Consultation

Connection and Use of System Code (CUSC) CMP448: Introducing a Progression Commitment Fee to the Gate 2 Connections Queue

Publication date:	20 October 2025
Response deadline:	3 November 2025
Contact:	Electricity Connections
Email:	connections@ofgem.gov.uk

Contents

Executive summary

Ofgem is minded-to approve the Original Proposal of CMP448, which introduces a Progression Commitment Fee (PCF) to incentivise timely reassessment of project viability in the Gate 2 connections queue. This decision follows extensive consultation and analysis, and reflects our view that the Original Proposal best facilitates the Applicable CUSC Objectives (ACOs) compared to the status quo, WACM1, and WACM2.

Key Reasons for Approval

ACO (i): Efficient Discharge of Licensee Obligations

- The Original Proposal provides the strongest incentive for developers to reassess viability between Gate 2 offer acceptance and Milestone M1. An incentive not sufficiently strong under the status quo.

1. The Original Proposal improves queue efficiency by encouraging timely exits of less committed projects, freeing up capacity for viable ones and reducing wasted network planning efforts.

- The PCF's incremental design (£2,500/MW increasing every six months to £10,000/MW) aligns with existing CUSC securities and ensures proportionality.
- Compared to WACM1 (90% lower fee) and WACM2 (75% discount for self-termination), the Original Proposal more effectively drives behavioural change and timely project progression.

ACO (ii): Facilitating Effective Competition

- By promoting a more viable and diverse queue, the Original Proposal enhances competition in electricity generation and supply.
- It avoids distortion risks posed by WACM1's weak financial signal and WACM2's potential delay in self-termination decisions.
- The PCF design ensures that only genuinely viable projects remain, raising competitive standards and enabling faster connections.

ACO (iii): Compliance with Electricity Regulation

- All options, including the Original Proposal, are assessed as neutral against ACO (iii), with no adverse impact on compliance with relevant EU or UK electricity regulations.

ACO (iv): Promoting Efficiency in CUSC Administration

- The Original Proposal introduces only a minor administrative burden at the outset, which is outweighed by long-term benefits to system efficiency and queue management.

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- Its governance framework, including NESO's discretion and Ofgem's veto power, ensures activation only when justified, avoiding unintended consequences.
- Compared to WACM1 and WACM2, the Original Proposal offers clearer and more predictable implementation, reducing complexity and administrative overhead.

Conclusion

The Original Proposal of CMP448 is the most effective option to ensure a "healthy", efficient, and competitive connections queue aligned with CP2030 objectives. It balances financial incentives, administrative feasibility, and regulatory compliance, and is therefore the preferred solution over WACM1, WACM2, and the status quo.

Introduction

Purpose of this consultation

We are seeking views on our minded-to position to approve the Original Proposal of CMP448. Throughout this consultation we argue the reasons for our minded-to position. This main consultation document is also accompanied by an Impact Assessment that supported our minded-to position. The Impact Assessment provides the analysis underpinning the development of the CMP448 solution and includes our view as to why Original Proposal is recommended.

Consultation stages

Stage 1 Consultation opens: 17 October 2025

Stage 2 Consultation closes (awaiting decision). Deadline for responses: 31 October 2025

Stage 3 Consultation outcome (decision or policy statement)

How to respond

We want to hear from anyone interested in this consultation. Please send your response to the person or team named on the front page of this document.

We have asked for your feedback in each of the questions throughout. Please respond to each one as fully as you can.

We will publish non-confidential responses on our website.

Your response, data, and confidentiality

You can ask us to keep your response, or parts of your response, confidential. We will respect this, subject to obligations to disclose information. For example, under the Freedom of Information Act 2000, the Environmental Information Regulations 2004, statutory directions, court orders, government regulations, or where you give us explicit permission to disclose. If you do want us to keep your response confidential, please clearly mark this on your response and explain why.

If you wish us to keep part of your response confidential, please clearly mark those parts of your response that you do wish to be kept confidential and those that you do not wish to be kept confidential. Please put the confidential material in a separate appendix to your response. If necessary, we will contact you to discuss which parts of the information in your response should be kept confidential and which can be published. We might ask for reasons why.

If the information you give in your response contains personal data under the General Data Protection Regulation (Regulation (EU) 2016/679) as retained in domestic law following the United Kingdom's withdrawal from the European Union ("UK GDPR"), the

Gas and Electricity Markets Authority will be the data controller for the purposes of GDPR. Ofgem uses the information in responses in performing its statutory functions and in accordance with section 105 of the Utilities Act 2000. Please refer to our Privacy Notice on consultations, see Appendix 1.

If you wish to respond confidentially, we will keep your response confidential, but we will publish the number, but not the names, of confidential responses we receive. We will not link responses to respondents if we publish a summary of responses, and we will evaluate each response on its own merits without undermining your right to confidentiality.

How to track the progress of a consultation

1. Find the web page for the call for input you would like to receive updates on.
2. Click 'Get emails about this page', enter your email address and click 'Submit'.
3. You will receive an email to notify you when it has changed status.

A consultation has three stages: 'Open', 'Closed (awaiting decision)', and 'Closed (with decision)'.

Background

1.1 In April 2025, Ofgem[1] published decisions to approve a package of connections reforms, known as 'TMO4+', which included code modifications, licence amendments, and the introduction of Connections Methodologies.[2] As well as introducing an enduring process for new connection applications, TMO4+ reforms the existing queue to prioritise those projects in a firm Gate 2 connections queue that are 1) 'ready' and 2) 'needed' (ie meeting Strategic Alignment Criteria) under the Clean Power 2030 Action Plan (CP2030)[3], and deprioritises those to an indicative Gate 1 queue that do not meet those criteria. This reform of the existing queue is achieved through a process known as Gate 2 to Whole Queue ('G2tWQ').[4] The overall TMO4+ reform process captures projects connecting at transmission and generation as well as storage projects connecting at distribution level, that qualify for a Transmission Impact Assessment (TIA). Smaller generation and storage projects, and demand projects connected at distribution, are not included in the reforms.

1.2 The reformed connection process however does not require projects in the connections queue to regularly reassess their viability. This is because the criteria that need to be satisfied to receive connection offers are based on project readiness and alignment with CP2030 permitted technology capacities, which are assessed at the point of initial Gate 2 connection application. Therefore, there could be instances where some projects meet those criteria initially and receive an offer, then subsequently their project becomes less viable, for example due to changes in market conditions, costs assumptions and risk appetite, or financing issues.

1.3 Under the status quo, projects in the connections queue are required to secure a cancellation charge as part of the User commitment framework[5] and can be terminated if they fail to meet User progression milestones, as part of section 16

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[1] References to "Ofgem",the "Authority", "we" and "our" are used interchangeably in this document. The Authority refers to GEMA, the Gas and Electricity Markets Authority. The Office of Gas and Electricity Markets (Ofgem) supports GEMA in its day-to-day work. This minded-to consultation is made by or on behalf of GEMA

[2] See Decision on Connections Reform Package (TM04+) | Ofgem

[3] Clean Power 2030 Action Plan (CP2030) is a document setting out a pathway to a clean power system by 2030. NESO has provided independent advice to HM Government, developing a range of pathways, including an analysis of the location and type of new investment and infrastructure needed to deliver it

[4] The Gate 2 to Whole Queue exercise is the process of NESO and network operators re-examining existing connection offers and determining whether these meet the criteria of the new connections process. This will see existing connection offers amended to bring them in-line with the requirements of the new process

[5] This framework has been introduced in the CUSC in 2013, via the modification proposal CMP192. User commitment is established in section 15 of CUSC: User Commitment Methodology. The concept of current cancellation charges under CUSC are further explained in Ofgem CMP448 Impact Assessment, page 11

of CUSC.[6] These measures however are not designed to incentivise a proactive assessment of a project's own viability and currently there is no financial incentive that ensures this behaviour in a timely manner.

1.4 If any projects that form part of the reformed connections queue subsequently do become unviable, these could cause inefficiencies in the connections process as well as in the transmission and distribution systems, resulting in an unclear network build signal.[7] Whilst some levels of project attrition[8] are normal and expected, a connections queue comprised of the maximum of committed projects would reduce attrition in the longer term, enhancing certainty on the network capacity that needs to be built to accommodate electricity connections and deliver CP2030.[9]

1.5 Ofgem's principal objective is to protect the interests of both current and future consumers, which includes their interests in the Secretary of State's compliance with the duties in sections 1 and 4(1)(b) of the Climate Change Act 2008 (net zero target for 2050 and five-year carbon budgets), and their interests in the security of the supply of electricity to them.[10] In addition, Ofgem has an obligation to have regard to the desirability of promoting economic growth in exercising its functions.[11]

[6] This process has been introduced in 2023 via CUSC modification proposal CMP376
[7] The reason is that viable projects can still be delayed by unviable ones that sits in front of them and network operators would design connections and plan the network for projects that will not materialise
[8] In this context project attrition is intended as the gradual reduction in the numbers of project participants in the connections queue
[9] This is intended as the proportion of projects that decide not to connect eventually, despite having started the process
[10] As set out in Climate Change Act 2008
[11] As set out in Deregulation Act 2015

2. The modification proposal

Overview

2.1 CMP448, proposed by NESO in February 2025, aims to incentivise regular reassessment of project viability by introducing a progression commitment fee ('PCF') as part of the cancellation charges and securities regime established in section 15 of CUSC. The Proposer, NESO, argues that the current process does not incentivise developers to assess project viability and leave the connections queue where necessary. This could lead to the inefficiencies discussed in section 1 of this document. As TMO4+ is in the process of being implemented at the time of this decision (with new connection offers expected to start being made from December 2025), it is currently uncertain how many projects undergoing G2tWQ will not receive a Gate 2 offer. However, the Proposer considers that the introduction of a new mechanism to identify and remove projects which receive a Gate 2 offer and subsequently become unlikely to connect could maximise efficiency of the connections process and complements the benefits of the overall TMO4+ reform package.

