which must be calculated according to the formula at Annex B, supported by the calculation and reference material in Annexes C and D;
- The ‘yearly emissions’ of the generating capacity relative to the limit of 350kg of CO₂ per year per installed kW limit, which must be calculated according to the formula at Annex E, in instances where the CMU seeks to rely on this allowance (see Section 2.5.4 below); and
- the supporting information in the table at Annex F of this consultation document.

Given the current uncertainty surrounding the future participation of the UK in the EU ETS, the Government does not intend to require or allow Fossil Fuel Components that are subject to the EU ETS to use the emission factor for CO₂ in the most recent annual EU ETS emission report when calculating their emissions.

For refurbishing units, the calculation of the specific emissions will need to refer to the CMU after refurbishment. We do not intend to allow refurbishing units to take advantage of the ‘yearly emissions’ limit, as historical emissions would not be an accurate representation of future emissions for these units.

The Government is also proposing, in line with the ACER opinion, to require that the calculations referenced above must be certified by an Independent⁶⁸ verifier.

The Government intends to apply an exemption (as provided for in the ACER opinion) so that a Fossil Fuel Component which is below 1 MW of installed capacity⁶⁹ and uses a “commercial standard fuel”⁷⁰ is not required to have its emissions calculation verified by an Independent verifier. Instead, applicants will need to make a self-declaration, similar to the one currently contained in the Fossil Fuel Emissions Declaration, confirming that that component will not exceed the carbon emissions limits. This is to avoid placing an excessive administrative burden on CMUs which might aggregate a large number of sub-1MW permitted on-site generating units.

The proposed exemption threshold of 1MW is lower than the 5MW proposed at Section 8 in the ACER opinion. However, the Government believes it is appropriate for a lower threshold to be set as we are aware that there are a significant number of fossil fuelled generation CMUs in GB comprising components with installed capacity between 1 MW and 5 MW. Ensuring these generators are required to verify their carbon emissions calculations will help ensure

⁶⁸ The verifier must meet the requirements specified in the definition of “Independent” in Rule 1.2.1 and the scopes of accreditation for any such verifier must include the activities described in groups 1(a) and/or 1(b) of Annex I of Regulation (EU) 2018/2067 (<https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32018R2067&from=EN>).

⁶⁹ The ACER opinion describes “*installed capacity*” to mean “*nominal capacity of the generation unit, in year y, expressed in MW*”. For the purposes of applying the carbon emissions limit to the CM we think that this definition is appropriate, where a ‘generation unit’ is equivalent to a ‘generating unit’ in the CM. For the avoidance of doubt, “installed capacity” is not “connected capacity”.

⁷⁰ Defined in Article 3(32) of EU Regulation 2018/2066 to mean “*the internationally standardised commercial fuels that exhibit a 95 % confidence interval of not more than 1 % for their specified calorific value, including gas oil, light fuel oil, gasoline, lamp oil, kerosene, ethane, propane, butane, jet kerosene (jet A1 or jet A), jet gasoline (jet B) and aviation gasoline (AvGas)*”.

confidence in the robustness of the mechanism, which is important in the context of Net Zero⁷¹ and given the absence of any ex-post monitoring of emissions, as indicated below in Section 2.5.6.

The Government proposes that an applicant, in relation to future prequalification applications, will be able to rely on earlier declarations submitted in relation its CMU if the CMU consists of the same Fossil Fuel Components as previously declared and provided that no material change (such as change of engine, nominal capacity or fuel mix) has occurred that would warrant a new calculation. If, however, the applicant seeks to rely on the “yearly limit” as outlined in Section 2.5.4 below, then a new declaration would be required for each annual prequalification application. DSR aggregators which submit a Fossil Fuel Emissions Declaration will, in subsequent years, be required to submit a new Fossil Fuels Emissions Declaration listing new components or components that have undergone material change since the previous declaration but will be able to rely on previous declarations for components that have not changed.

The Government proposes that different Rules will apply to Unproven DSR, given it is not able to confirm all components at prequalification stage. An applicant will be required to declare that, in the event it recruits Fossil Fuel Components, it commits to recruit only components that comply with the carbon emissions limits. Once the components are confirmed, an updated Fossil Fuel Emissions Declaration will need to be submitted as part of the Notifying DSR Components milestone⁷² in respect of each Fossil Fuel Component.

2.5.4 Generating units wishing to take advantage of the 350kg CO₂ per installed kW limit allowance

Article 22(4)(b) of the Electricity Regulation allows Existing CMUs that exceed the 550g CO₂ per kWh carbon emissions limit to continue participating in the CM if they limit their total emissions to 350kg of CO₂ on average per year per installed kW limit (described as “the yearly limit” in this section).

