



Department for
Business, Energy
& Industrial Strategy

PROPOSALS FOR CAPACITY MARKET EMISSIONS LIMITS

Consultation

Closing date: 13 September 2019

July 2019



OGL

© Crown copyright 2019

This publication is licensed under the terms of the Open Government Licence v3.0 except where otherwise stated. To view this licence, visit nationalarchives.gov.uk/doc/open-government-licence/version/3 or write to the Information Policy Team, The National Archives, Kew, London TW9 4DU, or email: psi@nationalarchives.gsi.gov.uk.

Where we have identified any third-party copyright information you will need to obtain permission from the copyright holders concerned.

Any enquiries regarding this publication should be sent to us at: energy.security@beis.gov.uk

Contents

1. Introduction	4
Recast Electricity Regulation 2019	4
2. Changes enacted by the Capacity Market (Amendment) (No. 5) Rules 2019 – new build capacity and unproven DSR	8
3. Implementation date for emissions limits for capacity existing before 4 July 2019	10
3.1 Existing capacity implementation dates: options	10
4. Length of agreements for refurbishing CMUs exceeding emissions limits	12
5. Termination fees, the recovery of payments, and arrangements for CMUs that exceed emissions limits	14
5.1 Termination Events and Fees, and Repayment Periods	14
5.2 Methodology for Calculating Emissions Limits, and future actions to verify and enforce these limits	15

1. Introduction

Recast Electricity Regulation 2019

On 4 July 2019, the recast Electricity Regulation¹ (the “Electricity Regulation”) came into effect as part of the EU’s Clean Energy Package². 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 Capacity Market (the “CM”). The Electricity Regulation introduced a new requirement for capacity mechanisms to include carbon emissions limits, as follows:

Article 22

Design principles for capacity mechanisms

- (4) *Capacity mechanisms shall incorporate the following requirements regarding CO2 emission limits:*
- (a) *from 4 July 2019 at the latest, generation capacity that started commercial production on or after that date and that emits more than 550 g of CO2 of fossil fuel origin per kWh of electricity shall not be committed or to receive payments or commitments for future payments under a capacity mechanism;*
- (b) *from 1 July 2025 at the latest, generation capacity that started commercial production before 4 July 2019 and that emits more than 550 g of CO2 of fossil fuel origin per kWh of electricity and more than 350 kg CO2 of fossil fuel origin on average per year per installed kW shall not be committed or receive payments or commitments for future payments under a capacity mechanism.*

The emission limit of 550 g CO2 of fossil fuel origin per kWh of electricity and the limit of 350 kg CO2 of fossil fuel origin on average per year per installed kW referred to in points (a) and (b) of the first subparagraph shall be calculated on the basis of the design efficiency of the generation unit meaning the net efficiency at nominal capacity under the relevant standards provided for by the International Organization for Standardization.

By 5 January 2020, ACER shall publish an opinion providing technical guidance related to the calculation of the values referred in the first subparagraph.

- (5) *Member States that apply capacity mechanisms on 4 July 2019 shall adapt their mechanisms to comply with Chapter 4 without prejudice to commitments or contracts concluded by 31 December 2019.*

These emissions limits will affect coal, diesel and possibly some old inefficient gas generation, including any such fossil-fuelled components included as part of DSR CMUs. As per Article 22(5), fossil-fuelled generation with long term agreements from any auction held before 31 December 2019, and which run beyond 1 July 2025, will not be subject to these limits for the duration of their agreement. Existing generation exceeding the 550g/kWh standard will have the option of taking advantage of the 350kg CO2/installed kW allowance contained within the

¹ Regulation (EU) 2019/943 on the internal market for electricity <https://eur-lex.europa.eu/eli/reg/2019/943/oj>

² <https://ec.europa.eu/energy/en/topics/energy-strategy-and-energy-union/clean-energy-all-europeans>

Electricity Regulation, which would allow them to continue participating in the CM provided they limit their emissions by operating for a limited number of annual running hours.