2.2 CMP448 encompasses the Original Proposal[12] presented by NESO and two Workgroup Alternative CUSC Modifications (hereafter "WACMs"), which are summarised in the paragraphs below.

Original Proposal

2.3 The Original Proposal introduces a PCF applicable to all generation projects that hold Transmission Entry Capacity, Developer Capacity or Interconnector Capacity (including small, medium and large distribution connecting generation) and have accepted a Gate 2 contract offer and not passed Queue Management Milestone 1 (Initiate Planning Consent). The PCF relates to network capacity that is terminated and this includes also the amount of network capacity that the User has requested to reduce after accepting a Gate 2 connection offer.

2.4 To incentivise a regular assessment of project viability, the PCF has a profile that starts at £2,500/MW and increases by £2,500/MW every six months until it reaches a cap of £10,000/MW.[13] The PCF would be treated as a cancellation charge and CUSC Users would be required to post a security against the PCF which will remain in place until they have successfully achieved queue

[12] The Original Proposal is the solution identified by the Proposer of a CUSC modification which has been developed during the Workgroup stage of a CUSC modification proposal. The Original Proposal is different from Workgroup Alternative CUSC Modifications (WACMs) which are different solutions raised by Workgroup members

[13] The monetary value of the PCF is based on the amount of network capacity contracted by the project, which includes Transmission Entry Capacity or Developer Capacity or Interconnector User Commitment Capacity in Megawatts

management M1. After the Users has passed M1 the requirement to securitise the PCF will fall away and the amount paid will be returned.[14]

2.5 The PCF would be dormant until an activation threshold is met. The activation metric is based on project terminations and capacity reductions of projects that have accepted a Gate 2 offer but have not passed queue management milestone M1 as set out in CUSC section 16. If the threshold is met, NESO would determine whether to activate the PCF and Ofgem would have the power to override NESO decision. NESO would measure and publish the activation metric every six months (the PCF Period) within a PCF Metric Period of approximately five years.[15]

2.6 In its initial design of the proposal, NESO outlined that any project MW that was replaced by another project, that held a connection date within 12 months of the terminated project, would be excluded from the activation metric. In addition, NESO advised when determining replacement MW capacity, they would review factors such as location and technology type of the replacement project. If no replacement MW capacity could be identified within six months, the Proposer would consider the terminated project as not being replaced. As explained in section 3 pertinent to ACO (i) under "workgroup and panel view", this aspect of the proposal has been removed because of feedback received. To reflect this, NESO increased the Activation Threshold to 6.5 GW.

2.7 Nine alternative requests were formally raised by Workgroup members, with two receiving majority support. Seven of the alternative requests were not taken forward. The two alternative solutions that received the majority of support became respectively Workgroup Alternative CUSC Modifications 1 and 2.

Workgroup Alternative CUSC Modification 1 (hereafter "WACM1")

2.8 WACM1 was raised by Innova and reduced the PCF value by a factor of ten and introduced a six-month grace period where the PCF is set to £0/MW, after activation. Upon activation, a project's PCF would increase at a rate of £250/MW, as opposed to £2500/MW and to a maximum of £1,000/MW, as opposed to £10,000/MW. No changes were proposed to the activation threshold or metric.

Workgroup Alternative CUSC Modification 2 (hereafter "WACM2")

2.9 Workgroup Alternative CUSC Modification 2 (WACM2) was raised by Scottish Power Renewables. The proposal sought to provide a 75% discount if the project

[14] Under section 15 of CUSC (User Commitment Methodology) the amount and start of security payments will depend on specific aspects of the project, taking into consideration attributable works and how much Transmission Owners have spent on the specific project. If the Transmission Owners are spending straight away the developers could be required to secure an amount 30 days after they sign their agreement

[15] The legal text of CMP448 defines this time as the period from the date CMP448 takes effect until 31 December 2030; and then each subsequent period of five years commencing on 1 January and ending on 31 December

was to self-terminate as opposed to being terminated by NESO if they had failed to meet M1. Users would only pay 25% of the applicable PCF value if they notified their intent to self-terminate or reduce capacity, at least 90 days prior to the Milestone 1 date, providing that they have not withdrawn their application to reduce capacity. No changes were proposed to the PCF value and profile, activation threshold or metric.

Workgroup Views

2.10 On 5 November 2024, NESO held a 'Call for Input' (CFI) on the proposed PCF and asked for further stakeholder views prior to raising modification CMP448. The Workgroup of 23 members met 14 times to evaluate the proposal, in relation to the applicable CUSC objectives (hereafter "ACOs"), with the final Workgroup vote being carried out on 30 May 2025. The respondents were comprised of a broad range of interested parties from across the industry including generators, developers, Distribution Network Operators (DNOs) and Transmission Owners (TOs). A range of topics and concerns were duly considered and analysed by the Workgroup.[16]

2.11 The Workgroup did not reach a majority consensus on which option was best. Eight members concluded that the Original Proposal better facilitated the ACOs than the baseline. Three members concluded that WACM1 better facilitated the ACOs than the baseline. Four members concluded that WACM2 better facilitated the ACOs than the baseline. Eight members concluded that the baseline was their preferred option, meaning a comparison to the ACOs was not of relevance.

CMP448 CUSC Panel recommendation[17]

2.12 The panel conducted a voting process, which first examined whether the Original Proposal, WACM1 or WACM2 better facilitated the ACOs than the baseline. To summarise the votes cast: five respondents noted the Original Proposal better facilitated the ACOs, five respondents noted WACM1 better facilitated the ACOs, four respondents noted WACM2 better facilitated the ACOs and three respondents believed the baseline better facilitated the ACOs.

2.13 At the CUSC Panel meeting on 4 July 2025, a majority of the CUSC Panel considered that the Original Proposal and WACM1 would better facilitate the CUSC objectives. The Panel therefore accepted the approval of CMP448.

Code Administrator Consultation Views

2.14 The Code Administrator Consultation was issued on 10 June 2025 and closed on 24 June 2025. 27 non-confidential responses were received, along with two

[16] See NESO's Final Modification Report and Workgroup Consultation for a full copy of responses
[17] The CUSC Panel is established and constituted from time to time pursuant to and in accordance with section 8 of the CUSC

confidential responses. A diverse range of views were obtained, recognising the overall need for reform but requesting thoughtful and effective implementation. The feedback and concerns received through the consultation mirrored, for the most part, the feedback received from the Workgroup.

2.15 Considering the 29 responses received; 13 favoured the baseline, seven favoured the Original Proposal, five favoured WACM1, three favoured WACM2 and two expressed no preference.[18] Moreover, 14 of the responses were of the view that neither the Original Proposal, WACM1 or WACM2 better facilitated the ACOs. Fifteen of the responses acknowledged that the code modification was best implemented ahead of Gate 2 offers being issued.

Our minded-to decision

2.16 We have considered the issues raised by the modification proposal and the Final Modification Report (FMR) dated 4 July 2025. We have considered and taken account of the responses to the industry consultations on the modification proposal which are attached to the FMR.[19] We have also considered and taken into account the votes of the Workgroup and Panel. We are minded-to conclude that:

2.17 The Original Proposal and both WACM1 and WACM2 better facilitate the achievement of ACOs (i), (ii), and (iv) as compared to the baseline and all have a neutral impact on better facilitating the achievement of ACO (iii). Overall, implementation of the Original Proposal will best facilitate the achievement of the relevant ACOs.[20]

2.18 directing that the Original Proposal be approved is consistent with our principal objective and statutory duties.[21]

2.19 We have set out below our assessment of the components of the Original Proposal, WACM1 and WACM2, against each of the relevant ACOs. We have structured our assessment within three broader categories. These categories are:

- PCF Design: Activation process and rationale
- Activation metric, threshold and governance
- PCF Value (including increments and cap)

[18] One respondent provided two vote preferences, hence why the total vote count is 30
[19] CUSC Modification Proposal CMP448, modification reports and representations can be viewed on NESO's website
[20] As set out in Standard Condition E2 of the Electricity System Operator Licence
[21] The Authority's statutory duties are wider than matters which the Panel must take into consideration and are detailed mainly in the Electricity Act 1989 as amended

3. Reasons for our decision

(i) the efficient discharge by the licensee of the obligations imposed upon it under the Electricity Act 1989 and by this licence[22]

Workgroup and Panel view

3.1 Six of the Workgroup members who chose the Original Proposal as their preferred option noted the proposal better facilitated ACO (i). Two Workgroup members who elected for WACM1 noted the proposal better facilitated ACO (i). Three Workgroup members who elected for WACM2 noted the proposal better facilitated ACO (i).

3.2 Regarding the views of the Panel, one respondent believed the Original Proposal better facilitated ACO (i). One respondent believed WACM1 better facilitated ACO (i). Three respondents believed WACM2 better facilitated ACO (i).

3.3 The Workgroup and Panel agreed that the introduction of CMP448 would accelerate the connection of both 'ready' and 'needed' projects, meaning committed developers would avoid waiting an unnecessary extended time for connection and be able to effectively contribute to the achievement of CP2030 targets.