In respect of applicants who intend to take advantage of this allowance, additional information (indicated in the table at Annex F to this consultation document) will need to be submitted during prequalification, including a calculation of annual emissions relative to the yearly limit. As noted in Section 2.5.3, this calculation will need to be certified by an Independent Verifier.

The Government intends to require that the yearly limit is calculated on the basis of emissions across the twelve months (one year) before the relevant prequalification window, rather than the average of the three preceding years proposed in the ACER opinion. The twelve months would be those preceding the first day of the relevant Prequalification Window, with the exclusion of any period before 5 July 2019 (when Article 22(4) of the Electricity Regulation became applicable). The Government’s view is that twelve months prior to the Prequalification Window would be a more appropriate basis for providing an indication of the likely emissions in future as it reflects the commercial behaviour of the CMU at a point in time closer to prequalification and the delivery year.

For each new prequalification, applicants wishing to take advantage of the yearly limit will have to submit a new declaration and a new calculation verified by an Independent Verifier in respect of the emissions in the previous twelve months, and they will not be able to rely on a declaration from a previous year. If the documentation shows that the CMU exceeded the 350kg CO₂ per installed kW limit in the previous twelve months, it will not prequalify.

⁷¹ <https://www.theccc.org.uk/publication/net-zero-the-uks-contribution-to-stopping-global-warming/>

⁷² Rule 8.3.3A

2.5.5 Controls and penalties regime

The Government considers the reporting and verification mechanism described above, which has been derived from the ACER opinion, to be robust and effective in ensuring compliance with the emission limits. The requirement to independently verify the calculation, in particular, makes non-compliance unlikely. This will be taken into account in the publication of the Government response to the earlier consultation on the emissions limits⁷³, which considered how best to deal with false or inaccurate Fossil Fuel Emissions Declarations, including whether a termination fee needed to be introduced.

2.5.6 Monitoring regime (ex-post validation)

At this point in time the Government is not proposing to establish a monitoring regime over and above the measures already set out in this section. The ACER opinion proposes an ex-post validation process for certain categories of generation units (the equivalent of generating units in the CM) whose characteristics might change in time. However, as indicated in Table 3 below, we do not believe it is necessary to implement these arrangements. This will be kept under review.

Table 3. A summary of categories of generating unit identified in the ACER opinion as being the subject of an ex-post monitoring regime, alongside our position on each category.

Category of generating unit identified in the ACER opinion as being the subject of an ex-post monitoring regime	Government position
a) Generation units emission the factor(s) of which might significantly change in time (generation units using mixed fuels, waste-to-energy generation units, generation units in which CO ₂ is captured and transferred ⁷⁴);	There are currently no generating units participating in the CM using mixed fuels or in which CO ₂ is captured and transferred. Our position is that waste-to-energy units will not be in scope of the emission limits in the CM. See section 2.5.7 below for our proposals in respect of waste to energy plants.
b) Generation units that started commercial production before 4 July 2019 and have less than one year of commercial production at the time of pre-qualification (for the purposes of the validation of the annual emissions);	The Government intends to base the eligibility of generating units to take part in the CM on yearly emissions being lower than 350kg per installed kW solely on the twelve months prior to the opening of the prequalification window, rather than the three full years. We do not expect there to be generating units built before 4 July 2019 without at least twelve months of commercial production ahead of prequalification for the 2021 CM auction and therefore there is no need to monitor such units.
c) Generation units that, based on the provisions of	The Government does not intend to allow non-compliant units to participate in the CM based on a compliance action

⁷³ See section 5. <https://www.gov.uk/government/consultations/capacity-market-carbon-dioxide-emissions-limits>

⁷⁴ To any of the installations described in point (a) and (b) of the first subparagraph of Article 49 of Commission Implementing Regulation 2018/2066.

Category of generating unit identified in the ACER opinion as being the subject of an ex-post monitoring regime	Government position
point (a) in Section 6 of this Opinion, have participated in a capacity mechanism (validation of the Specific Emissions);	plan. In order for a CMU that is non-compliant at prequalification to become compliant before delivery, the installation of a more efficient engine or a change of fuel type would be required. Under the current Rules, a CMU that wishes to operate such changes would need to pre-qualify as a refurbishing CMU, and the Fossil Fuel Emissions Declaration from such a CMU would contain a calculation of the emissions based on the nominal capacity and fuel type of the refurbished CMU, which would need to be within the carbon emission limit. Introducing an alternative mechanism to achieve the same objective would be unnecessary.
d) Generation units that, based on the provisions of point (b) in Section 6 of this Opinion, have participated in a strategic reserve mechanism (validation of the Annual Emissions).	GB does not maintain a strategic reserve mechanism.