The Electricity Regulation is directly applicable (takes full effect in law) in the UK from 4 July 2019, although some Articles will apply from 1 January 2020. We have noted that Article 22(4) applies from 4 July 2019, and Article 22(5) will apply from 1 Jan 2020, and that both provisions must be read together so the requirements apply to the GB CM in the intended way.

In order to give effect to the requirements in Article 22 in respect of capacity auctions taking place after 1 January 2020 we have determined that some amendments to the Capacity Market Rules (“CM Rules”) are necessary. Some changes have already been made through the Capacity Market (Amendment) (No. 5) Rules 2019, which are explained in **Chapter 2**, to implement the emissions limit in respect of new build capacity (including any new build components entered as unproven DSR). This consultation is about further changes required to the CM Rules to implement the remainder of the provisions, in respect of existing capacity.

The proposed changes are intended to ensure existing capacity that does not comply with the emissions limits (e.g. coal, diesel, and possibly some inefficient gas generation), cannot be awarded capacity agreements or receive capacity payments from 1 July 2025, to comply with Article 22(4)(b) of the Electricity Regulation. The proposed changes will also prevent existing diesel and other generating components that do not meet the emissions limits from being utilised as part of a DSR CMU from this date.

In summary, the Government is consulting on:

- **Whether emissions limits for existing generation should take effect on 1 July 2025, or 1 October 2024.** The Electricity Regulation imposes a requirement that any existing generation that does not meet the emissions limits shall not, from 1 July 2025, receive any capacity payments. This date falls part-way through the 2024/25 delivery year, so views are sought in **Chapter 3** on whether or not the implementation date should be aligned with the start of that delivery year.
- **What length of agreements should be awarded in the upcoming T-3 and T-4 auctions to refurbishing fossil fuel generation that will not meet the emissions limits.** Refurbishing generation is currently eligible for 3-year agreements which, if awarded in the upcoming T-3 and T-4 auctions, would run beyond 1 July 2025 for emissions limits on existing generation. The Government does not believe it is appropriate to support investment in refurbishing and extending the life of generation capacity that will exceed the emissions limits and so is in favour of altering the CM Rules such that refurbishing CMUs that will exceed emissions limits are only eligible for 1-year agreements in the upcoming auctions. Views on this proposal are sought in **Chapter 4**.
- **How best to deal with false or inaccurate Fossil Fuel Emissions Declarations and the recovery of capacity payments in such cases.** The CM Rules already establish arrangements for terminating capacity agreements, and recovering capacity payments in circumstances in which capacity providers have made false or inaccurate declarations. Views are sought in **Chapter 5** on whether it is necessary to amend these existing arrangements in respect of the Fossil Fuel Emissions Declarations, including whether a termination fee should be introduced and if so at what level.

Following the consultation, the Government intends to consider amendments to the CM Rules ahead of the upcoming auctions to be held in early 2020. The amendments could affect CMUs that submitted prequalification applications during summer 2019,

particularly refurbishing CMUs. We currently intend the proposed changes will continue to apply after EU exit.

A methodology for calculating the emissions limits will be published by the Agency for the cooperation of Energy Regulators (ACER) by 5 January 2020³. Building on this ACER guidance, further CM Rules changes will likely be necessary to implement arrangements for monitoring emissions and demonstrating compliance with the limits. The Government intends to develop proposals for consultation in early 2020, reflecting the ACER guidance.

How to respond

This consultation will be open from 22 July 2019 until 13 September 2019. Please submit your response to this consultation by 11:45pm 13 September 2019.

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.

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

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, 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.