3.4 There were minority concerns within the Workgroup that the five-year period for the cumulative MW total of the PCF to reset was overly generous and could lead to projects not reassessing viability regularly. One Workgroup member took the view that the cumulative MW total should be evaluated annually, to avoid projects failing to reappraise. These concerns were addressed by the Proposer confirming once the PCF had been activated, it would remain activated. The Workgroup also discussed the potential of projects being perversely incentivised to self-terminate to avoid becoming subject to the fee and to prevent PCF activation.

[22] We note that ACO(i) refers to "obligations imposed upon [the licensee] by the Electricity Act 1989 and by this licence." Previously, NESO held a transmission licence under s6(b) Electricity Act 1989 ("EA89"); as such, the EA89 imposed certain general obligations on it via s9(2). Now, NESO holds an Electricity System Operator Licence under s6(da) of EA89. NESO, as the designated ISOP, has a set of "general duties" under s163 of the EA23, which it must meet pursuant also to its licence obligations: A2.20; C1.2(d); E12.7. Further, general obligations on NESO can be found in Condition C1 of the NESO Licence including in C1 regarding whole systems: see Parts, A, D and E. These include obligations that are substantively similar to those contained in s.9 EA89. We therefore consider it appropriate to assess CMP448, in respect of ACO(i), through the lens of the obligations on NESO contained in both s163 and Condition C1. It is expected that ACO(i) will be updated in early course to make specific reference to the EA23 rather than the EA89, albeit the former comes into play in any event through the general provision of Condition A2.20

3.5 The main concerns relating to the design of the activation threshold centred around replacement projects and the Original Proposal, WACM1 or WACM2 containing no technology specific or regional specific metrics. The Proposer originally suggested a replacement project could be found for the queue, in place of a terminated project, within a six-month period. After feedback from the Workgroup was received that the six-month timeframe to source a replacement project was unrealistic, the framework for replacement projects was removed from the original solution. The amendment received positive feedback from the Workgroup.

3.6 The respondents of both the Workgroup and Panel were keen for the idea of an activation metric by technology type to be considered, as they felt this would be of aid to projects that had long lead build times such as offshore wind. However, some respondents noted introducing an additional element of eligibility to the activation metric could be disproportionately impactful.

3.7 There were concerns surrounding the overfocus CMP448 brought to planning applications, leading to developers being more likely to submit planning applications that may be of substandard quality to avoid activating the PCF.

3.8 Regarding the authority's power to override an activation decision taken by NESO, most respondents noted they were accepting of the proposed timetable of activation governance. Both the Workgroup and Panel highlighted the importance of NESO acting transparently when the activation threshold was met and were reassured by the authority's power to veto if required.

Code Administrator Consultation

3.9 12 respondents considered the Original Proposal better facilitated ACO (i). Seven respondents considered the WACM1 better facilitated ACO (i). Eight respondents considered that WACM2 better facilitated ACO (i).

3.10 There was endorsement within the consultation to allow the reforms implemented by TMO4+ a period to embed and raise a code modification later, relating to a PCF, if the defect relating to 'queue health' came to fruition.[23] Seven of the respondents held this view and believed the problem that this code modification looked to resolve, had not yet sufficiently materialised.

3.11 Consistent with the views expressed by the Workgroup and Panel, several responses cited issues with the design of trigger metric as a significant concern, with two responses specifically highlighting the detrimental impact the trigger metric would have for offshore wind projects. Regarding the WACMs, there were

[23] 'Queue health' is a concept used by NESO as part of CMP448 to indicate the prevalence of less viable or stalled projects in the connections queue. A queue in 'poor health' would contain a high amount of less viable or stalled projects and a queue in 'good health' would contain a low amount of less viable or stalled projects

concerns neither design provided a strong enough incentive for projects that were not readily progressing to exit the queue given both WACMs were designed around a reduction to the PCF.

Our view

3.12 Overall, we consider that the Original Proposal better facilitates ACO (i) than the status quo. WACM1 and WACM2 also facilitate ACO (i) better than the baseline, but less effectively than the Original Proposal which provides the strongest incentive to regularly assess project viability post receipt of a Gate 2 offer.

3.13 On balance, we therefore anticipate the Original Proposal is likely to better facilitate achievement of ACO (i) than WACM1, WACM 2 and the status quo. The reasons for our evaluation are provided in the subsections below.

Original Proposal

PCF Design: Activation process and rationale

3.14 The defect outlined by the Proposer is that the current connections process does not offer a financial incentive for developers to reflect on their project viability and potentially allow them to exit the queue in a timely manner. The Proposer has also identified that the highest risk for this to occur is in the period between any relevant project's Gate 2 offer acceptance and hitting their first milestone, M1 (initiated statutory consents and planning permission). We acknowledge that some stakeholders believed that the defect did not materialise, however we disagree with this view. Our analysis of the impacts of the proposal shows that there is a significant proportion of network capacity in the estimated Gate 2 queue within the scope of the PCF (between 54% and 88%).[24] The Authority considers that CMP448 has been raised at the correct time, as in the event that activation of the PCF becomes necessary, having the mechanism from CMP448 in place already will improve the efficiency of the reformed connections process and can allow the benefits of the proposal to be felt quicker than would be the case if a modification were only to be raised in response to the connections queue becoming saturated with projects unable to connect. The reasons for that are argued in the subsequent paragraphs.

3.15 Considering sections 15 and 16 of CUSC[25], the Authority agrees with the Proposer that the status quo does not provide adequate financial incentives to encourage a timely project termination or discourage capacity reduction between offer acceptance and M1. This is because securities become applicable at a later development stage, typically from Milestone M7 (Project Commitment). This creates a risk that there could in future be some Gate 2 projects that

[24] As set out in Ofgem CMP448 Impact Assessment, page 26

[25] Respectively User Commitment Methodology and Queue Management Process

subsequently become less committed, but may not be removed from the queue (for example, through failing to meet M1) for a significant period of time, due to when the milestone is due to be met. This risk of the presence of projects in the connections queue that are no longer viable, and for these projects to remain in the queue for longer than necessary, could cause a detrimental effect on the creation and allocation of network capacity. This is the case as TOs would spend resources to design the connection of projects that eventually would not be able to connect. Furthermore, those projects could delay the connections of viable ones. Therefore, a timely removal of projects that become unable to connect, as is incentivised by the Original Proposal, would better facilitate ACO (i), as it can ensure NESO fulfils its obligations under SLC C1.6 (a) and (g) of the ESO Licence more effectively, by contributing to an efficient and economical transmission system and supporting solutions that alleviate the need to upgrade or replace network capacity.

3.16 Reflecting on the decision by the Proposer to apply the PCF between offer acceptance and M1, we consider that whether a project meets M1 is largely within the developer's control, therefore it is reasonable for the PCF to fall between these events in a project's life cycle which is neither too early (eg M3 Land rights), nor is it too late or out of the control of the individual project (eg M2 Secure Consent). We consider it would be overly punitive and/or disproportionate to apply the PCF and charge developers for processes that affect project termination that are beyond their control, such as would be the case if the PCF were applied between M1 and M2 (ie where a developer fails to meet M2 because the planning authority does not grant consent). The same rationale applies to the Proposer's decision to use project terminations up to M1 as the activation metric to evaluate 'queue health', because we believe that terminations represent a strong indication that the pipeline of Gate 2 projects may be becoming saturated with projects unlikely to ultimately connect.[26]

3.17 Furthermore, considering the duration of QM milestones in CUSC section 16, those milestones become more frequent after M2, and as stated in the Impact Assessment accompanying this minded-to decision, having six monthly incentives after M2 could bring a marginal benefit.[27] The Original Proposal considered these factors, which have contributed to the design of a proposal that supports a more efficient process over the status quo, in the event the PCF is required to be activated (eg because there are concerns about the likelihood of Gate 2 projects in the connections queue to ultimately connect).

3.18 We also consider that an incremental fee would incentivise projects to regularly assess their viability, therefore this design is fit for purpose and facilitates ACO (i)

[26] The rationale that considers project termination as part of the activation metric is reported here to avoid further repetition in the section below

[27] As set out in Ofgem CMP448 Impact Assessment, page 10. For User progression milestones timelines see CUSC section 16.3

as it makes the connections system more efficient overall compared to the baseline, if the PCF is activated (otherwise neutral). This is because developers would be incentivised to assess the viability of their projects prior to PCF being due to increase. If this behaviour leads to projects self-terminating earlier than they would have in the absence of CMP448's PCF (and because of their self-assessment of their viability), network companies would have more certainty on planning for network build, and projects that are committed could connect sooner by taking advantage of the capacity that may be freed up by any projects that exit the queue in response to an upcoming PCF increase.

3.19 Furthermore, the Original Proposal set out a maximum value for the PCF and the requirement to securitise will fall away when projects meet M1. This design ensures that the financial incentive for projects stays in place only for a limited period during the development stage and do not unreasonably overlap with other securities longer than it should be.

3.20 Therefore, we consider that the PCF Design (including the activation process and rationale) in the Original Proposal better facilitates achievement of ACO (i).