In conclusion the Government does not believe it necessary to establish an ex-post validation process such as the one recommended in section 9 of the ACER opinion.

2.5.7 Application of the limits to waste to energy plants

The definition of “fossil fuel” for the purposes of the CM, as incorporated by the Capacity Market Amendment (No. 5) Rules 2019, was based upon the definition of “fossil fuel” in section 61 of the Energy Act 2013⁷⁵. As this definition does not include *waste*, the CM Rules do not capture generating capacity in a CMU which is new build waste-to-energy plant within their scope (unless any waste falls within sub-paragraph (g) of the definition of “fossil fuel”).

Given that waste has not been considered a fossil fuel for the purposes of UK legislation to date, and to avoid potentially interfering with the management of waste in accordance with the waste hierarchy, the Government is, at this stage, minded to diverge from the ACER opinion, which assumes that reporting, verification and monitoring of the emissions limits will be relevant to waste to energy plants, and continue to consider energy from waste plants outside of the scope of the CM emissions limits.

2.5.8 Application of the limits to interconnectors and batteries

Interconnectors do not come within the definition of ‘generating capacity’ anticipated by Article 22(4) of the Electricity Regulation and therefore the carbon emission limits do not apply to

⁷⁵ <http://www.legislation.gov.uk/ukpga/2013/32/section/61/enacted>

them. Batteries are ‘generating capacity’ but do not produce electricity using fossil fuels, and so the carbon emission limits do not apply to them.

However, in line with the ACER opinion, we propose that in respect of a Generating CMU in a storage generating technology class which consists of a storage unit directly connected (either physically through private wires or through Over The Counter contracts) to a generation unit, an applicant will be required to provide evidence of the CMU’s compliance with the emission limits by submitting a Fossil Fuel Emissions Declaration which will need to include a calculation (in line with the proposals in Section 2.5.3 above) of the emissions for each of the generating units which produces electricity from fossil fuels.

2.5.9 Application of the limits to Combined Heat and Power plants (cogeneration)

For cogeneration units such as Combined Heat and Power (CHP) plants, the net electrical efficiency should refer to the generation unit producing only electricity at full load. Where due to the generation unit’s configuration production of electricity alone is not possible (e.g. backpressure steam turbines) the heat produced under electricity full load operation mode should not be taken into account.

The Government considers it likely that most CHP generators in GB will be compliant with the limits when the emissions are calculated in accordance with this formula and therefore expects they will be able to continue taking part in the CM after the date.

Question 20
Do you agree with the proposed reporting and verification mechanism, outlined in this section? Please set out your reasons.
Question 21
Do you have any views on the proposal that applicants in respect of Unproven DSR will be allowed to declare in their prequalification applications that they commit to recruiting only components that comply with the emissions limits, and to provide an updated declaration as part of the notifying DSR components milestone?
Question 22
What are your views on the proposal in section 2.5.4 for requiring reporting for CMUs which seek to take advantage of the yearly limit?
Question 23
What are your views on the proposal in section 2.5.6 for not establishing a monitoring regime as advised in the ACER opinion?
Question 24
What are your views on the proposal in section 2.5.7 for not applying the emissions limits to waste to energy plants?
Question 25
Do you have any further comments or any suggestions on how the proposed emissions limits reporting and verification mechanism could be improved?

2.6 Long-term STOR

As stated in the Decision, the market circumstances for participants in the Long-term STOR market have changed since the exclusion of capacity with Long-term STOR contracts was implemented in the CM in 2014, and therefore we are reviewing whether it is appropriate to allow their eligibility in future capacity auctions.

Long-term STOR contracts pay contract holders both an availability payment for being available during certain windows of time and a utilisation payment for the electricity they are called on to deliver during these windows. In 2014 when the CM was first implemented, Long-term STOR contracts were predicted to pay out high revenues, particularly through the utilisation payments. Because of this, their inclusion in the CM would likely have led to windfall profits. On the basis of the evidence available at the time, we therefore took steps to exclude plants with Long-term STOR contracts from the CM to prevent the risk of windfall profits arising, which would be contrary to paragraphs 228 and 230 of the European Commission's Guidelines on State aid for environmental protection and energy 2014⁷⁶.

We have reviewed the market circumstances and believe that plants with Long-term STOR contracts are now unlikely to receive windfall profits from CM participation. The utilisation of Long-term STOR contracts by NG: ESO has been lower than expected (for example, in 18/19 Long-term STOR contracts were not utilised at all). The Long-term STOR market is therefore unlikely to yield high utilisation revenues and overall revenues from the market are closer to those expected from other balancing and ancillary markets that CM participants are allowed to access. We therefore propose that Regulation 18 of the Principal Regulations is revoked so that units with contracts for Long-term STOR should be allowed to participate in the CM for all auctions for which prequalification opens after January 2020.