³ See Article 22(4) of the Electricity Regulation

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. Changes enacted by the Capacity Market (Amendment) (No. 5) Rules 2019 – new build capacity and unproven DSR

In order to comply with the new emission limits in respect of new-build capacity, amendments to the Capacity Market Rules came into force on 18 July 2019 via the Capacity Market Amendment (No. 5) Rules 2019, which also made a number of other changes in respect of the upcoming prequalification and capacity auctions.⁴ These Rule changes included:

- A new term “Fossil Fuel” defined in line with the Energy Act 2013;
- A new term “Fossil Fuel Component” meaning any generating unit or DSR CMU component (which is a permitted on-site generating unit) which produces electricity using a Fossil Fuel;
- A new term “Fossil Fuel Emissions Limit” defined as meaning 550g of carbon dioxide of Fossil Fuel origin per kWh of electricity generated;
- A new term “Commercial Production Start Date” meaning the date on which a generating unit, when commissioned, first starts providing electricity and is capable of being controlled independently from any other generating unit;
- A new requirement for applicants in respect of a new build CMU that consists of or will consist of a generating unit containing one or more Fossil Fuel Components, or an unproven DSR CMU, to provide a “Fossil Fuel Emissions Declaration” (a new Exhibit ZA in the Rules), declaring that no Fossil Fuel Component forming part of that CMU has a Commercial Production Start Date that is on or after 4 July 2019 and will at any time during the delivery year (in respect of which a capacity obligation awarded to the CMU may apply) specified in the application emit more than the Fossil Fuel Emissions Limit. This is intended to apply to all new capacity, including any new build behind-the-meter generation included as part of a DSR unit;
- In future, it is intended that the Fossil Fuel Emissions Declaration will form part of the application for prequalification. However, in recognition of the emissions limit rules being introduced so close to the start of the summer 2019 prequalification window, the Rules provide that:
 - o applicants may provide the Fossil Fuel Emissions Declaration by 15 working days following the prequalification results day, in which case a CMU meeting all other prequalification requirements would be recorded as conditionally prequalified;
 - o applicants who provided a defective Fossil Fuel Emissions Declaration in their prequalification may provide a revised Declaration within the 15 working days following the prequalification results day; and
- Amendments that mean that the Delivery Body must not prequalify any CMU that does not provide a Fossil Fuel Emissions Declaration by the required date. Prequalification

4

decisions made partly or wholly on the basis of these new rules will remain subject to the Tier 1 and Tier 2 Appeals process.

3. Implementation date for emissions limits for capacity existing before 4 July 2019

Article 22(4)(b) of the recast Electricity Regulation states that:

from 1 July 2025 at the latest, generation capacity that started commercial production before 4 July 2019 and that emits more than 550 g of CO₂ of fossil fuel origin per kWh of electricity and more than 350 kg CO₂ of fossil fuel origin on average per year per installed kW_e shall not be committed or receive payments or commitments for future payments under a capacity mechanism.

These emissions limits apply to coal, diesel and possibly inefficient gas generation (typically older gas turbines), including any such fossil-fuelled components included as part of DSR CMUs, which existed before 4 July 2019 (referred to in this chapter as “existing capacity”) on and from 1 July 2025 (referred to in this chapter as “existing capacity implementation date”). As per Article 22(5), fossil-fuelled generation holding longer term agreements, which were awarded in any auction held before 1 January 2019 and run beyond 1 July 2025, are not subject to these limits for the duration of their agreement.

3.1 Existing capacity implementation dates: options

The existing capacity implementation date of 1 July 2025 falls 9 months into the 2024/25 delivery year that runs from 1 October 2024 until 30 September 2025. The Government is considering two options to ensure that the Article 22(4) requirements are implemented from 1 July 2025 onwards:

- 1. Prevent existing capacity that exceeds the emissions limits from being awarded capacity agreements for delivery years beginning on 1 October 2024 onwards in order to ensure coherence with the CM delivery year; or**
- 2. Prevent existing capacity that exceeds the emissions limits from receiving capacity payments from 1 July 2025 under any capacity agreement awarded for delivery years beginning on 1 October 2024 onwards. This would allow some of the capacity payments for the relevant delivery year to be paid.**

Existing fossil-fuelled generation will be able to take advantage of the 350kg CO₂/installed kW allowance in Article 22(4)(b) of the Electricity Regulation. This means that generators exceeding the emissions limit of 550g CO₂/kWh, may be able to continue participating in the CM beyond 1 July 2025 provided they commit to limiting the number of annual running hours.