Activation metric, threshold and governance

3.21 Workgroup, stakeholders and some Panel members expressed the view that the defect has not materialised and that TMO4+ and queue management milestones should be enough to ensure projects that receive a connection offer and subsequently become unlikely to connect exit the queue rather than occupying capacity that they will not ultimately use. We respect these views but consider that these processes alone are unlikely to encourage a regular assessment of project viability. For reasons outlined in our Impact Assessment, relating to the status quo under the User Commitment Methodology in CUSC section 15, we do not find the current trigger date for payment of existing cancellation charges sufficient.[28] Furthermore, making the PCF dormant from the outset so that active monitoring of the queue can take place would ensure that the financial incentive is activated only after there is sufficient evidence that it would be needed and, most importantly, only if NESO and Ofgem concur that this is needed to ensure that the connections pipeline remains adequate to meet our net zero objectives, including CP2030.[29] This facilitates the achievement of ACO (i) better than the status quo since it should ensure that, in the event the PCF is activated, the connections process becomes more efficient, and NESO more effectively fulfils its obligation under SLC C1.6 (a) of the ESO Licence.

[28] As set out in Ofgem CMP448 Impact Assessment, page 10

[29] Relevant objectives are set out in Clean Power 2030 Action Plan: A new era of clean electricity – main report

3.22 The Activation threshold[30] proposed represents 5% of the additional network capacity (capacity that is not already installed) that needs to be connected before 2030 to reach the CP2030 target.[31] We agree with the Proposer's view to express the activation threshold as a volumetric value based on network capacity termination instead of a percentage, even if some Workgroup members questioned why the metric figure was not a percentage, noting that a fixed volumetric figure would be subject to change over time. The Proposer's approach supports the achievement of this ACO for the following reasons.

3.23 First, calculating the activation metric as a percentage or fixed volumetric figure would not make practical difference to when the activation threshold would be met as it would first need to be converted to a volumetric figure for measurement purposes, although in the FMR NESO states it does not have the data to support a percentage threshold value at the time of writing. Also, the legal text of CMP448 obliges NESO to review if the activation threshold is still appropriate, providing that the PCF has not been activated during the first metric period.

3.24 Secondly, basing the threshold on a percentage could create confusion, especially in future years where the additional capacity required to meet CP2030 targets would be expected to decrease (and NESO did not propose a metric that gradually decreases over time). This is because such a percentage would be influenced by the additional capacity required to meet CP2030 targets that is expected to decrease over time. Therefore, it is reasonable to expect that this percentage reduces closer to the end of the metric period and NESO should explain how this has changed from the previous measurement period (but this is not in the legal text and NESO's obligations are only to publish the activation metric). Therefore, having a volumetric value that doesn't change for the whole metric period and measuring the capacity terminated in each of the measurement intervals seems an effective solution allowing to assess the status of the queue.

3.25 Furthermore, the achievement of CP2030 considers permitted technology capacities (a volumetric value expressed in GW), which makes the measurement easier to track, making the solution more efficient over having a percentage.

3.26 Considering the activation governance, the discretional choice of whether to activate the PCF once the threshold is met allows for unforeseen events to be accounted for (eg a hypothetical economic downturn discouraging overall investments, or changes in the planning regime that makes it harder to submit planning applications, etc.). This fact makes the Original Proposal more efficient as even once the threshold has been met, there exists discretion on whether to activate it, which ultimately positively affects achievement of ACO (i) because

[30] The methodology followed by NESO to forecast the PCF activation, is described in Ofgem CMP448 Impact Assessment, pages 25-26

[31] NESO has estimated this capacity using the DESNZ 2030 Capacity Range compared to installed capacity in 2024, as listed in Clean Power 2030 Action Plan: Connections reform annex pages 9 and 10

NESO can decide whether activation in those circumstances best allows it to efficiently discharge its obligations (meaning it is not compelled to activate it just because threshold is met, therefore this discretionary ability could help avoid unintended consequences).

3.27 The proposed activation metric based on capacity termination and reduction should ensure a consistent measure of 'queue health' assessed against the progression to M1. This is evaluated against the counterfactual that not having a metric would make the PCF activation subject to arbitrary decisions of NESO or the Authority. The Original Proposal, with an activation threshold based on the termination metric, should provide a clear signal of when the PCF can be activated. Those aspects ensure the reliability and efficiency of the overall proposal, making a positive impact against ACO (i). Furthermore, the regular publication of the metric improves transparency.

3.28 Lastly, the proposed solution does not consider self-terminations as contributing to activation of the metric. We consider this is sensible, as the objective of the proposal is to ensure timely exit or discourage capacity reduction. Therefore, if project self-terminate and the PCF is never activated, this would be a positive outcome, as projects would be incentivised to exit the queue (as intended). However, as Workgroup members pointed out, projects could be perversely incentivised to self-terminate for the fear of being subject to the fee or and to prevent PCF activation. We recognise this could be a possible outcome[32] but in the event this unintended consequence would occur, NESO and Ofgem would need to monitor the situation and take appropriate measures to mitigate this issue as the proposal could not fully meet its objectives.[33]

PCF Value (including increments and cap)

3.29 To estimate the PCF value NESO used the "real option" analysis. This concept is explained in the FMR and our Impact Assessment, along with the methodology assumptions undertaken by NESO.[34] It is suggested that because the PCF value (set at £2,500/MW) is slightly above the monetary value of the "real option" to delay a decision to continue or stop the project development it incentivises the exit of less viable projects. As argued in our Impact Assessment, we consider this value being set to this level should ensure the intended effect, sufficiently incentivising unviable projects to actively exit the queue (before being subject to the PCF).[35] This aspect would facilitate the achievement of ACO (i) as it ensures the proposal works as intended making the connection process and transmission system more efficient, allowing SLC 1.16 (a) and (g) to be discharged through the

[32] As set out in Ofgem CMP448 Impact Assessment, page 51
[33] Ibid, see section 4 Monitoring and Evaluation
[34] As set out in Ofgem CMP448 Impact Assessment, Appendix 1. As set out in NESO's Final Modification Report, page 35. The Authority considers the methodology assumptions to be reasonable assumptions
[35] As set out in Ofgem CMP448 Impact Assessment page 14

exiting of these projects that would otherwise be occupying capacity they no longer require.

3.30 Furthermore, a value that gradually increases at six monthly intervals should also encourage a timely exit from the queue, as projects would be required to regularly assess their project viability in light of the value of the PCF as it increases over time. This should make this assessment slightly more onerous on developers in the aftermath of the PCF activation whilst facilitating the objectives of the proposal. Therefore, the ability of the Original Proposal to incrementally increase the PCF value over time has a positive impact against this ACO, as it supports a more efficient process and transmission system through individual projects regularly reassessing their likelihood to connect even after receiving a Gate 2 offer. This is in the event the PCF is activated, otherwise this feature is neutral compared to the status quo.

3.31 As set out in the FMR and proposed legal text[36], in the event the PCF and existing securities overlap[37], they will not be netted off each other to ensure there is still a strong incentive for developers to actively assess the viability of their projects. We acknowledge that the PCF and existing securities overlapping could impact projects, but we consider this dual overlap maintains the intended effect of the proposal to incentivise regular project prospect re-evaluation, thereby maintaining positive impact on ACO (i) over the status quo. Furthermore, if the PCF is activated, the PCF security will be returned by NESO after the project have met M1.

3.32 Finally, considering the value of the PCF, the Proposer believes that the Original Proposal could offer an incentive to any projects that doubt their prospects to sell their project to a more committed developer, creating the possibility that if the capacity and project itself can be novated to a developer that could see the ultimate connection of the project, that can outcome can still be achieved (to the benefit of achievement of CP2030). This is a valid point, however we acknowledge that for the Original Proposal, regardless of when the PCF is activated, each project would have an additional liability (in the PCF) that could make it harder to sell on. That being said, where any new project buyer will take over the existing connection project in contractual terms, any new developer that takes on board the project is likely to be more committed/able to see it progress to connection. Therefore, in either case, the positive outcome of having more viable and committed projects in the connections queue would be preserved either if less

[36] As set out in NESO's Final Modification Report, page 30. Legal text of the Original Proposal throughout parts 1, 2, 3 and 5

[37] As noted in footnote 14, existing Securities could be paid as early as 30 days after developers signed their agreement. Therefore, in the event Securities are required prior to a project Achieving M1, during the time between PCF activation and the project achieving M1 Securities and PCF will overlap.

viable projects self-terminate earlier or sell their project to more committed developers, thereby positively impacting ACO (i).

3.33 Lastly, the analysis used in our Impact Assessment shows that the impact on financing the PCF as a percentage of development expenditure across solar, battery, onshore and offshore wind project archetypes, ranges between 0.4% and 15.5% for the Original Proposal, which we do not consider would be an unreasonable burden for viable projects, especially because the amount will be returned after the project has passed M1.[38]

WACM1

PCF Design: Activation process and rationale

3.34 WACM1 sets the PCF value at £0/MW for the first six months after the PCF is activated. As highlighted in our Impact Assessment, we acknowledge that this aspect of WACM1 could still provide an incentive to self-assess project viability, but not as proactively as the Original Proposal because the PCF would be £0/MW for the first six months post PCF activation, therefore delaying a more onerous self-assessment of viability by six months, when compared to the Original Proposal.[39]

Activation metric/threshold and governance

3.35 In general, the same evaluation made in the section of Original Proposal (covering activation and governance) applies to WACM1. This means we consider that aspects related to activation threshold and governance of the PCF, with respect to WACM1, overall have a positive impact on this ACO compared to the baseline, equally to OP. However, the overall impact of WACM1 is significantly lower compared to the Original Proposal. This is because the value of the PCF is significantly lower than Original Proposal and for the first PCF Period is set to £0/MW, it may not incentivise a timely exit from the queue in the same way of Original Proposal, which could potentially dilute the impact of the solution as intended.