Question 26

Do you agree that it is appropriate to remove the exclusion on Long-term STOR? What would you expect the impacts of removing the exclusion on Long-term STOR to be? Are there any unintended consequences that may arise from removing the exclusion?

⁷⁶ <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52014XC0628%2801%29>

2.7 Fraud and error

The Government believes that it is in the interests of all participants in the CM to ensure that the most effective use is made of consumers' money and that the CM's reputation is upheld through quickly identifying and correcting fraud and error.

The CM is an important tool for delivering security of suppliers are required to enter into capacity agreements and deliver capacity obligations in good faith. Whilst we believe that the vast majority of providers participate appropriately, there is a need to ensure we minimise the risk of fraud occurring and any negative impact on the reputation of the CM. Reducing the risk of fraud occurring will also reduce the impact it may have on consumers by minimising the potential for fraudulent payments.

The instances of reported errors in the CM are very low and, although we continue to work with the CM's delivery partners, the Delivery Body and Settlement Body, to minimise both the risk of fraud occurring, and the likelihood of errors being made in the administration of the CM, we believe that the CM is running as intended.

Should suspected fraudulent behaviour be identified, the Delivery Body or Settlement Body will refer the suspected fraud to the most appropriate agency and support prosecution, sanctions and the recovery of money obtained fraudulently.

We want to continue to minimise the risk of errors occurring and maximise the opportunity to identify and rectify them at an early stage. We are therefore looking at ways to increase the opportunities for the CM's delivery partners to identify instances of fraud and errors.

To support this objective, we propose requiring the Delivery Body to add more categories of information provided by prequalification applicants to the CM Register. Additional information on the CM Register will allow the Settlement Body to check for discrepancies against public sources of information. This will increase transparency about the persons who have effective control of prequalification applicants and capacity providers.

The Government believes that these changes will improve the identification of fraudulent activity in two ways: it will make it easier for all delivery partners to have visibility of who is involved in the CM and, should there be discrepancies between the CM Register and other public data sources, delivery partners will be able to review whether this is legitimate, the result of an error or an indication of possible fraud. More specifically this will provide the Settlement Body easier access to the information, enabling more effective verification against publicly available versions of the information.

The Government believes persons that act as agents for applicants and capacity providers can and do provide a valuable service. In order to support our objective of minimising the risk of fraud by ensuring greater transparency in the CM we propose to require the Delivery Body to record agents' details on the CM Register

The Government proposes requiring the Delivery Body to add the following information that is currently provided by prequalification applicants to the CM Register:

- the names of two directors of the applicant and their registered office (these are currently required to be submitted as part of the Prequalification Certificate⁷⁷ under Rule 3.12.3); and
- the name of any agent nominated by the applicant (this is currently submitted as part of the Agent Nomination Form⁷⁸ under Rule 3.3.5).

⁷⁷ Exhibit A to the Rules.

⁷⁸ Exhibit E to the Rules.

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To ensure parity between all participants in the CM, we are also minded to amend the Rules to require that these two categories of information are recorded on the Register for capacity providers who hold capacity agreements that have not expired or been terminated when these Rules changes come into force.

Question 27

Do you agree with our proposals to require additional information to be added to the CM Register? Do you agree this will advance our fraud and error objectives? If not, can you please provide reasons?

Question 28

Do you agree with our proposal to require that the same information requirements should apply to capacity providers who already hold capacity agreements?

2.8 Minor corrections to the Rules

We have identified some minor and technical drafting issues in the Rules, which we propose are corrected so that the Rules can continue to operate as intended.

2.8.1 Exhibit D

We propose amending Exhibit D of the Rules (form of applicant declaration) to align with changes made to the date format for all *Director* signatures in the other Exhibits to the Rules⁷⁹ so dates are required for Despatch Controllers' signatures as they are for Legal Owner signatures. To address this, we propose the following amendments:

- in respect of each of the Despatch Controllers' signatures, insertion of a date field saying "DATED: [DD/MM/YYYY]"; and
- clarify the numbering of the footnotes so that the footnote number referenced at the end of each date field is to the text saying "*Signatures need to be dated: The date for each signature is to be provided on the day in which the relevant director signs, in the format: day, month, year (dd/mm/yyyy).*"

2.8.2 Rule 5.5.16 – related to credit cover

We propose amending Rule 5.5.16 because at present it requires applicant credit cover to be held in respect of Refurbishing CMUs, which is not the policy intention. Applicants for prequalification in respect of Refurbishing CMUs are not required to post applicant credit cover so we propose the following amendments:

- remove the words "Refurbishing CMU" from the text at the start of Rule 5.5.16 and from Rule 5.5.16(a) and 5.5.16(b).