That said, this may not be an economically viable option for some existing generation, particularly in relation to coal. Given CM payments are a significant source of revenue for the remaining coal-fired plant, an implementation date of 1 October 2024 under option 1 could, therefore, have the practical effect of encouraging the closure of unabated coal generation earlier than the Government’s announced policy of phasing out unabated coal by 1 October 2025⁵, though most coal generation is expected to retire prior to 2025. The Government is

⁵ <https://www.gov.uk/government/consultations/coal-generation-in-great-britain-the-pathway-to-a-low-carbon-future>

currently undertaking analysis to assess any security of supply risks or price impacts associated with introduction of the emissions limits for existing generation on 1 October 2024 and would welcome views from stakeholders on the potential impacts to help supplement this analysis.

In respect of Option 2 described above, ending capacity payments part way through a delivery year could introduce security of supply risks and could be legally and administratively complex to implement. It is therefore necessary to consider how this could be done to minimise such risks. The Government has identified two sub-options – the capacity agreements for delivery years beginning on 1 October 2024 onwards, held by existing capacity that exceeds or will exceed the 550g CO₂/kWh emissions limit, will run:

1. only until 1 July 2025, after which time the agreements will be automatically terminated; or
2. for the full 2024/25 delivery year until 30 September 2025, but will only be eligible for payments until 1 July 2025.

If Option 2 is implemented, the Government would be minded to apply sub-option 2 as this minimises security of supply risks. Stress events from 1 July until 30 September are extremely unlikely, but not impossible. The first sub-option outlined above could leave a gap during that period, with fossil-fuelled capacity in excess of the limits no longer subject to the CM requirements including penalties. The second sub-option also minimises the number of changes required to the legislation and administrative processes and systems (assuming option 2 were implemented).

Irrespective of which option is chosen, if a CMU declares during prequalification that it intends to take advantage of the 350kg CO₂/installed kW allowance, then it will be able to bid for a capacity agreement for the entire 2024/25 delivery year.

CM Rules changes will need to be introduced to come into effect ahead of prequalification in summer 2020 for the T-4 capacity auction in 2021 (which will award agreements for delivery year 2024/25) and subsequent capacity auctions. All generating CMUs and DSR CMUs containing Fossil Fuel Components wishing to prequalify for the 2024/25 delivery year will be required to submit a Fossil Fuel Emissions Declaration to the effect that all components forming part of that CMU will comply with the fossil fuel emissions limits (CMUs will also be able to declare whether it intends to take advantage of the 350kg CO₂/installed kW allowance). Amendments to the Fossil Fuel Emissions Declaration (i.e. Exhibit ZA inserted by the recent Rule changes) will be made to this end.

Question 1

Should the emissions limits for existing generation be implemented as of 1 October 2024 or 1 July 2025? What would be the potential impact of the two options on existing generation capacity?

Question 2

If you believe the 1 July 2025 date to be preferable, which sub-option do you prefer?

4. Length of agreements for refurbishing CMUs exceeding emissions limits

Refurbishing CMUs may be awarded capacity agreements in delivery years prior to the 2024/25 delivery year and are eligible for capacity agreements of up to 3 years⁶. The award of 3-year agreements in the T-3 or T-4 auctions scheduled for early 2020 to refurbishing capacity that will exceed the emissions limits on or after 1 July 2025 would breach the Electricity Regulation requirements. For example, a 3-year agreement awarded in the T-3 auction would run for delivery years 2022/23, 2023/2024 and 2024/2025 until 30 September 2025. A 3-year agreement awarded in the T-4 auction would run for delivery years 2023/24, 2024/25, 2025/26 until 30 September 2026.