PCF Value (including increments and cap)

3.36 We anticipate that because WACM1 sets the PCF value at 0£/MW for the first six months post activation and afterwards reduces the PCF value of the Original Proposal by 90% (that is after the grace period the PCF starts at £250/MW, following an increase of £250/MW every six months with a maximum value of £1,000/MW), this alternative would provide a weak incentive to proactively assess

[38] As set out in Ofgem CMP448 Impact Assessment, table 7
[39] Ibid, page 14

project viability compared to the Original Proposal, despite WACM1 still facilitating ACO (i) better than the baseline.

3.37 The Proposer of WACM1 (Innova) considered that the Original Proposal would create significant upfront liabilities for projects that are disproportionate and could reduce competition. In the Proposer of WACM1's view, the maximum rate of the PCF alone (£10k/MW) could cost four times more than the typical development costs of a battery project, therefore the WACM proposes to significantly reduce the PCF value. However, our Impact Assessment, as argued in the subsequent paragraphs, provides different assumptions and the impact of the PCF points to a less onerous scenario for battery projects.[40]

3.38 We anticipate only projects with long development stages or large-scale projects, such as Offshore wind would be subject to the maximum value of the PCF as the planning process could take more time. The upper bound scenario of our Impact Assessment assumes a financing period of two years for battery projects and five years for offshore wind projects.[41] Therefore, based on our Impact Assessment, we anticipate that an average battery project is unlikely to wait to submit planning application for more than two years. Furthermore, M1 dates can be also calculated forward from the signature of the Gate 2 offer if earlier than the connection date and the time period to meet M1 for Town and Country Planning (England, Scotland and Wales) projects, typical for the average battery project, is set out in two years.[42]

3.39 Lastly, assuming the PCF is activated, we consider that any project would expect to bear the costs that are feasible for their business, and in so doing attempt to expedite their submission for planning consents/permission to avoid any additional cost of the PCF. The Proposer of the Original Proposal (NESO) has provided analysis to evaluate the impact of the proposal. This analysis is based on CFI information voluntarily submitted by 130 respondents the majority of which were developers.[43] This analysis, used in our Impact Assessment, shows that for a battery project, the impact of financing the PCF as a percentage of development expenditure ranges between 1.56% and 12.2% for the Original Proposal, which we do not consider would be an unreasonable burden for viable projects, especially because the amount will be returned after the project has passed M1.[44] As for WACM1, the impact becomes even lower, ranging between 0.05% and 0.7% for a battery project, which could be too low to incentivise the expected behaviour to self-terminate in a timely manner.[45] As highlighted in the Impact Assessment, therefore, if the PCF value is not sufficiently high to incentivise reassessment of

[40] Ibid, tables 4 and 11
[41] Ibid, tables 4 and 6
[42] See CUSC section 16.3 and Ofgem CMP448 Impact Assessment, page 15
[43] Among this category, the majority were either battery or solar developers
[44] As set out in Ofgem CMP448 Impact Assessment, table 7
[45] Ibid, table 8

project viability, then the intended impact of the proposal itself is undermined and stunted, as projects may not decide to self-terminate as efficiently as they otherwise would (eg under the Original Proposal). Given that WACM1 reduces the PCF by 90%, we consider this value would likely be too low to achieve the intended objective, thereby rendering it less effective than the Original Proposal at positively impacting ACO (i), but still having a more positive impact than the baseline.

3.40 Considering the business model of certain developers, the Proposer of WACM1 argues that a PCF value as intended in the Original Proposal would make a project harder to sell, therefore becoming less likely to connect. The Proposer of WACM1 also considers the that the additional costs required would be passed onto GB consumers. We do not have data to ascertain with reasonable accuracy what is the monetary impact of the PCF on end consumers. Our Impact Assessment concludes that there would be minimal impact on consumers, in a scenario where the PCF had not been activated.[46] However, our Impact Assessment assumes that to see net benefits for consumers, the benefits of developers expenditure of projects following the PCF activation must outweigh PCF financing costs.[47] Because the PCF is expected to drive earlier connection dates on average relative to an 'unhealthy queue', this enables projects to spend less time in the queue on average and therefore reduces the total developers expenditure financing costs on average and this is seen as a benefit. Therefore, we believe that the proposal would provide benefits for consumers.

WACM2

PCF Design, Activation metric/threshold and governance

3.41 We anticipate that WACM2 would facilitate the achievement of ACO (i) better than the baseline for the reasons expressed in the analysis for the above, however slightly less effectively when compared to the Original Proposal. This is because WACM2 has the same value of the PCF as the Original Proposal and it does not alter the activation process and the metric threshold, nor the governance around the decision to whether activate the PCF. However, because Users that have initiated a self-termination or reduced capacity at least 90 days before M1 is due would have a significant discount on the PCF amount owned to NESO/DNOs, those projects could be more inclined to delay their decision until their milestone M1 is almost 90 days away. This has the potential to weaken the effect intended, when compared to the Original Proposal, if many projects would choose to not self-terminate until the last possible moment (ie the last possible moment at which they can benefit from the discount provided by WACM2, being 90 days

[46] Ibid, page 48
[47] Ibid, page 47

before M1).[48] This being said, we acknowledge that only projects that choose to self-terminate receive the discount, therefore in effect the same totality of projects would be expected to exit under the Original Proposal vs under WACM2; however the critical difference being when those projects are incentivised to exit, with the Original Proposal being more effective in this regard as it can allow the benefits articulated above (under Original Proposal on ACO (i), critically on release of capacity) to occur sooner, for the benefit of other projects.

PCF Value (including increments and cap)

3.42 WACM2 does not alter the impact on financing costs of the PCF as the value is the same as that of the Original Proposal.[49] However, this WACM does lower the liability of the PCF upon self-termination or capacity reduction prior to meeting M1. This means that even though the 75% discount of WACM2 still incentivises projects to self-terminate, it may not result in those self-terminations as efficiently as the Original Proposal.[50] This is because the discount could incentivise self-terminations only when M1 is approaching, as opposed to the Original Proposal that does not offer any discount and incentivises termination as soon as the PCF value rises to a level that would need a self-assessment of project viability.

[48] Ibid, page 25
[49] Ibid, tables 7 and 9
[50] Ibid, page 25

(ii) facilitating effective competition in the generation and supply of electricity, and (so far as consistent therewith) facilitating such competition in the sale, distribution and purchase of electricity

Workgroup and Panel view

3.43 Eight members of the Workgroup who voted for the Original Proposal as their preferred option noted the proposal better facilitated ACO (ii). Three members who had voted for WACM1 as their preferred option noted the proposal better facilitated ACO (ii). Three members who had voted for WACM2 as their preferred option noted the proposal better facilitated ACO (ii).

3.44 Regarding the views of the Panel, one respondent believed the Original Proposal better facilitated ACO (ii). Two respondents believed WACM2 better facilitated ACO (ii). No respondents believed ACO (ii) was better facilitated by WACM1.

3.45 There was demonstrable backing in both the Workgroup and Panel that the Original Proposal would promote an increased level of competition, given the PCF looked to increase queue efficiency and the connection of an increased number of net zero projects. There was a strong consensus that the PCF had the ability to facilitate a more diverse connections queue in the long run, by enticing a more comprehensive mix of projects that would not be discouraged by 'poor queue health'.

3.46 The PCF applies between Gate 2 queue entry and achieving milestone M1. Most respondents supported the duration of the fee outlined in the Original Proposal. However, there were a group of respondents who disagreed with this view and believed the planned length of time the fee would be active for was too long and could lead to a disproportionate impact on projects that held longer lead times.

3.47 In relation to the value of the PCF, a majority of workgroup members responded negatively to the proposed value citing the ability the PCF had to disproportionately impact certain developers. There were concerns smaller projects could be negatively impacted as the PCF did not consider all the fixed overheads a business was already liable to pay. In contrast, three respondents noted the fee was not high enough to act as a sufficient incentive for an unviable project to exit the queue.

3.48 The impact on effective competition that both the WACMs could have was also explored. There were concerns WACM1 would not lead to behavioural change, given it was designed around a significant reduction. The discount carried the potential of operationally challenged projects remaining in the queue for longer, leading to congestion for projects ready to progress and the competitive nature of the queue diminishing. Similarly in relation to WACM2, it was discussed there was

a risk of projects taking advantage of the self-determination discount leading to a similar trend of overcrowding that could hamper competition.

Code Administrator Consultation

3.49 Ten respondents considered the Original Proposal better facilitated ACO (ii). Seven respondents considered WACM1 better facilitated ACO (ii) and six respondents considered WACM2 better facilitated ACO (ii).

3.50 Respondents agreed that the Original Proposal had the ability to increase effective competition, but some held the view that WACM1 and WACM2 also had the capacity to create a queue framework that incentivised smaller projects to apply by reducing the value of the PCF, whilst increasing queue competition and introducing an aspect of control surrounding self-termination. However, concerns were raised that the increased responsibilities surrounding self-termination could lead to a delay in exit decisions.

3.51 Seven of the responses cited the increased costs to developers, that the PCF would lead to, as a concern. Themes surrounding damaging investor confidence, consequently putting CP2030 goals at risk were highlighted in tandem.

Our view

3.52 Overall, we consider that the Original Proposal more effectively facilitates ACO (ii) than the status quo. This is mainly because: the PCF could mean that the most viable projects can connect faster, the burden on developers would be reasonable to endure if the project itself is truly viable, and the activation governance of the PCF allows NESO and Ofgem to make opportune decisions based on the prevalent market conditions.