Question 29
Do you agree with these proposed corrections?

⁷⁹ These amendments were made to the Rules in 2019 by Ofgem. See the [informal consolidation of the Rules of July 2019](#)

Annex A - Agreement lengths legislative framework

The Principal Regulations

Regulation 11(1)(e) – the meaning of auction parameters

“(1) “Auction parameters”, in relation to a capacity auction, means, subject to paragraph (2), such of the following as are determined by the Secretary of State for that capacity auction under regulation 12 or 29(8)—

[...]

(e) the 15-year minimum £/kW threshold and 3 year minimum £/kW threshold;”

Regulation 11(3) – the CAPEX thresholds

“(3) In paragraph (1)—

“15 year minimum £/kW threshold” means the minimum amount of capital expenditure per kilowatt of de-rated capacity which a bidder must commit to spending on a generating CMU to be eligible to bid for a capacity obligation for a period of more than 3 and up to 15 delivery years;

“3 year minimum £/kW threshold” means the minimum amount of capital expenditure per kilowatt of de-rated capacity which a bidder must commit to spending on a generating CMU to be eligible to bid for a capacity obligation for a period of 2 or 3 delivery years;”

The Rules

Rule 1.2 – definitions

Term	Definition
<p>“Capital Expenditure</p>	<p>means the capital expenditure as determined under International Accounting Standard 16:</p> <p>(a) for a Generating CMU, on that CMU; or</p> <p>(b) for an Interconnector CMU, on that CMU together with the Non-GB Part”</p>
<p>“Extended Years Criteria</p>	<p>has the meaning given in Rules 8.3.6B and 8.3.6C”</p>

Term	Definition
<p>“Maximum Obligation Period</p>	<p>means, in respect of the T-4 Auction:</p> <p>(a) fifteen Delivery Years, including the first Delivery Year for which the Capacity Agreement is awarded, for a Prospective Generating CMU:</p> <ul style="list-style-type: none"> (i) for which an Applicant has stated pursuant to Rule 3.7.2(a), that to the best of its knowledge and belief the CMU will meet the Extended Years Criteria when completed; (ii) for which an Applicant has stated pursuant to Rule 3.7.2(d), that Qualifying £/kW Capital Expenditure is expected to equal or exceed the Fifteen Year Minimum £/kW Threshold; and (iii) in respect of which none of the Generating Units comprising the Prospective Generating CMU are already the subject of a Capacity Agreement which has not been terminated; <p>(b) three Delivery Years for a Prospective Generating CMU for which an Applicant has stated pursuant to Rule 3.7.2(d) that Qualifying £/kW Capital Expenditure is expected to equal or exceed the Three Year Minimum £/kW Threshold and to be lower than the Fifteen Year Minimum £/kW Threshold, including the first Delivery Year for which the Capacity Agreement is awarded; and</p> <p>(c) for all other CMUs (including Prospective Generating CMUs not included in (a) or (b) above), one Delivery Year, and, in respect of the T-1 Auction, means one Delivery Year for all CMUs, and, in relation to where Rule 5.16.2 applies to a CMU, means one Delivery Year.”</p>
<p>“Total Project Spend</p>	<p>means, with respect to a New Build CMU, the total amount of Capital Expenditure (excluding contingency) incurred, or expected in the reasonable opinion of the Applicant to be incurred (either by the Applicant or another person) with respect to the CMU (or, in the</p>

Term	Definition
	<p>case of an Interconnector CMU, the CMU together with the Non-GB Part) between the date which is 77 months prior to the commencement of the first Delivery Year to which the Application relates and the commencement of the first Delivery Year to which the Application relates; or</p> <p>means, with respect to a Refurbishing CMU, the total amount of Capital Expenditure (excluding contingency) incurred, or expected in the reasonable opinion of the Applicant to be incurred.”</p>
<p>“Qualifying £/kW Capital Expenditure</p>	<p>means, with respect to a New Build CMU which is a Generating CMU or a Refurbishing CMU which is a Generating CMU, the Total Project Spend divided by the De-rated Capacity of the Generating CMU that is expected in the reasonable opinion of the Applicant to result from the Capital Expenditure comprising the Total Project Spend.”</p>

Rule 8.3.6 - Evidence of Total Project Spend

Where a Prospective Generating CMU has been awarded a Capacity Agreement with a duration exceeding one Delivery Year:

(a) the relevant Capacity Provider must provide the Delivery Body, no later than three months after the start of the first Delivery Year (or on the date that the Capacity Agreement takes effect in accordance with Rule 6.7.4(a)(ii) or Rule 6.8.5), with a certificate from an Independent Technical Expert stating the Total Project Spend incurred, and confirming that it is satisfied, on the basis of evidence reviewed, that the Total Project Spend incurred divided by the De-Rated Capacity of the CMU is:

- (i) less than the Three Year Minimum £/kW Threshold; or
- (ii) equal to or greater than Three Year Minimum £/kW Threshold and less than the Fifteen Year Minimum £/kW Threshold; or
- (iii) equal to or greater than the Fifteen Year Minimum £/kW Threshold;

(aa) if the CMU is a refurbishing CMU, the relevant Capacity Provider must provide the Delivery Body, no later than three months after the start of the first Delivery Year, with a certificate from an Independent Technical Expert confirming that it is satisfied, on the basis of evidence reviewed, that the Total Project Spend incurred:

- (i) was not declared under Rule 3.7.2(c) in respect of any application for prequalification by a CMU which subsequently gained a Capacity Agreement in respect of a Refurbishing CMU, and not the associated Pre-Refurbishment CMU, (of any duration) prior to the current Capacity Agreement;

(ii) was previously so declared but which a certificate required by this Rule 8.3.6 demonstrates was not incurred; or

(iii) was previously so declared but in respect of a Capacity Agreement which has been terminated in accordance with Rule 6.10.2(e);

(b) if the Maximum Obligation Period consistent with the amount of Total Project Spend so certified is shorter than the duration of the Capacity Agreement specified in the Capacity Market Register, the Delivery Body must update the Capacity Market Register so that the duration of the Capacity Agreement is equal to the Maximum Obligation Period for such Total Project Spend; and

(c) if the relevant Capacity Provider fails to provide the Delivery Body with a certificate in accordance with Rule 8.3.6(a) and if applicable Rule 8.3.6(aa), the duration of the Capacity Agreement will be reduced to one Delivery Year and the Delivery Body must update the Capacity Market Register accordingly.

Rule 8.3.6A – Meeting the Extended Years Criteria

(a) This Rule 8.3.6A applies where a Prospective Generating CMU has been awarded a Capacity Agreement with a duration of more than three Delivery Years.

(b) Unless the requirements of paragraph (c) are satisfied, at the start of the first Delivery Year the relevant Capacity Provider must provide to the Delivery Body a certificate from an Independent Technical Expert, confirming that the Independent Technical Expert is satisfied that the CMU meets the Extended Years Criteria.

(c) The requirements of this paragraph are that:

(i) at any time prior to the start of the first Delivery Year the relevant Capacity Provider provides to the Delivery Body a certificate from an Independent Technical Expert, confirming that the Independent Technical Expert is satisfied that the CMU meets the Extended Years Criteria, or that they will be met if certain conditions are fulfilled;

(ii) at the start of the first Delivery Year (or on the date that the Capacity Agreement takes effect in accordance with Rule 6.7.4(a)(ii) or Rule 6.8.5), that Capacity Provider provides to the Delivery Body a certificate from an Independent Technical Expert, confirming that the Independent Technical Expert is satisfied that, for the purposes of those criteria, there have been no material changes since the certificate provided under sub-paragraph (i) and that any conditions specified in the certificate have been fulfilled; and

(iii) the certificates provided under sub-paragraphs (i) and (ii) are so far as possible issued by the same Independent Technical Expert or, if not, by a member of the same firm (where that firm is still providing services).

(d) If the requirements of paragraph (b) or (c) are satisfied, but Rule 8.3.6(b) or (c) applies, the duration of the Capacity Agreement is reduced, and the Capacity Market Register must be updated in accordance with Rule 8.3.6(b) or (c) as applicable.

(e) If the requirements of neither paragraph (b) nor paragraph (c) are satisfied, the duration of the Capacity Agreement is reduced to:

(i) three years, where a certificate is provided which satisfies Rule 8.3.6(a)(ii) or (iii); or

(ii) one year, where a certificate is provided which satisfies Rule 8.3.6(a)(i) or Rule 8.3.6(c) applies.

(f) If paragraph (e) applies, the Delivery Body must update as applicable the duration of the Capacity Agreement in the Capacity Market Register.