The Government, therefore, needs to amend the CM Rules to ensure capacity agreements awarded in the upcoming T-3 and T-4 auctions to refurbishing CMUs that will exceed the emissions limit do not run beyond 1 July 2025. The Government is considering two options:

- 1 Allow refurbishing capacity that does or will exceed the emissions limit only to bid for 1-year agreements in the upcoming T-3 auction (delivery year 2022/23) and T-4 auction (delivery year 2023/24), and no other future auctions; or
- 2 Allow refurbishing capacity that does or will exceed the emissions limit only to bid for 2-year agreements in the upcoming T-3 auction (delivery years 2022/23 and 2023/24), 1-year agreements in the upcoming T-4 (delivery year 2023/24), and no other future auctions.

The Government does not believe it is appropriate or good value for money to support investment in refurbishing and extending the life of generation capacity that will exceed the emissions limits and so will be unable to provide capacity in the CM beyond 1 July 2025. We are therefore minded to give effect to the first option above.

The chosen option will be implemented in relation to the upcoming T-3 and T-4 auctions in early 2020 by Rules changes in autumn 2019 to require:

- refurbishing CMUs that have prequalified over summer 2019 for the upcoming T-3 and T-4 auctions to be held in early 2020 to provide a Fossil Fuel Emissions Declaration in the autumn (similar to the one recently introduced in relation to new build generation); and
- the Delivery Body to amend, in relation to CMUs that have not provided a Fossil Fuel Emissions Declaration by a specified date, the length of capacity agreement for which the CMU is eligible to bid in the relevant auction in the prequalification register. The agreement length will be amended from 3-years, to either 1- or 2-years, dependent on which of the two options described above is implemented. Where this happens, refurbishing CMUs have the option of confirming / not confirming entry into the auction.

These arrangements – where changes need to be made to the prequalification register between prequalification and the auction – are only relevant to the upcoming T-3 and T-4 auctions to be held in early 2020. In relation to future auction rounds, refurbishing CMUs must provide a

⁶ Refurbishing CMUs can also secure 15 year agreements if they can demonstrate their capital expenditure exceeds the relevant threshold.

Fossil Fuel Emissions Declaration in their prequalification applications to be able to prequalify (we do not propose to allow refurbishing CMUs to take advantage of the 350kg CO₂/installed kW allowance).

The changes will not impact refurbishing capacity that meets the emissions limits.

Question 3

Do you agree that refurbishing CMUs that will exceed the emissions limits should only be eligible for 1-year agreements? If not, please explain with reasons.

5. Termination fees, the recovery of payments, and arrangements for CMUs that exceed emissions limits

The CM Rules changes made by the Capacity Market (Amendment) (No. 5) Rules 2019 on 18 July 2019 require all new-build CMUs containing Fossil Fuel Components and unproven DSR CMUs to provide a Fossil Fuel Emissions Declaration indicating that they do not contain any Fossil Fuel Components with a Commercial Production Start Date on or after 4 July 2019 that will not comply with the emissions limits described in Article 22(4). As indicated in sections 2 and 3, to ensure existing and refurbishing CMUs comply with the emissions limits, the requirement to provide the Fossil Fuel Emissions Declaration will be extended to these types of CMU.

This section considers whether the existing arrangements in the regulations and CM Rules for terminating agreements and recovering capacity payments, which apply in respect of false or inaccurate declarations, need to be amended in relation to non-compliance with the new and proposed Fossil Fuel emissions declaration requirements. It also notes that arrangements for monitoring compliance with the emissions limits will be introduced in future, following the introduction of the ACER guidance.

5.1 Termination Events and Fees, and Repayment Periods

There are a range of circumstances under which a Fossil Fuel Emissions Declaration might prove to be false or inaccurate. For example, in addition to false declarations, a capacity provider may:

- submit a declaration stating that their new build CMU will not exceed the emissions limits, which is accurate at the time of submission, but the emissions limits are breached towards the end of the 15-year agreement because the plant has not been maintained to the necessary standard and the generating efficiency deteriorates as a result;
- intend, at the point of submitting the Fossil Fuel Emissions Declaration at prequalification, to limit the CMU's running hours in order to benefit from and comply with the 350kg CO₂ annual allowance, but in practice generates a greater number of hours during the delivery year; or
- once competent reallocation has been enabled, transfer into the DSR CMU one or more Fossil Fuel Components which exceed the emissions limits.