3.53 WACM1 and WACM2 also more effectively facilitate ACO (ii) than the baseline because both WACMs still introduce the PCF, which is an improvement on the status quo. However, these positive impacts on competition from WACM1 and WACM2 should be weighed against the fact that the reduced PCF value and PCF liability upon termination, which may weaken the incentive to self-assess project viability or delay a decision to exit the queue. Consequently, competition would likely be lower under WACM1 and WACM2 than the Original Proposal since either fewer projects would exit the queue under these options (WACM1) or projects may exit the queue later than they would under the Original Proposal (WACM2), which would limit the potential upscale benefit of these WACMs since it would limit the positive impacts that could be had on capacity allocation (described more above at ACO (i) for the Original Proposal). For these reasons, on balance, we consider that the Original Proposal is likely to better facilitate achievement of ACO (ii) than WACM1, WACM2 and the status quo. The reasons for our evaluation are provided in the sub-sections below.

Original Proposal

PCF Activation process/rationale

3.54 At a glance, an additional liability on project developers could appear to have a slight negative effect on competition in the generation of electricity compared to the status quo, on the assumption that an additional fee could put off some developers that would have otherwise competed in the absence of the fee (if they considered there was a risk that they could find themselves subject to it). However, on balance we consider that the PCF introduces a net positive impact on competition for two reasons. The first being, if any prospective future applicants are dissuaded from applying for a connection offer solely due to the PCF, we expect these may be the specific types of unviable projects that we do not want in the connections queue in the first place. Moreover, more viable connections queue allows projects to connect faster as unviable projects being removed would free up network capacity that can be replaced faster by new projects applying for connection. Faster connection rates better facilitate competition in the generation, distribution and supply of electricity better than the status quo in the long term. We also agree with the stakeholder views that the Original Proposal would foster competition and a more diverse project mix in the long run as the PCF would promote the efficiency of the connections queue and faster connections.

3.55 We acknowledge that some Workgroup members suggested to consider an Activation Metric based on technology type, as it could be more beneficial for projects and technologies which have longer timelines to meet M1 or follow a specific consenting regime/process (such as DCO and section 36). We disagree with that view as we consider that this would be more complex to manage and have worse impact on competition because it would have to consider the capacity limits for specific technologies and could result in a situation where some technologies are subject to the PCF and others are not, which could penalise some technologies and inhibit competition. Furthermore, if the PCF has been activated for some technologies it could encourage some developers to apply to connect technologies where the PCF has not reached the activation threshold, potentially distorting competition in the generation of electricity. This choice risks to increase the administrative burden on NESO affecting negatively also ACO (iv).

3.56 We acknowledge the concerns raised within the Workgroup that the PCF creates an additional financial burden on developers, already liable for standard running costs. In addition, we acknowledge concerns raised in the Code Administrator Consultation that the cost of the PCF may bring increased cost to developers and thereby have the potential to impact investor confidence. To avoid the negative effect of the PCF being overly punitive, negatively impacting investor confidence and affecting project viability, the PCF will be subject to increases of £2,500/MW every six months, and this will be capped at £10,000/MW. The cap is a sensible

approach that, coupled with the six-monthly increases of the PCF that contain an element of financial predictability, will ensure that the impact on competition in electricity generation is a positive one (by ensuring it does not become excessive). In tandem, certain projects will be incentivised to make a timely exit from the queue, to the benefit of future applicants from that newly freed up capacity.

Activation metric/threshold and governance

3.57 Considering the proposed activation metric, threshold and governance, we consider that the Original Proposal would have a positive impact against ACO (ii) for the reasons discussed in the following subsection.

3.58 The Original Proposal considers a volumetric value (expressed in GW of capacity) of project terminations to establish the activation metric, which is project agnostic. Projects counting towards this metric are terminated based on the current QM management milestones regime introduced by CMP376.[51] These aspects of the activation threshold do not affect competition in the generation, distribution or supply of electricity and are neutral compared to the status quo.

3.59 The activation design and governance mechanism creates reasonable safeguards for competition. First, the PCF activation metric and threshold follow an objective principle applicable to all projects requesting a Gate 2 offer. This ensures that it can be activated only when there is indication that the queue is not progressing efficiently (as the number of terminations have increased over time, such that delivery of CP2030 could be put at risk). Secondly, the activation governance allows NESO and Ofgem to assess the information available and determine if the activation is the most appropriate decision to meet clean power targets. This protects competition in the generation, distribution and supply of electricity as it would allow NESO and Ofgem to understand if the terminations are influenced by external factors beyond the developer's control, including economic shocks or supply chain issues. If those occurred and the PCF would have been automatically activated after the threshold is met, only developers with enough or greater financial resources could continue to apply for a connection. This is because smaller developers are generally less resilient to external economic shocks, and the additional liability of the PCF could contribute to make such a project less viable, considering the different market conditions. Therefore, the PCF activation governance can act as a safeguard to prevent this perverse outcome against smaller developers from occurring.

PCF Value (including increments and cap)

3.60 The PCF is expected to incentivise a timely exit from the queue if the project is unviable. A Panel member noted that the PCF value is too high and it could negatively affect the viability of some projects or become punitive, particularly for

[51] See: CMP376: Inclusion of Queue Management process within the CUSC | Ofgem

smaller developers or projects with long lead times. We disagree with this view. Our Impact Assessment finds that the PCF value is unlikely to be burdensome for most developers as the PCF security financing costs range from <1% to 15% of project developer expenditure.[52] However, as argued in our Impact Assessment evaluating the impact on smaller developers with regards to competition can be seen as either assessing the size of its project or the developer's revenue and access to finance, and based on the data available we have concluded that there could be a minimal impact on smaller developers although this is not quantifiable. That being said, we consider that small developers that have viable projects do not face a barrier because the proposal does not discriminate against the size of the project, but tests its viability.[53] Nonetheless we consider that the impact on small developers needs to be monitored, especially in the periods following the PCF activation and Ofgem discretion on whether to activate the PCF could be considered if the data available at the time indicate a disproportionate impact on small developers.[54]

3.61 The legal text of the proposal establishes that the PCF will be set at £0/MW when the construction agreement is entered into force and there is six months or less to meet M1, or in cases where M1 has not been established. We consider that this will not harm the viability of projects that have no M1 in place or are close to meet M1 in relation to when the PCF is activated. It will not be punitive if projects do not have a M1 in place. Furthermore, when M1 is met the PCF liability will fall away and any securitised amount will be returned. These factors should minimise impact on competition for any viable project.

WACM1

PCF Activation process, and Activation metric, threshold and governance

3.62 Considering the PCF design and the governance of its activation, the same considerations made in the section of the Original Proposal apply to the design of this WACM. This is mainly because WACM1 does not change the activation metric, threshold and governance. However, because the PCF value and its liability upon project termination is lower than the Original Proposal, WACM1 has a less favourable impact on competition overall compared to the Original Proposal and status quo.

PCF Value (including increments and cap)

3.63 A PCF value 90% lower than the one selected for the Original Proposal would make the impact on competition for projects with long time builds and smaller developers less burdensome (compared to the Original Proposal). We

[52] As set out in Ofgem CMP448 Impact Assessment, table 7
[53] Ibid, pages 50-51
[54] Ibid, as set out in section 4

acknowledge that a collection of responses from the Code Administrator Consultation noted WACM1 had the capacity to create a framework that incentivised smaller projects to apply, by reducing the value of the PCF and facilitating the potential of queue progression for a broader spectrum of projects. However, this effect on competition should be weighed against the negative effects of a too low PCF value against ACOs (i) and (iv). This is because there is the risk that the majority of projects could easily finance the PCF almost negating the benefits of a timely exit from the queue, including other/new projects benefitting from that otherwise freed up capacity, and without improving efficiency and increasing the administrative burden in CUSC arrangements. We agree with the views expressed in the Workgroup that WACM1 is unlikely to lead to a behavioural change in efficient self-assessment of viability, given it is centred around a financial discount, that would ultimately hamper competition.

WACM2

PCF Activation process/rationale and Activation metric/threshold and governance

3.64 The same considerations made in the section of the Original Proposal apply to the design of this WACM. This is because this WACM does not change the PCF profile and value nor the activation metric, threshold and governance. We acknowledge the views raised in the Code Administrator Consultation that note WACM2 introduces an increased aspect of self-control around self-termination, which may encourage a wider range of projects to apply given the increased level of reassurance surrounding the ability to exit. However, we agreed with the views expressed in the Workgroup that the increased aspect of self-control around self-termination could be taken advantage of. As the PCF would be discounted if the project self-terminates or reduces capacity, projects could be incentivised to exit from the queue later than they would do under the Original Proposal. Therefore, we anticipate this would inhibit the positive impacts this WACM could have on ACO (ii), rendering this less effective on this ACO than the Original Proposal.

PCF Value (including increments and cap)

3.65 A discounted PCF value introduced by this WACM would make the impact on competition for projects with long time builds and smaller developers less burdensome. However, this effect on competition should be weighed against the negative effects of a lower benefit against ACOs (i) and (iv). This is because there is the risk that the majority of projects are not incentivised to timely exit from the queue, making system efficiency and the administrative burden in CUSC arrangements less positive when compared to the Original Proposal.