Rule 8.3.6B – Definition of Extended Years Criteria

“Extended Years Criteria” means the requirements, in respect of a Prospective Generating CMU, that:

- (a) for each Generating Unit of the CMU, the Core Generating Plant consists of:
 - (i) new Apparatus;
 - (ii) both new and rebuilt Apparatus, where at least one complete generator or turbine is new;
or
 - (iii) rebuilt and/or previously used Apparatus, provided that the Generating Unit:
 - (aa) has not been used, or been available for use, for the generation and Export of electricity in Great Britain at any time in the three years preceding the Application; and
 - (bb) forms part of a CMU which is installed on a site that has not previously been used for that CMU and benefits from a new Grid or Distribution Connection Agreement;
- (b) each Generating Unit of the CMU can, with routine maintenance, be expected to remain capable of operation for at least fifteen years beginning with the first Delivery Year for which the Capacity Agreement is awarded;
- (c) where the CMU is a combustion installation covered by the BREF, the introductory note to a permit issued in respect of that CMU by the Environment Agency, Natural Resources Wales or the Scottish Environment Protection Agency includes the statement prescribed by Rule 8.3.6C(b); and
- (d) if paragraph (c) does not apply, and the Core Generating Plant of any Generating Unit of the CMU does not comprise all new Apparatus:
 - (i) where the CMU is a combustion installation that is not covered by the BREF, the CMU meets the emissions and energy efficiency standards that could be expected of a new plant of the same type, size and energy source installed in Great Britain; or
 - (ii) where the CMU is not a combustion installation, the CMU meets the energy efficiency standards that could be expected of a new plant of the same type, size and energy source installed at that location”.

Rule 8.3.6C – Definition of Extended Years Criteria: supplementary

For the purposes of Rule 8.3.6B:

- (a) “BREF” means the most recent version of the “Best Available Techniques Reference Document for Large Combustion Plants” issued by the European Commission pursuant to the Industrial Emissions Directive 2010 [Directive 2010/75/EU]; and
- (b) the statement referred to in Rule 8.3.6B(c) is a statement to the effect that the CMU will comply with those best available techniques levels, in relation to emissions and energy efficiency, that are:
 - (i) applicable to a new combustion installation of the same type, size and energy source;
and
 - (ii) defined by the version of the BREF that has effect at the time of issue of the permit.”

Annex B - Specific emissions of the generation capacity

The *specific emissions* of the generation capacity should be calculated, in g CO₂/kWh_e, with the following formula, derived from the EU-ETS standard methodology⁸⁰:

$$\text{specific emissions} = \frac{0.0036 \cdot (1 - t_{\text{CO}_2}) \sum_f s_f \cdot \text{EF}_{f,\text{CO}_2}}{\eta_{\text{des}}} = \frac{[\text{g CO}_2]}{[\text{kWh}_e]} \quad (1)$$

Where:

Value	Specification
f	Index of fuel
s _f	Share [%] of fuel <i>f</i> over the total fuel input, as further described at Annex C.
t _{CO₂}	Transferred CO ₂ factor [%], expressed as the share of CO ₂ captured and transferred over the total CO ₂ emitted.
0,0036	Conversion factor (1 kWh equal to 0.0036 GJ).
η _{des}	Design efficiency, defined as the ratio between the net electricity output and the fuel energy input (on the basis of its net calorific value) of a generation unit operating at nominal capacity, calculated under the relevant standards; the most recent performance measurement available should be used. For cogeneration units, the net electrical efficiency should refer to the generation unit producing only electricity at full load.
EF _{f,CO₂}	Emission factor for CO ₂ expressed in [kg CO ₂ /TJ] determined as described in Annex D

⁸⁰ OJ L181, 12.7.2012, p.41

Annex C - Fuel share calculation

The share of each fuel should be calculated as the energy input of that fuel over the energy input of all fuels used by the generation unit to produce electricity. The energy input of each fuel should be calculated by using the total quantity (e.g. in t or Nm³) and the Net Calorific Value of the fuel (e.g. in TJ/t or TJ/Nm³ respectively). The fuel shares should be calculated over the period of a calendar year according to the following formula:

$$S_F = \frac{\text{quantity}_F \cdot \text{NCV}_F}{\sum_f \text{quantity}_f \cdot \text{NCV}_f} = [\%] \quad (2)$$

Where:

Value	Specification
F	The fuel for which the share is calculated
f	Index of fuel used by the generation unit (mixed fuels should be considered as a single fuel)
NCV _f	Net Calorific Value of fuel <i>f</i> expressed in [TJ/t] or [TJ/Nm ³] or other units (see Annex D)
quantity _f	Quantity of fuel <i>f</i> , used in a calendar year and expressed in [t] or [Nm ³] or other units.

Annex D - Standard Emission Factors of fuels

The emission factors below refer to the latest version of the 2006 IPCC Guidelines for National Greenhouse Gas Inventories.

Emission factors for biofuels and biomass fuels, as well as the emission factor for the biomass fraction of municipal wastes, should be considered equal to 0.