Capacity providers should be deterred from non-compliance and incentivised to maintain their equipment, or limit their annual hours of service such that they are able to respond to a stress event when called upon to do so without exceeding the emissions limits.

The existing CM Rules already establish arrangements that apply in the event of a false or inaccurate prequalification application:

- Rule 3.12.1 states that a person submitting a prequalification application (or a declaration made with the application), which would include the Fossil Fuel Emissions Declaration if it is made with an application, must ensure it is true and correct.
- Rule 4.4.3A states that if the Delivery Body becomes aware or reasonably believes that an application (or a declaration made with the application) is false or misleading following prequalification but prior to the auction, the Delivery Body must notify the applicant (and Ofgem) that the CMU is no longer prequalified.
- Rule 6.10.1(o) establishes a termination event if any information or declaration submitted in or with a prequalification application does not satisfy Rule 3.12.1. A capacity provider must notify the Delivery Body if this has occurred under Rule 6.10.1.
- Rule 6.10.3A(ca) states that, if a capacity agreement is terminated on the Rule 6.10.1(o) ground, the capacity provider must repay capacity payments in respect of the period TP3 (period TP3 is defined in the Electricity Capacity Regulations 2014 as the period 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 agreement).

The Government is considering whether further changes are required to the CM Rules to apply these arrangements to the Fossil Fuel Emissions Declaration:

- Rules 3.12.1, 6.10.1(o) and 6.10.3A(ca) apply if the Fossil Fuel Emissions Declaration is provided in or with a prequalification application, but it does not cover the circumstance which may arise in respect of the upcoming T-3 and T-4 auctions in early 2020 in which the declaration is provided after the application has been submitted.
- No termination fee is currently payable in respect of the termination event established by Rule 6.10.1(o). We believe a termination fee may be necessary to deter the submission of intentionally false declarations and incentivise compliance with the emissions limits, and are seeking stakeholders' views on the appropriate level at which to establish the termination fee (currently termination fees range from £5,000 per KW to £35,000 per KW).
- We also believe that the repayment period TP3 may be too punitive in some circumstances where a CMU has exceeded emissions limits, such as where a new build CMU breaches the limits towards the end of its 15-year agreement. A more appropriate repayment period could be TP2 – capacity payments to be repaid for the period beginning on the date of the termination event and ending on the date of the termination of the agreement, which is when the breach of emissions limit is identified – but welcome stakeholder views. Combined with an appropriate termination fee, this should provide a sufficient deterrent to breaching the emissions limits.

5.2 Methodology for Calculating Emissions Limits, and future actions to verify and enforce these limits

A methodology for calculating the emissions limits will be published by the Agency for the cooperation of Energy Regulators (ACER) by 5 January 2020.

Once this methodology has been determined, the Government will develop the appropriate mechanisms for verifying and enforcing compliance with these limits. It will likely be necessary

for CMUs to report on annual emissions (at component level) to enable compliance with the limits to be checked, in particular the 350kg CO₂ annual allowance. This will likely require further CM Rules changes and guidance. The Government will come forward with proposals for consultation in early 2020.

Question 4

What termination fee level should apply to the termination event where a false declaration has been made, or where capacity fails to meet the relevant emissions limits?

Question 5

In the event of termination, should payments be repaid from the beginning of the capacity agreement, or from the date that the CMU fails to meet the emissions limits?

This consultation is available from: <http://www.gov.uk>

If you need a version of this document in a more accessible format, please email enquiries@beis.gov.uk. Please tell us what format you need. It will help us if you say what assistive technology you use.