(iii) compliance with the Electricity Regulation and any Relevant Legally Binding Decisions of the European Commission and/or the AgencyWorkgroup and Panel view

3.66 By majority, the Workgroup and Panel both found CMP448 not to have an impact on the compliance with the Electricity Balancing Regulation (EBR) and any relevant legally binding decision of the European Commission and/or the Agency.[55] Therefore, the Original Proposal and all WACMs were neutral against ACO (iii). This was reflected in both groups' qualitative responses.

Code Administrator Consultation

3.67 Regarding the Code Administrator Consultation, two respondents in favour of the Original Proposal believed that ACO (iii) would be better facilitated. No other detailed preferences were expressed.

Our view

3.68 We do not think the Original Proposal or any WACM affects compliance with electricity regulation/EU commissions decisions, therefore we consider these proposals neutral against ACO (iii).

[55] The Electricity Balancing Regulation (EBR) is a European Network Code introduced by the Third Energy Package European legislation in late 2017. The EBR regulation lays down the rules for the integration of balancing markets in Europe, with the objectives of enhancing Europe's security of supply. The EBR aims to do this through harmonisation of electricity balancing rules and facilitating the exchange of balancing resources between European Transmission System Operators (TSOs). Article 18 of the EBR states that TSOs such as the NESO should have terms and conditions developed for balancing services, which are submitted and approved by Ofgem.' Definition taken from NESO's CMP448 Code Administrator Consultation Response Proforma

(iv) promoting efficiency in the implementation and administration of the CUSC arrangements

Workgroup and Panel view

3.69 Six members of the Workgroup who voted for the Original Proposal as their preferred option noted the proposal better facilitated ACO (iv). Three members of the Workgroup who voted for WACM2 as their preferred option noted it better facilitated ACO (iv). Regarding the three respondents who voted for WACM1 as their preferred option, neutral views were recorded against the enhanced facilitation of ACO (iv).

3.70 Regarding the views of the Panel, one respondent believed the Original Proposal better facilitated ACO (iv). One respondent believed WACM1 better facilitated ACO (iv). Three respondents believed WACM2 better facilitated ACO (iv).

3.71 The main concerns relating to ACO (iv) centred around the increased administrative burden that the Original Proposal and WACMs may bring to the connections process. Specifically, within the WACMs, concerns centred around the idea that a developer was able to decrease their liability, but in the process this would create an increased administrative burden.

3.72 A group of Workgroup members expressed support for the idea of an industry consultation being conducted by NESO, before the PCF was activated, so the satisfaction of the activation criteria could be validated. Workgroup members emphasised the results of such a consultation would aid the authority in determining whether to veto, if this request was later made to them.

3.73 There was also considerable discussion within the Workgroup regarding unintended consequences of the PCF, particularly compared to the aims of connections reform overall. It was suggested by some Workgroup members that the dropout rate, initiated by the implementation of PCF, could lead to a smaller overall connections pipeline and there were concerns consumers would be impacted by increased costs.

Code Administrator Consultation

3.74 Ten respondents considered the Original Proposal better facilitated ACO (iv). Four respondents considered WACM1 better facilitated ACO (iv) and five respondents considered WACM2 better facilitated ACO (iv).

3.75 For those in favour of WACM1, feedback was received that the alternative proposal allowed the financial burden of the PCF to be reduced to a more manageable level. Those who supported WACM2 noted they felt it provided an increased degree of self-control for a developer and considered any increased administrative burden would eventually be offset.

3.76 A group of respondents circled back to the view that the reforms brought by TMO4+ had not had sufficient time to embed, meaning it was difficult to gauge an accurate portrayal of what 'queue health' would look like. Some felt this meant now was not the appropriate time to consider changes that may implement the ACOs and a remedy to resolve the proposed problem was not yet required.

Our view

3.77 Overall, we consider that the Original Proposal facilitates ACO (iv) better than the status quo. We anticipate that with the PCF in place, the efficiency in the implementation and administration of the CUSC arrangements would have a negligible impact at the outset. However, in the longer term the PCF implementation would improve the connections process and the greater system benefits that a PCF would create outweigh the initial minor burden to set up the PCF and run it on an ongoing basis. This would occur because the PCF will ensure that the most viable and committed projects remain in the connections pipeline, whilst those that are less committed to connect are incentivised to exit. WACM1 and WACM2 also facilitate ACO (iv) better than the baseline, but less effectively than the Original Proposal which provides the strongest incentive for projects to frequently reassess their project's viability. On balance, we therefore anticipate the Original Proposal is likely to better facilitate achievement of ACO (iv) than WACM1, WACM2 and the status quo. The reasons for our evaluation are provided in the subsections below.

Original Proposal

PCF Activation process/rationale

3.78 Considering the PCF administration, and acknowledging many stakeholders shared the same view, we believe that this fee – as with the implementation of any new mechanism – could add a minor additional burden to the CUSC arrangements at the outset, both for Users and NESO, compared to the status quo. This is because parties need to regularly reassess their project's prospects, which will become a habitual aspect for Gate 2 connection offer holders moving forward. Further, NESO would need to calculate the PCF and issue a cancellation charge statement to any affected party. Those parties in turn would then need to plan to securitise the amount owned to NESO. However, the PCF design proposes regular increases for the PCF value every six months, because it aligns with other CUSC security provisions that Users are typically required to provide. Furthermore, the legal text of CMP448 ensures that the requirement to securitise the PCF follows the exact timeframe as any other security.

3.79 The six-monthly cadence intends to incentivise the assessment of projects' viability, which should provide a synergy with the timing of the Gate 2 application windows, potentially allowing replacement projects to enter the queue as unviable projects are incentivised to leave. This approach reduces the burden of

the fee's administration for both developers and NESO, hence creating a net positive impact on the CUSC arrangements.

3.80 This small burden is also outweighed by the greater benefit that the PCF will bring to the transmission system and CUSC arrangements in the longer term (notably with respect to ACO (i) over the baseline). This is because the PCF would ensure more viable projects in the connections pipeline, with more certain levels of capacity needed by projects (as projects will be liable to pay for the reduced capacity once the PCF is activated), which increases certainty in the network planning activities of TOs. Therefore, we disagree with the Workgroup view that the PCF could lead to a smaller connections pipeline as the connections drop rate would increase because of the PCF. We anticipate that a more streamlined connections queue made of more committed projects would improve the efficiency of the connections process working in synergy with TMO4+ and proving better connections rates compared to the status quo.

3.81 Considering the design of the PCF, we anticipate that the Original Proposal would create another burden for NESO, though negligible. This is because NESO will be required to publish the amount of capacity terminations of project failing to meet M1 and evaluate whether it has reached a point that warrants activation metric and issue a notice containing the decision and date of PCF activation. Furthermore, the activation metric will also be recorded over a five-year period and will stop being monitored whenever the threshold has been met or the PCF is activated, making this burden less onerous once those criteria have been met. This small burden however is still outweighed by the greater benefit that the PCF will bring to the transmission system/CUSC overall (as mentioned in the previous bullet point).

Activation metric, threshold and governance

3.82 Considering the design of PCF activation metric and governance, we believe that the Original Proposal will create a small additional burden for NESO as it requires NESO to publish the status of the Activation metric at regular intervals. We consider this process to be a negligible burden because NESO will already possess this information as part of QM monitoring and would simply need to collect and publish data.

3.83 The governance around PCF activation creates another additional burden for NESO and Ofgem to assess whether to activate the PCF and then communicate that decision (in the event the activation threshold is met, NESO would determine to whether activate the PCF and communicate its decision to Ofgem). We also consider this a negligible burden that should not impact NESO's duties with regards to CUSC arrangements. Further, efficiency in the implementation and administration of the CUSC arrangements would improve in the longer term, due to the benefits of a more viable queue and potential for faster connections, replacing any terminated projects.

3.84 Some Workgroup members suggested that NESO should do a consultation before any Activation Threshold has been met, to understand if the threshold established is correct. We disagree with this view because an additional consultation would add more administrative burden and delay the implementation of activation if needed, especially if that needs to happen quickly – this would have a more onerous impact on ACO (iv) and risk delaying or undermining the effectiveness of the PCF. Furthermore, regardless of NESO's decision to whether activate the PCF or not, we expect NESO to work closely with the Authority when the activation threshold is met, exchanging the appropriate level of data and information as the Authority deems necessary, to establish if the PCF should be activated or not and to consider any unintended consequences.[56]

3.85 Some Workgroup members were also concerned that connections reform had not had sufficient time to embed, so that issues related to 'queue health' were difficult to gauge. We acknowledge these concerns and have considered that the PCF design and its governance are sufficient to allow the PCF to be activated only when there is evidence that the status of the connections queue could pose risks to the achievement of CP2030, as shown in our Impact Assessment.[57] Furthermore, the decision for NESO and Ofgem on whether to activate the PCF could act as additional backstop that considers changes to wider market conditions influencing electricity generation (unforeseen events at the time of TMO4+), ultimately facilitating the administration of CUSC better than the status quo.

PCF Value (including increments and cap)

3.86 We consider that the value of the PCF would not significantly impact ACO (iv). This is because the PCF is included in the termination charges, its amount will be securitised and the CUSC provisions around securities and cancellation charges do not consider the intrinsic value of the security except for its existence and possibility to be calculated. The legal text of the Original Proposal establishes the fee as part of cancellation charges and that it will be securitised, explaining its calculation (and complementing existing formulas around the calculation of termination charges when applicable and calculated).

3.87 As noted in our Impact Assessment, the value of the PCF in the Original Proposal sits above the "real option" and could incentivise a timely exit from the queue[58], enabling the intended effect to have a 'healthier queue' that ultimately would improve CUSC arrangements and implementation better than the status quo.