Fuel		EFCO ₂ (kg CO ₂ /TJ)	NCV (TJ/Gg)
Crude oil		73.300	42,3
Orimulsion		77.000	27,5
Natural gas liquids		64.200	44,2
Motor gasoline		69.300	44,3
Kerosene (other than jet kerosene)		71.900	43,8
Shale oil		73.300	38,1
Gas/diesel oil		74.100	43,0
Residual fuel oil		77.400	40,4
Liquefied petroleum gases		63.100	47,3
Ethane		61.600	46,4
Naphtha		73.300	44,5
Bitumen		80.700	40,2
Lubricants		73.300	40,2
Petroleum coke		97.500	32,5
Refinery feedstocks		73.300	43,0
Other Oil	Refinery gas	57.600	49,5
	Paraffin waxes	73.300	40,2
	White spirit and SBP	73.300	40,2
	Other petroleum products	73.300	40,2
Anthracite		98.300	26,7
Coking coal		94.600	28,2
Other bituminous coal		94.600	25,8
Sub-bituminous		99.610	18,9
Lignite		101.000	11,9
Oil shale and tar sands		107.000	8,9
Brown Coal Briquettes		97 500	20,7
Patent fuel		97.500	20,7
Coke	Coke oven coke and lignite coke	107.000	28,2
	Gas coke	107.000	28,2
Coal tar		80.700	28,0
Derived Gases	Gas works gas	44.400	38,7

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Fuel		EFCO ₂ (kg CO ₂ /TJ)	NCV (TJ/Gg)
	Coke oven gas	44.400	38,7
	Blast furnace gas	260.000	2,47
	Oxygen steel furnace gas	182.000	7,06
Natural gas		56.100	48,0
Municipal wastes (non-biomass fraction)		91.700	10
Industrial wastes		143.00	NA
Peat		106.000	9,76
Solid Biofuels	Wood/wood waste	0	15,6
	Other primary solid biomass	0	11,6
	Charcoal	0	29,5
Liquid Biofuels	Bio-gasoline	0	27,0
	Biodiesels	0	27,0
	Other liquid biofuels	0	27,4
Gas Biomass	Landfill gas	0	50,4
	Sludge gas	0	50,4
	Other biogas	0	50,4

Annex E - Yearly emissions of the generation capacity

Yearly emissions of the generation capacity should be calculated with the following formula:

$$\text{annual emissions} = \frac{\text{specific emissions} \cdot \text{electricity production}}{\text{installed capacity}} = \frac{[\text{kg CO}_2]}{[\text{kWe}]} \quad (3)$$

Where:

Value	Specification
Specific emissions	Specific emissions of the generation capacity [g CO ₂ /kWh], as defined in Annex B, calculated in reference to the twelve months prior to prequalification.
Electricity production	Annual electricity production: total electricity injected into the total system by the generation unit in the twelve months prior to prequalification, expressed in GWh.
Installed capacity	Nominal capacity of the generation unit, in the twelve months prior to prequalification, expressed in MWe.

Annex F - Documentation

As part of the pre-qualification process of the capacity mechanism, capacity providers should submit an ex-ante calculation of the *specific emission* supported by a document containing the following data:

Data	Examples of data source	Notes
Name of company	EU ETS annual emission reporting, connection agreement.	Already required at prequalification
Contact person		Already required at prequalification
Generation unit operator	Connection agreement.	Already required at prequalification
Name of generation unit	Connection agreement.	Already required at prequalification
Connection agreement ID	Connection agreement.	Already required at prequalification
Nominal capacity	Connection agreement, power plant commissioning contract, historic power plant <i>testing, information from other technical sources.</i>	Already required at prequalification
Design efficiency	Power plant commissioning contract, historic power plant testing, information from other technical sources.	New requirement
Type of fuel(s)	Connection agreement, power plant commissioning contract, historic power plant testing, information from other technical sources.	Already required at prequalification
Emission factor(s)	Annex I (IPCC 2006 GL), EU ETS annual emission reporting, purchase receipts,	New requirement

Data	Examples of data source	Notes
	contract purchase or firm purchase record, national or industry reports, test <i>reports</i> .	
Assumptions made in the calculations	All applicable sources.	New requirement
Applied ISO standard	Power plant commissioning contract, historic power plant testing.	New requirement

Finally, in the case of existing generation units that started commercial production before 4 July 2019 and do not comply with the emission limit of 550 g CO₂ per kWh of electricity produced, capacity providers should also submit to competent national authorities an ex-ante calculation of the *annual emissions* supported by a document containing the following additional data:

Data	Examples of data source	Notes
Specific emissions	Calculation of <i>specific emissions</i> .	New requirement
Yearly electricity production	Verified metering system, TSO/DSO metering.	New requirement

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