[56] As set out in Ofgem CMP448 Impact Assessment, Section 4
[57] Ibid, see page 48
[58] As set out in Ofgem CMP448 Impact Assessment, Appendix 1. As set out in NESO's Final Modification Report, page 35. The authority considers the methodology assumptions to be reasonable assumptions

3.88 Lastly, the Original Proposal establishes that the PCF will be set at £0/MW when the construction agreement is entered into and there remains six months or fewer to meet M1, or in cases where M1 has not been established. We consider that this will reduce the administrative burden for projects that are close to the M1 dates to either post the security or pay if they meet M1, and for NESO to unreasonably collect money if projects already failing to meet M1 if the PCF had been recently activated.

3.89 In summary, we consider that overall the Original Proposal facilitates ACO (iv) better than the status quo. This is because the PCF security follows the same regime applicable to securities and the governance of the PCF provides an additional backstop to evaluate activation does not create additional burden. Furthermore, for Users with M1 dates close to the PCF activation the PCF is £0, reducing the administrative burden for Users and NESO. Lastly, despite a small initial administrative burden to set up the proposal, in the longer term the greater system benefits that the PCF would unlock outweigh the small initial burden.

WACM1

PCF Activation process/rationale, Activation metric and governance

3.90 The same points discussed for this ACO of the Original Proposal also apply to this WACM. Therefore, we consider that compared to the status quo, WACM1 would have a negligible negative impact ion ACO (iv) at the outset for efficiency in the implementation and administration of the CUSC arrangements, but this improves with a highly positive impact on the connections process and ACO (iv) in the longer term.

3.91 However, this is not the case when WACM1 is compared to the Original Proposal, as the scale of the PCF proposed by WACM1 is reduced by 90%. Therefore, the positive impact of WACM1 could be significantly reduced, which could risk achieving only a lower benefit over the status quo. This is because we anticipate that projects would be less incentivised to exit from the queue as developers may be able to better afford a PCF with as low a value as is suggested in WACM1. Alternatively, because of the low PCF value, projects could decide to exit only when the PCF value reaches its cap, as this course of action could be reasonable for projects that can afford it, to wait and see if their prospective profits (notably the NPV) will improve by the time the PCF is capped.

PCF Value (including increments and cap)

3.92 A PCF value that is too low (sitting well below a “real option”) could make the WACM itself less effective, as it may not incentivise the intended behaviour. In the event that this situation occurs, ACO (iv) would be slightly negatively affected because the additional administrative burden would not be fully outweighed by the longer-term benefits of a queue progressing efficiently.

WACM2

PCF Activation process and rationale, Activation metric and governance and PCF Value

3.93 The same points discussed for the Original Proposal should also apply to this section, when compared to the status quo. Therefore, we acknowledge that, compared to the status quo, WACM2 would have a negligible additional administrative burden at the outset, but in the longer term the PCF would have a net positive impact on ACO (iv). This is because Users are still subject to a PCF but it will be discounted if they initiate self-termination prior to M1 due date and therefore incentivised to assess their viability.

3.94 When comparing WACM2 to the Original Proposal, we anticipate that this WACM does not incentivise as timely an exit from the queue. This is because despite the PCF profile and value are the same, the 75% discount on the PCF value could incentivise projects to exit only when M1 is approaching, which could therefore delay the benefits of the PCF being realised. However, we do consider than under WACM2, the same number of projects would be likely to exit the queue as would under the Original Proposal, but we acknowledge any delay in achieving this (as is inherent in WACM2) would make this slightly less effective than the Original Proposal. Therefore, WACM2 is more positive than the baseline, but less effective than the Original Proposal in this regard.

3.95 Lastly, when comparing WACM2 to WACM1 we considered that WACM2 is more positive than WACM1 with respect to ACO (iv), on the basis that WACM2 will still likely see the same quantity of projects exiting the queue (although projects may terminate later in the process due to the discount applicable within 90 days prior to M1 date), whereas WACM1 could see fewer projects exit since it reduces the strength of the financial incentive of the PCF, therefore the maximum potential benefit of WACM2 is greater than WACM1, albeit both are still lesser than the Original Proposal.

PCF Value (including increments and cap)

3.96 We consider that WACM2 would have a positive impact compared to the baseline (as Users are still subject to a PCF but it will be discounted if they initiate self-termination prior to M1 due date) but slightly less effective overall when compared to the Original Proposal due to the risk that the discount could incentivise projects to delay a decision to exit until the last possible moment. A discount on the PCF value could therefore make WACM2 overall less effective than the Original Proposal.

4. Our assessment against the Authority's Principal Objective and wider statutory duties

4.1 Having reached the overall conclusion that the Original Proposal of CMP448 best facilitates the achievement of the ACOs in our assessment above, we have also assessed whether its approval is in line with our principal objective and other statutory duties. We consider approval of the Original Proposal is consistent with our principal objective of protecting the interests of consumers (both current and future) which includes their interests in the Secretary of State's compliance with the duties in sections 1 and 4(1)(b) of the Climate Change Act 2008 (net zero target for 2050 and five-year carbon budgets). It is our assessment that approval of this modification, as a key complement to connections reform (TMO4+), is consistent with our principal objective by, amongst other things, enabling work to rapidly decarbonise the energy system efficiently - in a manner that avoids an unnecessary overbuilding of the network at additional cost to consumers. The Original Proposal of CMP448 will promote efficiency and economy on the part of the licensee NESO, in ensuring the connections queue is comprised of the most viable projects so that build is aligned to what is required for Clean Power 2030. This will in turn avoid unnecessary overbuild of the network, which would entail a slower rate of connections. It will also help secure a diverse and long-term energy supply (less reliant on fossil fuels) and promote economic growth, eg through more timely connection of generation projects. We also note that this furthers the delivery of the policy outcomes in the Strategic Policy Statement as regards reform of the connections regime and accelerated delivery of electricity network to accommodate rapidly expanding and variable renewable generation capacity and demand from low carbon technologies (Sections 132 of Energy Act 2013).

4.2 Section 108 of the Deregulation Act 2015 requires Ofgem to have regard to the desirability of promoting economic growth. In particular, Ofgem must consider the importance for the promotion of economic growth of exercising its regulatory functions in a way that ensures that regulatory action is taken only when it is needed, and that any action taken is proportionate. The impacts on growth (for example, but not limited to, electricity generation) are considered throughout this minded-to position and we consider this proposal, as it complements connections reform, supports economic growth.

Questions	
Q1.	Do you agree with our minded-to position to approve the Original Proposal of CMP448? Please provide reasons for your answer.
Q2.	Do you have any further remarks, comments or concerns with our minded-to position or the accompanying Impact Assessment, that you would like us to take into account?

Neal McLaughlin

Head of Policy - Connections Reform and Governance

Signed on behalf of the Authority and authorised for that purpose

Appendix 1. Privacy policy

Personal data

The following explains your rights and gives you the information you are entitled to under the General Data Protection Regulation (GDPR).

Note that this section only refers to your personal data (your name address and anything that could be used to identify you personally) not the content of your response to the consultation.

1. The identity of the controller and contact details of our Data Protection Officer

The Gas and Electricity Markets Authority is the controller, (for ease of reference, "Ofgem"). The Data Protection Officer can be contacted at dpo@ofgem.gov.uk

2. Why we are collecting your personal data

Your personal data is being collected as an essential part of the consultation process, so that we can contact you regarding your response and for statistical purposes. We may also use it to contact you about related matters.

3. Our legal basis for processing your personal data

As a public authority, the GDPR makes provision for Ofgem to process personal data as necessary for the effective performance of a task carried out in the public interest. i.e. a consultation.

4. With whom we will be sharing your personal data

Information: Include here all organisations outside Ofgem who will be given all or some of the data. There is no need to include organisations that will only receive anonymised data. If different organisations see different set of data then make this clear. Be a specific as possible.

5. For how long we will keep your personal data, or criteria used to determine the retention period.

Your personal data will be held for (be as clear as possible but allow room for changes to programmes or policy. It is acceptable to give a relative time e.g. 'six months after the project is closed')

6. Your rights

The data we are collecting is your personal data, and you have considerable say over what happens to it. You have the right to:

- know how we use your personal data
- access your personal data
- have personal data corrected if it is inaccurate or incomplete
- ask us to delete personal data when we no longer need it

- ask us to restrict how we process your data
- get your data from us and re-use it across other services
- object to certain ways we use your data
- be safeguarded against risks where decisions based on your data are taken entirely automatically
- tell us if we can share your information with 3rd parties
- tell us your preferred frequency, content and format of our communications with you
- to lodge a complaint with the independent Information Commissioner (ICO) if you think we are not handling your data fairly or in accordance with the law. You can contact the ICO at https://ico.org.uk/, or telephone 0303 123 1113.

7. Your personal data will not be sent overseas (Note that this cannot be claimed if using Survey Monkey for the consultation as their servers are in the US. In that case use "the Data you provide directly will be stored by Survey Monkey on their servers in the United States. We have taken all necessary precautions to ensure that your rights in term of data protection will not be compromised by this".

8. Your personal data will not be used for any automated decision making.

9. Your personal data will be stored in a secure government IT system. (If using a third party system such as Survey Monkey to gather the data, you will need to state clearly at which point the data will be moved from there to our internal systems.)

10. More information For more information on how Ofgem processes your data, click on the link to our "ofgem privacy promise".